SOUTHERN TIBET

BY SVEN HEDIN



GOVERNMENT OF INDIA
DEPARTMENT OF ARCHAEOLOGY
CENTRAL ARCHAEOLOGICAL
LIBRARY

CLASS _____

CALL NO. 915.15 Hed
Vol.1

D.G.A. 79.

SVEN HEDIN

SOUTHERN TIBET

1906–1908

221

SOUTHERN TIBET

DISCOVERIES IN FORMER TIMES COMPARED WITH MY OWN RESEARCHES IN 1906—1908

BY

SVEN HEDIN

VOL. I

LAKE MANASAROVAR AND THE SOURCES OF THE GREAT INDIAN RIVERS. — FROM THE REMOTEST ANTIQUITY TO THE END OF THE EIGHTEENTH CENTURY

915.15
Hed

CENTRAL ARCHAEOLOGICAL LIBRARY New Delhi

STOCKHOLM
LITHOGRAPHIC INSTITUTE OF THE GENERAL STAFF OF THE SWEDISH ARMY

Gift
from
SWEDEN
through
The Swedish Archæological
Expedition to India
1952

CENTR[illegible]SIGAR
LIBRARY, NEW DELHI.
Acc. No. 2211.
Date 30. XI. 54.
Call No. 915.15/Hed.

STOCKHOLM 1917
KUNGL. BOKTRYCKERIET. P. A. NORSTEDT & SÖNER
131387

CONTENTS.

INDIAN, GREEK, ROMAN AND MOHAMMEDAN GEOGRAPHERS

			Page
CHAPTER	I.	South-western Tibet in Indian antiquity	3
»	II.	The Greeks and Romans	22
»	III.	Ptolemy	34
»	IV.	The Arabian geographers	42
»	V.	Later Mohammedan writers	68

CHINESE AND TIBETAN GEOGRAPHERS

CHAPTER	VI.	Chinese works on the hydrography of South-western Tibet	79
»	VII.	Wei-tsang-t'u-chih	89
»	VIII.	The Chinese geographers on the source of the Brahmaputra	92
»	IX.	The northern tributaries to the Tsangpo	96
»	X.	The source of the Brahmaputra on the Ta-ch'ing map	100
»	XI.	Some descriptions of the Manasarovar and its surroundings	108
»	XII.	The Shui-tao-ti-kang on the source of the Brahmaputra and the Satlej	114
»	XIII.	Manasarovar and surrounding regions in Tibetan works	124

EARLY EUROPEAN KNOWLEDGE OF TIBET

CHAPTER	XIV.	Europe's knowledge of Tibet in the middle ages	133
»	XV.	Friar Odoric. — Sir John Mandeville	140
»	XVI.	East Indian travellers in the sixteenth and seventeenth centuries	144
»	XVII.	When did the name Manasarovar become known to Europe?	154
»	XVIII.	Benedict Goës and Antonio de Andrade	157

TIBET AND THE SOURCES OF THE GREAT INDIAN RIVERS ON ANCIENT MAPS

		Page
CHAPTER XIX.	Maps of the fifteenth century	173
» XX.	Maps of the sixteenth century	178
» XXI.	Maps of the seventeenth century	188
» XXII.	Tibet in European books and narratives of the seventeenth century	206
» XXIII.	Verbiest and Gerbillon	210
» XXIV.	Maps from the first third of the eighteenth century	214
» XXV.	Lago de Chiamay	230
» XXVI.	The Maps of Strahlenberg and Renat	246
» XXVII.	The Jesuit cartographers in China, and d'Anville's map of the lakes and their surroundings	262
» XXVIII.	Ippolito Desideri	269
» XXIX.	Father Tieffenthaler, Father Gaubil and Anquetil du Perron	280

ILLUSTRATION.

Pag.

Mount Kailas, looking N 34° E from Khaleb 2

MAPS.

Pag.

Pl. I. The Indus of Ptolemy, Codex Constantinopolitanus, 15th century 36

Pl. II. The Ganges of Ptolemy. Codex Constantinopolitanus, 15th century 36

Pl. III. Central and Southern Asia Ptolemæus Romæ 1490 36

Pl. IV. Map illustrating »Histoire de Timur-Bec». Transl. by Petis de la Croix, Paris 1722 68

Pl. V. Map of the Western Regions and India 84

Pl. VI. Chinese Map of Tibet, published by Klaproth in 1830 90

Pl. VII. The region of the Manasarovar and the Sources of the great Indian Rivers, as represented on the Ta-ch'ing Map. (After Dutreuil de Rhins). 100

Pl. VIII. Route Map of Ulterior Tibet. Taken from Hsi-chao-t'u-lüeh. (After Rockhill) . . . 112

Pl. IX. Map of Tibet, from the work edited in 1886 by Houang T'ci-k'iao 112

Pl. X. Thomas Herbert: Some Years Travels into Africa & Asia the Great. London 1638 146

Pl. XI. The Map of Asia in Kircher's China illustrata, Amsterdam 1667 166

Pl. XII. The Genoese Map of the World, of 1447 174

Pl. XIII. Fra Mauro's Map of the World 174

Pl. XIV. Nicolas Desliens Map of the World, 1541 178

Pl. XV. Asia on the World-map, published at Venice, 1554 178

Pl. XVI. Gastaldi's Maps of the Indian peninsulas, in Ramusio, 1554 178

Pl. XVII. Tertia Pars Asiæ. Jacopo Gastaldi, 1561 180

Pl. XVIII. The Wall-map of Asia in Sala dello Scudo, Venice, restored in 1762 180

Pl. XIX. Part of Diogo Homem's Map of the World 182

Pl. XX. Part of Mercator's Map of the World, 1569 182

Pl. XXI. Ortelius: Tartariæ sive Magni Chami Regni typus, 1570 184

Pl. XXII. Ortelius: Indiæ Orientalis, Insularumque adiacientium typus, 1570 186

Pl. XXIII. Ortelius: Persici sive Sophorum regni typus, 1570 186

Pl. XXIV. Ludouicus Georgius, 1584 186

Pl. XXV. India and Central Asia on Jodocus Hondius' Map 1611 188

Pl. XXVI. Part of the Map of Franciscus Hoeius, about 1640 188

Pl. XXVII. India in Blaeu's Atlas, 1640 190

Pl. XXVIII. Iohannes Ianssonius, Amsterdam 1641 190

			Pag.
Pl.	XXIX.	Sanson d'Abbeville, 1654	190
Pl.	XXX.	Sanson d'Abbeville, 1654	192
Pl.	XXXI.	Imperii Sinarum nova descriptio, 1655	192
Pl.	XXXII.	Nicolaus Visscher's Map, about 1680	196
Pl.	XXXIII.	Cantelli's Map of 1683	198
Pl.	XXXIV.	Nicolaes Witsen's Map of 1687	200
Pl.	XXXV.	F. de Witt's Map, middle of 17th century	202
Pl.	XXXVI.	Coronelli's Map, 1695	204
Pl.	XXXVII.	Sir Thomas Roe's Map. From Ogilby's work. London 1673	208
Pl.	XXXVIII.	The Map of Isbrants Ides, 1704	214
Pl.	XXXIX.	The Map of Isbrants Ides illustrating Rubruck's journey, in Bergeron's »Voyages», 1735	214
Pl.	XL.	Delisle's Map of 1705	216
Pl.	XLI.	Carte de Tartarie. Delisle 1706	218
Pl.	XLII.	Delisle's Map of 1723	222
Pl.	XLIII.	»Carte Nouvelle de l'Asie Septentrionale», 1726	224
Pl.	XLIV.	The second Map in Histoire Genéalogique des Tartars, Leyde 1726	228
Pl.	XLV.	Part of a Map published in »Journal du Sieur Lange», 1727	228
Pl.	XLVI.	Martini's Map, as reproduced by Thevenot. Showing that the Ganges was supposed to come from the Lake Chiamay (Kia L.), 1666	236
Pl.	XLVII.	The Map in Wicquefort's edition of Mandelslo's narrative, 1727	242
Pl.	XLVIII.	Homann's Map, about 1739	244
Pl.	XLIX.	Southern part of Strahlenberg's Map of Asia, Stockholm 1730	248
Pl.	L.	Renat's Map of Central Asia, brought to Sweden in 1733	250
Pl.	LI.	D'Anville's Map of the Lakes and of the Sources of the three great Rivers, 1733	284
Pl.	LII.	Tieffenthaler's Map of the Lakes, 1766	288
Pl.	LIII.	Gaubil's Map of the Lakes and the Sources of the Ganges (i. e. Satlej), 1729	290

ERRATA.

Page	24,	line	20	from	above	stands	*coast*	for *court.*
»	27,	»	14	»	»	»	*twice*	» *thrice.*
»	64,	»	1	»	»	»	*Punana*	» *Purana.*
»	99,	»	5	»	below	»	*Saunder's*	» *Saunders'.*
»	143,	»	1	»	above	»	*it*	» *them.*
»	190,	»	19	»	»	»	*XXV*	» *XXVI.*
»	287,	»	8	»	below	»	*Gogra*	» *Gagra.*

TO

THE SURVEY OF INDIA

AS A TOKEN OF ADMIRATION

BY THE AUTHOR

II—131387. I.

PREFACE.

I have felt it to be my first duty to extend to the Swedish Diet of 1910 my sincere thanks for the state subvention granted towards the publishing of this work. With special gratitude I remember the efficient way in which the then Minister of State, Admiral Arvid Lindman, was pleased to support to a successful issue my request to have the expenses covered out of public funds. And the favourable reception of my demand was, in no small measure, due to the sympathetic attention given to the question on the part of the Royal Swedish Academy of Science.

I have dedicated this work to the Survey of India as a modest sign of the great esteem in which I have always held this high Administration for its brilliant achievements, during a century, in the service of geographical research. Early in the summer 1914, I wrote to the Surveyor General submitting that the dedication might be accepted by the Survey of India. By letter, dated Simla the 13th July of the same year, this offer was, in very cordial terms, agreed to by Sir S. G. Burrard. No one better than he was in situation to appreciate how much I considered myself in debt to the generations of surveying officers and Pundits who, step by step, had, throughout decades past, under difficulties unheard of, forced the Himalaya with its adjoining tracts of land in the North to yield their secrets. They had made my ways even, and carried our knowledge of Southern Tibet so far that my exploring journey only became a natural consequence of their persistent and undaunted labours. From them I had learnt what remained to be done, and, by the aid of their excellent maps, I was enabled to detect the wants still existing.

The method of treating the subject in »Southern Tibet» is quite an other than in »Scientific Results of a Journey in Central Asia, 1899—1902». In the last mentioned work, I related all the observations, day by day, during the whole course of the voyage, while I withheld from the very time-wasting task of assemb-

ling, arranging and analysing the results brought about by other travellers in the same regions. I was giving too much of my own and too little of what was gained by my predecessors. One got bewildered in the details, losing all general views, and one became unable, without serious, preparatory studies, to assign, to my scientific journey, its right place in the chain of human progress. In the present instance I have therefore, in dealing with the matter, followed quite an opposite system. To the historic point has been given the preponderance in »Southern Tibet». As far as it has been possible to command the whole geographical literature in this branch, I have, within its precincts, sought out every treatise, ancient or modern, contributing to the knowledge of the country that had become the object of my investigation. From the last contemporary travels of exploration I have passed on to my own journey, thereby enabling the reader to decide by himself in what measure the latter has brought about new real results. My own journey has been described as succinctly as possible, with indication only of its chief characteristic traits. Certain parts have not even been mentioned at all. Thus, for instance, I have altogether left out the voyage round Kailas for the reason that I had given a quite sufficient account of its features already in my popular work »Transhimalaya». The voyages down the upper Indus from Gartok to Drugub, and down the upper Satlej through Himalaya, were affecting regions so well known, that I needed not now dwell upon them. All unessential details have been omitted, and only the results set forth. In this way, a clear general view may be taken of the matter, allowing it to be more easily compared with the harvest reaped by other explorers.

In consequence of the modified plan, my new work has become considerably reduced as to its dimensions, when compared with »Scientific Results». It is true that also this time I am appearing with four volumes of geographical text, but both the size and the number of pages are less than previously. The fact that it has not been possible to proceed with the publishing earlier than eight or nine years after my return home, is of no account. The work has in no manner grown antiquated by the lapse of time.[1] As far as I know, no one has visited the territory in question later than myself, and no new light has been thrown over Transhimalaya since my caravan last time wandered over its mountains.

The geographical text is divided into four volumes. The first is relating to the lake Manasarovar and the Sources of the great Indian Rivers from the remotest antiquity to the end of the eighteenth century. The second forms its continuation

[1] Vol. I was printed from July 1914 till February 1916, Vol. II during February and March 1916, Vol. III from March to May 1916 and Vol. V from December 1915 to February 1916.

from the eighteenth century to my own journey 1906 to 1908. The third volume is devoted to the problem of the Transhimalaya. The fourth one, which is under preparation, is applying to the Karakorum mountains, chiefly regarding the parts comprised in my routes. This volume will be published during the course of next year, and be accompanied by an index of names and a table of matters referring to all four volumes.

I hope the public will not be too critical in respect of the treatment of the language. Contrary to what was formerly the case when I had my Swedish manuscript translated, I have now written out the text direct in English, a procedure which, it is true, has been facilitated owing to the reason that most of the sources of its historical chapters are of English origin. Yet the treatment of the language cannot under such circumstances be distinguished by any lofty flight or beauty. On the contrary, it is very plain and bearing straightway on facts. In order to get the text cleansed from dim or erroneous expressions, I have had the manuscript gone over and corrected by two Englishmen living in Stockholm. I am also indebted to these gentlemen for their, I hope, careful revising of the proofs.

The historical and geographical text of the three first volumes is illustrated by 108 maps, selected from old and new atlases, explorative works and treatises on Tibet. Their number might have been increased without considerable difficulty, but to no great advantage. The maps appended are serving the end I have had in view in this respect. They make it possible for the reader to follow the development of our knowledge of Tibet and, in particular, of the southern part of that country. The fourth volume is accompanied by an additional number of historical maps, these being mostly of later date, which is quite natural considering that Karakorum was as unknown to the cartographers of antiquity as Transhimalaya.

The illustrative material of the geographical volumes consists, moreover, of photographs, reproduced in phototypes or autotypes, a few photographic panoramas, and also of sketches and watercolours representing Tibetan landscapes.

The map of my latest journey in Tibet consists of 25 sheets in the scale of 1 : 300,000. My faithful and conscientious assistant, Lieutenant C. J. Otto Kjellström, had before his death, which occurred on December 28th 1913, completed eight of these.[1] He had further drawn up my route on the following sheets and, after my

[1] On Pl. 7 and Pl. 8, the spelling of names is in some cases not quite the same as in the text: for instance Lug-la, Tugdan, Rokso, Ajang, instead of Luk-la, Tugdän, Roksdo, Ayang. I always used to write down the names phonetically. The spelling in the text is more correct than on Pl. 7 and Pl. 8.

panoramas, reproduced a great part of the features of the country in most of them. At his death, my experienced friend Colonel H. Byström took up this work, and the map material could scarcely have fallen into better hands. Colonel Byström has at present completed the drawing and topographical arrangement of all the remaining 17 sheets.

In my previous work, »Scientific Results», Vol. IV, pages 542 and 547, I speak of my intention to publish a general map of Tibet in the scale of 1 : 1,000,000. Preparations for this work were then, in 1905, already made. On page 534 of the same volume was, during my absence, inserted an explanation of the reasons why the promised million scale map could not then be published. The volume in question was published in 1907, and my cartographers quite correctly realized that a general map, which did not contain my discoveries made in 1906 and 1907, should have been out of date already at my return. The completing of this map was in consequence postponed.

The time for its publication has now arrived. The net of coordinates had already been constructed by Kjellström, who had also inserted the route of my journey of 1899—1902. The remaining part, still under preparation, is the work of Colonel Byström. The forming of this map has taken several years of diligent labour, and entailed so great expenses that the state subvention was not sufficient to cover more than half the costs of the entire work.[1] The million scale map is intended to give a general, clear and uniform view of Eastern Turkestan and Tibet, and to contain the main features of all that we know at present of the geography of these countries. It will fill an essential blank in Penck's international world map in the scale of 1 : 1,000,000. It contains all known travelling routes of which we possess reliable surveys. The collection and combination of the existing material has been very arduous and difficult, and often has a small part of the map, as for instance the region around Selling-tso, required weeks of discussion, of shifting and adjustment. At times it has been nigh to impossible to make the routes of different travellers agree. Occasionally a route has proved too short or too long between

[1] Not even a gift, placed at my disposal from a private source, has been sufficient to cover the expenses. In addition to this, my budget has to support the cost of a work concerning my journey through Eastern Persia, for which a map of 9 sheets is already completed, and of Professor Dr A. Conrady's edition of the collection of manuscripts on paper and wood, composing about 150 numbers, which I found during my diggings at Lou-lan. The work of Prof. Conrady was to a large extent ready in the spring of 1914, but its publication was prevented by the outbreak of the war. Lastly, it is my hope that the sale of »Southern Tibet» will make it possible for me also to publish in a fitting manner the detailed survey of 1,040 km. of the middle course of the Euphrates which I prepared in the spring of 1916.

two points, the situation of which for certain reasons it was possible to fix. It often happened that, in the endeavour to bring absolutely essential points to agree, encroachments were caused on adjoining territories and routes, and in such cases conformity could only be attained by dividing the fault over considerable fields of the map. But on the other hand, it is only natural that a country, comparatively so little investigated as Tibet, should offer both the traveller himself and, later on his cartographers, the greatest difficulties. The enormous mountainland between Transhimalaya and Kwen-lun is cleft into an intricate mosaic of basins without outlet, and an inextricable confusion of chains of mountains and ridges seemingly without connection. It lacks the simple large and clear lines of Eastern Turkestan with its guiding hydrographical skeleton.

In these conditions, our million scale map no doubt is encumbered with many faults, caused by the defective material and the frequently very vague nature of the routes. Colonel Byström has, however, tried to make the best of what was to be obtained.

The million scale map must therefore only be considered as a first edition, which I hope it will be possible to improve by degrees in the future. All corrections necessitated by new discoveries shall be introduced. After a certain number of years, it will be possible to publish a new improved edition. It is my wish and intent that this map shall be permanent and even in future, during different epochs, be considered to give the best obtainable cartographical representation of Eastern Turkestan and Tibet.

Professor Dr K. V. Zetterstéen has controlled the spelling of names on the million scale map.

Colonel Byström has drawn a small scale map showing the division of the million scale map into 15 sheets. The whole of the topographic material, as well as the text, is to be published during next year. For the atlas, Colonel Byström will write a preface in which he explains his working methods.

During my latest journey, I made it a rule to draw a panorama of the whole region, within my horizon, from each camp and from each dominating pass. They amount to 552 in number, and are printed in numerical order on 105 sheets, forming a special volume of the same size as the atlas. For the completion of the topography of the travelling routes, these horizontal views of the landscape have been a valuable support to the cartographers, not least when they were to get an idea of the relative altitudes. They should also offer the reader a comparatively clear view of the general *habitus* of the Tibetan landscape and of its most striking charac-

teristics. More distinctly than from long descriptions or even quite detailed maps, he will from these landscapes be able to discern the sharply chiselled outlines with steep slopes and deeply cut valleys of the peripheric country, and he will receive as vivid an impression of the endless stretches of tableland with no outlet, and their comparatively great uniformity. He will, as I did yonder in the field, feel as if he were standing on a rock in the midst of a troubled sea, where the ridge of one wave but rarely rises above the others.

The bearings for each panorama have been found by me on the spot, by means of a hand compass, after the drawings were completed. They do not therefore pretend to any greater accuracy than what is obtained by practice. Each panorama is provided with a note containing a definition of the point from which the view is drawn, and also stating on which sheet of the map its projection is to be found. Thus it will be possible, in each separate case, to compare the horizontal view with the vertical one. I was not in position to bring with me the thousands of photographic plates which would have been necessary for a survey of the country by means of the camera. For such a photogrammetric work, much greater resources than those at my command would have been needed. My panoramas are meant in some measure to compensate for the want of photogrammetric material.

In volume V of the text, the collection of petrografic specimens which I have brought home, is worked out and examined by Professor Dr Anders Hennig. In his introduction, he indicates the principles on which the collection has been made, as well as the method he has followed in examining the material. With great skill and patience he has made the best of the opportunities given. If the pains I have taken in collecting the specimens of rocks, have rendered it possible for the hand of the specialist to draw up the main lines of the geology of Southern and Western Tibet, they have not been in vain. I need not point out that the geological picture we have produced, must in the future undergo many and great alterations. The detailed work of the specialist on the field still remains to be done.

Now, as well as formerly, I have for the working out of the meteorological observations, had the advantage of the experienced and valuable assistance of Professor Dr Nils Ekholm.

Dr K. G. Olsson also remains one of my faithful collaborators, and he has charged himself with the working out of the astronomical observations. Though the observations are, this time, less accurate and complete than those resulting from the journey of 1899—1902, Dr Olsson has made use of them as far as it has been

possible. The works of Professor Ekholm and Dr Olsson are ready in manuscript and under printing.

To my above named collaborators I beg to express my warm and sincere thanks for their never failing patience and interest.

It has been of invaluable help and advantage to me to be allowed to apply to the State Librarian Dr E. W. Dahlgren, whose profound knowledge of the history of cartography, and of the geographical discoveries, is appreciated and acknowledged over the whole geographical world. Dr Dahlgren has called my attention to many of the older maps, reproduced in chapters XIX—XXIV, and he has obtained for me a great number of the original geographical documents referred to in the same chapters. He has also been kind enough to peruse this part of my work in order to guard me from eventual errors. By so doing, he has inspired me personally with a feeling of security, when I now venture to submit also these cartographically historical chapters to the judgment of the learned world.

From India Office, I have as a loan got some precious unpublished manuscripts quoted in the first chapter, and also a couple of maps reproduced in the second volume. In connection herewith, the Librarian in the said office, Dr F. W. Thomas, has given me some good advices and informations.

The wellknown German sinologue, Dr Albert Herrmann, has had the amability to peruse the proofs of the Chinese chapters VI—XII in the first volume and, at the same time, he has established a uniform and consistent spelling. He also took the opportunity, on this occasion, to give me several good hints and new ideas.

Chapter XIII, in which Tibetan works are treated, has been read in proof by Dr Albert Grünwedel, who also has drawn my attention to a couple of works unknown to me.

Dr Gilbert T. Walker has supplied me with the tables indicating the quantity of rain for India, reproduced in chapter XXVI of the second volume, before their being printed.

I am indebted to the director of the Royal Library at Berlin, Professor Dr H. Meisner, for several of the German maps reproduced in the third volume, which are kept in the cartographical institute of the same library, and some of which are unique hand drawings of Klaproth and Ritter.

General O. E. von Stubendorff of St. Petersburg, and Commander Roncagli of Rome, have given me some valuable suggestions regarding Russian and Italian travellers.

Lastly, Professor Chavannes of Paris has placed at my disposal the Chinese

map of Tibet, so difficult to obtain, which is reproduced on Pl. IX in the first volume.

To all these gentlemen I beg to express my sincere thanks. My thanks are also due to my publishers, The Lithographic Institute of the General Staff of the Swedish Army in Stockholm, especially to its able chief, Mr Axel Lagrelius.

Now that I offer this work to the geographical world of our time, I do it with a feeling of insufficiency and imperfectness. The results I have won by my journey, are in no adequate relation to the grand wideness and enormous magnitude of the task itself. The forces of a single man were not sufficient to embrace and assimilate all that met him on his way during months and years. If, like myself, he makes the geographical discoveries his principal aim, and consequently considers of most importance to form a moderately reliable preliminary map, he has not much time left for minute and circumstancial investigations. These deficiencies must needs be visible in his work.

And, notwithstanding, I hope that these volumes will not be looked upon as an insignificant addition to our knowledge of the globe. They still contain the description of great tracts of Tibet, never before visited, even by Indian Pundits, much less by Europeans. For my own part, I consider this journey, effected under unusually difficult conditions, to be a pioneer enterprise, which in some measure has opened the way for future conquests in Tibet on the different fields of scientific research.



MOUNT KAILAS, LOOKING N 34° E FROM KHALEB.

INTRODUCTION.

For the reader's initiation and guidance, I think it essential briefly to give an indication of the plan and arrangement of the following four geographical volumes. The object I have in view, is to show in what ways, during the course of the centuries, the knowledge of Tibet has slowly gained the ears of Europe. When first heard of, the news of its existence came in the shape of vague and mysterious rumours which, already in the middle ages, were receiving a more fixed form and, later on, in times not too far remote, were succeeded by narratives of more or less fantastical colour. My intention is to expose in how unwieldy lines, labouriously drawn up, the notion of Tibet appears on the maps, how unsteadily and vacillatingly it hovers above the dark expanses North of the Himalayas, and how long it is able to shield, as in a fortress, its secrets from the insatiable explorative spirit of the Europeans. The situation of Tibet, among the highest and most inaccessible mountains of the globe, was by itself a guarantee to the effect that, of all countries on the earth — the polar regions excepted — it should last be conquered by the European attacks for discovery.

I go back as far as to the Indian antiquity and endeavour to search out from its epic songs, legends and religious tales, the foundation of geographical reality on which they are built up, though even in a poetic mould. The Indian cosmographers allow their myths to soar around the legendary mountain of Meru, on whose dizzy height the great city of Brahma raises its shining bastions. Their hymns seek out Himavant, the sacred, and love to dwell amid the dazzling splendour encircling the home of Siva on Kāilāsa, the king of mountains. They sing the praises of Māna-sarovara with a charm mighty of arousing the surprise and admiration even of present-day occidentals. It is true, the geographical knowledge which can be disentangled from all this splendour of ancient lore, is very uncertain and vague, but still it is sufficient to convince us that the Hindoos were no strangers to the country to their North,

and, above all, that they were familiar with the regions around Kailas and Manasarovar. They were indeed descendants of the Aryans and had possibly at one time come down into India by this road. Perhaps in their minds there remained a dormant recollection at the wanderings of their ancestors across the mountain fastnesses of the western Himalayas.

India was known to Herodotus, but, contrary to Megasthenes, he does not mention the mountains to its North, much less Tibet. And yet we hold from his times the curious story of the golddigging ants. Alexander and his generals carried the knowledge of the wonderful world of the East a giant step forward, and they called the Himalaya Emodus. Eratosthenes speaks of Paropamisus and Imaus, yet Strabo is the one, among the ancient geographers, who creates out of the material which he has succeeded in collecting, the grandest description of the countries of Southern Asia. Far better than his predecessors, he knew the mountains to the North, and a long time had to pass before Europe got as clear an idea of India and its rivers as Strabo possessed. The geography of Arrian is founded on that of Megasthenes and Eratosthenes. The mountains among which lie the sources of the Ganges, he calls Paropamisus or Caucasus, and with a sure hand he draws up the orographical and hydrographical system of the great continent. But as little as any other classic author, he had any idea of the existence of Tibet. They knew only the southern parts of the Himalayas. Ptolemy surpasses the old Greeks and Romans. Much of his knowledge he drew from Marinus of Tyrus. His picture of India and its hydrography is masterly. Quite correctly he makes Satlej out to be the largest river of the Panjab, and even shows on the map were its sources are situated. But no trace of Tibet, or the rivers of Tibet, is to be found in his picture of the country North of India. On the contrary, he presses Kwen-lun and the Himalayas together into one single mountain-range, so that Tibet is effaced into nothingness between them. Even 1,500 years after his time, the Europeans committed quite the same mistake in their representations of Southern Asia. But also the fundamental lines of the Asiatic world, drawn up by Ptolemy, put their stamp indelibly on 15 centuries. Therein consists his enormous significance for the historical development of geography. He gave to his own time a fund of collected and solid knowledge, but he acted as a check on later epochs who, in blind belief in his authority, held fast to his image of Southern Asia as to an unshakable dogma. In a time when Galilei made his revolutionary discoveries in the heavens, Ptolomy still ruled almost absolutely on the earth.

During the age of the Caliphs, geographical learning flourished among the

Arabs, but they too built on the system of Ptolemy. They knew of Tibet, but had very vague ideas in the matter. In the year 851, the name of the mysterious country is mentioned by the merchant Suleiman, but it is the musk-trade that awakens his greatest interest. Through the trade that the Caliphs of Bagdad carried on with India and China, the Arabs came into closer contact with the more distant countries. Ibn Khordadhbeh speaks cursorily of Tibet, so also does Al Ya 'kubi in the year 880. Masudi visited India in 912 and lets us suspect that he had some notion of the lake Manasarovar. He endeavours to fix the situation of the sources of the Panjab rivers, and touches as lightly as his predecessors on the name of Tibet. Ibn Haukal and Alberuni are not able to designate more distinctly the place of this realm, but the latter quotes the statements of the Indian Puranas about the land to the North.

Edrisi wrote in the year 1154. For any one seeking for information about the hydrography of South-western Tibet, he is the most valuable and most surprising among the Arabian geographers. His writings are, however, of no easy interpretation. Also in his statements we are allowed to get a glimpse of Manasarovar, the holy lake of the Hindoos. By Tibet he meant in reality Ladak, as did many of his predecessors. In 1340, Ibn Batuta travelled in these parts. According to him, the mountains of Assam are connected with the Tibetan ranges where the »musk-gazelles» are to be found.

Later Mohammedan authors have not much to add above what has already been told by their predecessors. Mirza Haidar, who travelled in 1533, is the first one able to give us anything positive out of his own experience. But the result is slight, and the geographical names difficult to identify. The Emperor Akbar gave his attention for both practical and religious reasons to geographic investigation, inside as well as outside the borders of his empire. He caused a work to be published, called Ain-i-Akbari, which is flowing over with information about India. Of special interest to us are the descriptions of the hydrographical system of the great Indian rivers. But even to the author of Ain-i-Akbari, the conception of Tibet only covered Ladak and Baltistan.

The Chinese form a splendid exception from the nebulous obscurity in which other Oriental nations have floated with regard to their knowledge of Tibet. Their politics, their trade and, not least, their sense of geographical realities, brought them to this point long before the name of Tibet was known in Europe. Also the desire for religious research has induced Chinese buddhists, such as Fa-Hian and Hiuen-Tsang to admirable journeys in the interior of Asia. I am coming back to their

journeys in the fourth volume of this book. In the first volume, I have particularly followed the revisions and translations made by Klaproth, Abel Rémusat, Bushell, Bretschneider, Rockhill, de Rhins, Herrmann and others. Klaproth could already by the aid of Chinese sources give a very good description of the hydrographical conditions of Southern Tibet. In many instances his conclusions were remarkably accurate, and they prove how well informed were the authors of whose writings he had made use. Generally, the picture of, for instance, the sources of the great Indian rivers, left by the Chinese, is much more reliable and true than the conception Europeans still alive have formed of the same regions. I try to analyse the Chinese geographers' descriptions of different extents of land in South-western Tibet and to compare their results with my own. In this point I have found excellent guidance in d'Anville's map of Tibet, founded on Chinese sources, and in Dutreuil de Rhins' conscientious explanations of the Ta-ch'ing map. The Chinese are generally much less accurate in their orographic than in their hydrographic drawings. Their maps of the sources of the Satlej and the Brahmaputra, and of the northern tributaries to the Tsangpo, were the best materials existing before my journey.

After this, I pass on to speak of the knowledge Europe had of Tibet during the middle ages. First among the travellers from this period stands Pian de Carpine, who began his journey in 1245, and only incidentally tells some fantastic stories from Tibet. Rubruck started seven years later for the Far East, and he increased to a certain extent the materials of information left by Pian de Carpine. Marco Polo is the first European who has given any reliable descriptions of the inaccessible land. All that he has to tell, especially about the customs and usages of the peoples, carries the stamp of the greatest veracity. He is the foremost of all the travellers of the middle ages and the pioneer for Asiatic exploration of all times. Odoric is, on the other hand, the first European to have travelled straight through Tibet in its proper sense, and he has even visited Lhasa, in the year of 1330. But he has scarcely anything to tell about the country. His contemporary Mandeville was a swindler who had stolen his information from Odoric and others. To this epoch also belongs Benjamin of Tudela, who completed his journeys in 1173. The following is all that he has to say about Tibet: »The country of Tuboth, which is three months journey distant from Arabia», and: »In four dayes journey from hence (Samarcheneth) you come to Tubot a Metropolitan Citie, in the Woods whereof sweet smelling Mosse is found.»[1] After the times of the great travellers, the existence of

[1] Purchas His Pilgrims, Vol. VIII page 559 and 576. I quote him here, because I have neglected to mention his name in the following text.

Tibet was forgotten among the Europeans, and the country had to be rediscovered 300 years after Odoric. In the 16th and 17th centuries, innumerable journeys were made to India. But it seems as if these travellers were never able to see anything with their own eyes or make any new observations. They repeat each other's words interminably, they quote the classic authors and look upon Ptolemy as the principal authority. All knowledge of these parts has, until the middle of the 17th century, taken a crystallised form after antique patterns, and the classic authors have often given to the world much better descriptions than have the recorders of journeys of this period. Thus were the Indus, the Satlej and the Ganges better known during the Greek and Roman antiquity, than by the geographers of the 16th and 17th centuries. The Himalayas pass under both ancient and modern names such as Imaus, Taurus, Caucasus, Paropamisus, Nagrakot and the Ussonte-mountains, and are considered to separate India from Tartary or Scythia to the North. Kashmir and Srinagar are names that occur quite often, and sometimes even the kingdom of Tibet is mentioned, but vaguely and dimly, and is commonly looked upon, even by the renowned Thevenot, as a part of Tartary. Tavernier has a few things to say about Boutan, though mostly out of interest for trade. In his description he, almost without knowing of it, touches on Tibet. Van Twist in 1638 is the first one to mention the name of Masoroor i. e. Manasarovar, so renowned among the Hindoos and, later on, even in Europe.

None of these travellers had penetrated beyond the high mountains to the North. They were East India travellers who only were able to gather second and third hand informations. Widely more important and eminent were the two Catholic Missionaries Benedict Goës and Antonio de Andrade. Goës was one of the Jesuits who came to Lahore in 1594 on the invitation of the Emperor Akbar. At Goa, he was commissioned by his fraternity to discover Cathay, believed to be another country than China. His journey carried him across almost the whole interior of Asia, over Kabul, Pamir, Khotan, Turfan, and Su-chou. It is a most remarkable journey, but only touching on the borders of our territory, which he passed round. Andrade is the first European to have crossed the Himalayas from India, which he did in 1624, on his renowned and important journey to Tsaparang on the upper Satlej. After having travelled to this city a second time, he was followed by a number of Missionaries, but of their journeys we have got no information. The geographical knowledge, left us by Andrade, is a minimum, but still of the greatest interest. He speaks of a small lake on the Mana pass, believed by geographers still living to be Manasarovar. It was the learned Kircher who, without having any idea of the

existence of this lake, erroneously attributed to Andrade the merit of having discovered the lake forming the source of the Ganges and the rest of the great rivers of India. Even in our days there exist geographers who, without any shade of foundation, suppose Andrade to have discovered Manasarovar and to have penetrated through Tibet to China. In his own writings there is not a single line to such effect. By others he has, again with as great injustice, been called a swindler.

In 1661 and 1662, a memorable journey was effected by Grueber and Dorville from China through Tibet to India. I have related this voyage in Vol. IV of this work, to where it chiefly belongs. If we pause for a moment at the last mentioned epoch looking back over the past, we must admit that Europeans' knowledge concerning Tibet was still insignificant, although Odoric, Grueber, Dorville and Andrade had completed their journeys as well in the interior of that country as through the whole of its extent.

The next part of the first volume of my work embraces the cartographical history of Tibet. Considering the nature of the subject, it is obvious that we must here pass on from general views to details. On the oldest maps of which mention can be made in this connection, it is as much as the name of Tibet has been barely put down. Later on it is roaming about here and there through the regions North of India, and it is first in times far advanced that this realm, so narrowly engirded, begins to take shape also on the map. In order to be enabled to follow the course of this development, and to see how Tibet slowly appears as if growing forth on the map until it finally forms a sharply defined geographical conception, we must go back as far as to the middle of the 15th century. But it is first from the year 1700 that, by application of the method of the State Librarian Dr E. W. Dahlgren, we can try to disengage certain types. For prior to this period, Tibet merely existed as an accessory detail, a name on the maps, playing no active part. From the year 1700, the image on the map is more and more consolidated, developed and refined, until it gains the appearance which is represented on the million-scale map belonging to this work. Within the range of this period of more than 200 years, we can leave the ordinary i. e. the general maps of the whole of Asia, and pass to the detailed maps of Tibet and its special parts. There we can follow the course of development of the cartographical representations of the lakes Manasarovar and Rakas-tal, of the sources of the Indus, the Satlej and the Brahmaputra, and of the mighty mountain-masses to the North of the valley of the Tsangpo.

I commence with the world map of the year 1447 and Fra Mauro's of the

year 1459, where Ptolemy is easily discernible and where the name of Tibet appears. Even when new journeys of exploration proved the Alexandrian geographer to be in the wrong, one felt reluctant to reject him. A giant stride in the right direction is marked by Jacopo Gastaldi's epoch-making map of India from the year 1561. It is only in the hydrography of the Ganges and the Indus that Ptolemy can be traced, but for the rest he has completely disappeared. Gastaldi is not satisfied with the classical names of the Himalayas, he speaks instead of Monte Dalangver, M. Naugracot and M. Ussonte. Of Tibet he has nothing to tell, but of the regions surrounding it he gives so ingenious a representation, that one almost has a foreboding that the unknown land will soon appear of its own accord.

The world map of Gerard Mercator from the year 1569 is the most important one from the 16th century, constituting the foundation of cartography for many years to come. He finds it difficult to renounce his faith in Ptolemy, and does all that is possible to make the new discoveries harmonize with the time-honoured map of the old Alexandrian. Thus he is induced to shape the preposterous representation of the course of the Ganges, which he draws out as far as to the sea, East of the peninsula of Farther India. Mercator believes the Taprobana insula of Ptolemy to be Sumatra and consequently makes out the Hsi-chiang to be the lower course of the Ganges. A similar mistake was committed 260 years later by Klaproth, when he led the Tsangpo to the Irrawaddi and not to the Brahmaputra.

Ortelius and Hondius, together with other geographers, followed in this respect the unfortunate lead of Mercator. The orography of Ortelius is an inheritance from Gastaldi, but his hydrography is derived from Mercator. Therefore the Indus is, also according to Ortelius, of the Ptolemeyan type. The representation of our region by Ortelius, as compared to the description made by Gastaldi, marks a great stride backwards. Thus he has hit upon the monstrous idea of removing *Thebet* to the shores of the Mekong.

In the map of Ludouicus Georgius of 1584, the Ganges of Mercator is at last abandoned. But it is first after the middle of the 17th century that real improvements can be traced, though only affecting the countries round the inaccessible Tibet. Even this name is still missing on some maps, which proves that the journeys of Odoric and Andrade had exercised no influence on them. Only Kircher remembers them on his fantastic, but very remarkable map. Grueber and Dorville could not be ignorant in the same manner as their predecessors.

In the year of 1611, Hondius has nothing new to give, beyond what was already produced by Mercator and Ortelius. Like the latter, he has drawn the Indus

altogether too long — more incorrectly even than Ptolemy. The fantom lake Chiamay Lacus has been accepted since the days of Mercator. According to Hoeius, about 1640, the Ganges has, it is true, been given its correct place and its outflow into the Bay of Bengal, but the length of the river is, as also the course of the Indus, according to Hondius, enormously exaggerated, and here also Ptolemy, 15 centuries earlier, was more to be depended upon. It is wonderful to see how loose and shifting is the ground on which the cartographers of this period are standing, as soon as they leave Ptolemy. Where he is followed, as the case is regarding India, the Oxus and the Jaxartes, the maps are most accurate during this period. But a frightful confusion takes place, when they throw out the mountain-range running East and West to the North of India, and replace it by more longitudinal mountains, as does Hoeius. The Satlej, which still remained in the maps of Gastaldi, Mercator, Ortelius and Hondius, is missing in the sketches of Hoeius, Blaeu and Ianssonius from 1640 and 1641. This is due to the slowly fading away of the authority of Ptolemy, which is no advantage in a time when there was nothing better to offer instead. Of the course of the Brahmaputra there is, if possible, still less trace than on the map of the Alexandrian geographer.

But the eclipse did not last long. Already in 1654, Sanson d'Abbeville marks a huge progress. He forces the Indus and the Ganges back into more real proportions, and lets the basin of their sources be bordered by Mont de Caucase, which corresponds to the Himalayas. To the North thereof, he places Tibet. Of still greater significance is Martini's brilliant representation of China in 1655. What he offers is built on real observations. He locates Tibet Regnum quite correctly in the region to the West of the upper course of the Yellow River. In 1680, Visscher is the first one who endeavoured to make use of the discoveries brought home by Grueber and Bernier from their travels. Cantelli's map from 1683 is of great interest. The Indus and the Ganges he traces in the same manner as do his nearest predecessors, and the Brahmaputra is missing. Like Sanson d'Abbeville, he has a Raia Tibbon, which in all probability can be translated by Raja of Tibet, or the King of Ladak. In his map, a number of the geographical names of Goës are also recurring. But still, the most interesting fact is that, over a comparatively large territory, which, it is true, lies a little too far to the East, he has entered in distinct writing three different names for the hidden land of the Lamas, Tobat, Thibet or Thebet. Here we have again a feeling that the veil is being rent asunder, and that the unknown land is appearing in view.

Witsen, in 1687, has removed Tibet yet a step to the East, which is no im-

provement on the map of Cantelli. His picture of the interior of Asia was less of a success than the sketch made by Gastaldi. We notice especially that he lets the Ganges take its origin from a lake which he calls Siba lacus. This is also to be found in the map of de Witt, who in its neighbourhood has another mysterious lake, called Bervan. To the same period belong the valuable descriptions left by the prominent Missionaries Verbiest and Gerbillion. The latter in particular, who effected a number of journeys through Mongolia between the years 1688 and 1698, describes better than any earlier geographer the roads to Tibet, though he had never travelled by them himself.

In the beginning of the 18th century, appeared Delisle as a pioneer and reformer in cartography, which he treated in an entirely scientific manner. His map of 1705 shows that, with critical acuteness, he has made use of all material existing at that time. Now, after 1600 years, Ptolemy is played out and disappears for ever. Delisle endeavours to interpret in pictures the description Andrade has made of his journey, but, naturally enough, he has misunderstood him. He has given Tibet its right position and lets it be separated from India by the mountain-range of M. de Purbet ou de Naugracut. He does not yet suspect the existence of the Tsangpo-Brahmaputra, though this river was crossed by Odoric, Grueber and Dorville. The descriptions more than lean of their journeys, are over sufficient to explain this defect. Yet it did not tarry any longer than till the year 1723, before Delisle could still more improve his valuable map. One can read off, straight from the map, that he has made use of informations, fetched from French Missionaries in Peking. Here we even find Lassa located on the banks of a great river, the Bramanpoutre, which is the upper course of the Bengal river Laquia. On this account, there is no longer any room for the legendary lake Chiamay Lacus, which now disappears for ever from the map of Asia. Still we must observe that the problem Tsangpo-Brahmaputra, so difficult of solution even in our times, was already quite correctly elucidated by Delisle. It was Klaproth who, more than a hundred years later, entirely spoilt and distorted this hydrographical problem by his awkward belief, that the Irrawaddi was the lower course of the Tsangpo. The masterly maps of Delisle seem unfortunately to have made no deeper impression on his time, and on the next following era after him. His greatest merit was that he understood how to explain the fundamental documents in an exact and critical manner. The same material had been at the disposal of his predecessors 30 or 40 years earlier, but they had not known how to make use of it.

Through nearly 160 years, the monstrous apparition which had received the name of Lago de Chiamay, had haunted all the maps of Asia. In Ramusio's Navigationi et Viaggi, 1550, we find this lake first mentioned. It originates from the description of Giovan de Barros. This lake was located to the district N.N.E. or N.E. of the Bay of Bengal, and it was believed to give rise to four or more large rivers. In the year 1649, Vincent le Blanc even knows the dimensions and other characteristics of this lake. The great cartographers Sanson d'Abbeville and Martini are blind believers in its existence. Ptolemy had no idea of such a lake. Lago de Chiamay must therefore be a new conception which had got a footing in the maps. I have succeeded in proving that this seemingly phenomenal lake nevertheless had a solid foundation in reality. According to Visscher, Lago de Chiamay has already begun to wander. On the map of Cantelli, it has made so large a stride to the West, that Barantola and Lassa are situated to the East of its bed. Isbrants Ides in 1704 removes the lake far to the N.W. but, to be on the safe side, he lets another lake lie in the old place and form the source of the great rivers. In 1705, Delisle retains the lake, but lets only one river take rise from its waters. On his map of 1723, he has, as mentioned, finally struck it out. But in the meantime the lake has wandered towards the West to the place where it is in reality situated. Lago de Chiamay is namely nothing else than Manasarovar, which has been considered, and by the peoples of the East is, to this day, believed, to give rise to the great Indian rivers.

In my relation I then pass on to two Swedes of great merit, Strahlenberg and Renat, who had served in the army of Charles XII and occupied their time during captivity to make peaceful conquests in the interior of Asia. The map of Strahlenberg, published at Stockholm in 1730, touches principally on the northern parts of the continent, but even extends so far to the South as to comprise the sources of the Indus and the Ganges. In several respects, it is superior to many other contemporary maps. This can be said in a still higher degree of Renat's map of the Tarim basin and its adjoining district. Here, Renat's map of 1733 is at least as near to reality as the map referring to Central Asia in Stieler's Hand-Atlas of 1875.[1]

---

[1] In this connection I wish to mention another Swede, whose name is not to be found in my relation. For linguistic purposes, Johan Otter made a journey in 1738—1739 to Bagdad, Ispahan and Basra, thereby taking the opportunity also to note down certain geographical observations. About the Ganges he says: »Le Gange, une des grandes rivières de l'Inde, sort des montagnes du Tebet ou de la Tatarie. Il coule du nord au sud et se décharge par deux principales bouches dans le golfe de

In the beginning of the 18th century, the great French Jesuits in the Peking of the Emperor Kang Hi, completed their renowned map of China. A copy of it reached d'Anville at Paris. On this map Tibet is represented in accordance with the provisional survey carried out, at the command of the Emperor, by specially instructed Lamas. They commit the error of letting the Ganges take its origin from lake Manasarovar. D'Anville caused both the upper Indus and Satlej to be included in the river-system of the Ganges. Otherwise, the powers of observation of the Lamaistic cartographers were extraordinarily accurate, and the sketch of the basin of the sources of the Satlej and the Ganges which they presented to d'Anville, is admirable. Their achievments surpass all that could be produced by European geographers 170 years later.

In connection with the reliable description of the sacred lake and its surroundings, which was thus obtained by Lamaistic research, the results of the journey which was begun in the year 1715 by the Jesuit Father Desideri, are of exceedingly great interest. I am endeavouring to prove that his lake Retoâ can be no other than Manasarovar. He is the first European to have visited and described this lake, and he is the discoverer of Kailas. He is one of the most remarkable travellers having ever journeyed through the land of Dalai Lama.

Pater Tieffenthaler is another Jesuit whose merit however less consists in his own observations, than in his collecting of geographical material. In the year 1784, his maps were published by Anquetil du Perron, who discusses them with great learning. From the narratives of Indian pilgrims, the Father had got the impression that Manasarovar gave rise to the Brahmaputra. The statement that the Satlej had its source from this lake, was, on the other hand, quite correct. Anquetil du Perron committed the great mistake of relying more on Tieffenthaler than on d'Anville, though the latter built on better material than did the former.

Vol. II of my work forms the immediate continuation of Vol. I and, like this

---

Bengale.» — Concerning »Kichemir», he says that it is a »canton», »environné de montagnes qui dominent du côté du sud sur les frontières des Royaumes de Dehli et de Lahour, à l'est sur celle du Tebet, au nord sur celle de Bedahchan, et sur une partie du Khorasan, et a l'ouest sur les cantons des Afgans. Quant aux montagnes de Kichemir, on diroit qu'elles ont été placées exprès comme une muraille pour fortifier ce pays, et pour le mettre hors d'insulte. . . . On ne peut y entrer que par trois défilés, savoir, celui du Khorasan, qui est si étroit et si difficile, que les hommes sont obligés d'y porter les charges sur leurs épaules, n'étant pas possible d'y faire passer une bête chargée; celui de l'Inde qui n'est pas moins étroit et difficile que le premier, et celui de Tebet. Quoique ce dernier soit un peu moins rude que les précédens, il n'est guère practicable pour les bêtes de charge, par ce qu'on n'y trouve dans l'espace de plusieurs journées, que des herbes vénimeuses —» Voyage en Turquie et en Perse. Tome second, Paris MDCCXLVIII, p. 68 et 121.

part, treats the hydrographical problem of which Manasarovar forms the centre, and which has through centuries been the subject of a more or less well informed discussion. But while Vol. I was chiefly devoted to Tibet in general, and, from its peripheral regions, step by step became concentrated in the direction of the sacred lake and the sources of the great rivers, Vol. II is divided between the different details of the problem in question. We have thus gradually proceeded from general views to particulars, and the volume ends with my own observations, made at the two lakes, and at the sources of the Indus, the Satlej and the Brahmaputra.

In his map of 1782, Major Rennell lets the Indus take its origin from the mountains West of Kashgar, and the Satlej from the southern side of the Himalayas. What is in reality the upper course of these rivers, is by him changed into source-rivers of the Ganges. He had certainly nothing better to do than to trust the Lamas of Kang Hi, who traced the origin of the Satlej from Rakas-tal, but had called the river the Ganges. Also Wilford who, at the beginning of the 19th century, collected all materials then existing regarding the geography of these parts, lets the Ganges take its origin from Manasarovar.

Elphinstone and Macartney tried in vain to solve the problem of the source of the Indus, while Webb and Raper in 1808 succeeded in penetrating to the true source of the Ganges on the southern side of the Himalaya, without knowing that this feat already had been achieved 184 years earlier by Andrade.

In 1812, Moorcroft at last penetrated to the two lakes, of which he gave an exceedingly valuable description. He confirmed that, at the said period, no river flowed out of Manasarovar, and his reliability was questioned from certain quarters, when Henry Strachey in 1846 and Richard Strachey in 1848 found a lively flow coming from the sacred lake. During the decades which have passed since then, different statements have apparently stood against each other. Some explorers have maintained that a current of water was running out from the lake, while others have positively denied the existence of such an outflow. At the time of both my visits, in 1907 and 1908, I found the outgoing channel dry, but I learnt from a reliable Mohammedan merchant at Leh, whose caravans every year take this road to Lhasa, that in 1909 to 1911 an abundant stream of water flowed from Manasarovar to Rakas-tal, while, in 1912 and 1913, these two lakes were again cut off from each other.

With the support of all this material, I prove that the apparently contradictory statements in reality are standing in the greatest and most natural harmony with each other. The outflow from lake Manasarovar is a periodical phenomenon, whose

pulsations simply depend on the quantity of the annual rainfall in the Himalaya and the Transhimalaya. After dry summers and autumns, the lake has no surplus of water to part with. After copious rainfall, its surface overflows, and a portion of its water runs out through the channel to Rakas-tal. The same climatical changes that characterise the post glacial period, are also to be observed here. Without doubt, the great curve of climatical change has hitherto proceeded towards desiccation, because, as far as I have found, no water has flowed out of Rakas-tal since 1760. What the future can hold in store in this respect, is unknown to us. Perhaps the curve of rainfall shall again begin to rise from its drift to dessication. The oscillations in the level of water in lake Manasarovar, belong to a curve of lower order than the oscillations of Rakas-tal. The former depend on years and decades, the latter on centuries.

With the support of all this material, there is then no difficulty in proving that the periodicity is a secondary phenomenon, which does not in the least prevent the two lakes from belonging to the course of the Satlej and the river-system of the Indus. This also goes to establish that the source of the Satlej should not be sought for in any of the places formerly designated as such, but only and exclusively at the point where the largest tributary to Manasarovar, or Tage-tsangpo, is born at the front of the glaciers of Ganglung. This view even agrees with that of the Chinese and the Tibetans. It will, moreover, prove to be the only correct one in future, when these parts have been thoroughly mapped and explored.

In Vol. III, I treat the Transhimalaya and analyse in historical order all the expeditions having touched on the periphery of the unknown central parts of this system, whose wings to the East and West were comparatively well known. Desideri, Beligatti and della Penna are the first Europeans who have at all been in contact with this great and attractive orographical problem. After them followed Abbé Huc, Thomson, Hooker, Campbell, Schlagintweit, Drew, Strachey, Cunningham and the Pundits of Montgomerie and, finally, a few modern travellers, last of them Ryder, Rawling and Wood. But even more fertile is an analysis of the descriptions of the mountainland to the North of the Tsangpo, given by prominent geographers, and partly founded on Chinese documents, partly being of theoretical construction. The foremost of these geographers are d'Anville, Klaproth, Ritter, Humboldt, B. Hodgson, Richthofen, Saunders, Markham, Dutreuil de Rhins, E. T. Atkinson and, lastly, S. G. Burrard and Hayden. After having given in turn an account of each of their varying systems, of which not a single one corresponds to reality, I pass on to a description of my own journeys in the Transhimalaya, and

along the chain of lakes, situated at their northern base. In this introduction I shall desist from giving a general statement of their results. The Transhimalaya stands to the West in close connection with the Karakorum system, and on this account I have occasion to come back in Vol. IV of this work, as being the right place, both to a general view of the different chains of the Transhimalaya, described in Vol. III, and to their orographical relation to the mountains of the Karakorum.

Stockholm, October 17th, 1917.

SVEN HEDIN.

INDIAN, GREEK, ROMAN AND MOHAMMEDAN GEOGRAPHERS

1—131387 I.

CHAPTER I.

SOUTH-WESTERN TIBET IN INDIAN ANTIQUITY.

To the Hindus and their ancestors South-Western Tibet has been known since thousands of years, and indeed we are here moving on ground which was classic when the foundation stone of Rome was laid. Their knowledge has, however, been very superficial, and the few glimpses of actual geography we obtain from their ancient books almost disappear in interminable epic songs, in legends and in tales. But there is at any rate a certain foundation of reality, which proves that the peoples of India knew the existence of the very high and extensive mountains to the north, as well as Mount Kailas, the lakes Manasarovar and Rakas-tal, and the regions in which the great Indian rivers have their sources. As an introduction to the geographical investigation of South-Western Tibet I will therefore use some quotations from old Indian books.

In the Buddhist world-system Mount Meru or Sumeru, the Ri-rab of the Tibetans, the great venerable Olympus, rises from the axis of the earth, and forms the centre and foundation of the universe. Its four sides consist of gold, crystal, silver and sapphire. In concentric circles Mount Meru is surrounded by seven seas and seven rings of golden mountains. In the ocean around this King of Mountains are the four great continents or world-islands with their satellites. Three of these continents are fabulous, and only the fourth, the one to the south, Jambudvīpa, has a real geographical foundation, and corresponds to the world as far as it was known to the Indians, namely, the Indian peninsula, with the Bodhi-tree of Budh Gaya in its centre. »It is shaped like the shoulder-blade of a sheep, this idea being evidently suggested by the shape of the Indian peninsula which was the prototype of Jambudvīpa, as Mount Kailas in the Himalayas and N.E. of India was that of Mount Meru.» [1]

---

[1] Waddell: The Buddhism of Tibet or Lamaism. London 1895, p. 78 et seq. Of Jambudvīpa Köppen says: »in ihm erstreckt sich der Himavant mit dem See Anavatapta (im Pāli Anotatta, der buddhistische Name des Mānasa-Sees), aus welchem die vier grossen Ströme nach den vier Himmelsgegenden fliessen, der Ganges nach Osten, der Indus nach Süden, der Vatsch (Oxus) nach Westen,

In the Hindu mythology Meru is a fabulous mountain, for on it is situated Svarga, Indra's heaven with the cities of the gods, and the habitations of celestial spirits. [1]

This mighty upheaval, the highland of Tibet, the Meru of the Indian cosmography, was praised in the following words by the *Mahābhārata*, the great epic poem of the Hindus, and probably the greatest poem in the world's literature: »There is a mountain named Meru of blazing appearance, and looking like a huge heap of effulgence. The rays of the sun falling on its peaks of golden lustre are dispersed by them. Abounding with gold and of variegated tints, that mountain is the haunt of the gods and the Gandharvas. It is immeasurable, and unapproachable by men of manifold sins. Dreadful beasts of prey inhabit its breast, and it is illuminated with divine herbs of healing virtue. It standeth kissing the heavens by its height and is the first of mountains. Ordinary people cannot so much as think of ascending it . . . Standing high for infinite ages, upon it once all the mighty celestials sat them down and held a conclave». [2]

The same source tells us that Meru is in the Himalaya between Mālyavant and Gandhamādana. »This gold-mountain is the highest of all mountains. It is round as a ball, shines like the morning sun, and is like a fire without smoke. It is 84,000 Yojanas high and goes as far down in depth, and it overshadows the worlds above and below and across . . . It is furnished with heavenly flowers and fruit, and covered everywhere with bright gold dwellings . . . The top of Meru is covered with forests that are beautified with flowers and the wide-stretching branches of Jambu trees, and which resounded with the melodious voices of kinnaries.» [3]

Vishnu's dwelling place is on the top of Mount Mandara to the east of Meru and to the north of the Milk-Sea. On the south of the Nīla mountain and the northern side of Meru are the sacred Northern Kurus, the residence of the Siddhas. [4]

In the same ancient poem we read: »From the Himavant mountains which are the most excellent in the world and which are extolled as divine, holy and loved by the gods who seek these regions, they using them as pleasure-grounds; from these mountains of which Meru is the centre you ascend through the air to Svarga.

---

die Sītā (der Fluss von Yarkan) nach Norden.» Sun, moon, and stars turn round the Meru, and above the King of Mountains are the heavens. Köppen: Die Religion des Buddha, Berlin, 1857, I, 232 et seq.

[1] From a purely geographical point of view Dowson believes it should be identified with some mountain north of the Himalayas. It is also Hemādri, »golden mountain», Ratnasānu, »jewel peak», Karnikāchala, »lotus mountain», and Amarādri and Deva-parvata, »mountain of the gods». Dowson, A Classical Dictionary of Hindu Mythology and Religion, Geography, History, and Literature. Second Edition. London 1888 p. 208.

[2] Indian Mythology according to the Mahābhārata. In outline by V. Fausbøll. London 1902, p. 20.

[3] Ibidem p. 43.

[4] Ibidem p. 103 and 169.

From Mandara in this mountain-range Arjuna ascended to Indra's heaven conveyed there by Mātalī in Indra's chariot, after he had first sung this beautiful hymn to the mountain . . .» Then follows the hymn glorifying Himavant.

According to Fausbøll Çiva is most often in the Mahābhārata called Mahādeva, the great god. He dwells on the holy Himavant. Here on the ridge of Himavant the mighty master always sits, shining like the fire at the end of a Yuga. In other places he is recorded to be found on a horn of the mountain Meru, called Sāvitra, or on Mount Mandara. »The Himavant mountains hold the highest place amongst all the mountains in the world, they are praised as being divine, holy and loved by the gods and they are protected by Rākshasa's and Piçāca's. From them the ascent is made, through the air, up to Svarga-heaven with the Nandana forest, the home of the inhabitants of heaven, the Deva's. The high Kuvera enjoys a fourth part of Meru's treasures and he gives a sixteenth part to mankind. South of Mount Nīla and on the north side of Meru lies the holy northerly Kuru-land where the Siddhas dwell . . . Among Himalaya's many great and small mountains Kuvera chose Kāilāsa (also called Hemakūṭa) and Gandhamādana as his favourite dwelling place . . . The whitish-yellow Kāilāsa is 6 Yojana's high; and a gigantic jujube tree is found there. It is likewise covered with lovely woods, rivers, lakes and caves. Here Kuvera was installed by Brahmā himself in dominion over all riches and over Rākshasa's, Yaksha's and Gandharva's, and he rejoiced greatly. At the entrance to Kāilāsa there is a golden gate . . . His (Kuvera's) river is the beautiful Mandākinī, the first of rivers whose waters are decked with golden lotuses, that resemble the sun. His lotus-lake, Nalinī or Jāmbūnada-saras, the golden lake is called Alakā. It is full of divine, fragrant, golden Sāugandhikā lotuses and all sorts of aquatic birds, surrounded by lovely woods with thick trees and climbing plants. Its water is clear and cool, and has an ambrosial taste . . . His city is called Alakā . . . His assembly-hall . . . is as bright as the peaks of Kāilāsa, and its white sheen eclipses even the splendour of the moon.» [1]

In the Mahābhārata Brahmā is described under the name of Mānasa, and is sometimes also called Puruṣa. The Gandharvas are said to reside near the lake Mānasa and on Mount Niṣadha. [2]

Only as glimpses or mere names do the eternal mountains of Himalaya, Meru and Kailas, and the sacred lake Manasarovar light up the interminable and very dull stories of the *Ramāyāṇa*. I am giving a few examples of this kind of very vague geography. Rāghava is said to have »proceeded leaving on his left side the junctions of four roads . . . and reached after all the family dwelling of the king, with its palatial tops piercing the sky, looking beautiful, resembling a mass of clouds, white as the celestial cars and high as the hill Kāilāsa, and with sporting houses

[1] Ibidem p. 147, 183, et seq.
[2] Ibidem p. 58 and 127.

adorned with pearls.» [1] Everywhere appears the deepest veneration for the Kailas, »that lord of mountains, Kāilāsa.» [2] Further: »There is a monarch of mountains in a mighty forest, the great refuge of ascetism, the worker of the weal (of all), an Asura, celebrated by the name of Himavant containing great cascades and furnished with many fountains and caves.» [3] In the monkey stories in the same work both Himalaya and Kailas and other mountains are mentioned. In Vol. V it is said of a palace that it was »high as the lord of mountains and white as the Kāilāsa hill», and in Vol. VI that the God of Death was living on mount Kāilāsa, encircled by Yakshas. Of a certain Kumbhakarṇa it is said: »as he yawned, his mouth resembling the subterraneous regions, looked like the sun stationed at the summit of Meru». A Brahmarshi, foremost of ascetics, repairing to the asylum of Tṛiṇavindu at the side of the mighty mountain, Meru, took up his abode there. [4] The same volume tells of Rāvaṇa: »And leaving behind cities and streams and hills and woods and groves, he in a moment came to the mountain Kāilāsa.» Further: »meditating for some time the lord of Lankā went to the region of the sun and spent the night upon the picturesque summit of the mount Meru.» — »When Rāvaṇa arrived at the banks of the western Ocean a person was seen on the island, a highly powerful person amongst men like . . . the Meru amongst the mountains, with legs like the mount Kāilāsa, . . . and he was not more agitated than the Sumeru by the King of serpents; — and of Rāvaṇa is said: the mounts Himalaya, Hemakūṭa, Mandara, and Meru are his bones.» — »There is a mountain named Meru, highly picturesque, made of gold and greatly charming. The middle peak is much liked by the celestials, on which is situate the beautiful assemblage hall of Brahmā extending over a hundred leagues. The four-mouthed deity, sprung from lotus, always resideth there».

The *Purāṇas* celebrate, as DOWSON says, the powers and works of positive gods, and represent a later and more extravagant development of Hinduism, of which they are in fact the Scriptures. [5] The best known is the *Vishnu Purāṇa* translated by Professor WILSON. In the first chapter of its second Book is given the description of the earth, much as has been related above, though still with some interesting geographical details making it worth a fuller quotation.

Jambu is one of the seven great insular continents, and there are seven great seas. »Jambu-dvīpa is in the centre of all these: and in the centre of this continent is the golden mountain Meru. The height of Meru is eighty-four thousand Yojanas; and its depth below the surface of the earth is sixteen thousand. Its diameter at the summit is thirty-two thousand Yojanas; and at its base, sixteen thousand: so that this mountain is like the seed-cup of the lotus of the earth.

---

[1] The Ramayana. Translated into English Prose from the Original Sanscrit of Valmiki, Valakandam. Vol. II. Published by Manmatha Nath Dutt. Calcutta 1889, p. 238.
[2] Op. cit. Vol. III, p. 618.
[3] Op. cit. Vol. IV, p. 719.
[4] Op. cit. Vol. VII, p. 1557.
[5] Dowson op. cit. p. 245.

The boundary mountains (of the earth) are Himavant, Hemakūṭa, and Nishadha, which lie south of Meru; and Nīla, Çveta, and Çṛingī, which are situated to the north of it. The two central ranges (those next to Meru, or Nishadha and Nīla) extend for a hundred thousand (Yojanas, running east and west). Each of the others diminishes ten thousand Yojanas, as it lies more remote from the centre. They are two thousand Yojanas in height, and as many in breadth. The Varshas or countries between these ranges are Bhārata (India), south of the Himavānt mountains; etc. . . . There are also (near Meru) four great lakes, the waters of which are partaken of by the gods, called Aruṇoda, Mahābhadra, Sītoda, and Mānasa. — The principal mountain ridges which project from the base of Meru, like filaments from the root of the lotus, are . . . (here follow several names).

On the summit of Meru is the vast city of Brahmā, extending fourteen thousand leagues, and renowned in heaven; and around it, in the cardinal points and the intermediate quarters, are situated the stately cities of Indra and the other regents of the spheres. The capital of Brahmā is enclosed by the river Ganges, which, issuing from the foot of Vishnu, and washing the lunar orb, falls here from the skies, and, after encircling the city, divides into four mighty rivers, flowing in opposite directions. These rivers are the Sītā, the Alakanandā, the Chakshu, and the Bhadrā. The first, falling upon the tops of the inferior mountains, on the east side of Meru, flows over their crests, and passes through the country of Bhadrāçva to the ocean: the Alakanandā flows south, to the country of Bhārata, and, dividing into seven rivers on the way, falls into the sea: the Chakshu falls into the sea, after traversing all the western mountains, and passing through the country of Ketumāla: and the Bhadrā washes the country of the Uttara Kurus, and empties itself into the northern ocean.»[1]

The Vishnu Purāṇa goes on: »Meru, then, is confined between the mountains Nīla and Nishadha (on the north and south), and between Mālyavant and Gandhamādana (on the west and east); it lies between them like the pericarp of a lotus. The countries of Bhārata, Ketumāla, Bhadrāçva, and Uttarakuru lie, like leaves of the lotus of the world, exterior to the boundary mountains. Jaṭhara and Devakūṭa

[1] The Vishnu Puráná, a system of Hindu Mythology and Tradition, translated from the original Sanscrit, and illustrated by notes derived chiefly from other Puránás, by H. H. Wilson. London 1840, p. 166 et seq. In a note to the passage quoted Wilson says that the Vāyu Purāṇa has the same account but also another which is found in the Matsya and Padma Purāṇas as well. In this, as related above, the Ganges is said, after escaping from Çiva to have formed the seven rivers: Nalinī, Hlādinī and Pavanī going eastwards, Chakshu, Sītā, and Sindhu westwards, and Bhāgirathī or Ganges to the south. Wilson finds some actual geography in the legend. The following supposition of Wilson, however, seems somewhat audacious; he says of the legend that »it seems not unlikely to have originated in some imperfect account of four great rivers flowing from the Himālaya, and the high lands north of that range, towards the cardinal points: the Bhadrā, to the north, representing the Oby of Siberia; and the Sītā, the river of China, or Hoangho. The Alakanandā is well known as a main branch of the Ganges, near its source; and the Chakshu is very possibly, as Major Wilford supposed, the Oxus.» For how would even the most vague account of any Siberian river ever have reached India! Only Alakanandā is certain, Oxus very likely; by the north-going river Yarkanddarya may have been meant and by the Sītā Tsangpo-Brahmaputra.

are two mountain ranges, running north and south, and connecting the two chains of Nishadha and Nīla. Gandhamādana and Kāilāsa extend, east and west, eighty Yojanas in breadth, from sea to sea. Nishadha and Pāriyātra are the limitative mountains on the west, stretching, like those on the east, between the Nīla and Nishadha ranges: and the mountains Triçṛinga and Jārudhi are the northern limits of Meru, extending, east and west, between the two seas. Thus I have repeated to you the mountains described by great sages as the boundary mountains, situated in pairs, on each of the four sides of Meru.»

In the *Bhāgavata* and *Vāyu Purāṇa* Wilson finds the eight mountains enumerated in a similar way. The Bhāgavata places the mountains Kāilāsa and Karavīra south of Meru. Wilson does not believe in the possibility of verifying the position of these different creations of ancient legendary geography of the Hindus, but he thinks the scheme was suggested by imperfect acquaintance with the actual character of the country. Therefore, quoting Humboldt and Ritter he indicates an identity with the Altai, Mustag or Tian-shan, Kwen-lun and Himalaya. And here again we have good reason to doubt whether the ancient sages of India could possess even the faintest idea of the existence of such systems as Altai and Tian-shan, and even Kwen-lun. The very natives of these mountains can even nowadays not be said to have a clear conception of the great orographical systems. The authors of the Purāṇas have constructed a very regular and symmetrical orography bordering the Meru. Humboldt has constructed a geometrical system of ranges in Central Asia. How could ever these constructions agree with each other! The existence of ranges was known, but how they were situated in relation to each other was unknown. Even so late as in Humboldt's days very little was known of the orography between Kwen-lun and Himalaya. To satisfy the demands of the Purāṇa texts the western Himalaya and the Kailas are sufficient; the rest accomplishing the symmetry round Meru is fiction.

The Vāyu Purāṇa says there are six mountains in Jambudvīpa, »which lengthen to the eastern side, have excellent summits, are all related to each other, and have the sea both to the east and west». They are named as follows, namely, Hemashaya(?), Himavant, Hemakūṭa, Hemavant, Hairaṇya (which last is) possessed of a splendour equal to the rays of the midday sun and Nishadha. [1]

Of all these the mount Sumeru, which is made of gold . . . is the best.

The Vāyu Purāṇa tells us of four Sarovaras or lakes, »which resound with the noise of large birds; their water is clear, propitious, healthy . . . The lakes are adorned

[1] Chapter 32, p. 328 of the manuscript translation of the Vāyu Purāṇa, which belongs to the Library of the India Office, and which is the same copy that was prepared for Professor Wilson. It has been placed at my disposal by the courtesy of the India Office. Of its existence in London I received information through the kindness of Dr. F. W. Thomas. I am giving here a few extracts from this translation though they, in some respects, are nearly the same as in the Vishnu Purāṇa. The manuscript copy of the translation of the Matsya Purāṇa which was also sent to me proved to be superfluous, as it did not contain any geographical details of interest to us.

with lotus flowers, and lilies, which are as large as umbrellas, are blown open, have an excellent smell, are charming, and have large leaves.» The names of the four great Sarovaras are Aruṇoda, Mānasa, Sītoda and Mahābhadrā. [1]

The names of 17 mountains situated south of the Sarovara Mānasa are given.

Mount Himavant is situated south of Kāilāsa, and described in the Vāyu Purāṇa as the best of all mountains, rich in groves, fountains, caves, hollows and peaks, and extends to the east and west to the ocean. »The sides of the mountain (Himavant) which has several peaks are filled with happy men and women. On Himavant dwell the superior Devas with Indra, and the houses and edifices of Kumāra.»

»In the south, the river falling upon the Gandhamādana mountain, and flowing round it, penetrates in various directions the Gandhamādana wood of the Devas in its course, it is then called Alakanandā. It then falls into the Mānasa lake belonging to the Devas; hence it runs . . .» over 14 mountains. »The river there flowing along the side of the Kāilāsa mountain, which has several caves and peaks upon it, falls upon Himavant, and in its course breaking down thousands of superior mountains, and watering hundreds of countries, woods and caves unites with the southern ocean. The river is one Yojana [2] wide at the side of the Kāilāsa mountain, it was born by the God of gods Çankara (on his head) and purifies the most deadly sinners.»

A river, Tryambaka, comes from Meru, falls upon the Mahāpada mountain »and enters into the western lake called Sītoda, the water of which is very clear. Coming out of the Sītoda lake, the river, the water of which is clear and used by the Gods and Ṛishis falls upon the Supaksha mountain . . .» — then it breaks down several mountains, before it reaches the ocean. »In this manner four great rivers of clear water run from the great mountain (Meru) towards the four regions.»

It is said in Chapter 45 that on the left side of Himavant lies mount Kāilāsa, on which the glorious Kuvera resides. »From the foot of Kāilāsa proceeds the lake Manda, which is holy, of cool water, propitious, covered with lilies, and is like the ocean. It gives rise to the Mandākinī river, . . .» The river Achchhoda, which rises somewhere N.E. of Kāilāsa, joins the ocean as the Mandākinī.

»At the foot of it (mount Vaidyuta) is the Mānasa lake, which is holy, and visited by the Siddhas. From this (lake) the holy and purifying river Sarayu proceeds.»

Of the Munjava mountain it is said: »From the foot of it, the lake called Çāiloda is produced, whence the fine river Çāilodā takes its rise», and falls into the ocean.

The Ganges does not at all belong to the region of my exploration and discoveries and could therefore have been excluded from this essay. But on the other hand the origin of the Ganges has so often been derived from the Manasarovar and,

[1] Ibidem Chapter 34, p. 358. The following quotations are from Chapters 39, 40 and 45.
[2] One Yojana = 4 Bengali Krosas, and 8 Engl. miles.

even so late as 130 years ago, its upper course has been confounded with those of the Indus and the Satlej that we cannot omit paying some attention to the history of human knowledge about the origin of this river. And as could be expected from the immense importance of this river for north-eastern India, the Ganges has been an object of illimited veneration of the Indians ever since the remotest antiquity. It is said to be mentioned only twice in the *Rig-veda*.[1]

Gangā was Himavant's eldest daughter, and concerning her the following event is related both by the Mahābhārata and the Rāmāyaṇa: King Sāgara in Ayodhyā had 60,000 sons. Once while they were searching for a horse that had been stolen from a sacrifice of horses, they met the sage Kapila. They accused him of having stolen the missing horse, and in consequence, in his anger, he transformed them into ashes. Only by the aid of Gangā's holy waters could they again come to life. It was Sāgara's great-great-grandson, Bhagīratha, who at last succeeded in bringing the stream Ākāça-Gagā, Vyoma-Gagā, (Air-Ganges, Heaven-Ganges), down from heaven, and its violence was only restrained by Çiva receiving it in the curls of his hair. This tale is often referred to in the Mahābhārata, as: »Her, who is difficult to bear even by mountains, bore after this the holder of Pināka (Çiva) on his head for hundred thousand years.» Or: »Here Mahādeva received the down-powring, from heaven sent Gagā, and gave her to the world of men, o thou who is full of Brahma knowledge.» And: »That holy Bhāgīrathī, who is worshipped by gods and Gandharvas shines far and wide over the heavens like a pennant banner by the wind, it is perpetually conducted downwards over the lower mountain tops, lying like a serpent King's mistress, trembling on the rocks, she, the dear queen of the sea overflows all the southern district (nourishing it) like a mother after having first streamed from Çambhu's (Çiva's) hair». And at another place in the Mahābhārata we read of a sacrifice performed »on Himavant, in that place where Gagā bursts forth from the mountains.»[2]

According to Wilson the legend of the descent of the Gangā is told, in its most ancient and authentic shape, in the Rāmāyaṇa. The Ganges, he says, is called Bhagīrathī, from King Bhagīratha, and the sea, which was formed by the river, is termed Sagara, after his great-grand sire.[3] WHEELER says that the legend has no real value, excepting that it is universally believed by the Hindus. From the Rāmāyaṇa Wheeler relates a poetical description of the divine Ganges, the river which Rāma saw flowing in three directions, »the river which dashes against its strong banks with a terrific sound resembling a deep laugh, or smiling with its pure foam . . ., the river which abounds with the pure lotos, and where the gods perform their ablutions, . . . the river which removing every load of impurity is itself clear and pellucid, . . . the river which fell from the feet of the divine Vishnu, and

[1] Dowson, op. cit. p. 108.
[2] Fausbøll, op. cit. p. 160 et seq.
[3] Works by H. H. Wilson, Vol. II, London 1862 p. 168.

from the matted hair of the great god Çiva, through the influence of the sage Bhagīratha; the river Gangā wife of Sumudra, pure and destroying sin.» [1]

Again, the Rāmāyaṇa tells us how Çiva »cast Gangā off in the direction of the Vindu lake. And as she was let off, seven streams branched out from her. And the three streams of the excellent Gangā of auspicious waters took an easterly direction; while the Suchakshu, the Sītā, and that mighty river the Sindhu flowed on the auspicious west. And the seventh followed Bhagīratha's car. And that royal saint, the exceedingly puissant Bhagiratha, mounted on a superb car, went before; and Gangā followed him . . .» [2]

At another place Gangā is described as the daughter of Himalaya: »And having repaired to the north side of that mountain (Himalaya), Maheçvara along with the goddess became engaged in austerities on the peak Himavatprabhava. I have now related unto thee, O Rāma, the spread of the Mountain's daughter (Gangā).»[3] And further: »When Rāvaṇa proceeded by the aerial way . . . and again going up ten thousand leagues he reached the eighth aerial region where Gangā, known as the Ganges of the sky, having strong currents and sending high roars, and upheld by air, is situated on the sun's way.» [4]

On account of the Ganges' descent from heaven this river is also called Devabhūti, »produced in heaven», and Khāpagā, »flowing from heaven».

The Ganges descended from Çiva's brow in seven rivers, the Sapta-sindhavas. According to Dowson this expression is often met with in the Vedas and was widely known, even by the Romans in Augustus' days, for Virgil, Eneid, IX. 30, says: Ceu septem surgens sedatis amnibus altus — per tacitum Ganges. In Zend they are called Hapta-hendu. Dowson relates the hymn in which the names of the rivers have been given: »Each set of seven (streams) has followed a threefold course. The Sindhu surpasses the other rivers in impetuosity . . . Receive favorably this my hymn, O Gangā, Yamunā, Sarasvatī, Çutudrī, Parushnī; hear, O Marud-vṛidhā, with the Asiknī and Vitastā, and thou, Ārjīkīyā, with the Sushomā. Unite first in thy course with the Tṛishṭāmā, the Susartu, the Rasā, and the Çvetyā; thou meetest with the Gomatī, and the Krumu with the Kubhā and the Mehatnū!» According to this the seven rivers are — 1) Gangā (Ganges); 2) Yamunā (Jumna); 3) Sarasvatī (Sarsuti); 4) Çutudrī (Satlej); 5) Parushnī; 6) Marud-vṛidhā; 7) Ārjīkīyā (the Vipāçā, Hyphasis, Byas) . . . In the Mahābhārata the seven rivers are named in one place Vasokasārā, Nalinī, Pāvanī, Gangā, Sītā, Sindhu, and Jambūnadī; and in another, Gangā, Yamunā, Plakshagā, Rathasthā, Sarayu (Sarju), Gomatī, and Gaṇḍakī (Gandak).» In the Rāmāyaṇa and the Purāṇas the seven streams are the Nalinī, Hlādinī,

---

[1] The History of India from the earliest ages. By J. Talboys Wheeler, Vol. II, p. 45 and 138.

[2] The Ramayana, Vol. I, p. 104.

[3] Ibidem p. 91.

[4] Ibidem, Vol. VII, Calcutta 1894, p. 1642.

and Pāvani going east, the Chakshu, Sītā, and Sindhu to the west, and the Ganges to the south.[1]

The hydrography of the Vishnu Purāṇa begins: »The Çatadru, Chandrabhāgā, and other rivers, flow from the foot of Himalaya, etc. . . .»[2] Wilson tells us that the other Purāṇas enumerate many other rivers beyond those of the Vishnu. Çatadru is »the hundred-channelled», the Zaradrus of Ptolemy, the Hesidrus of Pliny, or Satlej. The Chandrabhāgā, Sandabalis, or Acesines, is the Chinab. Thus even the Satlej is regarded as coming from the foot of the Himalaya, not from beyond the mountains. This is the same view as that of Ptolemy who makes all the rivers start from the southern side of the Himalaya.

According to Wilson the popular notion concerning the origin of the Ganges is that Çiva or Mahādeva receives the river on his head, though this is referred to the descent of the Alakanandā, or Ganges of India, not to the celestial Ganges. In the Vishnu Purāṇa we read:[3] »From that third region of the atmosphere, or seat of Vishnu, proceeds the stream that washes away all sin, the river Gangā, embrowned with the unquents of the nymphs of heaven, who have sported in her waters. Having her source in the nail of the great toe of Vishnu's left foot, Dhruva receives her and sustains her day and night devoutly on his head; and thence the seven Ṛishis practise the exercises of austerity in her waters, wreathing their braided locks with her waves. The orb of the moon, encompassed by her accumulated current, derives augmented lustre from her contact. Falling from on high, as she issues from the moon, she alights on the summit of Meru, and thence flows to the four quarters of the earth, for its purification. The Sītā, Alakanandā, Chakshu, and Bhadrā are four branches of but one river, divided according to the regions towards which it proceeds. The branch that is known as the Alakanandā was born affectionately by Mahādeva, upon his head, for more than a hundred years, and was the river which raised to heaven the sinful sons of Sagara, by washing their ashes. This sacred stream, heard of, desired, seen, touched, bathed in, or hymned, day by day, sanctifies all beings; and those who, even at a distance of a hundred leagues, exclaim 'Gangā, Gangā', attone for the sins committed during three previous lives. The place whence this river proceeds, for the purification of the three worlds, is the third division of the celestial regions, the seat of Vishnu.» To which Wilson adds: »The situation of the source of the Ganges of heaven identifies it with the milky way.»

[1] Dowson, op. cit. p. 281. In the Vāyu Purāṇa the story of Bhāgirathi runs thus: »the river . . . ran into seven courses, three towards the east, namely Nalini, Hladini, and Pavani, three towards the west to wit, Sītā, Chakshu, and Sindhu», the seventh, Bhāgirathī, ran to the south. These seven rivers are said to have sprung from the Vindu lake, situated at the foot of a mountain to the north of Kāilāsa. They flow through the Himavant, inundate several countries, and go to the place, whence Indra rains, that is to the ocean. Sītā follows the Sindhu to the western ocean. Chakshu falls into the ocean. Sindhu flows through Darada, Kaçmira, Gandhāra, etc. The course of the three eastern rivers cannot be followed.

[2] Op. cit. p. 175.

[3] Op. cit. p. 228.

In the Rāmāyaṇa the following piece of Himalayan hydrography is also to be found, in connection with the tale about the lord of monkeys, the successful Sugrīva, who said to a leader of herds and lord of apes, named Vinata . . . »there, in mountain fastnesses, and forests and rivers, do thou search Videha's daughter, Sītā, as well as the abode of Rāvaṇa. And while on the search around for Rāma's beloved wife, Sītā, . . . thou shouldst search the beautiful Bhāgīrathī, and the Sarayu, and Kāuçikī, the Kālindī, and the charming Yamunā, and the mighty hill bordering thereon; and the Sarasvatī, and the Sindhu, and the Çoṇā with water resembling ruby.» [1]

Finally I quote the following passage about the Manasarovar, which for us is the most interesting in the whole Rāmāyaṇa: [2] »And Bibhishaṇa obtained for his wife the righteous (damsel) named Saramā — daughter unto the high-souled — Çailūsha — sovereign of the Gandharvas. (Saramā) was born on the shores of the lake, Mānasa. And while the lake, Mānasa, was swollen with water on the arrival of the rains, her mother, hearing her cries, affectionately said, — Saromāvardhata — 'O lake, do not swell', and from this circumstance, her name became Saramā.» As the Rāmāyaṇa is the oldest of the Sanscrit epic poems, supposed to have been composed about 500 years B.C., and even if it received its present form one or two hundred years later, the quoted passage must indeed be said to be the first place where not only the sacred lake has been mentioned but also the fact of its swelling or the rise of its surface on arrival of the rains. Nay, it would require some 23 centuries before European geographers and explorers became aware of this most characteristic fact of the periodical fluctuations of the lake, which in later ages gave rise to so many mistakes and misunderstandings, and which I will try to explain, so far as possible, in subsequent chapters.

Through Sir JOHN STRACHEY E. T. ATKINSON is able to give a paraphrase of a portion of the *Skānda Purāṇa*, known as the *Mānasa-khaṇḍa*.[3] »It occurs in the usual form of a dialogue between Sūta, a pupil of Vyāsa, and Janamejaya, the son of Parikshit, the Pāṇḍava ruler of Hastinapur, and professes to relate what was formerly communicated by Vyāsa to Vasishṭha. In form and often in verbiage it follows the model of the older Purāṇas and minutely describes the country from the lake Mánasarowar in Tibet to Nanda Devi . . . The work itself is very popular and is deeply interesting as showing the form in which the actual living belief of the people is exhibited.» [4]

---

[1] Ramayana, op. cit., Vol. IV, Calcutta 1891, p. 808.

[2] Op. cit. Vol. VII, p. 1594.

[3] The Himálayan Districts of the North-Western Provinces of India. Allahabad 1882. Vol. II, p. 297 et seq.

[4] Supposing that the Library of the India Office should possess some translation of the Mānasa-khaṇḍa either in manuscript or print, I wrote to Dr. F. W. Thomas, who, however, communicates me the following: »For the Mānasa-khaṇḍa the passage which you cite from Atkinson appears to be the only authority, either English or otherwise. I have found only one reference to a Mānasa-

In the introduction of the Mānasa-khaṇḍa Janamejaya addresses the Súta desiring to hear of the creation of the world and its state subsequent to that event and the māhātmyas of the great tīrthas or places of pilgrimage. We need only to quote a passage which is of special interest to us in connection with the lake. The Sūta tells the legend of Himāchala to Janamejaya. Dattātreya Ṛishi, one of the seven human incarnations of Vishnu, after his visits to Himāchala, went to Kāçi (Benares) and proclaimed the glories of Himāchala to the Rāja Dhanvantari. They talk of the tīrthas, and the sage glorifies Himāchala . . . »that Himāchala where Çiva lived and where Gangā falls from the foot of Vishnu like the slender thread of a lotus flower and where the Ṛishis worship and where the Çiva lingas are numerous. I behold Māna-sarovara and there in the form of the rāja-hansa (royal goose) dwells Çiva. This lake was formed from the mind of Brahmā, therefore was it called 'Mānasa-sarovara'. There dwell also Mahādeva and the gods, thence flow the Sarayu (here probably Karnali) and other (female) rivers and the Çatadru and other (male) rivers.[1] When the earth of Māna-sarovara touches anyones body or when anyone bathes therein, he shall go to the paradise of Brahmā, and he who drinks its waters shall go to the heaven of Çiva and shall be released from the sins of a hundred births, and even the beast who bears the name of Māna-sarovara shall go to the paradise of Brahmā. Its waters are like pearls. There is no mountain like Himāchala, for in it are Kailas and Māna-sarovara. As the dew is dried up by the morning sun, so are the sins of mankind dried up at the sight of Himāchala. At Māna-sarovara, the king, Bhagīratha, performed the austerities by which the holy Gangā was produced and Vasishṭha obtained the Sarayu. The country around this holy lake is called Mānasa-khaṇḍa.« Concerning the creation of Māna-sarovara we read: »The sons of Brahmā, Marīchi and Vasishṭha and the rest proceeded to the north of Himāchala and performed austerities on Kāilāsa. There they saw Çiva and Pārvatī, and there they remained for twelve years absorbed in mortification and prayer. There was then very little rain and little water, and in their distress they went to Brahmā and worshipped him. Then Brahmā asked what their desire might be. The Ṛishis answerd and said. — 'We are engaged in devotion on Kāilāsa and must always go thence to bathe in the Mandākinī; make a place for us to bathe in'. Then Brahmā by a mental effort formed the holy lake of Mānasa. The Ṛishis returned and rejoicing at the success of their journey again engaged in mortification and prayer on Kāilāsa and worshipped the golden ling which rose from the midst of the waters of the lake.«

---

khaṇḍa, — there exists in India a Rāmaçilamāhātmya, professing (but such professions are very untrustworthy) to belong to the Mānasa-khaṇḍa of the Skanda Purāṇa. But no such Mānasa-khaṇḍa appears to exist in manuscript or print. Atkinson's version must have been made especially for him from some unknown manuscript.« From Atkinson's reference to Sir John Strachey this seems indeed to have been the case.

[1] Atkinson adds the explanation that the Çatadru is Satlej, »which rises in the Rākas lake, which is itself connected with the Māna lake.«

Then follows the story of the Rāja Māndhātri who married the earth in the shape of a woman, who, after years of happiness refused to die with him. »Then Māndhātri was enraged and drew his sword to kill the earth, and she fled towards Himāchala and the rāja followed her, and she reached Māna-sarovara. Then on the banks of this lake the rāja cut off her head, but the earth could not perish and vanishing in the waters went down to Pātāla, where she worshipped the gods who were seated on Kāilāsa.»

To the rāja's question: »which is the road to the holy lake?» Dattātreya gave the principal stations and the duties of the pilgrim, amongst which, after his descending to Māna-sarovara, was the following: »let him bath there and give water to the manes of his ancestors and worship Mahādeva in the name of the rāja-hansa. Then let him make the parikrama (circum-ambulation) of the holy lake Māna and look on Kāilāsa and bathe in all the rivers around.»

The rāja's next question concerns the return journey, and then follows, under the heading: *Māna-sarovara:* »On the south of the Māna lake is the mountain Çambhu, from which issues the river Shesti(?), which flows to the north into Māna, near which are mines of silver and lead: near this the sands are red and the waters white. To the north is the Nāla mountain, whence issues the river Kapila, which flows into Māna-sarovara, while to the south is a cave and a gold mine. From the Nāla mountain, a river called Pushpabhadrā, flows to the east into Māna-sarovara and also the Devabhadrā. Here, Rāmachandra propitiated Mahādeva, and from this went to Svarga, leaving his horses and elephants, which still remain there. Near this flows the Chandrabhāgā from the head of Çiva on Kāilāsa. From the mountain Gāurī flows the Sārda into the Māna lake. From Kāilāsa flows the Mandākinī or Bhadrā to the south into the lake. West of this river are five lakes, Káli-hrad, Kan-hrad, Padma-hrad, Káli-hrad and Hari-hrad. To the left of Kāilāsa is the Kalāpa peak, where are many caves and mines of gold and silver; from it flows the river Çonanda, of which the water is the colour of gold; this flows into the Māna lake. Near Kalāpa is mount Meru; this mountain is blue and from it falls the Sarasvatī, and Suvarṇa-dhārā, which also flow into Māna-sarovara. Beyond these is the Mahendra mountain, from which flows the river Mahendrī into Māna-sarovara; from it also flows the river Baruṇī with yellow waters into the lake and the Swati.» [1]

[1] To this Atkinson adds some explanations in notes. The mountain Çambhu is Gur-la. The Nāla mountain north of the lake he regards as a peak of the Kailās range, from which two streams flow into the lake near Sarniah-Uniah. The Mandākinī or Bhadrā said to flow from the Kāilāsa to the south into the lake, Atkinson suggests to be the Som-chu (Samo-tsangpo) of the Pundits, coming from the Kailas range and going to the lake, which obviously is a mistake, as the Som-chu flows to the west and not to the south and as it does not rise from the Kailas. The Mandākinī may be the Gyuma-chu or any other river coming from the north, from the mountains just east of the Kailas. This enumeration only talks of rivers falling into the lake. But in the above quoted passage it is said that from the Māna-sarovara flow the Sarayu and the Çatadru. The Sardjou or Gagra on Tieffenthaler's map flows out of Rakas-tal, but his Satloudj, or Çatadru, flows out of Manasarovar.

Disregarding the problematic value of the Mānasa-khaṇḍa we must, at any rate, confess that, in the quoted passages, it contains a good deal of real geography, which, even if it has, as usual, been mixed with mythological legends and tales, still seems to refer to authentic observation in the sacred region round the Manasarovar.

The famous piece of poetry of Kālidāsa, called *Megha-dūta* or Cloud-messenger, is too well known to be entered upon in this connection. I will only quote two or three verses as examples of its geography. In OUVRY's translation verse 11 runs as follows: »The Rajhansas, hearing thy ear-pleasing thunder, that has the power to make the earth (in a state) cropping up with mushroom parasols, and longing to go to the lake Mānasa, will become thy companions in the sky as far as Kāilāsa, as soon as they have made provision for the journey of the fresh cuttings of the Lotus plant.« [2]

Verse LXIV in Wilson's translation runs thus:

> Where bright the mountain's crystal glories break,
> Explore the golden lotus-covered lake;
> Imbibe the dews of Mānasa, and spread
> A friendly veil round Āiravata's head . . .

And verse LXXV runs as follows:

> There is the fountain, emerald steps denote,
> Where golden buds on stalks of coral float;
> And for whose limpid waves the swans forsake,
> Pleased at thy sight, the mount-encircled lake. [3]

The latter verse Ouvry translates literally thus: »And from this, a flight of staires formed of emerald slabs leads to a large oblong pond, covered with golden lotus, with stalks glossy like lapis lazuli. The Hansas, which make their residence in its waters, throw aside regret, for when they see thee, they think no more of the adjacent Mānasa«. This means, in Ouvry's opinion, that the Hansas, seeing the cloud which will fill their pond with rain, no longer think of taking their accustomed flight to Mānasa.

There is a good deal of other geography as well as descriptions of very picturesque scenery in the Megha-dūta, as for instance the source of the Ganges, and

---

He, or rather his native informants, have been lead by religious prejudice. Atkinson explains the mistake of the original text, saying that the Çatadru in reality goes out of Rakas-tal, but as this lake is in connection with the Manasarovar, the river can be said to start from there. His positive statement of the connection between the Manasarovar and Rakas-tal, given in 1884, must be founded upon Strachey's observations. Whether the channel be dry or not the old text is correct in making the Satlej flow out of the Manasarovar, but the statement about the Sarju is wrong.

[2] The Megha Dūta or Cloud Messenger by Kālidāsa, translated into English prose by Colonel H. A. Ouvry. London 1868.

[3] The Megha-dūta (Cloud-messenger) by Kālidāsa. Translated from the Sanscrit into English verse, . . . by the late H. H. Wilson. Third Edition. London 1867.

many rivers and places seen and passed over by the cloud on its lofty way to the mountains.

It is not the object of this work to search the whole Sanscrit literature for geographical extracts. The above quotations will be quite sufficient to give an idea of the geographical knowledge of Indian antiquity, concerning the country north of India. We have found that Kailas and Manasarovar were best known, and formed, as it were, the central points round which the rest of the geographical knowledge was grouped. The further north, east or west from the sacred mount and lake, the more foggy became the conception of the mountainous country. This is quite natural, for Manasarovar was, probably already in a very remote antiquity, an important *tîrtha*, and the pilgrims wandered to its shores to bathe in the sacred water, as they still do in our days. Therefore their geographical knowledge was most substantial regarding the region nearest to the lake. The country beyond they knew only from hearsay.

In the preceding pages I have already had an opportunity to quote Professor Wilson and some other scholars in connection with the Sanscrit geography of south-western Tibet. It may be of interest to hear what Ritter, Lassen, and two or three other scientists think of the same subject and how they try to reconcile the ancient poetical geography with actual facts.

CARL RITTER believes that the cosmography of these oldest religious books and epic songs embraces the whole of the Asiatic highlands, and emphasizes the relation of the mountainous upheaval with the whole continent. To him mount Meru does not indicate any special mountain range, but the whole grand mountainous region of the continent, which we call High-Asia, the whole plateau of High Tartary and Tibet. And the different ranges surrounding mount Meru, according to the Mahâbhârata, he identifies with the highest regions of the snow-covered Himalayas and Tibet, the sacred Kâilâsa, Çiva's paradise and the abode of gods, the world of mountain giants round the sacred lakes, and beyond the inaccessible sources of the Ganges and the Indus.[1]

In his classical work »*Indische Alterthumskunde*» CHRISTIAN LASSEN has brought together the most important ancient knowledge of the region in question. The elevated country, so difficult of access, and dreaming in undisturbed peace, situated round the two lakes and mount Kailas, was regarded by the Indians as one of the holiest *tirthas* or places of pilgrimage; Kâilâsa was the dwelling place of gods and of wonderful heroes of the mythical poetry. He says of the source of the Indus that it is situated in a region which is not less remarkable from a geographical point of view than in the conception of the Indians, to whom it is one of the holiest in the world.[2]

[1] Die Erdkunde von Asien, Band I, Berlin 1832, p. 11, and 13.

[2] »Es ist die Gegend der heiligen Alpenseen, des Göttenbergs Kâilâsa und das Quellenland der fünf grossen Indischen Ströme: des Indus, des Çatadru, des Brahmaputra, der Gangâ und der Yamunâ.

But it is not old and real Indian conception to let the Ganges take its origin from the Rakas-tal. From this lake only one river takes its rise, as Lassen says, namely, the Çatadru or Satlej, which, like the Indus, has its origin »on the Tibetan side of the Himalaya». [1]

Lassen regards the Satlej or Çatadru, »in hundred branches running», as taking its origin from Rāvaṇahrada, and the name is explained by a legend, relating that the river, from fear of Vasishtha, divided itself into a hundred branches. In the *Kālikā Purāṇa* is another legend showing that the ancient Indians knew the origin of the Brahmaputra to be situated in the neighbourhood of Kailas. [2]

In our days Brahmakunda is regarded as situated in Upper Assam, and Lassen believes that it has been placed there since the real origin of the river was no more known. As to the etymology of the name Kailas Lassen derives it from Kîlâsa, »dwelling place of the peak». The full name of the holy lake is Mānasarovara, Mānasa, the most beautiful of lakes; Mānasa means »created from the soul», [3] and of his soul Brahmā created the Manasarovar. The Rakas-tal or Rāvaṇahrada was called Anavatapta, i. e. not hot, thus cold, by the Buddhists. [4] Lassen

---

Die heiligen Seen liegen unter 30° 40′—30° n. Br. und 99° O. v. F. auf einer Plateau-Höhe von 14000—15000 F.; ihnen im Norden Kāilāsa, im Süden der steile Rand des Himalaja; sie werden durch Bäche von beiden Gebirgen genährt, haben klares Wasser und sind die Heimat der wilden Gänse, welche hier, die Regenzeit des Südens fliehend, in ungestörter Ruhe brüten. Aus dem N.W. See, Rāvaṇahrada oder See des Rāvaṇa, auch Lankā genannt, strömt ein Quellfluss der Çatadru W.N.W.; aus dem zweiten, Mānasa, leitet die Indische Vorstellung die Sarayu, aber mit Unrecht; sie entspringt jedoch nur eine Tagesreise südwärts davon. Die Quellgebiete der Gangā und Yamunā liegen von hier W. auf der innern Indischen Seite des Hochgebirges. Der Indus entspringt auf der Nordseite des Kāilāsa und fliesst N.W. ab, hier Sanpu genannt; der Brahmaputra, Tibetisch Dzang-bo, auf dem Ostgehänge des Gebirges, welches im Osten den Mānasa begrenzt . . .»

[1] »Durch seine Höhe bewahrt der Himalaja stets einen unerschöpflichen Vorrath an Schnee, der geschmolzen ein so grossartiges System von grossen Flüssen nährt, wie nur wenige in der Welt vorkommen.»

[2] »Es gebar nämlich die Amoghā, die Frau des Büssers Çāntanu, von Brahmā geschwängert einen See, in dessen Mitte ein Sohn entstand, wie Brahmā vierköpfig und röthlich gelb. Dieser bildete sich in der Mitte der vier Berge: Kāilāsa im Norden, Gandhamādana im Süden, Jârudhi im Westen, Samvartaka im Osten, einen Teich (kunda), in dem er wuchs und zuletzt zu einem 5 yojana grossen See wurde. Paraçu-Rāma, der zu dieser Zeit seine Mutter getödtet, kam zu diesem Brahmā genannten grossen kunda, in dem er badete und sich dadurch von der Sünde des Muttermordes reinigte. Rāma machte dem Brahmāsohne mit seiner Axt (paraçu) einen Weg und führte ihn aus dem Brahmakunda zur Erde herab; er fiel dann in den Lohita genannten Teich am Fusse des Kāilāsa. Rāma durchgrub das Ufer des Sees mit seinem Beile und führte ihn nach der östlichen Gegend. An einer andern Stelle spaltete Vishnu den Berg Hemaçringa und leitete ihn nach einem heiligen Orte im Innern Kāmarūpa's; Brahmā gab ihm den Namen Lohitagangaka; Lāuhitja wird er genannt, weil er aus dem Lohita-See geboren ist.»

[3] Burnouf translates Manas as: l'organe de l'intelligence. Le Lotus de la Bonne Loi, Paris 1852, II, p. 477.

[4] In a *sûtra* translated by Burnouf Anavatapta is said to be the same lake as Râvana hrada, in Pâli Anavatatta, in Chinese A neou tha. In the said *sûtra* Anavatapta is mentioned in connection with the miraculous voyage the Sakya has to make to the lake. For it is a law that a Buddha, before he enters complete Nirvana, must accomplish 10 indispensable actions; his successor cannot arrive: »tant que réuni à ses audideurs auprès du grand lac Anavatapta, il n'a pas développé le tissu de ses actions antérieures . . .» Introduction à l'histoire du Buddhism Indien par E. Burnouf, Tome I, Paris 1844, p. 171; and p. 330 and 396. The same legend is told in the Tibetan *Dulva* analysed by Csoma de Körös, Asiatic Researches, XX, p. 65.

shows that this northern highland, on account of its sacredness, was in fact the only country outside of India which was known to the old Indians. The pilgrims used to go to the holy lake from Badarī on the sources of the Gangā; another road, from Kashmir, was also used, going over the mountain Çveta which was a pass on the high mountain Vātikakhaṇḍa and called the Gate of Mānasa. Another gate was situated north of Videha. [1]

E. T. Atkinson identifies the Bindu-sarovara of the Purāṇas with Rakas-tal. The Aruṇoda lake, which is said to lie east of Manasarovar, he suggests as being identical with Cho Konkyu or Gungyut-cho (Gunchu-tso), which he places »near the source of the Brahmaputra». The Çītoda lake, which is west of the Māna lake, he regards, most probably as identical with the Cho Moriri, »the source of the western Satlaj». The Mahābhadra lake he identifies with one of the lakes of the table-land. He finds a mingling of facts from different parts, so that, for instance, Meru in some cases clearly indicates the mountains north and west of Kashmir and in others those round the sacred lake. In its widest sense Meru embraces the whole of western Tibet between the Kailas and the Kara-korum, the Himalaya and Kwen-lun.

Regarding the great rivers Atkinson adheres to Wilson's identification of the Bhadrā as the Obi, the Sītā as the Hwang-ho, the Alaknandā as the Ganges and the Chakshu as the Oxus. But the local traditions identify the Bhadrā with the Indus or »Lion river», that is the Sing-chin-kamba of the Tibetans; the Chakshu with the Brahmaputra or »Horse-river», Tamjyak-kamba; the Alaknandā with the Çatadru or Satlej or »Bull-river», the Lang-chin-kamba; the fourth river is the Karnālī or Mapchu-kamba, the »Peacock river». »All these rivers take their rise in the Māna and Rākhas lakes or in the mountains near them known as Kāilāsa by the Hindus.» [2]

On a wall in the vestibule of Tugu-gompa I found a Tibetan inscription, which, amongst other things, contains the following words of the holy lake: [3] »Tsomavang is the holiest place in the world. In its centre dwells a god in human

---

[1] »Arjuna kam auf seinem Zuge vom Westen her im Norden des Himālaja über den Çveta-Berg zum Mānasa-See. . . Der Mānasa-See war ein sehr heiliges tīrtha und das Baden in ihm gewährte dem, der es mit reinem und erleuchtetem Gemüthe that, die Erkenntniss der Wahrheit.» Indische Alterthumskunde, Leipzig 1867, I, p. 42, 57, 85, 1012, etc.

[2] In a note Atkinson has brought together the names of the four rivers as given by different authors. He mentions that on the great map prepared by order of Emperor Chien Lung the four corners or gates of the Māna lake are called the lion, elephant, horse and ox gates. And he quotes the names given by Moorcroft and the Pundits, by Gerard and J. D. Cunningham, and regards Strachey's names as the most correct. Finally he gives the translation of the Tibetan names, saying that lang is bull, not elephant; »elephant in Tibetan is great bull». Now, as the name of the Satlej is really Lang-chen, where chen means great, the river will still be that of the elephant. The Himálayan Districts of the North-Western Provinces of India. Allahabad 1882. Vol. II, p. 285, et seq. In Vol. III of his work Atkinson has an index of names from the region of the lakes. But nearly all geographical detail in it is taken from Henry Strachey.

[3] »Trans-Himalaya», Vol. II, p. 154.

form, who inhabits a tent composed of turquoise and all kinds of precious stones. In the midst of it grows a tree with a thousand branches, and every branch contains a thousand cells in which a thousand lamas live. The lake tree has a double crown, one rising like a sunshade and shading Kang-rinpoche, the other overshadowing the whole world. Each of the 1022 branches bears an image of a god, and all these images turn their faces towards Gossul-gompa, and in former times all the gods gathered together here . . . The lake is the central point of the whole world. Sambu Tashi grew out of the lake tree. Sochim Pema Dabge is of very holy, clear, and pure water. The Gyagar Shilki chorten stands in the lake. The palace of the lake god is in the lake.» [1]

Baron ANTON VON OW regards this document as very important and exclaims:

»Hier, auf der merkwürdigsten Höhe des Erdkreises, haben wir also den See leibhaftig vor uns, der vor mehreren tausend Jahren schon als mythischer See Haomas und Schiwas gepriesen wurde, hier haben wir vor uns den mythischen Pushkara, Lotusteich, aus welchem Brahmā sich erhebt, hier den mythischen See Chin der Chinesen, in dessen Mitte das göttliche Knäblein auf Lotus gebettet ruht!» [2]

He then shows how the legend of the lake-god in the centre of the lake is familiar all over Asia and extended even to Egypt and Babylonia. At another place von Ow has the following interesting passage: [3]

»Das westliche Tibet und das merkwürdige Land der heiligen Seen im Norden des Himalaya, wo das Quellgebiet von Indus, Ganges und Brahmaputra nahe zusammenstösst, muss den Ahnen der arischen Inder wohl bekannt gewesen sein. Das Land am oberen Ganges enthält die geheiligtesten Stätten indischer Götterverehrung. Die Verlegung vieler Göttertaten nach diesem Teile des Gebirges und das Wallfahrten dahin gehen in eine sehr frühe Zeit zurück.» [4]

Lassen believed that the Indians now living in the plains, attracted by the wonders of the mountains, placed the abodes of their gods in the inaccessible regions of north-western Himalaya. Now von Ow asks why no sacred *tīrthas* were placed in the central parts of the Himalayas; even Nepal does not play any important part in the classical literature. As a rule peoples of the plains regard the high inhospitable mountains with respect or even fear. And therefore: why should the most ancient Indians, only »attracted by the wonders of the mountains», have placed their holiest *tirthas*, not only in the highest abodes of eternal snow and ice in the north-

[1] I cannot be responsible for the correctness of this translation which was carried out by my Munshi, but I hope he has not misunderstood the general meaning of the text.

[2] Anthropos, Bd. V, 1910, Heft. 5, 6, p. 1065.

[3] Hom, der falsche Prophet aus noachitischer Zeit, p. 152.

[4] Atkinson pictures the Aryan immigrants arriving at the Ganges and sending some adventurous spirits to explore its sources. »After traversing the difficult passes across the snowy range and the inclement table-land of Tibet, they discovered the group of mountains called Kailas and the lakes from which flowed forth the great rivers to water and give life to the whole earth. The rugged grandeur of the scene, the awful solitude and the trials and dangers of the way itself naturally suggested to an imaginative and simple people that they had at length rediscovered the golden land, the true homes of their gods whom they had worshipped when appearing under milder forms as storm and fire and rain in the plains below.»

western Himalaya, but even beyond and north of these regions? Von Ow comes to the conclusion:

»Ich halte es für zweifellos, dass die Arier (die Stammväter der Hindus) über die Pässe des nordwestlichen Himalaya eingewandert sind, und dass *daher* ihre genaue Bekanntschaft mit diesen Gebieten stammt, die sie deshalb zu Göttersitzen machten, weil ihre vergötterten Stammväter daselbst gelebt haben.«

And further:

»Pushkara (Lotusteich), ein heiliger grosser See des Pitāmaha oder Brahmā, wird als das erste tirtha genannt; es sind dort 'drei strahlende Gipfel und drei Wasserabstürze'; über die Lage fehlen nähere Anhaltspunkte; es heisst nur, dieses tirtha sei sehr schwer zu erreichen, befand sich also wohl in der zentralasiatischen Heimat der Arier. Das jetzige Pushkara, ein künstlicher See in Agmir, ist nicht damit zu verwechseln. . . Das wirkliche Pushkara nun, der Urtyp für die heiligen Seen, in deren Mitte der Gott wie ein Baum oder ein Lotus wächst, haben wir zweifellos im See Manasarovar zu suchen.«

The »three shining peaks» von Ow identifies with the Kailas and its neighbours, and the »three water-cascades» with the sources of the Indus, Brahmaputra and Satlej.

Like Lassen, von Ow also shows that the ancient Indians very well knew that the Brahmaputra had its source north of the Himalaya near the holy Kailas. Late generations did not know the origin of the river. He relates the same legend as Lassen about the lake born between four mountains, which, as its originator, was called Brahmā.

»Es ist dies natürlich nichts anderes als der Gott des Sees Manasarovar, den uralte Überlieferungen als den Quellsee des Brahmaputra ('Sohn des Brahma') bezeichnen. Hiemit glaube ich eine neue Stütze gewonnen zu haben für meine Behauptung der Identität Brahmās und Haomas: beide thronen inmitten eines Sees, und zwar desselben Sees. Lassen betont, dass in den ältesten Vedahymnen das Gebiet des oberen Indus (seine Quelle liegt noch nördlicher als der Kailasa) als *Heimat* gepriesen wird; der später so gefeierte Gangesstrom wird in denselben nur als untergeordneter Fluss genannt.

CHAPTER II.

THE GREEKS AND ROMANS.

Turning our attention to geographical knowledge of classical antiquity we are surprised to find that the names of India and of the river Indus have been known and written down so early as about 520 or 500 B. C., namely, in the works of HECATÆUS, of which some scanty fragments have been preserved to our own time. But he had certainly not the slightest knowledge of the countries north of India, nor of the vast regions east of the river Indus.

Nor does HERODOTUS seem ever to have heard of the river Ganges, and he knew only very little of the western half of the Indian peninsula. He has described about one third of Asia, extending from the shores of the Arabian gulf, the Mediterranean and Pontus Euxinus on the west, to the Hyperboreans, and India to the north and east, and he regarded India as the last inhabited country, bordered eastwards by vast deserts, uninhabited and unexplored. Of China, Mongolia, Siberia, Tibet and the eastern part of the Indian peninsula he knew nothing.[1]

Herodotus had heard of the great gold production of India, and tells us that it was partly dug out of the earth, partly washed down by the streams. But the greatest part came from the sandy desert beyond the Pactyan land, where a species of ant burrowed in the sandy soil, and threw up large heaps at the mouth of its burrows, and this sand contained gold in abundance. The Indians, traversing the desert upon very fleet camels, filled their sacks with the precious sand, and then retreated in all haste, pursued by the ants. Herodotus seems to have located this sandy desert to the north or north-east of the Indian tribes to which he refers. But Herodotus does not at all mention the existence of mountains in this part of Asia. MEGASTHENES, on the other hand, who locates the gold-digging ants among the Derdæ, knows that the latter are »a people among the mountains towards the east of India», and describes their country as a high table-land. The same people are

[1] The Geographical system of Herodotus, examined and explained . . . By JAMES RENNELL. London 1800, p. 164 et seq.

called Dardæ by PLINY, »in regione septemtrionalium Indorum». The name Dards is still in use.[1]

It is curious that not an echo from the immense Himalaya has reached Herodotus, although he has heard the strange story of the gold-digging ants. This story has been told over and over again and discussed by many learned men. Disregarding the literature dealing with the old legend, I will only quote the last and most important contribution to a solution, namely the article by Dr. LAUFER, so much the more, as he therein also touches upon Tibetan antiquity.[2] Like Herodotus the *Mahābhārata* mentions the ant-gold, but from where does this expression originate? Greeks, Indians, Mongols and Tibetans, — all use the expression ant-gold. The nucleus of the problem would therefore be to find out from where the term comes. In a tale of Geser Khan, Laufer finds this passage: »There is gold in lumps, which the king of the ants has collected in his activity.» In the official history of the Tibetan royal dynasty written in 1327 mention is twice made about sand of ant-gold. The Indians have borrowed the story of the gold-digging ants from Central Asia. The ants are not Tibetan gold-diggers, nor marmots, as many scholars have supposed. Only ants are meant and Herodotus has given the tale correctly. Amongst the Mongols the story may have been very old, much older than Herodotus. When SCHIERN speaks of human gold-diggers of the Tibetan antiquity, Laufer reminds us of the fact that the antiquity of Tibet remains unknown to us. He says that one cannot speak of a Tibet at all from the time of Herodotus and the *Mahābhārata*. We do not even know at all whether the highlands of central Tibet were inhabited in those early days, and Laufer feels very much inclined to believe that no inhabitants then existed in the country. A state of Tibet, as a political and national unity, cannot be spoken of before the beginning of the seventh century A. D., and of an old culture within the boundaries of Tibet proper nothing is known to us. Before that time we have to imagine the existence of numerous tribes, who may have contributed to the formation of the later Tibetan nation, but who were not aborigines of Tibet, as they must have come from western China at a very early period. Laufer tells us that the traditions of the historical Tibetans, the Indo-Chinese linguistic and the history of the migrations of the Indo-Chinese tribes, in this respect agree with each other, namely, that the expansion of the Tibetans has taken place from east to west, and that the present Tibet has been the limit of these wanderings. Tibetan tradition has nothing to tell of fights with aboriginal inhabitants; therefore we are allowed to suppose that the country was uninhabited when the first Tibetan tribes came in from the east. Only the Himalayan tribes were pressed southwards by the new immigrants, an incident

---

[1] A History of Ancient Geography by E. H. BUNBURY. Sec. Ed. Vol. I. London 1883, p. 229.

[2] Die Sage von den goldgrabenden Amaisen, von BERTHOLD LAUFER. T'oung pao. Série II. Vol. IX. Leide 1908, p. 429 et seq.

which Laufer believes must have taken place not earlier than the 4th or 5th century A. D. The earliest historical facts we possess about Tibetan tribes, which are known to us from the Chinese annals, have nothing to do with the country which we now call Tibet.

Therefore such an old story as that about the gold-digging ants cannot be transferred to »Old Tibet». Herodotus heard it in the fifth century B. C., when the ethnological situation was very different from that of our days, and when there could be no talk at all of human gold-diggers. And therefore, when Herodotus speaks of the gold-digging ants he does not allude to Tibetan nomads making use of antelope horns as instruments for scratching the soil. [1]

Dr. Laufer points to the possibility of the legend originating from very far away, perhaps even from Altai, one of the oldest gold-producing regions of Asia. The resemblance between the two Mongol words shiraighol (Yellow River) and shirgholji (ant) may, as Laufer bravely suggests, show the way to the right solution of a problem, the popularity of which has been carried through thousands of years by the great name of Herodotus. It should be remembered, in this connection, that the Rev. A. H. FRANCKE heard the same story told at Kalatse, only a few years ago, and that some specimens of the »gold-digging ants» were even shown to him by natives.[2]

CTESIAS OF CNIDUS who lived 17 years at the coast of Persia must have had ample opportunity to acquire information about the geography of western and southern Asia. He returned to Greece in 398 B. C. Still his geographical knowledge of India seems to have been very limited, if at all in advance of that of Herodotus. Probably he knew nothing more of the countries east of the Indus than his great predecessor, and he does not mention the Ganges. He enormously exaggerates the width of the Indus.[3]

From the days of Herodotus to those of ARISTOTLE very little progress had been made in any definite knowledge of the geography of Asia.

Aristotle points out that almost all great rivers find their source in great mountain ranges, and adds: »It is thus that in Asia most of the rivers and those of largest size descend from the mountain which is called Parnasos; and this is generally considered to be the largest of all the mountains that are situated towards the winter sunrise . . . The Indus also takes its rise in the same chain, which has the largest stream of all rivers.» The Parnasos is probably the same as the Paropamisus or Paropanisus of the Greeks in later times.[4]

Through the Persian wars the Greeks received their first knowledge of Asia beyond what Homer had been able to relate. Then came the great geographers

---

[1] HOLDICH: Tibet, The Mysterious. London 1904, p. 243.
[2] A History of Western Tibet. London 1907, p. 14.
[3] BUNBURY, op. cit. p. 338.
[4] Op. cit. p. 399.

and scholars just mentioned. The next step forwards, an immense step, was taken by ALEXANDER and his generals, which, amongst other parts, embraced the land of the Paropamisadæ or Kabulistan and India to the Ganges.[1] Alexander twice crossed the Hindu-kush. To him and his contemporary historians the system which we know as the Himalaya, went under the designation of Emodus, which was, however, and correctly, regarded as a part or rather continuation of the Paropamisus or Indian Caucasus.[2] In this Emodus all writers agreed in placing the sources of the Indus. »They appear to have supposed the sources to have been not very remote from the point where the Indus issued from the mountains, at the gorge of Derbend (about 60 miles above Attock) where it first became known to them. Of its real origin in the remote valleys of Tibet they had of course no idea.»[3]

Megasthenes was probably the first Greek who ever reached the banks of the Ganges and gave an account of the river from personal observation. »Of its sources he had of course no definite knowledge, but was correctly informed that it took its rise in the Indian Caucasus (the Himalaya), and after flowing at first to the south, then turned eastwards.» His direct information was confined to the Indus and the Ganges and their surroundings; of the mountains to the north he seems to have had no knowledge. He enumerates 19 tributaries to the Ganges by name, though their identification is uncertain. The work of Megasthenes has perished, but considerable and very important extracts have been preserved to us in the works of STRABO and ARRIAN, whose description of India is taken from Megasthenes.

ERATOSTHENES was born at Cyrene in 276 B. C. He supposed the range of Imaus that bounded the country to the north to have its direction from west to east, while the Indus flowed from north to south. Eratosthenes believed that a great range, under different names for different sections, Taurus, Paropamisus, and Imaus, traversed the whole of Asia from west to east.

HIPPARCHUS gave India an enormous length from south to north and had therefore to remove the mountain barrier, which is its northern boundary, much too far to the north. He also made the Indus flow to the south-east. About 100 B. C.

---

[1] FORBIGER: Handbuch der alten Geographie. Band II. Leipzig 1844, p. 41.

[2] According to BUNBURY »Hindu-kush» is nothing more than a corruption of »the Indian Caucasus». Thus natives of Asia should have got an Asiatic name from a European designation, which seems more than doubtful. Bunbury has probably taken this idea from VIVIEN DE SAINT-MARTIN, who says in his great Memoir on the Greek and Latin geography of India: »Au nord, une chaîne de montagnes neigeuses, dont le nom indigène (c'est Eratosthène qui le dit expressément), était Paropamise, et à laquelle les Grecs appliquèrent la dénomination de Caucase indien, nom qui se retrouve dans la nomenclature persane sous la forme de Hindou-koh, que l'usage des musulmans a changé en Hindou-kousch.»

[3] BUNBURY, op. cit. p. 449. He has a special note »Source of the Indus», in which he quotes VIVIEN DE SAINT-MARTIN, RENNELL and D'ANVILLE, and correctly adds that in criticising ancient geographers we should not forget our own imperfect knowledge of many parts of Asia in a very recent period, and how readily even the ablest modern writers have been led into false geographical combinations by imperfect information. Ibidem p. 511. When he published his History, the source of the Indus had not yet been reached by Europeans.

ARTEMIDORUS described the Ganges as flowing from the Emodian mountains towards the south till it reached a city which was also called Ganges.[1]

STRABO wrote about 19 A. D. and represents the state of geographical science as it existed after the death of Augustus. He brought together in a most clever way all the geographical knowledge of his time, and his work is, excepting that of PTOLEMY, the most important geography that has come down to us from antiquity. In respect to Asia as a whole he followed Eratosthenes, but in his book XV he almost entirely used as his source Megasthenes, as well as NEARCHUS, ONESICRITUS and ARISTOBULUS, who had accompanied Alexander down the Indus and had collected much hearsay information.[2] Strabo seems not to have had much confidence in the companions of Alexander, for he mentions that only a few Macedonians ever saw India, and that those who saw it, only saw it partly and hurriedly and got most of their news from hearsay. And many contradictory reports had been brought back. If this be the case with what they saw, says Strabo, what shall we think of their hearsay information!

Strabo used no later sources at all, as reports from his own time. The merchants who in his days sailed from Egypt over the Arabian sea to India, rarely proceeded so far as to the Ganges, and were, as a rule, not sufficiently intelligent to make geographical researches.

Like Eratosthenes, Strabo has a great mountain range bordering India to the north and extending from west to east. He has no detailed knowledge of it and only gives us the native appellations, Paropamisus, Emodus, Imaus, and others, while the Macedonians called it Caucasus. And he correctly points out that this range served as a boundary of India to the north. While our Hindu-kush, the central portion of the Himalayan system was designated with the name Emodus or Emodi montes of Paropamisus, Strabo applied the name of Imaus to the easternmost part, which ended at the coast of the eastern sea.[3]

Thus Strabo had got much more reliable information about the mountains north of India than Eratosthenes possessed. And still even Strabo had a very scanty and confused understanding of the orography. The connection of the different ranges was only partly known. A great latitudinal chain of ranges was, however, imagined to exist stretching all the way from Promontorium Sacrum in Asia Minor, where it was called Taurus, and extending far to the east through Asia. Then followed the Emodi Montes and Imaus. Some have believed that the name Imaus

---

[1] BUNBURY, op. cit. Vol. II, p. 11 et seq.

[2] BUNBURY, op. cit. p. 209 et seq.

[3] Regarding the names of the mountains bordering India to the north he says: »Montes, qui porro ab Ariis excurrunt, Macedones universos Caucasi nomine notaverunt; apud barbaros autem boreales [alia suorum parte appellabantur Paropamisus] alia Emodi montes, alia Imaus, et plura ejusmodi nomina singulis partibus erant indita.» (Book XI, Chapter 8.) As to the position of Imaus he says: »Dicunt etiam ultimam Tauri partem, quæ Imaium vocatur, Indicum pelagus attingentem, neque magis quam Indiam accedere ad ortum, neque magis recedere . . .» (Book XI, Chapter 11.)

had been derived from Mus(-tag),[1] which is of course an anachronism. PLINY correctly says: »Imaus, incolarum lingua nivosum significante.» Himalaya means in Sanscrit »abode of snow». Often it is contracted to Himâla, and sometimes the forms Hemaghiri, Hemachal, Hemakuta are used, meaning Mount Hema or »the mountain of snow». Himavata and Himavat are adjectives meaning snowy, winterly. In vulgar pronunciation this becomes Imaot, from which the classical Imaus and Emodus have been derived.[2]

Strabo pays a good deal of attention to the two famous rivers Indus and Ganges. All the classical authors agree in placing the sources of the two rivers on the southern side of the great mountain-wall north of India, proving that absolutely nothing was known of the country beyond, the country which is now called Tibet. That Strabo places the source of the Indus not far above the Ganges, where the river issues from the mountains, is seen by the description of Alexander's conquest of the rock Aornus, which Hercules had twice in vain attempted to conquer, and where it is said that Aornus was situated near the source of the Indus.[3]

Strabo tells us that in his time the most important of the tributaries of the Indus were known, as well as the country round them, and he gives a very good description of the hydrography, adding that, for the rest, more was unknown than known.[4] And after relating the names of the principal tributaries, he goes on to say that they all join the Indus, and that Hypanis is the farthest. There are 15 tributaries worth mentioning. It would take centuries upon centuries before Europe got at all such a correct description of the general hydrography of India as that given by Strabo.[5]

Regarding the general situation of the Ganges, Strabo quotes Artemidorus, saying that the river comes down from the Emodian mountains. Artemidorus mentions among its tributaries the Oedanes and knows that it contains crocodiles and delphines . . . Dr. A. FORBIGER is convinced that the Oedanes is the same river that CURTIUS calls Dyardenes, of which he tells exactly the same story, adding that this river »minus celeber auditu est, quia per ultima Indiæ currit». Forbiger cannot agree with those authors who identify the Oedanes with the Iomanes, Jumna. He considers it more likely that it should correspond to the Brahmaputra, which

[1] FORBIGER, op. cit. II, p. 51. STRAHLENBERG gives the same identification, 1730. See below.

[2] VIVIEN DE SAINT-MARTIN: Memoires présentés . . . à l'Académie. I Série, Tome VI, I. Paris 1860, p. 263.

[3] Quum Alexander petram quandam nomine Aornum primo adortu cepisset, *cujus radices Indus non procul a fonte suo alluit*, gloriose dixerunt Herculem ter petram adortum, ter inde repulsum fuisse.

[4] Proinde cogniti nobis sunt fluvii memorabiles ii, qui in Indum illabuntur; loca etiam, per quæ ii deferuntur, novimus; de reliquis plus est ignorationis quam cognitionis.

[5] Tota India fluminibus irrigatur: quorum quædam in duo maxima irrumpunt, Indum atque Gangem, quædam propriis ostiis in mare exeunt; omnia e Caucaso primo ad meridiem feruntur, postea alia eundem servant cursum, præsertim quæ in Indum influunt, alia flectuntur ad orientem, ut Ganges. Hic a montibus descendens, quum in planitiem pervenit, ad orientem conversus, et Palibothra, civitatem maximam, præterfluens in mare quod istic est, effunditur uno ostio, quamquam omnium Indicorum maximum flumen sit. Indus duobus ostiis in mare meridionale exit . . .

could be regarded as a tributary to the Ganges.[1] If he be right, this would probably be the first time that the Brahmaputra appears in classical literature.

It was well known to Strabo that the natives worshipped the Ganges. With admirable clearness and perspicacity he describes the monsoon rains, and their influence upon the volume of water in the rivers, and he knows that the precipitation falls in the mountains in the form of snow.

POMPONIUS MELA, who wrote in 43 A. D., has a by far more vague and imperfect knowledge of India than Strabo and describes only the country situated between the Indus and Ganges. To him also, both rivers have their sources on the southern side of Taurus Mons, which, together with Paropamisus and Emodus, constitutes the great partition wall of the whole continent, from Asia Minor to the east coast of Asia. And how could he have been able to add anything new to the conception of Eratosthenes and Strabo! What he has to say of the sources of the Ganges may be regarded as generally correct.[2] His view on the source of the Indus is the ordinary one of his time.[3]

In his *Natural History* the elder PLINY, 23—79 A. D. collected the knowledge of his epoch. Through the extension of the Roman trade India had become better known, in spite of which Pliny describes northern India entirely from writers of Alexander's time or that of their successors. While Strabo quite correctly placed the source of the Ganges in the Emodi Montes, Pliny says that the sources of the river are unknown, like those of the Nile, or, as other authors would have it, were situated in the Scythian mountains. As compared with Strabo his locating of the source of the Ganges is a step in the wrong direction. And still he is not at all to be blamed, for cartographers of a much later time have made similar mistakes.[4] Pliny also quotes another account of the source of the Ganges, as breaking out at once in a violent cascade with a loud noise, and gradually lapsing down into a gentle and placid stream, after taking its abode in a certain lake. A lake in connection with the Ganges, — one almost hopes a mistake of the same kind as that of DESIDERI and D'ANVILLE, and that the lake should be the Manasarovar! But no, there is no sign of our lake, which, however, long before Pliny's days had been praised in the *Ramāyāna* and *Mahābhārata*. And Pliny does not give us any indication of the geographical site of his lake.[5]

[1] STRABO's Erdbeschreibung. Fünftes Bändchen. Stuttgart 1858, p. 211.

[2] Ille multis fontibus in Hemode, Indiæ monte, conceptus, simul unum alveum fecit, sit omnium maximus, et alicubi latius, quando angustissime fluit, decem milia passuum patens in septem ora dispergitur.

[3] Indus ex monte Paropamiso exortus, et alia quidem flumina admittit, sed clarissima, Cophen, Acesinen, Hydaspen: conceptamque pluribus alveis undam lato spatio trahit. Hinc paene Gangen magnitudine exæquat. . . . Lib. III. Cap. VII.

[4] We should not forget that some 1,600 years later, or in 1641, HONDIUS placed the source of the Ganges at 48½°N. lat., far to the north of Tian-shan, and in 1730 STRAHLENBERG has the river to rise from the southern side of the same range, from the northern side of which the Keriya-darya takes its origin.

[5] The passage concerning the source of the Ganges runs as follows: »Hunc alii incertis fontibus ut Nilum rigantemque vicina eodem modo, alii in Scythicis montibus nasci dixerunt. Influere in eum

Pliny's hydrography of the Indus system is not so good as that of the Greek geographers.[1]

Regarding the mountain-systems he had nearly the same conception as his predecessors, making the Imaus, Emodus, Paropanisus and Caucasus to links in one continuous range, from which the country falls to an immeasurable plain similar to Egypt.[2] And he even knows China, which RUBRUQUIS, PLANO CARPINI, and MARCO POLO had to rediscover twelve centuries later.[3]

Of DIONYSIUS PERIEGETES who lived in Domitian's time, and his connection with India, BUNBURY says:[4] »The especial importance he attaches to the great Indian promontory as the extreme eastern limit of the world is apparently connected with the poetical notion that Bacchus had erected there two columns 'by the farthest shore of the Ocean stream, on the remotest mountains of India, where the Ganges pours its white waters down to the Nysæan shore'».

QUINTUS CURTIUS has not augmented the classical store of knowledge about India.[5]

It is of greater interest to hear what ARRIAN, the most brilliant of Alexander's historians, and at the same time philosopher, statesman, military commander, has to tell us about those parts of Asia which are the object of this work. He was born towards the end of the first century A. D. His geography is chiefly based upon Eratosthenes and Megasthenes and the most trustworthy historians among the contemporaries of Alexander.[6]

XIX amnis, ex iis navigabilis praeter jam dictos Condochaten, Erannoboan, Cosoagum, Sonum. Alii cum magno fragore ipsius statim fontis erumpere deiectumque per scopulosa et abrupta, ubi primum mollis planities contingat, in quodam lacu hospitari, inde lenem fluere» . . . etc. Lib. VI, Cap. XVIII.

[1] In Lib. VI, Cap. XX he says: »Indus, incolis Sindis appellatus, in iugo Caucasi montis quod vocatur Paropanisus adversus solis ortum effusus, et ipse XIX recipit amnis . . .» Again he mentions the source of the Indus: »Gens hæc (Bactri) optinet aversa montis Paropanisi exadversus fontis Indi, includitur flumine Ocho.» And in Lib. VII. Cap. II he has a word about the source of the Ganges, though it does not help us to locate it.

[2] Lib. VI. Cap. XVII.

[3] »Ultra montis Emodos Seras quoque ab ipsis adspici notos etiam conmercio . . .» (Lib. VI. Cap. XXII.)

[4] Op. cit. Vol. II p. 485.

[5] India tota ferme spectat Orientem, minus in latitudinem, quam recta regione spatiosa. Quae Austrum accipiunt, in altius terrae fastigium excedunt; plana sunt cetera, multisque inclitis amnibus Caucaso monte ortis placidum per campos iter præbent. Indus gelidior est, quam ceteri. Aquas vehit a colore maris haud multum abhorrentes. Ganges amnis ab ortu eximius ad meridianam regionem decurrit, et magnorum montium iuga recto alveo stringit. Inde eum obiectæ rupes inclinant ad Orientem. . . . Acesines eum auget. Ganges decursurum in mare intercipit: magnoque motu amnis uterque colliditur. Quippe Ganges asperum os influenti obiicit; nec repercussæ aquæ cedunt. Dyardenes minus celeber auditu est, quia per ultima Indiæ currit; ceterum non crocodilos modo uti Nilus, sed etiam delphines ignotasque aliis gentibus belluas alit. Erymanthus crebris flexibus subinde curvatus, ab accolis rigantibus carpitur. . . . Quippe III flumina tota India præter Gangem maxima munimento arcis applicant undas. A septemtrione Indus alluit; a meridie Acesines Hydaspi confunditur. Lib. VIII & IX.

[6] J. W. M'CRINDLE: The Invasion of India by ALEXANDER THE GREAT. Westminster 1896 p. 9.

Arrian tells us that he has preferred to note only such things as describe India as it really is. In Book V Chap. IV he also says: »The following are statements about the river Indus which are quite unquestionable, and therefore let me record them. The Indus is the largest of all the rivers in Asia and Europe, except the Ganges, which is also an Indian river. It takes its rise on this side mount Parapamisus, or Caucasus, and discharges its water into the Great Sea which lies near India in the direction of the south wind.»[1]

It is always the same story about the source of the Indus: Fontes ejus ex Parapamiso vel Caucaso monte oriuntur! Or: »Is (Eratosthenes) a monte Tauro, ubi Indi fontes sunt, secus Indum amnem usque ad magnum oceanum et Indi ostia Indiæ latus stadia XIII M continere ait . . .» (Indica, Cap. III).

In Chapter III of his *Indica*, Arrian says: »In the whole of the rest of Asia there are not so many rivers as in India. The largest are the Ganges and the Indus, from the latter of which the country takes its name. Both of these are larger than the Egyptian Nile and the Scythian Ister, even if their waters came together into one.» And in Chapter IV: »Of the two largest rivers themselves, the Ganges and the Indus, Megasthenes has stated that the former excels much in size; and so say all other writers who mention it. He says that it rises great from its sources. . . .» — »nam et grandem jam inde ab ipsis fontibus oriri.»

Arrian reports Alexander to have said in one of his speeches: »But if anyone desires to hear what will be the end to our warfare itself, let him learn that the distance still remaining before we reach the river Ganges and the Eastern Sea is not great . . .» Book V. Chapt. XXVI. To judge from this the Macedonians must have believed that they were not far from the eastern end of the Asiatic continent.

But the most curious piece of hydrography is the following, which throws a bright light over Alexander as an explorer in great style:[2] »At first he thought he had discovered the origin of the Nile (Nili se caput reperisse arbitrabatur), when he saw crocodiles in the river Indus, which he had seen in no other river except the Nile, as well as beans[3] growing near the banks of the Acesines of the same kind as those which the Egyptian land produces. This conjecture was confirmed when he heard that the Acesines falls into the Indus. He thought the Nile rises somewhere or other in India, and after flowing through an extensive tract of desert country loses the name of Indus there; but afterwards when it begins to flow again through the inhabited land, it is called Nile both by the Aethiopians of that district and by the Egyptians, and finally empties itself into the Inner Sea (the Mediterranean). In like manner Homer made the river Egypt give its name to the country of Egypt. Accordingly when he wrote to Olympias about the country of

[1] I am following the version of E. J. Chinnock in his Arrian's Anabasis of Alexander and Indica. London 1893.

[2] Book VI. Chapter I.

[3] The fruit of the sacred Lotus of the Hindus, Nelumbium speciosum.

India, after mentioning other things, he said that he thought he had discovered the sources of the Nile, forming his conclusions about things so great from such small and trivial premisses. However, when he had made a more careful inquiry into the facts relating to the river Indus, he learned the following details from the natives: — That the Hydaspes unites its waters with the Acesines, as the latter does with the Indus, and that they both yield up their names to the Indus; that the last-named river has two mouths, through which it discharges itself into the Great Sea; but that it has no connection with the Egyptian country. He then removed from the letter to his mother the part he had written about the Nile. Planning a voyage down the rivers as far as the Great Sea, he ordered ships for this purpose to be prepared for him.»

Now, as he first thought he had discovered the source of the Nile, but later on was informed that he had to do only with the Indus, he must have started upon his journey down this river with the conviction that he had in reality discovered its source. For, that he was convinced that he was quite near the source appears clearly both from Arrian and Strabo, the latter saying of Aornus, »cujus radices Indus non procul a fonte suo alluit». And therefore the curious case occurs, that he claims to have discovered the source of a river, which in reality was discovered only 2,233 years later! For us, when trying to make out what the ancient geographers really meant by »the source of the Indus», it would have been valuable to be enabled to locate Aornus. As it is we must suppose that they imagined the whole mighty river rushing out from the very narrow gorge itself, above and beyond which nothing but high inaccessible mountains were seen. This was the view of the whole antiquity, and of European cartographers 250 years ago and less. And it could not possibly be otherwise, for the country in and beyond Himalaya, was absolutely unknown.[1]

Regarding the situation of Aornus in relation to the source of the Indus, VIVIEN DE SAINT-MARTIN is no doubt right in expressing the following view:

> On a vu que dans Strabon Aornos est situé à la source de l'Indus; il est claire que, dans les anciennes informations recueillies par les Grecs, ces gorges étroites où l'Indus s'engage après avoir traversé la contrée montagneuse de Balti, et d'où il débouche avec un bruit formidable auprès de Derbend, et de Torbila, avaient été représentées comme l'origine même du fleuve. C'est ainsi qu'Arrien a pu dire »l'Indus est déjà un grand fleuve quand il sort impétueusement de ses sources. . . . Tous les auteurs de l'antiquité grecque et latine, sans préciser la localité comme le fait Strabon dans ce passage, font, en effet, naître l'Indus directement au nord, au pied du Paropanisus ou Caucase Indien . . .[2]

---

[1] FORBIGER: Handbuch II, p. 63.

[2] Étude sur la Géographie Grecque et Latine de l'Inde, et en particulier sur l'Inde de PTOLÉMÉE,, dans ses rapports avec la Géographie Sanscrite. — Mémoires présentés par divers savants à l'Académie des Inscriptions et Belles-Lettres de l'Institut Impérial de France. I Série, Tome V, 2. Paris 1858, p. 43.

In expressing his view Vivien de Saint-Martin has been influenced by Major Abbott. Many other authors have paid great attention to the Aornes problem and still it has proved impossible to determine the situation of that rock. General CUNNINGHAM identifies it with the isolated rock Rânigat, 16 miles north of the town of Ohind on the Indus: »I do not insist upon the identification, but if we admit that the accounts of the historians are very much exaggerated, I think that the ruins of Rânigat tally much better with the vague descriptions of Aornos that have come down to us, than any other position with which I am accquainted.»[1] BUNBURY cannot accept this identification, which he finds liable to the insuperable objection of being so far from the Indus as not to agree at all with the descriptions of Curtius, Diodorus and Strabo, who all agree that Aornus rose immediately above the Indus, so that the river actually washed its base. Arrian places it near to a town called Embolima, in the upper valley of the Indus, »a position which explains Strabo's expression that it was *near the sources of the Indus*, a term by which he undoubtedly meant to designate the place where that river first issues from the gorges of the Himalaya.»[2]

In his Book V, Chapter V, Arrian has the following important delineation of the mountain ranges of Central Asia: »Mount Taurus divides Asia, beginning from Mycale, the mountain which lies opposite the island of Samos; then cutting through the country of the Pamphylians and Cilicians, it extends into Armenia. From this country it stretches into Media and through the land of the Parthians and Chorasmians. In Bactria it unites with mount Parapamisus, which the Macedonians who served in Alexander's army called Caucasus, in order, as it is said, to enhance their king's glory; asserting that he went even beyond the Caucasus with his victorious arms. Perhaps it is a fact that this mountain range is a continuation of the other Caucasus in Scythia, as the Taurus is of the same. For this reason I have on a previous occasion called this range Caucasus, and by the same name I shall continue to call it in the future. This Caucasus extends as far as the Great Sea which lies in the direction of India and the east. Of the rivers in Asia worth consideration which take their rise from the Taurus and Caucasus, some have their course turned towards the north, discharging themselves either into the lake Maeotis, or into the sea called Hyrcanian, which in reality is a gulf of the Great Sea. Others flow towards the south, namely, the Euphrates, Tigris, Indus, Hydaspes, Acesines, Hydraotes, Hyphasis, and all those that lie between these and the river Ganges. All these either discharge their water into the sea, or disappear by pouring themselves out into marshes, as the river Euphrates does.»

In these words Arrian affords us a very graphic description of the great continental mountain system, running from west to east and being a water-parting

---

[1] The Ancient Geography of India. London 1871, p. 76.
[2] BUNBURY, op. cit. Vol. I. p. 496.

between the rivers flowing to the Indian Ocean and those which direct their course northwards. Later years have shown that the great water-parting is far more complicated than the ancient geographers believed.

The quotations from different writers of Greek and Roman antiquity given above will be sufficient to represent the standpoint of the knowledge about southern Asia which existed in those days. Tibet, or rather what we mean under the signification »the Tibetan Highland» was completely unknown. None of the classical writers seems to have had the slightest suspicion of this enormous upheaval of the earth's crust, in fact the highest and largest in the interior of any continent. Of the sacred lake there is, therefore, of course, no sign. If it be correct that the Oedanes of Artemidorus and Strabo, and the Dyardenes of Curtius, are one and the same river and identical with the lower Brahmaputra, this great river should at least have been known to the ancients. But this is doubtful. So much is perfectly sure that the upper, Tibetan course of the river Tsangpo, remained unknown to them. What they knew comparatively well was the southern front of the Himalaya, and the Indus and Ganges from the points, where these rivers emerged from the mountains.

CHAPTER III.

PTOLEMY.

The greatest geographer amongst the Greeks and Romans of antiquity was PTOLEMY, and it should require ages before he, in a modern period of history, was surpassed. The discoveries made during Alexander's campaign were a revelation to the west; at one blow the east had been opened up to the Greek world. Through the campaigns of SELEUCUS NICATOR more reliable information was won about the countries on the Ganges. The journeys and the trade of the Ptolemæans in Egypt to India, and the foundation of Greek kingdoms in Bactria and Cappadocia promoted a better knowledge of the east with the western world.

Eratosthenes already had a fairly good idea of the great outlines of Asia; he knew Paropamisus and Imaus, and even the Seres. That knowledge was enlarged by Rome, more especially by the Syrian and Parthian wars, and by a more developed and widespread trade on land and by sea.[1] Strabo supersedes Eratosthenes, but is himself in a much higher degree superseded by Ptolemy, who is the first to speak of India extra Gangem, and has collected a much greater amount of information about the mountains in Central Asia than his Greek and Roman predecessors had been able to do.

Ptolemy wrote about 150 and 160 of our era. A very considerable part of the knowledge which has made his name so famous, he borrowed from MARINUS of Tyre. The backbone in the orographical skeleton of Asia which had been founded by Eratosthenes and accepted by Strabo was strongly confirmed as a fundamental fact by Ptolemy, in whose geographical system it formed a partition wall between the plains of Scythia on the north and the countries of Ariana and India on the south. Regarding the names of the great mountain system, Strabo had the following order: Paropamisus, Emodi Montes, Imaus. In accordance with him Pliny applied

[1] FORBIGER even goes so far as to say: »So hatten denn die Alten zur Zeit der höchsten Blüthe Roms von dem grössten Theile Asiens mit Ausnahme des nördlichen und nordöstlichen wenigstens eine oberflächliche, von den westlichen und südwestlichen Theilen aber, d. h. von den römischen Provinzen, eine sehr genaue Kenntniss, ja theilweise eine noch umfassendere und vollständigere, als wie in unseren Tagen.» Handbuch der alten Geographie. Band II. Leipzig 1844, p. 42.

the name Imaus to the eastern end of the system. In Ptolemy's geography the name Imaus belongs to the central part from which the Ganges takes its rise. His Emodus, a part of eastern Himalaya, begins from the sources of the Ganges and stretches eastwards. But Ptolemy used the name Imaus not only for the part of the principal system stretching from west to east, where the Ganges originates; he gave it also to the tremendous meridional branch which goes out, at almost right angles, from the latitudinal chain, and stretches far to the north, dividing the whole northern half of Asia into Scythia intra Imaum Montem and Scythia extra Imaum Montem. Some 60 or 70 years ago this meridional Imaus was supposed to include the unfortunate Bolor-tag.

Both west and east of his meridional Imaus, Ptolemy has several other ranges, the names of which he may have received at second or third hand through silk traders from the country of the Seres, Serica, or which, perhaps, had been collected already by Marinus. Vivien de Saint-Martin shows a certain resemblance between Ptolemy and the Puranas; in both cases seven principal mountain ranges are mentioned, and some Puranas, just as Ptolemy, enumerate the rivers which take their rise from each mountain-group.[1]

There is quite a host of scholars who have wasted their brains and their energies in the hopeless and vain attempts to identify Ptolemy's geography with our present detailed knowledge, and as a rule every new commentator puts forward his own new system, different from those of his predecessors. Even scholars who have attained the highest standard of knowledge, as LASSEN and RICHTHOFEN, have yielded to this temptation. And, indeed, it would be both interesting and of great value to *know* how far the information acquired by such men as Marinus and Ptolemy reached towards the interior and the East of Asia. And still, Sir HENRY YULE is right in pointing out the impossibility of such a task, of which also Bunbury says[2]: »The attempt of Lassen to identify the various places mentioned by Ptolemy is based throughout upon the fundamental error of supposing that that geographer possessed a map of India similar to our own, and that we have only to compare the ancient and modern names in order to connect the two.»[3]

If, in the following pages, I appear to have committed the same error which I am blaming in others, it is not so much any desire of mine to try and offer a new explanation of a special question, as an attempt to show the enormous importance of Ptolemy for the cartography of later times, and, in one special case, to prove that the identification brought forward by some modern geographers cannot possibly be correct. The problem I am referring to is the Tsangpo-Brahmaputra. But first a few words should be said about the Indus and the Ganges as given by Ptolemy.

---

[1] Étude sur la Géographie etc. . . . Mémoires . . . p. 4.

[2] Op. cit. Vol. II, p. 642.

[3] The last attempt in this direction has been made by Colonel G. E. GERINI in his great work: Researches on Ptolemy's Geography of Eastern Asia, London 1909.

According to Ptolemy the sources of the Indus are situated in the country of the Daradræ, which is mountainous and higher than all other countries. Both the Indus and the Ganges and their tributaries are represented by him as coming from the southern side of Paropamisus and Imaus. In this respect Ptolemy has not proceeded any farther than Strabo and all the rest of his predecessors.

The Satlej is one of the three rivers which will especially occupy our attention in this work. It had escaped the knowledge of Alexander's historians as the Greeks did not reach so far. But Ptolemy has it and locates its source as the easternmost of the tributaries of the Indus. With the source of the Zadadros or Çatadru, we have, however, only to understand that part of the river which traverses the mountainous country immediately above Jalandhâra.[1] It would require a very long time before European geographers advanced beyond Ptolemy regarding the situation of the source of the Satlej. Even on a map published by Major RENNELL so late as in 1800, the source of the river has the same situation in relation to the mountains as on Ptolemy's map.[2]

On the accompanying Pl. I is Ptolemy's representation of the Indus, and on Pl. II that of the Ganges. They are facsimiles from the *Codex Constantinopolitanus* the maps of which, in 1901, were photographed by Dr. F. MARTIN for Baron A. E. NORDENSKIÖLD, and a complete set of photographs is kept in the Royal Library at Stockholm. The general outlines of the Indus and the Ganges on this map are nearly the same as on other Ptolemæan maps, for instance the edition *Ptolomæus Romæ* 1490.[3]

East of the Ganges (Pl. III) Ptolemy has a mountain range called Bepyrrus. Generally his ideas of the Eastern Himalaya are confused, for this Bepyrrus is no doubt meant to be a part of the Eastern Himalaya. He also shows some of the rivers in this region as coming down from different ranges, though he has not been able to place the ranges in a correct relation to each other. From Bepyrrus two nameless Gangetic tributaries flow westwards. Saint-Martin suggests that they may be the Kâouçikî and the Gandakî or the Tistâ. Farther east we find a range called Damasi, giving rise to the river Daona, which has also a western source in the Bepyrrus.[4]

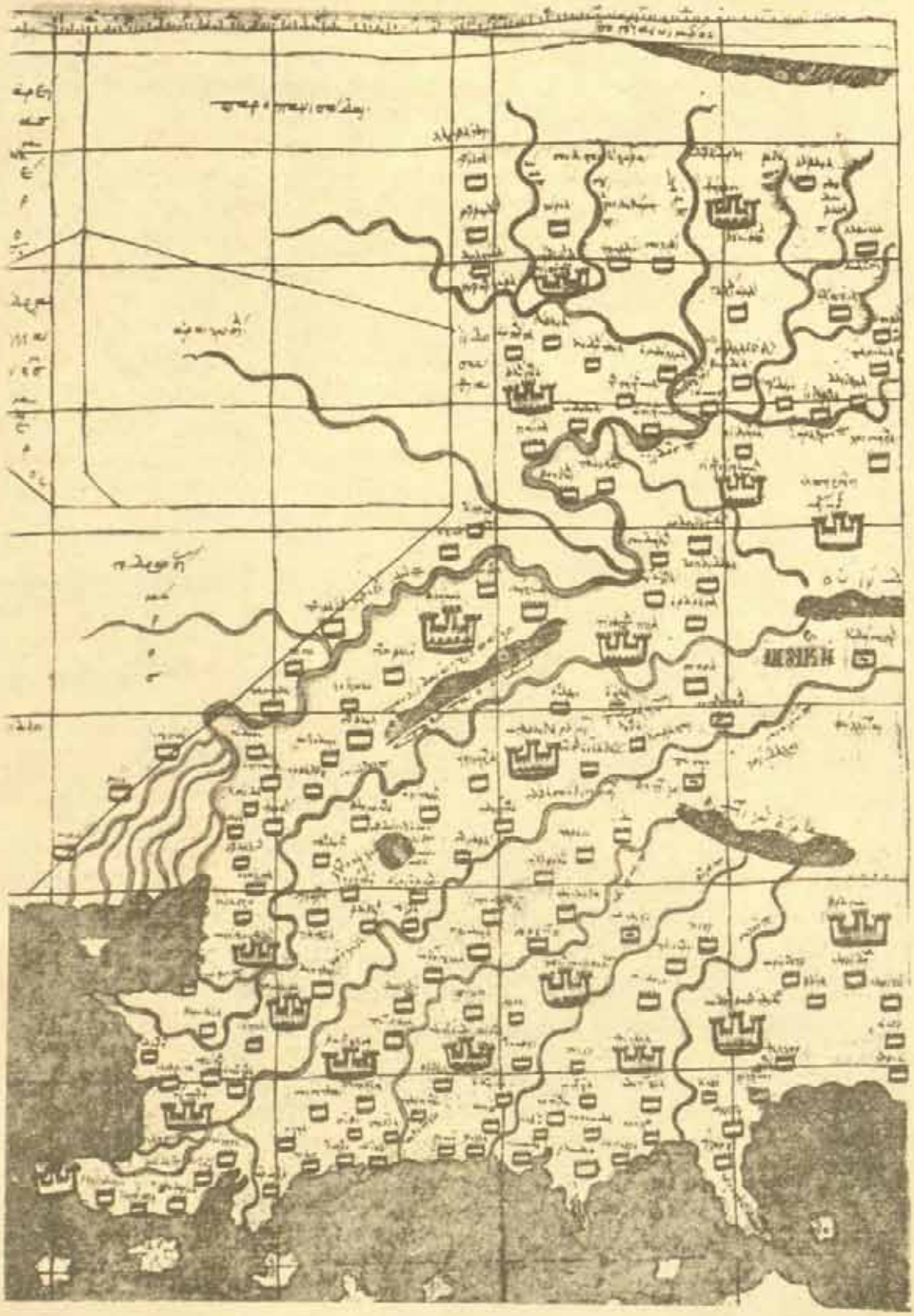
---

[1] SAINT-MARTIN, loc. cit. Deuxième Memoire, p. 372. SAINT-MARTIN adds the following reflexion: car la source réelle de ce grand affluent est très-loin de là dans l'intérieur du Tibet, à peu de distance des sources du Sindh.

[2] The Geographical system of HERODOTUS . . . p. 229.

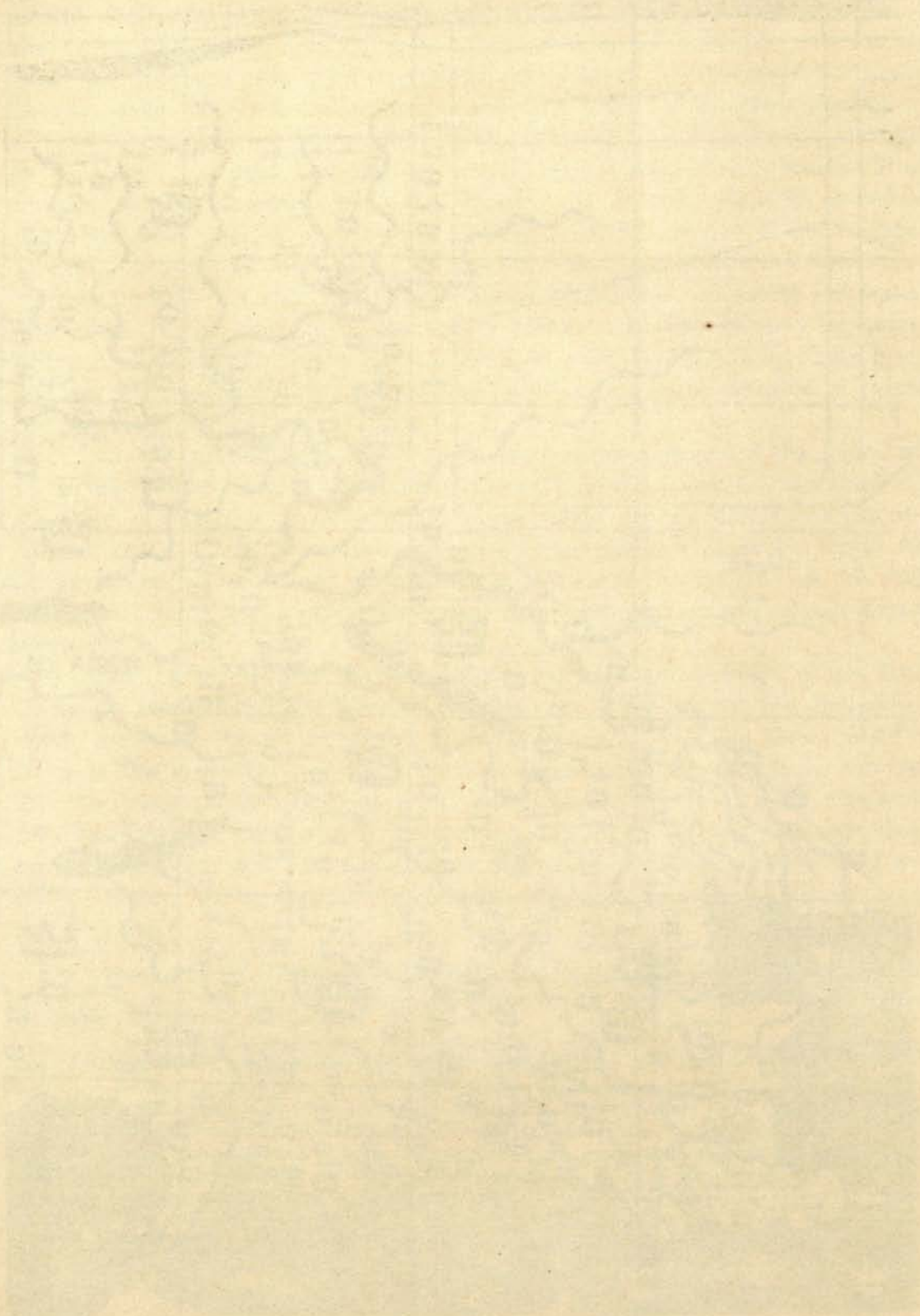
[3] Vide Pl. III, which shows a part of it in reproduction. The maps of the Codex have not been published before, but they have, as Dr. CURT FISCHER of Dresden tells me, very little scientific value. Regarding the manuscript to which the maps belong Dr. Fischer writes: »Die 2 Kartenblätter stammen aus einer Constantinopolitanischen Handschrift (Nr. 27 der griechischen Handschriften der Serailbibliothek.) Die Handschrift gehört dem XV. Jahrh. an, ist auf Papier geschrieben und zählt 112 Blätter . . .» As illustrations of the situation of the sources of the two rivers in relation to the mountains north of them the maps will always be of a certain interest to us.

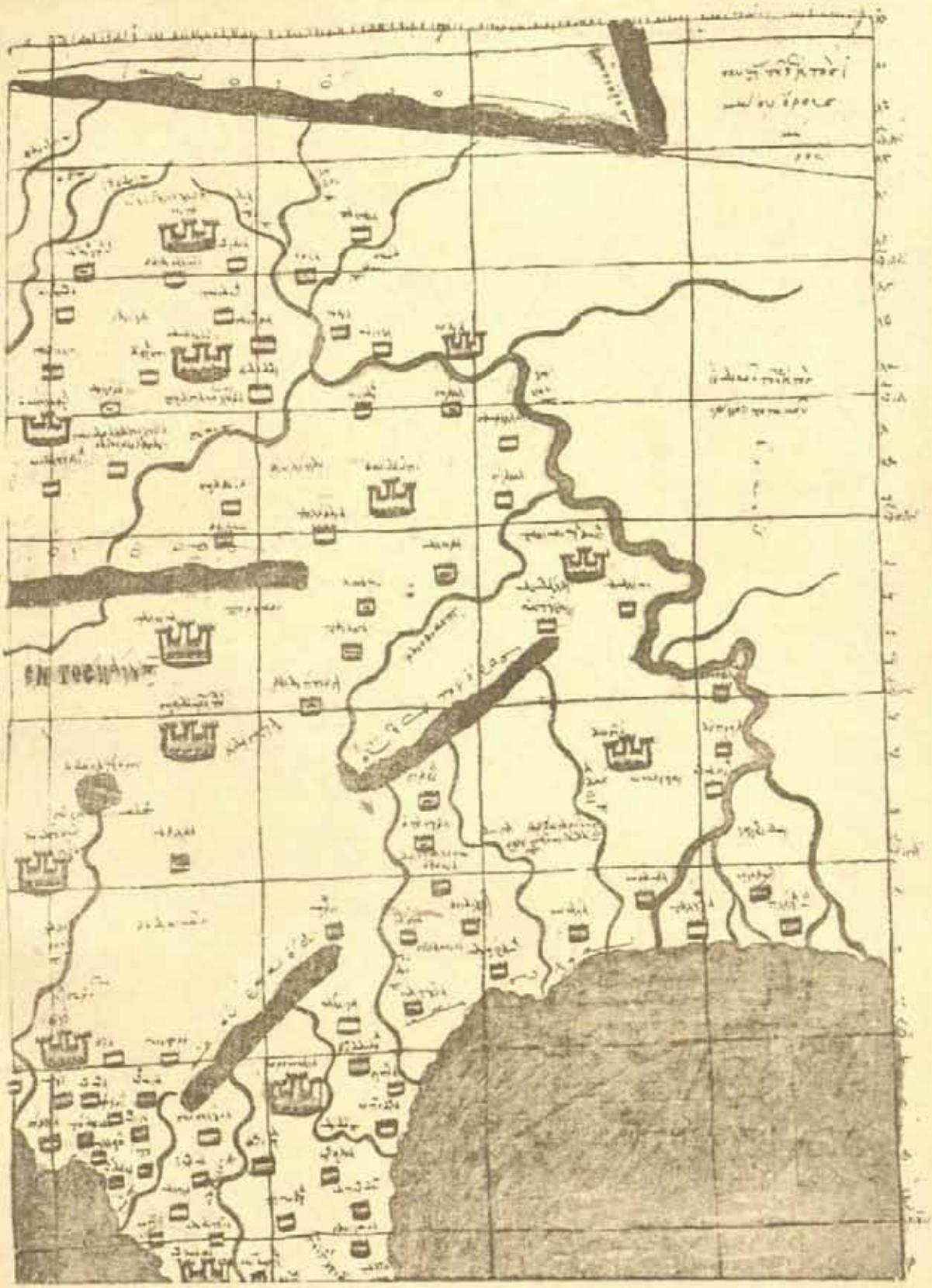
[4] Loc. cit. Troisième Mémoire: Le bassin du Gange. P. 185. Vivien de Saint-Martin expresses the following opinion: »Il suffit d'un coup d'œil sur la carte pour voir que, d'après cette



The Indus of Ptolemy. Codex Constantinopolitanus, 15th century.

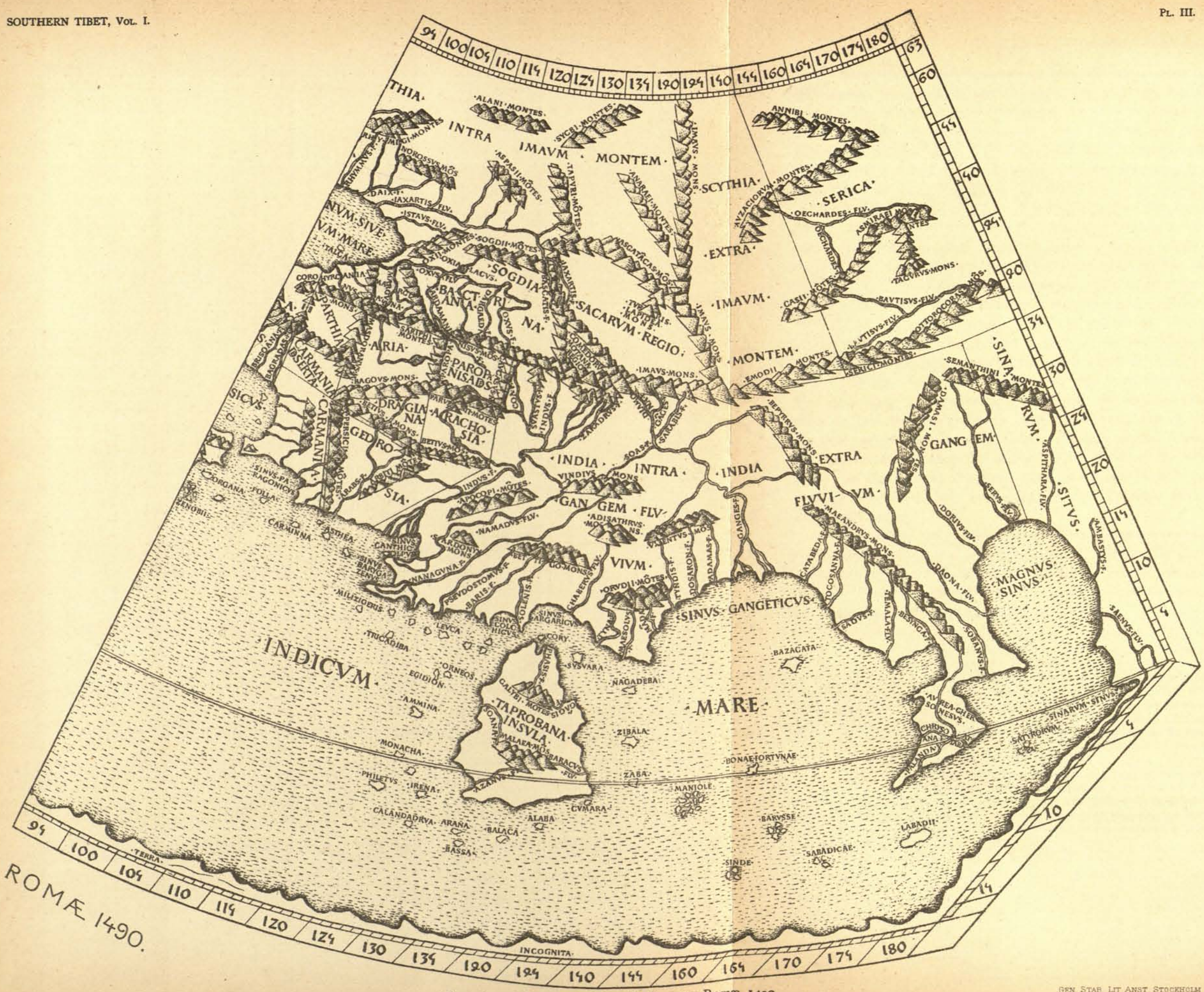
Geo. Stab. Lit. Anst., Stockholm





The Ganges of Ptolemy. Codex Constantinopolitanus, 15th century.

Sven Stab. Lit. Anst. Stockholm



Central and Southern Asia. Ptolemæus Romæ 1490.

GEN. STAB. LIT. ANST. STOCKHOLM

Saint-Martin does not tell us why Ptolemy, after receiving detailed reports of the regions traversed by the Brahmaputra, still lets this river flow into the Magnus Sinus. The Daona and the Bepyrrus may be anything you like and it would be a waste of time to try and identify them. But as the southern of the two Gangetic tributaries coming down from Bepyrrus has a situation which happens to correspond very closely to that of the lower course of the Brahmaputra, and as the nameless river joins the Ganges below the point where the river spreads into the several branches of the delta, I cannot find any reasonable cause why this nameless river should not rather be identified with the Brahmaputra, than a river which belongs to Farther India and empties itself into the Magnus Sinus. Such a mistake has been made in a later time, namely by MERCATOR but in this case Ptolemy was better informed than the German cartographer. And as Ptolemy knew the situation of the Ganges delta remarkably well, why should he not, as Saint-Martin asks, have obtained information about the great river which joins the delta from the east! Bepyrrus is, so far as I can see, at least a part of the mountainous region which constitutes the Eastern Himalaya, namely, the part which is pierced by the Brahmaputra. The Indus and the Satlej were believed to rise from the southern side of the mountains; the case may have been the same with the Brahmaputra. If the Hindus already then derived the Brahmaputra from the sacred lake of Brahmakund, after forgetting its real origin far west in Tibet, Ptolemy would have had no more reason than his informants to place the source of the river on the northern side of the Emodus. Even so late as in the year when the great French geographer printed his third memoir, or 1860, the continuity of the Tsangpo with the Brahmaputra was not definitely settled.[1]

Regarding the three great rivers, Ptolemy cannot be said to have known, positively, more than the two western. About the Brahmaputra we must confess our uncertainty. The source of the Satlej, on the other hand, he positively places at 132° E. Long. and 36° N. Lat., and he correctly regarded the Zadadros, Satadru or Satlej as the greatest river of Panjab. The source of the Indus he places at

---

dernière indication, il s'agit forcément ici du Brahmapoutre, et le nom indigène de Dihong, que porte le fleuve, rend aisément raison du mot Daonas.» And further: »la disposition du cours du Brahmapoutre, qui enveloppe et isole complétement, au sud, la partie orientale de la chaîne himalayenne, avant de venir confondre son embouchure avec l'estuaire le plus oriental du Gange, ne permet pas de conduire ailleurs que dans le Brahmapoutre même une rivière, quelle qu'elle soit, sortie du Bepyrrhus. Ce serait d'ailleurs une anomalie plus que singulière que Ptolémée eût nommé des fleuves qui coulent au loin à travers des régions ignorés, et que le plus grand fleuve de ces quartiers, après le Gange dont il est voisin, n'eût pas été mentionné dans les relationes qui lui fournissaient des détails circonstanciés sur les pays mêmes que traverse le Brahmapoutre.»

[1] Saint-Martin says: »L'origine tibétaine du Brahmapoutre (dont la partie supérieure serait le Dzangbo, qui sort du même massif que le Sindh, le Çatadroû ou Satledj et quelques-uns des grands tributaires du Gange), cette origine tibétaine, disons-nous, a pour elle de très-grandes probabilités, et peut être regardée presque comme un fait acquis; néamoins il lui manque la consécration, souveraine, celle d'une reconnaissance européenne que relie sans interruption le Dihong ou Brahmapoutra de l'Assam au Dzang-bo du Tibet.»

125° E. Long. and 37° N. Lat., farther north than the sources of its tributaries, except the Koas, and 6° above the confluence with the latter. Lassen therefore believes that he does not mean the real, upper Indus but the Shayok, a view that cannot possibly be correct. For even of Kashmir, Kaspeira, he had a rather vague idea, as Dr. STEIN has shown. [1]

We now come to the most interesting question, namely, about the Tsangpo. Lassen regards it as very likely that the greatest geographer of antiquity should have known the Brahmaputra, and he positively affirms that Ptolemy calls this river Bautisus. [2] The feeders of Bautisus come from the Emodus, the Kasian and the Ottorokorrhas mountains. Lassen identifies the Kasian mountains with the ranges west of Kashgar, the Emodus with the ranges between Buthan and Tibet, and Ottorokorrhas with the Tibetan Lo-kaha-ptra. It would take us too far to follow Lassen's argument; be it sufficient to say that he finds an argument in the very name as well, for the name Bautisus is derived from Bhota, the Indian name of the Tibetans; therefore Bautisus must be identical with the upper Brahmaputra or Tsangpo.

Amongst the very great number of authors who have tried to identify Ptolemy's geography with our present knowledge of Central Asia, I will quote Richthofen. He finds it easy to explain why Ptolemy places the origin of the Bautisus on the Kasian mountains. [3] He agrees with Lassen in identifying the Bautisus with the Yeru-tsangpo or upper Brahmaputra, and he finds it natural that the southern branch should come from Emodus.

Both the situation and the name of the river are striking facts, and at first sight one feels tempted to agree with Lassen and Richthofen. For my own part I am, nevertheless, far from persuaded. On Plate III we find two source branches which, after their junction, flow eastwards and empty themselves in a lake without outlet. Near the lake is a town, Sera metropolis, and south of it, quite close to the lake, is a range of mountains, Ottorocoras Mons, which is, it is true, the immediate continuation of the Serici Montes, Emodii Montes, and Imaus Mons. This orographical arrangement indeed seems to indicate the Tsangpo. But it is more than doubtful whether Ptolemy with his long range of mountains meant one single system, which, compared with our actual knowledge, should represent the Himalaya system only. I believe his long range includes the whole mountainous land north of India all the way up to Kwen-lun. The country south of the range is India, the country north of it is the deserts and steppes of Central Asia.

---

[1] Memoir on Maps illustrating the ancient Geography of Kaśmir. Calcutta 1899, p. 9.

[2] Indische Alterthumskunde I. p. 131. »Dem ersten Geographen des klassischen Alterthumes war höchst wahrscheinlich, um nicht zu sagen gewiss, die Kunde von dem Brahmaputra, dem grössten Zuflusse des Ganges, zugekommen, der diesen in der Länge seines Laufes übertrifft, und wie der Indus im Norden des grossen nördlichen Gränzgebirges entspringt . . . .» Ibidem, III, p. 131.

[3] China, I p. 487.

Most of the later successors of Ptolemy have not been able to identify the Bautisus with the Tsangpo, for this river remained unknown till comparatively lately. MARTELLUS GERMANUS, for instance, gives the Bautisis Flu. three sources, from Chasii Montes, Serice Montes and Octocoras Mons; they join and flow without the slightest hesitation straight to the Glacial Ocean. On *Petrus Apianus*, 1530, the river also turns north. On the *Ptolemæus Editio B. Sylvani, Venice*, 1511, the Bautisus amnis goes east and empties itself into a lake not so very far from the eastern coast of Asia.[1] On the *Ptol. Argentinæ* 1513, and on *G. Mercator* 1538 the river again goes north to the Polar Sea.[2] The uncertainty about the ultimate fate of the river should not cause surprise, for it existed in Europe and India even in the time of some geographers still living; though, of course, not to such an extent as 400 years ago.

But how could it ever be explained that the Sera metropolis should have been supposed to be situated exactly at the point where the river begins to pierce the mountains? If I am right in believing the Emodii Montes etc. to represent the whole Tibetan highland between Himalaya and Kwen-lun, and if, as Lassen believes, the Casii montes are those of Kashgar, and the north-western branch of the Bautisus comes from them, I should take this branch to be the Yarkand- or Kashgar-darya, and the south-western branch, on which the place Orosana reminds us of Borasana near Khotan, the Khotan-darya. Thus the Bautisus should be the Tarim, and the lake in which it comes to an end, the Lop-nor.

But here we meet a difficulty. For just north of the Bautisus is another river, Oechardes Flu., which is exactly like the Bautisus, beginning with two source branches from mountains in the north and the south of it, and, after their junction, flowing eastwards to disappear in a lake. This river, Oechardes, has been identified with the Tarim,[3] though other opinions have also been expressed. RENNELL recognises in the Oechardæ »the Oigurs or Yugures of the present times».[4] FORBIGER believes that the branch of the Oechardes which comes from the Auxacii M. — Altai, is identical with the Selenga, while the other branches should be some steppe-rivers; MANNERT identifies the western branch with Etziné; REICHARD identifies the Oechardes with the Tarim falling out in the Lop-nor.[5] As to the Bautisus, Forbiger believes it is meant to be the Hwang-ho. Saint-Martin finds it not improbable that the Oechardæ represent the territory of Skardo in Baltistan and if this be right the Oechardes fluvius should be the part of the Sindh which traverses the great territory

---

[1] Facsimile-Atlas till kartografiens äldsta historia innehållande afbildningar af de viktigaste kartor tryckta före år 1600. Af A. E. Nordenskiöld Stockholm 1889, Pl. XXXIII.

[2] Ibidem, Pl. XXXV and XLIII.

[3] RICHTHOFEN: China, I, Tafel 8; ALBERT HERRMANN: Die alten Seidenstrassen zwischen China und Syrien, map; and PETERMANN's Mitteilungen, 1911.

[4] RENNELL's Herodotus, p. 209.

[5] FORBIGER, op. cit. p. 59.

direct north of Kashmir.[1] The list of different opinions could easily be multiplied, but the task would be useless.[2] On his most interesting and instructive map: »*Zentralasien zur Zeit der alten Handelsbeziehungen zwischen China und den Iranisch-Turanischen Ländern*» Dr. A. HERRMANN identifies the Sera metropolis with Liang-chow and the Casii Montes with the northern border ranges of the Kwen-lun. Comparing the Casii Montes with the Oechardes, and accepting this river, beyond doubt, as the Tarim, the Casii Montes must of course be the Kwen-lun. Richthofen also identifies the Casii Montes with the Kwen-lun, though only the western part. In fact the Casii Montes are the same as the Chinese Tsung-ling or »the Onion mountains». Therefore the space which, on Ptolemy's map, is situated between the Casii Montes and Emodus and its eastern continuation, should belong to the Tibetan highlands. And as there is only one river, the Bautisus, flowing from west to east, only the Tsangpo could be meant. And still I believe that the Bautisus is meant to be the Tarim, or, in other words, that this river has been represented twice on Ptolemy's map. Ptolemy has got his information from merchants, who, themselves, had been informed by natives and travellers. It would not be surprising if Ptolemy had misunderstood his different direct or indirect informants and believed that what he heard about the Tarim, from two different informants, in fact referred to two different rivers.[3]

Therefore, where Richthofen finds a striking correspondence between the Auxakian, Kasian and Emodus mountains with the Tian-shan, Kwen-lun and Himalaya, this correspondence is chimerical. The northern slopes of the Casii Montes are the same as the northern slopes of the Emodus; therefore the Tarim river appears twice. In reality there is no sign of Tibet on Ptolemy's map, much less of any Tibetan river. The Kwen-lun and the Himalaya, inclusive, of course, of all the rest of Tibet with Arka-tag, Kara-korum and Transhimalaya, or in one word the

[1] Deuxième Mémoire, p. 375.

[2] DEGUIGNES is not quite clear in his identification. He speaks of Khotan-darya which loses itself in the desert, and of two other rivers, obviously the Yarkand-darya and Aksu-darya. Of the latter two he says: Les deux autres vont plus loin, et après s'être réunies, elles se jettent dans un grand lac, appellé Lop, qui est situé dans la partie la plus basse de tout ce grand terrain. Les anciens Chinois pensoient que les deux fleuves dont je viens de parler étoient le même que le Hoam-ho ... Cette dernière idée mise à part, Ptolémée paroît avoir aussi confondu le Hoam-ho avec ces deux fleuves sous le nom d'Oechardes. — Further on he says that Bautisus takes its origin in the Montes Cassii or the Tsung-ling of the Chinese, situated S.W. of Kashgar. Dans les mêmes montagnes Tçung-ling vers Yerken il sort un grand fleuve qui va se rendre dans celui qui part d'Aksou, l'un & l'autre se jettent dans le lac de Lop. Les Chinois appellent le plus méridional Cheou-pa-ho, il doit être le Bautisus. — Histoire générale des Huns, Tome I, seconde partie, p. V and XXXIX. Paris 1756. — In this second case he identifies Bautisus with Yarkand-darya.

[3] I wrote to Dr. A. HERRMANN to hear his opinion in the matter and he answered, amongst other things: »Der Bautisus kann nicht der Tsang-po sein. Auf der Karte des Marinus ist, wie ich bei der Rekonstruktion desselben fand, jener Name noch nicht enthalten; erst PTOLEMÄUS hat ihn eingeführt, ohne dass er sich auf bestimmte Nachrichten stützen konnte; er hat in dem Bautisus nur die marinische Darstellung des Oechardes (= Tarim und seine Fortsetzung der Hwang-ho) schematisch nachgeahmt. Es wäre daher falsch, in dem Bautisus einen tibetanischen Fluss suchen zu wollen; er existierte nur auf der so fehlerhaften Karte des PTOLEMÄUS.»

whole Tibetan highland between Kwen-lun and Himalaya has been pressed together, and forms only one single mountain wall running east and west. This wall separates the plains of India from the plains of Central Asia. [1]

Therefore it is not surprising that Ptolemy, at so early a date, made the same mistake from the unreliable and uncertain information he could gather. India was comparatively well known. It was bounded on the north by a high range of mountains. The Tarim basin was, on account of its trade roads, also known to a certain extent. It was bounded on the south by a high range of mountains. There were no trade roads through Tibet, and Tibet itself remained completely unknown. Therefore the northern slopes seen by some informants, and the southern slopes seen by others, were believed to belong to one and the same range. To Ptolemy, Tibet did not exist at all and Bautisus could not be the Tsangpo.

[1] Fifteen hundred years later we find exactly the same representation on many European maps of Asia. On GASTALDI's map the Ganges takes its origin from the same range which forms the southern boundary of Diserto de Camul. The French traveller BERNIER has on his map of 1699 only one single range north of India, from the southern slopes of which the Indus and the Ganges take their rise, just as in PTOLEMY's days, and immediately north of the same range is Zagathay, Tartarie and Turquestan, that is to say no sign of Tibet. In 1730 STRAHLENBERG, relying upon other authors, begins to open up some space for Tibet, but only in the east. Three years later D'ANVILLE published his map, which was indeed a revelation to the geographical world. The secrets which, ever since ERATOSTHENES' days had been kept within the narrow walls of the Imaus and Emodus were at once discovered, the mountain ranges opened up and separated and Tibet occupied its due situation north of the Himalaya. And amongst the new labyrinth of mountains, lakes and rivers in Tibet the Tsangpo was, perhaps, the most prominent feature.

CHAPTER IV.

THE ARABIAN GEOGRAPHERS.

Geography entered upon a flourishing era at the time of the highest development of power in the Empire of the Caliphs, and from that time a whole series of great Arabian scholars wrote their descriptions of the different countries of the earth. Ptolemy's astronomy was translated under the title of *Almagest* and became a kind of fundamental codex to the Arabian geographers. Great parts of their works are devoted to Asia, and even the kingdom of Tibet did not escape their attention, though they had only a very vague conception of that country. The Arabians who have so much to tell us about India, Iran and Turan, and even something about China, know Tibet only from hearsay, and have often rather fantastic ideas about the mountainous country, its situation, and its character.

The Arabians reckoned the Tibetans amongst the Turks, as they did with all more or less unknown nations and tribes in the east and north of Asia.[1]

Richthofen has shown that much of the information which the Arabian writers attributed to Tibet, in reality referred to Khotan; for even Edrisi's sources belong to a time, when the name of this place was not known, and, as the nearest great city of trade, it also represented the kingdom of Tibet to the conception of the Arabs.[2]

In the following pages I have tried to collect some extracts from the more important Arabian writers, in which will be found how far they knew our mountains north of India, the kingdom of Tibet, and the sources of the great rivers.

---

[1] Or as REINAUD puts it: »Chez les écrivains de l'antiquité, les peuples du nord de l'Asie et de l'Europe étaient des Scythes; chez les anciens écrivains arabes, ce sont des Turks; chez les écrivains postérieurs, ce sont des Tatars. De leur côté, les Chinois se sont fait un plaisir de donner à ces populations des noms quelquefois bizarres, souvant arbitraires.» REINAUD could easily have added that even so late as in his own days many European travellers who approached the frontier of Tibet from the Indian side, called the Tibetans Tartars. Relation des Voyages faits par les Arabes et les Persans dans l'Inde et à la Chine dans le IX^e^ siècle de l'ère chretienne . . . par M. REINAUD. Tome I. Paris 1845, p. CXLI.

[2] China, I, p. 566.

Abbé RENAUDOT is the first scholar who made Europe acquainted with the works of the Arabs upon India and the countries adjacent. And curiously enough, his translation deals with the earliest of the Arab geographers about India.[1] In his remarks Renaudot tells us that merchants from Mesopotamia and Persia used to travel overland viâ Couzistan to Tibet or China, and that in his own days the great trade with Tibetan musk took place through the kingdom of Buthan, »which must be a part of ancient Tibet, or the country under the Khacan of Tibet». Regarding the situation of Tibet in relation to China he says of his two authors: »Ils remarquent aussi que le Royaume de Tibet, Tobit, ou Tobat, comme prononcent les Arabes, n'en est pas fort esloigné: & que le païs des Tagazgaz le borne du costé de l'Orient.»[2]

In 1845 REINAUD published his edition of the same work which is especially remarkable for its excellent introductory commentary. He showed that the work did not contain the narratives of two travellers as Renaudot had believed, but only of one, the merchant SULEIMAN, whose account was compiled in 851 A. D., just at the time when the commercial communications between the Empire of the Caliphs of Bagdad and India and China were at their highest point of activity. The second author, ABU SAID, never visited India and China. All that he had to relate had been reported to him by others.

That part of India with which the Arabs had the least communication was Hindustan proper, or the country traversed by the Jumna and Ganges, that is to say, from Panjab to the gulf of Bengal.[3] Therefore the Arabs had only a vague idea of Assam and the Brahmaputra. The principal object of Suleiman's narrative was to make known the road which was travelled by the merchants of Bagdad, Basra and Siraf on their way to China, a road which also had been taken by Suleiman.

The merchant Suleiman mentions Tibet in the following passages:

En deçà de la Chine sont le pays des Tagazgaz,[4] peuple de race turke, et le Khakan du Tibet. Voilà ce qui termine la Chine du côté du pays des Turks . . . La Chine, du côté du soleil couchant, a pour limite la ville appelée Madou, sur les frontières du Tibet. La Chine et le Tibet sont dans un état d' hostilités continuelles. Quelqu'un de ceux qui ont fait le voyage de Chine nous a dit y avoir vu un homme qui portait sur son dos du musc dans une outre; cet homme était parti de Samarkand, et avait franchi à pied la distance qui sépare son pays de la Chine. Il était venu de ville en ville jusqu'à Khanfou,[5] place où se dirigent les marchands de Syraf. Le pays où vit la chevre qui fournit le musc de Chine, et le Tibet, ne forment qu'une seule et

[1] Anciennes Relations des Indes et de la Chine, de deux Voyageurs Mahometans, qui y allerent, dans le neuviéme siecle; traduites d'arabe: avec des Remarques sur les principaux endroits de ces Relations. Paris 1718.

[2] Op. cit. p. 179, 222 and 252.

[3] REINAUD, op. cit. p. XLVIII.

[4] The country of the Turkish Hwéi-hu; RICHTHOFEN op. cit., p. 565.

[5] REINAUD identifies Khanfou with Hang-tcheo-fou, and Madou with Amdou or Amdo, a name he knows from della Penna.

même contrée. Les Chinois attirent à eux les chèvres qui vivent près de leur territoire; il en est de même des habitants du Tibet. La supériorité du musc du Tibet sur celui de la Chine tient à deux causes ... Il y a au Tibet des hommes qui font métier d'aller à la recherche du musc, et qui possèdent, à cet égard, des connaissances particulières.[1]

There is much more of musk than of Tibet in Suleiman's narrative, but the musk was more important for the merchants.

IBN KHORDADHBEH, who died in 912 A. D. only mentions Tibet in the following passages:[2]

Le Tibet, les contrées habitées par les Turcs, la Chine et al Mançoura, c'est-à-dire tous les pays situés à huit degrés au delà du centre de l'orient, ont leur Kibla (l'orientation dans la prière) très proche de la pierre noire.

Speaking of the titles of the kings of the world, he says:

Les rois des Turcs, des Tibétains et des Khazares portent tous le titre de Khâkân, à l'exception du roi des Kharlokh (tribu turque) qu'on appelle Djabghouya.

As to China he knows that it is bounded by the sea, Tibet, the country of the Turks, and, to the west, by India.

Under the title: *Source and mouths of rivers*, he writes:

»Le Djaihoun (Oxus), fleuve de Balkh, sort des montagnes du Tibet ... Le Mihrân, fleuve du Sind, sort des montagnes de Schikinân, et c'est proprement une branche du Djaihoun. Une partie du royaume de l'Inde porte le nom de ce fleuve (Sind). Après avoir formé plusieurs des rivières de l'Inde, il passe par al-Mançoura et se jette dans l'Océan oriental. — Une personne digne de confiance qui a fréquenté les pays lointains m'a appris que le Djaihoun est une des deux branches d'un fleuve qui sort des montagnes de la Chine et au-delà de la Chine et qui coule sur des pierres énormes et des rochers de sorte qu'il est impossible d'y naviguer et même de la traverser, si l'on n'y est pas accoutumé. Une des deux branches se dirige vers le Sind, l'autre est le Djaihoun. A trois journées de marche et demie à partir de la séparation des deux branches, il y a sur le Djaihoun un gué conduisant au pays des Turcs nommés Schikinân. Les marchands partent avec leurs marchandises de la ville de Khottalân pour un ribât (relais) dont j'ai oublié le nom, à 1 parasange de distance, où s'élève, sur les bords de ce grand fleuve, une montagne que nul ne peut franchir sans l'aide des indigènes, qui y sont accoutumés. Les marchands ayant fait prix avec ceux-ci pour le transport des marchandises, ils gravissent la montagne, chaque homme chargé d'un fardeau de trente livres (mann). Le sentier est si étroit, qu'on a juste assez d'espace pour mettre le pied. Arrivés au sommet ils élèvent les signaux convenus entre eux et les Schikinân pour leur annoncer que les marchands sont arrivés. Puis ils descendent, suivis des marchands, vers la rivière. A la vue des signaux, les Schikinân traversent le fleuve avec des chameaux accoutumés au trajet, et munis d'une escorte. Arrivés à l'autre rive, ils font un contrat formel avec les marchands pour le transport de leurs marchandises et bagages, et ayant chargé les chameaux, ils repassent le fleuve et conduisent les marchands sur la route qu'ils désirent prendre, les uns vers la Chine, les autres vers Moultân. — A droite du pays des Toghozghor vers le sud demeurent les Tibétains.

---

[1] REINAUD, op. cit. p. 60 et 114.

[2] Kitâb almasâlik wa'lmamâlik, auctore IBN KHORDADHBEH etc. M. J. DE GOEJE. Lugduni-Batavorum, 1889, p. 3, 12, 49, 135, 139, and 204. IBN KHORDADHBEH's »Book of Roads and Kingdoms» has also been translated by BARBIER DE MEYNARD and published in Journal Asiatique 1865.

And then follows a confused story about Alexander, who, having beaten Porus, remained seven months in India but sent his armies towards Tibet and China. Some of his emissaries returned and reported that all the kings of the east had submitted. Then Alexander left one of his generals with 30,000 men in India, and marched himself with the greatest part of his army towards Tibet. The king of Tibet met him and submitted, after which Alexander asked him to guide him to the Turks living in the deserts. The king of Tibet obeyed at once and went before on the road to China, followed by Alexander and his army. Having arrived at the frontier of China Alexander was received by the Chinese king who submitted. Then Alexander remained in the country until he had founded a city called »Tower of Stone».

This description at any rate shows us that Ibn Khordadhbeh cannot be said to have known the situation of Tibet. For if there was any country in the interior of Asia about which Alexander and his generals had not the slightest knowledge, even from hearsay, it was Tibet. At one place Ibn Khordadhbeh makes the Oxus take its origin from the mountains of Tibet, an expression that can be defended if, with some generosity, we extend the appellation Tibet north-westwards from Baltistan (Little Tibet), over Kanjut and Hunza-Nagar in the direction of the Pamir. But this does not help us, for later on when he describes Alexander's march, Tibet, the deserts of the Turks, and China are mixed up in a very strange manner. Or did he believe that Alexander went from western Tibet through eastern Turkestan to China?

At another place he changes the Oxus into one branch of a river which starts from the mountains of China. The other branch is the Indus. He also makes the Indus a branch of the Oxus, and says that the Indus takes its origin from the mountains of Schikinân. I do not know what Schikinân is, — perhaps Shugnan? This is so much the more likely, as he speaks of a ford in the Oxus which takes the traveller to the country of the Schikinâns. Therefore it must be at the upper Oxus or Panj.

We must willingly forgive Ibn Khordadhbeh that he, who had never visited the country himself, could not possibly make out this most intricate labyrinth of rivers, mountains and valleys which constitutes the rocky country between western Tibet and Pamir, a country that only lately has been brought in order on our own maps. He may have got his information from merchants who told him that it was only three days' journey from the upper Oxus to the upper Indus, and he has imagined a bifurcation from a common source.[1]

Ibn Khordadhbeh's statement as to the origin of the famous river is so far of the greatest interest and importance, that he takes a great step in the right direc-

[1] The fact that he places the source of the Indus in the same region where the Oxus takes its rise, or say, in Shugnan, is not more surprising than RENNELL's placing the source of the Indus a little north of Byltæ (Baltistan), and S. E. of »Pamer Plain», remembering that 900 years separate both. And even after RENNELL, a Russian, CHERNISCHEFF, has placed the source of the Indus in the mountains west of Kashgar. RENNELL's Herodotus, map, p. 229.

tion beyond Ptolemy. He is not satisfied to place the source on the southern slopes of the mountains north of Panjab; he looks beyond the crests and locates it in the very heart of the mountain knot, at the same place where the Amu-darya takes its rise.

Ibn Khordadhbeh's Tibet, in spite of his own ignorance about its real situation, must no doubt coincide fairly well with the country between Panj, Khotan, and Panjab. Even nowadays Ladak is called Tebbet by the Turks of Eastern Turkestan. EDRISI who wrote more than 200 years after Ibn Khordadhbeh confounds Tibet with Khotan.

The information our author received from a »reliable person», about the difficulties in fording the river which sent off the Oxus and the Indus, as well as what he was told of the mountain on the bank of the Oxus which could not be crossed without guides, and which may have been any of the high passes at the Panj, the description of camels used for transport over the river, and finally what he relates about the caravan roads branching off to China and to India, — all this proves that he is speaking of the country between Pamir and western Tibet, and that a very graphic and trustworthy account of a merchant traveller has been his source.

Ibn Khordadhbeh does not seem to have heard of the Ganges. The Satlej and the Brahmaputra he ignored completely.

AL-JA'KUBI who wrote about 880 has not much to say of Tibet. So, for instance, that wares come to Bagdad from Hind, Sind, China, Tibet, and the provinces of the Turks. He compares the air of Bagdad with that of Tibet, which is so bad as to change the skin of the face of the Tibetans, and keep their bodies small and make their hair curly. The city of Dsirm is, from the east, the last city which borders upon the province of Tibet. He has also something to relate about an embassy from Tibet asking for a teacher of Islam. The »Bisam of Tibet» is mentioned, and the *nard* is a grass that grows in India and also in Tibet.

IBN ROSTEH wrote before 913, and borrowed some information directly from Ibn Khordadhbeh. He mentions Tibet and Kabul amongst those places which during the summer get no rain but in winter are snowed over on account of the great cold of the air. To him also the Oxus has its source in Tibet. In the upper part of the provinces El-Khottal, along the course of the river Vakhkhab, which comes from Tibet and forms the source of the Dseihun. These are places where gold is dug out, and from which gold is exported in pieces not bigger than pinheads. The fourth climate begins in the east, and stretches along the province of Tibet.

ABU DOLEF began in 941 his journey eastwards from Bokhara. He says that he reached the regions inhabited by Tibetan tribes, where he travelled for 40 days without difficulties. The Tibetans live on wheat, barley, beans, different sorts

of meat, milk, grapes and apples. They have a great town built of reeds, with a temple. Mohammedans, Jews, Christians, Magicians and Indians live in Tibet. They pay tribute to the princes of Bagdad. [1]

MASUDI is one of the greatest Arabian travellers in Asia and one of the most admired authors in the Arabian language. His work is a compendium of the Arabian knowledge of the world in his time, and of Asia he has a much fuller and clearer idea than Ibn Khordadhbeh, though his imagination in some cases takes him a little too far. In 912 he visited Multan and Mansurah; in 915, after meeting ABU SAID in Basra, he travelled through Fars and Kerman, entered India and probably visited Ceylon in 916, from where he sailed to Madagascar and Oman. He seems to have navigated along the Asiatic south coast to China. With the Caspian and Red Sea he was familiar. He died at Fostat, old Cairo, in 956. Even for our time he would have been called a traveller of a certain fame. But he lived and worked a thousand years ago, and his achievements are therefore worthy of our admiration and astonishment. The following are some extracts from his great work: *Muruju-l Zahab* or *Meadows of Gold.* [2]

Chapter IX has the title: »Renseignements généraux sur les migrations des mers, et sur les principaux fleuves», and there an interesting passage runs thus:

L'origine des fleuves et des sources a soulevé des discussions. Selon les uns, ils proviennent tous de la grande mer, c'est-à-dire de la mer d'eau douce, qu'il ne faut pas confondre avec l'Océan. D'autres prétendent que l'eau se trouve dans la terre, comme les veines dans le corps . . . On a cherché depuis longtemps la source, l'embouchure et l'étendue du parcours des grands fleuves, tel que le Nil, l'Euphrate, le Tigre, le fleuve de Balkh ou Djeihoun, le Mehran, qui arrose le Sind; le Gange, fleuve important de l'Inde, ... El-Djahez prétend que le Mehran (Indus), fleuve du Sind, provient du Nil, et donne comme preuve l'existence des crocodiles dans le Mehran. J'ignore où il a été chercher un pareil argument. Il a avancé cette thèse dans son livre *des Grandes villes et des merveilles de la terre.* C'est un excellent travail; mais l'auteur, n'ayant pas navigué, ni assez voyagé pour connaître les royaumes et les cités, ignorait que le Mehran du Sind sort de sources bien connues, situées dans la haute région du Sind, le territoire de Kanoudj, le royaume de Baourah, les pays de Kachmir, de Kandahar et de Tafen, et qu'il entre ensuite dans le Moultan, où il reçoit le nom de *Mehran d'or*, . . . Le Mehran, après avoir traversé le pays d'el-Mansourah, se jette dans la mer de l'Inde . . . . [3]

---

[1] These quotations, from JA'KUBI to ABÛ DOLEF, are taken from KUUN GÉZA: Ismereteink Tibetről, in Elöadások Körösi Csoma Sándor Emlékezetére. I Szám. Budapest, 1900, p. 57—68. The whole article of KUUN was translated for me by one of the pupils of my friend Professor EUGEN VON CHOLNOKY at Kolozsvár, a kindness for which I beg to express my deep gratitude.

[2] MAÇOUDI. Les Prairies d'or. Texte et traduction par C. BARBIER DE MEYNARD et PAVET DE COURTEILLE. Paris 1861. Another edition bears the title: El-Mas'ūdī's historical Encyclopœdia, entitled »Meadows of Gold and Mines of Gems». Translated from the Arabic by ALOYS SPRENGER, M. D. London 1841. I am quoting the French edition.

[3] Op. cit. Tome I p. 203 et seq.

Here Masudi gives us the interesting news that in his days, as during classical antiquity and Alexander's time, geographers were searching for the sources of the most famous rivers, amongst them the Indus and the Ganges. In a somewhat new form we again meet the extraordinary theory of the connection between the Nile and the Indus. But while Alexander, according to Arrian, supposed the Indus were the source of the Nile, EL-DJAHEZ suggests that the Nile is the source of the Indus.[1] In both cases the crocodiles are responsible for this most curious mistake. Masudi knows the absurdity of the theory, but is himself very vague in placing the source of the Indus, in spite of his asserting the situation of the sources to be well known. He locates them over a very considerable area, from Kandahar in the west, which refers to the Kabul river, indeed a tributary of the Indus, to the territory of Kanauj in the east, which is absurd, as Kanauj falls within the drainage area of the Ganges. If he had satisfied himself with the assertion that the sources were situated in the high region of Sind, he would have been nearer the truth. Masudi does not point out one principal source but thinks of the source of every separate tributary in the Panjab; in Kashmir for instance he has one source, referring to the Jehlum, and in this case he is right.

But what does he mean by the »great freshwater sea that should not be confounded with the ocean»? As he specially points out this distinction he can only mean a lake in the interior of the continent. The Caspian and Lake Aral are *a priori* excluded, for Masudi knew them and they contain salt water. During his journeys in India he may easily have heard that the Indus and the Ganges and two other rivers came from a great fresh-water lake in the north, and with the usual exaggeration of his time he has changed the information to embrace *all* rivers. It is difficult to see what else his fresh-water sea could be than our old Manasarovar. Unfortunately he does not mention the name, and therefore, as in so many other cases, we are confined to conjecture.[2]

Further on he again touches the question of the source of the Oxus and its connection with the Indus:

La ville de Balkh possède un poste (ribat) nommé el-Akhcheban, et situé à vingt jours de marche environ. En face vivent deux tribus de Turcs infidèles, les Oukhan et les Tibétains et à leur droite d'autres Turcs nommés Igan. C'est dans le territoire de ceux-ci qu'est la source d'un grand fleuve nommé aussi fleuve d'Igan. Plusieurs personnes instruites prennent ce fleuve pour le commencement du Djeihoun, ou fleuve de Balkh. Le Djeihoun a un parcours de cent cinquante parasanges, selon les uns, et de quatre cent parasanges selon ceux qui le confondent avec le fleuve des Turcs ou Igan. Quant aux auteurs qui avancent que le Djeihoun se jette dans le Mehran (Indus), ils sont dans l'erreur.

---

[1] In SPRENGER's translation this passage runs thus: »El-Jáhit supposes that the river Mihrán in es-Sind is the Nile, alleging as a proof that crocodiles live in it.» Op. cit. Vol. I, p. 233.

[2] In the following century ALBERUNI, quoting the Matsya- and Vaya-Purana, said of another lake: »In the mountain Kailâsa there is the pond Manda, *as large as a sea*, whence comes the river Mandakini.»

Masudi thus places the Tibetans much further west than Ibn Khordadhbeh. The Oxus is represented as confounded with the river Igan, whether this be the Yarkand-darya or any other river in that region. He points out indirectly that Ibn Khordadhbeh was wrong in combining the Oxus and the Indus.

In the following passage he again takes up the question of the Indus and the Panjab, and gives a rather good description of the mountains round Kashmir: [1]

Le roi de Kandahar, l'un des rois du Sind et de ses montagnes, porte toujours et généralement le nom de Hahadj; c'est de son territoire que coule le Raïd, l'un des cinq fleuves dont la réunion forme le Mehran .... Un troisième fleuve sur les cinq sort de la montagne appelée Behatil, dans le Sind, et traverse le territoire des Rahpout ou le Kandahar. Le quatrième fleuve prend son origine dans les montagnes de Kaboul ... Le cinquième prend naissance dans le Kachmir ... Kachmir fait aussi partie du Sind; c'est un pays montagneux, formant un grand royaume, qui ne renferme pas moins de soixante ou soixante et dix mille villes et villages. Il est inaccessible, excepté d'un côté, et l'on n'y peut pénétrer que par une seule porte. En effet, il est renfermé entre des montagnes escarpées et inabordables, que personne ne saurait gravir, puisque les bêtes fauves même n'en atteignent point le sommet, et que les oiseaux seuls peuvent y parvenir. Là où les montagnes cessent, il y a des vallées impraticables, d'épaisses forêts, des jungles et des fleuves dont le cours impétueux est infranchissable. Ce que nous disons ici de l'impossibilité de gravir ces remparts naturels du Kachmir est connu de tout le monde dans le Khoraçan et ailleurs, ce qui fait de ce royaume une des merveilles de la terre.

Here is, at any rate, an attempt to locate the origin of the different rivers of the Panjab. The only gate to Kashmir is obviously the Jehlum and Baramula. He does not seem to have heard of the roads from Kashmir to Ladak and Eastern Turkestan, as well as in other directions over the mountains, as he makes Kashmir surrounded by impracticable mountains on all sides. He knows the Ganges and its religious importance but is not quite sure of its situation:

Le Gange est un fleuve de l'Inde qui sort des montagnes situées dans la partie la plus reculée de l'Inde, du côté de la Chine, et près du pays habité par la peuplade turque des Tagazgaz. Après un parcours de quatre cents parasanges, il se jette dans la mer Abyssinienne sur la côte de l'Inde. [2]

Further on he tells us that some people locate the origin of the »Herment» in the mountains of Sind and India, while others believe that it comes from the same place as the Ganges, a river which runs at the side of the greatest part of the Sind mountains.

C'est un cours d'eau rapide et impétueux; ses bords sont rougis du sang de beaucoup de dévots indiens qui se mutilent avec le fer et s'engloutissent dans ses flots, poussés par leur éloignement pour ce monde et le désir de le quitter. Ces fanatiques remontent le Gange et arrivent à un endroit où se trouvent de hautes montagnes et des arbres séculaires sous lesquels des hommes sont assis ... [3]

---

[1] Op. cit. p. 372.
[2] Op. cit. Tome I p. 214.
[3] Op. cit. Tome II p. 80 et seq.

In these words Masudi tells us of the pilgrimages to the sacred temple of Gangotri near the source of the Bhagirathi Ganga. [1]

Speaking of the descendants of Amur, of whom one fraction emigrated to the frontiers of India, he continues: [2]

Une autre portion encore alla se fixer dans le Thibet et se donna un roi qui était soumis à l'autorité du Khakan; mais depuis que la suprématie de ce souverain a cessé, . . . les habitants du Thibet donnent à leur chef le titre de Khakan, en mémoire des anciens rois turcs, qui portaient le titre de Khakan des Khakans.

He knows that in China there are rivers as large as the Tigris and the Euphrates, and that they have their sources in the countries of the Turks, in Tibet and in Sogd between Bokhara and Samarkand. The statement about Tibet is correct. In the country of the Sogds were the mountains producing sal-ammoniac, which SPRENGER identifies with the volcano introduced to the notice of Europe by KLAPROTH, ABEL-REMUSAT and HUMBOLDT. [3] Masudi saw, as he says, fire rising above these mountains visible at night at a distance of 100 parasanges.

Following the route of these mountains the distance from Khorasan to China may be covered in 40 days, partly through cultivated land, partly through sand deserts. There is another route for caravans, which requires four months:

J'ai rencontré à Balkh un beau vieillard, . . . qui avait fait plusieurs fois le voyage de la Chine, sans jamais prendre la voie de mer; j'ai connu également, dans le Khoraçan, plusieurs personnes qui s'étaient rendues du pays de Sogd au Thibet et en Chine, en passant par les mines d'ammoniaque. [4]

Masudi's description of Tibet, quoted below, is highly interesting, as much of what he says agrees with the reality we know nowadays, while other parts are somewhat exaggerated. The geographical situation he fixes is also very good, remembering that the name Khorasan in his time had probably a much wider sense than nowadays.

Le Thibet est un royaume distinct de la Chine; la population se compose, en grande partie, de Himiarites mêlés à quelques descendants des Tobba . . . Parmi les Thibétains, les uns sont sédentaires et habitent dans les villes, les autres vivent sous la tente. Ces derniers, Turcs d'origine, sont les plus nombreux, les plus puissants et les plus illustres de toutes les tribus nomades de la même race, parce que le sceptre leur appartenait autrefois, et que les autres peuplades turques croient qu'il leur reviendra un jour. Le Thibet est un pays privilégié pour son climat, ses eaux, son sol, ses plaines et ses montagnes. Les habitants y sont toujours souriants, gais et contents, et on ne les voit jamais tristes, chagrins ou soucieux. On ne sau-

[1] The same story was told 700 years later by Father ANTONIO DE ANDRADA who travelled this way to Tsaparang. The description MASUDI gives of the place surrounded by high mountains coincides exactly with the narrative of Captain HODGSON, the first visitor in modern times. In this particular point MASUDI is more correct than Major RENNELL, who derived the Ganges from the Manasarovar.

[2] Op. cit. Tome I p. 289 et seq., and 347 et seq.

[3] El-Mas'ûdî . . . p. 359. Richthofen makes the following comment: »Daraus geht deutlich hervor, dass jene Berge mit einem von den Chinesen mehrfach beschriebenen Ort, welcher 200 li nördlich von Kutsha liegt, identisch sind.» China, I. p. 560.

[4] This statement does not at all agree with Richthofen's identification as given above.

rait énumérer la variété merveilleuse des fruits et des fleurs de ce royaume, non plus que toutes les richesses de ses pâturages et de ses fleuves. Le climat donne un tempérament sanguin à tout ce qui a vie, soit parmi les hommes, soit parmi les animaux, ... La douceur du naturel, la gaieté, la vivacité qui sont l'apanage de tous les Thibétains les portent à cultiver la musique avec passion, et à s'adonner à toute espèce de danses ... Ce pays a été nommé Thibet à cause de l'installation des Himiarites qui s'y sont établis, la racine *tabat* signifiant se fixer, s'établir. Cette étymologie est encore la plus probable de toutes celles qui ont été proposées[1] ... Le Thibet touche à la Chine d'un côté, et des autres côtés à l'Inde, au Khoraçan, et aux déserts des Turcs. On y trouve beaucoup de villes populeuses, florissantes et bien fortifiées ... Le canton où vit la chèvre à musc du Thibet et celui où vit la chèvre à musc de la Chine sont contigus l'un à l'autre et ne forment qu'une seule et même contrée; toutefois la superiorité du musc du Thibet est incontestable ... —

and then follows word for word the same account of the musk as given in the work of the merchant Suleiman.

Finally Masudi tells us of a correspondence between ANUSHIRVAN, king of Persia, and the king of Tibet. The letter of the latter was accompanied by many curiosities from Tibet, amongst other things 4,000 *man* of musk.[2]

AL ISTAKRI wrote about 951. He apportions the Turkish provinces and a part of Tibet to China. Sind, Kashmir and a part of Tibet belong to the kingdom of India. Therefore, he says a part of Tibet stretches towards India, while another stretches into China. Otherwise, the way in which he located Tibet is not clear. It is situated between the country of the Tagazgaz[3] and the Persian Sea, and if one is sailing along the coast of India and that of Tibet one arrives in China. Finally, he knows that the Tibetan and Chinese languages are different from those of the Turks.

IBN HAUKAL is the famous author of another *Kita'bu-l Masa'lik wa-l Mama'lik* or *Book of Roads and Kingdoms*. He left Bagdad in 943 and had not accomplished his work before 976. He briefly refers to Tibet and the source of the Indus without enlarging the horizon of information of his time.[4]

---

[1] In Tome III, p. 253 we find the following explanation by Masudi: »De toutes les tribus turques la plus noble est celle qui habite le Thibet, puisqu'elle descend de Himyar, comme nous l'avons dit plus haut en parlant des Tobbâ, qui l'établirent dans ce pays.» Reinaud says that Masudi's statement regarding the establishment of peoples of Turkish race into Tibet and the valley of the Indus is confirmed by a Persian work, Mojmel-al-tevarik, and by ALBERUNI.

[2] Op. cit. Tome II, p. 202.

[3] »Die arabischen Schriftsteller rechnen Tibet teils zum Chinesischen, teils zum Indischen Reiche; sie wissen, dass ihre nördlichen Nachbaren die Tagazgazen, d. h. Toguz-uiguren sind, wie sie von Abul-Ghazi und Raschid ed-din genannt werden, und deren Hauptstadt jene Kuschan war, in welcher ehemals die Handels-Magasine der tibetischen Issedonen gewesen waren ... Sie sagen dass die Karluken auch Nachbaren der Tibetaner gewesen, welche östlich von Jaxartes bis zur westlichen Grenze des chinesischen Reiches sich herumtrieben.» — Count KUUN, op. cit. p. 41. Compare note p. 47.

[4] The Oriental Geography of EBN HAUKAL, an Arabian traveller of the tenth century. Translated by Sir WILLIAM OUSELEY. London 1800, p. 10, 12, 155, 233 and 239. I do not change the curious spelling of some of the names.

»The country of Tibet is situated between Khurlhiz and the empire of Cheen. Cheen lies between the sea and the land of Ghuz and Tibet; and Cheen itself constitutes this climate (or division); but the other parts of Tibet were annexed to it ... Sind is the same as Mansurek; and the region of Lattian, as far as Cheen, extends along the coast of Hindoostan, to Tibet, and Cheen Macheen, beyond which no one passes. — Of the Mihran it is said that the source is the river Jihoun; it comes out at Moultan, and passes on to the borders of Besmeid, and by Mansourah, and falls into the sea on the east of Dambul. The waters of the river Mihran are pleasant and wholesome, and they say it is liable to tides, or flux and reflux, like the Nile, and that it is infested by crocodiles. The Sind Rud, at three merhileh from Moultan, is of pleasant water, and joins the river Mihran. — Musk is brought from Tibbet, and sent to all parts ... The mountainous country, bordering upon Tibet, is very populous, well cultivated, abounding in fruits, and excellent cattle; and the climat is very pure and healthy.«

The passage about the Indus is so different in ELLIOT's »*History*« that I am not sure whether it is the same as the above in OUSELEY's translation. It runs: »The Mihrán is the chief river of those parts. Its source is in a mountain, from which also some of the feeders of the Jíhún flow. Many great rivers increase its volume, and it appears like the sea in the neighbourhood of Multán. It then flows by Basmad, Alrúz, and Mansúra, and falls into the sea, to the east of Debal. Its water is very sweet, and there are said to be crocodiles in it like those of Egypt. It equals the Nile in volume and strength of current. It inundates the land during the summer rains, and on its subsidence the seed is sown, as in Egypt.«[1]

The latter version regarding the source of the Indus is rather good for a time when so little was known of the interior of this world of mountains. The usual comparison with the Nile returns, especially on account of the crocodiles. At a few places, except those quoted above, Tibet is only just mentioned. Elliot has also the passage: »From the sea to Tibet is four months' journey ...« The musk is also an object which has attracted the attention of most of the Arabian writers. Geographically Tibet remains inaccessible and almost unknown.

Nor does ALBERUNI help us to fix the position of Tibet, and if he mentions our lake, Manasa, it is only because he has got it from the Puranas. He quotes a long list of Sanscrit books in his work on India, and his geography is to a great extent purely Sanscrit. And still he could not, being a barbarian, approach the centres of Indian learning, Benares and Kashmir.

When Alberuni says: »The people inhabiting the mountains stretching from the region of Panchir into the neighbourhood of Kashmir live under the rule that several brothers have one wife in common«, one feels inclined to think of the Tibetans, but he means the tribes of Hindu-kush, Hazara, Svat, Chitral and Kafiristan.[2]

---

[1] The History of India, as told by its own Historians. Edited from the Posthumous Papers of the late Sir H. M. ELLIOT, by Prof. JOHN DAWSON. Vol. I, London 1867, p. 40.

[2] Alberuni's India, about A. D. 1030. By Dr. EDW. C. SACHAU. London 1910. Vol. I, p. 108.

The great mountain systems, the *spina dorsalis* of the old world, he describes in broad lines thus:[1]

»As to the orographic configuration of the inhabitable world, imagine a range of towering mountains like the vertebræ of a spine stretching through the middle latitude of the earth, and in longitude from east to west, passing through China, Tibet, the country of the Turks, Kâbul, Badakshân, Tokhâristân, Bâmiyân, Elghôr, Khurâsân, Media, Âdharbaijân, Armenia, the Roman Empire, the country of the Franks, and of the Jalâika (Gallicians). Long as this range is it has also a considerable breadth, and, besides, many windings which enclose inhabited plains watered by streams which descend from the mountains both towards north and south. One of these plains is India, limited in the south by the above-mentioned Indian Ocean, and on all three other sides by the lofty mountains, the waters of which flow down to it.«

»The river Ganges rises in the mountains which have already been mentioned. Its source is called Gangâdvâra. Most of the other rivers of the country also rise in the same mountains . . .«

»Bhôteshar[2] is the first frontier of Tibet. There the language changes as well as the costums and the anthropological character of the people. Thence the distance to the top of the highest peak is 20 farsakh. From the height of this mountain, India appears as a black expance below the mist, the mountains lying below this peak like small hills, and Tibet and China appear as red. The descent towards Tibet and China is less than one farsakh. — Kashmîr lies on a plateau surrounded by high inaccessible mountains . . . The north and part of the east of the country belong to the Turks of Khoten and Tibet. The distance from the peak of Bhôteshar to Kashmîr through Tibet amounts to nearly 300 farsakh . . .«

In the following words he speaks of the sources of the Jehlum, the Ganges and the Indus: »The Jailam rises in the mountains Haramakôt,[3] where also the Ganges rises, cold, impenetrable regions where the snow never melts nor disappears. Behind them there is Mahâcîn, i. e. Great China . . . The river Sindh rises in the mountains Unang in the territory of the Turks, which you can reach in the following way . . .« — the road he gives is, however, much too short to enable the traveller even to reach the neighbourhood of Ladak; and with the source of the Indus he cannot mean anything but »the farthest place to which our merchants trade, and beyond which they never pass«. He places the source of the Jehlum and Ganges in the same mountain range, behind which China is situated; but the Indus comes from another range in Turkish territory.

The following description of the rainfall in India is remarkable and clever:[4]

»In provinces still farther northward, round the mountains of Kashmîr up to the peak of Jûdarî between Dunpûr and Barshâwar, copious rain falls during two and a half months, beginning with the month Srâvana. However, on the other side of this peak there is no rainfall; for the clouds in the north are very heavy, and do not rise much above the surface. When then they reach the mountains, the mountain-sides strike against them, and the clouds

---

[1] Op. cit. p. 201.

[2] Seems to be bhautta-îśvara, lord of the bhauttas, or Tibetans (Sachau).

[3] Elliot who writes the name Harmakût identifies it with Hemakûta, »The range immediately to the north of the Himâlayas«.

[4] Op. cit. Vol. I, p. 211.

are pressed like olives or grapes, in consequence of which the rain pours down, and the clouds never pass beyond the mountains . . . This rule seldom has an exception; however, a certain amount of extraordinary meteorological occurrances is peculiar to every province of India.»

He has not much to give us as far as positive new orographical knowledge is concerned. He believes in the detailed orography of the Matsya-Purana, and enumerates the great mountains round Meru: the Himavant, always covered with snow, Hemakuta, the golden, Nishada, Nila, the peacock-like, of many colours, Śveta and Śringavant; the region between the Himavant and the Śringavant is called Kailâsa, the play-ground of the Rakshasa and Apsaras.[1]

Again having quoted the Matsya-Purana and the Vaya-Purana in connection with the rivers rising in the mountains of Himavant, he returns for a while to the solid ground of sound reality, saying:

»The reader must imagine that the mountains form the boundaries of India. The northern mountains are the snowy Himavant. In their centre lies Kashmîr, and they are connected with the country of the Turks. This mountain region becomes colder and colder till the end of the inhabitable world and Mount Meru. Because this mountain has its chief extension in longitude, the rivers rising on its north side flow through the countries of the Turks, Tibetans, Khazars, and Slavonians, and fall into the Sea of Jurjân (the Caspian Sea), or the sea of Khwârizm (the Aral Sea), or the Sea Pontus (the Black Sea), or the northern Sea of the Slavonians (the Baltic); whilst the rivers rising on the southern slopes flow through India and fall into the great ocean, some reaching it single, others combined. — The rivers of India come either from the cold mountains in the north or from the eastern mountains, both of which in reality form one and the same chain, extending towards the east, and then turning towards the south until they reach the great ocean, where parts of it penetrate into the sea at the place called the Dike of Râma. Of course, these mountains differ very much in cold and heat.»

This excellent resumé does not need any commentaries. Under the name of Himavant he means the whole Himalaya. Speaking of rivers entering India from the east, he may refer to the Brahmaputra without having any nearer information about that river. As the fifth river of the Panjab he correctly mentions Shatladar or Satlej.[2] And of the Ganges he says that the Hindus believe it flowed in ancient times in Paradise. Here again he quotes the Matsya-Purana. In his chapter about pilgrimage[3] he gets his knowledge entirely from the Puranas. The holy ponds are situated in the mountains round Meru. Thus, for instance, the pond Vishnupada is near the mountain Nishadha and gives rise to the rivers Sarasvatî and Gandharvî.

»In the mountain Kailâsa there is the pond Manda, as large as a sea, whence comes the river Mandâkini . . . South-east of Kailâsa there is the mountain Lohita, and at its foot a pond called Lohita. Thence comes the river Lohitanadî. South of Kailâsa there is the mountain Sarayuśatî (?), and at its foot the pond Mânasa. Thence comes the river Sarayû. West of Kailâsa there is the mountain Aruna, always covered with snow, which cannot be ascended. At its foot is the pond Śailôdâ, whence comes the river Śailôdâ.»

---

[1] Ibidem p. 247.
[2] Op. cit. p. 260.
[3] Op. cit. Vol. II, p. 142.

So long as this kind of symmetrical and exalted geography is confined to the Puranas it is interesting; but even a glimpse of fresh observation by an Arabian geographer would be of greater value. Such a glimpse Alberuni gives us of the town and fortress of Nagarkot, at the Mohammedan conquest of which he was present. The town was situated at the foot of the Himalaya and famous on account of its old temple. At a certain epoch the name Nagarkot became famous even in Europe, when the whole central Himalaya was called the mountains of Nagarkot, as, for instance, on ORTELIUS' map of 1579.

Another instance of first class geographical information is the following.[1] One marches 77 farsakh eastwards from Kanauj; further on the country of Tilwat is to the right;

»Thence you come to the mountains of Kâmrû, which stretch away as far as the sea.» And then he goes on to say: »Opposite Tilwat the country to the left is the realm of Naipâl. A man who had travelled in those countries gave me the following report; — 'When in Tanwat (?), he left the easterly direction and turned to the left. He marched to Naipâl, a distance of 20 farsakh, most of which was ascending country. From Naipâl he came to Bhôteshar in thirty days, a distance of nearly 80 farsakh, in which there is more ascending than descending country. And there is a water which is several times crossed on bridges consisting of planks tied with cords to two canes, which stretch from rock to rock, and are fastened to milestones constructed on either side. People carry the burdens on their shoulders over such a bridge, whilst below, at a depth of 100 yards, the water foames as white as snow, threatening to shatter the rocks. On the other side of the bridges, the burdens are transported on the back of goats . . .»

We shall have to return to this road later on. It has been trodden by the Pundits in recent years. It was used by the first Europeans who ever visited Nepal, namely GRUEBER and DORVILLE in 1662. Before their journey even the name of Nepal was unknown in Europe. In the first half of the 18th century it was travelled many times by the Capuchin Missionaries stationed in Lhasa. It is either from Padre Horatio della Penna or Fra Cassiano Beligatti that Father GEORGI has got his picturesque description of this same road from Nesti to Kuti, of which a few sentences should be attentively compared with the above quotation from Alberuni:

»Altero ab hoc rure milliario, per angustissimas scalas ex sectis mobilibusque lapidibus structas ascendis descendisque ex editissimis rupibus ad oram semper immanis præcipitii . . . Directus est iter propius ad Boream. Viæ in præcipiti positæ angustissimæ sunt, circumque altissimorum montium latera perpetuo serpunt. Rupes persæpe disjunctæ ponticulis pensilibus sine laterali fulcro, junguntur. Duodecies per tremulos hosce angustosque ponticulos ex perticis, arborumque ramis contextos transeundum est. Terrorem augent tum immensa barathra trajicientium oculis ad perpendiculum utrinque subjecta, tum strepitus & fragor ingens aquarum in imo per saxa ruentium . . . Scalpro lapidem medium excavarunt per interstitia ad gressum hominis accommodata, ut viatores haberent, quo ni totum vestigium, calcaneum saltem figere caute possent.»[2]

---

[1] Op. cit. Vol. I, p. 201.

[2] Alphabetum Tibetanum, Romæ MDCCLXII, p. 437, 438.

It runs as if the Latin version were partly translated from the Arabian, which is 700 years older.

Grueber and Dorville came from the north, and to them Kuti, now called Nilam-dsong and situated on the Tibetan side of the frontier, was »la première Ville du Royaume de Necbal» (Kircher).

To the Chinese, Nepal, under the name of Ne-po-lo, had been known hundreds of years before Alberuni's time. Hiuen-tsang, the famous and admirable pilgrim, whose journeys fall within 629 and 644, seems to be the first Chinese traveller who gathered information about Nepal, a country which he did not visit, and which had not been mentioned by the great Fa-hian who travelled to the western countries 200 years earlier.[1]

In a book which ought to be called I-tsing His Pilgrims, I-TSING, himself a pilgrim, tells us in very short and pregnant words the experiences and peregrinations of the Chinese Buddhists, who, in the second half of the 7th century, travelled to India, and of whom many, either coming from the north or from the south, crossed Nepal on that horrible road, so graphically described by Alberuni 400 years later. Several of those Chinese pilgrims who would return viâ Nepal died there, as they could not support the hard climate of the mountains. Unfortunately there is very little geography in their descriptions, or rather in the annotations of I-tsing. Here is an instance:[2] The Master of Law, Hiuen-t'ai, in 650 to 655 »prit le chemin des T'ou-fan (Tibétains), traversa le Ni-po-louo (Népaul) et arriva dans l'Inde du centre», and then returned to his home the same way.[3]

Alberuni's account of this old road is one of the most precious pearls in the geographical literature of the Arabs.

EDRISI was born at Ceuta about 1100 and had finished his great geography in 1154. He never visited the east himself, but he was a very learned man and made use of all the geographical knowledge of his time, though, as Reinaud supposes, he has not known the account of Suleiman and the remarks of Abu Said; from other works he has borrowed whole pages, and he consulted narratives which

---

[1] Le Népal, Étude historique d'un royaume hindou par SYLVAIN LÉVI. Vol. I. p. 152.

[2] Mémoire composé à l'époque de la grande dynastie T'ang sur les Religieux Éminents qui allèrent chercher la loi dans les pays d'occident, par I-tsing, traduit en français par EDOUARD CHAVANNES. Paris 1894, p. 35.

[3] When I was in Shigatse in the early spring of 1907, and the Chinese authorities would have me return to India, I made up my mind that the only way I would take in such a case, would be the famous road of the Jesuits and Capuchins and of the Chinese invasion into Nepal in 1792, famous already in the days of HIUEN-TSANG and ALBERUNI. I therefore questioned the Nepalese consul in Shigatse and he gave me a description which in every detail coincides with that of the great Arabian writer. Nothing has changed since then. Coming from the Tibetan side one can use yaks or sheep for transport, or goats as ALBERUNI has it. But where the gorge begins with its dangerous galleries above the precipices, one has to walk on foot.

have not been preserved to our time.[1] What Edrisi has to tell us of Tibet and the surrounding countries is indeed very confused. It is easy to see that the author himself had only a vague idea of the situation of the countries he describes, and of their relation to each other. And still one gets often, a strong impression that trustworthy information has been the foundation of his accounts.

I relate some extracts in the same order as they occur in Edrisi's work.[2]

The kings of the Turks, the Tibetans, and the Khazars have the title Khakan.

The great city of Semindar is said to be situated on a river which flows from the country of Kashmir; north of Semindar and at 7 days' distance is the town of Kashmir, the interior. From Kashmir, which is reckoned amongst the most famous cities, to Kanauj he gives a distance of only 7 days. The latter is a fine trading town built on the banks of a great river which empties itself into the Mosela. This river seems to be the Ganges:

Il prend sa source dans les montagnes de Caren, baigne les murs de la ville d'Asnand, passe au pied de la montagne de Lounia, puis auprès de la ville de Kelkaïan, est enfin se jette dans la mer.

Further on he uses the name Ganges:

Ses habitants[3] sont en guerre avec les Turks infidèles, et ils éprouvent souvent du dommage de la part des Turks Khizildjis. Au nombre des dépendances du Kanoudj est Atrasa, distante de Cachmir, l'extérieure, de 6 journées, et située sur les bords du Gange indien.

L'auteur du livre des Merveilles rapporte qu'il existe dans le Tibet, près la ville de Wahlan, deux montagnes séparées par un cours d'eau, où croissent, en quantité, le nard et d'autres plantes aromatiques, et où paissent beaucoup de chevrettes musquées . . .

The range of mountains, el-Kiam, is said to be the most extended in the whole inhabited universe, but the general description he gives of the orography is more confused than that of his predecessors. The range is said to come from the west:

Elle suit les bords de la mer Caspienne, touche au lac d'Aral, passe au sud du pays des Ghoz, et parvient à Farab, d'où elle court vers l'est, joint les monts Ferdahas, qui sortent de la mer de la Chine ou de l'océan, traverse le Tibet par son milieu, passe au sud-est du pays des Khizildjis, en sorte qu'elle embrasse depuis les confins des pays de l'islamisme jusqu'à Ferghana. — Une (autre) branche de cette montagne se dirige au midi de Ferghana, vers les montagnes d'el-Botem, dont elle tire son nom.

The range is then described as returning westwards and finally joining the principal range.

---

[1] »Avec tous ces secours, et tout en faisant un livre d'un usage indispensable, Édrisi, en quelques points, fit plutôt reculer la science géographique qu'il ne l'avança.» Relation des Voyages . . . etc. Tome I p. CXXI. In the same direction Richthofen expresses his opinion of Edrisi: »Die phantastischen Zusammenstellungen von Edrisi zeigen am besten die Unklarheit der Begriffe, die man von der geographischen Anordnung der einzelnen Länder und ihrem Charakter hatte.» China, I, p. 567.

[2] Géographie d'Édrisi. Par P. Amédée Jaubert. Paris 1836. Tome I, p. 175 et seq., 336 et seq., and 490 et seq.

[3] The inhabitants of Kashmir.

In his 9th section Edrisi deals with Tibet, Bagharghar and the country of Khizildjis, but here it is as difficult to know one's whereabouts, though in some cases we must think that he really means regions well-known in our own days:

Dans ces diverses contrées on trouve des lacs d'eau douce, des rivières, des pâturages et des lieux de campement d'été pour les Turks . . . La Chine extérieure a pour limites le pays de Bagharghar, lequel est voisin de la mer orientale; du côté du Ferghanah, le pays de Tibet, lequel touche à la Chine (proprement dite) et à diverses parties de l'Inde, et du côté du nord, le pays des Khizildjis.

The capital of Bagharghar is Tanbia', situated on the banks of a river running to the east; JAUBERT thinks he means Kashgar.

La ville de Tibet est grande, et le pays dont elle est la capitale porte son nom. Ce pays est celui des Turks Tibétains. Ses habitants entretiennent des relations avec ceux du Ferghanah, du Botm et avec les sujets du Khakan; ils voyagent dans la majeure partie de ces contrées et ils y portent du fer, de l'argent, des pierres de couleur, des peaux de léopard et du musc du Tibet. Cette ville est bâtie sur une éminence au pied de laquelle coule une rivière qui va se jeter dans le lac de Berwan, situé vers l'orient; elle est ceinte de fortes murailles et sert de résidence à un prince qui a beaucoup de troupes et beaucoup de cavalerie revêtue de cottes de mailles et armée de pied en cap.

Coarse silk stuffs are manufactured, Turkish slaves and musk are sold to Ferghana and India. The country of Bagharghar is situated between Tibet and China, and is bordered to the north by the country of the Khirkhirs, which Jaubert suggests as standing for Kirghis.

Au nombre des dépendances du Tibet est Buthinkh, ville de moyenne grandeur, bâtie sur une éminence, ceinte d'une forte muraille en pierre et munie d'une seule porte; il y a des fabriques et il s'y fait un commerce très-actif avec les pays environnants, c'est-à-dire avec le Kaboul, le Wakhan, le Djil, le Wakhch, et le pays de Raset; on en tire du fer renommé et du musc. — On rapporte que le nard indien croît en grand abondance dans les montagnes voisines de Buthinkh, et qu'au sein des forêts qui les couvrent, on trouve des chevrettes à musc en quantité; on ajoute que ces animaux broutent la cime de la plante, boivent de l'eau de la rivière qui coule à Buthinkh, . . . — On voit aussi, dans ces montagnes, une grotte extrêmement profonde au fond de laquelle on entend le bruit d'un torrent; il est absolument impossible d'atteindre le fond de cet abîme, et quant au bruit que font les eaux, on l'entend très-distinctement . . .

C'est également là que croît la rhubarbe de Chine . . . . . Chermakh est le nom de la rivière qui coule à Buthinkh, (ville), éloignée de 5 journées de distance du lac de Berwan. Cet intervalle est couvert de pâturages, de forêts et de châteaux-forts appartenant aux Turks Tibétains. Le lac s'étend, en longueur, sur un espace de 40 parasanges; sa largeur est de 72 milles; ses eaux sont douces; les habitants de Berwan et d'Oudj y pêchent beaucoup de poisson.

Ces deux dernières villes, comprises dans le Tibet, sont situées sur les bords du lac . . . bâties sur des collines riveraines du lac, dont les babitants de ces deux villes boivent les eaux . . . Le lac de Berwan reçoit de tous côtés un grand nombre de rivières considérables.

Non loin des villes de Berwan et de Oudj, du côté du midi, est une montagne recourbée en forme de '*dal*', et tellement haute, que ce n'est qu'avec beaucoup de peine qu'on peut atteindre son sommet dont le revers touche aux montagnes de l'Inde. Sur ce sommet est un plateau fertile où l'on voit un édifice carré dépourvu de porte . . . .

One is lost in this stream of positive geography which has such a fascinating resemblance to the truth. Edrisi provides an indication about the sources originally used for the details he gives regarding Tibet, Bagharghar and the country of the Khizildjis: »Nous en parlerons d'après ce qu'offrent de plus certain et de plus authentique les livres écrits et composés sous la dictée de Turks qui, ayant traversé ces pays ou ayant habité dans leur voisinage, ont pu rapporter ce qu'ils en savaient.»[1] But could these Turks really describe what they had seen? And were those who took down the notes not liable to misunderstandings? Such an able man as Grueber who saw a good deal of these countries with his own eyes hundreds of years later, could not describe them sufficiently well to make it possible for others to follow his routes in detail on the map. Even Abbé HUC, 700 years after Edrisi, is very vague in the most interesting portion of his journey, and still he had studied the country from autopsy, while Edrisi presents us with third or fourth hand knowledge.

It may seem audacious to try and bring his geography in accordance with our present map of Tibet, but I cannot help making a few suggestions.[2]

As I have pointed out before, he very likely refers, as a rule, only to Ladak and western Tibet, or to the region which in about 1150 obeyed the king of Ladak. Ladak is even now called Tibet by the Mohammedans; and Leh is simply called Tebbet by the natives or Eastern Turkestan. Edrisi says that the great city of Tibet is the capital in the country of Tibet which is inhabited by Tibetan Turks, all of which coincides exactly with the actual state of things, remembering that the

---

[1] Op. cit. Tome I p. 490.

[2] I must also use this opportunity to make good a grave mistake I made years ago before I had ever seen Tibet. Only on account of a certain resemblance of words, I wrote to Baron von Richthofen, quoting Edrisi: »Sollte nun unter Berwan der Karaburan Prshevalsky's zu verstehen sein, so könnte man das halbkreisförmige Gebirge als den Altyn-tagh deuten. Allein, wenn die Stadt Buthinkh der Araber Khotan sein soll, so genügen die fünf Tagereisen nicht, um den See zu erreichen . . .» Dr. Sven Hedin's Forschungsreise nach dem Lop-nor. Januar bis Mai 1896. Briefliche Mitteilungen an Herrn v. Richthofen. Zeitschrift der Gesellschaft für Erdkunde zu Berlin, Bd. XXXI. 1896, p. 352. This is of course absurd and should never have been printed. With a feeling of consolation and surprise I read the following words by Sir THOMAS HOLDICH: »The course of the river on which the town (Tibet) is built, no less than the name of the lake (Berwan) into which that river falls and the description of the Turk slave girls, is quite inapplicable to anything to be found in modern Tibet. I have little doubt that the Tibet of Idrisi was a town on the high-road to China, which followed the Tarim River eastward to its bourne in Lake Burhan. Lake Burhan is now a swamp distinct from Lob, but 1000 years ago it may have been a part of the Lob system, and Bagnarghar a part of Mongolia . . . It is impossible to place the ancient town of Tibet accurately. There are ruined sites in numbers on the Tarim banks, and amongst them a place called Tippak, but it would be dangerous to assume a connection between Tibet and Tippak. This is interesting, because it indicates that modern Chinese Turkistan was included in Tibet a thousand years ago . . .» The Gates of India being an historical narrative by Colonel Sir Thomas Holdich. London 1910, p. 282. Regarding the identification of Berwan as Kara-buran, it is curious that two writers could fall upon such an extraordinary idea.

The matter should not be complicated more than necessary. When Edrisi happens to say quite correctly that Tibet borders upon China proper and on different portions of India it is hard to see how it could be a town on the banks of the Tarim.

Arabs reckoned the Tibetans amongst the Turks. Edrisi's Tibet, i. e. Ladak, is in communication with Ferghana and the Turks further north, which also very likely was the case in a much higher degree than now. Amongst the products exported from Tibet, are mentioned musk and rhubarb, both very characteristic things for Tibet. The capital of Tibet, i. e. Leh, is well fortified and built on a hill, and at its foot a river runs, — the Indus.[1]

The King of Tibet has a great army. Of course Edrisi could not know his name. But the Rev. A. H. FRANCKE tells us that about 1125 to 1150 the King of Ladak was Lha chen Utpala, son of Lha chen rgyalpo. »He united the forces of Upper and Lower Ladakh, subjected all the vassal chiefs, and even conquered a new province, Lowo, east of Purang; so that his empire was perhaps even greater than that of Nyima gon . . . He also invaded Kulu, and the King of Kulu bound himself by oath, 'so long as the glaciers of the Kailasa do not melt away, or the Manasarowar Lake dry up, to pay his tribute to the King of Ladakh' . . .«[2] Nyima gon's empire as shown on a map by the Rev. A. H. Francke, embraced eastwards, the whole upper basin of the Indus, Satlej and Brahmaputra. And now we hear that Edrisi's king of Tibet was perhaps mightier still. Lha chen Utpala's Empire is very likely the same as Edrisi's Tibet.

Another question is whether Edrisi's fortified city Tibet, can be identical with Leh. Francke has found that the dynasty of the ancient *kings of Leh* had taken their name after Kesar, an old saga or epic song which enjoyed great popularity in about 1000 A. D.[3] The first royal palace at Leh was built by Trashi namgyal, about 1500—1530, and the present castle of Leh, the favourite residence of the later kings, was completed in three years during the reign of Sengge namgyal, about 1590—1620.[4] But there may have been buildings on this picturesque hill already in the time of Edrisi.[5]

A difficulty is presented in the statement that the river Indus flows eastwards, and empties itself into the lake of Berwan. But this may easily have been a misunderstanding of Edrisi, and the original information must have been that the river came from lake Berwan and flowed westwards.[6]

---

[1] Sir HENRY YULE says: »Ladakh is probably 'the city of Tibet, built on an eminence over a river' of Edrisi», Cathay and the way thither, Vol. I, London 1864, p. LXX.

[2] A History of Western Tibet. One of the Unknown Empires. London 1907, p. 64.

[3] Op. cit. p. 56.

[4] Op. cit. p. 84 and 99.

[5] In a letter, dated March 1st 1913, the Rev. Francke sends me the following communication: »Leh war erst eine dardische Siedelung, deren Name noch unbekannt ist. Tibetische Nomaden hatten dort ihre Hürden, welche sie gelegentlich besuchten. Diese Hürden nannten sie Glas oder Hlas (= lHas), aus welchen später Gles, lHes, sLes wurde; dies sind tibetische Bezeichnungen von Leh. Hauptstadt wurde Leh erst im 14ten Jahrhundert.«

[6] Even Europeans may sometimes get alarmed about the directions of rivers. Lord DUNMORE was astonished that the Chahlung river of the Pamirs did flow to the east instead of the west and calls this very simple fact »a geographical problem impossible for us to solve«. And he had *seen* the river Chahlung, while Edrisi had never seen the river of the city of Tibet. The Pamirs, Vol. II, p. 3.

Where is the lake of Berwan? *A priori* it is certain that Edrisi exaggerates its size, for no freshwater lake exists in these regions, being 40 farsakh long and 72 French miles broad. But why should he not exaggerate when the Puranas talk of a pond in Kailas as large as a sea, and Masudi speaks of a northern fresh-water sea?

Edrisi has heard that rivers flow into Berwan from all sides. The lake has sweet water and much fish. The inhabitants of the cities of Berwan and Oudj drink the water of the lake. All this agrees exactly with Manasarovar, which is a fresh-water lake, rich in fish, receiving many affluents from the surrounding mountains, and with natives on the hilly banks, who drink the water of the lake. There are no cities now, but eight temples, of which five are built on the very shore and three on hills.

The coincidence seems not to leave anything to be desired when we read in Edrisi that south of the lake is a high mountain. He does not mean Gurla Mandata. He simply means one of the passes, for he has heard of a road crossing the mountain. It may be Lipu-lek or any other pass leading from Purang to the southern valleys. He even knows that the southern side of this mountain faces the mountains of India, as is indeed the case. His pass is very flat, like a plateau, and there is a hut or hospice for travellers. Edrisi greatly exaggerates the happiness everybody feels upon reaching the summit of the mountain. Perhaps he has been told that caravan-men, when walking up to the vertex of the pass, salute the spirits of the mountains and sing a song, as the Ladakis do even nowadays, and he has adorned this ceremony in his own way. But Edrisi does not believe a bit of the whole story, which, nevertheless, is a »chose de notorité publique».

Berwan may be a corruption for Purang, and Manasarovar may have been called the lake of Purang by Mohammedans. Which other fresh-water lake in western Tibet could have been meant? There are none which could have been known to Mohammedan travellers. The Manasarovar is on the highroad to Eastern Tibet and Lhasa. And only the Manasarovar was a lake of wide-spread fame. There is a road from Berwan to Buthinkh. Should this place be Lhasa? And the river Chermakh, Yere-tsangpo or upper Brahmaputra? The five days' journey do not impress me in the least. In 1328 Friar ODORICO DE PORDENONE calls Lhasa, Gota, which CORDIER thinks is Pota(la); Buthinkh may stand for Bota or Pota, Buthan, Barontala? But here we are more liable to mistakes.

Already in 1683 GIACOMO CANTELLI, on his map *La Gran Tartaria*,[1] has placed Lago di Beruan in Regno di Bovtan which he represents as a part of Tobat, Thibet or Thebet. The capital is also called »Thibet forsan Boutan», and lies west of the lake. On the shores of the lake are two cities Beruan and Vga, obviously corresponding to Edrisi's Berwan and Oudj. Cantelli gives as his sources the

[1] See Pl. XXXIII.

Jesuit Missionaries (probably Andrade and Grueber), TAVERNIER and THEVENOT, in whose accounts I have not been able to find any mention of lake Berwan or Beruan. But I shall have to return to this map later on.[1]

The following are some extracts from Tome II in Jaubert's translation.[2] He describes the country of Adhkach. To the east it has the mountains which surround Gog and Magog. It is rich in butter and honey and has innumerable flocks of sheep and oxen.

Au midi de cette contrée, il existe un lac dit de Téhama dont la circonférence est de 250 milles. Les eaux de ce lac sont d'un vert foncé; elles exhalent un parfum agréable et sont d'une saveur excellente. On y trouve une sorte de poisson plat de couleurs variées . . . Au milieu de ce lac il existe une espèce d'île dont le sol est extrêmement fertile et toujours covert d'une abondante végétation. Les Turcs y font paître leurs troupeaux et y campent durant toute la belle saison. Au centre de l'île est un puits sans eau dont on n'a pu trouver le fond. L'île produit, à ce qu'on dit, une plante dont les feuilles ressemblent à celles du so'ad, qui s'étendent beaucoup, et qui sont de couleur verte . . .

Quatre fleuves ont leur embouchure dans ce lac. Le premier est le Téhama, considérable, mais peu rapide, et très-profond. Ses sources sont à 6 journées de distance du lac, et

---

[1] Edrisi's Berwan has a striking resemblance to Ibn Batuta's Barwan, of which the latter says: »After this (Kundus and Baghlan) I proceeded to the city of Barwan, in the road of which is a high mountain, covered with snow and exceedingly cold; they call it the Hindu Kush, i. e. Hindoo-slayer, because most of the slaves brought thither from India die on account of the intenseness of the cold.» (The travels of Ibn Batûta translated from the abridged Arabic manuscript copies . . . by the Rev. SAMUEL LEE, London 1829, p. 97). Ibn Batuta proceeded from Barwan to El Jarkh and Ghizna, which was only 10 stages from Kandahar. His Barwan is the same of which Alberuni speaks in connection with the river Ghorwand (the present Gorbend) which he says rises in the mountains bordering on the kingdom of Kabul, and which receives several affluents, amongst them »the river of the gorge of Panchir, below the town of Parwân». (Sachau's Alberuni, Vol. I, p. 259). W. TOMASCHEK identifies Parwan with the station Parthona in the Tabula Peutingerana. (Zur historischen Topographie von Persien, Wien 1883, I. p. 59). This place is still in existence, between Hindu-kush and Kabul, straight north of Kabul. But Edrisi's description does not agree with the situation of Parwan. This village is situated on a brook, which, like the Gorbend, is an affluent to Panjir or Panjjar and flows from north to south. Edrisi calls both the town and the country Tibet, while Parwan in the days of Edrisi belonged to the kingdom of the Ghaznawi, who could hardly be called Tibetan Turks. The river on which Edrisi's city of Tibet is situated, is in connection with the lake Berwan, and only *there* is the city of Berwan. Alberuni's and the present Parwan, is on a rivulet, which is in no connection whatever with a lake. The cities of Berwan and Oudj of Edrisi are »belonging *to Tibet*», and »situated on the shores of the lake», which is supposed to have the enormous dimensions of 40 farsakh × 72 leagues.

On Cantelli's map, Pl. XXXIII, below, both the lake Beruan and the city of Paruan are entered; such is also the case with DE WITT's map, Pl. XXXV. On many other maps, as, for instance, Pl. XXIX, XXXII, XXXIV, and XXXVIII, Parvan is to be found. In some cases, as on Pl. XXXI, both Parvan and Kabul have been placed in the country north of the mountains, from which the Indus and the Ganges take their rise, a country which by no means is identical with what we call Tibet.

According to TOMASCHEK Parwan was well known by the Arabs: »Die arabischen Geographen nennen oft den zu Bāmiyān gerechneten Rustāq Parwān mit dem gleichnamigen Vororte, welcher in der älteren arabischen Epoche ein befestigtes Heerlager, 'askar', bildete, woraus die Wichtigkeit der Lage erhellt», (l. c.). Edrisi cannot have ignored Alberuni's detailed description of the situation of the place. Still he does not mention Parwan, only Berwan. From the Turkish informants he refers to, he has very likely got a description of the Manasarovar, the Indus and »Tibet», and confounded them with Parwan, which sounded like Purang.

[2] Neuvième Section, p. 344 et seq.

elles se composent de trois fontaines surgissant en abondance, à la distance de 2 journées les unes des autres. Un de ces cours d'eau coule à l'occident, et un autre à l'orient de la ville au-dessous de laquelle ils se réunissent, forment une masse d'eau considérable et se jettent dans le lac. Les habitants du pays d'Adhkach y conduisent leurs enfants pour les purifier dans les eaux de ce fleuve, à l'époque de la puberté . . . Ils disent qu'en buvant pendant sept jours de l'eau de ce fleuve, on a la certitude d'être guéri de quelque maladie que ce puisse être; qu'en se lavant la tête avec cette eau, on est exempt de migraines pendant un an. Enfin ils ajoutent à ce sujet tant d'assertions et tant de particularités merveilleuses, qu'il (nous) paraît convenable de les passer sous silence.

Le second des fleuves qui se jettent dans ce lac provient de la montagne de Djenf. Son cours est rapide et son lit rempli de cailloux roulés . . . Ses eaux sont douces, mais execessivement froides.

Le troisième prend sa source dans la montagne d'Ascaroun, coule vers l'orient, jusqu'à Rechaca, passe au midi, baigne les murs de cette ville, puis se dirige vers l'orient, coule au nord de Baknoun, ville auprès de laquelle il détourne son cours vers le midi, longe la base des montagnes de Ras, se jette dans la rivière de Djenf, puis dans le lac.

Le quatrième vient du midi.

Au nord de ce lac il existe une colline de terre rouge parsemée de trous de toutes parts . . . Sur le sommet de la colline il existe une ville du nom de Chanderan.

A 4 journées de ce lieu est la montagne de Kharda, très-haute et de toutes parts inaccessible, car ses flancs sont à pic et semblables à des murailles unies; mais au-dessous de cette montagne on a taillé une grande porte, et, après avoir fait des excavations, on y a pratiqué un chemin, ou plutôt un escalier avec des marches, par lequel on parvient au sommet de la montagne et à une ville extrêmement forte et capable de résister, quand même il n'y resterait qu'un seul homme. Au centre de la ville est une source d'eau douce très-abondante . . . L'excédant de cette eau s'écoule auprès des murs, sans qu'il en reste aucune trace, dans un trou dont personne ne connaît la profondeur.

It is seven days' journey from Fort Kharda to a mountain called Cocaïa.

Cette montagne est celle qui ceint le pays de Gog et de Magog. Elle est tellement abrupte qu'il est impossible de la gravir, et quand même on y parviendrait, il serait impossible d'attaindre son sommet, à cause de la quantité de neiges éternelles qui y sont amoncelées et des broillards épais qui toujours l'environnent. Au delà sont de nombreuses villes dépendentes du Gog et du Magog. Il y a dans cette montagne nombre de serpents et de reptiles énormes qui vivent au fond des vallées . . .

Finally he tells us that north of their country is a range of mountains called Farghan, 18 marches long from west to east. In these mountains there is a round plateau with a lake of unknown depth. At the foot of the mountain, towards the south and opposite the lake, there is a cavern from which a terrible noise often rises. The Adhkach Turks have large faces, big heads, much hair, very lively eyes, speak a particular language and worship the fire and every brilliant thing.

An interesting passage in Edrisi's rather confused account is that about lake Téhama and its four rivers. The story of the four rivers has ancient root in Asia, all from Genesis, 2: 10, where a stream is said to have issued from Eden, spreading itself into four great rivers, Pison, Gihon, Hiddekel or Tigris, and Frat or Euphrat. On his map FRA MAURO identifies Ganges with Pison, at least he has the name

Phison entered at the side of Ganges.[1] The Vishnu Punana tells us how the Ganges, after encircling the capital of Brahma, divides into four mighty rivers, flowing in opposite directions, Sita, Alaknanda, Chakshu and Bhadra.

The names and the distances of Edrisi do not, of course, play any part whatever in an account where so much is in confusion. The same is the case with the direction of these rivers. Edrisi makes them enter the lake instead of issuing from it. In the following pages we shall often have to deal with the four rivers issuing from the Manasarovar. DELISLE and TIEFFENTHALER believe, at least partly, in their existence and have them on their maps; Delisle, however, has only two. Even in our own days one hears, from time to time Tibetans asserting that four rivers flow underground to the mouths of the Lion, the Elephant, the Peacock and the Horse, these rivers being the Indus, Satlej, Map-chu, and Tsangpo-Brahmaputra.

The first of Edrisi's four rivers may be the sacred Ganges, »heard of, bathed in, sanctifying all beings», for he says the inhabitants of Adhkach take their children to bathe them and purify them in its water. The natives regard the ablutions in the Téhama as incontestable. Drinking the water heals every sickness, and washing the head with it ensures against headache for a year. The eternal wonders of the Ganges-water believed in by the Hindus have been digested in a more practical way by the Mohammedan writer.

North of the lake are some famous mountains, one of which, Cocaïa, is described as very abrupt and covered with eternal snow. This may be the Kaïlasa.[2]

To this discussion it might be objected that Edrisi should have described the Manasarovar as if it were two different lakes, the Berwan and the Téhama, the one in Tibet, and the other in the country of the Adhkach. But this is not at all surprising, for Edrisi is, as a rule, very confused and having taken his information from two different sources about one and the same lake, he very likely believed that he had to do with two quite different lakes in different countries. And we should not forget that both these countries were practically unknown in his time. The same

[1] »Mappamondo di Fra Mauro. Da una copia fotografica dell'originala veneziano, esistente presso l'Istituto Geografico Militare.» Studi Italiani di Filologia Indo-Iranica, Dirett: da FRANCESCO L. PULLÉ. Vol. IV. Atl. della Parte I, Firenze 1901. See below Pl. XIII.

[2] In this mountain numbers of enormous serpents are living. Such tales were told 150 years later by Marco Polo, though in one case his serpents were crocodiles. Yule: The Book of Ser Marco Polo. Vol. II, p. 76. Of a quite different part, namely, a place belonging to the Presidency of Madras, Marco Polo says: . . . »in those mountains great serpents are rife to a marvellous degree, besides other vermin, and this owing to the great heat. The serpents are also the most venomous in existence, insomuch that any one going to that region runs fearful peril; for many have been destroyed by these evil reptiles». Op. cit. Vol. II, p. 360. There is a great resemblance between this and EDRISI's: »Il y a dans cette montagne nombre de serpents et de reptiles énormes . . ., d'où résultent des dangers et des obstacles pour quiconque voudrait la gravir.» The following legend on GASTALDI's map of 1561, placed in a region far to the east of the source of the Ganges, probably refers to Marco Polo's serpents as described in his Vol. II, p. 76: »qui ui sono serpe grandisime»; and the same must be the case with Mercator's legend at the very source of the Ganges, on his map of 1569: »In his montibus sunt serpentes maximi.» I do not know whether Edrisi's serpents are taken from the same source as those of Marco Polo and the old maps.

mistake had been made in antiquity, by Ptolemy, regarding the Oechardes and Bautisus. And it has been made by geographers, who died only a few years ago, in connection with the Tsangpo and Brahmaputra.

As regards Edrisi's sources, DOWSON says: »Idrísí gives a full compilation from the works of his predecessors, with some additional matter from sources now lost to us, but he does not appear to have used the writings of Bírúni (Alberuni), and his work is blemished by many false spellings.»[1] As quoted above Reinaud supposes he did not know Suleiman's account either. So far as I can see, and whatever he has taken from others, his description of Tibet is not like anything else written by Arabian geographers. In those places where he talks of the lakes which cannot possibly be anything but the Manasarovar, he must necessarily give the impression that he has derived his knowledge from travellers who have heard of the lake and, quite naturally, in many details misunderstood what they heard. So far as our region, the Manasarovar and the sources of the great Indian rivers, is concerned, Edrisi is by far the most interesting of all Arabian writers.

JAKUT, who died in 1229, has a good deal to tell about Tibet, but nearly all of it is copied from Masudi, except a few passages without geographical interest.

Concerning MUHAMAD BAKHTIYÁR it is told that in 1243 A. D. he marched towards the hills of Tibet. »Their roads pass through the ravines of the mountains, as is quite common in that part of the country. Between Kámrúp and Tibet there are thirtyfive mountain passes through which horses are brought to Lakhnauti».[2]

In his Jámíu-t Tawa'ríkh, which was completed in 1310, RASHIDEDDIN has a chapter about India, most of which is taken from Alberuni.[3]

Opposite to Mount Meru, he places another mountain which is said to be composed of gold and silver.

The Hima mountains lie on the north of Kanauj, and on account of snow and cold form the extreme point of the habitation of man. This range has Kashmir in its centre . . . The rivers of the entire country of Hind, which flow from the northern mountains, amount to eleven . . . Some other mountains are called Harmakút (Hemakúta), in which the Ganges has its source. These are impassable from the side of the cold regions, and beyond them lies Machin. To these mountains most of the rivers which lave the cities of India owe their origin. Besides these mountains there are others called Kalárchal. They resemble crystal domes, and are always covered with snow, like those of Damáwand. They can be seen from Tákas and

---

[1] H. M. ELLIOT: The History of India, as told by its own Historians, edited by Prof. JOHN DOWSON. Vol. I. London 1867, p. 353.

[2] Elliot's History, Vol. II, 1869, p. 310.

[3] Elliot's History, Vol. I. p. 44 et seq.

Laháwar (Lahor). Then there are the mountains of Bíllúr, in the direction of Turkistán, which are denominated Shamílán. [1]

The Jehlum he calls the river of Tibet, a new indication that by the name Tibet was generally understood only the western part of the mountainous world. The rivers of Panjab are all said to combine with the Satlader or Satlej. From the same mountains which send down the »panj-ab» or five rivers to the south, the »haft-ab», or seven rivers, go to the north and form the river of Balkh, Amu-darya.

The city of Kanauj stands on the western bank of the Ganges; to which BINÁKITÍ, who quotes portions of this chapter, adds: »which comes from the city of Turmuz, through the mountains of the east» (Elliot); a curious statement, regarding Rashideddin's view that the seven rivers of the Amu-darya join at Turmuz. Rashideddin himself is better informed than Binákití. He says: »The Ganges issues from its source, called Gangdwár, and waters many of the cities of India . . .»

Rashideddin quotes Alberuni word for word in giving the itinerary from India through Nepal to Tibet.

Of the source of the Indus we learn: »The Sind rises in the mountains of Ámak, on the borders of the Turkish country.» Alberuni has Unang. [2]

In the geography of the great prince ABULFEDA, who was born at Damascus in 1273 and died 1331, and who distinguished himself as much in scholarship as in the wars against the crusaders and Mongolians, we do not, however, find much of value as to the regions that are of special interest to us. His work was accomplished in 1321. Of the Indus, Nahr Mihran, he says it has also the name Sind, and gives the same description of its course in India as we know from his predecessors.

C'est un grand fleuve, dont l'eau est très-douce; il ressemble au Nil d'Égypte, en ce qu'il nourrit dans son sein des crocodiles . . . On lit dans le Resm-Almamour que le fleuve Mihran prend sa source sous le 126e degré de longitude et le 36e degré de latitude; qu'il coule au sud-ouest . . . [3]

He has nothing about the source of the Ganges.

Le fleuve du Gange, Nahr Gang, est appelé par les Indiens Gangou. Il s'avance à l'orient de Canoge (Kanauj) . . . Le Gange est un fleuve très-respecté des Indiens; les Indiens s'y rendent en pélerinage; ils se précipitent dans ses eaux ou se tuent sur ses rives.

The great latitudinal system of ranges in the interior of Asia he simply calls Djebel, or »the Mountain» *par préférence:*

Djebel est le nom d'une chaîne, qui partant des frontières de la Chine s'étend à l'occident jusqu'au pays de Fergana et de Osrouschna (dans le Transoxiane); elle passe entre les

[1] The Billúr-tágh or »crystal mountains» running north through Badakhshan. Shamílár is probably from the Arabic »Shamíl», north. (DOWSON). Sachau writes Bolor.

[2] Of Amak CUNNINGHAM says: »This is apparently the Tibetan Gya-nag, pronounced Ganak, which means the Black Plains, and is the name for Chinese Tartary where the Indus actually rises.» ELLIOT, op. cit. p. 64.

[3] Géographie d'Aboulféda par M. Reinaud. Tome II, Paris 1848, p. 79.

villes de Kesch et de Samarcand, et se réunit à la montagne de Bokhara, connue sous le nom de Ouarka.

Reinaud thinks that either Abulfeda did not know the name of these mountains or he believed that the native name was synonymous with »mountain». At one place [1] Reinaud writes »Djebel (Thibet)» as if Abulfeda had especially meant that part of the system which borders upon Tibet.

India is bordered on the west by Sind, on the east by the deserts which separate it from China, and on the north by the country of the Turkish nomads.

Regarding Tibet and its situation he only quotes ISTAKRI, and MOHALLABI who says: »Le Tibet (Tobbat) tombe au nord du royaume de Canoge: une grande distance sépare ces deux pays.»

Nor has the famous traveller IBN BATUTA much to tell about our parts of Asia. He lived from 1304 to 1377. Like nearly all other travellers and geographers he avoided Tibet, the inaccessible country beyond the mountains. Of the Indus he says that »it is the greatest river in the world, and overflows during the hot weather just as the Nile does . . .» [2] And of the other great river he says: »Some of the Hindoos drown themselves in the river Ganges, to which they perform pilgrimages; and into which they pour the ashes of those who have been burnt.»

In 1340 A. D. we find Ibn Batuta at Sadkawan, a place in Bengal: »From Sadkawan I travelled for the mountains of Kamru, which are at the distance of one month from this place. These are extensive mountains, and they join the mountains of Thibet, where there are musk gazelles. The inhabitants of these mountains are, like the Turks, famous for their attention to magic.» This is obviously the eastern Himalaya, for in Alberuni we have found that from the point where one turns northwards to Nepal the mountains of Kamru »stretch away as far as the sea.» [3]

Then it »happened» that he entered the country of China, and came to a city called Jabnak; »it is divided by the river which descends from the mountains of Kamru, called the Blue River. By this one may travel to Bengal and the countries of Laknouti.» From Yunnan and the Blue River one may indeed travel to Bengal, though Ibn Batuta places the sources of the river too far south, instead of in the ranges north of Tang-la.

The knowledge of the world regarding the geography of Tibet cannot be said to have been more augmented by the journey of Ibn Batuta than by that of his contemporary Friar Odorico de Pordenone, though the latter travelled straight across Tibet.

---

[1] Op. cit. p. 89.

[2] The Travels of Ibn Batūta; translated from the abridged Arabic manuscript copies, . . . by the Rev. SAMUEL LEE. London 1829, p. 100.

[3] KUUN says that Mount Kamru, or Kamaru as he has it, is situated in the province of Assam. Op. cit. p. 78.

CHAPTER V.

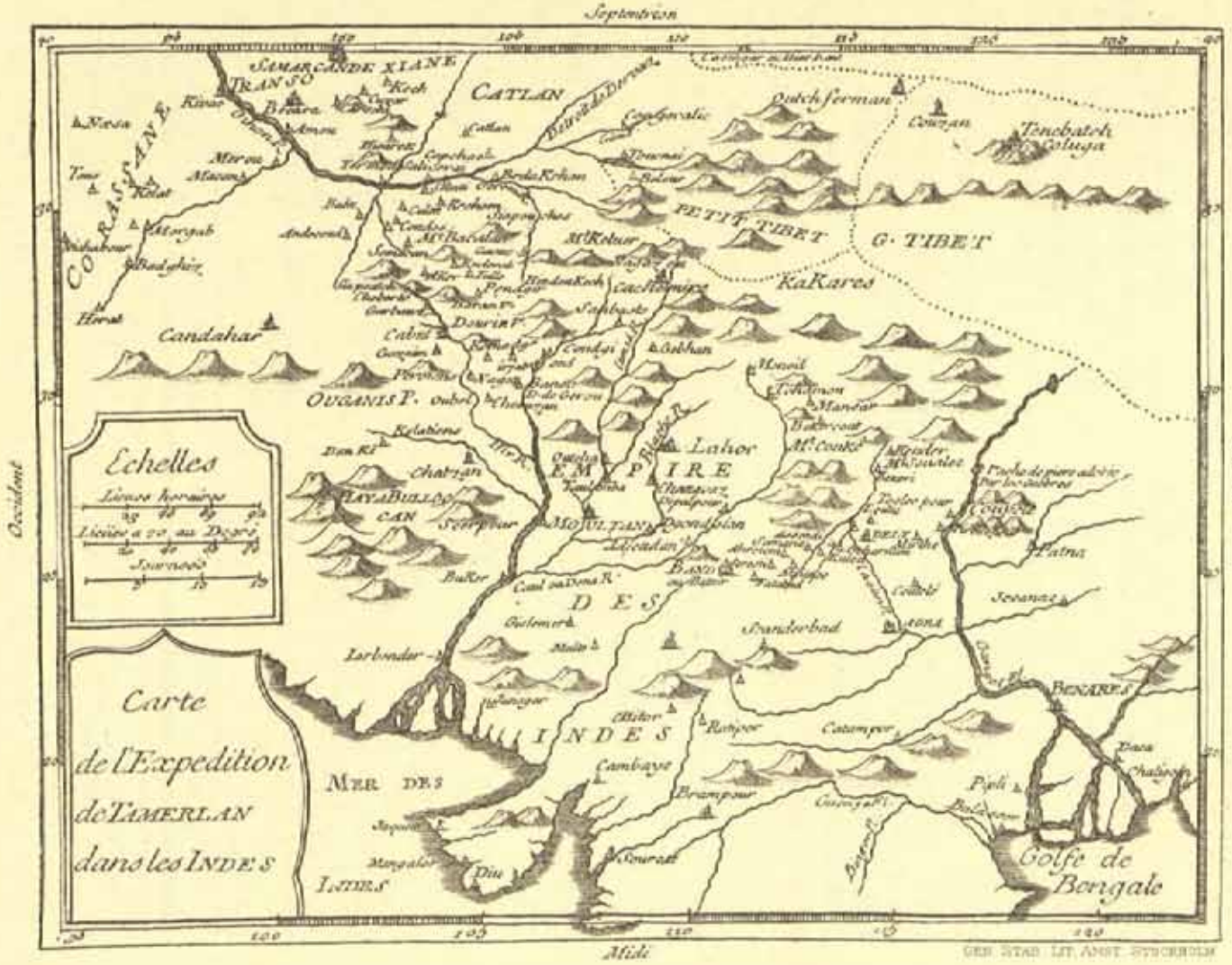
LATER MOHAMMEDAN WRITERS.

In the *Malfúzát-i Timúrí*, or the autobiographical memoir of the great conqueror TIMUR, which originally was written in the Jagatai Turki language, translated into Persian and dedicated to Emperor Shah Jahan who began his reign in 1628, we find only a few references which may be of interest in this connection.[1] During his campaign the Emperor received information that Nagarkot »was a large and important town of Hindustán, and situated in these mountains (Siwálik)». As soon as he heard this he decided to carry on war against the infidel Hindus of Nagarkot, and the city was conquered. »A party of the Hindus fled towards the mountain, and I taking a body of soldiers pursued them up that lofty mountain, and put them to the sword. After mounting to the summit I halted.»

In the city of Jabhán . . . »I made inquiries about the country and city of Kashmír from men who were acquainted with it, and from them I learned that Kashmír is an incomparable country». Its capital was called Naghaz and a large river flowed through the city. »The source of this river is within the limits of Kashmír in a large lake, some parasanges in length and breadth, which is called Vír-nák . . . The river passes on and joins the Chináb above Multán. The united waters pass below Multán and then join the Rávi. The river Biyáh comes down through another part and joins them, and the three united rivers fall into the Sind or Indus in the neighbourhood of Uch. All these (united) rivers are called the Sind or the Panjab, and this river falls into the Persian Gulf near Thatta.» He does not mention the Satlej in which the Bias falls before joining the Indus. The Ravi joins Chenab above Multan.

For a conqueror as Timur the inaccessible, and to a great extent uninhabited countries to the north had no value and no interest whatever, and he does not even mention them, though he who had drenched half Asia in blood certainly knew the geography better than anyone of his time. His historian, SHEREFEDDIN from Yesd,

[1] ELLIOT's History of India, Vol. III p. 465 et seq.



Map illustrating »Histoire de Timur-Bec», transl. by Petis de la Croix, Paris 1722.

who died in 1446, at least mentions Tibet in his *Zafar-Náma* or *Book of Victory*. And he knows the source of the Ganges, at the Cow's Head: [1]

Le Détroit de Coupelé (Montagne sur le Gange) est situé au pied d'une montagne par où passe le Gange, & à quinze milles de chemin plus haut que ce Détroit, il y a une pierre taillée en forme de Vache, de laquelle pierre sort la source de ce grand Fleuve; c'est la cause pour laquelle les Indiens adorent cette pierre, & dans tous les pays circonvoisins jusques à une année de chemin, ils se tournent pour prier du côté de ce Détroit & de cette Vache de pierre.

As Sherefeddin himself says, he has derived what he tells about Kashmir, partly from native information, partly from what he had been able to verify personally:

La forme de ce Pays est ovale: il est entouré de hautes montagnes de tous les côtés: celle du Midi regarde Deli & la terre des Indes: celle du Nord regarde Bedakchan & la Corassane: celle d'Occident regarde les Hordes des Ouganis, & celle d'Orient regarde Tobbot, ou Thebet . . .

He finds it surprising that a river with such a swift current as that of Nagaz, can come down from one single origin, the source of which is in the country itself. Of the river of Kashmir he knows:

il se joint audessous de Moultan au Fleuve Genaví (Ab-i-Chenab, Chenabi), & tous deux ensemble ayant passé Moultan, tombent dans le Fleuve de Ravi, qui passe par l'autre Moultan; ensuite le Fleuve Biah les joint, & tous auprès de la Ville d'Oütche se jettent dans le grand Fleuve Indus nommé Absend (Ab-i-Sind) . . .

He knows three roads to Kashmir, one rather difficult from India, and: —

celle de Tobbat ou Thebet est plus facile; mais durant plusieurs journées on trouve quantité d'herbes venimeuses qui empoisonnent les chevaux des passants. [2]

HAFIZ ABRU, who died in 1430, gives in his *Tárikh* a few particulars about the sources of the great rivers: [3]

[1] Histoire de Timur-Bec. Ecrite en Persan par SHEREFEDDIN ALI, natif d'Yezd, auteur contemporain. Trad. par PETIS DE LA CROIX. Vol. III, Paris 1722, p. 131 and 160 et seq.

[2] Sherefeddin's description of the rivers of the Panjab is far superior to anything written by Europeans even some 300 years later, as can be seen if his relation be compared with the little map accompanying PETIS DE LA CROIX's edition of 1722 (Pl. IV). For there is nothing wrong in Sherefeddin's hydrography. The single curious thing is that the name Bias is given to the whole course of the Satlej, from its junction with the Bias to its junction with the Chenab. The upper course of the Satlej, from the Manasarovar to the junction of the Bias, he does not mention. On Petis de la Croix's map the Jehlam joins the Chenab; but the next river eastwards, is not the Ravi as it ought to be, but the Bias, which is shown as joining the Chenab below Multan instead of the Satlej. The easternmost river of the map is called Caul or Dena and corresponds to the Satlej as can be seen from Mt. Couké, corresponding to the present Guge. Mansar may stand for Mansaroar or Manasarovar. Lahor is there, but placed on the Bias instead of the Ravi. Petit Tibet and Grand Tibet are not badly placed. Sherefeddin says correctly that the Ganges takes its origin from the Cow's Head. But on the European map the source of the Ganges is placed some 13 days' journey above the Cow which is even entered on the map and provided with the legend: »Vache de piere adorée par les Guebres». The Indians, otherwise the Hindus of Sherefeddin have, 300 years later, been improved to fireworshippers. The little map has no original value whatever; on Delisle's map of 1723 the Panjab rivers are arranged in quite a different way.

[3] Elliot, op. cit. Vol. IV, p. 4 et seq.

»This river (Sind) has its source in the skirts of the mountains of Kashmir, and runs from the western side of those mountains into the country of Mansúra. Its course is from north to south, the end turning to the east.» And of the Ganges: »Its source is on the east of the country of Kanauj . . . There are other large rivers to the east of this which are mentioned by men who have travelled in India; but their names, sources, and embouchures, have not been accurately stated. So also there are many large rivers in China, but it is not known whether they run to the east or to the west, nor where they rise, nor where they discharge.»

A hundred years later KHONDAMIR says:

»The river Ganges is a river situated to the east of Kanauj, and the Hindus are of opinion that the water of this river springs from the fountain of Paradise; having burned their dead, they throw the ashes into the stream, and this practice they hold as purifying them from their sins.» [1]

In his autobiography the great BABAR, one of the most fascinating leaders of men who ever lived in Asia (1482—1530), makes a short reference to the mountains in the north, from the western continuation of which he had such wonderful personal experiences:

»The northern range of hills has been mentioned. Immediately on crossing the river Sind, we come upon several countries in this range of mountains, connected with Kashmir, such as Pakhali and Shamang. Most of them, though now independent of Kashmir, were formerly included in its territories. After leaving Kashmir, these hills contain innumerable tribes and states, parganas and countries, and extend all the way to Bengal and the shores of the Great Ocean. About these hills are other tribes of men.» [2]

Shah Babar has traversed and described the Hindu-kush; we now come to a Mohammedan who has travelled straight through those regions of south-western Tibet which interest us here.

MIRZA HAIDAR was despatched by the Khan of Yarkand to invade Ursang and destroy its idol-temple, which was the point of adoration of the whole of Khitai.[3] His journey lies between July 4th and October 22nd, 1533 and seems to be the first in this part of Tibet, from which any reliable information exists. It is, however, very meagre in geographical detail. He started from Máryul or Leh and for 20 days found no other signs of infidels than a few fortresses. Leaving the heavy part of his army behind he went on »in all haste» with the strongest horses and the best part of his cavalry. After 50 days he came to a place called Bármang where he had a successful fight with the Champa people of Tibet. The part of the army that followed finally approached a fortress on the way, called Kárdun. The defen-

[1] Op. cit. p. 181.
[2] Op. cit. Vol. IV, p. 221.
[3] N. ELIAS and E. DENISON ROSS: The Tarikh-i-rashidi of Mirza Muh. Haidar. London 1895, p. 454 et seq.

ders of the fortress applied to one of the Rai of Hindustan who came with 3,000 Hindu infantry to help them against the invaders.

Mirza Haidar halted some days in a pasture-ground near Barmang, from where, having chosen out 900 men from the army, he set forth with them for Ursang. »From Máryul of Tibet to that place is two month's journey. After one month's journey, one comes to a spot where a lake is situated; it is 40 farsakhs in circumference, and on its shores there is a castle, which is called Luk-u-Labuk. We halted there for the night» On account of the difficulty of breathing almost all the horses died. Leaving this place, only a fifth part of the army was mounted, all the rest proceeded on foot. Two days further the province of Ham (or Hari) was plundered. »The people of that place assert that it is 24 days' journey into Bangála.» Only 90 men out of the 900 were now mounted. »With these ninety, I advanced and plundered a place called Askábrak. About 100,000 sheep, 20,000 kutás (i. e. yaks) and a proportionate number of prisoners and horses, fell into our hands. There remained eight days' journey from Askábrak to Ursang. However, the horses of our party beeing entirely broken down, we were obliged to turn back.» Six days later they started for the west. Twenty days' journey from Máryul they came to a place called Tamlik. From there they had only two marches to Guga, from which place Mirza Haidar returned.

In a note[1] the editors point out the fact that the names from Ladak and Baltistan are transliterated with remarkable accuracy and that it is only in the imperfectly known regions of Tibet proper that difficulties arise. They found an explanation to this in the fact that too little was known of the geography of Southern Tibet. The editors had in vain tried to obtain some information from Desideri, and still some 180 years later, he seemed to have travelled, »over almost exactly the same route as Mirza Haidar».

But even now, after Ryder's and Rawling's and my own expeditions in these parts of Tibet, it is not easier than in 1895 to identify the names. Tamlik seems to be somewhere at the upper Satlej, as it was only two days from Guga, which may be Guge. Ham or Hari is probably Ngari, in Chinese Ari, so much the more as it is said to be 24 days from Bangála, in its widest sense equivalent with the Indian plains. Mirza Haidar travelled with an army, and an invasion of Tibet from the west can hardly be undertaken on any other route than the ordinary trade-route from Ladak, along the Indus to the Manasarovar, Maryum-la, and the Tsangpo. The lake halfway between Leh and Lhasa points also to the same effect. Its circumference of 40 farsakh is given at 160 miles by the editors. The real circumference of the Manasarovar is 48 miles, but including the Rakas-tal, we get some 90 miles. As a rule the oriental always exaggerates the sizes of lakes. Kardun may be Gargunsa, or Gartok. On the shores of the Manasarovar I have not found any name

[1] Ibid. p. 458.

sounding in the least like Luk-u-Labuk. Only the latter half of this name has a vague likeness with Se-Libuk (Selipuk), which, however, should change the lake into Nganglaring-tso. From Selipuk there is the Serpun-lam to Lhasa, but it is not likely that an army would have chosen such a way. The heavy losses in horses cannot have been caused by »dam-giri» as he says, specially not if the horses were from Ladak. They must have died from fatigue, which points to the hardships in very high regions. But then it is difficult to account for Hari. There is nothing to be sure of, even not the statement that he arrived within 8 days from Ursang or Lhasa. In Saka-dsong there is, at least nowadays, a little temple which may have been called Saka-labrang, which has a faint likeness with Askabrak. But this place is much more than 8 days from Lhasa, though it can be said to be 8 days from the western frontier of the province of Utsang.

The *Ain-i-Akbari* compiled under the superintendence of ABUL FAZL, prime minister to Emperor AKBAR, has rightly been regarded as a gold mine of information regarding Hindustan, as it was in the days of Akbar. Of geographical matter it does not, however, contain so much as one could have expected, although it is known how Akbar took special interest in at least one of the great rivers, namely, the Ganges, even to such an extent that he sent a special expedition in search of the source of the sacred river,[1] and that he, as we are told by Abul

[1] MANOUCHI, a Venetian physician, who served at the court of Emperor AURANGZEB, tells us how the »native explorers» of Akbar discovered the source of the Ganges: »Another of Akebar's Curiosities was, that of knowing the Source of the Ganges. That River the Most Eastern of all Indoustan runs its Course from North to South . . . It's Source has always been the Ground of a Dispute between the Brachmanes of these, and the Gymnosophists of former times. In the days of Akebar it was still unknown, as the Source of the Nile was unknown not above an Age ago. The Emperor therefore spar'd no Cost to discover the Head of a River which was the best Jewel in his Crown. He Commissionated certain Persons, with orders to steer Northwards by the Banks of the Ganges, till they arriv'd at it's Fountain. He furnish'd 'em with Provisions, Horses, Mony, and Letters of Recommendation for passing undisturb'd thro' all the Countries bordering upon the Ganges, and which were not of his own Dependance. They kept on their Course towards the North, and the nearer they approached the Source, the narrower the River grew. They pass'd through untrodden Forests, where they were forc'd to cut out Paths for themselves. At last they arriv'd at a high Mountain, which seem'd to be shaped by Art into the Form of a Cows Head. Out of it issues a vast Quantity of Water, which the Commissioners supposed to be the Source of the Ganges. They penetrated no farther, they return'd after having run through various Dangers, to give the Emperor an Account of their Travels. Their Relation was inserted in the Chronicle from whence I have taken it. And after all, they have told us nothing new. Long before Akebars Time, the People in the Indies were perswaded that the Ganges took its Source in a high Mountain, whose Figure resembl'd that of a Cows Head . . . The Indians since the Days of Akebar have made some further Discoveries, and found that the Ganges only forms a Cascade on the Mountain from whence they believed it took its Source; but rises much higher in the Country towards the middle of great Tartary.» The General History of the Mogul Empire, From it's Foundation by Tamerlane, to the Late Emperor Orangzeb. Extracted from the Memoirs of M. Manouchi, a Venetian, and Chief Physitian to Orangzeb for above forty years. By F. F. CATROU. London 1709, p. 152 et seq. — On European maps from Aurangzeb's time the source of the Ganges is indeed placed far away to the north, in Tartaria Magna.

Fazl,[1] although a Mohammedan, only used to drink Ganges water both at home and while travelling.

To judge from the *Ain-i-Akbari*, Tibet was known and valued chiefly on account of its products. »Although gold is imported into Hindustan, it is to be found in abundance in the northern mountains of the country, as also in Tibet. Gold may also be obtained by the Salóní-process from the sands of the Ganges and Indus, and several other rivers, as most of the waters of this country are mixed with gold: however, the labour and expense greatly exceed the profit.»[2] Or when it is said that merchants bring to court good horses from several different countries, Kirgis, Tibet, and Kashmir amongst others. Or when the »katas» or Tibetan yak is mentioned, »an animal of extraordinary appearance, occurring in the neighbourhood of Tibet and Kashmir».[3]

Akbar was told that »in Tibet there was even now a class of Lámahs, or Mongolian devotees, and recluses, and hermits, that live two hundred years, and more»,[4] information that must have aroused the curiosity of the Emperor, who was particularly interested in religion, not least in that of the Jesuit Fathers at Goa.

The following piece of hydrography is important; it occurs under the title »*Súbah of Láhor*:[5]

»It has six principal rivers which all flow from the northern mountains. I. The Sutlej the ancient name of which is Shattudar and whose source is in the Káhlór hills[6] . . . it receives the Biáh at the Bauh ferry.[7] II. The Biáh (Bias) was anciently called Bipásha.[8] Its source is named Biahkund in the Kullu mountains in the vicinity of which the town of Sultánpúr stands above the river. III. The Ravi, the ancient I'rawati, rises in the Bhadrál hills. Lahor the capital, is situated on its banks. IV. The Chenáb, anciently Chandarbhágá . . . V. The Bihat,[9] anciently called Bidasta, has its rise in a lake in the parganah of Vér in Kashmír, flows through Srinagar and enters Hindustan . . . VI. The source of the Sindh (Indus) is placed by some between Kashmír and Káshghar, while others locate it in China. It flows along the borders of the Sawád territory . . . into Baluchistán.»[10]

---

[1] François Bernier writes that Aurangzeb also used Ganges-water, as well as all members of the court; when travelling several camels laden with Ganges-water accompanied the camp. Travels in the Mogul Empire A. D. 1656—1668 Constable's edition, London 1891, p. 221, 356, and 364.

[2] The Ain i Akbari by Abul Fazl 'Allami, translated from the original Persian, by H. Blochmann M. A. Vol. I. Calcutta 1873, p. 12.

[3] Ibidem p. 132 and 149.

[4] Ibidem p. 201.

[5] Op. cit. Vol. II, translated by Colonel H. S. Jarrett, Calcutta, 1891, p. 310.

[6] I do not know whether the Káhlór hills stand for Kulu or Kailas or anything else. The source of the river in Manasarovar seems to have been unknown, at least to the compilators of the Ain-i-Akbari. In a note the translator says: »It rises like the Indus on the slopes of the Kailás mountains . . . The twin lakes of Mánasarowar and Rakas-tal, united with each other, are its direct source», a statement which is only partly correct.

[7] P. 326 is found a more detailed description of the junction of the Bias and Satlej.

[8] Sanscrit Vipasa, Greek Hyphasis.

[9] Sanscrit Vitasta, Ptolemy's Bidaspes.

[10] The uncertainty betrayed by this passage becomes so much the stronger when it is said later on, p. 364, that the river called Sind rises in Tibet.

Under the title »*Súbah of Bengal*»[1] we read:

»Its rivers are countless and the first of them in this province is the Ganges: its source cannot be traced. The Hindu sages say that it flows down from the hair of Mahadeva's head. Rising in the mountains towards the north, it passes through the province of Delhi . . . In praise of this stream the Hindu sages have written volumes. From its source to its mouth it is considered sacred but some spots have peculiar sanctity.»

It is added that this sacred water is sweet, light, wholesome, and may be kept in a vessel for years without undergoing any change. The compilator of *Ain-i-Akbari* seems to have been very uncertain about the source of the Ganges, for, at another place,[2] dealing with the *Subáh of Dándés* he speaks of a holy place called Chikar Tírth, with an image of Mahádeo, and adds:

»Near it a spring rises which is held to be the Ganges. An ascetic by the power of the Almighty was in the habit of going to the Ganges daily from this spot. One night the river appeared to him in a dream and said: 'Undertake these fatigues no longer; I myself will rise up in thy cell'. Accordingly in the morning it began to well forth and is flowing at the present time.»

At last we meet with the Brahmaputra: »Another river (in Bengal) is the Brahmaputra. It flows from Khatá to Kúch and thence through the Sarkár of Bázohá and fertilizing the country, falls into the sea.»[3] Just as the easternmost river of the Panjab, the easternmost river of Bengal has escaped the attention of the Mohammedan geographers for hundreds of years. Such was the case especially with the Brahmaputra which was situated far away from the centre of Mohammedan power in India.[4]

Kashmir was of course very well known in Emperor Akbar's days, — he himself, is said to have travelled the Pir Panjal-road thrice. Great Tibet is placed to the N.E., and Little Tibet to the N.W. of Kashmir. Lár is the district which is said to border on the mountains of Great Tibet. To the north of Lár there is a lofty mountain which dominates all the surrounding country, and the ascent of which is arduous.[5]

The old Sanscrit orography of the mountains north of India is related by Ain-i-Akbari, and again we meet Sumeru, Himáchala, Hemakúta, Nishada and the rest, without becoming the wiser as to their situation in relation to each other. Even Kailasa is mentioned, though there are many mountains with this name. Amongst the sacred places of pilgrimage of the Hindus, the Ganges is enumerated as No. 1, and the Satlej as N:o 24.[6]

[1] Op. cit. p. 120.

[2] Op. cit. p. 224.

[3] To which the translator has a note: »Its rise is supposed to be from the SE. base of the sacred Kailás hill, on the opposite side of the waterparting in which the Sutlej and the Indus also take their rise . . .», a view that is not in accordance with reality.

[4] In his Akbar Nama Abul Fazl relates war operations on the banks of the Brahmaputra, »which is a large river, that flows from Khatá», Elliot's History. Vol. VI. 1875, p. 73.

[5] Op. cit. p. 363.

[6] Op. cit. Vol. III. Calcutta 1894, p. 30, 290 and 303.

In Shah Jahangir's time the expression Tibet seems chiefly to have included Baltistan and Ladak. Himalaya was simply called »the mountains of Jammu and Kangra»;[1] Kangra was the name of the fort of Nagrakot, and in Europe the Himalaya was called »the mountains of Nagrakot».

The last extract on Tibet, from a Mohammedan text worth mentioning, I find in SCHEFER's translation of Bokhari's *History of Central Asia*, 1740—1818. Its author is SEIFI, and the title of his work *History of the Kings of India, Sind, Khita, Khotan* etc. He places Tibet between Kashmir, Hindustan, the countries of the Kalmaks and the province of Kashgar, though the latter countries are separated from Tibet by a desert of several days' journey; by this he probably means the road over the Kara-korum pass, of which another Mohammedan, MIR ISSET ULLAH, gave a very good description in 1812. Tibet is described, by Seifi, as a vast and flourishing country, the several princes of which are in continual war against each other. The country is full of steep mountains covered with forests, and it is accessible only through narrow gorges. There is any amount of gold. The Tibetans are very small and dressed in black from head to foot.[2]

Herewith we have brought the knowledge of the great Arabian geographers and other Mohammedans regarding Tibet down to a time in which the Europeans had already begun to become masters of Hindustan. The extracts given above, all from the time of Suleiman the Merchant have shown us how very little the Mohammedan writers knew even of northern India and the Himalaya during centuries previous to the foundation of the Empire of the Great Mogul. As to Tibet, its name was known, but concerning its situation and its geography this country remained practically a *terra incognita*.

[1] ELLIOT's History. Vol. VI, p. 382.

[2] Histoire de l'Asie Centrale (1740—1818). Par Mir ABDOUL KERIM BOUKHARY, publ. par CHARLES SCHEFER, Paris 1876, p. 292 et seq.

CHINESE AND TIBETAN GEOGRAPHERS

CHAPTER VI.

CHINESE WORKS ON THE HYDROGRAPHY OF SOUTH-WESTERN TIBET.

In the preceding chapters I have tried to show how hopeless a task it is to search in the ancient Indian, Greek, Roman, Arabian and other Mohammedan writers for any valuable and trustworthy information about Tibet. In later chapters we shall see how Europe got acquainted with this country only in very recent times. The only people which has since many centuries possessed really reliable and partly very detailed and correct information of Tibet is the Chinese. On account of their geographical position, their great ability for topographical survey, the admirable exactitude with which they are accustomed to describe what they see, and finally their political and commercial relations with Tibet, the Chinese have had through centuries innumerable opportunities to study Tibet from several points of view, administrative, commercial, historical and geographical. At an epoch when Tibet was still unknown to Europe, the Chinese had a rather clear conception of its geography, more especially of its eastern and southern portions, while central and northern Tibet has remained nearly unknown even to them. But being a practical people the Chinese did not care very much for those parts of the country, which were uninhabited and where nothing was to be gained.

ROCKHILL points to the fact that many Chinese scholars were sent by their Government to Tibet to hold official positions; they were thrown in daily contact with the educated and ruling classes and made records of what they saw and heard, which were afterwards published and contained a vast and trustworthy source of information.[1]

The most important Chinese works on Tibet date from the 18th and 19th centuries which is owing to the fact that the political supremacy of China in Tibet was accomplished in 1720.

As a basis for his Sketch quoted above Rockhill has taken the »*Topographical Description of Central Tibet*«, or, as its Chinese title is, *Wei-tsang-t'u-chih*,[2]

[1] Tibet. A Geographical, Ethnographical, and Historical Sketch, derived from Chinese Sources. By W. Woodville Rockhill. Journal of the Royal Asiatic Society, 1891, p. 1 et seq.

[2] Wei is the province of which Lhasa is the capital; in Tsang the capital is Shigatse. Rockhill in his translation calls both provinces of which Lhasa is the capital »Central Tibet«.

written in 1792 by MA SHAO-YÜN and MEI HSI-SHENG, for this work was found to contain nearly all earlier Chinese information. Rockhill supplemented the information of Wei-tsang-t'u-chih by extracts from all Chinese works published down to 1891, thus adding several itineraries and other facts which had not been mentioned in older books. Rockhill gives the titles of thirteen different works which have been his principal sources.[1]

BRETSCHNEIDER regards the *Ta-ch'ing-i-t'ung-chih*, or *Great Geography of the Chinese empire under the Ta-ch'ing* (Manchu) *dynasty* as the most important of the Chinese works providing us with geographical knowledge of the Chinese Empire and its dependencies. Its first edition appeared in 1743, while the second much enlarged edition was published in 1764 and contains 500 chapters. The best map of the Chinese dominions is the *Ta-ch'ing-i-t'ung-yü-t'u*, which was published in Wu-ch'ang-fu in 1863.[2]

However, before I proceed to quote some interesting passages from these and other more recent works, I may be allowed to enter a few quotations from what the early Chinese chronicles have to say about the relations between China and Tibet.

During the T'ang dynasty Tibet is mentioned as one of the four great powers which made war against China, and from the early part of the same dynasty the first embassy from Tibet to the court of the Chinese Emperor is mentioned: »The first day of the fifth moon, 634, an eclipse of the sun took place. The emperor received an embassy from the king of Tibet. The name of this country was T'u-fan (old pronunciation T'u-po). This king was called Tsan-p'u. He had formidable armies and was feared by all his neighbours.»[3]

EDOUARD CHAVANNES reminds us of the great extent of the Tibetan dominions in the latter half of the seventh century. In 663 the Tibetans had gained a great victory over the T'u-yü-hun,[4] a Tungus people who had established themselves in the region of Koko-nor. In 670 the Tibetans conquered the »four garrisons», Kucha, Khotan, Kashgar, and Tokmak. The Chinese came to the assistance of the Tungus tribe, but the imperial troops were completely defeated in the valley of Bukhain-gol. Thenceforward the Tibetans, being sovereigns of Koko-nor and Eastern Turkestan, became very powerful and mixed themselves constantly in the affairs of the western Turks, their neighbours to the north, while India was their neighbour

[1] Loc. cit. p. 3.

[2] Mediæval Researches From Eastern Asiatic Sources Fragments towards the knowledge of the geography and history of Central and Western Asia from the 13th to the 17th century. By E. Bretschneider. Vol. I. London 1910, p. 206.

[3] Abrégé de l'histoire Chinoise de la grande dynastie Tang. Mémoires concernant l'histoire etc. des Chinois, par les Missionnaires de Pékin. Tome quinzieme, Paris 1791, p. 444.

[4] I am extremely indebted to Doctor ALBERT HERRMANN for his kindness in reading two proofs of this chapter. For the transcription of the Chinese names Doctor Herrmann has advised me to follow Wade's system; it should, however, be remarked that only the pronunciation of the present day is referred to. Only in some cases, where it has been possible and necessary, the old pronunciation has been added within brackets.

to the south. To the east they held the country to Liang-chou in Kansu and to Szechuan. In 692 the Chinese, having defeated the Tibetans, conquered the four garrisons.

In the *Chiu T'ang-shu* and the *T'ang-shu* there is to be found a detailed chronicle of the political and military relations between the Tibetans and Chinese and surrounding peoples, though there is nothing of geographical interest to us. In Chavannes' translation we are told that during the i-fêng period, 676—678, Tu-chi took the title of Kagan of the ten tribes, concluded an alliance with the T'u-fan (T'u-po) or Tibetans and ravaged An-hsi or Kucha. In the same period the Tibetans are said to have ravaged the Kingdom of Kashgar.

Great P'o-lü or Baltistan is said to be direct west of the T'u-fan (T'u-po) or Tibetans, and bordering upon Little P'o-lü, Gilgit, and westwards upon the territory of Wu-ch'ang or Oudyâna. It belongs to the T'u-fan (T'u-po), and from 696 to 741 it is reported to have sent ambassadors to the court thrice; 3,000 li to the east, a little to the south, from Little P'o-lü one arrives at the encampment of T'u-fan (T'u-po) tsan-p'u, the btsanpo of Tibet; 500 li south is Ku-shih-mi or Kashmir. In 747 Kao Hsien-chih made an expedition to Little P'o-lü.[1]

Several features of the ancient Sanscrit geography of S.W. Tibet are to be found in *Ta-t'ang-hsi-yü-chi, Records of the Western World* (compiled during) the Great T'ang dynasty (A. D. 618—907); translated by Imperial command by HSÜAN CHUANG (Hiuen Tsang), a Doctor of the three Pitakas, and edited by PIEN CHI, a Shaman of the Ta-tsung-chi Temple. In the Introduction to Book I of this work, written by Chang Yüeh, who flourished as minister of state under T'ang Hüan Tsung (A. D. 713—756), we read the following passages, which for the sake of completeness should be inserted in this connection:[2]

The mountain called Sumêru stands up in the midst of the great sea firmly fixed on a circle of gold, around which mountain the sun and moon revolve; this mountain is perfected by (composed of) four precious substances, and is the abode of the Dêvas. Around this are seven mountain-ranges and seven seas; between each range a flowing sea of the eight peculiar qualities. Outside the seven golden mountain-ranges is the salt sea. There are four lands (countries or islands, dvîpas) in the salt sea, which are inhabited. On the east, (Pûrva) vidêha; on the south, Jambudvîpa; on the west, Gôdhanya; on the north, Kurudvîpa.

In the middle of Jambudvîpa there is a lake called Anavatapta, to the south of the Fragrant Mountains and to the north of the great Snowy Mountains; it is 800 li and more in circuit; its sides are composed of gold, silver, lapis-lazuli, and crystal; golden sands lie at the bottom, and its waters are clear as a mirror. The great earth Bôdhisattva, by the power of his vow, transforms himself into a Nâga-râja and dwells therein; from his dwelling the cool waters proceed forth and enrich Jambudvîpa (Shan-pu-chao).

---

[1] Sbornik trudoff orkhonskoï ekspeditsiy, VI Documents sur les Tou-kiue (Turcs) occidentaux. Recueillis et commentés par Edouard Chavannes. S. Petersburg, 1903, p. 74 et seq.

[2] Si-yu-ki. Buddhist Records of The Western World. Translated from the Chinese of Hiuen Tsiang (A. D. 629), by Samuel Beal. Vol. I, London 1884, p. 10 et seq.

From the eastern side of the lake, through the mouth of a silver ox, flows the Ganges (King-ch'ieh, old pronunc. Kang-ga) river; encircling the lake once, it enters the south-eastern sea.

From the south of the lake, through a golden elephant's mouth, proceeds the Sindhu (Hsin-tu) river; encircling the lake once, it flows into the south-western sea.

From the western side of the lake, from the mouth of a horse of lapis-lazuli, proceeds the river Vakshu (Fu-ch'u, old pronunc. Fŏk-sou?), and encircling the lake once, it falls into the north-western sea. From the north side of the lake, through the mouth of a crystal lion, proceeds the river Sîtâ (Hsi-to), and encircling the lake once, it falls into the north-eastern sea. They also say that the streams of this river Sîtâ, entering the earth, flow out beneath the Tsih rock mountain, and give rise to the river of the middle country (China).

In Book IX of the same work it is said:[1]

To the west of the north gate of the mountain city is the mountain called P'i-pu-lo (Vipula-giri). According to the common report of the country it is said, 'On the northern side of the south-western crags of this mountain there were formerly five hundred warm springs; now there are only some ten or so; but some of these are warm and others cold, but none of them hot.' These springs have their origin to the south of the Snowy Mountains from the Anavatapta lake (Wu-jo-nao-ch'ih), and flowing underground, burst forth here. The water is very sweet and pure, and the taste is like that of the water of the lake. The streams (from the lake) are five hundred in number (branches), and as they pass by the lesser underground fire-abodes (hells), the power of the flames ascending causes the water to be hot. At the mouths of the various hot springs there are placed carved stones, sometimes shaped like lions, and at other times as the heads of white elephants . . .

In a note to the Chinese work Anavatapta is defined as »whithout the annoyance of heat», i. e., cool. BEAL seems to be uncertain about the identification of Anavatapta; in the Index he has: »Anavatapta ('O-neu, 'O-neu-ta, and O-na-p'o-ta-to), in Chinese Wu-jeh-no-ch'i, a lake,» without saying whether it is Manasarovar or any other lake. At another place (Vol. I, p. 13) he says that the Vakshu or Oxus flows from the Sarîk-kul lake in the Pamir plateau; »it is well called, therefore, 'the cool lake' (Anavatapta). The Oxus issues from the western end of the lake.» Here, therefore, Anavatapta should be identical with the Lake Victoria of WOOD. Regarding the great dragon lake (Nâgahrada) he identifies it with the Sarîk-kul lake (Vol. II, p. 297) or the lake of the Great Pamir, and continues: »The great Nâga lake is sometimes called the Râvanahrada.» Vol. II, p. 41 Beal again explains Anavatapta thus: »In Tibetan Ma-dros-pa, the king of the Nâgas (snakes) of the lake of the same name, and (p. 155) Anavatapta is explained thus: »Râvanahrad; in Pali, Anavatatta, in Tibetan, Ma-dros, in Chinese, Wu-jo-nao.»

In their explanatory notes to Fo-kuo-chi ABEL RÉMUSAT and KLAPROTH enter the problem of Anavatapta or Anavadata and its rivers. Speaking of Fa Hian's river Hsin-t'ou Rémusat says:[2]

---

[1] Op. cit. Vol. II, p. 155.

[2] Foë Koué Ki ou relation des royaumes bouddhiques: voyage dans la Tartarie, dans l'Afghanistan et dans l'Inde, exécuté, à la fin du IV^e^ Siècle, par Chy Fă Hian. Traduit du Chinois et commenté par M. Abel Rémusat. Ouvrage posthume revu, complété, et augmenté d'éclaircissements nouveaux par MM. Klaproth et Landresse. Paris 1836, p. 36 et seq.

D'après la cosmographie bouddhique, il sort de la partie méridionale du lac A neou tha, passe par la bouche de l'éléphant d'or, fait une fois (aliàs sept fois) le tour du lac, et va se jeter dans la mer du sud-ouest.

On sait que, selon cette cosmographie, quatre fleuves partis du même point se dirigent en sens opposés: »1. Le Heng kia ou Heng (Gange) dont le nom sanscrit signifie *venu de la maison céleste*, parce qu'il coule d'un lieu très-élevé.[1] Il sort de la partie orientale du lac A neou tha, ainsi nommé d'un mot sanscrit (anawadata), qui signifie *exempt de tumulte*. Ce lac est au midi de la montagne des Parfums, et au nord des grandes Montagnes de neige; il a huit cents li de tour. L'or, l'argent, le verre, le cristal, le cuivre, le fer, etc. ornent ses rivages. Le Gange sort de la bouche d'un boeuf d'argent, et, faisant une fois le tour du lac, il se jette dans la mer du sud-est. 2. Le Sin tou (Sind), dont on vient de parler. 3. Le Fŏ thsou (Vatch, Oxus ou Djihoun), dont le nom sanscrit signifie *rivière pure;* il sort du côté occidental du lac A neou tha, par la bouche du cheval de verre ou de saphir, fait une fois le tour du lac, et va se verser dans la mer du nord-ouest. 4. Le Si to, d'un mot sanscrit (s'îta) qui signifie froid, sort de la partie septentrionale du lac A neou tha, par la gueule du lion de Phŏ ti kia (sphatika, cristal de roche), fait une fois le tour du lac, et va se jeter dans la mer du nord-est. Quelques-uns prétendent que ce fleuve s'enfonce sous terre et va sortir des montagnes du désert de pierre, où il forme la source du fleuve Jaune de la Chine. — Pallas, d'après la cosmographie mongole Ertundjiin tooli, nomme les quatre fleuves Ganga, Childa, Baktchou (Wakshou, Oxus) et Aipara. B. Bergmann, citant le même ouvrage, rapporte d'autres noms: Ganga, Sidda, Barkho et Baktchi ou Chida. Le P. Horace, d'après les Tibétains, nomme ces quatre fleuves mGan-hgis, Sindhou, Paktchhou et Sida.[2]

To this note of Abel Rémusat Klaproth adds: Le lac A neou tha ou Anawadata est le Râwanhrada des Hindous et le Mapam dalaï des cartes mandchou-chinoises faites sous Khang hi et Khian loung. Dans les dernières, les *quatre bouches* sont appelées les *quatre portes*, mais c'est d'une seule que sort une rivière qui communique à l'ouest avec le lac Langga. Voici les noms de ces quatre portes: Touigochal, l'orientale; Ghiou ourgo, la méridionale, Arabko, l'occidentale, qui communique avec le Langga, et Dadzan loung, la septentrionale. Il ne faut cependant pas oublier que Fă hian n'a pas traversé la branche supérieure de l'Indus, qui vient du Tibet, ou qui sort, d'après les idées des Bouddhistes, de la partie méridionale du lac Anawadata. Le voyageur a seulement passé la seconde branche de l'Indus, appelée Khâmeh. M. E. Burnouf propose une autre explication du mot A neou tha. En pali, ce lac se nomme Anavatatta, mot qui ne peut être autre chose que le sanscrit *anavatapta*, c'est-à-dire, 'qui n'est pas éclairé ou échauffé (par les rayons du soleil)'. Cette explication s'accorde bien avec l'opinion qui fait de ce lac le Râvanhrada.

Disregarding the glorious part the Manasarovar and the famous rivers of Himalaya have played in the sacred and mythical books and in the poetry of India, a Japanese map of Asia, published and discussed by Klaproth, is probably the oldest document on which the Manasarovar and the sources of the four rivers will be found.[3]

---

[1] Compare also ibid. p. 168.

[2] The place in Alph. Tibet. p. 186, which Rémusat quotes runs as follows: Saxa IV. ingentia juxta caudicem arboris originem præbent sacris IV fluminibus: Gangî, Sinthû, Pahkiù, Sita. Primum quod Orientem respicit, caput præsefert Elephantis. II Quod est ad Austrum formam Bubalini capitis. III Equi viridis ad Occasum. IV Leonis ad Boream.

[3] J. Klaproth: »Éclaircissemens sur une carte chinoise et japonaise de l'Asie et de l'Inde.» Mémoires relatifs à l'Asie, Tome II, Paris 1826, p. 411 et seq.

Its title is: »*Map of the Western Regions and India*» (Pl. V). It was published in 1714 in a Japanese Encyclopedia: »*O han-san-ts'ai-t'u-hui.*» Klaproth who calls it an important work, believes that it was composed in the 15th century, although published some three hundred years later. But the materials must be much older still, at least those regarding India must be even from the 7th century. Klaproth points out that the Chinese, who originally collected the material, at that epoch had a much clearer knowledge of the interior of Asia than the Greek geographers, especially Ptolemy.

The source of Hwangho is represented in accordance with the ancient Chinese belief. It is formed by two rivers joining N.W. of Khotan. The southern one comes from the mountains west of Yarkand, called Ts'ung-ling. This river is the Yarkand-darya. The northern one comes from the lake Lung-ch'ih or Dragon lake, the Kara-kul, which, as Klaproth believed, gave rise to Kashgar-darya.[1] These two rivers formed the Tarim, which runs eastwards to the Lop-nor, represented on the map, and then continued as the Hwangho.[2]

The kingdom of Khotan and the great sand desert are there. North of Tarim is Hami. The Hindu-kush of the map is called Hsüeh-shan or Snow Mountains and a range further south Hei-ling or Black Mountains. It would seem more plausible, however, to identify the Snow Mountains with Kwen-lun, the Black Mountains with the Kara-korum and the range south of this with the Himalaya. There is very little space left on the map for Tibet, — just as on so many European maps, where, as we shall find, this country sometimes almost disappears.

As to the Manasarovar and the rivers Klaproth says in his text:

»L'Indus, le Setledj et le Gange ont tous leur source au sud du lac O neou tchy,[3] qui est le Manassarovar. Au nord-ouest du lac O neou tchy[3] est le pays de Po lou lo,[4] qui est le Bolor de nos jours. Les montagnes qui avoisinent ce lac sont appelées en tubetain Gangdis dans le Choui king,[5] qui est une très-ancienne hydrographie chinoise, elles portent le nom d'O neou ta.[6] Les commentateurs de ce livre disent que cette dénomination se retrouve dans les livres bouddhiques. En effet, on lit dans les ouvrages des Cingalais, que le grand lac Anotatte wille, se trouve dans un vaste désert, et que les quatre principales fleuves du monde en sortent par quatre portes, dont une forme un gueule de lion, l'autre celle d'un éléphant, la troisième celle d'un cheval, et la quatrième celle d'un bœuf sauvage. Encore aujourd'hui les quatre

[1] Doctor Albert Herrmann informs me that the Lung-ch'ih or Dragon lake is not, as Klaproth supposed, the Kara-kul, but beyond doubt the Dragon lake of the Pilgrim Hsüan-chuang (Hiuen-tsang), i. e. the present Victoria lake of Great Pamir (compare M. A. Stein, Ancient Khotan I, p. 30).

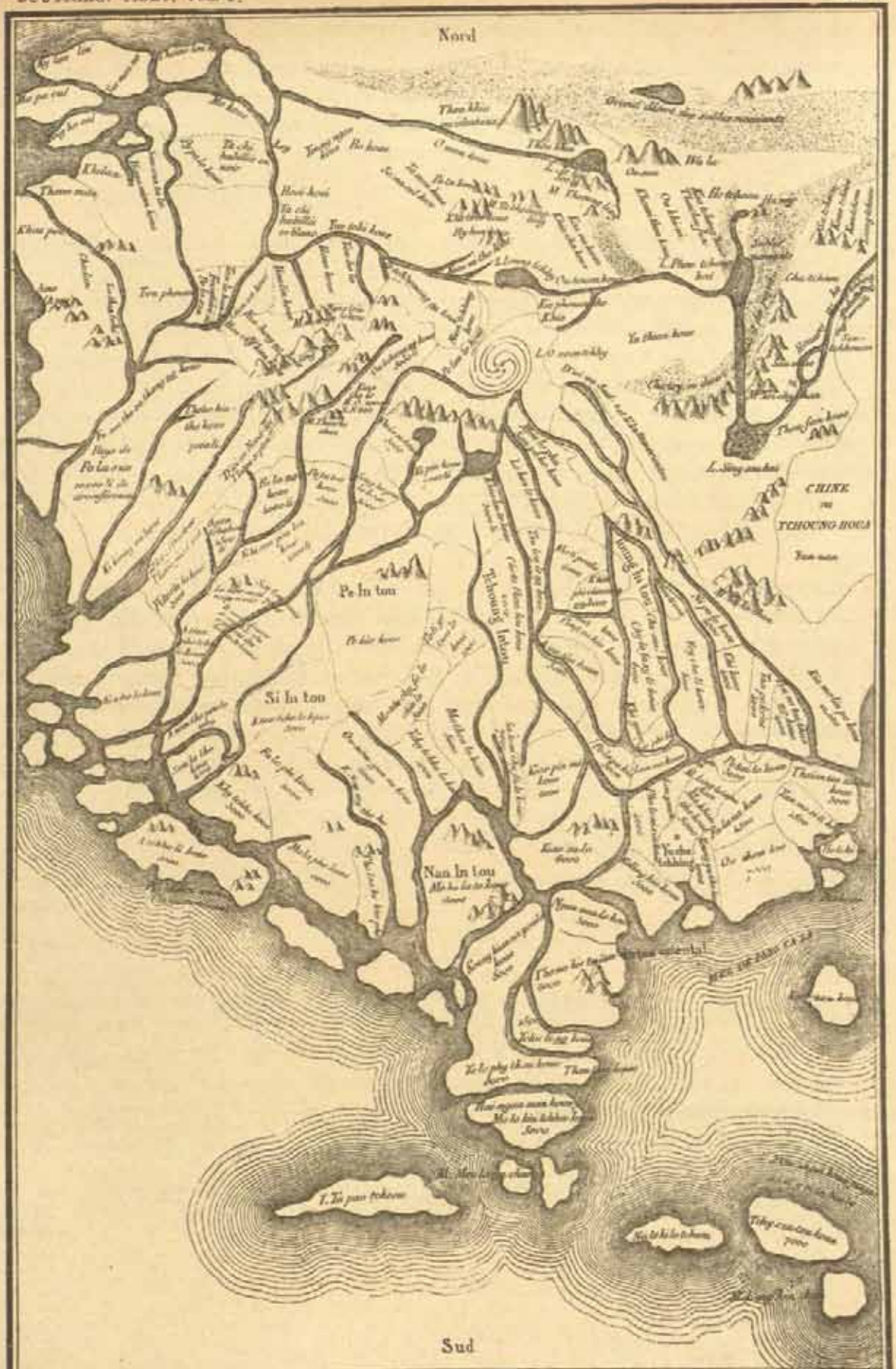
[2] Doctor Albert Herrmann has proved beyond doubt, that the Chinese opinion, that the Tarim should be the upper course of the Hwangho, simply depends upon a misunderstanding of a few words in Chang ch'ien's text. He travelled 139—127 B. C. Soon the Chinese began to doubt the veracity of this statement, for already in the Hou Han-shu the passage in question has been omitted. — Die alten Seidenstrassen, etc. p. 16 et seq.

[3] In Wade's transcription A-nu-ch'ih (ch'ih = lake).

[4] Po-lu-lo.

[5] Shui-ching.

[6] A-nu-ta.



Gen. Staff. Lit. Anst. Stuber.

Map of the Western Regions and India.

coins du Manas-sarovar portent les mêmes noms; elles sont marquées sur la grande carte de l'empire chinois, dressée par ordre de Khian loung, et s'appellent:

Porte	orientale	Touigochal ou Tchouigochal
»	méridionale	Ghiou ourgou
»	occidentale	Arabko
»	septentrionale	Dadzaloung.»

In Ni-po-lo Nepal is easily recognised. North of this country Klaproth points out Yaru Tsang bu ch'u, Yaru or Yere-tsangpo, which has no name on the map. There can be no doubt about this, for at the upper part of the river we read the words: Mu-lo-p'o San-po-ho-kuo,[1] possibly belonging to two different names of which the last would mean: the kingdom of the river Sanpo. This would be in perfect accordance with the situation of Ni-po-lo-kuo,[1] so much the more as a great part of the river is represented as flowing between high mountains. Lo-hu-lo-kuo [1] and Ch'iu-lu-to-kuo may be Lahul and Kulu. Sêng-ho-pu-lo-kuo [1] corresponds well with the Indus or Singi-tsangpo. Vivien de Saint-Martin also identifies the two first names with Lahul and Kulu as given on Walker's map in Cunningham's »Ladak». In San-po-ho, on the other hand, he recognises »beyond doubt» Champâka the Sanscrit form of Chamba.[2]

In STANISLAS JULIEN's work there is a reproduction of the Japanese map published by Klaproth. Saint-Martin says of it that it gives a representation of Mongolia and Tibet such as these countries were known to the Chinese before the time of the French missionaries of the end of the 17th century to the middle of the 18th century who furnished d'Anville with such important material.[3]

Between the Hwangho and Tsangpo very little room is left for the vast deserts and mountains situated there. But that is the part of Asia which has so obstinately remained a *terra incognita*. The ancients built up a mountain wall, Imaus etc., between India and Central Asia, that is to say they joined all the different systems to *one* rather narrow system. Something of the same view seems to be included in the following passage in the Si-yü-chi (Mémorial des contrées occidentales) as given by Klaproth:

---

[1] The expression »kuo» means kingdom.

[2] Mémoires sur les Contrées Occidentales, traduits du sanscrit en chinois, en l'an 648 par Hiouen-Thsang, et du chinois en français par M. Stanislas Julien. Paris 1857. At the end of Vol. II there is a Mémoire analytique sur la Carte de l'Asie Centrale et de l'Inde, construite d'après le Si-yü-chi, by Saint Martin.

[3] Vivien de Saint-Martin says of the map: »On peut remarquer l'agencement que l'auteur a voulu faire entre ses notions directes sur les régions centrales et celles que les relations bouddhistes fournissaient pour la géographie de l'Inde, non-seulement sur le cours des rivières, la situation des villes et les limites des États, mais aussi sur certaines notions tout indiennes de géographie mythique, telles, par exemple, que la source commune des quatre grandes rivières du monde.» Here thus we find the old religious prejudices transferred upon a geographical map, as if anybody, without further geographical knowledge, would try and make a map of the journey of the cloud in Kalidasa's Megha-duta.

Au milieu du continent méridional du monde sont les plus hautes cimes des grands monts neigeux, appelés Thsoung ling (montagnes de l'Oignon)[1]; à l'orient de ces cimes se trouve l'empire de Tchin tan[2], ou la Chine; au sud est le Thian tchu[3], ou, l'Hindoustân, à l'ouest le royaume de Pho szu[4], ou la Perse; et au nord sont les pays des barbares nomades.[5]

In BUSHELL's translation from the official history of the T'ang dynasty we find a few glimpses of the geography of Eastern Tibet.[6] Here we are told of an ambassador, LIU YUAN-TING, who, in 822 A. D., was sent by the emperor on a mission to T'u-fan (T'u-po). Some 300 li from the point where he crossed the Yellow River (Hwangho), there were three mountains like circular, flat-bottomed coppers in shape; they were called the Tzŭ (Purple) Mountains and bound the Greater Yang-t'ung country. »These are the ancient K'unlun Mountains. They are called by the Tibetans the Mênmoli Mountains . . . The source of the Yellow River is in the midst of these mountains. The water is very pure and clear, but as it flows past other streams it changes to red; and afterwards, when it has been joined by more tributaries, it gradually becomes yellow and turbid.» Bushell locates the Greater Yang-t'ung on the plateau to the south of Khotan, between the Lesser Yang-t'ung to their west and the T'u-fan (T'u-po) on their east.

Further the Chinese text runs: »The country to the south-west of the Yellow River is flat, like a whetstone — an uncultivated plain, richly covered with grass, with many tamarisk and willow-trees on the banks of the river, while the mountains are covered with cypresses.» The Tsangpo is called »the Tsang River», but only occasionally mentioned.

In the book on pilgrimage, written by I-TSING, who was born in 634, only a very few geographical hints are to be found. It is rather a collection of short biographies of chiefly Chinese Buddhists who, in the second half of the seventh century A. D., went in search of Sanscrit books containing the dogmas of their law. One of these pilgrims was I-Tsing himself. Chavannes who has translated the work is indeed right in saying that it is surprising that in only one generation no fewer than sixty persons could find it worth while to visit the west, and he thinks

---

[1] Ts'ung-ling.
[2] Ch'in-tan.
[3] T'ien-ch'u.
[4] P'o-szŭ.
[5] Humboldt points to the same fact when discussing his great central Asiatic range which east of the meridian of Khotan gets the name of A-neu-ta. »Man könnte sich wundern, dass dieser Name gleichfalls sowohl für den berühmten Alpensee Tübets, aus welchem der Sutledj entspringt, als weiterhin noch für einen Berg im Süden des Himalaya gebräuchlich ist; aber man muss beachten, dass die beschreibenden Namen beständig verallgemeinert werden, was für die Geographie sehr gefährlich ist, und dass die Hindus, ehe sie noch die Topographie Tübets kannten, sich mögen eingebildet haben, das goldführende Land des Nordens zwischen dem Kuen-lun und den Heiligen Seen (Ravana-hrada und Manasa) habe man sich als eine wenig breite Region ganz dicht am Himalaya vorzustellen.» A. von Humboldt, Central-Asien. Berlin 1844. I. p. 600.
[6] The Early History of Tibet. From Chinese Sources. By S. W. Bushell, Journal of the Royal Asiatic Society. N. S. Vol. XII. London 1880, p. 435 et seq.

that before and after I-Tsing hundreds of travellers went out with the same object. He shows that there must have been a continual stream of pilgrims to India braving the dangers of land and sea. Those who travelled by land had to cross the Gobi desert.

On his first journey (about 650—664 A. D.) one of the Pilgrims, HSÜAN-CHAO (Hiuen-chao), has on two different occasions visited Southern Tibet. The first time he entered T'u-fan (T'u-po) from the west; after which queen Wên-ch'êng, a Chinese princess, ordered that he should be brought to Northern India. His return journey brought him back to Tibet, but this time viâ Nepal. Again the Tibetan queen gave him an honourable reception; after which he returned to China straight across Tibet. On both occasions he must therefore have been at the Yere-tsangpo. On his second journey, which he started in 665, he was not fortunate. Once he was attacked by Tibetan robbers, and when it was his intention to return home viâ Nepal and Tibet, the Tibetans prevented him from entering their country. Therefore he was obliged to return to India where he finally died.[1]

---

[1] Mémoire Composé à l'époque de la grande dynastie T'ang sur les Religieux Éminents qui allèrent chercher la loi dans les pays d'occident par I-Tsing. Traduit en français par Edouard Chavannes. Paris 1894. For the above version of Hsüan-chao's Travels I am indebted to Doctor Albert Herrmann. His version differs in many respects from that of Chavannes. Doctor Herrmann confirms his view in the following words:

Chavannes, hat sich, wie ich glaube, bei der Erklärung der von Hsüan-chao besuchten Örtlichkeiten in einigen wesentlichen Punkten geirrt. Richtig ist, dass die »Sables mouvants«, die der Reisende zu allererst durchzog, die Sandwüste westlich von Tun-huang sind. Dann ist aber die folgende Gegend »le Désert pierreux« schwerlich das Quellgebiet des Hwangho; denn von Tun-huang aus wird Hsüan-chao seinen Marsch doch wohl durch das Tarimbecken fortgesetzt haben. Ich suche die »Steinwüste« in Sarikol oder sonst irgendwo in Pamir. Hierzu passt auch die weitere Beschreibung: ». . . dans les montagnes escarpées il marcha sur le bord des passerelles de bois . . . . . il fut balancé sous les ponts de corde . . .« Sie kann nämlich nichts anderes darstellen als die in den chinesischen Annalen vielgenannten »Hängenden Pässe (Hien-tu)«, die auch von Fa-hian und anderen Pilgern benutzt sein müssen. Das ist der Weg über den Kilik-Pass und durch Kandjut (auf meiner Karte zu den »alten Seidenstrassen« fälschlich auf einen westlicheren Gebirgsweg übertragen, Begründung folgt in meinem 2. Band).

Das Land *T'u-fan* (alte Aussprache T'u-po) scheint H. damals höchstens an den Grenzen betreten zu haben. Chavannes' Annahme, das zweimal besuchte *Luo-ch'a* sei Ladak, halte ich für verfehlt. Denn wenn es heisst, dass Luo-ch'a im *westlichen* Indien auf dem Wege nach Fo-k'o-luo (*Balch*) und zugleich in der Nähe von Sind liegen soll, dann darf es nun im äussersten NW. Indiens gesucht werden; *vielleicht* war es das von den Pilgern wegen eines grossartigen Buddhakultus vielbesuchte *Udyâna* (im Tale des Swat).

Für Tibet selbst kommt eigentlich nur die *erste* Reise des Hsüan-chao in Betracht (bald nach 650 n. Chr.). Auf dem Wege von Tokharestan (NO. Iran) kam er, wie es heisst, in das Gebiet der *T'u-fan* (T'u-po) und wurde dort von der Königin *Wên-ch'êng* nach N. Indien geleitet. Diese, eine chinesische Prinzessin, war 641 n. Chr. mit dem tibet. König vermählt worden (Näheres s. Chavannes, p. 14, n. 1). Dass H. schon bei diesem ersten Male bis in das Quellgebiet des Yeretsangpo gekommen zu sein scheint, dürfte besonders aus den Angaben hervorgehen, wo sein 2. Besuch, nämlich auf seiner Rückreise behandelt wird. Als er Ni-pu-lo (Nepal) durchzog, »le roy de ce pays envoya une escorte qui l'accompagna jusque chez les T'ou-fan; *il vit de nouveau* la *princesse Wen-tch'eng*; elle lui offrit beaucoup de présents et le traita avec honneur. Elle lui donna des moyens de revenir dans le pays des T'ang (China). Alors *il parcorrut le territoire des Fan* (Tu-fan), de *l'ouest et arriva en Chine* (664 n. Chr.)».

Another of these religious travellers was the master of the law, Hsüan-t'ai, who in 650 to 655 went through Tibet and Nepal to India and returned the same way. Many others are mentioned as having visited Nepal and some of them died there, the climate being too cold after the heat of India.

In the short biographical notes of I-Tsing the Ch'iang-chia or Ganges is some times mentioned but without any geographical details.

CHAPTER VII.

WEI-TSANG-T'U-CHIH.

Turning our attention more particularly to Western Tibet we begin with the »*Wei-tsang-t'u-chih, Topographical Description of Central Tibet*», retranslated and republished by J. Klaproth.[1]

The author of this work is a Chinese civil officer, whose duties have brought him to Tibet. He is regarded to be exact in what he says. HYACINTH sometimes asked Chinese residents in Tibet, returning to Peking, where he was Archimandrite at the Russian mission, about the reliability of this work, and they all agreed that it was correct.[2] The future should prove, however, that much of its contents was wrong. Klaproth found that the real cause why geographical names in Tibet and Chinese Tatary[3] were so disfigured on European maps, depends on the fact that these names were badly written on d'Anville's map of China, from which all geographers of a later date got their knowledge. But this was not d'Anville's fault as he gave the names exactly as he had got them on the copies of the Manchu maps, translated and sent from Peking by the missionaries.

The Chinese author mentions from the year 821 A. D. (Ch'ang-ch'ing 1.) the name Mên-chü-lu for Tsangpo, and he adds: »Cette rivière, qui est à 100 li

---

[1] Description du Tubet, traduite du chinois en russe par le Père Hyacinthe, et du russe en français par M. ***; revue sur l'original chinois, et accompagnée de notes, par M. Klaproth. Nouveau Journal Asiatique, Tome IV, p. 81, Paris 1829; Tome VI, p. 161 and 321, Paris 1830. For the Tibetan names I have not altered the spelling of different translators. — Rockhill says of Klaproth's Translation: »it is far from being accurate, and the translator's ignorance of Tibetan has caused him to make additional mistakes.»

[2] In the introduction to this work the following wise words are to be read: »If a writer composes a work on simple hearsay, and does not corroborate the statements he makes by personal investigation, critics may well doubt the accuracy of the facts he has stated. Consequently if in what one has seen, heard, or learnt by report, there be any strange facts, it is necessary that the record of such be substantiated by proofs, so that they may be believed and put beyond doubt.» (Rockhill's translation, p. 21).

[3] He correctly writes Tatarie, and not, as usual, Tartarie.

au sud du Lo so tchhouan [1], s'appelle aujourd'hui Zzang [2]; c'est de cette rivière que le Tubet a reçu le nom de Si tsang.[3]»

»Sous la dynastie des Ming, cette contrée porta le nom de Ous tsang (Ouï Zzang) [4]. Ouï Zzang [4] est la même chose que Thou pho [5], ou Tubet; mais sous le premier nom les provinces de Ouï [6] et de Zzang [2] étaient seulement comprises.»

The Chinese author's description of Western Tibet is very short: »En allant du H'lasseï-tsiô-k'hang, à l'ouest, on arrive, par Djachii-lounbo, à San-sang et à la frontière du Nga-ri. De San-sang on va, par le mont Gängtes, au Nga-ri, jusqu'à la frontière de Gardou. Un autre chemin conduit de San-sang, par les monts Mer-la et Thoung-la, et par Hiegar à Gnialam, ville située sur la frontière des Gork'ha. Le Tubet se partage en quatre provinces, dont la 4[e] est le Nga-ri (les grands monts), contrée assez étendue, et située au nord-ouest; elle est contiguë aux deux tribus de Latak et de Gougou-dze . . .»

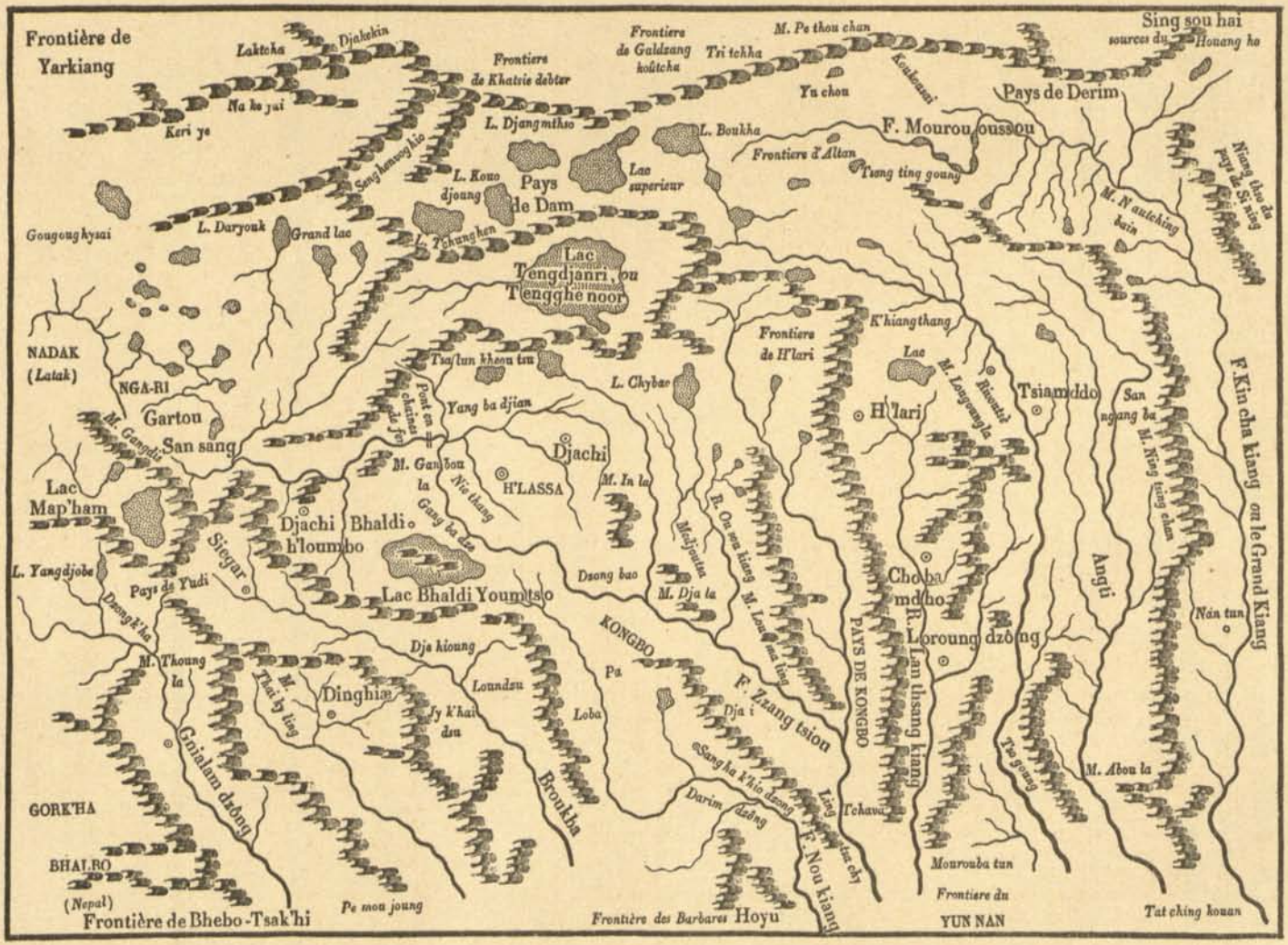
The map which accompanies this article,[7] and which is reproduced here as Pl. VI, is translated from the Chinese original by Klaproth. It gives a very curious representation, or rather deformation of Tibet. One sees how the errors grow towards the north and west, and how the northern and western parts are quite out of proportion as compared with the south-eastern part or the part through which the author has travelled and the troops were brought. The distance between Lhasa and Tashi-lunpo is greater than the distance between Tashi-lunpo and the Manasarovar. Tashi-lunpo is as far from Tengri-nor as Keriya-la. In fact Tengri-nor occupies the centre of Tibet. The whole Kwen-lun is there, and in its eastern part »the sources of the Hwangho» are placed. South of Tengri-nor we recognise a part of the eastern Transhimalaya. L. Daryouk may be meant as Tarok-tso, as a river flows into it from the south. The Chaktak-tsangpo, — if it is meant to be that river — comes from far in the north. The interior plateau-land is full of lakes. San-sang (Sang-sang) is N.E. of Manasarovar; Gartok, Ngari and Ladak are all on the map, although placed in a perfectly fantastical way. There is a nameless lake N.W. of Lac Map'ham, which must be the Rakas-tal, although a river falls into it from the west. There is no channel between the two lakes. N.E. of the lakes there is a mountain range, M. Gandis, and on its north-eastern side the F. Zzang tsiou (Tsang-chiu) takes its rise. Thus this map places the source of the Brahmaputra on the eastern slopes of the Kailas, a view that not very long ago was not unfamiliar to European geographers. Mourou oussou is regarded as the source branch of Sin-sha-chiang which is correct. North of Tengri-nor is »Pays de Dam», a name that returns in Nain Sing's Dam-largen-la.

---

[1] In Wade's transcription Lo-so-ch'uan.
[2] Tsang.
[3] Hsi-tsang.
[4] Wei-tsang.
[5] T'u-fan (old pronunciation T'u-po).
[6] Wei.
[7] Nouveau Journal Asiatique, Tome VI, p. 350.

CARTE DU TUBET

TRADUITE DU CHINOIS.



Chinese Map of Tibet, published by Klaproth in 1830.

One gets the impression that the author of this map has not known of nor believed in the maps drawn by order of the great Manchu emperors.

The same view regarding Klaproth's source of the Tsangpo was communicated already a few years earlier[1] and then taken from an article in the *Magasin Asiatique*. It begins: »Le Dzang bou ou Yarou Dzangbo Tchou (Tsanpou et Sanpou) prend son origine à l'est de la haute chaîne neigeuse appelée en tubetin Gandis-ri, et Kailasa par les Hindous. Ses sources se trouvent dans le flanc de la montagne Lang tsian kabab (bouche de l'élephant).» Only the latter half of the statement is correct, for Langchen-kabab is situated at the southern side of the valley.

[1] Journal Asiatique Tome VIII. Paris 1826, p. 302.

CHAPTER VIII.

THE CHINESE GEOGRAPHERS ON THE SOURCE OF THE BRAHMAPUTRA.

In another article Klaproth reminds us of the fact that in the beginning of the 17th century Tibet was very little known and that Europe's knowledge of the country was due to some vague information by missionaries who tried to find a new road to China.[1] The great river which du Halde calls Yarou Tsanpou on his (d'Anville's) maps traverses Tibet from west to east, but the maps leave us in doubt as to its further course. As to its Tibetan course, however, Klaproth gives the following description, which is entirely based on extracts from Chinese geographers:[2]

Son véritable nom tubetain est Dzangbo tchou. Le premier de ces deux mots, Dzangbo, signifie *limpide et pur*, et le second, tchou, est le nom ordinaire de *l'eau* et des *rivières*. Le Dzangbo tchou vient du Tubet occidental, ou de la province de Thsang[3]; il y porte le nom de Yærou dzangbo tchou, c'est-à-dire, *rivière claire et pure de la frontière gauche ou de l'ouest.* Ce fleuve prend sa source par 30°10′ de lat. nord, et 79°35′ de long. E., dans le Damtchouk kabab, montagne neigeuse située sur les confins de la province d'Ari. Après un cours d'environ dix lieues à l'est, il reçoit à gauche une rivière qui sort du Djimagoungroung, petit lac situé à l'est du Langtsian kabab, bouche de l'éléphant, autre montagne neigeuse. Ce nom lui vient de ce que les eaux produites par la fonte des neiges sortant de ses flancs crevassés avec la même impétuosité que de la trompe d'un éléphant. Le premier affluent considérable du Yærou dzangbo tchou est à gauche, le Naouk dzangbo tchou, qui vient du nord-est. Plus bas il reçoit du côté opposé le Gouyang, qui découle de l'Himalaya. Il traverse après, de l'ouest à l'est, la province de Dzang, passe devant Jikadze et le couvent de Djachi loumbo, et reçoit encore à gauche le Djochotghi choung, le Dzaka dzangbo tchou, l'Outchou, le Dok tchou et le Chang; et à droite le Ghiazoungrou, le Chordi, le Manggar, le Chab tchou et le Djouangdze, que lui

[1] »Mémoire sur le cours de la grande rivière du Tubet, appelée Iraouaddy dans le royaume des Birmans». Mémoires relatifs à l'Asie, par M. J. Klaproth, Tome III, p. 370 et seq. Paris 1828. The same article is published under the heading: »Mémoire sur le cours du Yarou dzangbo tchou, ou du Grand Fleuve du Tibet; suivi de notices sur la source du Burrampouter», in Magasin Asiatique ou Revue Géographique et historique de l'Asie Centrale . . . publié par Mr J. Klaproth, Janvier 1826. Republished Paris 1835 in one volume together with other articles of the same author.

[2] Mémoires relatifs à l'Asie, loc. cit. p. 375.

[3] Tsang in Wade's Transcription.

envoie l'Himâlaya. A Djachi loumbo, son lit est très-large, et partagé par des îles en un nombre infini de canaux, dont le principal, près de ce couvent, est étroit et profond, et ne devient jamais guéable. Là ce fleuve n'est plus désigné que par le seul nom de Dzangbo tchou.

No traveller before 1907 has given a more correct description of the situation of the source of the Brahmaputra than the Chinese geographers from whose works the above passage is taken. The Chinese description is concise, clear, short, and correct.

Yere-tsangpo was the first name I ever heard for the river, when I came down to Ye.[1] The astronomical situation as given in the Chinese text is wrong, as usual, which, however, does not matter a bit in this connection. For here the question is: which river in the reaches of the upper Tsangpo is the source of the Brahmaputra, and not: which are its co-ordinates? And it is said that the river Yærou dzangbo or Brahmaputra takes its source in the Damtchouk kabab snow-mountain situated on the frontier of the province of Ari.[2] Even opposite to Shigatse the river is called Tamchok-kamba,[3] and at the confluence with Raga-tsangpo I found it called Damchu, corresponding to the French spelling Damtchouk. Kabab means »source of».

After a course of some 10 lieues to the east it (the Yere-tsangpo) receives from the left a river which comes from a little lake, called Djimagoungroung. Klaproth can only mean the ordinary lieue of which 25 made one degree of the equator and which was 4,452 meters. Thus the distance to the confluence should be circa 44 1/2 kilometers. In fact it is 63 kilometers from the very source. But if we take the text literally and only regard the part which flows to the east the distance is 44 kilometers. But the Chinese text obviously means the distance from the source to the confluence. Very likely Klaproth has made the elastic li too short. This does not matter, for the principal thing is to note, that the river originating from Damtchouk kabab is regarded as the main branch of the Brahmaputra, whereas the river coming from the little lake Djimagoungroung is only a tributary. The last-mentioned is the one which was styled to me by my three Tibetan guides Chema-yundung-chu. The main river, the one coming from Damtchouk kabab or »the Horse river's source», is my Kubi-tsangpo.[4] The Chinese text, translated by Klaproth thus agrees exactly with my view, that the Kubi-tsangpo and not the Chema-yundung is the source river of the Brahmaputra. Very likely there is a small lake in front of the glaciers from which Chema-yundung comes, for there is such a lake in front of the glaciers of the Kubi-tsangpo. This little lake of Chema-yundung (alias Djimagoungroung) is said to be situated east of the Langtsian kabab or Elephant's mouth or the source of the Satlej. A glance at my preliminary map is

---

[1] »Trans-Himalaya», Vol. I, p. 281.

[2] Ari is the Chinese name for Ngari-khorsum.

[3] »Trans-Himalaya», Vol. I, p. 403.

[4] See Chapter XLII: »In Search of the source of the Brahmaputra», »Trans-Himalaya», Vol. II, p. 89 et seq.

sufficient to show that if such a lake exists, it must be situated east of the Gang-lung glacier or source of the Satlej, for so far as I could see the course of the river Chema-yundung no lake was visible. Here is also another proof that my view about the identification of the source of the Satlej was correct, or, at any rate, in harmony with the sound and unprejudiced opinion of Chinese geographers.

This description is even better than d'Anville's map of this region. He seems so far to have misunderstood the Chinese hydrography, that he has placed the name Yarou Dsancpou ou Tsanpou R. along the river which corresponds to Chema-yundoung. That this is simply a slip of the pen is proved by the fact that the other, southern branch, corresponding to Kubi-tsangpo or Tamchok-kamba, really comes directly from MM Tamtchouc. In the same region (Pl. VII) d'Anville has a M. Cocoun Kentchian or, as on his general map of Tibet, simply Cocoun M., which, as far as the situation is concerned, exactly corresponds with the Kubi-gangri.

Further the text tells us that the first considerable tributary to the Yere-tsangpo is the Naouk-dzangbo. The Maryum-chu is not even mentioned, and indeed, as compared with the Kubi-tsangpo, it is a mere brook. The Naouc Tsanpou R. is entered on d'Anville's map and may be identical with Nain Sing's Chu Nago R. The Gouyang, which joins the Tsangpo from the Himalaya lower down, is probably my Gyang-chu[1] and KAWAGUCHI's Kyang-chu.[2] Of the following rivers mentioned the Djochotghi choung is one of the rivers from Toshot, the Dzaka dzangbo chu is Chaktak-tsangpo, which can easily be called the river of Dzaka or Saka-dsong. The Dok tchou is my Dok-chu[3] or Raga-tsangpo, the Chang is Shang-chu and the Djouangdze is Nyang-chu coming from Gyangtse.

After having examined the existing material Klaproth arrives at the result that the Yærou dzangbo tchou which had been regarded as the upper course of the Brahmaputra, was in reality the upper course of the Irrawaddi. He builds up his theory on a mistake made by the Chinese authors:[4]

»Il y a encore une autre rivière qui passe par l'extrême frontière de Yun nan, c'est le Pin lang kiang (fleuve de l'Arec). Sa source est dans le Ngari ou Ari, province du Tubet, à l'est du mont Gangdis, sur le mont Damdjouk[5] kabab, c'est-à-dire bouche de cheval. Ce fleuve reçoit plus bas le nom de Yærou dzangbo; il coule généralement vers l'est, en déviant un peu au sud; passe par le pays de Dzangghe et la ville de Jïkargounggar . . .[6]

The map accompanying his article is very well made for the time.[7] On the fantastic hybrid of a river that is drawn on it we find the following names: Yarou dzangbo tchou R. ou Grand Kin-cha-kiang, Fleuve à Sable d'Or, Pin lang kiang ou

[1] »Trans-Himalaya», Vol. II, p. 88.
[2] Compare below, Vol. II.
[3] »Trans-Himalaya», Vol. I, p. 417.
[4] Op. cit., p. 394. With this should be compared the new translation by E. Haenisch (p. 108).
[5] Tamchok.
[6] This is from an order issued by Emperor Kang Hi in 1721 and based upon information given him by high Tibetan lamas.
[7] Carte du cours inférieur du Yarou dzangbo tchou, par J. Klaproth, 1828.

Bammo, Irawaddy Myit R, and finally Irawaddy. This map has caused much mischief. I will return to this problem in a later chapter and for the present only quote a letter from Father Gaubil to G. Delisle, dated Peking October 13, 1754,[1] in which Gaubil says:

La distance du mont Cantisse (Gangdis ri ou Kaïlasa) à la ville de Giti et à l'embouchure du Ma tchou a été bien prise . . . Je vous ajoute que la grande rivière qui prend sa source assez près de celle du Gange (c'est-à-dire du Setledj, Klaproth), et traverse le Thibet sous le nom de Yarou tsampou, après être entrée dans le pays d'Assam, va aux pays de Tcha chan et de Lima, de là au pays d'Ava, et de là à la mer . . .

Such communications could not fail to mislead both Klaproth and others.

The following is the description of the Tsangpo as translated by Klaproth from the »*Description of Hsi-tsang*» in the Ta-Ch'ing-i-t'ung-chih, and published in Magasin Asiatique 1828;[2] it occurs under the heading: Fleuves et rivières du Tubet.

Le Yærou dzangbo tchou, le fleuve clair de la frontière du côté droit, ou de l'ouest, est nommé, au sud de H'lassa, Dzang tchou. Il a sa source à la frontière occidentale de la province de Dzang[3], à 340 li au nord-ouest de la horde des Djochout, sur le mont Damtchouk kabab gangri. Il réunit toutes les eaux du voisinage, coule environ à 2,500 li à l'ouest, et passe au nord du mont Gamba la, où il entre dans la province de Oui[4]. Au nord-est de la ville de Jikar gounggar, il reçoit à gauche le Galdjao mouren, qui vient du nord. Bientôt après le fleuve tourne au sud-est, parcourt encore 1,200 li dans la province de Oui, traverse la frontière méridionale, et entre dans le pays de Lokabdja ou H'lokba, qu'il traverse du nord au sud. Il se dirige alors au sud-sud-ouest, entre dans l'Inde, et va se jeter dans la mer. C'est une des plus grandes rivières qui existe, car sa source est extrêmement éloignée de son embouchure.

From his Chinese sources Klaproth adds that in summer the Yere-tsangpo and its great tributaries grow very large from the melting of the snows on the mountains. Their waters then overflow the valleys, and this inundation extends from the frontier of the province of Ari the whole way to Tashi-lunpo. The Chinese call this inundation Liu-hai or the six seas, which, in Tibetan, should be Dhough giamthso.

---

[1] Op. supra cit. p. 388.

[2] Description du Si dzang ou Tubet D'après la grande géographie impériale de la Chine et la Dictionnaire géographique de l'Asie Centrale, publiée à Peking, en 1775. Magasin Asiatique Tome II, N:o IV, Publiée par M. J. Klaproth. Paris 1828, p. 251 et seq.

[3] Tsang.

[4] Wei.

CHAPTER IX.

THE NORTHERN TRIBUTARIES TO THE TSANGPO.

All the northern tributaries of the Tsangpo, known to the Europeans since Nain Sing's journey, were already marked on the Ta-ch'ing map with their correct names and to their very sources. So far as I have had an opportunity to control the Chinese statements I have found their drawing of these rivers very incorrect. Some of these rivers may be recognised on earlier editions of Stieler's *Hand-Atlas*, for instance for 1826 and 1834 and on H. BERGHAUS' map, where two of them rise north of the Indo-Tibetan watershed. As a rule they are much better on the Ta-ch'ing map than on d'Anville's.

First of the more considerable tributaries is the Naouk tchou represented as coming from the lake Dzang ri. This river has not been changed on d'Anville's map, where it is called Naouc Tsanpou R, and the lake Sanc-li, which may be supposed to be identical with the Senit-tso, which, as I was told, should be situated somewhere here. If the Chinese map were correct, the Naouk tchou should be longer than the Kubi-tsangpo and the Chema-yundung. I cannot utter any opinion regarding the probability of this river-course, as my route goes north of it. But beyond doubt it exists and is identical with Nain Sing's Chu Nago. Ryder has certainly drawn it too short as all the other northern tributaries, and the Chinese map has probably made it too long. In this part of the Transhimalaya I have, already, on my preliminary map, written some notes of interrogation, marking out that I do not know the geography of this particular region. I therefore am not able to draw any conclusions from the orographical structure either.

The text of the *Ta-ch'ing-i-t'ung-chih* as related by DUTREUIL DE RHINS, says of this river:

Le Naouk tchou ou Lhabouk dzang bo tchou a sa source au nord-est (des Djochot) dans le lac Dzang ri, coule d'abord 250 li (55 milles) à l'ouest et reçoit sur la droite deux rivières qui viennent des monts Dziang ri ou Sang ri et Mouk rong. Au sud, il reçoit trois autres rivières qui découlent des monts Tchang la tchouk, Dzoreng ri et Yang bou ri. Le Naouk tourne au sud, fait 80 li (17 milles), reçoit à droite les eaux des montagnes Yala et Ta

krong. Il coule encore 60 li (13 milles) et se jette dans le Tsan po à 30 li (6 milles) dans le sud-ouest des Djochot.[1]

As a rule the Ta-ch'ing map becomes more and more uncertain the more one proceeds to the north from the Tsangpo. Therefore the upper course of the Naouk-tchou seems to be exaggerated in length. On the other hand, the Tcha Tchou (Tsa-chu), which is situated comparatively near the Tsangpo, is remarkably good, and very like the representation given to this river on Ryder's map. In both cases its main branch keeps almost parallel with the Tsangpo and receives several tributaries from the north, N.E. and east. The same may be said of d'Anville's drawing of this river.

The Chinese text says:

»Le Tsa ou Tcha tchou est à 100 li (or rather 200 li) à l'ouest de la horde des Saga. Six rivières découlant de la chaîne des montagnes de neiges appelées Yoro gang tsian se dirigent 100 li (22 milles) vers le sud, se réunissent et forment le Giablar tchou. Celui-ci, après un cours de 50 li (11 milles), reçoit les eaux de trois rivières venant du nord-ouest et des monts Chang la tchouk ri, Tzoreng ri et Yang bou ri. Alors, le Giablar tourne au sud-est et reçoit deux rivières: l'une venant du nord-est de la montagne Djedze goung gar tang, l'autre du sud-ouest du mont Niam ri; puis il prend le nom de Tcha tchou et coule 70 li (14 milles) au sud-ouest pour se jeter dans le Tsan po.«[2]

The Chinese river Man-ch'u is identical with Nain Sing's Minchu Sangpo, which is, of course, also on Ryder's map, and which I followed to its source at Kilung-la, probably identical with the Mt. Kirgang tsian on the Ta-ch'ing map. It is, although not improved, to be found on d'Anville's map as well.

Of this river the Chinese text says:

»Le Man tchou est à l'ouest des Saga. Deux rivières venant du nord et des monts Sier tchoung et Piloung ri coulent pendant 200 li (44 milles) au sud; trois autres viennent de l'est de la montagne Gang tchoung djadak ri et une découle de l'ouest, de la montagne Lak dzang djora ri. Ces six rivières se réunissent et forment le Man tchou qui coule encore 40 li (9 milles) au sud et se jette dans le Tsan po. Le mont Kiem la tchour mou est à 190 li (40 milles), le mont Sier tchoung à 110 li (24 milles) et le mont Kio our tchoung à 38 li (9 milles) au nord-ouest des Saga.«

Then follows one of the most important rivers, Saga dzang bo, the length of which is very much exaggerated, whereas its lower part is remarkably correct. The great bend towards the west, before the junction with the Tsangpo, is to be seen. The Sa tchou comes in from the east. This is the tributary on the bank of which Saka-dsong is situated. Sa-chu is its real name, the only name I heard for this river. Nain Sing calls it Chaka Chu. Above the junction with the Sa tchou the main river is called Djadak tchou, in which we better recognise Chaktak-chu than Nain Sing's Charta. Still higher up the river is called Lab tchou, coming from a

[1] L'Asie Centrale. Paris 1889, p. 538.
[2] Ibidem, p. 541.

lake called Rab mtso. This lake is of course my Lapchung-tso and the river Lab tchou is Lap-chu, although my guides also called it here Chaktak-tsangpo. From the right, or north, the river receives a tributary coming from a lake called Rargong, which I did not hear of. But as this lake is entered on the Chinese map we may be sure that it exists somewhere in this region. West of the lower part of this river is a Mt. Samoié, obviously my Samye-la. East of lake Rab mtso is a Mt. Loumbou, which sounds like my Lunpo-gangri, which may, perhaps, be written more correctly: Lumbo. The high range Lunpo-gangri is in reality west and S.W. of Samye-la and here indeed we find a name which also reminds us of Lunpo-gangri, namely, Mt. Rong pou gangri. Other names in the neighbourhood of the Chaktak-tsangpo are difficult to identify.

This river has been seriously spoilt on d'Anville's map. The great bend to the west has disappeared altogether. But the two lakes are there, Lap-chung-tso called Lio L., the other Raron hakon L. The river itself is called Sanki Tsanpou.

Then follows the Raka dzang bo, which correctly flows from west to east, although it was very much in need of the improvement given it by Nain Sing. In its upper course it is called Raka Dzang bo tchou; then it correctly receives the tributary from Amtchok mtso, which is too big and too far north. On my preliminary map to *Trans-Himalaya* I have called the lowest part of Raga-tsangpo Dok-chu, and it is interesting to find exactly the same name on the Ta-ch'ing map, namely Dogh tchou. Two tributaries come down here from the north. The eastern of them corresponds in reality with my Mü-chu, but is called Ou tchou. Below its confluence the Dok-chu or Raga-tsangpo has got the name Oï tchou.

Then follow two relatively short northern tributaries: Kié tchou or Joung tchou and Rong tchou. The junction of the first mentioned is a little below Pinsoling. But in reality this tributary is the Rung-chu and the next is Tanak-chu or Tanak-pu-chu. Finally we have the Chang tchou coming from the N.N-W. instead of N.E. Namling is called Dziang am ring. Here two rivers meet. The one which is drawn as a tributary to Chang tchou comes from N.N-E. from a mountain called Mt Dzo ri (Sok bou ri), which should correspond to the Khalamba-la. Another tributary to the Shang-chu, Daghri phou tchou, is the longest in the whole system of Shang, but whether it exists or not cannot as yet be stated.

Of the southern tributaries Kouoyang may be identical with my Gyang-chu, especially as there is a place called Giangben on its left bank. Chordi tchou is obviously Nain Sing's Shorta Sangpo and Sab tchou is Shap-chu.

On d'Anville's map most of the last-mentioned rivers have been seriously spoilt. The Raga-tsangpo, especially, is not like the reality at all and in the lake at its western end we hardly recognise the Amchok-tso. Shang-chu is more like the representation on the Ta-ch'ing map. The names are always better on the Ta-ch'ing than on d'Anville. For instance in the first case Phoum Soukling, in the latter Keltan pousoucliam for Pinsoling.

In the Ta-ch'ing text as given by Dutreuil de Rhins we read the following descriptions of the Chaktak-tsangpo and Raga-tsangpo, which, of course are in harmony with the Ta-ch'ing map.[1]

La rivière des Saga ou Sarghé tchou vient du nord-est et sort du lac Lio (Rab ou Lab mtso). Elle coule environ 400 li (88 milles) au sud-ouest et reçoit à gauche une rivière qui vient des monts Rab yang tchoung ri. Sur ces parcours, elle porte le nom de Rab tchou et reçoit à droite plusieurs autres rivières qui découlent des monts Ladjoung (Laroung?), Pou tuk la (Pa pou tak lak) et Wen bi(?). Elle prend ensuite le nom de Djadak tchou, et, après avoir coulé encore 30 li au sud-est, elle reçoit à gauche le Sa tchou et à l'ouest le Lou tchou; puis elle fait encore 150 li (33 milles) au sud-ouest et au sud-est pour se jeter dans le Tsan po au sud-est de la horde des Saga.

The Rab yang tchong ri seems to belong to the Kanchung-gangri and the tributary spoken of as coming from there may be the Gäbuk-chu. Amongst the right tributaries I found Samye-chu and Rukyok-chu. De Rhins points out how much the work of identification would have been facilitated if on the map or in the notes of Nain Sing a single place or the slightest indication corresponding with the Chinese map had been found, which is not the case. Here de Rhins only means the journey of 1873—74, where indeed hardly any other point than Tengri-nor may be identified. From my journey in Bongba I am able to identify a few lakes and rivers but nothing else.

Le Oï tchou ou Dok tchou sort du lac Am tchok éloigné de Dziang abring de 180 li (40 milles) au nord-ouest. Il prend son cours vers le sud et entre après 100 li (22 milles) dans un autre lac nommé en mongol: Ike Roung gang pou. En sortant de ce lac, il reçoit les eaux de trois rivières (le Raka tsan po, un affluent venant du petit lac Kirong ou Kyong dam tso et le Kiang tchou) et prend le nom de Dok tchou. Il coule 180 li (40 milles) à l'est jusqu'au nord du pont Mouk bou djak samba où il reçoit le Ou tchou qui vient du nord. Le courant formé du Dok tchou et du Ou tchou prend le nom de Oï tchou et se jette à 60 li (13 milles) en aval dans le Tsanpo.

Comparing the European sources with the Chinese we find that the latter are so far more correct that they trace the northern tributaries to their origin, and show several of them as fairly long rivers, whereas the western writers, in this case represented by Ryder, make them too short. Only where speculation has been accepted, as in the case of Saunder's map and Holdich's book, the hydrographical arrangement has been so far exaggerated as to include parts of the closed plateau-land with its salt lakes within the system of Indian drainage. This could be done only on account of the fact that nothing was known of the general orographical configuration of the country north of Tsangpo and west of Khalamba-la.

[1] L'Asie Centrale, Paris 1889, p. 543.

CHAPTER X.

THE SOURCE OF THE BRAHMAPUTRA ON THE TA-CH'ING MAP.

At the time when DUTREUIL DE RHINS published his work on Central Asia,[1] some reviewers were rather unkind to him and did not think much of a work which was to such a great extent founded on geometrical construction and calculation. I agree with them that the method is insufficient and that only new exploration may clear up the geography of an unknown country. De Rhins himself is aware of this fact, for he says:[2] »En Asie Centrale, l'inconnu conserve de telles proportions q'une douzaine d'explorateurs à l'œuvre pendant un demi-siècle ne suffiraient pas aux travaux préliminaires d'une topographie sérieuse . . .» Still, I think, *L'Asie Centrale* is an admirable work. It is full of knowledge and erudition from beginning to end. It is scientific and critical and displays a great amount of perspicacity. It shows no end of patience and love for the work. It also shows a great bibliographic knowledge, although it is surprising that he gives only the titles of such German works as Ritter's and Richthofen's, in which he should have found so much information important for his researches. One reads the book with sympathy for it was de Rhins' preparation for the great and beautiful journey on which he lost his life, and which afterwards has been so well described by F. GRENARD.

The principal work from which de Rhins has found his materials is the great Chinese atlas of the dynasty Ch'ing or Manchu, a work which contains also Tibet and is founded on Chinese and Jesuit investigation and afterwards completed and controlled. It is called *Ta-ch'ing-i-t'ung-yü-t'u*, and published 1744—1756—1761—1862. He does not seem to value the Ta-ch'ing map so much as it is worth: »La carte des Ta-ch'ing représente la partie occidentale du Ngari de la façon la plus incomplète et la plus inexacte . . .»[3] On the other hand he has too great a veneration for the *Wei-tsang-t'u-chih* of 1792, from which some extracts are given in a

[1] L'Asie Centrale, Paris 1889.
[2] Op. cit., p. 589.
[3] Op. cit., p. 522.



The region of the Manasarovar and the Sources of the great Indian rivers, as represented on the Ta-ch'ing Map. (After Dutreuil de Rhins).

preceding chapter, for he says: »C'est l'ouvrage le plus important sur la géographie du Thibet.» To speak only of the source of the Brahmaputra, which interests us at the present moment, we shall see that the Ta-ch'ing-i-t'ung-yü-t'u is incomparably the best of the two, which was, however, impossible for de Rhins to know in 1889, as great parts of Tibet, represented on the Ta-ch'ing map, were then unknown, at any rate to the European geographers. But Klaproth had, on his map of Central Asia of 1836, almost entirely copied the Ta-ch'ing atlas, except the parts near the Indian frontier. On the Ta-ch'ing map Tibet especially had been filled up by the help of a number of Chinese itineraries. One of them, accomplished by MA CHAO YU, is mentioned in the *Wei-tsang-t'u-chih* or *Topographical Description of Central Tibet.* By his analysis of the Chinese map de Rhins arrives at the result that its value and reliability is very different in different parts of it. It is easy to agree with him from the extracts he gives of the text. Disregarding some mistakes, the description of the source of the Brahmaputra is, for instance, very good, whereas the Bongba country is very poor and difficult to bring into harmony with reality.

De Rhins believes that d'Anville had been influenced by the documents of Goëz, Andrade, Bernier, Grueber and Dorville, Desideri and della Penna when he introduced some changes and improvements on the Chinese map for Western Tibet.[1] »Sur ses cartes de 1735 d'Anville n'a pour ainsi dire pas modifié les positions du Tengri nor et du Tarogh mtso, placé par environ 32° de latitude sur la carte des Tai Thsing; tandis que la modification considérable qu'il fit subir au tracé du Tsan po, sur sa carte de 1752, le força à reporter par près de 33° la position du Tarogh mtso . . . d'Anville était excusable de traiter ainsi la carte des Tai Thsing et ne pouvait l'utiliser autrement, à une époque où l'on ne connaissait ni la géographie Chinoise, ni les itineraires chinois.» In how far this opinion is correct for the interior of Bongba we shall see later on. For the sources of the Satlej and the Brahmaputra both give practically the same topography and hydrography, although the Ta-ch'ing map is richer in names (Pl. VII). As was to be expected de Rhins finds often great differences between the maps of the Ta-ch'ing, d'Anville and Klaproth, but generally he regards them as belonging to one and the same type. The chief difference between d'Anville's and Klaproth's maps he finds depending on the fact that the latter had at his disposition the maps of Bogle, Turner, Manning, Rennell, Crawford and all the British officers between Rennell and Crawford. Further he was able to use all the maps of the *Survey of India*, Moorcroft's results and all the material from 1812 to 1836, when his map was published.

Regarding Nain Sing's survey de Rhins has made the following interesting observation: »Dans la région des sources du Tsan po, Nain Singh n'a suivi aucun des deux itineraires chinois marqués sur la carte des Tai Thsing. Les quelques

[1] Op. cit., p. 473.

noms de hameaux, de campements, ou de rivières que Nain Singh indique ne se retrouvent pas sur la carte chinoise; mais il s'accorde avec celui-ci sur la distance des points extrêmes.» The fact that Nain Sing's names are not to be found on the Chinese map only proves that the Pundit's map is richer than the Chinese in this respect. But the fact that he, and after him Ryder and Rawling, followed the Maryum-chu, whereas the two Chinese itineraries mentioned surveyed the source branches from the S.W. explains the misunderstandings about the source of the Brahmaputra, which reigned in European geography until I was able to clear up the hydrography. It also proves that the problem could not be solved and the branches not even roughly surveyed from a distance. It is almost a consolation for European geographers, that the confusion prevailing in different Chinese works is as great as in the European. The difference between the Wei-tsang-t'u-chih and the Ta-ch'ing-i-t'ung-yü-t'u is even greater than between Sir Richard Strachey and Nain Sing. The Chinese have, however, never fallen into the mistake of calling the Maryum-chu the main branch of the Tsangpo. Some authors give it the same rank as the southern branch, others do not even mention it. Some call the Chema-yundung a tributary, others make it the main branch. The following is the Ta-ch'ing text as given by de Rhins:[1]

Le Tsan po est formé de la réunion de deux rivières principales: le Tam tchouk ou Tamdjam kamba (source du cheval) dont les sources se trouvent dans les monts Kouben gang tsian,[2] Goumang et Tam tchouk khabab, et le Giangghia sum la ou Dzian dzia tchou.

Le Dzian dzia est formé de quatre rivières qui naissent au nord-ouest, dans les monts Maryoung, Changou yarak ri, Chadziar ri. Elles coulent environ 100 li (22 milles) vers l'est. Le Dzian dzia, qu'elles forment en se réunissant, parcourt 50 li (11 milles) au sud. Il reçoit à droite le Tchar tchou qui vient de l'ouest; et, à 60 li (13 milles) en aval, il se jette dans la gauche du Tsan po.

Le mont Kouben gang tsian (Cocoun Ken tchian de d'Anville) est à 258 li (55 milles) à l'ouest des Djochot (Daksam). Il est très élevé, couvert d'un énorme glacier et fait partie de la même chaîne que le mont Goumang et le Tam tchouk khabab qui est situé à 340 li (75 milles) des Djochot.

Les monts Maryong, à 280 li (62 milles) des Djochot, relient les Tam tchouk khabab aux monts Changou yarak ri situés à 280 li (62 milles) au N.O. des Djochot.

This passage is extremely important and interesting, but it has to be well compared with the Ta-ch'ing map and still more with my map of the country as it really is. Discussed alone it leads to a misunderstanding which otherwise may easily be avoided.

Translated in an intelligible way it runs as follows: The Tsangpo is formed by two principal rivers: The Tamchok-kamba, or source of the Horse, the sources of which are situated in the mountains of Kubi-gangri, Chema-yundung-gangri and Tamchok-kabab, — and the Maryum-chu.

---

[1] Op. cit., p. 517 et seq.
[2] Kubi-gangri!

The Maryum-chu is formed by four rivers which rise in the N.W., in the mountains of Maryum and Transhimalaya. They flow some 22 French miles to the east. The Maryum-chu which is formed by their confluence flows 11 French miles to the south. It receives from the right the Chema-yundung which comes from the west; and 13 French miles further down it throws itself into the left side of the Kubi-tsangpo.

We begin with the Maryum-chu. In the Chinese text only the mountains are called Maryum, and in these mountains our well-known Maryum-la is situated. But the river is called Dzian dzia tchou, or Giangghia sum la, which on d'Anville's map has been improved to Kiankia somla. Dzian dzia, Giang ghia and Kian kia are different deformations of the same Tibetan word, whatever its meaning may be. *Kyang*, wild ass, may enter in the name. The *sum la* of the Chinese text means, in Tibetan, the three passes. The name is thus something like »The kyang-river of the three passes». One of them may be Maryum-la. But the two principal passes, from which the river gets the greatest part of its water, are, undoubtedly, situated in the Transhimalaya. Modern explorers completely ignore these two passes, and simply describe the river as rising from the Maryum-la, a view which, as shall be shown, was universally accepted even in European handbooks of geography. And still the difference between these three passes must be very great. The Maryum-la, although extremely important as a watershed, is only a comparatively low transverse threshold in a longitudinal valley, whereas the two other passes must be much higher and situated on one of the principal crests of the Transhimalaya, and perhaps surrounded by fields of eternal snow. On Ryder's map there is an indication of the branches which form the Maryum-chu, although the sources of the branches coming from the north, may be situated further north than he has marked. In the Chinese text it is said that the four rivers flow to the east. This is fairly true for the one we know, namely, the brook from Maryum-la. As to the three others they more probably flow southwards or to the S.E., as represented on d'Anville's map. The Ta-ch'ing map has only three source branches, but d'Anville has four. The most interesting is, however, that the Chinese text, although knowing the name Maryoung for the mountains, does not call the river Maryoung-tchou, but derives its name from all three passes where the sources are situated. It is also worth while to remember that the Chinese geographers have correctly noticed that this northern branch, which for want of a better name, so far must be called Maryum-chu, comes from *passes* and not from *gangris*.

After the confluence of all four branches, the river, we are told, flows southwards as far as to a point where it receives a tributary coming from the west and called Tchar tchou. Which is this river? As I have not been up the Maryum-chu I could not tell from my own experience. Ryder has two tributaries, both coming from the west and joining the Maryum-chu. And still I believe that the Tchar tchou (Char-chu) is nothing else than the lower course of Chema-yundung, a confusion which we recognise very well from other maps, discussed above. Both on the Ta-

ch'ing and on d'Anvilles map the two Chinese itineraries are laid in. The northern itinerary does not at any point, west of Lhatse-dsong, cross the Tsangpo. But it crosses the Maryum-chu and its tributary Tchar tchou before it reaches Gunchu-tso. Thus it follows a road which runs south of the ordinary road over Maryum-la. It must be the same road which was followed by Kawaguchi. For he came from Gunchu-tso and kept south of Maryum-la and »went on several low undulating hills, and finally reached the lower course of the river Chema Yungdung», after which he crossed the »Kobei-chu». Thus he left the Chinese itinerary on his left and had not to cross the Maryum-chu. The Chinese itinerary crossed the Maryum-chu, Kawaguchi the Kubi-tsangpo. But on the road to Gunchu-tso both must have crossed the same river. And as this is called Chema Yungdung by the Japanese, it must be the same in the Chinese case, which also corresponds perfectly with real facts, so much the more as there is no other sign of a junction between the Chema-yundung and Maryum-chu on the map.

The first-mentioned of the two principal rivers, the Tamchok-kamba, has its sources in the mountains of Kouben gang tsian, Goumang and Tam tchouk khabab. The first of these is Kubi-gangri, which is very well placed on the Ta-ch'ing map. The second, Goumang, corresponds exactly to Chema-yundung-pu, i. e. the mountain massive from which the Chema-yundung comes down, and which is probably sometimes called Chema-yundung-gangri, although I only heard it called »pu» or »upper valley». From the eastern slope of the mountain a river goes down to a little lake, on the Ta-ch'ing map called L. Djima Young rong, which also proves that Mt. Goumang must be identical with the Chema-yundung-pu. The third mountain, Tam tchouk khabab, has, curiously enough, been placed north of Mt. Goumang and a little tributary, possibly the Angsi-chu, may be said to rise from its eastern slopes. Thus Langchen-kabab and Tamchok-kabab become, on this map, very close neighbours, and the source of the Horse is regarded as situated at the head of the river which is farthest west, and, probably, somewhat longer than the other branches. In this particular detail the different Chinese versions do not agree. For in the version translated by Klaproth it is said that the Tsangpo comes from Tamchok-kabab and after a course of 10 lieues receives a tributary from the lake Chema-yundung. Here it is specially pointed out that only the head river comes from Tamchok-kabab. With this d'Anville's map agrees for it places Tamchok-kabab as belonging to or being a part of Kubi-gangri, and Dutreuil de Rhins says of the Tamchok-kamba that it is »la branche principale du Tsan po».[1]

The mistake of the Ta-ch'ing map has of course been accepted by d'Anville, for in the general hydrographical arrangement both maps are practically like each other. It is very easy to find out how this mistake could rise, if we only consider the itineraries on the Ta-ch'ing map. The southern itinerary has crossed the Kubi-

[1] Op. cit., p. 517.

tsangpo somewhere about half-way between the source and the confluence. Then it crosses the Chema-yundung somewhere below its source, and finally it goes up to the southern shore of Gunchu-tso. It has never crossed the joint Tsangpo west of Chaksam-ferry. But it crosses the Kubi and the Chema near their sources. The Chinese traveller has probably not even seen the Maryum-chu. He has believed that the Chema joined the Kubi immediately below the point where he crossed the Kubi. Therefore the Ta-ch'ing text says that the Tamchok-kamba comes partly from Kubi-gangri and partly from Chema-yundung-pu and Tamchok-kabab. And it knows only two principal rivers instead of three. The traveller of the northern itinerary had, however, found that a river, which he calls Tchar tchou, came from the wes- and joined Maryum-chu. Therefore when the results of the two surveys should be comt bined on one and the same map, it has been supposed that the Tchar tchou and the river from lake Djima Young rong were two different rivers, although in reality they were one and the same. We arrive at the same result when discussing d'Anville's map. But d'Anville has, from causes unknown to me, placed Tamchok-kabab at the source of the river which is identical with the Kubi-tsangpo, and only this view must, of course, be the correct one.

As the Tamchok-kabab has been wrongly placed on the Ta-ch'ing map, the name »Tsan po (Tam tchouk kamba), has also been misplaced, for it follows the Chema-yundung instead of the Kubi-tsangpo. Otherwise the river which comes from Kubi-gangri is fairly correctly laid in on the map.

It is said in the Ta-ch'ing text that the Kouben gang tsian is covered with an enormous glacier and that it belongs to the same mountain range as Goumang and Tam tchouk khabab. Both statements are perfectly correct. On the other hand the statement that the mountains of Maryong should join the Tamchok-kabab with the Changou yarak ri, which is a part of the Transhimalaya, is wrong, even if Tamchok-kabab is placed as the Ta-ch'ing map has it. It is true that Ryder on his map has, just south of Gunchu-tso, a meridional range forming a very sharply marked watershed between the Tsangpo-Brahmaputra system and the Manasarovar-Satlej system. But there can hardly be said to exist any continuous range at this place. Straight south of the eastern end of Gunchu-tso there is a spur, which I crossed in Marnyak-la (5,302 m.). Then I passed up the tributaries of Chema-yundung to Tamlung-la and down the Tage-tsangpo to the Manasarovar. The Tamlung-la is a threshold pass in a longitudinal valley and by no means situated in a mountain ridge or range. And the difference in absolute altitude between the Tamlung-la and the surface of the Manasarovar is only 696 meters.

The Chinese text could have added that the range, of which Kubi-gangri is a part, continues the whole way to Langchen-kabab, for this is correctly pointed out on the map. Whether this range, which I have called Kubi-gangri and Ganglung-gangri, from names given me by Tibetans, continues also to Gurla Mandata, I cannot tell. Ryder has here two parallel ranges, the southern joining the Gurla

Mandata with the Kubi-gangri, the northern pierced by a problematic river which is marked as a southern tributary to the Tage-tsangpo. I could not tell whether such a river exists or not, as I never have been beyond the Ganglung-gangri. A small tributary comes from the south no doubt, but I believe it comes from the range which joins the Gurla with the Ganglung-gangri. If Webber's map could be trusted in the least, which is not the case, his Dak Eo pass of 19,000 feet should be situated exactly where Ryder has his transverse valley cut through the same range. At the first sight the Ta-ch'ing map seems to corroborate the view of the existence of such a southern river, for it represents the Tage-tsangpo double. But this argument loses all of its force as both branches are drawn as situated north of the Langchen-kabab or Ganglung-gangri. As Ryder followed the northern route he could not possibly make out the orography along the southern route, and much less the river-courses and their valleys. From high stations of triangulation all the dominating peaks were visible but sometimes they may have been formed into ranges in a wrong way. But Ryder has quite correctly left the question open by marking both the Tage-tsangpo and its southern tributary with dotted lines. Only a new survey in the country S.E. of Gurla can solve the problem.

The Chinese documents de Rhins has used for south-western Tibet consist of the Ta-ch'ing map, some Chinese itineraries (*Wei-tsang-t'u-chih*, translated by Klaproth) and the general geography of Tibet (part of the *Ta-ch'ing-i-t'ung-chih* translated by the missionaries in Peking and Klaproth). In his atlas de Rhins gives a reproduction of the Tai-ch'ing map;[1] on his map of construction, N:o 22, he puts down in red the itineraries of the Pundits. He tries to get rid of the errors of the Ta-ch'ing map by means of transformation, as indicated on his map N:o 21 (Pl. VII.) His geometrical deductions and comparisons do not inspire much confidence in spite of the erudite and honest work he has sacrificed. He compares his own constructions with the Chinese map to find out the different values of this. From Nain Sing's map from Shigatse to Maryum-la he gets a control of the Chinese map, which, however, does not at all agree with the Ta-ch'ing text. The text is correct, the map wrong in distances.

In the following quotations from de Rhins, based on the Chinese text[2] we find that the Indus is regarded as taking its rise from the mountains N.E. of the Gang dis ri (la montagne de couleur de neige), which was transcribed Kaintaissé by the missionaries: »Dans le nord-est du Gang dis ri s'élévent les pics Imarou, Pa tchoung et Senghé khabab.» I cannot identify Imarou, but Pa tchoung and Senghé khabab are here given exactly as they are pronounced by the Tibetans. »Le Senghé khabab gang ri — montagne neigeuse de la source du Lion — est à 360 li (80 milles) au nord-est de la ville de Goughé djachi loumbo; et au nord-est du Gang dis ri.

[1] Map N:o 20.
[2] Op. cit., p. 518 et seq.

Ainsi que son nom l'indique, les ruisseaux qui en découlent à l'ouest donnent naissance au Senghé tchou ou à l'Indus.» A description of the source of the Indus could not be given in a shorter, more precise and more correct way, showing that the Chinese had a much clearer knowledge of this part of Tibet than some Europeans even so late as the beginning of 1900. The Chinese text clearly says that the source of the Indus is situated in the mountains N.E. of Kailas and not on the Kailas itself. As to the source of the Satlej the text says: »Le Lang tsian khabab gang ri, à 250 li ou 55 milles nord-est de Tak la kar; le Lang tchou y prend sa source.» This orientation will coincide with the M. Lantchia Kepou of d'Anville's map, which is also perfectly correct. On his construction map[1] de Rhins has represented everything from Chinese sources in black, and everything from the Pundits in red and has tried to bring these two pieces of information into harmony with each other. He arrives at the result that the Lang tsian kabab is situated exactly where I stated it to be. The Some tchou (Samo-tsangpo) comes from L. Gonghioud, which *may* have been the case in those days, although it is not at all probable, the lake being salt. But as I have not been at the place I cannot add to the solution of the problem. But even if the Samo-tsangpo in olden times came from the Gunchu-tso it could not be called the source of the Satlej, so long as the Chinese and Tibetans placed the source of the river at Langchen-kabab, or the source of the Tage-tsangpo. The only mistake in this connection committed on the Chinese map is that Tage-tsangpo is represented as a left tributary to the Samo-tsangpo, which, of course, has never been and *can* never have been the case.

On the construction map Seng ghe kabab is very correctly placed N.E. of the Kailas. For this mountain de Rhins has the names: Kain taise, Gang dis ri, Aneouta or Kailasa, all except the most common one which is Kang-rinpoche.

Thus Dutreuil de Rhins has no opinion of his own regarding the hydrographical problem, he only quotes native reports.

[1] N:o 22: Thibet sud-occidental, Carte de construction.

CHAPTER XI.

SOME DESCRIPTIONS OF THE MANASAROVAR AND ITS SURROUNDINGS.

E. HAENISCH has translated and published a short Chinese description of the sacred lake and the sources of the great rivers under the following heading: Am Tage hsin-ssŭ erging ein Kaiserliches Edikt an die Grosssekretäre, Hülfssekretäre und die neun Ministerien, welches sie beauftragte, genaue Erhebungen über die Namen der südwestlich der äussersten Grenzen gelegenen Berge, Flüsse und Ortschaften anzustellen.[1] The passage runs as follows:

Dann gibt es in dem Gebiete von Jôn-nan (Yünnan) noch einen Fluss namens Bin-lang giyang (Pin-lang-chiang). Seine Quelle entspringt auf dem Gebirge Damju k'abab (Tamchok kabab) östlich von Gangdise in (der Provinz) Ari. Das Wort bedeutet Pferdemaul. Die Quelle, welche dort hervorströmt, führt den Namen Jaru-tsangbu-Fluss. Dieser Fluss kommt von Süden und fliesst dann, indem er einen Bogen macht, in östlicher Richtung durch die Länder Tsang und Wei an der Stadt Ži g'a gungg'ar vorbei, worauf er sich mit dem Galjoo muren (Flusse) vereinigt. Dann richtet er seinen Lauf wieder nach Süden, durchströmt das Land des Gungbo-Stammes und betritt in Gu-yung jeo (Ku-yung-chou) das Gebiet von Jôn-nan, wo er den Namen Binlang giyang (Pin-lang-chiang) führt. Dann tritt er aus dem Passe Tiyei-bi (T'ieh-pi) hinaus in das Reich Miyan (Mien) ein. — Im Süden von Gangdise liegt ein Berg mit Namen Langciyan k'abab (Langchen kabab). Das Wort bedeutet Elefantenmaul. Dort kommt eine Quelle hervor, welche einen Teich Mampim dalai durchströmt und dann auf ihrem weiteren Laufe in den See Langk'a noor eintritt. Das Wasser dieser beiden Seen ergiesst sich in westlicher Richtung in das Land Sangnan. — Im Norden von Gangdise liegt ein Gebirge, welches den Namen Sengge k'abab trägt. Das heisst Löwenmaul. Dort entspringt auch eine Quelle, welche in westlicher Richtung in das Land Sangnan fliesst. Diese beiden (letzterwähnten) Gewässer vereinigen sich dort in einem Laufe, welcher nach Süden geht, dann wieder einen Bogen nach Osten macht und im Lande Nakra Sumdo sich mit dem Flusse vereinigt, welcher von dem Gebirge Mabgiya k'abab westlich vom G'angdise kommt. — Der Name Mabgiya k'abab (Mabgya-kabab) bedeutet Pfauenmaul. Dieses Gewässer, welches nach Süden strömt, vereinigt sich

[1] Bruchstücke aus der Geschichte Chinas unter der gegenwärtigen Dynastie von E. Haenisch. I. Die Eroberung von Tibet, aus dem »Feldzug gegen die Dsungaren» auszugsweise übersetzt. — T'oung pao Vol. XII. Leide 1911, p. 415 et seq. As the text that has been used is Manchu the names also appear in the Manchu transcription. The original Chinese — or rather Tibetan denominations have in the quotation below been added within brackets by Doctor Albert Herrmann, — so far as it has been possible to identify them.

im Lande Nakra Sumdo mit dem in östlicher Richtung herankommenden Flusse. Der Strom nimmt dann eine südöstliche Richtung an und tritt in das Land Enetkek (Indien) ein. Dort nennt man ihn G'angg'a-Fluss. Das ist der in buddhistischen Büchern Heng ho genannte Fluss ... Eine Stelle in den buddhistischen Klassikern heisst: »Die vier grossen Ströme entspringen auf dem Gebirge O-nuo-da śan. Am Fusse desselben befindet sich ein See O-nuo-da c'i (A-nu-ta-ch'ih).» Nach den jetzigen Nachforschungen scheint das der G'angdise zu sein. Der Name G'angdise im Tangutischen bedeutet Urquelle aller Berggewässer. Das stimmt mit den Worten der buddhistischen Bücher überein. Im Süden des G'angdise befinden sich zwei Seen, welche mit einander in Verbindung stehen. In der Überlieferung der Eingeborenen heisst es, das sei der Edelsteinteich der Hsi-wang-mu. Das wird eben der Teich O-nuo-da c'i sein.

Here again mount Tamchok kabab is given as the source of the Tsangpo or Yere-tsangpo. Without further detail the river is said to come from the south, that is to say from Himalaya, and to flow in a bend towards the east. The Satlej problem is also explained in a few words. The source of the river is placed in a mountain Langciyan k'abab or Langchen-kabab, after which the river flows through the two lakes Mampim dalai and Langk'a noor, i. e. Tso-mavang and Langak-tso. To the north of Kailas is mount Senge-kabab with the source of the westward flowing Indus. Then returns the ordinary mistake that the uppermost Indus and Satlej belong to the Ganges. At the end of the quoted passage the two lakes at the southern foot of G'angdise or Kailas are again mentioned, and they are said to be in connection with each other.

The work from which this passage is taken appeared in 1771. Haenisch has extracted from it all those parts which deal with the Tibetan expedition, from the first military operations in the summer of 1717 to the conquest of Lhasa in the autumn of 1720. Therefore it seems likely that the information about the lakes and the connection between them has been derived from the Lama surveyors of Emperor KANG HI, whose survey in western Tibet took place during the Dsungarian campaign.

When the missionaries at Peking were trying to find out from where the borax came they were told that it came either from Tsang-li, which is Tibet, or from Hai-nan-nan-hai which is the western Indian peninsula with neighbouring countries. One of the missionaries, M. CIBOT, has the following communication in the matter:

Les Marchands droguistes que nous avons fait interroger, ont répondu la même chose, & ont ajouté que le borax de Pékin venoit du Thibet par le Yun-nan & le Sée-tchouen, ou de la ville de Canton. Quant au Thibet, nous avons trouvé dans l'Y-tong-chi qu'il y a un lac nommé Ma-pin-mou-ta-lai, qui a près de dix-huit lieues de circonférence, est entouré de montagnes de tous côtés, dont les eaux sont verdâtres & douces, où les coleurs de l'arc-en-ciel paroissent flotter sur la surface de l'eau quand le soleil est elevé sur l'horizon, & d'où il sort des especes d'eclairs quand les flots se brisent les uns contre les autres. Puis on ajoute plus bas, que le borax qu'on trouve en grande quantité sur les rochers qui bordent ce lac, est le plus beau & le meilleur qu'on connoisse.[1]

[1] Notice sur le Borax, par feu M. Cibot, Missionaire. Mémoires concernant l'Historie, les Sciences, les Arts, les Mœurs, les Usages, &c. des Chinois: Par les Missionaires de Pekin. Tome onzieme Paris 1786, p. 343.

It is curious that the fresh-water lake Manasarovar could be suspected as being responsible for the Tibetan borax. The borax was known to come from Tibetan lakes, and as the Ma-pin-mou-ta-lai or Manasarovar was more famous than all other lakes in Tibet it was particularly mentioned as the place from where the borax was brought.

In Klaproth's translation of the *Great Imperial Geography* the Mapham dâlai and its western neighbour are described thus:

Le mot mapham signifie, en tubetain, ce qui surpasse tout, dâlaï, en mongol, est mer. Les Hindoux appellent ce lac Manassarovar. Il est à 200 li nord-est de la ville de Dakla de la province de Ari, et à 65 li sud-est de la montagne Gangdis ri. Il est nourri par les eaux qui découlent de la montagne de neige, nommée Langtsen kabab gangri, située au sud-est, elles coulent au nord-ouest et se jettent dans le lac, qui a 180 li de circuit. La couleur de ses eaux est verte, et leur goût pur et doux. Après midi, elles prennent différentes couleurs, et réfléchissent une lumière semblable à celle des éclairs. Ce lac est enfermé, des quatre côtés; par des montagnes qui en forment comme des portes. Les gens du pays croient que, pour puiser de ses eaux, il faut nécessairement passer par une de ces portes. La première porte, nommée en tubetain Arab ko, ou la porte occidentale, est à l'ouest du lac, et au sud du courant d'eau qui le joint au Lang mthso. La seconde est celle du nord; elle s'appelle Dadzan loung; elle est au nord de ce courant. La troisième, celle de l'est, porte le nom de Tou igo char; elle est au sud de la rivière Dsiemaï tchou, qui vient du nord-est et se jette dans le lac. La quatrième, enfin, est celle nommée Ghiour go, ou la porte du sud; elle est sur le bord méridional du lac, et au nord-ouest de la montagne de neige Manak nîl gangri.

Le Lang mthso, ou Langga mthso, c'est-à-dire le lac du boeuf, est à 170 li au nord de Dakla, et 30 li sud-ouest de la montagne Gang dis ri. Il a plus de 300 li de circonférence, et reçoit les eaux du Mapham dâlaï, par le courant duquel on vient de parler. L'Altan gol, ou la rivière d'or, nommée aussi Menghe djasson altan gol, est formée par la fonte des neiges du Gang dis ri, coule environ 20 li au sud-ouest, prend après la direction du sud, et se jette, après 40 li, dans l'angle septentrional du lac. Du Lang mthso, sort la rivière Lang tchou, ou du boeuf, qui forme, avec le La tchou, la rivière Setledj, laquelle va rejoindre l'Indus. Le La tchou, ou l'eau divine, a sa source dans la montagne Sengghe Kabab. L'eau du lac est de couleur tirant sur le noir; elle a un goût agréable. Il s'appelle chez les Hindous Ravanhrad.

Klaproth gives the description of Gangdis ri or Kailas and its surroundings, completing partly with his own words, in the following way:

Elle est entourée par d'autres pics très-élevés, mais elle les surpasse tous de plus de cent toises. Elle est couverte de neiges et de glaces perpétuelles qui y forment des bancs escarpés, et lui donnent un éclat blanc et resplendissant. De son flanc coulent un grand nombre de sources et de torrents, qui se réunissent à son pied, dont l'accès est très-difficile, à raison des hauts rochers et des crevasses immenses qui l'entourent. En se dirigeant de la Chine au sud-ouest, on va toujours en montant jusqu' à cette montagne, qui est le point le plus élevé de toute la chaîne dont on suit la direction. Cette chaîne se subdivise en plusieurs branches qui traversent le pays dans des directions tortueuses. Au nord-ouest du Gangdis ri, est la cime neigeuse appelée Sengghé kabab gangri. D'autres montagnes couvertes de neiges perpétuelles qui, pour cette raison, portent en tubetain le nom de Gangri et en mongol celui de Moussoun, entourent la province d'Ari, sur une étendue de 1,500 li, et entrent, vers le nord-est, dans le pays de Katsi. Du côté nord-est du Gangdis ri, sont les montagnes appelées Dabrie sierké, Ghioouké niantsian tangla, Samtan gangdza, Nomkhoûn onbachi et Baïn khara, qui

entourent la province de Oui, du côté du nord, et passent par les sources de Houang ho et le lac Khoukho noor . . .

Another main branch of mountains starts from Gangdis-ri to the S.E., beginning with Tamchok kabab gangri and others and continuing the whole way to Yünnan and Szŭchuan. Klaproth goes on to say that according to the commentary of Shui-ching, which is a physical geography, three rivers begin S.W. of Mount Oneuta (A-nu-ta)-shan, and form the Heng-shui or Ganges. In his history of Fu-nan K'ANG T'AI says that the Ganges comes from the farthest north-west of mount Kwen-lun, and that it has five great sources. From the mountains which form the boundary of Hindustan begin the rivers Lang-chu, La-chu and Mar-chu, which first flow to the west and then return to the S.E. to form the Ganges which takes its direction to the southern sea. Klaproth points out to this: Ici les auteurs chinois confondent le Gange avec l'Indus, — and continues:

Il paraît donc que le mont Oneuta est la même montagne que le Gangdis ri de nos jours. Oneuta est le nom que les livres bouddhiques lui donnent, tandis que les anciens auteurs chinois l'appellent Kuen lun. Mais toutes ces traditions sont très-peu sûres, et l'éloignement des lieux rend une recherche approfondie sur cet objet difficile. — Cependent la nouvelle édition du Thai thsing y thoung tchi [1], rapporte qu'en 1783, Khian loung disait aux Grands de sa Cour, que, d'après les livres fan ou sanskrits, quatre grands fleuves prenaient leur origine sur le mont Oneuta, au pied duquel se trouvait le lac du même nom. Quand on examine cette contrée, ajouta l'empereur, on voit que l'Oneuta est la même montagne qui, à présent, porte le nom tubetain de Gangdis ri, c'est-à-dire Origine de toutes les montagnes et rivières . . . — Manak nil gangri, montagne de neige de la divinité Manak nil, qu'on croit y habiter . . . Elle . . . forme le bord sud-ouest du lac Mapam dalai, ou Manas sarovar.

There are also descriptions of the ordinary four »kababs» and of Koubun gangtsian ri, which borders upon Tamchok kabab gangri, very high, and crowned with an enormous glacier; the latter is obviously Kubi-gangri. Mar young la or Maryum-la is mentioned as a branch from the Kailas.[2]

The same geography of Tibet had already been translated by P. AMIOT and published in the Vol. XIV of the *Memoirs* of the missionaries at Peking, Paris 1789. I insert what he says of Lake Ma-pin-mu-ta-lai-chih, only by way of an example, p. 203:

Il est à deux cens lys au nord-est de la ville de Ta-ko-la, du département des Nga-ly, & à soixante-cinq lys au sud-est de la montagne Kan-ty-see [3]. Il est formé par les eaux qui coulent du pied de la montagne Lang-tsien-ka-pa-pou-chan [4]. Ce lac passe pour être la source principale du Gange, & c'est pour cette raison qu'on l'a honoré du titre de Ta-lai-tché [5]. Il peut avoir cent quatre-vingts lys de tour. Ses eaux sont propres, douces & salutaires, quoique d'une

[1] Ta-ts'ing-i-t'ung-chih.

[2] Description du Si dzang ou Tubet, D'après la grande géographie impériale de la Chine et le Dictionnaire géographique de l'Asie centrale, publié à Pékin, en 1775. Magasin Asiatique, Tome II, N:o IV. Publié par M. J. Klaproth. Paris 1828, p. 209 et seq.

[3] Kang-ti-ssŭ shan.

[4] Lang-chien ko-pa-po shan.

[5] Ta-lai-ch'ih.

couleur tirant sur le vert. Elles prennent différentes couleurs, suivant la différente élévation du soleil sur l'horison; mais vers le milieu du jour, elles brillent de toutes les couleurs ensemble, & réfléchissent une lumiere semblable à celle des eclairs. Ce lac est fermé des quatre côtés par des montagnes qui en sont comme les portes; ce qui a donné lieu au dicton des gens du pays: Pour en avoir de l'eau, il faut entrer par le milieu des portes, c'est-à-dire que, pour puiser dans la source même du Gange, il faut franchir quelqu'une de ces montagnes.

And of the Lang-ka-ch'ih:

Il est à cent soixante-dix lys au nord de la ville de Ta-ko-la, & à trentequatre lys au sud-ouest de Kan-ty-see [1]. Sa largeur la plus grande est d'environ trois cens lys. C'est un des premiers bassins du lac Ma-pin-mou-ta-lai-tché [2], dont les eaux, après avoir coulé quelque temps vers l'ouest, s'amassent & forment le Lang-ka-tché [3]. De celui-ci se forme la rivière qui coule vers l'ouest sous le nom de Lang-tchou-ho [4]. L'eau de ce lac est très-saine; elle est de couleur tirant sur le noir.

In Amiot's version the Ku-pên-kang-ch'ien schan or Kubi-gangri is thus described:

Elle est au sud-ouest de Tchouo-chou-tê-pou-lo, dont elle est eloignée de deux cens cinquante lys. Elle est contiguë à la montagne du Cheval. Elle est très-haute; & comme elle a plusieurs pointes inégales qui sont presque toujours couvertes de neige, elle présente un objet des plus agréables à voir.

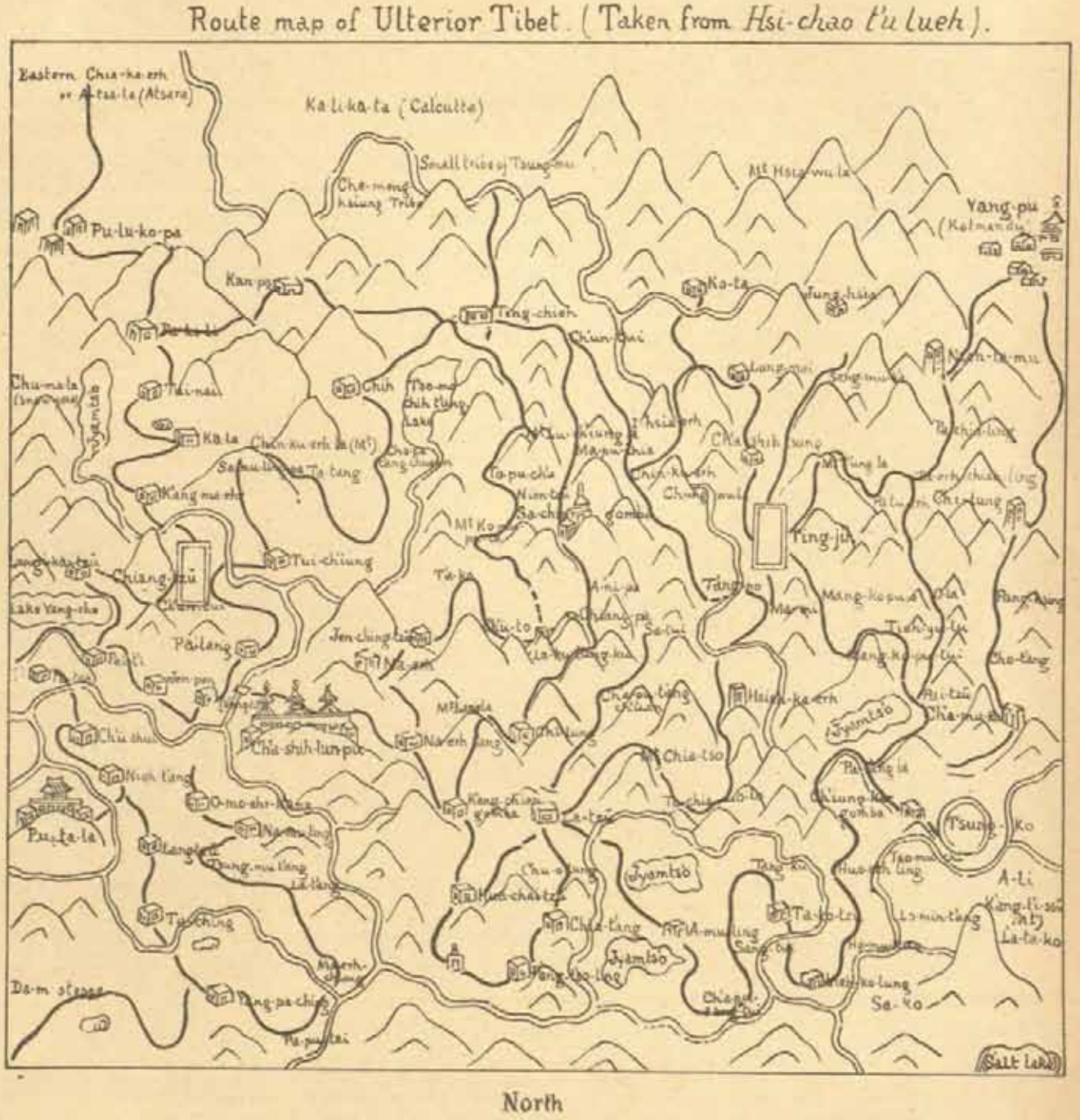
Finally the following is an extract from Rockhill's important article on the geography of Tibet derived from Chinese sources: [5]

Kang-ti-ssŭ shan. N.E. of the Ngari K'asum district (O-li) of Central Tibet. Its circumference is over 144 li. On all sides of it rise ridges and peaks, the highest in Tibet, and great masses of snow hang over their edges. On the summit of the mountain are many springs, which all flow into a depression, and there the water remains. This is unquestionably the greatest of all mountains. In Sanscrit books it is called the A-o-ta (Anavatapta) mountain. *Ta-mu-chu-ko-pa-po shan:* The mountain resembles in shape a horse (ta, hence its name). Ta-mu-chu-ko k'o-pa-pu, in the I-t'ung-chih, S.W. of Cho-shu-t'ê, 340 li, near Men-na-ko-nir shan, and facing Kailas on the S.E. It is one of a group of four high mountains. The Yara ts'ang-po flows from the E. of this mountain. *Lang-chien ko-pa-po shan:* The mountain is shaped like an elephant (lang ch'é, hence its name). *Sheng-ko k'o-pa-po shan:* The mountain is shaped like a lion (senggé, hence the name). *Ma-po-chia ko-pa-po shan:* The mountain is shaped like a peacock (ma-ja, hence its name). All these (four) mountains are conterminous to the Kang-ti-ssŭ shan. The total length (of this chain) is over 800 li, and is called A-li ta shan.

Ts'ang chiang, also called the *Po chu.*[6] It has three sources. One flows out in three channels, and falls into the Po chu; the second comes out of a cleft in the Kang-la shan, and also flows into the Po-chu. The third comes out of Lu-ma ling, enters the Wu-ssŭ chiang, and flows into the Po-chu. The waters of these three rivers having met, flow on in a mighty mass, and those who want to cross it to go to Lh'asa have to pass it in wooden or hide boats.

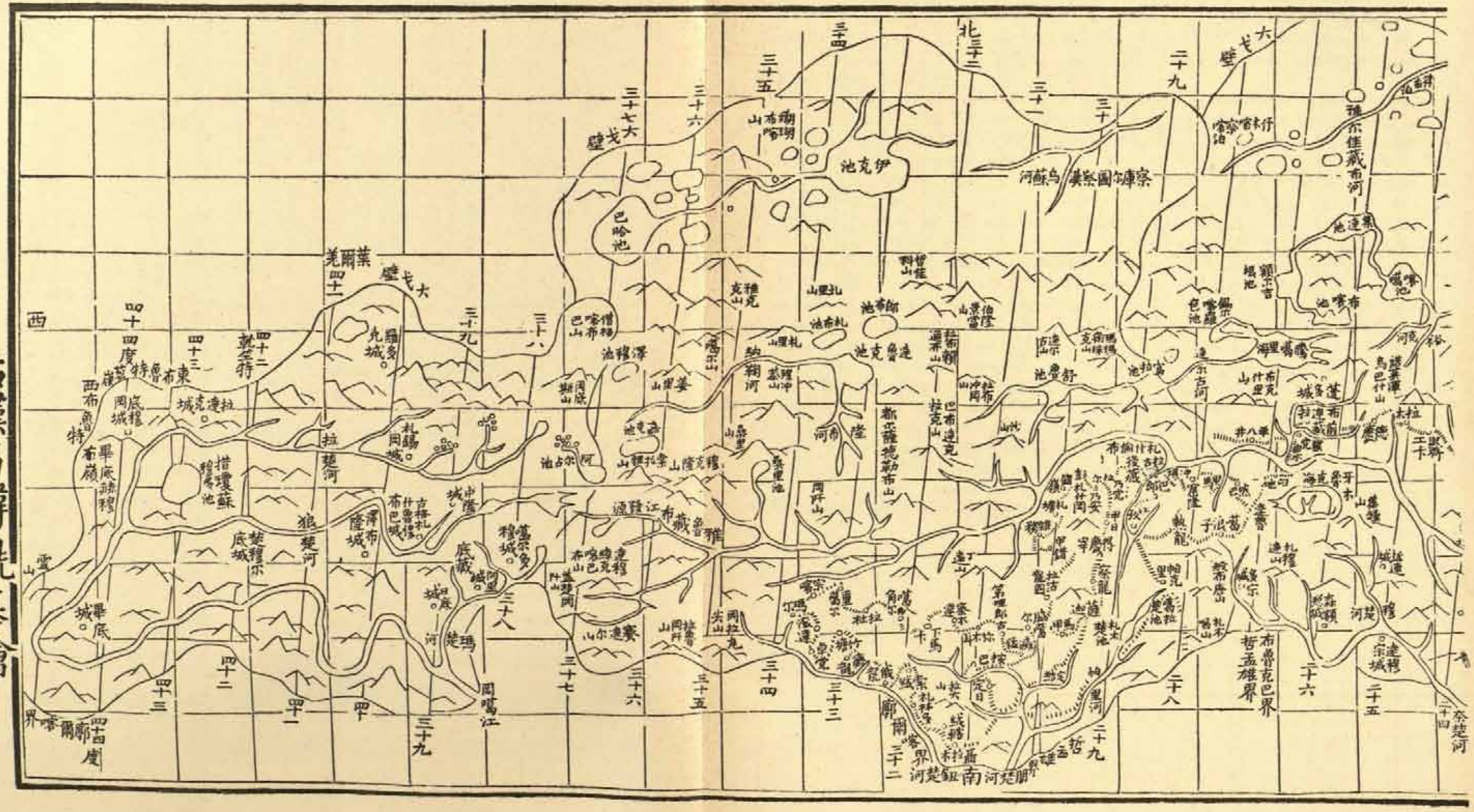
---

[1] Kang-ti-ssŭ shan.
[2] Ma-pin-mu-ta-lai-ch'ih.
[3] Lang-ka-ch'ih.
[4] Lang-chu-ho.
[5] Journal of the Royal Asiatic Society, 1891, p. 255 et seq.
[6] Rockhill identifies Po chu with Bod ch'u or River of Tibet, generally called Ya-lu ts'ang-pu chiang in Chinese works.



Route Map of Ulterior Tibet. Taken from Hsi-chao-t'u-lüeh. (After Rockhill.)

Gen. Staff. Lit. Asst. Stough



Map of Tibet, from the work edited in 1886 by Houang T'ci-k'iao.

The Manasarovar is mentioned under the name of A-o-ta chih or Lake Anavatapta, situated to the south of Kang-ti-ssŭ or Kailas. Rockhill tells us that the I-t'ung-chih mentions, among the lakes of Tibet, »Ma-pin-mu ta-la, 200 li N.E. of Ta-ko-la in Ngari, and 65 li S.E. of mount Kailas. It is the source of the Ganges and is over 180 li in extent. Lake Chi-ka, 170 li N. of Ta-ko-la and 34 li S.W. of the Kailas. It is over 300 li in extent, and is connected with Ma-pin-mu-ta-la.» The Chi-ka is therefore our Langak-tso.

Rockhill illustrates his important article with a Route map of Ulterior Tibet, taken from Hsi-chao-t'u-lüeh, of which Pl. VIII is a reproduction. Unfortunately it does not reach sufficiently far to the west. But Kang-ti-ssŭ comes in, and is indeed drawn as the highest mountain of Tibet. West of it is La-ta-ko (Ladak), south is A-li (Ngari), and N.E. is Sa-ko (Saka). To the north is a Salt Lake, but there is no Tso-mavang. The Kailas is correctly shown as situated south of the Transhimalaya. In two cases the tributaries are in connection with each other, forming rings.

Finally Pl. IX is the reproduction of a map for which I am indebted to Professor Edouard Chavannes who accompanied it with the following words: »Je vous communique le fascicule contenant des cartes, de Si tsang t'ou k'ao 'Cartes avec notes critiques sur le Tibet'. Cet ouvrage a été rédigé en 1886 par Houang T'ci-k'iao.» The hydrography of this map has obviously been derived from the same sources as d'Anville's map of 1733, of which a reproduction will be found in volume III of this work (compare also Pl. LI below). In the west of the map we find how the Ganges is formed by two branches, after which the joint river in a sharp bend turns east and south-east. The northern branch is in reality the upper Indus, the southern is the Satlej. Between both, near their junction, is a lake which on d'Anville's map is called Dsakion Somtou. The Satlej branch comes from two lakes, on d'Anville's map Mapama Talai and Lanken, or Tso-mavang and Langak-tso. Other great resemblances with d'Anville's map may be found, for instance in the representation of Tengri-nor and Jamdok-tso.

CHAPTER XII.

THE SHUI-TAO-TI-KANG ON THE SOURCE OF THE BRAHMAPUTRA AND THE SATLEJ.

In the *Shui-tao-ti-kang* or *Outlines of Hydrography*, Book 22nd, compiled by CHI CHAO NAN in the 26th year of Emperor CHIEN LUNG (1762 A. D.), we find the following description of the source of the Brahmaputra, which was translated for me by Professor OGAWA during my stay at Kyoto.[1] Under the heading: »*Waters of Hsi-tsang*» or Tibet, the author says:

»The *Ya-lu-ts'ang-pu-chiang* is the *Ta-chin-sha-chiang* (= Great Gold Sand River). It is supposed by some geographers to be the *Pa-pu-chuan* of olden times. Some consider it to be the *Hei-shui* (= Black Water) in *Yü-kung*, but it is too far situated. Its sources come out from *Ta-mu-chu-ko-k'a-pa-pu-shan*[2] standing at a distance more than 340 li northwest of *Cho-shu-tê*[3] tribes in the western frontier of *Tsang*. [The north-western part of the mountain is near the source of the Lake *Ma-piu-mu-ta-la*[4] in the *Lang-ch'ien-k'a-pu-pa-shan*.[5] This mountain (*Ta-mu-chuk-k'a-pa-pu-shan*) is situated 300 li S.E. of *Kang-ti-ssŭ-shan* (Kailas Mountain). The mountain is very high and great, and its form resembles a horse, whence it is named. The source of the *Ya-lu-tsang-pu-chiang*[6] is 35° W. (of Peking) and (the altitude of the north) Pole 29°.][7] There are three sources, all of which flow north-eastwards and unite into one river. The river flows at first turning eastwards, then south-eastwards for more than 200 li. A stream of fore mountains of *Ku-mu-kang* comes from S.W. to meet the river. The river now turning to the north-east for 100 li, receives the *Chiang-chia-su-mu-la-ho* which flows south-eastwards from

[1] To avoid misunderstandings I give Ogawa's translation literally, as I got it from him.
[2] Tamchok-kabab.
[3] Choshut.
[4] Mapam-tala, Manasarovar.
[5] Langchen-kabab-mountains.
[6] Yere-tsangpo-river.
[7] Professor Ogawa tells me that the passages within brackets [ ] in the original Chinese text are given with smaller characters as annotations or explications to the geographical names mentioned in the text.

Sha-ku-ya-la-ma-shan on the north-west. [The river *Chiang-chia-su-mu-la* is in the west of *Cho-shu-tê*. Its source comes out from *Sha-ku-ya-la-ma-la-shan* and *Nieh-li-ling* of *Cha-ko-chia-la-shan*. There are four streams, which run eastwards, and unite in one. After the confluence the river flows southwards, and receiving the *Cha-êrh-ho* coming from the west, eastwards into the *Ya-lu-tsang-pu* River.]

The *Ya-lu-tsang-pu* River flows now eastwards for 50 or 60 li, and receives *A-la-chu-ho* coming from the fore mountains of *Sha-la-mu-kang*. The river now runs southwards for 50 li, then turns east by north for more than 100 li, to be met by the *Na-yu-ko-tsang-pu* [1] which flows south-westwards from Lake *Sang-li* [2] receiving several streams before the confluence. [The river *Na-yu-ko-tsang-pu* lies 30 li sout-hwest of *Cho-shu-tê*. Its source comes out from Lake *Sang-li* on the north-east, flows westwards for more than 250 li, and receives from the north two streams coming out from *Shang-li-ko-pa-ling* and *Mu-ko-ling*, and from the south three streams originating in *La-chu-ko-shan*, *Tsu-lun-shan* and *Yang-pa-mu-shan*. Passing the west of *Yang-pa-mu-ling* it turns southwards, and after flowing for 80 li, receives from the N.W. two streams coming out from *Ya-la-ling* and *Ta-ko-lung-shan*. Then it flows southwards for more than 60 li before entering the *Ya-lu-tsang-pu* River.]

The river flows south-eastwards more than 200 li, and receives the *Kuo-yung-ho* which comes from *Ang-tsê-ling* on the S.E., and which flows north-eastwards and receives several tributaries before meeting the river. The river flows now south-eastwards for 50 li and then receives a stream coming from the S.W. It now turns south-east, then north-eastwards, for more than 200 li. The course becomes now more south-easterly, and the river receives a stream coming from the fore mountains of *Ni-ya-lung-kang* on the S.W. Further east it receives the *Sa-chu-tsang-pu* which comes with tributaries from N.E. [The river *Sa-chu-tsang-pu* lies more than 200 li S.W. of *Sa-ko* tribes. Its source comes out from the mountains of *Yo-lo-kang-kan*. There are six streams, all of which flow southwards for more than 100 li, and unite into the *Chia-pa-lan-ho*. The *Chia-pa-lan-ho* flows more than 50 li, and receives five streams, three from N.W. from *La-chu-ko-tsu-lêng-yang-pa-mu-shan*, and two from S.W. from *Ang-sê-ang-lê-sung-shan*. All these streams unite in one, and flow S.E., then turn S.W. The river, after receiving from north-east two streams of *Cha-sa-kung-ko-êrh-shan* and from south-west two streams of *Nieh-mu-shan* and *Liu-tsê-li-yang-ku-shan*, becomes the *Sa-chu-tsang-pu-ho*. It now flows south-westwards for more than 100 li before entering the *Ya-lu-tsang-pu* River.]

Further S.E. for 70 li, the river receives a small stream coming from the north. Further east for 30 li, the *Yung-chu-ho* comes from south to meet the river. Further east for 90 li, the *Shi-êrh-ti-ho* comes from south with its three affluents.

[1] The Naouc Tsanpou R. on d'Anville's map.
[2] The L. Sanc-li on d'Anville's map.

Further east for 30 li the *Man-chu-tsang-pu-ho* comes from north to meet the river. [The river *Man-chu-tsang-pu*, otherwise called the *Ma-chu-tsang-pu-pi-la*, lies in the south-west of the Sa-ko tribes. Two streams flow for more than 200 li southwards from *Hsieh-êrh-chung-shan* and *Pieh-lung-shan* on the north. After receiving three streams coming from *Kang-chung-cha-ta-ko-shan* on the east, and further one from *La-ko-tsang-cho-li-shan* on the west, the river becomes the *Man-chu-tsang-pu-ho*, and flows south-eastwards for 50 li before entering the *Ya-lu-tsang-pu* River.]

The river flows further eastwards for 60 li, and receives a stream coming from south. Further east for 70 li a stream comes from *A-li-tsung-chêng* on the south to meet it. Further east for 80 li, it turns to the north-east, and meets the *Sa-ko-tsang-pu-ho* which comes from Lake *La-pu* on the north-east, and which at first flows south-westwards but after gathering several streams turns south-eastwards to enter the river. [The river *Sa-ko-tsang-pu*, otherwise called *Sa-êrh-ko-pi-la*, lies on the south-east of *Sa-ko* Province. Its source is Lake *La-pu* on the north-east, and at first flows underground, and appearing on the surface, it has a sinuous course towards south-west for more than 400 li. A stream comes from *Pi-pu-ta-ko-la-ko-shan* on the north, and taking a south-easterly course and receiving a stream from *La-lung-a-êrh-shan* on the north-east, flows southwards to meet the river. Flowing further south-west for 150—160 li, another stream comes from north-west, and further 170 li south-west a stream from *La-pu-kang-chung-shan* on the north-east. Further 100 li south-west, a stream from *Lung-kan-shan* comes from the west to meet the river. The river now flows southwards for 60 li, then turns south-westwards, and receives a small stream from the north; further to south-west it receives another from the west. The river then takes a southerly course, and after receiving two streams from *Kang-lung-shan* and two from *Chao-yu-la-chung-shan* on the north-east, turns to the south-west, and receives further a stream coming from *Chi-pu-lung-shan* on the south-east with another from the east. The river flows further for 80—60 li south-westwards, then south-eastwards. The river is called the *Sa-ko-tsang-pu-ho* from here down to the confluence with the *Ya-lu-tsang-pu* River for 150—160 li. The length of the river is 1,000 li long.» [1]

Here again, in the description of the rivers of Hsi-tsang or Tibet, the source of the »Yaru-tsangpo-chiang» or Brahmaputra is placed in the »Tamchuk-khapap-shan». We are told that the north-western part of the Tamchok-kabab mountain is near the »Langchien-khapap» mountain, which, in this description is called the source of the lake Mapam or Manasarovar. This is also interesting because it does not leave any doubt as to *which* affluent to the lake the Chinese text regards as the source or main feeder of the lake, namely Tage-tsangpo. The statement is im-

[1] According to Rockhill Chi Chao Nan was also one of the principal editors of Ta-ch'ing-i-t'ung-chih; Shui-tao-ti-kang was, according to Rockhill, written in 1776. The resemblance between the two works depends, therefore, on the fact that the author is the same, or that he, in both cases, has used the same material.

portant, as the original Chinese author has been at the place. Tamchok-kabab is said to be 300 li S.E. of the Kailas and is very high and great. The latitude is given more than one degree too far south.

When it is said that »there are three sources», one should at first think of Kubi-tsangpo, Chema-yundung and Maryum-chu, but this is not right, for with »there» is meant the astronomically given source of the Ya-lu-tsang-pu-chiang, and then it is said that all three sources flow north-eastwards and unite into one river, which is the Kubi-tsangpo or uppermost Brahmaputra. At first sight this statement seems to be correct.[1] For, indeed, the three principal source branches of the Kubi-tsangpo come out of three mighty glaciers, of which the one farthest west is double, although it gives rise only to one stream, namely the source of the Brahmaputra. But in reality the Chinese text does not at all mean the three sources of the Kubi. It means the Angsi-chu, Chema and Kubi, which we have found joined much too early on the Ta-ch'ing map. But the Chema seems to be regarded as the principal source.

The next passage of the Chinese text tells us that the river »at first» turns eastwards and then south-eastwards, of which the first is true for the Kubi-tsangpo, and Chema-yundung the second for the Tsangpo. From the S.W. a tributary meets the Yere-tsangpo and comes from a mountain called Kumu-gangri or something like it. As this tributary must be identical with the Kubi-tsangpo, it may be that this river is not included in the three source branches mentioned above. Then Tamchok is obviously placed at the head of Chema-yundung, as appears clearly from the Ta-ch'ing text, where Kouben gang tsian is placed at 258 li and Tam tchouk khabab at 340 li west of Djochot. The Shui-tao-ti-kang, which has the same distance, makes the bearing, in Ogawa's translation, N.W. of Cho-shu-tê (Djochot).

The next tributary mentioned comes from the left side and is called Kiang-chia-su-mu-la-ho. It corresponds to Kiankia somla of d'Anville's general map and Kiankia Somla R. of his detailed map, and Giangghia sum la of de Rhins. Its source comes from a mountain called Sha-ku-ya-la-ma-la-shan, which may be a transcription of Shakya-lama-la or »the pass of the Buddha priest». The Sha-ku-ya-la-ma-shan and Cha-ko-chia-la-shan are identical with de Rhins' Changou Yarak ri and the Chadziar ri. Comparing the Chinese text and d'Anville's map with Ryder's map we find again that this river comes from the Transhimalaya and that the Maryum-chu, or rather the minimal brook coming from the pass Maryum-la, is only one of the smallest tributaries to the Chiang-chia-su-mu-la-ho, which itself is only a tributary to the Yere-tsangpo. The fact that it, in its lower parts, is called Maryum-chu, as I was told by the Tibetans, probably depends upon the *tasam* which follows up the brook to Maryum-la. The Chinese text does not even mention Maryum-chu. So all attempts to proclaim the Maryum-chu as one of the sources of the Brahmaputra has no foundation whatever.

[1] Compare »Trans-Himalaya», Vol. II, p. 96 and 101, and the map.

As to the Chema-yundung it is not mentioned in Ogawa's version either.

The following tributaries from the north seem very doubtful, at any rate their derivations. A-la-chu-ho is d'Anville's Artchou R., but the Sha-la-mu-kang cannot be identified. The Na-yu-ko-tsang-pu is d'Anville's Naouc Tsanpou R. and is probably identical with Ryder's Nakchak and Nain Sing's Chu Nago. It is said to come from the lake Sang-li, d'Anville's Sanc-li, which, perhaps, may be Senit-tso, a lake situated on the southern side of the Transhimalayan water-parting as the Tibetans told me. But the river Na-yu-ku-tsang-pu cannot be S.W. of Cho-shu-tê, if this is the district of Toshut or Hor-toshut as I believe, for then it is N.W. of that district.

The mountains from which the tributaries come are as yet impossible to identify, unless Ya-la-ling is Yor-la, one of the chief passes of the Transhimalaya.

In the description of the many tributaries of Sa-chu-tsang-pu or Tsachu we easily recognise the reality. Most of the water of this river seems to come from Lunpo-gangri and flow to the S.W. The Man-chu-tsang-pu is my Men-chu.

The general description of the course of Sa-ko-tsang-pu is admirable. It is the same river which Nain Sing more than a hundred years later called Charta Sangpo and which I call Chaktak-tsangpo. The Chinese author simply gives it the same name as the province in which it is situated, Sa-ko, the Sarka-jong of Nain Sing, Saka-dzong of Ryder and myself. It is said to come from the lake La-pu on the N.E., and indeed, as I found in 1908, it comes from a lake Lap-chung-tso situated N.N-E. of its junction with the Tsangpo. It is also perfectly right to say that the river first flows south-westwards and, after receiving several tributaries, turns south-eastwards to join the Tsangpo. But when he comes to the explanatory details within brackets, he is difficult to follow. The La-pu-kang-chung-shan is all right, for the whole country round the lake is called Lap-chung, and there may easily be a Lap-chung-gangri. Kang-lung-shan may be my Kan-chung-gangri. The length he gives to the river, 1,000 li, is very much exaggerated, if the distance between the Kailas and the Tamchok-kabab shall be used for comparison and which is given as 300 li. For the distance from the Lap-chung-tso to the mouth of the Chaktak-tsangpo is not even so much as 300 li. But the general description of the river is incomparably better and more correct than the fantastical representation given on d'Anville's map, where the river in a straight line goes to the S.W. the whole way. The Lio L. of d'Anville is meant to be the La-pu lake of Chi Chao Nan. About half way between the lake and the mouth of the river d'Anville has a range of mountains he calls Lop M., an echo from the Lap-chung mountains. He calls the river the Sanki Tsanpou.

We have seen that some of the Chinese writers make the Chema the principal branch, coming from Tamchok-kabab, others say that Chema is only a tributary joining the Kubi. In all instances, both western and eastern, the Kubi-tsangpo has, however, been almost ignored. The Chinese authorities do not mention its name, although at least in one case, it is called the Yere-tsangpo. Only Kawaguchi seems

to have heard its name, Kubi-chu. The Chinese and d'Anville cut the Chema into two parts, of which the upper joins the Kubi, the lower the Maryum-chu. Even on Ryder's map it is difficult to tell which river is meant to be the Kubi.

The source of the Brahmaputra has, in other words, wandered about in the periphery of a semi-circle, the centre of which is at the confluence of the different branches.

I have already once published [1] an extract from the Shui-tao-ti-kang about the Satlej and its relation to the two lakes: [2]

»The *Kang-ka-chiang* [3] comes out from *Kang-ti-ssŭ-shan*,[4] on the south-east of which there stands *Lang-chuan-ka-pa-pu-shan*,[5] magnificent like an elephant. [The relief is gradually accentuated more and more towards the south-western frontiers, and culminating at Kang-ti-ssŭ-shan.[6] The mountain has a circumference more than 140 li. On all sides the mountain forms precipitous walls, more than 1,000 feet high above the surrounding mountains, and accumulated snow seems as if hung on cliffs. Hundreds of springs pour down from the top, but flow under the ground on the foot of the mountain. It is situated on the extreme west of the Ts'ang Region, 310 li north-east of *Ta-ko-la-chêng*[7] in *A-li*,[8] more than 5,590 li south-west of Hsi-ning-fu in Shensi Province. Its longitude is 36°4'W. and its latitude 30°5'N.[9] In olden times the place was unknown, but can be doubtfully referred to as A-nok-ta-shan in the annotation of Shui-ching. In the neighbourhood there are four high mountains, of which the southern is called Lang-chuan-ka-pa-pu-shan lying 250 li south by east of Kang-ti-ssŭ-shan, and 270 li east of Ta-ko-la-chêng. The natives call it so, because the form of the mountain resembles an elephant. On the east of this mountain there stands *Ta-mu-chu-ko-ka-pa-pu-shan*,[10] which is the source of the *Ya-lu-tsang-pu*-River.[11] This mountain runs south-westwards to *Men-na-ko-ni-êrh-shan* and then to *Sa-mu-tai-kang-shan*, and extends to the south of A-li to the country of *Ê-no-tê-ko*.] Springs come out from the northern foot of the mountain, and accumulate into a lake [35°5'W. and 29°1'N.]. The water flows north-westwards for 70 li and receives a stream coming from the north-east. [The stream lies in the

---

[1] Trans-Himalaya, Vol. II, p. 183 et seq.

[2] Professor Ogawa of Kyoto has kindly made the translation for me. I have not altered his English.

[3] Kang-ka-chiang means the Ganges river.

[4] Kang-tise, Kailas.

[5] Langchen-kabab-mountains, or the mountains of the source of the Satlej, as Langchen is the Tibetan name for Satlej and ka means mouth, and bab (pa-pu) pouring out; thus: the mouth from which the Elephant river is pouring out.

[6] The passages within brackets are printed in the original Chinese text with smaller characters as explanatory notes to the geographical names mentioned in the text.

[7] Taklakhar.

[8] Ngari(-khorsum).

[9] In reality its latitude is 31°2'1/2'.

[10] Tamchok-kabab or the Source of the horse-river, i. e. Brahmaputra.

[11] Yaru-tsangpo or Brahmaputra.

mountains 80 li north-east of Lang-chuan-ka-pa-pu. Two streams flow westwards from the mountain and turn north-westwards after their junction. It now takes a sinuous course for 60 li, turns south-westwards, and joins the main river. This is a source.]

The river flows further to the west-by-north for 40 li, then to the north-east, to be met by the water of Lake *Kung-shêng*[1] which sinks underneath the ground of the lake basin, but which, after reappearing, and after receiving three northern affluents, runs south-westwards to the river.

[The Lake of *Kung-shêng-o-mo* has two sources, one coming from the north-east, from *Ta-ko-la-kung-ma-shan*,[2] and flowing 150—160 li, the other from the east, from the western foot of *Ma-êrh-yo-mu-ling*[3] in the western frontiers of *Cho-shu-tê*. This last-mentioned mountain forms the eastern boundary of A-li and is the chief range going south-eastwards from Kang-ti-ssŭ. The water (of the Lake Kung-shêng) flows westwards for more than 50 li and forms another lake, 80 li wide and without an outlet. However, more than 10 li farther to the west, there is a third lake with a subterranean source and with a length of 30 li. A stream comes from north to the lake. The river now flows south-westwards for 60 li, and receives a stream coming from the north-east. 40 li farther south-westwards it receives a stream coming from the northern mountains, further south-westwards, the river meets the water from Lang-chuan-ka-pa-pu-shan.]

The water forms Lake *Ma-piu-mu-ta-lai*.[4] [From south to north it is 150 li long, from east to west 80 or 100 li wide, and has a circumference more than 200 li. On the northern side of the lake there are two streams coming from the north. The lake is situated 120 li to the south of Kang-ti-ssŭ.] The water flows out from the west of the lake into Lake Lang-ka[5] in a distance of 60 li. The latter lake receives a stream coming from the N.E. [Lake *Lang-ka* has a narrow rectangular shape, pointed and elongated, the length from south to north being 170 li and the width from east to west 100 li. Its northern pointed corner has the stream coming from north-east. There are three sources on the southern foot at a distance of 70 li from a southern branch of Kang-ti-ssŭ; they flow southwards, unite into a stream, which takes a south-westerly course for 150—160 li before entering the lake. The lake is same[6] in circumference and area, but different in outline.]

The water (of Lake Lang-ka) flows out from the west, and after running westwards for more than 100 li, it turns to the S.W. It is now called the *Lang-chu-ho*,[7] and takes a sinuous course for more than 200 li. Then it receives the

---

[1] Gunchu-tso.
[2] Tacra Concla on d'Anville's map.
[3] Maryum-la.
[4] Mapama-talai, or Manasarovar.
[5] Langak-tso or Rakas-tal.
[6] i. e. of the same size as Mapama-talai.
[7] i. e. the Satlej.

Chu-ka-la-ho coming from N.E. [The Chu-ka-la-ho comes out from the southern foot of Ts'ang-wên-ling, and first flows southwards, then south-westwards, and passing to the S.E. of *Ku-ko-cha-shi-lu-mu-po-tse-ching*, turns south-westwards and joins the Lang-chu-ho. The length of this stream is more than 200 li.]»

This description is, according to Professor Ogawa, published in the 26th year of CHIEN LUNG's reign. When reading it again and again I cannot help getting the impression that it dates from the same documents and sketches which were delivered to the Jesuit Fathers and by them sent to d'Anville. For the description is in perfect harmony with d'Anville's maps in du Halde and even the same names are to be found in both cases and written very much like each other, disregarding the French transcription of the Chinese syllables. And as the Shui-tao-ti-kang is only a compilation its author had to use any reliable material he could get hold of. From wherever it comes, this description is admirable and distinguished by the same careful conformity with the truth and conscientiousness as all other Chinese geographical descriptions.[1]

The case is the same so far as the Shui-tao-ti-kang is concerned. A description in a few words of the Kang-ti-ssŭ (d'Anville has Kentaisse) could not possibly be more graphic and correct. The same mistake about the Ganges as on the Lama map is made here, when the author thinks the Kang-ka-chiang or Ganges is a continuation of the river which »comes out from» the Kailas, and which, on d'Anville's map is called Latchou R., or one of the feeders of Gar-chu, the S.W. branch of the Indus. In a preceding chapter I have tried to explain why the Lamas confounded the Indus and the Satlej with the Ganges, which gives an example of a geographical object they had not seen with their own eyes, and in which they therefore were mistaken.

The most interesting passage is, however, the one about the »high mountain» Langchen-kabab, which, quite correctly, is said to be S.E. of the Kailas and east of Taklakhar. It resembles an elephant, a quality which is now transferred to a little hill on the bank of the Satlej at Dölchu-gompa, west of Langak-tso. Then follows a description of the uppermost Satlej on its way from the northern foot of Langchen-kabab towards the N.W. When the author says that this river, which is

[1] Nobody has ever known Chinese cartography better than the late Baron von Richthofen who, speaking of the maps of the Jesuits, says: »Mehr und mehr waren sie mit dem überaus reichen Material der einheimischen Kartographie bekannt geworden; sie mussten sehen, dass dasselbe hinsichtlich der Eintragungen von Flüssen und Ortschaften den Ansprüchen an Gewissenhaftigkeit und Treue in so weit entsprach, als nur wirklich Vorhandenes aufgezeichnet war, dass aber den Chinesen das Geschick in der richtigen Zusammenstellung des Materials abging, da sie nicht fähig waren, astronomische Ortsbestimmungen mit Genauigkeit auszuführen.» (China, I, p. 681.) In his classical article on Lop-nor the same great authority has pointed out the fact, that the Chinese topographers never enter any geographical feature upon their maps unless they have themselves actually seen it. Verhandlungen der Ges. f. Erdkunde, Berlin, Vol. V, 1878, pp. 121 et seq. Compare also my book Through Asia, London 1898, I, p. 18 and II, 867, as well as my Scientific Results of a Journey in Central Asia 1899—1902, Vol. II, p. 263 et seq. And everybody who has had an opportunity to travel in parts of Asia which have been surveyed by Chinese explorers will have been struck by their reliability.

the Tage-tsangpo, is met by a river from Gunchu-tso, he is wrong, for the Tage-tsangpo goes its own way to the Manasarovar and the statement that the water from the Guncho-tso should »sink under the ground» for a certain distance is of course impossible as the Guncho-tso is salt.[1] The Guncho-tso is said to have two source streams, one from the N.E., from the mountain Ta-ko-la-kung-ma, which is also to be found on d'Anville's map, under the name of Tacra Concla; the other comes from the west side of the pass Maryum-la, which agrees with Ryder's map in all particulars. Maryum-la is said to be on the western frontier of Cho-shu-tê, a district on the southern slopes of the Transhimalaya, and certainly identical with the Hortoshut or Toshut-horpa of which I heard several times in 1908. Of the two lakes said to be situated west of Guncho-tso, only one is marked on d'Anville's map, but both may be quite small and temporary.

It is worth while to notice that the compilor of the Chinese hydrography regards the Mapama-talai simply as a formation of the water from Langchen-kabab or as a part of the hydrographical system, which from several points of view is correct. At the western side »the water», i. e. the water from Langchen-kabab flows into the lake Lanka, or Lanken as d'Anville writes. The distance between the lakes is said to be 60 li, which corresponds to my $5^1/_2$ miles. As a rule the distances are very unreliable. For if it is 60 li between the lakes along the channel, it should be 180 li and not 120 between lake Mapama and the Kailas. And if the lake is 150 and 80 or 100 li across, its circumference must of course be much more than 200 li. At any rate we have here a positive statement regarding the channel, and a perfectly true view of its character of being the continuation of the Satlej from Langchen-kabab.

Finally »the water»,[2] i. e. the water from the uppermost Langchen-kabab or Satlej flows out from the western side of the lake and is now called Lang-chu-ho, the Lanctchou R. of d'Anville. From the Chinese text it seems that this name was not used for the uppermost part of the river-course. This is doubtful. For the name Langchen-kamba is still used for a spring on the Tage-tsangpo. But Tage-tsangpo is at least nowadays the name of the uppermost Satlej.

Finally it is said that the Chu-kar (Chu-ka-la) comes from the N.E. and joins the head river. Unless there are two rivers of this name, the statement is wrong, as the Chu-kar of Strachey comes from the south. But even here it is pointed out that the Satlej is the head-river and the Chu-ka-la a tributary.

[1] The Guncho-tso cannot have had fresh water and an underground outlet 150 years ago; the Chinese explorers have made a mistake in this point.

[2] In his translation Professor Ogawa has put between brackets: (of lake Lan-ka), which of course is also correct.

CHAPTER XIII.

MANASAROVAR AND SURROUNDING REGIONS IN TIBETAN WORKS.

I am a perfect stranger to Tibetan literature and all I can do in order to give a vague idea of how Tibetan books deal with our regions is to insert in this chapter a few quotations from the translations of different scholars. The geography of these works is of no greater value than that of the Puranas and other Indian works, for in both cases the simple and sound reality, so admirably described by the Chinese, is hidden by tales and poetry.[1]

Dr. BERTHOLD LAUFER has published an article under the heading: *Über ein tibetisches Geschichtswerk der Bonpo.*[2] This work was found in Tibet by SARAT CHANDRA DAS. It deals with the origin of the Bon religion, its founder, and its decline, which came to an end with the death of King gLan dar ma. In the following passage Dr. Laufer shows us the part which in this work is played by the Manasarovar and Kailas:

> Interessant ist die Anspielung auf das Râmâyana. Es wird erzählt, dass der Schneeberg Tise und der Manasarovarasee in ʿOl mo luṅ riṅ in Persien gewesen seien; von dem in Tibet befindlichen Tise sagt Saskya Paṇḍita, dass der Affenkönig Halumandha von dem Schneeberg Tise im Lande Persien ein Stück abgebrochen, mitgeschleppt, ins Land der Bod geschleudert und so den Tise gemacht habe. Halumandha, dessen Reich als Halumadhai spreui gliṅ bezeichnet wird, ist Hanumân, der Affenfürst des Râmâyana. Offenbar spielt unsere Stelle auf die Erzählung im 6. Buche (Yuddhakâṇḍa) des indischen Epos an, in der Hanumân, um die vier Heilkräuter zu holen, zum Berge Kailâsa fliegt, und da sich diese verstecken, den ganzen Berg ausreisst und mitbringt.

---

[1] Professor ALBERT GRÜNWEDEL of Berlin had the great kindness to read proofs of this chapter and to add many important improvements. He has advised me to follow the orthography of Doctor Laufer and has provided me with a list of names where the transcriptions are entered. In later chapters of this work I have not followed any special system of orthography for Tibetan names, but simply write them phonetically. I have been advised to do so by Professor Grünwedel, Professor Wiklund of Uppsala, and Doctor Herrmann.

[2] T'oung pao Série II, Vol. II, 1901, p. 24 et seq.

In chapter 23 is a story told about four Bonpo, who went into a boat and had it driven into the middle of the Brahmaputra. And further:

Da stiessen sie einen Fluch aus: »rJei lha, lenke den Lauf des Stromes ab! Treibe das Wasser des Brahmaputra nach aufwärts zurück! Lass im Lande Tibet deine mannigfaltigen Zauberkünste spielen!» Mit diesen Worten flogen die vier Bonpo gen Himmel, stiegen im Lande gYa gon gyim bu hernieder und weilten dort im Besitze der Seligkeit. Als sich nun der Oberlauf des Brahmaputra nach seiner Quelle zurückwandte, wurden viele Begleiter des Padmasambhava von der Strömung fortgerissen. Im Westen war der Berg Yar lha šam po, im Süden der lDoṅ lha, im Norden der T 'aṅ lha, im Osten der sBom ra sichtbar. Der erhobene Türkisglanz nahm ab, der erhabene See trocknete aus.

Many other disasters happened, which are told in this story, but after prayers to certain gods the Brahmaputra again returned, and flowed downwards, an event, which filled the people with happiness.

Dr. Berthold Laufer has given another contribution to our knowledge of the popular religion of Tibet, the Bon-religion which prevailed in that country before the Buddhismus was introduced, and of which so very little is known, except that it was full of animismus. The work in question, which belongs to the Bon-literature, has the title: *Klu ḥbum bsdus-pai sñiṅ-po*, and is an abbreviated version of the work on the hundred thousand Nâga's.[1] In a very clever and sharp way Laufer proves that this work is an intentionally made Lamaistic falsification. He says: Der das Bonwerk umarbeitende Lama benutzte für seine Zwecke ein Sanskritwerk jenes Namens (Krahamantanâma Dhâranî), da dieses auch von Nâga's handelte, schmuggelte seinen Titel ein und fügte wahrscheinlich auch allerlei vom Inhalte in das Original hinein.

The second section of this wonderful work is called: The black section of the work about the hundred thousand Nâgas, and there is a confession of sins of the Nâgas, in verse, which has also been translated into German verse by Laufer. I cannot help quoting a few passages in which both the Manasarovar and Mount Tise are mentioned, surrounded by mystery and legend:

Tief ruht der Palast der Nâga's
In dem grossen See Ma-p'am-pa;
Gross ist er, der Türkissee,
Gross der See mit neun der Inseln.
Auf den grünen Alpenauen
Rotkuh, Rotstier murmeln leise,
Schwärmen Gänse, schwärmen Enten,
Flattern federstolze Pfauen,
Tont die Cymbel ihre Weise — — —
Ach, von solchem Prachtpalaste
Hatten wir ja keine Kunde,
Trübten drum den See und warfen,

[1] Memoires de la Société finno-ougrienne, XI, Helsingfors 1898, p. (16), 41 et seq.

Was der Brand versengt, hinein;
Doch wir bergen nichts im Herzen,
Wir bekennen und wir sühnen.

Nâgaschloss im lichten Hain ragt,
Wo am See sich dehnt das Dickicht; etc. . . .

Wenn des Nâgaschloss-see's Dammwerk,
Die Kanäle, die den See, ach, trüben,
Sind erlegen der Zerstörung,
Murmeln Rotkuh, — etc. . . .
Warfen, was der Brand versengt,
Auf den tiefen Grund des See's; etc.

Ragt da ein Palast der Nâga's
Auf des Tise weissen Gletschern;
Rotkuh, etc. . . .

Ragt da ein Palast der Nâga's
Auf der Berge grünen Almen; etc. . . .
Grün sind dort die Schieferberge,
Bäume prangen in der Felsschlucht, etc. . . .

Ragt da ein Palast der Nâga's
An dem blauen Türkissee,
An dem grossen See Ma-dros-pa; etc. . . .

In dem Nâgaschlosse schmuckreich
Schlecht ist unsrer Hände Werk:
Wühlten in der sand'gen Steppe
Und den grossen Alpenwiesen; etc. . . .

Ragt da ein Palast der Nâga's
Auf des Hochbergs breiten Hängen; etc. . . .

Sieh, wie sich der Vielkopfnâga windet,
Und die Vielkopfschlange hin- und herwogt,
Und der blaue See von Türkis schimmert!

The White section of the work of the hundred thousand Nâgas begins:

The Nâgarâja's samt eurer Gefolgschaft, hausend auf den im Kosmos, Erdall und in der Schöpfungswelt gelagerten Meeren und Strömen, Flussufern, Seeen, Quellgebieten, Bächen, Teichen und andern (Gewässern), auf den sieben Bergen, Felsenbergen und erdigen Steinen, in Wind, Feuer, Wasser, Äther, in allen jenen Elementen, auf, erscheinet und empfangt hier die Opferspende!

According to Laufer the seven mountains are obviously identical with the seven ranges which are supposed to surround the Sumeru in concentric circles. Laufer finds it not unlikely that these ri-bdun correspond to real geographical facts as conceived by the Tibetans, though this could not be proved — in 1898. He refers to the single then existing statement about the orography of the interior of Tibet, namely, the one given by CSOMA from native sources, that six mountain ranges were counted from Himalaya to the plains of Tartary.[1]

One should expect that a learned Tibetan Lama's description of Tibet should contain some important and striking facts unknown to the European geographers, but this can hardly be said of MINCHUL KHUTUKTU, whose rather short description has been translated by Professor V. VASILIEV of St. Petersburg.[2] All that is known of the author, says Vasiliev, is, that in the twenties and thirties of the last century he was an Assistant to the Consistorial Administration of the Lamas and temples in Peking, for he died in 1839. He wrote a geography of the whole world, for which he got material from European sources, but to us the only interesting thing is what he has to say from his own experience about Tibet, a part which Vasiliev translated in Peking. The original Tibetan text is now in the library of the University of St. Petersburg.

To begin with the Khutuktu gives a general view of the geographical situation of Tibet as compared with India. One has to cross 9 black mountains before one arrives at a snowy mountain (Himālaya). »In the same way it is said, that on the other side of these mountains there is a snowy mountain, although several people regard this last-mentioned one as one and the same with Gaṅs-ti-se (Gandes), but it seems more suitable to attribute this name, as a nomen appellativum, not only to the Gaṅs-ti-se, but also to many thousands of other mountains, which are situated between Kapestan (Kabul) to the north, and Tsoṅ-k'a in the east, in K'ams, the native country of the King of faith, Tsoṅ-k'ap-a.«

He gives a general description of the country, which is rather chilly, and much higher than the surrounding countries. »The magnificent snow-mountains rise like monuments of the purest crystal.« He gives the names of some of them, as Ti-se and gÑan-c'en-t'aṅ-lha. »And there are innumerable black mountains also.[3] A great part of the surface is occupied by pure and transparent lakes: Ma-p'am gYu-mts'o,

---

[1] In his »Glossar«, p. 79 and 93, Laufer has the following explanations: Ti-se oder Te-se = S. Kailâsa; gaṅs dkar, womit man den Beinamen des Berges gaṅs ri vergleiche. Tib. auch Ke-la-śa, Kai-la-să. Milaraspa nennt ihn rii rgyal-po König der Berge. — Ma-dros-pa = Anavatapta, der Manasarôvarasee. Auch Ma-p'am, Ma-p'am-pa, Mi-p'am-pa — — — — Sein Beiname ist gyu-mts'o Türkissee oder gyu-mts'o sṅon-po blauer Türkissee. »Der berühmte See von Türkis« wird er in einem Hymnus des Milaraspa genannt ... Eine Angabe, dass der See neun Inseln hat, habe ich nirgendwo gefunden. — Nowadays it is well known that the lake has not a single island.

[2] Geografia Tibeta, perevod is Tibetskago sochineniya Minchul Khutukty. V. Vasilieva. St. Peterburg 1895.

[3] I. e. without eternal snow.

sKyem-gnam-mt'so-p'yug-mo and others. There are also many rivers. There is a great number of forest, bushwood and grass.»

mÑa-ri has three districts: sTag-mo lha-dvags, Maṅ-yul-žaṅ-žuṅ and Gu-ge Pu-hraṅ, »although some people reckon Pu-hraṅ, Maṅ-yul and Zaṅs-dkar as one district». Lha-dvags, Ru-t'ok and Gu-ge are specially to be noticed. Then he talks of sTon-skar, a place belonging to the Galdan-palace. »In its neighbourhood is the magnificent snowy mountain of Tise, the lake Ma-p'am, a spring known under the name of 'T'uṅ-grol. Nowadays are all the described places of the snowy mountains, without exception, regarded as the Gaṅs-ti-se, as mentioned in the Abhidharmakoça and other places, and Anudata (Anavatapta) is nowadays identified with the one which is known under the name of Ma-p'am g¡yu-mt'so. In the explanations of the Koça it is said, that at all four sides of Gaṅs-ti-se there are to be found rocks or mountains with faces resembling an elephant, a garuḍa (garuḍa »ein Adler, Greif», nach and. Auffass. ein Pfau, Grünwedel), a horse, a lion, and that from them rise the following rivers: Gangā, Sindhu, Pakshu, and Sitā, and that each of them. with 500 tributaries, is streaming to a different direction and falling into its own sea.[1] And further it is said that the lake Anudata has 50 'mil' (in circumference?), and that it has other extraordinary qualities, and it is added that this place is inaccessible and as a rule fatal. — But from where rise the four rivers and where do they run to? Of the Ganges I have spoken before.[2] The river Sindhu takes its rise from a snowy range in Bal-ti, to the west from Gaṅs-ti-se, and, turning south, goes through Kapitana, Dsalandhar, Pantsab and other places . . . and then falls into the sea. Thus there are in Kashemir, Usmaparant, Dsalandhar, and other places a good many snowy mountains and rivers (falling into the Indus); therefore the river Indhu is uncomparably the greatest of the four. The river Pakshu rises at the north-western side of Tise, which is situated in the country T'o-dgar and, taking the direction to the west, it runs through Balkh, Bokhara, Khiva and not far from Rum, the principal turkish empire, in the country of the great Mongolian aïmak of the Karakalpaks, and falls into the sea called Manasarovara. The river Sitā takes its rise from the north-western ramifications of Gaṅs-ti-se, and, streaming past Yarkand and other places, falls into the salt lake in the T'ogarian country Turfan. It is said that this river formerly went running through central Mongolia and fell into the Eastern Ocean, but as it happened that the Chinese and the T'ogarians were digging canals from it for irrigation purposes, the water was cut off . . .

The mountain that nowadays is known under the name of Gaṅs-ti-se is very high and has the resemblance of a yurta; it is surrounded by high mountains, and therefore it is said of it, that the very highest top of it has 70 majestic heads. It stands isolated from the surrounding mountains; to the front (south) side it seems full of crevasses and as it were in a teacher's way look down upon the little

[1] Abbildung dieser mythol. geogr. Vorstellung bei G. E. Gerini, Chulakanta-mangala, Bangkok 1895. Veröffentl. Kgl. Mus. f. Völkerkunde V, 1897. — Cf. Julien, Hiouen-Tshang 3, Karte (Grünwedel).

[2] In his description of India, also translated by Vasiliev.

mountain, called mGon-po-ri. Not far in front of it to the south is situated the lake Ma-p'am and to the west from this lake the little lake Lan-dar-mtso.»

Then he gives some religious legends about Kailas and continues: »To the east from Gaṅ-ri are situated 'Brog-žad (Dshoshot), Luṅ-k'a and other districts.» In Ladak he knows Leh and K'rig-se. He also knows mT'o-ldiṅ-gser-k'aṅ (Totling Serkang) in Gu-ge. Near the front side of Gangri he places the district of Ngari Purang, where the temple Shin-Pel-gLing[1] is situated. He correctly observes that east of Purang is a country called kLo-bo-sman-t'aṅ, where Indian tribes predominate, although there are Tibetan tribes as well. In old times the country belonged to Tibet, in his own days to Nepal. Diṅ-ri (Tingri) and Sa-skya-gompa are also known to him. »North of the temple of Sa-skya, on the bank of the river Tsan-bo and at other places are situated Lha-rtse, Ṅam-riṅ, P'un-ts'og rdsoṅ, and other towns.»

He talks of a magnificent snowy range to the north, and on its other side is the sTod-hor aïmak. Passing this mountain and some nomad grounds and steppes in which there is no grass, no water, no trees, one comes to the Mohammedan country of Antsian,[2] and from there, that is to say from the north, nobody can make an invasion in Tibet. »But in olden times, when there was war between the Sa-skya-pa and 'Bri-guṅ-pa, the 'Bri-guṅ-pa's brought the Kashgarian army to Sakia across these mountains and, it seems very likely, even now there are to be found independent Mohammedans on the other side of these mountains.»

Tashi-lun-bo, (bKra-sis-lhun-po) where the Banchen-Erdeni (Mongolian translation of Pan-c'en rin-po-c'e, common in Russian books) resides, has 4,000 monks. He gives a description of Lhasa and its surroundings, dGa-ldan, Se-ra, 'Bras-spuṅs, Gyaṅ-rtse, Yar-'brog-mts'o, dPa-sde rdsoṅ.

»North of dBus-gTsaṅ (Ü-tsaṅ) is situated the great country of the nomads, in which the four great northern tribes wander about: namely Nags-ts'aṅ, gNam-ru, Nag-c'u, and Yaṅs-pa-can; who, however, are also called Hor, but they are Tibetans . . . In that country is situated the lake Namtsochugmo; one of the four stormy, snowy mountains, gÑan-c'en-t'aṅ-lhai-gaṅs-ri — and some other interesting places.» Again he crosses the Tsaṅ-po and describes rTse-t'aṅ, Jar-luṅ etc. Only *en passant* he mentions Sa-dga, which Vasiliev identifies with Sa-skya, but which more likely is meant to be Saka-dsong. Finally he describes Konbo and goes on to K'am, Li-t'aṅ, sKu'bum, Si-liṅ Kökö-nōr etc. There is a good deal of other geographical matter in his account, which is not easy to make out, and I have quoted from Vasiliev's translation only such places which are of special interest to us.

It is not surprising that the Manasarovar, as being the object of so many pilgrims' journeys should attract the attention of Minchul Khutuktu as well. But he has not much to say of the lake. The spring in its neighbourhood, which he called

---

[1] Sibling or Shibeling-gompa.

[2] This Vasiliev translates with Kokan, although Andishan seems to be more probable.

'T'uṅ-grol, may, perhaps, be the same as GERARD's Chomik Tingdol, for »chumik» means spring.[1] He identifies the Manasarovar with the Anudata and reiterates the old saying of the four rivers beginning from the Kailas. He tells us, as it were from his own experience, that the Indus begins in Balti, west of the Kailas. Concerning the river Pakshu, which rises from the north-western side of the Kailas, he knows that it goes to Bokhara and Khiva and falls into the sea called Manasarvara, which must be identical with the Mavarannar or Mavara-un-Nahr or Transoxiana. The river he made originate from the Kailas is thus the Oxus and the sea is the lake of Aral.

The Sita which he makes originate from the north-western ramifications of the Kailas goes to the salt lake of Turfan, that is to say Lop-nor. Thence it went to China. This is the old story of the Yellow river, the upper course of which was supposed to be the Tarim. WILFORD at one place says the Sita might be the Sitoda, supposed to communicate with the Satlej, and at another he tries to identify it with the Yellow river.

Minchul's description of the Kailas is rather good and very picturesque. His 'Brog-žad (Dshoshot) and Luṅ-k'a may be identified with Toshot and Lunkar.[2]

Amongst the four great northern tribes we miss the nomads of Bongba, for he only mentions Nags-ts'aṅ, gNam-ru, Nag-c'u and Yaṅs-pa-can.

Finally a few extracts will show how SARAT CHANDRA DAS has dealt with the Tibetan geography in his article: A brief account of Tibet from »*Dsam Ling Gyeshe*», the well-known geographical work of Lama Tsanpo Nomankhan of Amdo.[3]

From the sacred Buddhist scriptures called *Chhos mngon-par mdsod* (*Abhidharma kosha*) he quotes the following verse:

> Hence northward there lie black mountains nine,
> Which passed, the lofty snow-clad peaks appear,
> Beyond which extend Himavat, the realm of snow.

According to Sarat Chandra Das these nine black mountains allude to the long ranges of both low and lofty mountains which intervene between Uddayana and Yun-nan. The country of Himavat is known by the general name of Po. On the N.W. it is touched by the Hor country of Kapistan, which should be Yarkand and Kashgar. At another place Hor is translated by the more general signification Tartary. Then Sarat Chandra Das makes us acquainted with the Tibetan text in the following very free way:

To the east of Upper Tibet are the snowy mountains of Tesi (Kailash), lake Mapham (Mansarovara), the fountain Hthûng-grol, which has the reputation of extending salvation to

[1] Passt ganz gut, da *grol* wie *dol* ausgesprochen wird, (Grünwedel).

[2] Chandra Das has Dragsho and Lungkha.

[3] Journal of the Asiatic Society of Bengal, Vol. LVI. Part I. N:o 1. Calcutta 1887, p. 1 et seq. The Tibetan geography of Nomankhan as it has been presented to us by Chandra Das is simply a bad translation of the same text which had been used by Vasiliev. (Grünwedel.)

those that drink its water . . . Nowadays the pilgrims and devotees of Gangs-ri designate the snowy mountain mentioned in Mngon-mdsod and other sacred books by the name of Kang Tesi, and the lake Mtsho ma-dros-pa by the name of Mtsho Maphan. The commentators of Mngon-mdsod describe the four great rivers of Upper Tibet as issuing from rocks, which respectively have the appearances of an elephant, an eagle, a horse and a lion. According to other writers the rocks have the appearances of the head of a bull, a horse, a peacock and a lion, from which spring Ganga, Lohita, Pakshu and Sindhu. Each of these great rivers is said to flow into one of the four oceans, after receiving more than five hundred tributaries. The great lake Mtshoma-dros-pa is mentioned as extending over an area of 80 leagues. These accounts vary very much when compared with what is now seen. This may be attributed to the difference of moral merit in the different generations of mankind. It is probably owing to the smallness of moral merit in us, that we do not see these sacred places in their original state as our ancestors saw them. There is no other explanation except this why great things should look small. The mighty river Sindhu, issuing from a glacier on the western slopes of Kang Tesi, flows westward through Balti and afterwards in a southwestern direction through Kapistan, Jalandhra, and Panchanad, till joined by the rivers Satadru, etc. . . . On account of there existing numerous snowy mountains in the countries of Panchanad, Kashmir, Ushmaparanta, Kabela and Jalandhra, which send their water into it, the river Sindhu is very powerful, and in fact it is the greatest of the four rivers mentioned above. — The river Pakshu springing from the glaciers on the north-western slopes of Kang Tesi, and flowing through the country of Tho-kar in a westerly direction, and Balag Bhokar and Hiva, and also through the steppes peopled by the Turushka hordes, discharges its contents into the great lake Mansarovar (!) — The river Sita, issuing from the glaciers of the Tesi mountains on their eastern side, flows through the country of Yar-khan and Thokar to empty itself into the lake Tsha-mtsho. Tradition says that formerly this river, flowing through the centre of the Hor country, discharged itself into the eastern ocean' but on account of its being drained by means of aqueducts, cut from it to irrigate both Chinese and Thokar countries, its progress to the sea was arrested . . . Confronting the sacred mountain, at a short distance is situated the famous lake Mtsho-mapham, to the west of which there is another but smaller lake, called Lagran-mtsho . . . — From Pal Sakya (the famous monastery) if you go northward for a full day's march, you arrive at Khahu Tag Jong . . . To the north of Khahu Jong there is a very lofty snowy range on the back of which is the district inhabited by a tribe of Hors called Toi Hor, said to be descended from Srinpo (cannibal hobgoblins) . . . This mountain is extremely high. Beyond these snowy mountains exist many Dok tribes. These Lalo (Mohammedan people) are subject to Kashgar . . . To the north of the famous monastery of Pal Sakya flows the river Tsangpo, on the bank of which stand Lha-rtse, Ngam-ring and Phun tshogs-ling Jong, which all now belong to the Government of Tsang.

EARLY EUROPEAN KNOWLEDGE OF TIBET

CHAPTER XIV.

EUROPE'S KNOWLEDGE OF TIBET IN THE MIDDLE AGES.

The enormous development of CHINGIS KHAN's Empire which took place in the first half of the 13th century was a very important factor in drawing the East nearer to the West. In a short time the Mongols became masters of the greatest part of Asia and eastern Europe, and at the culmen of its power their Empire stretched from Japan to Katzbach, from Farther India to lake Ilmen. Nearly all the nations of the old world became more or less dependent upon, or entered into communication with the conquerors, and at their court the Great Khans received ambassadors from Popes and Caliphs, from Byzantine Emperors and French Kings, from Sultans of Rum and Grand Dukes of Russia.[1]

The Mongols after having conquered all the northern half of Asia, broke through the Caucasus in 1222, and spread terror over Kipchak, as southern Russia was then called. In 1238 a new Mongol devastation of Eastern Europe began to awake the comprehension of the princes in the western half of our continent. In 1241 Silesia, Moravia and Hungary were overwhelmed. Only political reasons and the death of the Mongol Emperor Ogodai put an end to further progress westwards. The danger could return, and Pope Innocent IV proclaimed a crusade against the Tartars, as the Mongols were called the envoys of Satan and ministers of the Tartarus. But he also used more civilized means, and found amongst the »Tartars» an excellent field of labour for the members of the Mendicant Orders of St. Dominic and St. Francis.[2] The Friar JOHN OF PIAN DE CARPINE was despatched to the great unknown East, and his name has become famous in the history of

[1] KÖPPEN: Die Lamaische Hierarchie und Kirche, Berlin 1859, p. 86. ABEL-RÉMUSAT says, in his Mémoires sur les relations politiques des princes chrétiens, et particulièrement des rois de France, avec les empereurs mongols, Paris 1824, p. 5: »Les événemens qui rapprochèrent, au XIII[e] siècle, des peuples jusque-là séparés par l'étendue entière de notre continent, n'ont point d'exemple dans les annales du genre humain. La grandeur Mongole, qui faillit embrasser le monde entier, fut créée en moins de temps qu'il n'en faut d'ordinaire pour fonder et peupler une seule cité.»

[2] W. W. ROCKHILL: The Journey of William of Rubruck to the Eastern Parts of the World, 1253—55, London, 1900, Introductory Notice.

Asiatic exploration. He set out from Lyons in 1245 and delivered the letter from the Pope to Kuyuk Khan, not far from the city of Karakorum. Two years later he was back with the answer from the Mongol Khan.

Friar John is specially interesting to us as being the first European to mention Tibet. After telling how Chingis Khan's army had been at war, the text runs, in Hakluyt's version of Vincent of Beauvais' abridgment, as follows:

»And in traueiling homewardes, the sayd armie of the Mongals came vnto the lande of Burithabeth (the inhabitants whereof are Pagans) and conquered the people in battell. These people haue a strange or rather a miserable kinde of custome. For when anie mans father deceaseth, he assembleth all his kindred, and they eate him. These men haue no beards at all, for we saw them carie a certaine iron instrument in their hands, wherewith, if any haires grove upon their chinne, they presently plucke them out. They are also very deformed.» [1]

There is no doubt that this passage, which is very much in accordance with the narratives of Rubruck and Marco Polo, really refers to Tibet. The name Burithabeth is used some 60 years later by an oriental writer, namely, Rashideddin, in his *Jamiu-t Tawarikh*, relating of Singun, the son of Ong Khan that he »took his refuge in Bouri-Tibet». [2] ROCKHILL thinks it is a hybrid word, composed of the native appellation Bod and the word Tibet, while d'Avezac suggests it to be a corruption of the Baron-Tala, by which name the Mongols designate Tibet. [3] Both these explanations seem, however, to be wrong, for the name Buri-Tibet also occurs in the *Ts'in cheng lu*, where it is said that Ong Khan's son fled to the people of Bo-li t'u-fan; and t'u-fan is one of the Chinese designations for Tibet. [4]

Rockhill does not believe in Friar John's charge of cannibalism against the Tibetans. If 770 years ago they had the same habit as nowadays of cutting up their dead and throwing the pieces to the dogs, the description of this procedure may have been exaggerated before it reached Mongolia, or, perhaps misunderstood by early European travellers. [5] The habit of plucking out the hairs of their beards is still en vogue in Tibet, and nearly every Tibetan, even amongst the nomads, has an iron pincer in his belt exclusively for this purpose.

Several other missionaries were sent out to Asia in subsequent years, and amongst them the French Franciscan WILLIAM OF RUBRUCK is the greatest of all. Yule calls his narrative one of the best in existence. As an explorer, this admirable Friar could not easily be surpassed, for he indicated the sources and the course of the Don and the Volga, he showed that the Caspian was a lake, and that Cathay was the same as the classical country of the Seres, he made Balkash and the city

---

[1] The Texts and Versons of John de Plano Carpini and William de Rubruquis, edited by C. R. BEAZLEY London 1903, p. 118.

[2] C. D'OHSSON: Histoire des Mongols, Tome I. La Haye et Amsterdam, 1834, p. 82.

[3] ROCKHILL, Op. cit. p. 151.

[4] E. BRETSCHNEIDER: Mediæval Researches from Eastern Asiatic Sources, Vol. II, London 1910, p. 25.

[5] See also Yule: Cathay and the way thither, p. 151, and Marco Polo I, p. 312.

of Karakorum known to western geographers, and he was the first to mention Korea. Before him nobody had described the Lamas, their temples, ritual, living Buddhas, their use of the prayer beads and of the now so famous formula »Om mani padme hum». He found out the true peculiarities of the writing of the Tibetan and other languages. Even the animals did not escape his keen sight, and he is the first to tell us of the wild ass or *kiang* of Tibet, and of the wild sheep which later on became so famous with Marco Polo's name, Ovis Poli.[1]

Provided with all available information gathered by his predecessors Rubruck set out in 1252 on his 10,000 miles' journey in Asia. In 1255 he returned, but not before 1600 was a part of his narrative published by RICHARD HAKLUYT, and again, in 1625 in a completed form, by PURCHAS in *Purchas His Pilgrims.*

Regarding the country of Tibet, or rather its inhabitants, Rubruck has a fuller account of Friar John's version, as well as some additional information. Having spoken of the Tanguts in the mountains he says:[2]

»Beyond these are the Tebet, a people in the habit of eating their dead parents, so that for piety's sake they should not give their parents any other sepulcre than their bowels. They have given this practice up, however, as they were held an abomination among all nations. They still, however, make handsome cups out of the heads of their parents, so that when drinking out of them they may have them in mind in the midst of their merry-making. This was told me by one who had seen it. These people have much gold in their country, so that when one lacks gold he digs till he finds it, and he only takes so much as he requires and puts the rest back in the ground; for if he put it in a treasury or a coffer, he believes that God would take away from him that which is in the ground. I saw many misshapen individuals of this people.«

Even nowadays one sometimes sees bowls and cups made out of human skulls. Regarding the curious superstition in connection with the gold, Rockhill made a similar observation on his journey through China, Mongolia and Tibet.[3] The other places where Rubruck directly or indirectly makes reference to matters Tibetan may be omitted here. He cannot have had the faintest idea, of the geographical situation of Tibet and his locating it »beyond the Tanguts» is very vague.

We now come to the greatest of all Asiatic travellers, MARCO POLO. He mentions Tibet in three places, from which the following extracts may be of interest. Speaking of the enchanters and astrologers who are able to prevent any cloud or storm from passing over the Emperor's Palace, he continues:

---

[1] Rockhill has republished Rubruck's narrative in an excellent edition of Hakluyt's Society, as quoted above. This new edition, in which Rockhill points out all the great merits of the French Friar will, as may be hoped, restore him to that high rank amongst travellers, which is due to him.

[2] Rockhill, op. cit. p. 151.

[3] He says: »Mining is not allowed in Tibet, as there exists a deep-rooted superstition, carefully fostered by the lamas, that if nuggets of gold are removed from the earth no more gold will be found in the river gravels, the nuggets being the roots or plants whereof the gold dust is the grains or flowers.« — The Land of the Lamas. London 1891, p. 209. This is not the case in western Tibet where I have seen gold mines at several places and where the famous Tok-jalung is situated.

»The sorcerers who do this are called Tebet and Kesimur, which are the names of two nations of Idolaters ... They always go in a state of dirt and uncleanness, devoid of respect for themselves, or for those who see them, unwashed, unkempt, and sordidly attired. These people also have a custom which I must tell you. If a man is condemned to death and executed by the lawful authority, they take his body and cook and eat it. But if any one die a natural death then they will not eat the body.» [1]

Further Marco Polo tells us that after a five days' march we reach a province called Tebet:

»After those five days' march that I spoke of, you enter a province which has been sorely ravaged; and this was done in the wars of Mongu Kaan. There are indeed towns and villages and hamlets, but all harried and destroyed . . . You ride for 20 days without finding any inhabited spot, so that travellers are obliged to carry all their provisions with them, and are constantly falling in with those wild beasts which are so numerous and so dangerous. After that you come at length to a tract where there are towns and villages in considerable numbers . . . The people are Idolaters and an evil generation, holding it no sin to rob and maltreat: in fact, they are the greatest brigands on earth. They live by the chase, as well as on their cattle and the fruits of the earth. I should tell you also that in this country there are many of the animals that produce musk, which are called in the Tartar language Gudderi. Those rascals have great numbers of large and fine dogs, which are of great service in catching the musk-beasts, and so they procure great abundance of musk. They have none of the Great Kaan's paper money, but use salt instead of money. They are very poorly clad, for their clothes are only of the skins of beasts, and of canvas, and of buckram. They have a language of their own, and they are called Tebet. And this country of Tebet forms a very great province, of which I will give you a brief account.»

The »*Discourse concerning Tebet*» runs as follows:

»This province called Tebet, is of very great extent. The people, as I have told you, have a language of their own, and they are Idolaters, and they border on Manzi and sundry other regions. Moreover, they are very great thieves. The country is, in fact, so great that it embraces eight Kingdoms, and a vast number of cities and villages. It contains in several quarters rivers and lakes, in which gold-dust is found in great abundance. Cinnamon also grows there in great plenty. Coral is in great demand in this country and fetches a high price, for they delight to hang it round the necks of their women and of their idols. They have also in this country plenty of fine woollens and other stuffs, and many kinds of spices are produced there which are never seen in our country. Among this people, too, you find the best enchanters and astrologers that exist in all that quarter of the world; they perform such extraordinary marvels and sorceries by diabolic art, that it astounds one to see or even hear of them . . . These people of Tebet are an ill-conditioned race. They have mastiff dogs as big as donkeys, which are capital at seizing wild beasts and in particular the wild oxen which are called Beyamini, very great and fierce animals. They have also sundry other kinds of sporting dogs, and excellent lanner falcons and sakers, swift in flight and well-trained, which are got in the mountains of the country . . . As regards Tebet, . . . you should understand that it is subject to the Great Kaan.» [2]

---

[1] The Book of Ser Marco Polo, I, p. 301. London 1903, where the necessary remarks concerning this passage, by Sir Henry Yule and Henri Cordier will be found.

[2] Op. cit. Book II, p. 42 et seq.

This is the first reliable account ever written on Tibet by a European. As Marco Polo approached the inaccessible country much nearer than Friar John and Friar William, and probably got information from natives on the trade roads between Tibet and western China, he has more to tell, both of the inhabitants, their customs and their country. Though he never visited Tibet proper, only its eastern borderland, his description of Tibet is in many respects very characteristic, and certain portions of it could as well have been written in our own days. While the Arab geographers moved in almost complete darkness, Marco Polo has firmer ground under his feet and deals with realities, and speaks of a nation with whom he has been in contact. And still, if we compare his store of Tibetan information with that of the Chinese of his time and earlier, we must confess that he knew very little indeed.

He knew, however, that Tibet was a country of very great extent, embracing eight kingdoms, subject to the Great Kaan, a fact that was completely unknown to cartographers even some 400 years later. Richthofen is of the opinion that Marco Polo's description of the rude natives applies only to the inhabitants towards the Chinese frontier, and Yule agrees with him that Marco Polo's Tibet commences with the mountainous region near Ya-chau, situated north of the country of the Lolos, and that his 20 days' journey took him to Ning-yuan fu, from where he travelled to Yunnan fu.[1] From personal experience he certainly knew only those eastern regions, which are now parts of Szechuan and Yunnan. But there are indications in his account pointing to a wider knowledge, perhaps embracing the great westward portions of Tibet. He knows the situation of Kashmir in relation to Badakshan, India and the sea of India,[2] and, as we have seen, he mentions Kashmir in connection with Tibet. In fact he approached what we call Tibet both from the west, Pamir and Bolor, the north, Khotan, and the east, Yunnan. From the south he did not touch Tibet at all, as his knowledge of India, as a whole, was very inexact.[3] He does not mention the Himalaya, nor the Indus nor the Ganges, and is in this respect far behind the Greeks 1600 years earlier, and Ptolemy a thousand years before his time, though, of course he never had the intention to write a geography as the classic scholars did. But he must have heard of Tibet from so many sources that he felt convinced of its great extent.

When he says of Tibet that it contains *lakes in several quarters*, this can hardly apply to anything but the vast interior plateau land and southern Tibet. On the other hand it is surprising that he has not heard of the capital of Tibet, though Lhasa must have been in trade connection with the limitroph districts visited by

[1] Yule's Marco Polo, Book II, p. 48 and 70; map of the route II, p. 131.
[2] Op. cit. Book I, p. 166.
[3] Op. cit. Book II, p. 426.

Marco Polo. What he tells us of corals,[1] woollens,[2] enchanters and astrologers,[3] mastiff dogs,[4] and musk,[5] agrees perfectly with what is well known of Tibet proper in our time, all the way to the frontier of Ladak and eastwards to the boundary of Szechuan and Yunnan. Only his opinion of the Tibetans is unjust, for so far as my experience goes a more good-tempered and kind-hearted people can hardly be found in the interior of Asia.[6]

Marco Polo has observed that the Tibetans use salt instead of money. All the people of the province of Carajan are said to make a living by salt made from brine-wells.[7] In the southern parts of Tibet Proper, salt is indeed used as money. In the village of Pasaguk I saw a trading-house with a large store of salt in bags. Here a market is held from time to time, salt being the medium of exchange.[8]

The few glimpses Marco Polo gives us of what *he* calls Tibet are, therefore, so characteristic and true for what *we* call Tibet nowadays, that he very likely has known the far westward extent of this country and may even have believed that it bordered upon Kashmir.[9] According to him Tibet was subject to the Great Kaan,

---

[1] See Trans-Himalaya, London 1909, I, 55, 380, 381, 385, 386, and III, London 1913, p. 101, and several other places.

[2] »The valley of Jhansu (Gyangtse) I understood to be particularly famous for the manufacture of woollen cloth, for which there is a very great demand. These cloths, which are confined to two colours, garnet and white, seldom exceed half a yard in breadth: They are woven very thick and close, like our frieze; they are very soft to the touch, for the fleece of their sheep appears to be remarkably fine, and supplies an excellent material. SAMUEL TURNER: An Account of an Embassy to the Court of the Teshoo Lama in Tibet, London 1800, p. 225. — Speaking of the market of Gyangtse, the third largest in Tibet, next after Lhasa and Shigatse, WADDELL says that it is »especially celebrated for its woollen cloth and carpet manufactures». — Lhasa and its Mysteries, London 1905, p. 196.

[3] »Der Geisterglaube und die Geisterbannerei, die Magie überhaupt, spielt in ihm (dem Lamaismus) eine grössere Rolle und hat eine ausgedehntere Praxis, als in jeder andern bekannten Gestaltung der Buddhareligion . . .» KÖPPEN, op. cit. II, p. 82.

[4] From Chumbi WADDELL writes: »The watch-dogs chained up at the doors of the houses gave us a fierce reception. They are huge Tibetan mastiffs — 'the mastiff dogs' of which Marco Polo writes, 'as big as donkeys, which are capital at seizing wild beasts.'» — Op. cit. p. 89. In »Trans-Himalaya» I have often mentioned the Tibetan dogs, for instance, from Shigatse: »In the court . . . a large black watch-dog, with red eyes and a red swollen ring round his neck, is chained up, and is so savage that he has to be held while we pass», I, p. 385.

[5] The Tibetan musk is famous, and has been mentioned by all early travellers, from SULEIMAN the merchant, to the Swedish prisoners whom Tsar PETER held in Siberian captivity after 1709. And even now the chief thing that the Chinese get good from Lhasa is musk. Waddell, op. cit., p. 359.

[6] Waddell says of the Tibetans at Lhasa: »Their friendly demeanor did not bear out MARCO POLO's wholesale denunciation, that 'The people of Tebet are an ill conditioned race.'» Op cit. p. 345.

[7] Yule's Marco Polo. Book II, p. 66.

[8] Trans-Himalaya, II, p. 65. In the German translation more correctly from the Swedish original: Scheidemünze, which is exactly the same as in Marco Polo. See also op. cit. English edition II, p. 75, and III, p. 5, 23 and 183: »Five sheep's loads of salt were equivalent to four sheep's loads of barley, and the value of every sixth load of salt was the duty demanded by the Government».

[9] In connection with the passage where he talks of 8 kingdoms Yule has a note: »Here Marco at least shows that he knew Tibet to be much more extensive than the small part he had seen. But beyond this his information amounts to little.» Op. cit. Book II, p. 52.

and Yule adds that the country was always reckoned as a part of the Empire of the Mongol Kaans in the period of their greatness.[1]

Marco Polo calls the musk animal *Gudderi* in the Tartar, i. e. Mongol language, which is correct.[2] In the beginning of the Venetian narrative we are told that Marco advanced wondrously in learning the language of the Tartars and their manner of writing, »in fact he came in brief space to know several languages, and four sundry written characters».[3] Scholars seem not to agree which these four languages have been, Mongol, Uighur, Arabic, Persian, and Chinese having been suggested from different quarters. It has also been suggested that the fourth language may have been Tibetan. This view is corroborated by the fact that Marco uses the Tibetan word *Beyamini* for designating the wild oxen.[4] He is therefore probably the first European, who has ever picked up and used a Tibetan word, as Plano Carpini was the first to make the name Tibet known in Europe, and Odorico de Pordenone the first to travel through Tibet.

---

[1] Op. cit. Book II, p. 46. See also, amongst many other places, Köppen, II, p. 95 et seq., and Klaproth: Tableaux historiques de l'Asie, Paris 1826, map 22: »Epoque de Koublaï Khan, L'an 1290 de J. C.», where the whole of Tibet, to the frontiers of Nepal, Kashmir and Eastern Turkestan is marked as a part of »Empire des Yuan». — »Les Thou fan, fatigués des dissensions civiles qui les déchiraient depuis si long-temps, prirent en 1125 la résolution de reconnaître la souveraineté de la Chine.» Ibidem, Texte, p. 147.

[2] YULE, Book II, p. 49, quoting Richthofen.

[3] Op. cit. Book I, p. 27, and note p. 29.

[4] Yule says: »Beyamini I suspect to be no Oriental word, but to stand for Buemini, i. e. Bohemian», Book II, p. 52. — Professor A. Grünwedel has directed my attention to Dr. Berthold Laufer's opinion expressed in his learned article: »Ein Sühngedicht der Bonpo, aus einer Handschrift der Oxforder Bodleiana», in Denkschriften der kaiserlichen Akademie der Wissenschaften, Philos.-Hist. Classe, XLVI, VII, 1900, p. 52, where Laufer says: »ba man; nach JÄSCHKE: ba men, wildes Rindvieh mit grossen Hörnern . . . Das Wort findet sich schon bei Marco Polo . . . Yule . . . erklärt, dass dieses Wort für Buemini = böhmisch stehe, wie die Venetianer den Bison oder Urus genannt haben mögen. Diese Deutung ist aber sehr gesucht und höchst unwahrscheinlich; der Schriftsteller wollte mit jenem Ausdrucke ganz offenbar die einheimische, landesübliche Bezeichnung wiedergeben, und es kann kaum ein Zweifel sein, dass Beyamini mit tib. *ba men* (beu men) zu identificieren ist.» — A discussion under the title »Phonetik», p. 20, Laufer ends thus: »So mag leicht zu verstehen sein, dass Marco Polo aller wahrscheinlichkeit nach eine mundartliche Lautgebung in seiner Aufzeichnung jenes Wortes wiedergegeben hat, die berechtigen dürfte, dem *man* eine Daseinsberechtigung neben *men* und *min* zuzuerkennen.»

CHAPTER XV.

FRIAR ODORIC. — SIR JOHN MANDEVILLE.

FRIAR ODORIC is the first European who has ever visited Tibet Proper and even Lhasa, and still his description of the country is very meagre if compared with the information brought back by Marco Polo. From Cathay he travelled several day's journey westwards through many countries and cities. Thus he came to the country of Prester John called Penthexoire with the capital Cosan. From this province he came to another called Cossam with the capital Cassam, which was one of the twelve provinces of the Great Kaan.

The scholars who have tried to make out this route, Yule, Klaproth, Pauthier, and Cordier, have not, as could be expected from such scanty material, been successful. According to Cordier the religious traveller went from Peking towards the country of Tangut, passing through Kan-su.

Wherever his Cossam may have been situated, he travelled from there to another very great province which has the name Riboth and borders upon India. Of this kingdom, Tibet, he says:[1]

Cel royaume est subgiet au grant Caan, et y treuve-on pain et vin en très plus grant habondance que en nulle part du monde. Les gens de ce pais demeurent en tentes de fuerre noir. Leur maistre cité est moult belle, toute de blanche pierre, et les rues bien pavées. Elle est appellée Gota. En ceste cité nul n'ose espandre sang humain, ne aussi de quelconque beste pour la révérence d'un ydole qu'on y adoure. En ceste cité demeure l'obassy, c'est à dire leur pape en leur langaige. Il est chief de tous les ydolatres et donne les benefices du pays à sa guise.[2]

---

[1] Les voyages en Asie au XIV[e] siècle du bienheureux frère Odoric de Pordenone Religieux de Saint-François publiés avec une introduction et des notes par Henri Cordier. Paris 1891, p. 449 et seq.

[2] In HAKLUYT's version this passage runs thus: »Ultra veni ad unum regnum vocatum Tibek quod est subjectum Cani, in quo est major copia panis & vini, quam sit, in toto mundo ut credo. Gens illius terræ moratur communiter in tentoriis factis ex feltris nigris: Principalis civitas sua murata est pulcherrime ex lapidibus albissimis, & nigerrimis interescalariter dispositis & curiose compositis, & omnes viæ ejus optime pavatæ. In ista contrata nullus audet effundere sanguinem hominis nec alicujus animalis, ob reverentiam unius Idoli. In ista civitate moratur Abassi I, Papa eorum, qui est caput & princeps omnium Idolatrarum; quibus dat & distribuit beneficia secundum morem eorum; sicut noster Papa Romanus est caput omnium Christianorum.» (Vol. IV, p. 401.)

Then follows the old story of the treatment of the dead, the head being cut off the dead father and given to the son who eats it, while the body is cut to pieces and given to eagles and vultures.

CORDIER suggests that Gota may be derived from Bod, Pot-pa, Buddha-la, Po-ta-la, and finds it, at any rate, to be identical with Lhasa, Odoric thus being the first European who has ever visited this city. In his introduction Cordier says that Odoric returned from Cathay to Europe via Shan-si, Shen-si, Szechuan and Tibet, whereas the rest of his journey remains in darkness; Badakshan, Khorasan, Tabris and Armenia may have been on his route.[1] His journey was completed in 1330.

The first European who ever enters Tibet and reaches its, later on, so desired and mysterious capital, calls the country Riboth and the capital Gota, and that is all the geography we find in his narrative! However, Odoric knew that Tibet bordered upon India, and he tells us that the natives lived in tents of black felt.[2] The stone houses of Lhasa were white as nowadays,[3] and the streets were well paved, a comfort that was abandoned long ago.[4] He was familiar with the first of the Eight Precepts of Buddhism: 'One should not destroy life'. And he had in Lhasa seen or heard of some high priest, »their pope», though not yet a DALAI LAMA.

Sir JOHN MANDEVILLE was a contemporary to Odoric, and pretended to have started on a journey of 34 years in 1322, the greatest part of which was accomplished only in his own imagination. His narrative was published between 1357 and 1371, and he was the hero of the great uncritical public for centuries. More critical spirits were struck with the similarity, often word for word, between Mandeville's account and other books of travel, amongst them the narrative of Odoric.[5] Some writers

---

[1] Op. cit. p. XXIX.

[2] He has therefore travelled through districts inhabited by nomads, before he reached districts with cities and temples.

[3] Abbé Huc says of the houses of Lhasa: »elles sont entièrement blanchies à l'eau de chaux, à l'exception de quelques bordures et des encadrements des portes et des fenêtres qui sont en rouge ou en jaune . . . Les habitants de Lha-Ssa étant dans l'usage de peindre tous les ans leurs maisons, elles sont habituellement d'une admirable propreté, et paraissent toujours bâties de fraîche date . . .» — Souvenirs d'un voyage dans la Tartarie, le Thibet et la Chine, 1844—1846. Paris 1853, Tome II, p. 247.

[4] »If the original description of the place by Father Andrade had any real foundation, the capital of Tibet has changed sadly for the worse, for not even the kindliest advocate could find in the slosh and filth of every street, or in the ramshackle structures which cumber every available inch of ground beside the heavier houses, the well-paved thorough-fares and dignified architecture which he describes.» PERCEVAL LANDON: Lhasa, London 1905, Vol. II, p. 206. — He obviously means Odoric, for Andrade was never in Lhasa.

[5] In BERGERON's work we read: Ces deux voyages d'Oderic & de Mandeville sont si semblables l'un à l'autre, soit aux choses vraies, soit aux fabuleuses, dont ils sont remplis, qu'il sembla qu'ils aient été pris l'un de l'autre; mais il y a plus d'apparence que Mandeville l'ait pris d'Oderic, qui mourut dès l'an 1331 . . .» — Voyages faits principalement en Asie dans les XII, XIII, XIV et XV Siecles . . . Tome I, a la Haye 1735, p. 53.

therefore believed that the Franciscan Friar had been a companion to Mandeville, and plagiated his diaries. Purchas would not reckon the Friar amongst his pilgrims, but entertained a very high opinion about his countryman.[1] ASTLEY says that after Marco Polo's time »we meet with no European traveller into Tartary for above three hundred years, excepting our Mandeville, who went thither fifty years after».[2] He does not believe at all in Odoric: »This is a most superficial Relation and full of Lies . . . In short, though he relates some Things of the Tartars and Manci, which agree with Polo's Account; yet it seems plain, from the Names of Places and other Circumstances, that he never was in those Countries, but imposed on the Public the few Informations he had from others, mixed with the many Fictions of his own.»[3]

As a matter of fact Odoric was a simple but honourable man, and Mandeville a well-read and intelligent impostor. He has stolen every word in his narrative, except the description of the Sultan of Egypt and the life at his court. He has, in a most unscrupulous way, stolen whole passages, verbally, from Odoric, Haiton, Plano Carpini, and even from Pliny and other classics, as well as from many books of his own time. He never made the journey he describes.[4]

One place, however, he generously confesses not to have visited; the talk is of the first Persian kingdom which begins toward the east, toward the kingdom of Turkestan, and stretches toward the west, »unto the Ryvere of Phison, that is on of the 4 Ryveres, that comen out of Paradys», but: »of Paradys ne can not I speken propurly: for I was not there . . .» So much is sure that in the middle of paradise, and at its highest place there is a well, »that castethe out the 4 Flodes, that rennen be dyverse Londes: of the whiche the first is clept Phison or Ganges, that is alle on; and it rennethe thorghe out Ynde or Emlak: in the whiche Ryvere ben manye preciouse Stones, and mochel of Lignu Aloes, and moche gravelle of Gold».

The Ganges water is in some places clear, in others troubled, in some places hot, in others cool. And no mortal man can approach Paradise; »and be the Ryveres may no man go; for the water rennethe so rudely and so sharply, because that it comethe down so outrageously from the highe places aboven . . .»[5]

Under such conditions it is clear that the wonderful, though brief observations Odoric brought back from Tibet would not be left alone by the noble knight, in

---

[1] Henri Cordier in Yule's Marco Polo, II, p. 602.

[2] A new General Collection of Voyages and Travels, London 1747, Vol. IV, p. 542.

[3] Op. cit. IV, p. 620.

[4] Untersuchungen über Johann von Mandeville und die Quellen seiner Reisebeschreibung. Von ALBERT BOVENSCHEN. Zeitschr. d. Gesellsch. f. Erdkunde zu Berlin. Band 23. Berlin 1888, p. 305. »Comme on le sait, Mandeville paraît devoir être l'ouvrage d'un habile géographe en chambre qui ne serait autre que le médecin Jean de Bourgogne ou Jean à la Barbe, d'après un passage d'un chroniqueur de Liège, Jean d'Outremeuse, découvert par le Dr. S. Bormans.» Cordier, T'oung pao, Vol. I, Leide 1890, p. 345.

[5] The Voiage and Travaile of Sir John Maundevile, Kt. Reprinted from the Edition of A. D. 1725. J. O. HALLIWELL. London 1883, p. 258 and 303 et seq.

whose narrative we find it word by word, even the curious burial customs, which have been embellished with some new and funny inventions.[1]

[1] »From that Kyngdom comen men, in returnynge, to another Yle, that is clept Rybothe: and it is also under the grete Chane. That is a fulle gode Contree, and fulle plentefous of alle Godes and of Wynes and Frut, and alle other Ricchesse. And the folk of that Contree han none Houses: but thei dwellen and lyggen all under tentes, made of black Ferne, by alle the Contree. And the princypalle Cytee, and the most royalle, is alle walled with black ston and white. And alle the Stretes also ben pathed of the same Stones. In that Cytee is no man so hardy, to schede Blode of no man, ne of no Best, for the reverence of an Ydole, that is worschipt there. And in that Yle dwellethe the Pope of hire Lawe, that they clepen Lobassy. This Lobassy zevethe alle the Benefices, and alle other Dignytees, and alle other thinges, that belongen to the Ydole. And alle tho that holden ony thing of hire Chirches, Religious and othere, obeyen to him; as men don here to the Pope of Rome.« Op. cit. p. 307.

CHAPTER XVI.

EAST INDIAN TRAVELLERS IN THE SIXTEENTH AND SEVENTEENTH CENTURIES.

A long time should elapse before the Europeans, ANDRADE, GRUEBER and DORVILLE, DESIDERI and FREYRE, and the Capuchin Missionaries visited Tibet. And with some reason Andrade could be said to have discovered the mysterious country, for at this time nobody seems to have remembered the vague information brought back by Odoric. Nor had the wonderful tales of Plano Carpini, Rubruck and Marco Polo made any deep impression in Europe, and Tibet had indeed to be rediscovered.

The name of the country, however, was sometimes, though very rarely, mentioned by travellers who visited India even before Andrade's journey, though they did not know where it was situated any more than did the Arabian geographers.

So much the more attention was attracted by the source of one of the three rivers, which are the object of this historical account, namely, the Indus, and generally in connection with speculations regarding the source of the Ganges. The following representatives of the great class of East India travellers will give an idea of the knowledge about the countries just north of India as possessed by Europe in the second half of the 16th and the first half of the 17th century. All the information they were able to gather was founded on hearsay, and therefore from a geographical point of view of very little value.

When ANTHONY JENKINSON, in 1558, visited the western parts of Central Asia, he only heard that the Oxus had its sources on the mountains of »Paraponisus» in India, and in Bokhara he met merchants who came from »the furthest parts of India, even from the country of Bengala, & the river Ganges»;[1] and amongst the notes RICHARD JOHNSON, a year later, gathered of different roads from Russia to Cathay, we find one, given by a Tartarian merchant in Bokhara that twenty days' journey from Cathay was a country, »where liveth the beast that beareth the best Muske»,[2] a statement in which we feel, as it were, a smell of distant Tibet.

[1] RICHARD HAKLUYT: The Principal Navigations Voyages Traffiques & Discoveries etc. Glasgow 1903, Vol. II, p. 461 and 472.

[2] Op. cit. p. 482.

Most of the travellers to India visited only the sea ports and had nothing to do in the northern parts of Hindostan; therefore the Indus often escaped their attention, while the more famous Ganges is remembered in their narratives. Thus for instance, CÆSAR FREDERICKE (1563—1581), has a good deal to say of the Ganges,[1] and RALPH FITCH, who in 1583—1591 travelled to Goa, Bengal and Pegu, even knows that the Ganges comes from the N.W., and runs eastwards to the Gulf of Bengal after receiving many tributaries as large as the main river itself.[2] JAN HUYGHEN VAN LINSCOUTEN, 1583, devotes a special chapter to Bengal and the river Ganges, in which he says that the source of the river is unknown, and where we believe we recognise a reference to Emperor Akbar's exploring expedition to the source, mixed up with the old legend of the Pison of Paradise, and some classical notion of the Ganges.[3]

On his journey round the world from 1586 to 1605 PEDRO TEIXEIRA visited Goa, the capital of Portuguese India, where Linscouten, who visited many places on both Indian peninsulas had been residing some years. In his chapter on the »*Kings of Persia*», Teixeira has a digression on India, in which he refers to the Indus and its affluents, and enumerates various kingdoms in the N.W. of India. He mentions the crocodiles of the Ganges, and has heard that »the most and best of the rhubarb comes from Gax Ghar or Kax Ghar (Kashgar), a city of Usbek, a province near Kethao Kothan . . .»[4]

WILLIAM FINCH, the merchant, knew, in 1610, that Ravi is »a goodly River which falleth into Indus», and that the Ganges is three quarters of a mile broad, receives 30 tributaries, swells over its banks after heavy rains and falls into the Gulf of Bengal.[5] Of Kashmir he has learnt that it is a strong city on the river Bahat, and that the country is a goodly plain, lying on the mountains. »This Country is cold, subject to frosts, and great snowes, neare to Cascar, but separated with such mountaines, that there is no passage for Caravans: yet there commeth oft-times Musk, with Silke and other merchandize this way by men and goods . . . Upon

[1] HAKLUYT, op. cit. Vol. V, p. 365.

[2] Ibidem, p. 476.

[3] Navigatio ac itinerarium Johannis Hugonis Linscotani in Orientalem sive Lusitanorum Indiam. Hagæ-Comitis 1599. The passage about the Ganges runs as follows (p. 18): Ad finem regionis Orixæ tractusque Choromandel, flumen Ganges incipit in regno Bengalæ. Hoc fluentum inter orbis aquas clarissimum est. Origo ignoratur, quam quidam ex Paradiso repetunt fabulæ intuitu, quam Bengalæ homines referunt. Rex quidam (ita ajunt) cupidus cognoscendi ortus, quosdam educari jussit pisce crudo, ut iis commodius uteretur. Hos navibus impositos adverso flumine exploratores misit, qui demum post quorundam mensium navigationé devenêre in loca, ubi odore suavissimo aër mitissimus luceret, aquis leniter stagnantibus, impletâ fide Paradisi. Cum autem ulterius tendere conarentur, ipsi quidé nihil profecerût, repugnante valido fluminis cursu: Ideoque reversi ad Regem, quæ visa fuerant exposuerunt, simulque creditum est, Gangem ex Paradiso aquas in nostrum orbem ferre.

[4] The Travels of Pedro Teixeira; with his »Kings of Harmuz», and extracts from his »Kings of Persia». Transl. and annotated by W. F. SINCLAIR. London, Hakluyt Society 1902, p. 209 et seq. Some of the passages which would have been most interesting to us are missing in this edition.

[5] Hakluytus Posthumus or Purchas His Pilgrimes, by SAMUEL PURCHAS. Vol. IV. Glasgow 1905, p. 52.

these mountaines keeps a small King called Tibbot, who of late sent one of his daughters to Sha Selim to make affinitie.» By Tibbot he obviously means Ladak, as it is mentioned in connection with the difficult road over the Kara-korum to Kashgar.

The next traveller of fame is EDWARD TERRY, Master of Arts and student of Christ Church at Oxford, who has given us a relation of a Voyage to the Eastern India, undertaken in 1616.[1] In this he tells us that the large Empire of the great Mogol is bounded on the north by the mountains of Caucasus, and Tartaria, which shows that he eliminates Tibet, and makes Caucasus, or Himalaya, a dividing wall between India and Tartaria. He mentions Kashmir (Chishmeere) and its capital Siranakar. Amongst the countries of N.W. India he mentions Jengapor with its capital of the same name and situated on the »River Kaul, one of the five Rivers that water Penjab», and probably corresponding to the Satlej as, on maps from the time, it is marked as the last great tributary to the Indus from the east.[2]

The next province is »Syba, the chiefe Citie is called Hardwair, where the famous River Ganges seemed to begin, issuing out of a Rocke, which the superstitious Gentiles imagine to be like a Cowes head, which of all sensible Creatures they love best . . .» Kakares is said to be »very large and exceeding mountainous, divided from Tartaria by the Mountaynes of Caucases». And Gor is also full of mountains.

As in the classical writers the Indus and Ganges are mentioned together: »This Region is watered with many goodly Rivers, the two principall are Indus and Ganges, where this thing remarkable must not passe, that one pinte of the Water of Ganges weigheth lesse by an ounce, then any in the whole Kingdome, and therefore the Mogol wheresoever hee is, hath it brought to him that he may drinke it.»[3] »Negracut» is mentioned amongst the most famous places of pilgrimage.

Much the same geographical horizon is commanded by Sir THOMAS ROE in 1617. Kabul borders upon Tartaria. Through »Kyshmier» with the chief city »Sirivaker» runs the river of Bhat »and findeth the Sea by Ganges, or some say of it selfe in the north part of the Bay of Bengala . . .»[4] Gor lies toward the head of the Ganges. The Empire of Mogor is very great and »stretcheth to the Mountaines of Taurus North». In a letter of 1615 Sir Thomas Roe criticises the existing maps: »I have one Observation more to make of the falsenesse of our Maps, both of Mercator, and all others, and their ignorance in this Countrey. First, the famous River Indus doth not emptie himself into the Sea at Cambaya, as his chiefe mouth, but at Sinde . . .» He misses Agra on the maps, and knows that it is a river that falls into the Ganges.

The Ganges is especially attractive to the imagination of the world, as can be seen in a letter of 1615 by THOMAS CORYAT, who, in an oration to the Great

---

[1] Purchas His Pilgrimes, Vol. IX, p. 13 et seq.
[2] Compare for instance, NICOLAUS VISSCHER's map of about 1680 (See below Pl. XXXII).
[3] Compare AIN-I-AKBARI, supra, p. 73.
[4] PURCHAS, Vol. IV, p. 431 et seq.



Thomas Herbert: Some Years Travels into Africa & Asia the Great. London 1638.

Gen. Stab. Lit. Anst. Stockholm

Mogol said that one of the four causes which had brought him by land from Jerusalem to India was: »to see your famous River Ganges, which is the Captayne of all the Rivers of the World».[1]

Regarding the mountain wall to the north, PIETRO DELLA VALLE had the same opinion as his predecessors. He says of Shah Selim that he was king of the greater part of India »between Indus and Ganges, and whose Countries are extended Northwards as far as the cliffs of Mount Taurus or Imaus, where it divides India from Tartaria».[2]

Nor did THOMAS HERBERT increase the store of geographical knowledge of his time, so far as India is concerned. He began his great journey in 1626, after Andrade had returned from his first visit to Tibet. What he says of the Ganges water is taken directly from Edward Terry. Concerning Cassimer and its Metropolis Shyrenaker he has nothing new to tell. Panch-ob is a Persian word meaning five waters, from the rivers Ravee, Behat, Ob-Chan, Wihy, and Synde. Some writers, he thinks, have given too great limits to the garden of Paradise in making both the Nile and the Ganges rise there. The Ganges rises from Imaus in Scythia.[3]

It is always the same story that is told, and no new traveller dares to see anything that has not been noted by his predecessors. There are long descriptions of the marvels witnessed in India and long discussions upon historical events, of customs and manners of the natives, and even of animals and plants. But the geography is always the same. There are always the two great rivers with or without tributaries, there is the wall of mountains to the north, separating Hindostan from Tartaria or Scythia, nothing more than was known, and sometimes better known by classical antiquity. In every new narrative we recognise Ptolemy's geography. The grip of the great Alexandrine geographer is still so strong, that he overrules the common sense and the faculty of observation of travellers in so recent times. Ptolemy, and even earlier writers are often quoted. The northern mountains are called Imaus, Taurus or Caucasus. The Satlej was much better represented by Ptolemy than by anyone of the travellers mentioned above, who as a rule did not even know the existence of this river. The travellers do not seem to have had any confidence in themselves. And if they went beyond Ptolemy, they still had to refer to somebody else, for instance Terry or Roe, who were often simply copied.

So is also the case with JOHAN ALBRECHT VON MANDELSLO, who travelled in India in 1638—39. He firmly believes in the authority of Sir Thomas Roe, though in one important point he is independent, namely, regarding the source of the Indus. Speaking of the rivers of Penjab he says that the first, Bagal or Begal, has its source

[1] Ibidem p. 442.

[2] The Travels of Pietro della Valle in India. Edited by EDWARD GREY. London, Hakluyt Society, 1892, Vol. I, p. 48.

[3] Some Years Travels into Africa & Asia the Great. Especially Describing the Famous Empires of Persia and Industant. As also Divers other Kingdoms in the Orientall Indies, and I'les Adjacent. By THO. HERBERT Esq. London 1638, p. 65 et seq., and 221. Pl. X is the map illustrating Herbert's journey.

near Kabul; the second, Chanab, takes its origin in the province of Quesmir or Cassamier; the third, Ravy, has its source in the neighbourhood of Lahor, while the fourth and fifth, Via and Sind, »come from much farther away.»[1] Two pages further on he says that Srinagar is on the river Bezat or Badt, which, after a great détour, falls into the Ganges. Kashmir borders on Kabul, and is fairly cold on account of the mountains; but considering that »the Kingdom of Thibet serves as its frontier on the northern side», the climate of Kashmir is rather temperate.

Regarding the northern provinces he gives the same information that had been given by Terry. The province of Siba with its capital of Hardware, is situated between Naugrakut and Pitan: »There the river Ganges takes its source.» And then follows the ordinary story about the divine rock with the Cow's Head, from which the river issues. Even in the new edition of 1727 Mount Caucasus separates the Empire of Mogol from Tartaria.

In Bergeron's edition of VINCENT LE BLANC'S voyages we meet again the ordinary store of knowledge regarding the two famous rivers. India has derived its name from the celebrated river Indus or Schind, which takes its origin from the high mountains of Caucasus and Paropamisus, »which are said nowadays to be the Naugracot & l'Vssonte.[2]

Some people believe, though without reason, that the river Ganges is one of the four rivers of Paradise called Philon or Gihon. There is a great difference of opinion amongst modern scholars, he says, whether this river is the real Ganges of the ancients, or whether the ancient Ganges should not rather be the same as the river of Canton in China, or any still farther eastern river. He, however, leaves this question to be solved by others, and satisfies himself by saying, that all the Portuguese and many others regard the two rivers as identical, as the name is still the same as in antiquity. The same opinion is confirmed by the Jesuit fathers in their new reports on the great Kingdom of Tebet or Tibet and Cathay. The river has its source on the mountains of High India not far from that of the Indus, and the natives think it is unknown, as coming from Paradise.

A »certain dutchman» in Pegu gave him some information about Great Tartary, amongst the nations of which are such as the Mongal, Tangor and Thebet or Tibet. North of Pegu are desolated regions and sandy deserts, where wells are to be found only by the help of guides; in High Asia one could march 22 days seeing

[1] Voyages Celebres et remarquables, faits de Perse aux Indes Orientales par le Sr. JEAN-ALBERT DE MANDELSLO, Gentilhomme des Ambassadeurs du Duc DE HOLSTEIN en Moscovie & Perse, etc. . . . Mis en ordre & publiez, après la mort de l'Illustre Voyageur, par le Sr. ADAM OLEARIUS, . . . Traduits de l'Original par le Sr. A. de WICQUEFORT . . . Tome I, Amsterdam 1727, p. 46. The original narrative of Mandelslo's journey to India which he undertook after the embassy to Persia, has the title: Das Hoch Edelgebornen Johan Albrechts von Mandelslo Morgenländische Reyse-Beschreibung . . . Herausgegeben durch ADAM OLEARIUM, . . . Schleszwig 1658.

[2] Les Voyages fameux du Sieur Vincent le Blanc . . . Redigez fidellement sur ses Memoires & Registres, tirez de la Bibliotheque de Monsieur de Peiresc . . . par Pierre Bergeron. Paris 1649, p. 67, 125 et seq. and 260 et seq.

nothing but sand. After these sandy plains one enters great arid mountains, which in his »own opinion, ought to contain minerals». The informant added that these mountains must be the Imaus of the ancients, separating High Asia from Low Asia, and that in them are to be found serpents of a prodigious size. After crossing these mountains, one comes, as asserted by a Tartar merchant, to another desert of 20 days' march. One must be armed when travelling in these regions, for the Tartar nomads living in the neighbourhood have mastiff dogs, the most furious and cruel in the world, and more like wolves than dogs.

Here at last we suspect Tibet. The Imaus, Himalaya, may indeed be said to serve as a boundary between High Asia and the Indian plains. Tibet, the conception of which, in spite of d'Andrade's journey, is still very vague, is regarded as a part of Tartary, as was sometimes the case even 200 years later. The Caucasus and Paropamisus are identified with the mountains of Nagrakot and Ussonte, which indeed are the same as Himalaya, and in them the Indus and Ganges have their sources near each other. But on the other hand, the Imaus separates high and low Asia. To the geographers of 1649 the whole country north of India must have appeared as an inextricable labyrinth. So far le Blanc's narrative is interesting as it comes in between the great Tibetan travellers Andrade and Grueber, and in some respects his general geography has a certain resemblance to reality.[1]

During his several journeys in India TAVERNIER certainly paid more attention to pearls and jewels than to mountains and rivers, and if he gives us a glimpse of geography, especially of the scarcely known country to the north, it is always in connection with trade and merchandise. Thus he tells us that the best sort and the greatest quantity of musk comes from the Kingdom of Boutan,[2] and again, in his observations on the commerce of India, he mentions the trade in musk, and says that Boutan is beyond the Ganges towards the north.[3] In another place[4] he says that Boutan is north of Bengal. In the chapter entitled: »*Du Royaume de Boutan d'où viennent le musc, la bonne rhubarbe, & quelques fourrures*»,[5] he really gives us a

---

[1] Le Blanc has been quoted in contemporary books as an authority on the Ganges, for instance, in ABRAHAM ROGER'S »Offne Thür zu dem verborgenen Heydenthum: oder Wahrhaftige Vorweisung des Lebens und Sittens samt der Religion und Gottesdienst der Bramines auf der Cust Chormandel . . .» etc. Nürnberg 1663, where we read, p. 825, le Blanc's views regarding the source of the Ganges: »Solcher Fluss hat seinen Ursprung aus den Bergen dess hochgelegenen Indien nicht weit von dem Fluss Indo selbst.» P. 427 ibidem, the old legend is told of the sacred Ganga coming from Vishnu's foot, a story that ends with the following words: »Hie hat nun der Leser die Ursach der grossen Heiligkeit dess Flusses Ganga, und warum solcher in so grossem Ansehen und Würden sey? Nemlich dieweil er, ihrem Vorgeben nach, von demjenigen Wasser, das Gott selbst ist; und weil er sich von dem Himmel hernieder gelassen: Wesswegen sie auch denselbigen einen himmlischen Fluss nennen.»

[2] Les six voyages de Jean-Baptiste Tavernier . . . en Turquie, en Perse, et aux Indes. Paris 1681, p. 316.

[3] Suite des Voyages de M. Tavernier . . . p. 131.

[4] Ibidem p. 134. In these two places he writes Boutam.

[5] Les six voyages . . . p. 379 et seq.

short, though very interesting account of what he has heard of the mysterious and inaccessible country.

»The Kingdom of Boutan is of very great extent, but we have not yet been able to acquire an exact knowledge of it.» It was only on his various journeys in India that he met people from »Boutan», especially at the market of Patna where the merchants used to sell the musk. Gorrochepour is the last city of Great Mogol in the direction of Boutan. He has heard of a road which is very difficult »on account of the mountains which nearly always are covered with snow, and of the great deserts one has to traverse in the plains.» The caravans need three months from Patna to Boutan »Five or six lieues beyond Gorrochepour one enters the territory of the Raja of Nupal, stretching to the very frontier of the Kingdom of Boutan» . . . The capital of Nupal is also called Nupal. The caravans arrive at the »foot of the high mountains known nowadays under the name of Naugrocot, and which cannot be crossed in less than nine or ten days, as they are very high and very narrow, with precipices . . . After passing these mountains one uses oxen, camels, and horses for transport to Boutan.»

To the south from Boutan are high mountains and narrow passages; »to the north there is nothing but forests, & nearly always snow; & both to the East and the West there are vast deserts, where one hardly finds anything but salt water . . »

This description of Tibet, which he picked up at Patna, has a good deal of reality. It is only curious that he has not heard the name of Lhasa, for his Boutan is obviously Tibet Proper. The tale about the forests is much exaggerated, but there is eternal snow on the mountains, and further north, in the deserts of the high plateau-land, numerous salt-lakes should indeed be discovered in later years. The road Tavernier describes is the same which was already known by Alberuni,[1] going through Nepal viâ Katmandu to the Tibetan frontier and further through southern Tibet.

About the same time WALTER SCHOUTEN travelled to the East Indies, and heard that Kashmir stretches towards the east between Great and Little Tibet.[2] The city of Cassimir is described as situated in the middle of a great plain, surrounded on all sides by high mountains, »which stretch at least 9 or 10 cos to the north». During November, December, and January there are continual rains and snow, and the mountains are covered with snow which gives rise to some great rivers.

Schouten therefore believed that the belt of mountains north of Kashmir was very narrow, more like a wall separating this country from Tartary. Some fifty years earlier Finch had a more correct view, for he speaks of nearly insurmountable mountains on the caravan road between Kashmir and Kashgar. On the

[1] Supra p. 55.

[2] Voyage de Gautier Schouten aux Indes Orientales, Commencé l'an 1658 & fini l'an 1665. Traduit du Hollandais. Tome premier. Amsterdam 1708, p. LXIX.

other hand Schouten seems to be the first to point out the fact, very natural in itself, that the snows in these mountains give rise to great rivers.

The Ptolemæan partition of India in intra and extra Gangem is accepted by Schouten in a more modern form. Regarding the identification of the Ganges with the Pison of Paradise, and the country of Havila with India, he only quotes the opinion of the interpreters of the Holy Script.[1] »The Ganges takes its rise in the mountains which are situated in the northernmost parts of India. Some have written that it begins in Mount Caucasus, & others assert that it comes from the high mountains of Thebet, which are entirely covered with snow.» He also talks of the »northern mountains which are along the Ganges»,[2] which does not well agree with the orientation of the river from north to south, nor with his saying that the river flows along the mountainous provinces of Mevat and Nahracut, the northernmost provinces of Great India.[3]

But when he tells us the old story of the Ganges taking its origin from the rock with the Cow's Head, he quotes VAN TWIST, who has borrowed his statement from Edoüard Terrijns, as Edward Terry is called in the book.[4]

CHARDIN, 1664 to 1681, specially famous for his journeys in Persia, has a rather antiquated view of Asiatic geography, and quotes Pliny, Curtius and Strabo,[5] while THEVENOT, who arrived at Surat in 1666, has more independent notions of our regions. He has, however, not much room left for Tibet, which as so often

---

[1] Op. cit. Tome II, publ. 1725, p. 160.

[2] Op. cit. I, p. 224.

[3] Op. cit. II, p. 160.

[4] Tweede Deel van het Begin ende Voortgangh der Vereenighde Nederlantsche Geoctroyeerde Oost-Indische Compagnie . . . 1646 — such is the title of a great book containing the descriptions of some ten different journeys to the east, each with separate pagination. There is nothing but ships, coasts and trade, and what the different captains have seen in seaports and on islands, and there is very little of the interior of India. The Ganges is only mentioned once or twice, the Indus only once. A part of the work, occupying 112 pages, has the promising title: Generale Beschrijvinghe van Indien . . ., Door Johan van Twist, Ghewesen Over-hooft vande Nederlantsch Comptooren . . . 1638. But nearly all he knows he has borrowed from others, specially Teixeira, Terry and Roe. Thus we again get the description of the five rivers of Penjab, of the Ganges and the rock with the Cow's Head, and Kashmir with its capital Syranakar. Mandelslo who travelled in 1638, had heard that Bezat or Badt falls into the Ganges; van Twist says it is a question whether this tributary from Kashmir belongs to the Indus or the Ganges, but finds the latter alternative least probable. Kashmir is a mountainous country with the Kingdom of Tliebet (probably misprint for Thiebet) to the east. Then follows the ordinary account of Nagrakut with its temple and its pilgrims, and a place of pilgrimage called Kalamaka, where flames constantly rise from the cold springs and hard rocks. According to his description Hardwar is situated in the province of Siba, which agrees with the maps of the time, and the mountains of Nagrakot further north. About the source of the Ganges he says: »Siba, wiens Hooftstadt is Hardwari, waer van daen dat gelooft wort, de Ganges haer oorspronck te hebben uyt een Rotse, die dit Superstitieus Volck haer inbeelden een koeyen Hoft te hebben . . .» etc.

[5] »On sait que l'Asie est divisée par une chaine de montagnes d'un bout à l'autre, dont les trois plus hautes parties ont été nommées Taurus, Imaus, & Caucase. La première est la plus avancée dans l'Asie, & on appelle toute cette chaine en général le mont Taurus. Je dis en générale, parce que chaque partie a son nom particulier connu par chaque Nation qui en est proche . . .» — Voyages de Monsieur le Chevalier CHARDIN, En Perse, et autres lieux de l'Orient, Tome I. Amsterdam 1711, p. 110.

has been the case, both in old and recent times, he reckons only as a part of Tartary. For he simply says that India borders to the north upon Tartary, and that the best known part of India, namely Indostan, is bordered to the east and west by the Ganges and the Indus, »which have their sources in the mountains of Zagatay & Turquestan. These two countries border Indostan to the north, as the Indian Sea serves as its boundary on the south.» [1]

Kabulistan also borders upon Tartary to the north, only separated from it by mount Caucasus. Two of the rivers which contribute to the Indus have their sources in these mountains. The Kingdom of Kashmir has »to the east a part of Tibet», and to the north, Tartary. It is, however, surrounded by mountains, and one cannot enter the country except by passes and narrow gorges. The rivers coming down from these mountains make this country one of the most fertile in India. They join and form the Tchenas which, through a narrow valley in the mountains goes to the Indus near Atoc. The capital of Kashmir, Syrenaquer, he places at 35° N, which is nearly one degree too far north. He complains with some reason that modern writers have given so many different names to the five rivers of Panjab, that it is hard to distinguish them from each other, though Ptolemy had distinguished them sufficiently clearly. So much is sure, that »all these rivers have their sources in the northern mountains.»

In THOMAS BOWREY's account we only find a short reference to the Ganges, which he calls one of the four principal rivers in the world, »supposed to runne up Paradise or the garden of Eden». [2] And he adds: »Formerly, yea not many years agoe, the Inhabitants on the Northerne parts of Bengala trained up their Children (from theire infancie) to Eat raw fish and flesh, and when growne Up Sent them upon travaile to discover the great Ganges, to find out the garden of Eden (by Order of theire Kings), but few or none Ever returne, ergo now quite left off as a thinge Impossible to be accomplished.» [3]

Bowrey knows that southern Tartary is mountainous, and that it rains there »for a quarter of a yeare togeather, and rusheth downe the Ganges and arms thereof with Such Violence that all this rivers afford not issue for it, unto the Sea, untill a considerable time be spent and an abatement made». Sir RICHARD TEMPLE is right in seeing in this passage a vague reference to Central Asia, including the Himalayas and their heavy rainfall.

Finally let us remember JOHN FRYER, though he has even less to tell about our regions, than any of his predecessors. He has the curious conception that the Ghats run north and south »till they cross the Imaus». [4] He also uses the name

[1] Les Voyages de Mr. DE THEVENOT aux Indes Orientales . . ., Troisieme Partie, Paris 1689, p. 8 et seq.

[2] A Geographical Account of Countries round the Bay of Bengal 1669 to 1679 by THOMAS BOWREY. Edited by Sir RICHARD TEMPLE, Cambridge, Hakluyt Society, 1905, p. 166.

[3] Op. cit. p. 211. Compare Linscoten's account, p. 145 supra, note.

[4] A New Account of East-India and Persia, in Eight Letters being Nine Years Travels. Begun 1672. And Finished 1681. By JOHN FRYER, M. D. London 1698, p. 187. A new edition, by WILLIAM CROOKE, was published for the Hakluyt Society 1912.

Taurus for the mountains north. The great rivers are only mentioned in his letters: »The Rivers are innumerable; but those of greatest fame are Indus and Ganges, the latter not only for its many Navigable Streams . . ., but for its Purity in the esteem of the most Religious . . .«

In the previous pages I have only picked out a few amongst the numerous East Indian travellers, and my object has only been to show how very little they really knew of a region, which even in our own days makes such a desperate resistance against European exploration. The Indus, the Satlej, and the Ganges were even better known by Greek and Roman antiquity, and even by the travellers of the 16th and 17th centuries Ptolemy was regarded as the greatest authority on these matters. The Arab geographers at least knew of the existence of a country called Tibet, while many of the Europeans hardly mention its name. Only the musk appears as a connecting link between Arabs and Europeans. Some travellers, however, knew that Tibet was the southern part of Great Tartaria. But as a whole, the mysterious country remained hidden under impenetrable clouds even after the journeys of Andrade and Grueber.

CHAPTER XVII.

WHEN DID THE NAME MANASAROVAR BECOME KNOWN TO EUROPE?

In several books dealing with S.W. Tibet a statement is found that the Portuguese Jesuit Father ANTONIO DE MONSERRATE should be the first European who ever heard of and mentioned the lake Manasarovar. This statement seems first to have been promulgated by Captain F. WILFORD in 1808.[1] But Wilford goes much farther, and what he has to tell us of the history of the sacred lake cannot inspire us with any confidence in his assertion regarding Monserrate.[2] For he positively asserts that the lake was mentioned by Pliny and Marco Polo, and probably by Ctesias. We do not need to waste words on Pliny and Ctesias and their pretended knowledge of the Manasarovar, which is, of course, absurd.

Regarding Marco Polo, Wilford probably means Chapter XLVII:[3] »*Concerning the Province of Caindu*», which is said to be lying towards the west. All that Marco Polo says is: »There is a lake here, in which are found pearls which are white but not round.» If RAMUSIO is right in his version: »a great salt lake», the identification with Manasarovar becomes so much the more impossible, disregarding the geographical situation of Caindu.[4]

The statement about Monserrate, on the other hand, is so positive, and so detailed that it cannot simply be dismissed as constructed by Wilford's imagina-

---

[1] An Essay on the Sacred Isles in the West, with other Essays connected with that work. By Captain F. WILFORD. Asiatic Researches. VIII, 1808, p. 327 et seq.

[2] His own words should be observed in this connection: »The lake of Man-saraur is mentioned by Pliny, and it is probably the same that is mentioned by Ctesias, who says it was eight hundred stadia in circumference. M. Polo describes it as to the West of Tibet, but does not mention its name. It is noticed by P. Monserrat, who accompanied the Emperor Acbar in his expedition to Cabul, in the year 1581. He calls it Mánsaruor, and, from the report of pilgrims, places it in thirty-two degrees of latitude North; and about three hundred and fifty miles to the North-East of Serhind».

[3] YULE's Marco Polo, Vol. II, p. 53.

[4] All the material available for the identification of Marco Polo's lake is brought together by YULE and CORDIER. Op. cit. p. 72.

tion. The missionary is even reported to have placed the lake at 32° N, — 150 years before d'Anville placed it between 31 1/2 and 32° N; in reality it is situated between 30 1/2 and 31° N. Nor is the distance of 350 miles from Serhind to the Manasarovar much exaggerated, as it is in reality 300 miles. Finally, the lake is said to be N.E. of Serhind though it is nearly due east.

As before mentioned, Wilford has been quoted in many books, and even the great Carl Ritter accepted his authority without reservation. [1] Everything seemed to be authentic. A Catalonian Jesuit, Father Antonio de Monserrate, was born in 1536, and died in 1600. He went out to Goa, and for some years entered into the service of Emperor Akbar in 1580, just a year before the journey to Kabul. [2] Monserrate and the other missionaries who on Akbar's request travelled to Fathpur were received with the greatest hospitality by the Emperor, and as they were even invited to accompany the Great Mogul on some of his journeys it is no wonder that the Mohammedan court became envious. [3]

---

[1] »Von Augenzeugen, welche die Routen zwischen Kaschmir, Ladakh und Yarkand wiederholt zurückgelegt hatten, erfuhr A. BURNES, wie auch nicht anders zu erwarten war, und was schon sehr frühzeitig dem Pater MONTSERRAT, der den Kaiser AKBAR, im J. 1581, auf seinem Zuge nach Kabul begleitete, bekannt war, die Bestätigung dass der Strom an dem die Capitale Leh gelegen, wirklich aus der Nähe des Manasarowar Sees entspringe, einen sehr langen Indusarm ausmache . . .» Erdkunde von Asien, Band V, Th. VII, Berlin 1837, p. 12.

[2] The Kingdom of Kabul was under Akbar's brother, Muhammed Hakim Mirza, who often rebelled, so that Akbar had to reduce him to submission, which seems to have happened in 1582 (Wheeler, History of India, Vol. IV, p. 166). Further it is known that Akbar took a great interest in Christianity. He wrote to the Portuguese viceroy at Goa, inviting some of the Fathers to come and instruct him. The three Fathers Aquaviva, Monserrato, and Enriques were despatched. (Ibidem, p. 162). Only the most able and learned Fathers at Goa were chosen. After a difficult journey of 43 days they arrived in Fathpur, February 18, 1580 (Kaiser Akbar, Ein Versuch über die Geschichte Indiens im sechszehnten Jahrhundert von Graf F. A. von Noer, Leiden 1880, I, p. 481). Noer gives the names as Rodolpho Aquaviva, Antonio de Monserrat and Francisco Enriques. Father Jarric, the principal authority on the matter, says: »Legatus & interpres Goam cum peruenerunt, hasce Patribus Societatis in Collegio D. Pauli commorantibus pertulere; quæ socios omnes incredibili affecerunt lætitia, dum sibi persuadet vnusquisque, misericordiæ diuinæ thesauros ac bonitatis hoc pacto Regi patefaciendos; & hanc sibi summis votis prouinciam qua erat caritate, deposcit. At Prouincialis, vbi negotium Deo diuturnis multisque commendasset, P. Rudolpho Aquauiuæ . . .; simul & Antonio Monserrato, qui deinde in Aethiopiam missus, in Turcarum manus incidit . . ., ac Francisco Fernandio hanc prouinciam demandauit.» (R. P. Petri Jarrici Tholosani Societ. Jesu Thesavrvs Rerum Indicarum. Coloniæ Agrippinæ, Anno MDCXV, I, p. 504. Monserrate is also mentioned on p. 518 and p. 565 Ibidem). Or, in Father Catrou's version: »When Akbar asked for missionaries from the venerable Fathers of St. Paul from Goa, »the Lot fell upon the R. P. Rodolphus Aqua-viva, Anthony Manserrat, and Francis Heneric . . . The Education of the Second Son of Akebar was committed to Father Manserat» . . . Later on Father Rodolphus »sent away the two Companions of his Mission, Father Henry for Goa, and Father Manserat for the Town of Agra with the Prince his Disciple». During the Campaign to Kashmir »Father Manserat had persuaded him (Akbar) that 'twere proper to depute him for Spain to the new King Don Philip . . .» (The General History of the Mongol Empire . . . London 1709, p. 139 and 158). Danvers in his »The Portuguese in India», London 1894. Vol. II, p. 52, only mentions the leader of the mission, but calls him Friar Rodulphus de Aquavina.

[3] Abul Fazl expresses these feelings thus: »Learned monks also came from Europe, who go by the name of Pádre . . . These monks brought the gospel, and mentioned to the emperor their proofs for the Trinity. His Majesty firmly believed in the truth of the Christian religion . . . These accursed monks applied the description of cursed Satan, and of his qualities, to Muhammed, the best

Wilford therefore seems to be correct in everything, — except the Manasarovar. For so far as I have been able to find out, Monserrate has not left any account of his experiences, and I think that Wilford has simply made a mistake and confounded Monserrate and Tieffenthaler, who, nearly 200 years later, calls the lake, Mansaroar, which is almost the same spelling as Monserrate's supposed Mánsaruor.

JOHAN VAN TWIST leads us to comparatively more solid ground, though he has nothing but hearsay information to give us.

The borax, he says, is found in the mountains of the beautiful province of Purbet which stretches to the frontiers of Tartaria. There is also musk, nard, quicksilver, copper and a kind of colour. The borax is found in a river called Iankenckhaer, running through the mountains of Purbet, coming in a narrow water which flows away through the middle of the country, and which they call Maseroor; at the bottom of this water the borax grows, just as the coral does, and the Gujerats therefore give it the name of Iankenckhaer. [1]

Again it is the musk that opens the secrets of distant Tibet, for it is in a description of the principal wares brought for sale to Gujerat that the unknown country of Purbet happens to be mentioned. Purbet may be the northern mountains in general, or Kailas Purbet. The musk and borax, and the fact that it stretches to the very frontier of Tartary prove beyond doubt that it is Tibet. The river Iankenckhaer must be the uppermost Satlej and Maseroor is Ma(na)seroo(va)r. The confused hydrography as given in the text does not interfere with this explanation; much more extraordinary waterways have been fabricated by explorers in our own time, and verbal information, given by natives, may easily be misunderstood.

Van Twist's account is dated 1638, and I have not been able to find the lake mentioned by name at any earlier date, by any European.

The next time I find the name of Manasarovar is in the introduction to Walter Schouten's narrative. He travelled from 1658 to 1665, but the French edition, at my disposal, was not published until 1708, [2] that is to say, at any rate, before the discoveries of the Lama surveyors of Emperor Kang Hi, and 25 years before d'Anville published his maps; and on the latter the lake is called Mapama Talai and not Manasarovar.

Whether Schouten or his translator is responsible for the following passage or not, we recognise in it a certain resemblance with van Twist, but also a new, very

---

of all prophets — God's blessings rest on him and his whole house! — a thing which even devils would not do.» Ain-i-Akbari, H. Blochmann, Vol. I, p. 182.

[1] The interesting passage runs thus: »Den Borax wort gevonden in een water, genaemt Iankenckhaer, loopende door het gheberchte van Purbet, comende in een engh water, dat door 't midden van 't lant heenen loopt, dat sy Maseroor benamen; op den gront van dit water wast den Borax, even gelijck den Corael, so dat de Gusaratten haer den naem van het water Iankenckhaer gheven.» Generale Beschrijvinghe van Indien . . . p. 61. Even Klaproth, quoting Chinese sources, says: Le meilleur borax se trouve sur les bords du lac Mapham dalaï. Il y en a du violet et du noir. — Magasin Asiatique, Tome II, No. IV, Paris 1828, p. 307.

[2] Voiage de GAUTIER SCHOUTEN, I, p. LXXIII.

extraordinary addition: »The place where the borax grows is called Taaquelcan; it is a torrent which passes through the mountains of Purbet, and goes, after a long course, into the great Sea, which they call Masserout, [1] which must be very far from the Caspian Sea. None, or very few of these people say that they have seen it, and, according to the description they give of it, it must be the Black Sea.»

The borax probably was brought down from the market of Taklakhar (Taaquelcan). As the river is a torrent, passing through the mountains, and is said to have the same name as the place, one should feel inclined to think of the Map-chu. But as, on the other hand, it is said to fall into the great lake Masserout, [Ma(na)sserou(var)], it is more likely the Satlej. That it should have a long course before it reached the lake, is simply a misunderstanding; the informant may have said that one has to follow the river a long distance through the Purbet, or mountains, before one reaches the lake.

The first part of the passage quoted is obviously taken from van Twist, directly or indirectly, for in both cases there is borax, a river, a Purbet, and a Maseroor or Masserout, the latter certainly a misprint for Masserour. The identification with the Black Sea is rather extravagant, even more so than, as also happened, when Manasarovar has been confounded with Koko-nor. It would be no use to say that my identification were guesswork, for the name of Manasarovar reached European ears only from native lips, and the natives of India have, even in our days, very seldom the slightest idea of any other lake in Tibet, than the Manasarovar. That the name was written down in a corrupt form depended on the fact that the informant did not speak sufficiently clearly, and the listener was not attentive enough.

The next time European geographers were reminded of the famous name was when Father Tieffenthaler sent his maps to Anquetil du Perron. But that story belongs to another part of this work.

---

[1] . . . un torrent qui passe au travers des montagnes de Purbet, & se rend après une longue course dans une grande Mer, qu'ils appellent Masserout, . . .

CHAPTER XVIII.

BENEDICT GOËS AND ANTONIO DE ANDRADE.

In about A. D. 1600, the learned Fathers at Goa did not know that Cathay and China were two different names for one and the same country, and as they had heard many years before that somewhere in the N.E. of India there existed a vast country, the population of which was nearly entirely Christian, they seriously contemplated the plan to send missionaries thither with the object of »discovering Cathay».[1] An old Mohammedan merchant who had passed some 13 years at Kambalu or Peking, told Father JÉRÔME XAVIER at Goa, what he had seen and heard of Christianity in those regions.[2] Such rumours had also been heard from Tibet and China and were believed to have some kind of foundation. When Father Xavier, himself, together with BENEDICT GOËS, accompanied Emperor Akbar on his journey to Kashmir, he heard »that the kingdom of Tebat, which expanded eastwards from Kashmir all the way to Chetai or Catay, contained great numbers of Christians and many churches with priests and bishops».[3]

At about this time Goës happened to be at Goa. Emperor Akbar had, for the third time, invited Jesuit Fathers to come and settle at his court, and the three who went were Jérôme Xavier, Emanuel Pinheiro and Benedict Goës, who arrived at Lahore in May 1594. Akbar had great confidence in Goës, and therefore used him

[1] Sociorum litteris, qui Mogoris Regiam incolunt, auditum est in India de celeberrimo Regno illo, quod Saraceni Cataium vocant, cuius iam olim nomen auctore Marco Polo Veneto notû fuerat Europæis, sed aliquot deinde sæculorum memoriæ ita exciderat, vix vt esse crederetur. scribebant Patres illi Catai Regnum illud ad ortum spectare, Borealiorem aliquanto ipso Mogorum Regno: in eo fidei Christianæ cultores reperiri multos, templa, Sacerdotes, ritus, persuadebât. — De Christiana Expeditione apvd Sinas svscepta, ab Societate Jesv. Ex P. Matthæi Ricij eiusdem Societatis Cōmentarijs. Libri V... Auctore P. Nicolao Trigavtio Belga ex eadem Societate. Augustæ Vind. MDCXV. Lib. V. C. XI. p. 544.

[2] ... Xaverius non sine ratione credidit, illud ipsum esse regnum Cataianum, cuius Marcus Paulus Venetus aliique Historici meminere, cuiusque incolas esse Christianos sed labe infectos Nestoriana tradunt ... — R. P. Petri Iarrici Tholosani Societ: Iesv Thesavrvs Rerum Indicarum ... Coloniæ Agrippinæ Anno MDCXV. Tomus Tertius, p. 202.

[3] Benoit de Goës Missionaire voyageur dans l'Asie Centrale 1603—1607 par Le R. P. J. Brucker de la Compagnie de Jesus. Extrait des Études religieuses, Lyon 1879, p. 6 et seq.

in a mission to the viceroy at Goa. Here he was found to be the right man for the commission of discovering Cathay.

The famous Father MATTEO RICCI who had got news of the intentions of his brothers in Goa, wrote to them, before the departure of Goës, that Cathay was the same as China, and Kambalu was Peking, so called by the Mohammedans. The story about innumerable Christians was a fable. His arguments, however, were not regarded as convincing, and Goës got the extraordinary commission to discover China.

From information which Father Xavier had obtained from merchants he first decided to send Goës via Tibet. Already in a letter of 1598 he wrote [1] that a traveller from Lahore should first arrive in Cachimir, which still belongs to Akbar's empire. »From there one travels directly to the Kingdom of Tebat, [2] the King of which is a great friend of Akbar, and from where one arrives, provided with letters from this prince, easily to Caygar (Kashgar). From here it is only a few leagues to the first town in Chatai, which is inhabited by Christians.»

The Fathers at Goa had, in this case, as BRUCKER believes, been misled by Ortelius' maps and the reports of Jenkinson. However, the route of Kabul was finally chosen, and Goës left Agra on October 2nd 1602, and Lahore on February 15th, 1603, disguised as an Armenian, and under the name of Abdullah Isaï. He was accompanied by two Greeks and an Armenian, ISAAK.

Referring to the Himalaya he simply uses the expression »the Mountains covered with snow». The Indus was crossed at Attock, which he calls Athec. Then he passed Passaùr (Peshawer), Ghideli and Cabul. From the road over the Hindu-kush three names are mentioned by TRIGAULT: [3] Ciaracar, Paruàm, which is said to be the last town of Mogor, and, after 20 days through the highest mountains, a region called Aingharàn.[4] Thence he travelled 15 days to Calcià, 10 days to Gialalabath, 15 days to Talhan, 8 days of difficult journey to Tengi Badascian,[5] and finally Ciarciunar. Father Ricci who after Goës' death first tried to save as much as possible of the information gathered on the journey, has obviously confounded some places, which, in the latter part of the itinerary, is easier to see. Gialalabath, for instance, is Jallalabad between Peshawer and Kabul. From Ciarciunar, perhaps Chahrchinar or the »Four Plane-trees», he had 10 days to Serpanil,[6] Ser-i-Pamir, and further, after passing the steep mountain Sacrithma, 20 days to Sarcìl, which Brucker identifies with Sarikol. Two

[1] Quoted by Brucker, p. 11, from Father Jean Hay.

[2] I. e. Ladak.

[3] Op. supra cit.

[4] Brucker identifies these places with the Charekar, Parwan, and I-angheran, visited by Wood in November 1837.

[5] Teng-i-Badakshan.

[6] Or as Trigault has it: Hinc post dies decem in Serpanil deuenerunt, sed desertus locus erat, mortalibus omnique comitatu destitutus; in arduum montem conscensum, cui Sacrithma nomen est, in hunc montem euadere non nisi robustiores equi potuere, reliqui longiore sed faciliore itinere perrexerût. Op. cit. p. 550.

days more took him along the mountains of Ciecialith (Brucker: the plateau of Chichiklik), where he had to pass six days in the snows. Thence he travelled to Tanghetâr, Teng-i-tar, which belongs to Cascàr, and where there was a great river, from which 15 days to Iaconich, perhaps Yaka-arik, as Brucker suggests. After another 5 days he was in Hiarchan, Yarkand.

From Yarkand Goës wrote a letter to his Jesuit brothers in India describing the difficulties of his road straight across the Pamir.[1]

From Yarkand Goës visited Khotan (Cotàn or Quotan), where he was much interested in a kind of »marble», called Tuscè by the Chinese, and of which there are two different sorts, one »è flumine Cotàn», the other, of inferior quality, from a mountain at 20 days from the capital, and called Cansangui cascio, »id est mons lapideus».[2]

Goës returned from Khotan to Yarkand, and left this city definitely on November 14th, 1604, passing Iolci, and further, in the course of 25 days, the following places: Hancialix, Alceghet, Hagabateth, Egriàr, Mesetelec, Thalec, Horma, Thoantac, Mingieda, Capetalcòl Zilan, Sarc Guebedal, Canbasci, Aconsersèc, Ciacor, and Acsù.

Brucker is perfectly justified in saying that it is difficult to identify these names, which have, however, a perfect local physionomy of geographical names in the jagataiturki language. He identifies Capetalcol with Chaptal-kul, Zilan with Tchilan, Sarc with Sai-arik, and Çanbasci with Kumbach. The two end stations of Goës' road placed it beyond doubt that he followed the ordinary caravan road along Yarkand-darya to Aksu. Chilan is indeed a station on this road.[3] Sarc is not Sai-arik, for in Trigault[4] it stands together with the next name Guebedal, indicating one name consisting of two words. I will show below that Sarc Guebedal is probably Sarik-abdal.

---

[1] Father Iarric has saved this letter: Benedictus a Goes Hircandæ etiam commoratus, iter se difficillimum & molestissimum habuisse scribit, per desertum scilicet Pamech, in quo quinque amiserat equos idque ob intensissimum frigus; tum quòd magna hic ligni sit penuria, ex quo ignis excitatur, tum verò quòd ea fit cœli inclementia vt respirare animalia commodè vix possint. hinc equi & homines respirare sæpe per viam demoriuntur. quod homines malum, allio, porro, pomisque; siccatis comestis vitant; iumentis verò gingiuæ allio perfricantur. Hocce desertum si quando niuosum, quadraginta emetitur diebus; sin minus, paucioribus. Op. cit. III, p. 217. This description could have been written by any modern traveller as well. Even the onions are still used by all native travellers in the high parts of the Pamirs and the Kara-korum.

[2] In his above-quoted work, De Christiana Expeditione, Trigault writes Tuscè, but in another work, Regni Chinensis descriptio Ex Varijs Authoribus, Lvgd. Batav. CIↃIↃCXXXIX, p. 345, the same author writes Yusce, which makes it easier to recognise the derivation of the word, namely yü-shi, or jade. Already in 1820 Abel-Rémusat wrote a learned article: Recherches sur la substance minérale appelée par les Chinois Pierre de iu, et sur le jaspe des anciens. As to Cansangui cascio, a name to which we shall have to return later on, Brucker shows that it means Kan-sang-i-kash, or the »Mine of jade-stone».

[3] Iolci, Yolchi, means guide, and may well have been the name of a village from which caravan-men were taken for the road. A village, Yolchak, is still situated just outside of Yarkand, though on the road to Khotan. Pet. Mit. l. c. p. 5.

[4] In both his above quoted works.

The two first names in the list will be found together in *De Christiana Expeditione:* Hancialix alceghet, but in *Regni Sinenis descriptio* as two different names: Hancialix', Alceghet. These may be Hangetlik or Angetlik, and Alager or Ala-aigir, both places on the Yarkand-Aksu-road.[1]

Hagabateth is perhaps Hajabad or Agaabad. Egriàr is the common name Egri-yar. Mesetelec is like Merketalik or Merket-tallik, »the willows of Merket». Thalec is certainly Tallik.[2] Horma is the Persian Khorma, date or date tree, which is not at home in Eastern Turkestan; the word has entered the list by some mistake, perhaps depending on the fact that Goës spoke Persian. Mingieda is probably Mingyedi or »one thousand and seven». Canbasci is as purely as possible Kan-bashi or »the Head of the Mine», »the Beginning of the Mines», and not Kumbach as Brucker believes. Thoantac sounds very like Tong-tag or »The Frozen Mountain». In Aconsersec the word Akhun enters, and Ciacor may be Chakar.

Some of these names evidently do not belong to the road Yarkand-Aksu, and when we consider the last names of Goës' itinerary it becomes the more evident that his stations have been brought in disorder by Ricci, and, consequently, by Trigault.[3] These last names are the Desert of Caracathai, Oitograch, Gazò, Casciani, Dellaì, Saregabedàl, Vgan, and Cucià, from where he had 25 days to Cialis, a small but very strong city. Further 20 days to Puciàn; then follow Turphàn, Aramuth, Camul, from which place 9 days to Chiaicuon. Finally Goës reached Socieù or Su-chou at the end of 1605. A young missionary, FERNANDEZ, whom Father Ricci had sent from Peking to meet and assist Goës, arrived at Su-cheo just in time to be present at the traveller's death, which took place on April 11th, 1607.

The order of the last-mentioned names shows that great confusion prevails in the whole itinerary. Saregabedàl is the same as Sarc Guebedal. A place called Sarik-abdal or »Yellow Abdal» has been passed, and as Goës' own annotations were lost, the Armenian Isaac, when questioned by Ricci, has happened to mention this place twice in the itinerary. Vgan is Ugen on the Tarim or Ugen-darya, Cucià is Kucha.[4] Both Ugen and Sarik-abdal point to places at the lower Tarim, where these names are still in use. The two Abdal I have visited consisted of reed-huts which are always yellow. However, the order should have been: Kucha, Ugen, Sarik-abdal. The 25 days from Kucha to Cialis therefore include Ugen and Sarik-abdal.

The same is the case with Puciàn, which, as certainly being Pijang, is situated between Turfan and Hami. Oitograch is Oi-tograk, »the deep poplar», a name that

[1] Compare Hassenstein's map, Blatt I, to my narrative in Pet. Mit., Ergänzungsband XXVIII.

[2] In Scientific Results I have seven names with this word, three of which contain the word *tallik* alone, the others combined. In Pet. Mit. l. c., three such names are referred to.

[3] »Sein (Goës') umständlich geführtes Tagebuch ging leider verloren, aber die Noten seines Reisegefährten des Armeniers Isaac, wurden von der Mission in Peking aufbewahrt, und durch Trigault in seiner Geschichte der Jesuitenmission mitgetheilt . . .» Ritter, Erdkunde, II. p. 219.

[4] In 1896 I passed a village and district east of Shah-yar, called Ugen. Pet. Mit. l. c. p. 62.

can be found almost anywhere along the roads in Eastern Turkestan. One oasis east of Keriya and a village between Kargalik and Gume have this name, and a forest-tract on the Kara-kash-darya is called Oi-tograk.[1] These places are, of course, not meant, but east of Lop I have passed a Tograk-bulak. Cialis is probably situated somewhere near Korla and Kara-shahr, and we shall have to consider it in connection with the maps of the seventeenth century on which it is nearly always shown. In Aramuth I believe we have to suspect Urumchi, which, by an Armenian may have easily been heard as Aramutchi and half forgotten.

The same confusion must be suspected amongst the names of the earlier part of the road. The tac, tag, mountain, in Thoantac, and Canbasci, refer to a mountainous region and not to the level road from Yarkand to Aksu. Thoantac and Tanghetàr probably belong to eastern Pamir; I have passed both a Tong and a Tengi-tar in these regions.[2] Tong-tag, or the mountains of Tong, is an expression that may be used at any moment by a »caruan basa» or »comitatus præfectus»,[3] i. e. caravan-bashi.

The chief points of Goës' itinerary are therefore: Lahore, Kabul, Badakshan, Pamir, Tengi-tar, Yaka-arik, Yarkand, Khotan, Yarkand, Aksu, Kucha, Ugen, Korla, Kara-shahr, Urumchi, Turfan, Pijang, Hami, the desert Cara-cathai (Kara-kitai), and Su-chou.

In the history of exploration in that part of Tibet, where the great Indian rivers have their sources, the Portuguese member of the Jesuit mission in India, ANTONIO DE ANDRADE, is the very first of whom we have any reliable knowledge. He was the first European to cross the Himalaya from the Indian side, and he accomplished a brilliant journey from Srinagar in Garhwal over the Pass of Mana to Tsaparang or Chaprang on the Satlej. He was the most successful missionary who ever entered and preached in Tibet, but he made no further use of his success.

Antonio de Andrade was born in 1580 in Oleiros in Portugal. In 1600 he was sent to Goa, and here the rumour reached him that Christians existed in Tibet. He says himself that his journey to the unknown country was undertaken for the glory of God, and that the Portuguese since long had been looking forward to the discovery of Tibet. Goës' journey, and the identification of Cathay with China, as shown by Ricci, do not seem to have made any impression upon him, though he cannot have been ignorant of these facts. In 1624 he got an occasion to start, and in company with Father MANUEL MARQUES and two Christian servants he left Agra, on March 30th, and joined, at Delhi, a caravan of Hindu pilgrims who were on their way to the holy places at the source of the Ganges. The journey probably went over Hardwar, the Gate of Vishnu, through the dominions of the Raja of Srinagar, a region that had never been seen by a European. The road along the Ganges was

[1] Pet. Mit. l. c., p. 33, 198 et seq.
[2] Through Asia, I p. 264 et seq., II p. 707 et seq.
[3] Trigault.

difficult and rocky. The caravan proceeded towards the heart and the great heights of the mountains, the same road which, 180 years later, was used by WEBB and RAPER, who did not know that the priority belonged to a Portuguese. In his excellent narrative Raper has not a word for Andrade, but he confirms his observations. In a very clever essay, C. WESSELS has just drawn the parallels between the two travellers.[1] Wessels' work on Andrade is a very welcome addition to the history of exploration in Tibet, and he has put an end to the belief that Andrade should have travelled through Kashmir and the whole of Tibet and that he should have discovered the Manasarovar.[2]

However, the missionaries continued and reached the holy temples of Badrinath. Webb and Raper proceeded at a later period so far as to the village of Mana on the Saraswati, the upper course of the Vishnu-Ganga. But Andrade continued far beyond the village and struggled for success. Marques had been left behind; only the two servants and a guide from Mana accompanied the missionary. After three days some men from Mana came up and advised him to return, unless he wanted die on the pass. Still he continued through heaps of snow and in blinding snow-storms. He graphically describes all their difficulties in this inhospitable region, where many travellers succumb from poisonous gases.[3] Finally the little party reached the pass, and Andrade describes in the following important sentence what he saw: »Nesta forma fomos caminhando atee o alto de todas as serras, onde nasce o Rio Ganga de hum grande tanque, & do mesmo nasce tambem outra, que rega as terras do Tibet.»[4] Or, in other words, he reached the highest point of the rocks, where the river Ganga takes its rise from a great pool, from which also another river begins which irrigates the countries of Tibet.[5] We shall have to return to this passage later on.

From the Mana pass Andrade saw the Kingdom of Tibet. But now their fatigues and hardships were also at their culmination. They were snow-blind and

---

[1] Antonio de Andrade S. J. Een ontdekkingsreiziger in de Himalaya en in Tibet (1624—1630). De Studiën, Tijdschrift voor godsdienst, wetenschap en letteren. Deel LXXVII, N:o 4. 1912.

[2] It is not rare to find the statement that Andrade should have travelled through Kashmir. Thus in J. P. Parraud et J. B. Billecoq: Voyages au Thibet, Paris L'an IV, p. VI: »En 1624, le P. d'Andrada, jésuite Portugais, pénétra dans le Thibet par Cachemir.»

[3] »Perhaps mofettes», as Ritter suggests! It was the same story which was told by almost all later missionaries in Tibet, last by Father Huc.

[4] Novo Descobrimento do gram Cathayo, ou Reinos de Tibet, pello Padre Antonio de Andrade da Companhia de Iesu, Portuguez, no anno de 1624. Lisboa 1626, p. 7. This little narrative was translated 1627 into Spanish in Madrid, and into German in Augsburg. See Richthofen: China I p. 671. The German edition was used by Ritter: Die Erdkunde von Asien. Berlin 1833. Bd. II, p. 440 et seq. The Italian edition, Relatione del novo scoprimento del Gran Cataio, overe Regno del Tibet, Roma 1627, is regarded as being »olto oscura e incerta».

[5] In the French version at my disposal the word »tanque» is translated with »lac»: »Nous cheminâmes de cette façon jusqu'à ce que nous arrivâmes au sommet de toutes ces montagnes où se voit le lac d'où sortent la rivière de Ganga et une autre qui arrose les terres du Thibet», and: »Le lac dont j'ai parlé, m'auroit fourni amplement de l'eau, et j'avai encore assez de provisions pour six à huit jours . . .» Parraud et Billecoq: Voyages au Thibet, p. 16 and 17.

could see no road. The guide had already returned to Mana, and now the two servants would also return. Andrade accompanied them, lest they should die in the snow. After a few days they fortunately met Bothia-scouts from Mana and after another three days they camped in a grotto where they were joined by Marques who came up with provisions. After a month's rest they returned to the pass, which was then easier since a good deal of the snow had melted. On the other side they were received by emissaries from the King of Tsaparang, and in the beginning of August 1624 they had reached the »Cidade Real».

In Tsaparang Andrade was received with royal hospitality by the king and queen, but he stayed only one month and has nothing to say of geographical interest, except that the city is situated on a river. In the beginning of November he is again at Agra, where he wrote his little book, which is dated November 8th, 1624.

But already the next year Andrade started for his second journey to Tsaparang. How long he remained this time is not known. He reached Tsaparang August 28th, 1625. April 11th, 1626, he laid the foundation stone to the first Christian church in Tibet. On August 15th the same year his second narrative is dated at Tsaparang.[1] From letters he has written it is clear that, in September 1627, he was still in Tsaparang. But in 1630 he was at Goa, and in 1631 he sent four missionaries to Tsaparang. In the beginning of 1634 he prepared himself for a third expedition, together with six companions, but died, March 19th, and was buried at Goa.

C. Wessels has found that at least eighteen other missionaries followed Andrade's example and continued his work. Marques was still at Tsaparang in 1642. Only vague echoes from those days have reached our time. It is to be hoped that C. Wessels will have every success in his intention to write an essay on these unknown missionaries.

Andrade's second narrative, though extremely interesting to read, contains even less geography than the first. He only mentions »the grand Lama of Utsang», Dalai Lama in Lhasa; and when he speaks of a city half a day from Tsaparang, we suspect that he means Totling.

To return to the pool on the Mana pass, which for centuries has been the innocent cause of misunderstandings, it should be noticed that Andrade speaks of a »tanque» and not of a »lago». He means, as Wessels clearly proves, the 370 m. long glacier lake, which is situated on the pass, and from which the Saraswati takes its origin and goes down to the Ganges. The other river which irrigates the countries of Tibet is a tributary to the Satlej. But modern geographers have misunderstood him. MARKHAM, for instance, says: »He climbed the terrific passes to the source of the Ganges, and eventually, after fearful sufferings, reached the shores of the sacred lake of Mansarowar, the source of the Sutlej. Thence the undaunted missionary found

[1] The French edition of the same, printed in Paris 1629, has the title: Histoire de ce qui s'est passé au Royaume du Tibet.

his way over the lofty passes to Rudok, and eventually, by way of Tangut, to China.» [1] HOLDICH does not believe that Andrade ever went beyond the Manasarovar, and adds: [2] »In spite of his hitherto prominent position in the field of Asiatic geography, Antonio de Andrade must be regarded as but a doubtful authority», a sentence which is incorrect and unjust. GRAHAM SANDBERG, perhaps misled by some sort of odium theologicum, goes even so far as to say: »The scanty yet confused account of his journey, together with the absurd inapplicability of his exposition of their manners and beliefs to the Tibetans as we now know them, might excuse one for pronouncing the whole story of Andrada's visit to the country to be a fraud.» [3] Ritter, on the other hand, pointed out that Andrade's description of at least the Hindus' religious customs shows that they had not undergone any change during the 200 years from Andrade to Webb and Raper.[4]

KLAPROTH had no doubt about Andrade's journey to China,[5] though DU HALDE has nothing to say of such a performance.[6] Even SYLVAIN LÉVI in his admirable work on Nepal expresses the view that Andrade should have travelled overland from Tibet to China.[7] In one word this view has been accepted by many geographers, and KIRCHER, who at one place positively says that Andrade never went beyond Rudok, at another affirms that he continued to China. In Andrade's own letters there is not a word about a journey to China, except the gorgeous title of his letter of 1624: *The New Discovery of Great Cathay.*

In his famous work *China illustrata*,[8] ATHANASIUS KIRCHER [9] gives some very interesting information about Andrade and south-western Tibet. From different

---

[1] Narratives of the Mission of George Bogle to Tibet, and of the Journey of Thomas Manning to Lhasa. London 1879, p. LVI.

[2] Tibet, the Mysterious, London 1904, p. 70. Herrmann von Schlagintweit believed that Andrade reached the province of Ü, but not Lhasa itself, — on what authority, I do not know. Reisen in Indien und Hochasien, Bd III, p. 11. Dr. K. Ganzenmüller says: »Der Jesuit Antonio de Andrada klomm von Agra aus durch die gefahrvollen Pässe empor bis zu den Quellen des Ganges und erreichte nach furchtbaren Anstrengungen Tschaprang und die Ufer des heiligen Sees von Mansarowar.» Tibet nach den Resultaten Geographischer Forschungen früherer und neuester Zeit, Stuttgart 1878, p. 3.

[3] The Exploration of Tibet. Calcutta and London 1904, p. 24.

[4] Erdbeschreibung von Asien, Bd II, p. 441.

[5] »En 1624, Antoine Andrada, jésuite portugais, entreprit ce voyage (au Tibet et en Chine). Il partit de l'empire du Grand-Mogol, prit sa route par le Ghervâl, passa par le Tubet, et parvint heureusement jusqu'en Chine.» Magasin Asiatique ou Revue Géographique et historique de l'Asie Centrale . . . publié par M. J. Klaproth, p. 302.

[6] »On a des lettres du P. Andrada, qui en l'année 1624 passa d'Agra Ville du Mogol à Chaparangue, & après avoir découvert la source du Gange, vint au Thibet pour y prêcher l'Evangile.» Déscription etc. . . . de la Chine. Paris 1770. Vol. IV, p. 464.

[7] Speaking of Andrade's Church in Tsaparang, Lévi says: »Ce succès fut de courte durée; deux ans plus tard, 1626, d'Andrada qui avait réussi à pénétrer jusqu'en Chine par la voie de Rudok et de Tangut retournait définitivement dans l'Inde.» Le Népal étude historique d'un royaume hindou par Sylvain Lévi, Tome I, Paris 1905, p. 79.

[8] This edition was printed in Amsterdam 1667. I have the French edition at my disposition: La Chine d'Athanase Kirchere de la Compagnie de Jesus, illustrée de plusieurs Monuments etc. Amsterdam 1670.

[9] Born 1601 at Geisa, some time professor in Würzburg, died in Rome 1680.

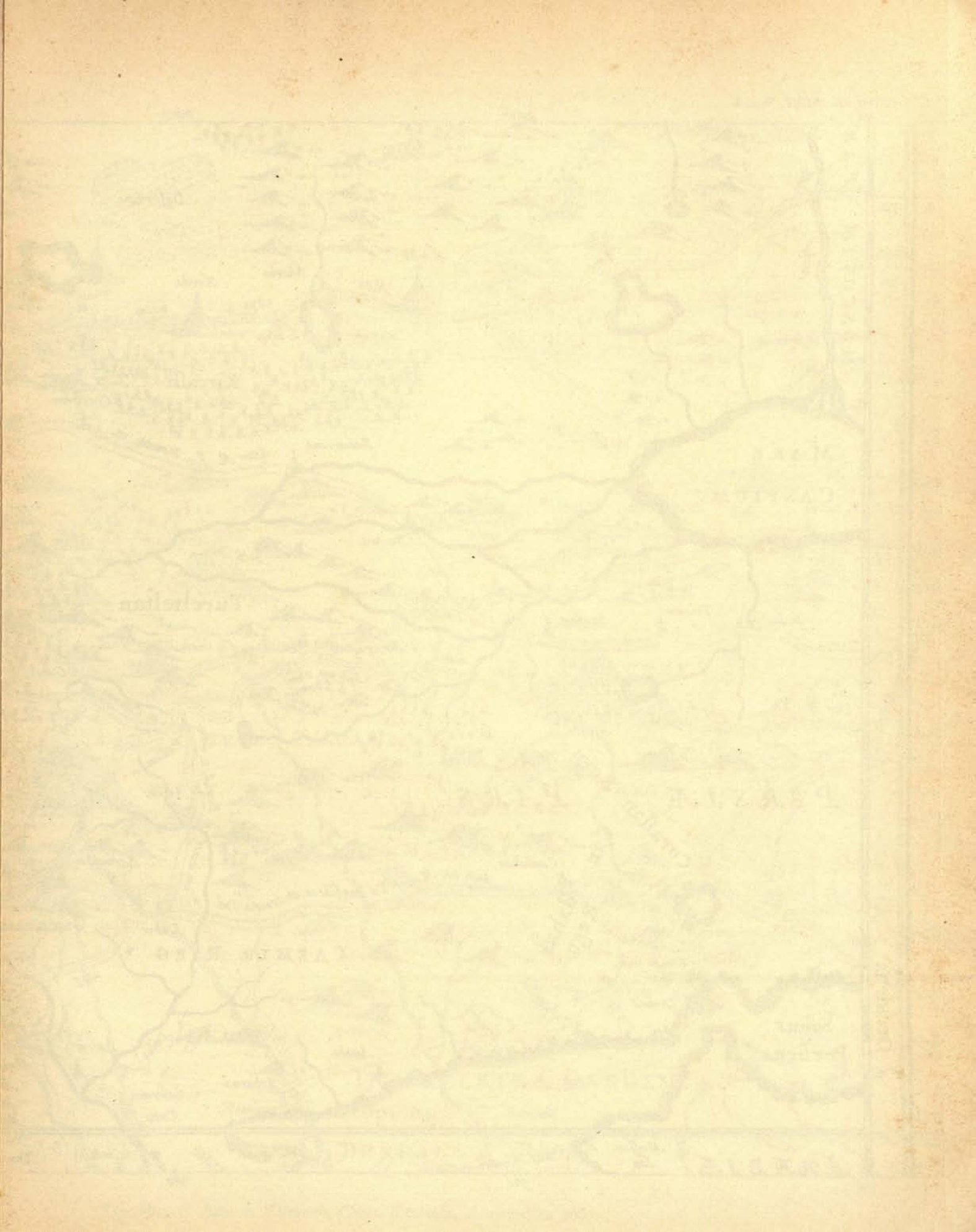
sources he concludes that Chaparangue was situated in Tebeth and thus in Bolor, and that in this neighbourhood Andrade was fortunate enough to make several admirable discoveries, amongst other things the sources and the fountains of the Ganges and the Indus, about which Kircher had got his notion from JOSEPH MOGULENSE who was a Christian and who accompanied Andrade on all his journeys, and further from Father HENRI ROTH, who, on his arrival in Rome, told all about Andrade's journey. Amongst other things Kircher learnt was the following statement, which, on account of its importance, I give in the original text: [1]

»Il y a un grand Lac sur les plus hautes Montagnes de Tebeth lesquelles sont toujours couvertes de nege, duquel prenent naissance les plus grands Fleuves de l'Inde; puisque l'Indus, le Gange, le Ravi, l'Atech [2] sortent de ce gouffre. Le Gange prent son cours vers des precipites, où venant à tomber il fait un bruit effroyable, après quoy il arrouse une agreable valée, & continuë de rouller ses flots vers la Mer, où il se va rendre.[3] Pour ce qui est de l'Indus & des autres fleuves, ils coulent doucement le long de la Montagne, comme la Carthe nous le fait voir.«

Kircher indeed seems to be responsible for the belief that Andrade discovered the Manasarovar, for later on in his work he says again: [4] »il vint ensuite (after Chaparangue) à traverser une haute montagne au sommet de laquelle il y a un grand lac lequel est (à ce qu'il dit & selon ce qu'il reconnut) la Source du Gange, de l'Indus & des autres plus grands Fleuves de l'Inde; de la il prit la route vers Radoc qui est une Region extremement froide & septentrionale, & très difficille à passer; c'est pourquoy aprés avoir resté long temps à traverser ce païs, il arriva à la Ville qui porte le mesme nom», . . .

Andrade has never pretended to have discovered anything except what he describes in his narratives. Kircher did not know the existence of the Manasarovar and never mentions its name. And still, when he talks of a lake, which is the source of the Ganges, the Indus and the other greatest rivers of India, he means, without knowing it, the Manasarovar. The belief that the great rivers began from the Manasarovar was common in India, and it is extremely likely that both Joseph and Roth had been told by natives that such was the case. Without having heard or, perhaps, after forgetting the name of the lake, they have told the same story to Father Kircher, who made his combinations at home and found that the story of the lake feeding all the great rivers of India, agreed very well with Andrade's: »onde nasce o Rio Ganga de hum grande tanque», etc. It is hardly possible to think that Andrade should have lived on the banks of the Satlej for years, without knowing the existence of the Manasarovar. But that is another question. He does not say a word of the lake. He knew it, but he does not speak of it. Kircher does not

[1] Ibid. p. 67.
[2] Athec on the map, i. e. Attock.
[3] Compare Plinius, Naturalis Historiæ Liber VI, Cap. XVIII.
[4] Op. cit. p. 88.




MOSCOVIÆ PAR.
MARE CASPIUM.
PERSIÆ PARS.
ARABIA
Sinus Persicus
Occidens
Oriens
Turchestan.
Kircalli
Desertum Core
Desertum Lop
Desertum Lop. in fest. diabolicis illusionibus.
Deserta Belgian.
MAGNA TARTARIA
NIGRA CATHAIA.
CATAIUM
CHINA
Cancri.
INDIA EXTRA GANGEM.
Tropicus
REG: CABUL.
REGN: CASCAR.
TIBET. REG:
REG: TIBET.
REGN.
REG: MARANGA.
CASMIR REG.
Guzarate minor.
BENGALA REGN.
GANGEM.
Agra
Delli
Lassa
Nechal
CHUT
Porta Moscovitica
Cambalium
Pequin
Nanchang
Vuchang
Hangcheu
Kienchang
Focheu
Taicheu
Quangcheu
Tayoudn
Macao
Iunnan
Queiang
Queilin
Siganfu
Caifung
Kiangning
Suanfu
Pinglang
Chingtu
Tayven
Xuito flu.
Croceus flu.
Kiang flu.
Hoan flu.
Lunghan flu.
Suang flu.
Kamul
Turphan
Lop
Chamil
Sagion
Suthor
Coracora
Singui
Ergimul
Campition
Exina
Camul
Samarcand
Bucara
Balac
Talcan
Scassem
Falaleia
Caphurstan Reg.
Cabul
Candahar
Corassan Regn.
Can dahar Regn.
Labor
Agrunagar
Capanangue
Gangis flu.
Montes
Tebetici
Battana
Mutgari
Hedonda
Cadmendu
Nesse
Lassa Barantola
Cuthi
Langhi mons
Cadampor
Benares
Mulsen
Schyan
Iatta
Sindi
Araba
Scharna
Baccar
Gabegasch
Ormus
Congo sive Congo
Mussan Ian
C. Ras Algate
Aden
Xenic flu.
Imp. Magnet.
Indus flu.
Ganges flu.
Tigris flu.
Volga flu.
Aserin
Horda
Mos:
Kytain
Lacus
Chinan
Carcham
Catrium
Cotam
Peim
Tacomich
Soriul
Serpanil
Talhori
Gecalath mons
Caucasus mons
Acsu
Kiarchan
Tolei
Cialis arenosum
Consangui mons lapideus
Belor mons
Kalmak Desertum
Iter Benedicti Goes
Iter S. Thomæ Apost:
Iter M. P. Veneti in
Iter ex Mogor In Persidem et contra Tnt.
Iter P. de Chinan. R. Tibet.
Iter P. Xavier
Iter P. Grueber
Iter P. Gruber
Iter P. Ferd.
Iter P. Ferd. Orazio
Iter P. Ferd. Orazio
Iter P. Ferd. Orazio

know it, but he speaks of it. In this particular point, therefore, I cannot share Wessels' opinion.

Kircher goes on to say that Andrade continued to China or Cathaie from Rudok; he was only two months on the way, and travelled through the kingdoms of Maranga and Tanchut of the Tartars. This is of course impossible, and depends upon a misunderstanding.

The second map in Kircher's work [1] does not quite agree with the description in the text, but still, this map is an important and curious document, being the final result of a learned man's desperate struggle with great difficulties in getting all the seemingly contradictory information he had gathered, to agree. The map is also a hopeless confusion, where only the principal lines are recognisable, but all the details upside down. Leaving alone the rest of this wonderful map for the present I will only try to explain its hydrography (see Plate XI). The map is so utterly different from all other maps of the time that its compilator must here have had at his disposal a material not available to other cartographers.[2] Kircher's map, published in 1667, and 1670, belongs to a type of its own, so far as Central Asia and Northern Hindustan are concerned. It is an anomaly in the development of Central Asiatic cartography. And this must depend upon the fact that the compilator has tried to make an illustration to Andrade's discoveries, assisted by the information given by Father Henri Roth, and the Christian native Joseph.

To the north the Indian peninsula is bounded by the Montes Tebetici. As there are only a few detached mountains south of this range, nobody will doubt that it is meant to be the Himalaya. The very highest part of this range is a nameless mountain and north of it is Radoc (Rudoc). So the mountain in question is meant to represent Kailas. Near the summit, but still on the southern side of the culmination, there is a rather big lake, and from this lake the Ganges takes its beginning, and thence flows to the S.E. This is the »tanque» or pool of Andrade. On the mountain and just south of the lake are written the few words which give the key to the understanding of the whole problem: Origo Gangis et Indi. In spite of this, and in spite of the text, which also says that the Indus begins from the lake, the map represents the three Indus branches as situated west of the mountain and joining at Athec (Attock), which is indeed more correct. Thus the Indus comes down from mountains situated north of Casmir. At the uppermost part of the western Indus branch we read Pallaur, — Bolor(?).[3] Remembering the Indian view of the hydrography we ought not to be surprised to find the Ganges coming directly out of the Manasarovar. We find the same mistake on D'ANVILLE's map, nay even on

[1] Op. cit. p. 65.

[2] It should be compared with Visscher's map of about 1680, Nicolosi's of 1660, and Cantelli's of 1683, described and reproduced hereafter.

[3] The map has also a Belor mons north of Lassa Regnum.

RENNELL's of 1782, more than hundred years later. On Kircher's map the sources of the Indus are more correct than those of the Ganges.

At some distance south of this big lake, the Manasarovar, there is another from which two rivers take their origin. The eastern one is obviously meant to be the Jumna, as Agra is situated on it and »Delli» not far from it. It does not join the Ganges but goes its own way to the sea. There can hardly be a doubt that the western river is meant to be the Satlej. Both the Satlej and the Jumna have two head branches on the map. The lake from which the two rivers issue has no name, but on Andrade's route west of it is Caparangue, as the cartographer did not know that this town was situated on the very river. The name of the river is Kauc flu., i. e. the river of Kauc or Guge (?). That the river is the Satlej is obvious from its running S.W. and its joining the Indus far below Attock. The hydrography of Panjab is of course far more absurd than on any contemporary map. The river comes from a lake which is situated south of the Manasarovar instead of west, just as in the case of the two lakes at the origin of the Hwang-ho on the same map.[1] This second lake is the Rakas-tal. It is no wonder if the cartographer was a little bewildered by the information in the narratives of Andrade and by those brought home by Henri Roth and Joseph. Andrade's route is marked on the map, though it does not harmonize very well with the physical geography of the same map. But the map shows that, in Kircher's opinion, Andrade passed through »Sgrinegar» in Garhwal and Caparangue, that he crossed the Satlej and went close west of the Rakas-tal and the Manasarovar and of Kailas, that he crossed the Transhimalayan mountains to Radoc (Rudok), by which the cartographer has made the mistake to let the road turn east instead of west. From Rudok he has returned to India the same way. This is what Kircher believed! But in reality Andrade never went beyond Tsaparang.

Comparing Kircher's text with his map, and comparing both with Andrade's narrative, the whole situation becomes perfectly clear. On the map as in the text the two lakes dominate the hydrographical system, just as in the mythical poetry and the belief of the Hindus. Andrade cannot be made responsible for the hydrography of the map. For he only saw *one* pool, from which the Ganges went to the south and another river, irrigating Tibet, to the north. And this does not at all agree with Kircher's map. This is the first time a European has made the Ganges take its origin from the Manasarovar. The informant, whosoever he may have been, probably a native who explained matters to Joseph or Roth, has certainly seen a river leaving the Manasarovar and believed it was the Ganges, and not simply the channel to Rakas-tal. He, or some other informant, has seen the Satlej leaving the Rakas-tal, just as the map represents it. He was, so far as we know,

[1] On Kircher's map China is taken from Martini 1655, except the Kia Lacus, which has disappeared.

the first, but by no means the last who made the two lakes belong to two different hydrographical systems, instead of one single system, the Satlej. As Joseph accompanied Andrade on all his journeys and perhaps was one of his two Christian servants on the first journey, he may have given Kircher the information which is missing in Andrade's narrative. This is only so far important, that, if all facts were known, we should be able to fix a year for the effluence of both lakes. I find it likely that the informant has made his observation on the place about 1624—1627. This period must have been very rich in precipitation, which also agrees with Andrade's description of the heaps of snow and the snow falls on the Mana pass even in June.[1]

Remembering the hopeless confusion that has existed amongst European geographers about the Manasarovar and the sources of the great Indian rivers until comparatively lately, it is not surprising that the representation on maps some 250 years ago was still more fantastic. But Andrade is innocent as to the misinterpretation of his text.

For a long time the cartographers in Europe did not take any notice at all of Andrade's discoveries.[2] Only Delisle on his map of India and China, published in 1705, has entered Chaparangue or Tibet and a big lake from which two rivers issue, the Ganges and a river flowing through the Kingdom of Tibet. On d'Anville's map of 1733 Dshaprong (Tsaparang) is also marked on a river coming from the Rakas-tal, but he has got his material from the Tibetan side of the Himalaya.

Therefore Andrade had no greater influence as an explorer and as a creator of new material to the maps, than as a preacher of the Gospel in Tibet.[3]

In this connection I will only mention the famous journey of the two Jesuit Fathers JOHANNES GRUEBER and ALBERT DORVILLE straight across Asia, from Peking to India. They left Peking on April 13th, 1661, and travelled through Si-ngan, Lan-chow, Si-ning, and along the northern shore of Koko-nor. After crossing Tsaïdam they ascended the Tibetan highlands and crossed the great feeders of the Blue River. Tang-la was the highest range they had to conquer, a range which nearly 200 years later became so famous through Huc and Gabet. From the monastery, Reting-gompa, they continued to Lhasa and proceeded thence to Shigatse, and over the Langur mountains to Katmandu in Nepal. They reached Agra viâ Patna in March 1662,

---

[1] »Nous nous arrêtâmes dans le dernier village nommé Manà, pour attendre la fonte des neiges dans un desert qui conduit au Thibet, et par lequel on ne peut passer que durant deux mois de l'année; pendant les dix autres mois tous les chemins sont obstrués.» Of the inhabitants of Srinagar Andrade says at another place: »En outre, la neige qui tomba en abondance en fit périr une grande quantité.»

[2] Cantelli says that his map La Gran Tartaria, 1683, was constructed in accordance with the narratives and itineraries of the Jesuit Fathers, and MM. Tavernier and Thevenot. But he has no lake at the source of the Ganges, and no Tsaparang or Rudok. So he seems to have ignored Andrade completely.

[3] From 1658 to 1667 François Bernier travelled in India and also visited Kashmir. He collected some information about Tibet and the caravan road to Kashgar, which belong to a later part of this work.

having accomplished one of the most brilliant journeys in Asia in a surprisingly short space of time.

It is a great pity that so very few details from this journey have remained to our time. The two Jesuits seem not to have understood the great geographical importance of their achievement, and they have not even troubled to keep a rough diary. We are only able to follow the great features of their journey. In some cases, as for instance, when Grueber mentions the rivers south of Koko-nor, we cannot, with any degree of certainty, identify them. On some old maps, however, this journey has left its traces, and that is the only reason why I mention Grueber and Dorville together with Goës and Andrade. For in a later part of this work, dealing with exploration in the Transhimalaya, we shall have to return to this most interesting journey.

TIBET AND THE SOURCES OF THE GREAT INDIAN RIVERS ON ANCIENT MAPS

CHAPTER XIX.

MAPS OF THE FIFTEENTH CENTURY.

In his essay on the ancient cartography of Japan, Dr. E. W. DAHLGREN says that the earliest geographical knowledge of Nipon partly consists of verbal accounts, and partly of maps.[1] With Tibet the case is so far different that the representation on maps occurred only some 500 years after the first news of the existence of a country with this name reached Europe, and this news is chiefly gained by the same great traveller who the first of all Europeans made known the existence of Chipangu. Turning his attention to the cartography Dr. Dahlgren points out the importance of arranging the existing material in systematic order, and of fixing the different characteristic types.[2] This sound principle is no doubt easier to follow for a student of Japan, a group of Islands in the sea, with coast-lines which have gradually been mapped in a more and more detailed way during the course of centuries, — than for a student of a country like Tibet, surrounded by land, and lost behind inaccessible mountain fortifications, heard of by several travellers, approached by some, and visited or even crossed by a very few, of whom not a single one has so much as tried to give a map of his route, and, at the most, delivered a very meagre and confused account of what they have seen.

Under such conditions it would be a useless task to try and force the early maps of the country north of Himalaya into a system showing a regular development from one type to another, from one epoch to the next. The first rule I can follow is to trace the influence of PTOLEMY until it fades away under the weight of innovations introduced by GASTALDI and others. Further it may be said that MERCATOR represents a special type, on account of the singular way in which he draws

[1] Les débuts de la cartographie du Japon, Archives d'études orientales, publiées par J.-A. Lundell. Upsal 1911, p. 15.

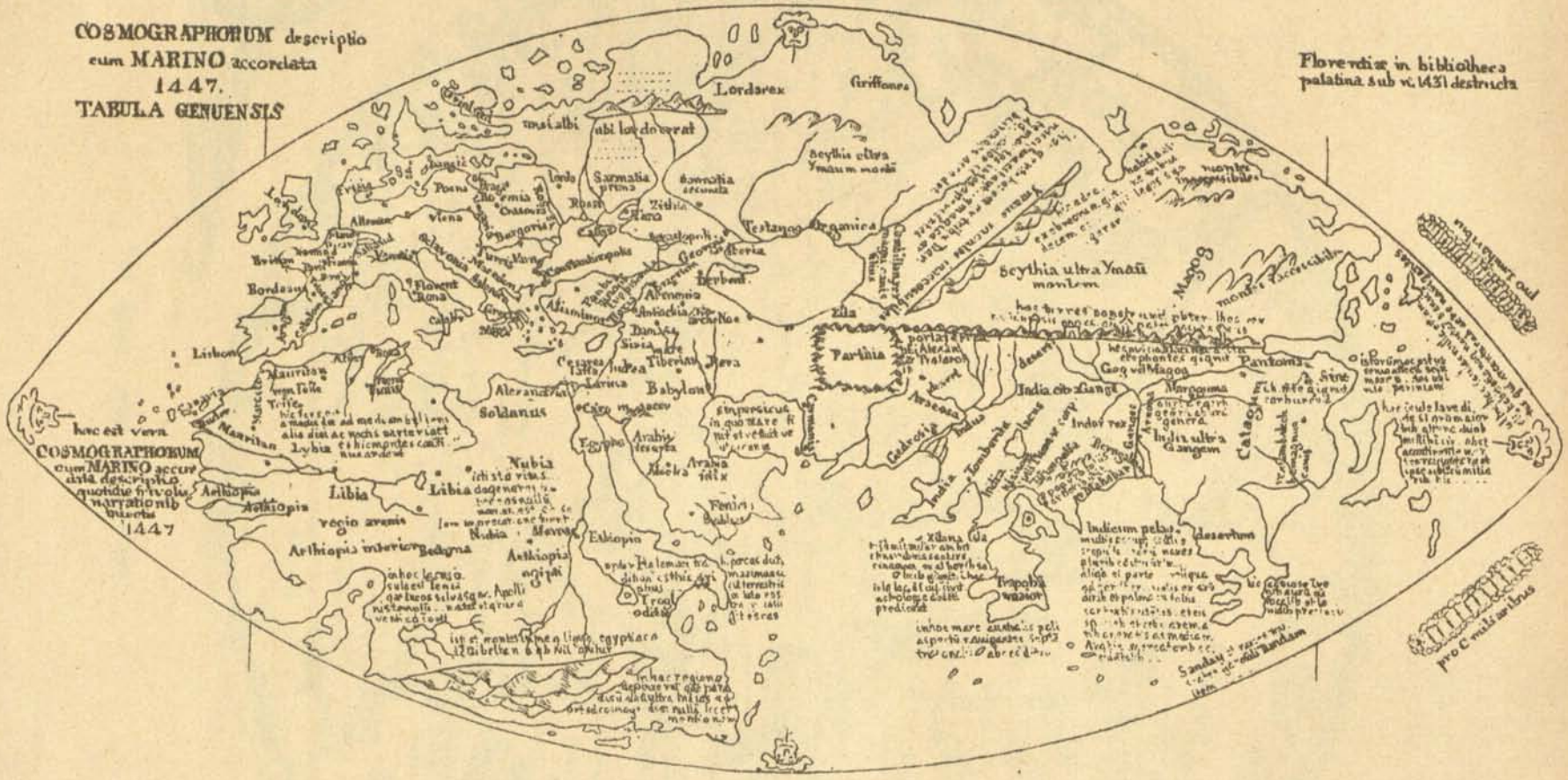
[2] »Il importe de distinguer les traits qui caractérisent chacun de ces types, de démontrer leur origine, de déterminer leur âge respectif et de suivre leur évolution afin de noter comment quelques-uns disparaissent sans laisser de traces, tandis que d'autres reçoivent une impulsion nouvelle, rejettant les excroissances étrangères et prennent des formes qui se rapprochent toujours davantage de la réalité.» Ibidem p. 14.

the Ganges. So far there can be no talk of a »greater Tibet» as a physico-geographical or political unity; at the very most the mere name appears on some of these early maps. Only with Delisle is a really new type inaugurated, showing Tibet as a definitely bordered country north of the Himalaya. And with him we enter upon more solid ground so far as a cartographical classification in types is concerned. The next type, the most revolutionary of all, is introduced by D'ANVILLE, who totally changes the map of Tibet, and whose influence stretches far into recent times, so much so, that it can still be traced on RECLUS' map of 1882. To d'Anville's type we must reckon KLAPROTH, and all his followers amongst the great German cartographers, RITTER, GRIMM, MAHLMANN, HUMBOLDT, BERGHAUS; and even KIEPERT. After d'Anville we can hardly speak of any new original type before the journeys of MONTGOMERIE's Pundits, a type which has culminated in the actual representation of Tibet, the result of modern European exploration. HODGSON, SCHLAGINTWEIT, SAUNDERS and RICHTHOFEN may also be regarded as representatives of different types, but as their maps are constructed only on hypotheses, they are of no great importance.

While Dr. Dahlgren's system of cartographical types for Japan embraces only the one century from 1550 (Gastaldi) to 1655 (MARTINI), for Tibet we may speak of types falling within two centuries, from about 1700 (Delisle) to about 1900 (the exploration which is still going on). This difference simply depends upon the fact that Tibet has made resistance against European exploration much longer than Japan and any other country in Asia. Before 1700 Tibet can hardly be said to play any cartographical part at all, and our attempts to extract any information from earlier maps will therefore prove to be rather negative. But our object being also to trace the localisation of the sources of the great rivers we have to go back to the middle of the fifteenth century. In a much later time European investigation slowly begins to conquer the ramparts round Tibet.

In the middle of the 15th century cartographical and cosmographical studies were in a particularly flourishing state at Venice and Genoa, and from that period dates the first map we are going to consider, namely the Genoese Map of the World of 1447, which is preserved at the National Library of Florence (Pl. XII.). Prof. THEOBALD FISCHER regards it as the most important map of the 15th century, and indeed it supersedes the famous map of FRA MAURO, 1459, in the way it shows both the mountains and rivers of southern Asia.[1] Ptolemy's influence is very clearly to be seen; the great features of the orography are the same as his, and the Indus with its five source branches is of a perfectly Ptolemæan type. The easternmost of the branches is the Zaradrus of Ptolemy, the Satlej of our days. On the other hand, Fischer regards the Ganges of this map as drawn from more recent

[1] Sammlung Mittelaltlicher Welt- und Seekarten Italienischen Ursprungs und aus Italienischen Bibliotheken und Archiven. Dr. Theobald Fischer. Venedig 1886, p. 155 et seq.

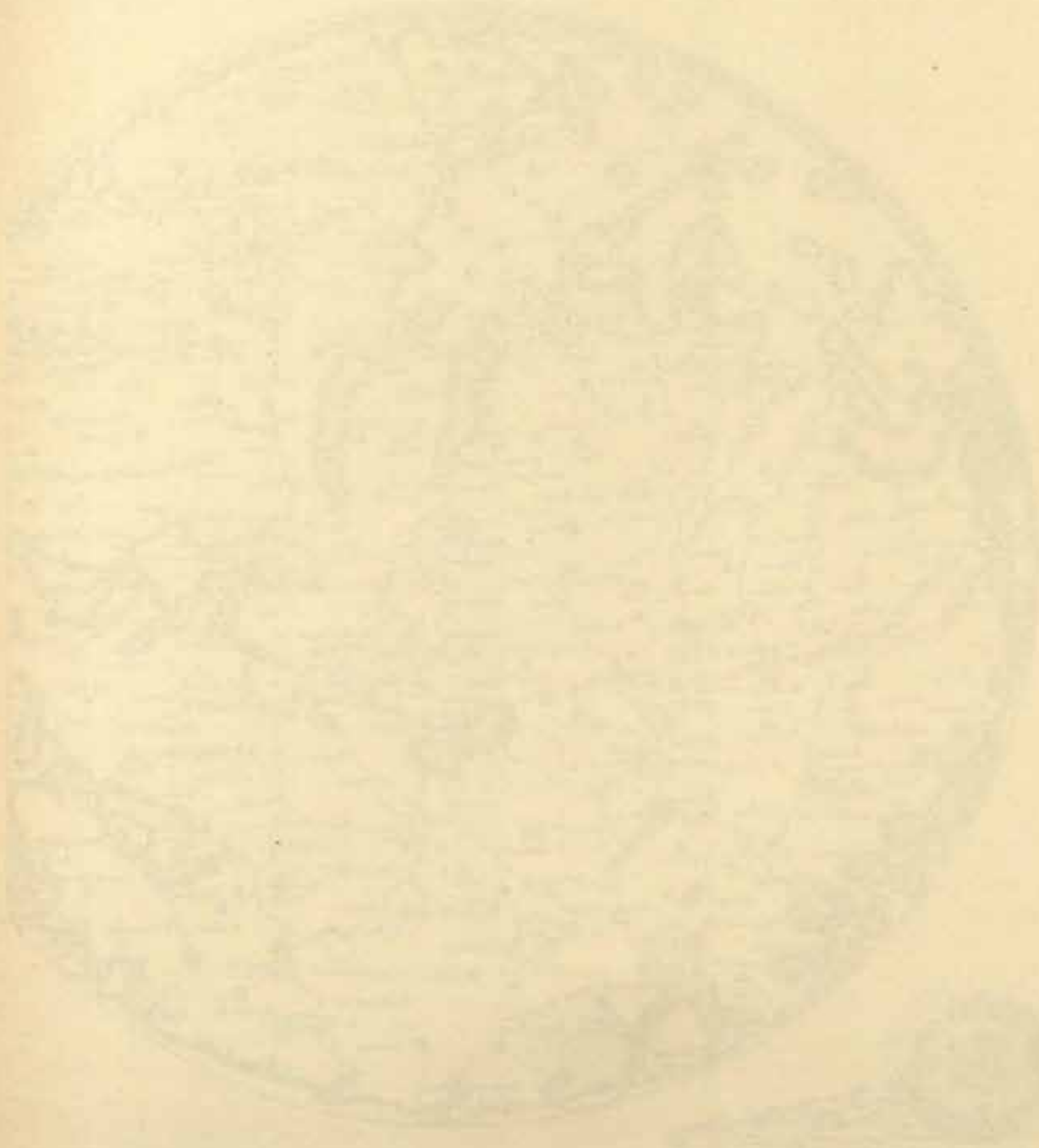


The Genoese Map of the World, of 1447.



Fra Mauro's Map of the World.

GEN STAB LIT ANST STOCKHOLM



notions, especially from the discoveries of CONTI, though I cannot see any greater difference from Ptolemy than in the case of the Indus. The three feeders, Jumna, Ganges and Gaghra (?), come down from the great water-parting range; a right tributary from the S.W. may be the Son, and the two great tributaries from the east may be intended for the Brahmaputra and Barak, if not, as Fischer suggests, the northern one should represent the Irrawaddi, for Ava is situated on its banks and a legend, »maius gange am(nis) aliter daua dicitur», is taken from Conti. So far as I can see, the northern tributary can therefore under no conditions be the Brahmaputra. In spite of this mistake by the cosmographer his map is in these regions far superior to that of Fra Mauro, which shows a hopeless confusion in the hydrography.[1] Between the Indus and the Ganges is the lake, of which Conti, as recorded in RAMUSIO's collection, has some stories to tell and of which he says that the whole region drinks of its water. Fischer identifies it with the lakes of Udaipur and Debar. At the mouth of the Ganges is a city called Berngalia. The eastern part of the great range Fischer suggests to be the mountains of eastern Tibet, though they are more likely meant to correspond to the eastern ranges of the Himalayan system.

On our reproduction, Pl. XII, the legends are illegible, but only a few of them may be of some interest. Along the northern range with its several towers we read: »has turres con(struxit) presbiter Johannes rex ne inclusis ... ad eum patet accessus».[2] The range is also adorned with a gate, from which the Ganges issues. The five feeders of the Indus come down from the »porta ferrea: ubi Alexander Trataros in(clusit)». On the part of the map which corresponds to the present Tibet and at the side of the golden image of a kneeling king the following legend was still visible in the 18th century: »rex Cambalech hic (?) est magnus canis».[3]

Imaus montes inaccessibiles is a great range which starts from the western end of the principal range and runs to the N.E. To the east of it is Scythia ultra Imaum montem and still further east two other ranges called montes inaccessibiles. In this region, which in later years went under the denomination Great Tartaria, a legend reads: »Hic adeo ... habitantur ex ebreorum g ... t ... ne (generatione) tribus decem (r)ec(lusæ) qui leges suæ ... gener.» These degenerated Hebrew tribes, as well as the Magog in the eastern part of the region, were the Tartars, who had been excluded by Alexander.

There are no traces of Marco Polo who, some 170 years before, had travelled through the whole of »Scythia ultra Imaum montem».

In 1457 to 1459 FRA MAURO, the learned Camaldolensian from Murano, drew a map of the world (Pl. XIII), which, though famous, was, so far as Asia is con-

---

[1] Compare also: Zurla: Di Marco Polo e degli altri Viaggiatori Veneziani ... Vol. II, p. 345, Venezia, 1819.

[2] Épilogue de la Géographie de moyen age étudiée par Joachim Lelewel, Bruxelles, 1857, p. 169.

[3] Heinrich Wuttke: Zur Geschichte der Erdkunde in der letzten Hälfte des Mittelalters ... VI. und VII. Jahresbericht des Vereins für Erdkunde zu Dresden. Dresden 1870, p. 47.

cerned, no improvement upon Ptolemy's map.[1] There is, however, and probably for the first time on any map, to be found the name of Tebet north of Mihen, Cina, and India Terza. This notion is derived from Marco Polo. Ganges and Indus come down from the southern side of M. Imaus. Indus has five feeders, of which the one in the middle comes from a small lake. The easternmost feeder, corresponding to the Satlej, is the longest, and, beyond it, on the northern side of the Imaus, is a lake called Mare Breunto. The Ganges has two principal feeders, the western coming from M. Imaus, and the eastern from Tebet. To the west of the Ganges we read the name Phison, indicating that the Ganges was one of the four rivers of paradise.[2] The Indus flows to the Mare Indicum where Bangala is situated, while the Ganges goes to Sinus Gangeticus. Between the Indus and the Ganges and parallel to them flows the river Mandus coming from a nameless lake, situated in a little range south of and parallel to the Imaus. The fact that the city of Ava is placed on the eastern bank of the Mandus proves that this river stands for Irrawaddi, and the information is drawn from Conti. In this respect the confusion on Fra Mauro's map is much greater than that on the map of 1447, where the river of Ava is at least to the east of the Ganges.

It is interesting to note that the river of Ava is shown as taking its origin from a lake, just as BARROS reported less than a hundred years later. Should Fra Mauro's nameless lake be an embryo of the mysterious Chiamay Lacus which caused so much mischief during later centuries? It is not impossible that the same Burmese myths and legends have been the root from which both lakes have derived their appearance on early European maps. Whether this interpretation be correct or not it should be remembered that on a map of 1459 no fewer than three lakes are placed near the sources of the Ganges and Indus, though two of them are, just as the sources, placed at the southern side of the Himalaya.[3]

---

[1] Prof. Theobald Fischer has published a »Fac-simile del Mappamondo di Fra Mauro dell anno 1457, Venezia 1877». Another Mappamondo di Fra Mauro is published in Studi Italiani di Filologia Indo-Iranica diretti da Francesco L. Pullé, Vol. IV. Atlante della Parte I. Firenze 1901. In Holdich's Tibet the Mysterious is a reproduction of the part of the map where the name Tebet is inscribed, p. 8. For our purposes the sketch in Zurla's work, supra cit., will be sufficient. It has the title: »Abbozzo del Mappamondo di F.' Mauro Camaldolese, Cosmografo Incomparabile alla Metà del Sec. XV. (Gia' esistante nella biblioteca di S. Michele di Murano ora nella Marciana)».

[2] The hydrography of Genesis 2: 10—14 has dominated the geographical world for many centuries, as pointed out in earlier chapters of this work. In a manuscript collection found by Mario Longhena at Parma there is, amongst other things, an anonymous Orbis Descriptio, probably from the beginning of the 14th century, where the hydrography of Genesis is explained as follows: »At fluvius egrediebatur de loco voluptatis ad irrigandum paradisum qui inde dividitur in quattuor capita nomen uni Phison id est Ganges ipse est qui circuit omnem terram Eiulat id est Indie ubi nascitur aurum illius terre optimum est. Ibique invenitur bdellium et lapis onichinus. Et nomen fluvio secundo Geon id est Nilus, ipse est qui circuit omnem terram Ethiopie. Nomen vero fluminis tertii Tigris. ipse vadit per assyrios. Fluvius autem quartus ipse est Eufrates: ipse vadit per terram chaldeorum.» Studi Italiani . . . Anno V, Vol. V. Append., p. 22.

[3] Fra Mauro's map is influenced by Marco Polo. There is a lake Lop, and a Deserto Lop; there are Samargant, Balch, and Jerchan. Tangut is placed at Lake Lop. Chatajo and Cina are

On maps from the latter half of the 15th century Ptolemy's geography is paramount. The sources of the Indus and Ganges are always on the southern side of the Himalaya, so for instance on the World Map of BUONDELMONTE, before 1481, and on that of MARTELLUS GERMANUS, which is based on Portuguese data from the end of the 15th century. On this map we find a range of mountains with ramifications going through the whole of Asia, and provided with the classical names Paropanisus, Imaus mons, Emodi montes, and Serice montes. The westernmost feeder of the Indus is just opposite the Fons Oxi. The Fons Gangis is specially marked.[1]

different countries, and between them is Tebet. Serica is also marked as a separate country. Fl. Amu, Amu-darya, comes from opposite the sources of the Indus. I do not know in how far P. Gothan has anything to do with Odoric's Gota, the only name that is mentioned from Tibet by the old Friar.

[1] A. E. Nordenskiöld, Periplus, An Essay on the early History of Charts and Sailing-directions. Stockholm 1897, p. 111 and 123. To the proofs, from the interior of the continent, that Fra Mauro has used Marco Polo's material, Nordenskiöld adds the following from the seas: »That Marco Polo's account of his travels formed one of the sources of Fra Mauro's drawing of East Asia, is shown by the large islands Zimpangu and Java major marked on the eastern border of the planisphere, as well as by several of the long legends. It is also clear that numerous observations of other Asiatic travellers were at the disposal of the learned Calmadolensian, though the way in which he used this material as, for instance, in drawing the coast-line of Asia between the Red Sea and the Ganges, does not say much for his ability as a map-draughtsman.» Ibidem p. 141.

CHAPTER XX.

MAPS OF THE SIXTEENTH CENTURY.

On a map called *Tabula Superioris Indiæ et Tartariæ Majoris* from Ptolemæus Argentorati 1522, we find at least the name of Tebet north of India, as a survival from Fra Mauro's map. Baron A. E. Nordenskiöld also says that this map is almost exclusively founded on Marco Polo traditions.[1] But Tibet soon disappears again.

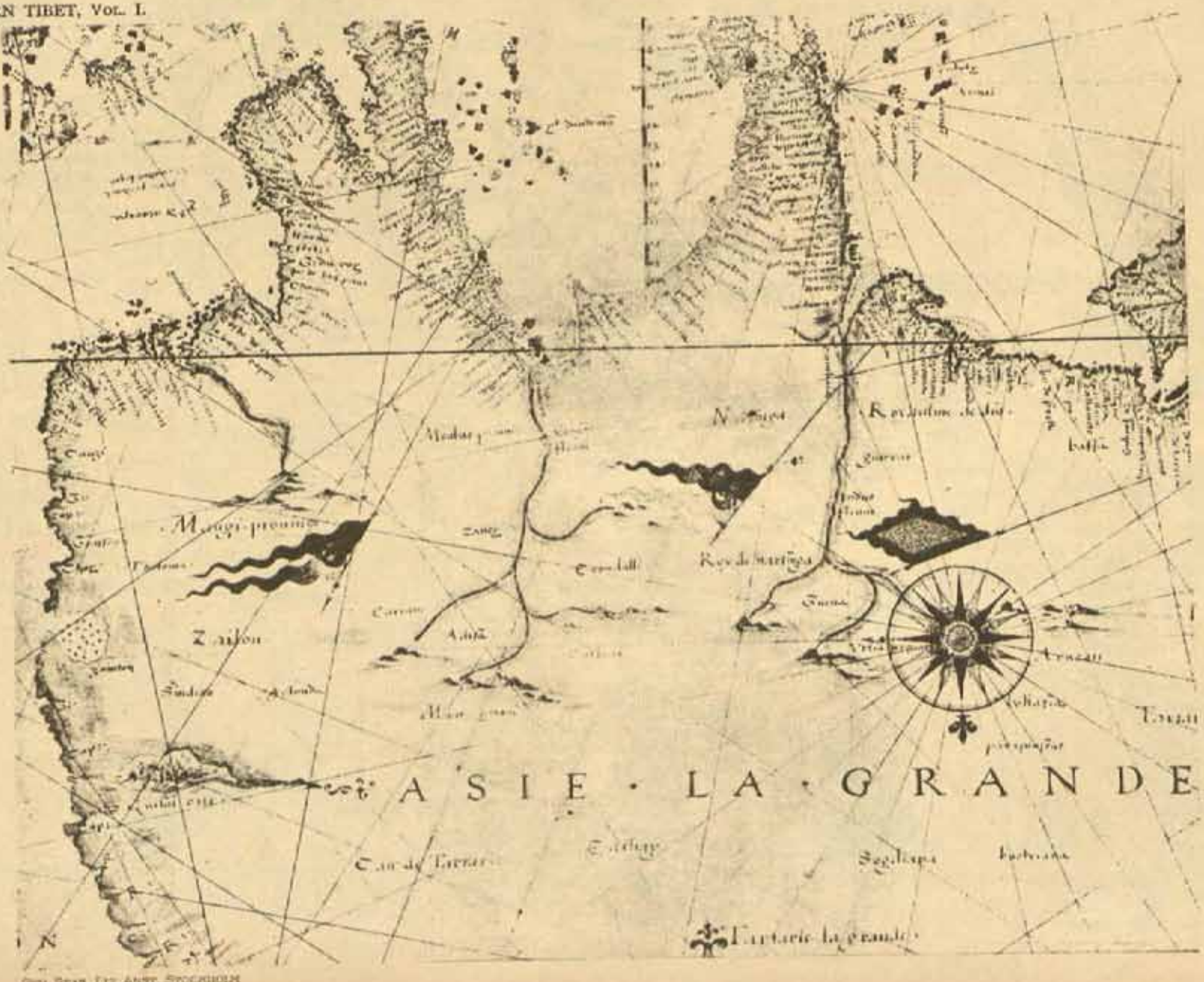
Such is also the case with the map of the world by NICOLAS DESLIENS, of 1541, Pl. XIV.[2] It seems to be made especially for the use of sailors, for along the coasts and islands there are numerous names, but in the interior of the continent only a very few. The Indus and Ganges are there, as usual, but they are less correct than on Ptolemy's map, being meridional and parallel with each other. Another shortcoming of the map is that the uninterrupted range all through Asia has been dissolved into many different and quite isolated mountain groups, each giving rise to one of the feeders of the two great rivers. Only the source of the main branch of the Ganges comes from a group called Montes Imani. Further north are, from east to west, Can de Tartarie, Cathay, Sogdiana and Bactriana.

On Pl. XV we see an example of the bastard maps, where the interior of Asia is of pure Ptolemæan type, whereas the outlines of the coasts are founded on later observations. It is an anonymous map of the world, which, upon insufficient evidence, has been ascribed to GIACOMO GASTALDI. C. H. COOTE has proved this to be wrong, and found that it must be based on contemporary Spanish and Venetian maps, for instance, those used by DIEGO HOMEM in 1558, and DIEGO GUTIERREZ in 1562, which are derivations from DIEGO RIBERO of 1529, and others. The map is in four sheets of the two hemispheres, and dated Venice, Tramizini, 1554.[3] It is of

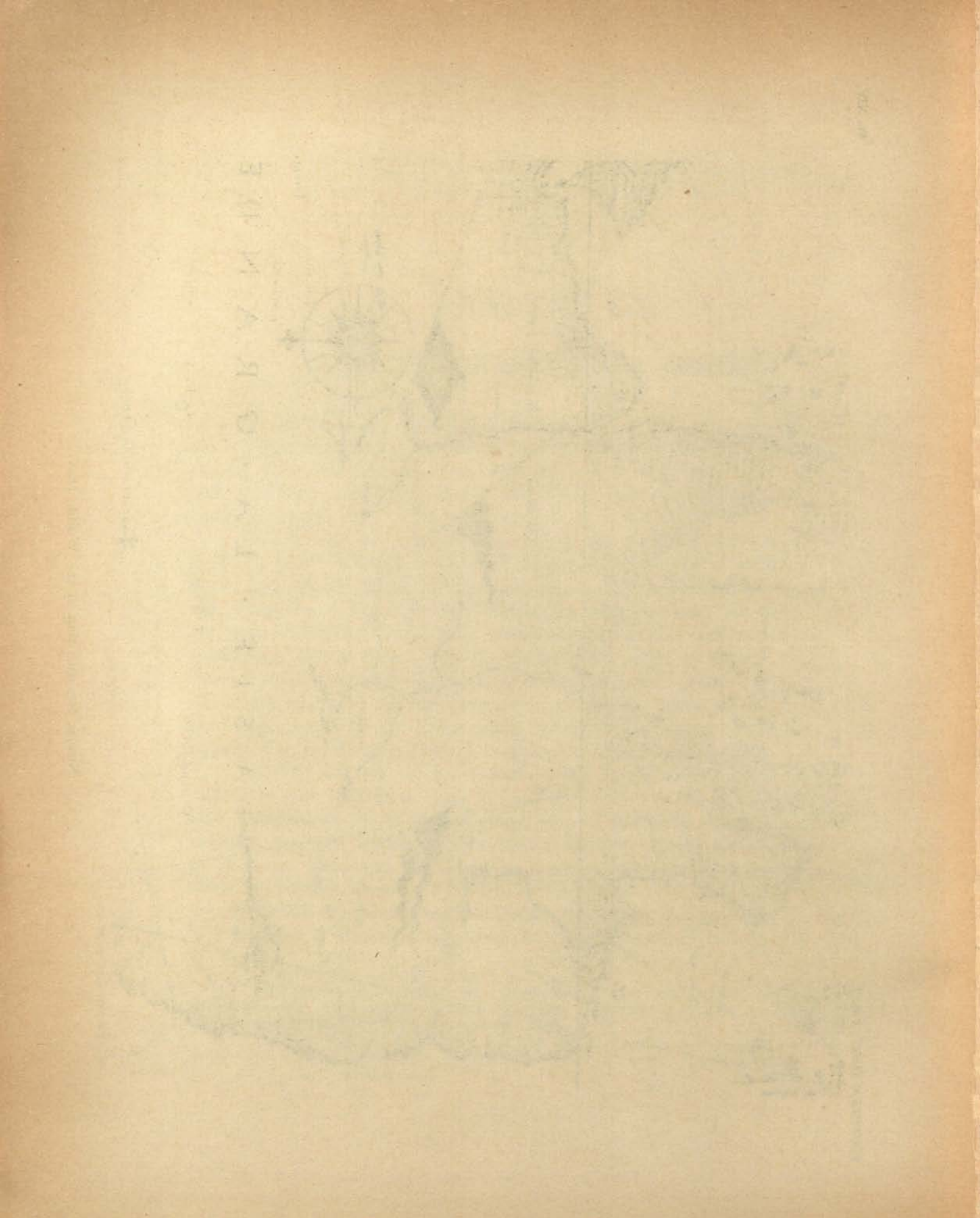
[1] Facsimile-Atlas, Stockholm 1889, p. 72.

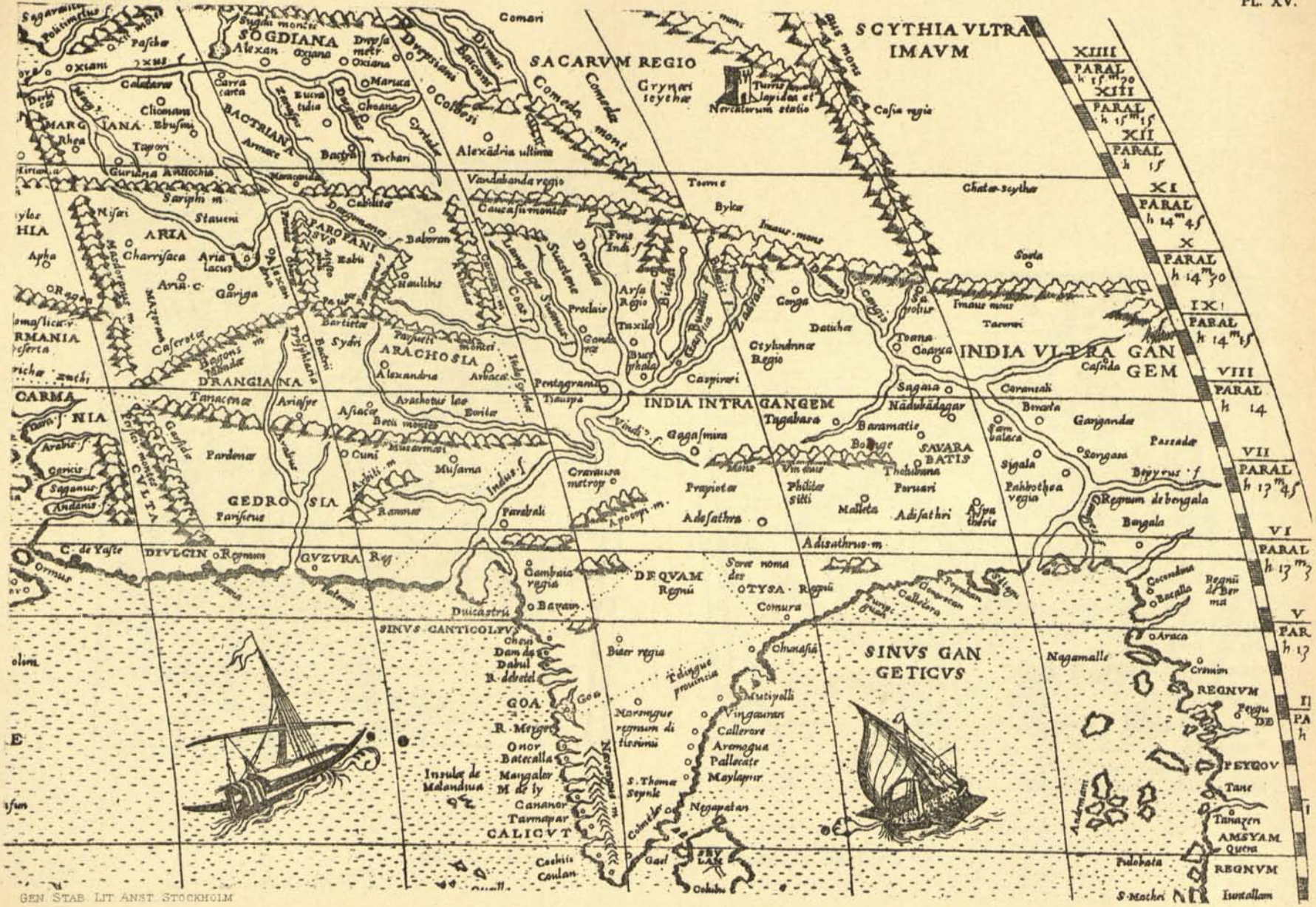
[2] Kartographische Denkmäler zur Entdeckungsgeschichte von Amerika, Asien, Australien und Afrika, aus dem Besitz der Königlichen öffentlichen Bibliothek zu Dresden . . . herausgegeben von Viktor Hantzsch und Ludwig Schmidt, Leipzig 1903.

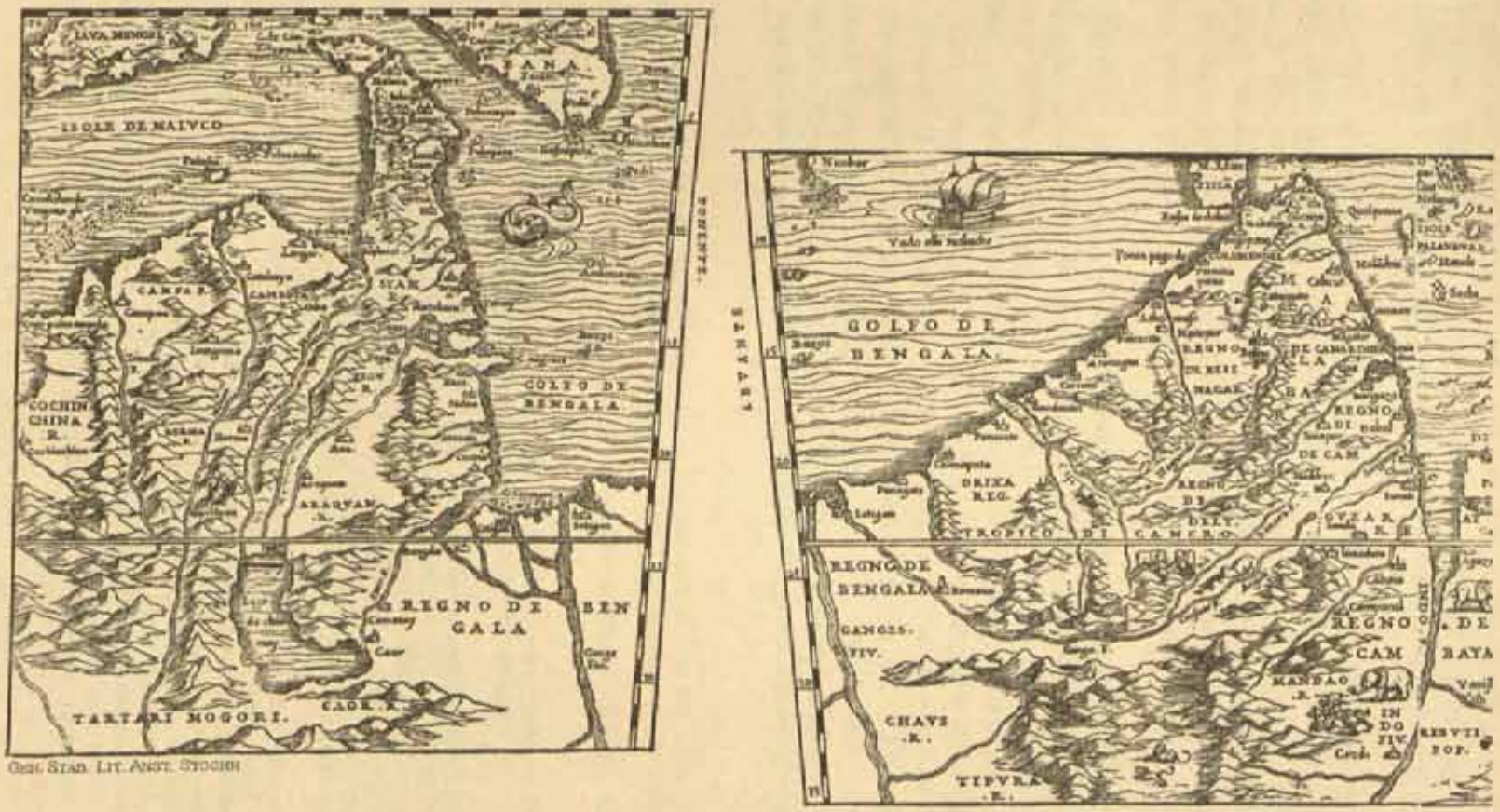
[3] Remarkable Maps of the XVth, XVIth & XVIIth centuries reproduced in their original size, I, the Bodel Nyenhuis Collection at Leyden, Edited by C. H. Coote, Amsterdam 1894.



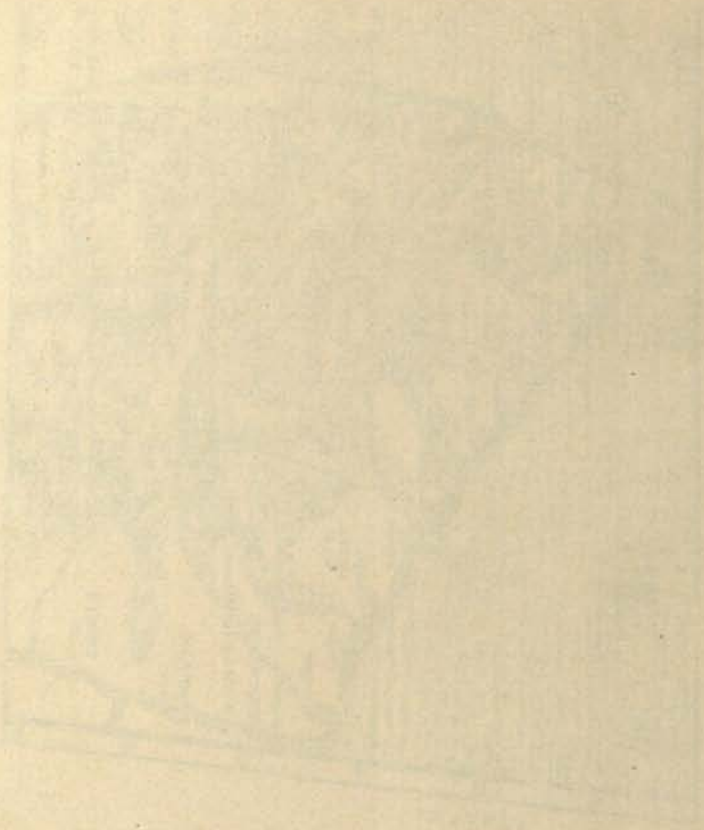
Nicolas Desliens Map of the World, 1541.




SOGDIANA
SACARVM REGIO
SCYTHIA VLTRA IMAVM
BACTRIANA
MARGIANA
ARIA
PAROPANI
ARACHOSIA
DRANGIANA
CARMANIA
GEDROSIA
INDIA INTRA GANGEM
INDIA VLTRA GANGEM
SAVARA BATIS
DEQVAM Regnū
SINVS GANTICOLVS
SINVS GANGETICVS
GOA
CALICVT
REGNVM PEGV
REGNVM AMSYAM
Alexandria ultima
Alexandria
Arbaca
Pentagramma
Cranuana metrop
Adisathrus m
Adisathri
Negapatan
Nagamalle
Crmim
Araca
Bengala
Regnum de bengala
Pegu
Tane
Tanazeri
Pulobata
Isantallam
Maldiua
Insulae de Maldiua
Cochin
Coulan
Cael
Comari
Oxiana
Maruca
Bactra
Tochari
Baborum
Gariga
Sydri
Parsetti montes
Indus f
Parabali
Barygaza
Gagasmira
Tagabara
Nadubadagar
Baramatis
Sagara
Coromandi
Garganda
Passalae
Sigala
Pahibothea regia
Bepyrus f
Malleta
Philitae Silli
Praiotae
Pruuari
Comura
Duicastri
Baram
Cambaia regia
Barygaza
Chunasiá
Mutiyolli
Vingauran
Calleroze
Aremogua
Pallecate
Maylapur
Narsingue regnum di tissimi
Onor
Batecalla
Mangaler
Cananor
Tarmapar
Goa
R. Mergo
R. debetel
Dabul
Dam de
Chen
Biser regia
Idalcan
Ydalcan
Ydalcan
Yd



Gastaldi's Maps of the Indian peninsulas, in Ramusio, 1554.





special interest as it shows how difficult it was for the cartographers to abandon Ptolemy, even at a time when fresh discoveries had proved him to be wrong, and it is a compromise between the classical geography and the epoch of the great discoveries.[1]

In RAMUSIO's famous collection of *Navigation and Voyages* we find two maps drawn by Gastaldi and representing both Indian Peninsulæ[2] (Pl. XVI). The Farther Indian Peninsula is so far interesting that it shows us, clearly for the first time, the great lake Lago de Chiamay in upper Burma, a curious phenomenon indeed on the maps of those days, and to which we shall return in a later chapter. Otherwise the outlines of the two Peninsulæ show the characteristic form always given to them by Gastaldi.

We now have to consider a most important and epoch making map namely *Tertia Pars Asiæ* by JACOPO GASTALDI, 1561, Pl. XVII.[3] The northern mountains which hitherto have formed one range stretching east to west, is now dissolved into many ramifications, groups and systems in all directions.[4] The central part of the Himalaya is still very narrow, though it consists of a double range separating India from Diserto de Camvl. Towards the west, this partition wall widens out to a regular mountain knot corresponding to the Pamirs, Badakshan, Chitral, etc. The classical names for Himalaya, Imaus, Emodus, etc., have disappeared, and in their place we find three new names, from west to east: Monte Dalangver, Monte Naugracot, and Monte Vssonte, which, for a long time to come, should reappear on nearly all European maps.[5]

---

[1] The map of Diego Ribero (see Periplus XLIX) is so far interesting that the Indus, with two double-headed sources, comes from the northern side of the Imaus; the sources of the Ganges are also situated north of the mountains.

[2] Ramusio: Primo volume, & Seconda editione Delle Navigationi et Viaggi. Venetia, MDLIIII. The first edition was published in 1550.

[3] In Nordenskiöld's Periplus, Pl. LVI.

[4] According to Dr. Dahlgren a good deal of the mountain ranges and river systems on Gastaldi's map have probably been entered for a mere decorative purpose, and with the intention to fill up the blanks of the map.

[5] Should Dalangver be the Dhaulagiri, and Vssonte or Usonte, the mountains of Utsang? As quoted above Tavernier says that the high mountains which are crossed by the road from Nepal to Bhutan, i. e. Tibet, were, in his days, known under the name of Naugrocot. The latter, the most important of the three, is the same as Nagarkot, the name of a city with a fort called Kangra and a shrine of Mahamaya, as it is styled in the Ain-i-Akbari. Alberuni was present at the conquest of this city by the Mohammedans. In the Tarik-i-Firishta the city is mentioned under the name of Nagrakote. Compare also Elliot's History of India, Vol. II, p. 445.

In Europe, Barros is probably the first who heard the name Nagarkot. He describes the form of the Indian peninsula, saying that the southern angle is represented by Cape Comorin, and the two northern ones by the »sources of the rivers Indus and Ganges»; these rivers come out from the mountains which Ptolemy calls Imao, and the natives Dalanguer & Nangracot, and which are so compactly crowded, as if they would conceal the sources of these two rivers. (Ramusio: Primo Volume & Seconda editione Delle Navigationi et Viaggi, Venetia MDLIIII, p. 427, c.) Both the mountains, the city and the province of Nagarkot are often mentioned in the narratives from the seventeenth century, thus for instance in those by Edward Terry, Sir Thomas Roe, and after them by de Laet, in his De imperio Magni Mogolis etc., p. 11. Father Georgi writes Nogliokot in his Alphabetum Tibetanum, p. 436,

If, therefore, both in the coast-lines of the Indian peninsula and in the orographical arrangement of the interior, the influence of Ptolemy has completely disappeared on Gastaldi's map, we find still a last trace of his hydrography in the topographical situation of the Indus and the Ganges, as well as their principal tributaries. All the feeders come from the southern side of the Himalaya. Chesimur, Kashmir, is situated on the upper course of the main Indus which comes from Naugracot, in the neighbourhood of which is also the source of the Ganges. It is difficult to identify the Satlej, unless it is the great tributary on the bank of which is a town called Capelang. That Moltan is placed on the lower course of the same river and Lahor on one of its tributaries signifies nothing, for such mistakes are very common in much later years.

In the regions north of the Himalaya the greatest confusion prevails. There is no sign of a Tibetan highland, nor of a country Tibet, though Fra Mauro had entered it on his map a hundred years earlier. Tangvt Pro. is placed north of Regno de Camvl, and Diserto de Lop north of Diserto de Camvl, on which a legend speaks of the horrors of the desert. The »Stagno» between the two deserts may be Lop-nor. But everything is upside down, and to find some more traces of Marco Polo we have to leave the basin of Lop and enter the basin of Sir-darya. This river is called Tahosca, or, on the Prima Pars Asiæ, Tachosca. It takes its rise in a meridional range of mountains, at the foot of which is Marco Polo's »large town» Lop. Proceeding westwards we find Ciarcian, Poin, Caschar, Cotan, Caschar, all well known from Marco Polo. Kashgar has thus been marked twice. Acsu is also there, on the same tributary as a second Lahor. All these towns are situated on the Sir-darya and its tributaries. But we have no right to blame Gastaldi. He has certainly done the best he could with the material existing at his time. Regarding Lop, for instance, his map agrees with Marco Polo's text: »Lop is a large town at the edge of the Desert, which is called the Desert Lop . . . On quitting this city they enter the Desert.» [1] And we must not forget that Marco Polo has hardly anything to say of the mountains and rivers of these regions.

In opposition to Fra Mauro, Gastaldi has no lakes in or near the Himalaya. Only Abia f., Ab-i-amu fluvius, comes from a lake further west. On one of the Chinese rivers flowing eastwards we find the towns Turfan and Camul.

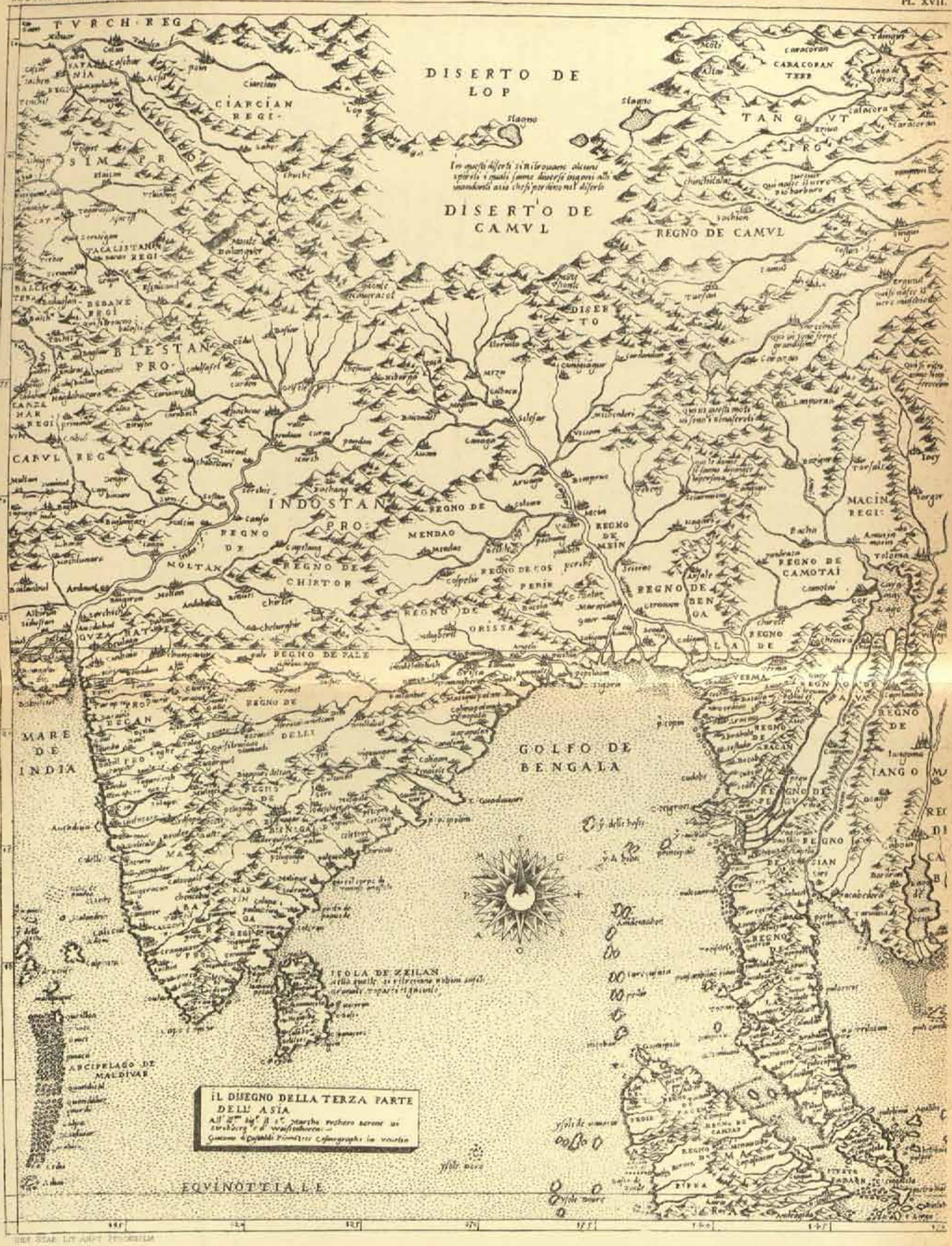
Taken as a whole Gastaldis map does not teach us anything new of the countries north of the Himalaya, and it *could* not, for no new material had been collected since Marco Polo. And still the general appearance and arrangement of

---

though he means the other place of the same name, and not the Nagrakot which has given Himalaya its temporary name.

Speaking of Tavernier Lévi has the following note: »Les monts de Naugrocot sont l'Himalaya. Naugrocot, sous la forme moderne: Nagarkot, est un temple et un pèlerinage célèbre du pays de Kangra, qui est situé à l'Ouest de Simla, au Sud-Est du Cachemire. Au XVII[e] siècle, on étend ce nom à toute la chaîne qui sépare l'Inde du Tibet.» (Le Népal, Vol. I. p. 93.)

[1] Yule's Marco Polo, Vol. I, p. 196.



Tertia Pars Asiæ. Jacopo Gastaldi, 1561.



The Wall-map of Asia in Sala dello Scudo, Venice, restored in 1762.

his map marks an enormous improvement if compared with those of his predecessors.

In this connection the famous Wall-Maps in the Sala dello Scudo, in the Doge's Palace at Venice cannot be passed by with silence. At least one of them, embracing the whole eastern half of Asia, and part of America, is of special interest to us. [1] The four maps were drawn by Giacomo Gastaldi in the middle of the sixteenth century in place of the older maps which had been destroyed by fire in 1483. The map of East Asia is, beyond doubt, a work of Gastaldi. All four maps were restored by FRANCISCO GRISELLINI in 1762.[2]

Comparing the two maps, Gastaldi 1561, and Grisellini's restoration of 1762, with each other, we must confess that the latter is by no means an improvement, so far as our regions are concerned. The coast-lines of the Indian peninsulas have not undergone any change in 200 years.[3] The two great rivers and the northern mountains are practically the same as before. But Camul, Hami, which in 1561 at least was placed north of the Himalaya, is now removed to the south of it, amongst the feeders of the Ganges. North of eastern Himalaya is Cataio Provincia, and north of it Tangut. Still further north is the Deserto di Lop. E.S-E. of the sources of the Ganges, and N.N-E. of the mouths of the same river, is Thebeth, which therefore seems to be placed somewhat south of the eastern continuation of the Himalaya.

Grisellini must be said to have been successful in preserving all the characteristic features of Gastaldi's map, and he has been extremely conscientious in avoiding all the improvements which were so easily available at his time. The only fact that he has saved such an absurdity as the Chayamay Lago is sufficient proof that he would not alter Gastaldi's geography in the least. For already on DELISLE's map of 1723 this lake had disappeared altogether, and at Grisellini's time nobody believed in its existence.[4]

---

[1] In 1909 I got a photograph taken by the kind initiative of Prof. Mittag-Leffler in Stockholm and Prof. Volterra in Rome. Later on I had another photograph taken, of which Pl. XVIII, is a reproduction. It should be compared with the »Schema della tavola del Palazzo Ducale di Venezia», in Studi Italiani, Anno V, Vol. V, p. 58.

[2] Compare Dr. E. W. Dahlgren in my »Trans-Himalaya», Vol. II, p. 406. — The secretary of the Società Ramusiana in Venice, P. L. Rambaldi, wrote, in 1908 a very able memoir on the four maps, which was sent to Prof. Volterra, and by him to Prof. Mittag-Leffler. I have the manuscript at my disposal, for so far as I know it has not been printed. In it we read: »A un restauro, aveva detto il Grisellini, non si può pensare: non era il caso di ripulire, riparare, accomodare . . . il solo ed unico che ne rimane è quello di rifarle di pianta.» Grisellini's proposal was accepted by the Senate and it was decided that the maps should be restored »as a mark of honour to the Patrician Marco Polo, whose discoveries and voyages had been delineated in many places of the said maps». Rambaldi shows that Grisellini's intention was to copy Gastaldi's maps, and that the Government agreed to that plan. Generally speaking the four central geographical decorations in the Sala dello Scudo may therefore be said to give the same representation as the maps from the middle of the sixteenth century. — Compare also Zurla: Di Marco Polo . . . Vol. II, p. 374, n.

[3] »Non v'ha dubbio; l'attuale disegno dell' Asia sulla parete della Sala dello Scudo arieggia in tutto il tipo Gastaldiano, come facilmente si può vedere per le due penisole dell' India e dell' Indo Cina», (Pullé in Studi Italiani Vol. V, p. 59).

[4] Compare, for instance, Euler's map of 1760.

The second Asiatic map, which was, at the same time, restored by Grisellini, embraces western Asia, including the Black Sea and the Caspian, and contains all the geographical knowledge of his epoch regarding this part of Asia. As a survival from the Venetian map of 1447 it has still an unknown region with »Scytæ non subjecti», otherwise, at its easternmost edge, it gives us such modern denominations as Coteli Hindokusj, i. e. Kotel-i-Hindu-kush. Just south of the Fontes Ghjon or sources of the Amu-darya is Parvum Tibet with its capital Eskerud seu Tibet, perhaps Iskardu. The north-eastern part of Hindu-kush is still called Caucasus, and south of it is Regnum Cachemiræ. This map, therefore, does not at all touch the region we are studying, and the information it gives belongs to a time, 200 years later than Gastaldi.

On Diogo Homem's map of the world, Pl. XIX, the Indus is almost as usual, while the Ganges comes from the N.E. instead of N.W. The length of both rivers is very much exaggerated, depending on the fact that the Himalaya has been removed northwards to the centre of Asia, halfway between its north and south coasts. North of the mountains is India deserta, and south of them Desertum Indie. The date of this map seems not to be known, and only a very few dates from Diogo Homem's life have been preserved to our time. Most of his maps remained as manuscripts; those known were made in about 1530 to 1576.[1]

We now come to GERHARD MERCATOR's famous World map of 1569, of which I have a copy on Pl. XX, representing our regions of Asia.[2] It is the most important cartographical monument of the sixteenth century and as such it may be regarded as the foundation of the more recent scientific geography. It shows how difficult it was even for the most erudite scholars to abandon Ptolemy, for Mercator does his best to save the Ptolemæan image of Asia, and to reconcile it with the modern discoveries. Therefore he has, with really touching perseverance and industry created a monstrous representation of S.E. Asia, at a time when these parts were much better known.[3]

The coast-lines of the Indian Peninsulæ are very good indeed, and even better than those of Gastaldi a few years before. In the general orographical arrangement we recognise the ranges of Ptolemy, the »spina dorsalis» of all the maps, and from it the several ramifications in different directions; the meridional Imaus, the meridional range west of it, which is a water-parting of the Sir-darya, the Casii montes and Asmiræi montes separating the Oechardes from the Bautisus, the Bepyrrus mons, etc.

On Ptolemy's map, the Oechardes and Bautisus run eastwards, on Mercator's they run from south to north. On the Oechardes and its tributaries we recognise

[1] Hantzsch and Schmidt: Kartographische Denkmäler. Our Pl. XIX is a reproduction from a part of their Tafel XVII.

[2] Drei Karten von Gerhard Mercator: Europa — Britische Inseln — Weltkarte. Facsimile-Lichtdruck nach den Originalen der Stadtbibliothek zu Breslau, herausgegeben von der Gesellschaft für Erdkunde zu Berlin. Berlin 1891.

[3] Richthofen: China I, p. 643.



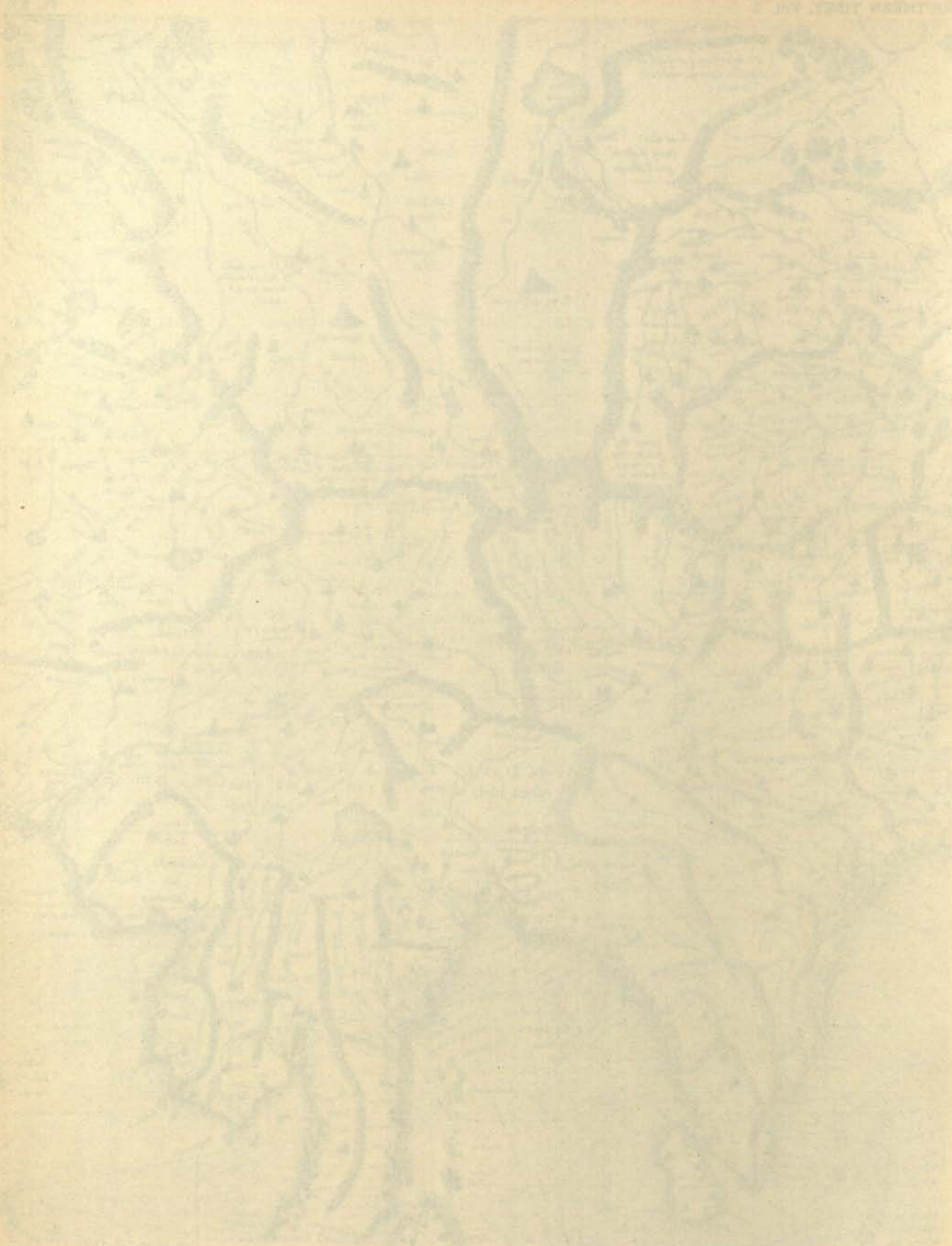
GEN. STAB. LIT. ANST. STOCKHOLM

Part of Diogo Homem's Map of the World.



GEN STAB LIT ANST STOCKHOLM

Part of Mercator's Map of the World, 1569.



many names from Marco Polo, such as Cassar, Kashgar, Samarcham, Samarkand, Carcham, Yarkand, Cotam, Khotan, Peim, Ciartiam, Cherchen, Lop, and Desertum Lop. If any fresh reliable information were the foundation of this arrangement, it would afford us an excellent proof that Oechardes is indeed the Tarim, as generally supposed. But Mercator has been far from sure, for on the southern feeders of his Jaxartes flu. we find again Iarchem (Yarkand), Cascar and Cotan, and Samarkand is also placed at one of the northern tributaries to the Abiamu or Oxus. In the latter case Mercator has followed the example of Gastaldi, in the former his own intuition assisted by Marco Polo's narrative. At any rate he has consulted two different sources and believed he had to do with quite different places. It is a confusion similar to Ptolemy's when he heard of the Tarim from two different informants and believed he had to deal with two different rivers. But so far Mercator has abandoned Ptolemy that he makes his Oechardes and Bautisus join, after which the combined river empties itself into the Glacial Ocean.

Mercator has the legend Bautisus nunc Quiam flu., in which we recognise Marco Polo's Kian or Kian-Suy, the Kinsha-chiang. Along the banks of the river he has placed some very interesting names. At the left, or west side we read Caindu at two places. He has it from Marco Polo who says: »Caindu is a province lying towards the west», by which, as Ramusio explains, is meant that it is to the west of Tebet.[1] Marco Polo further says: »After riding those ten days you come to a river called Brius, which terminates the province of Caindu.» This river Brius is the upper course of Kinsha-chiang, and entered on Mercator's map as the upper Bautisus, — nunc Quiam. Near Caindu, Mercator has a lake with the legend: »Lacus salsus in quo margaritarum magna copia est», directly taken from Ramusio's version of Marco Polo: »There is a great salt lake here, in which are found pearls.»

Just east of Caindu and thus in harmony with Marco Polo's text, Mercator has both a country and a city Thebet, that is to say, on the right or eastern bank of the Bautisus. If Mercator could be used as an authority at all, those who identify the Bautisus with the great Tsangpo, should find an excellent support in his map. But the situation becomes perfectly hopeless considering the fact that the river runs to the north instead of the south, to the Glacial Ocean, instead of the Indian.[2] Any attempt to reconcile Marco Polo with Ptolemy must of course be a failure.

West of the meridional Imaus Mercator has Taskent on the river Sur, Sir-darya (?), going to the Kichai lacus, Lake Aral (?); on one of the tributaries is Aczu. Further south dwell the Kirgessi, Kirgis, and there is Belor desertum olim Sacarum regio; S.W. of it is again an addition from Marco Polo: Pamer altissima pars totius continentis.

[1] Yule's Marco Polo, Book II, p. 53 and 56. Yule thinks Caindu is a Tibetan name, as the du should be the ordinary Tibetan do, as in Amdo, Tsiamdo, etc.

[2] A short distance above the junction of the two rivers, Turfon and Camul are placed on the Oechardes, and east of the joint river, near the north coast of Asia is a place called Naiman, obviously taken from Plano Carpini and Rubruck, who both mention a people called Naiman. Rockhill's Rubruck, p. 110.

The Indus system is nearly exactly the same as Ptolemy's. That the main Indus is shown as coming down from the mountains which border Pamir on the south may be regarded as an improvement. The Zaradrus, Satlej, has not changed its appearance since Ptolemy; the only difference is that, on Mercator's map, it comes from a meridional range separating the catchment area of the Indus from that of the Ganges.

The most extraordinary thing is, however, the way in which Mercator has drawn the Ganges. He identifies Golfo de Bengala with Ptolemy's Sinus argaricus, and makes two rivers join in the Ganges delta. The one from the west is called Guenga flu., and corresponds to a certain extent with Gastaldi's Ganga f. But on the latter is Orissa and it is therefore the same river as the present Mahanadi which indeed flows through Orissa and has its own independent mouth in the Gulf of Bengal. The lower course of Mercator's Guenga, on the other hand, represents, as it were, a last fragment of the classical Ganges. The second river comes from the north with two branches, one from a mountain range south of Mien regnum, the other from Vindius mons; this river, after the junction, is called Chaberis, and identical with Ptolemy's Chaberus, which falls in the Sinus argaricus. As the Chaberis flows through Aracam, a country which Gastaldi had placed correctly, Mercator has taken a river from the west and a country from the east and let them meet in the neighbourhood of Bengal. In 1569 the coast of Arakan was very well known by all Portuguese sailors, so one cannot understand why Mercator has placed this coast-land in the interior of India.

The worst is, however, that he removes the whole Ganges system far to the east, places it in southern China and confounds the Ganges with the Hsi-chiang. Therefore Ptolemy's India intra Gangem Fluvium has to follow on the way eastwards, and is to be found in upper Burma, Yunnan, and Kwang-si where we read these words: Indostan que veteribus India intra Gangem. The river itself he calls Cantan flu. olim Ganges, and the city Cantan olim Gange, which is situated in the Hsi-chiang delta exactly at the place of Canton. The feeders of the Ganges are exactly the same as on Ptolemy's map: Diamuna, Ganges, Sarabis and Bepyrus. On the upper Diamuna, Jumna, is a town Cabol; but on a western tributary of the Indus there are, also correctly, both Cabul and Chesimur. The mountains from which the feeders of the Ganges come belong to the Imaus, and there is a legend: Formicæ hic aurum effodientes homines sunt, the old story which first was told by Herodotus.

Dr. Dahlgren has explained the cause of this singular mistake. On Mercator's map of the world we read, as an addition to the name of Sumatra: olim Taprobana. Instead of identifying Ptolemy's Taprobana insula with Ceylon, he believes it to be Sumatra. And as Ptolemy's Ganges was situated east of Taprobana, the real Ganges must come out to the sea east of Sumatra. He finds even a resemblance between the words Canton and Ganges.[1] He confuses two islands south of Asia, and there-

[1] Dahlgren: Les Débuts . . . p. 34.



GEN. STAB. LIT. ANST. STOCKHOLM

Ortelius: Tartariæ sive Magni Chami Regni typus, 1570.

fore the hydrography of the interior of the continent has to be completely changed, and a fact which had been known for fifteen hundred years was disbelieved and destroyed. Here indeed the words of Arrian may be used, when he says that Alexander, confounding the sources of the Nile with those of the Indus only on account of the crocodiles, was »forming his conclusions about things so great from such small and trivial premisses». But we should not judge Mercator too severely, for even 260 years after his time Klaproth confounded two other great rivers in these regions, and led the Tsangpo into the Irrawaddi instead of the Brahmaputra.[1]

The Gangetic hydrography of Mercator was uncritically accepted by many able geographers, amongst them ORTELIUS and HONDIUS.[2] We have now to examine three of Ortelius' maps.

The first, Pl. XXI, has the title *Tartariæ sive Magni Chami Regni typus* (1570).[3] Here the Himalaya, or rather the whole of High Asia is marked as a long latitudinal range, Imaus mons qui & Caucasus, or Monte Dalanguer and Monte Vssonte. North of Monte Dalanguer Abiamu fl. occupies a very great space of Central Asia. North of and parallel with the Amu-darya is the Chesel fl. or Sir-darya on the upper course of which we find Marco Polo's stations just as on Mercator's map. Oechardes and Bautisus have disappeared. In the heart of the continent, and north of the mountainous belt are Solitudines vastæ and further north Desertum Lop, which is indeed correct. N.E. of Monte Vssonte are Camul and Turfan with a legend: His montibus Rhabarbarum prouenit. East of Monte Vssonte is the country of Caindu and on the shore of the enormous Lacus salsus is the city of Caindu. To the east of the same lake is the province Thebet. The city of Thebet is placed on the river Mecon fl. M. Paul: Quian, which falls into a lake called Minla lacus. Marco Polo's Kiang has thus, within ten years, and by two famous geographers, been mistaken for, in one case the Bautisus of Ptolemy bound for the Glacial Ocean, in the other for the Mekong bound for the southern Sea, while Kin-sha-chiang, the great Yangtse-chiang bound for the East Chinese Sea, remained unknown.

[1] Pierre Bergeron says of Mercator's Ganges: »Je n'ai jamais pû me persuader que ce fût un même, comme a tres-bien remarqué feu Mr. le Garde des Seaux de Marillac, en un Traité particulier sur ce sujet. Ce qui se peut encore confirmer par la longue course du Gange, depuis les montagnes d'Ussonte & Augracot (qui sont le Caucase & l'Imave des anciens) dont il sort jusqu'au golfe de Bengale, où il s'embouche. Ce qui est encore témoigné par les Relations nouvelles des Jesuites, qui ont remonté le long de ses rivages jusqu'au grand Roiaume de Thebet, ou Tibet.» Voyages faits principalement en Asie dans le XII, XIII, XIV et XV siecles — Tome premier, A la Haye 1735 p. 77.

[2] In the text to Newer Atlas, oder Weltbeschreibung, Ander Theil, Amsterdami, apud Iohannem Ianssonium, Anno 1641, the different versions about the source of the Ganges are enumerated: some say it has no special origin, others that it comes from the Scythian mountains, still others that it comes with great noise from its source, etc. And finally: »Dieser Fluss wird in der H. Schrifft Pison genennet, von den Geographis noch diese stunde gesucht, und von etlichen für den jenigen gehalten, welcher sich in den *sinum* oder Meerschoss Bengalæ begibt, dieweil er nemblich bey den Inwohnern dieser ort Guengua heist. Unser *Mercator* aber hält den Gangem aus wichtigen Ursachen für den Rio de Cantaon.»

[3] Ortelius: Theatrum, 1570.

The location of Thebet reminds us of the way in which it was placed on the map in Sala dello Scudo. But it is surprising to find Hami, Turfan and Tibet placed on the banks of one and the same river, namely, the Mekong! Only the extremely meagre reports of Odoric and Andrade explain that such mistakes could be made after their journeys, though, of course, very likely Ortelius did not even know their reports.

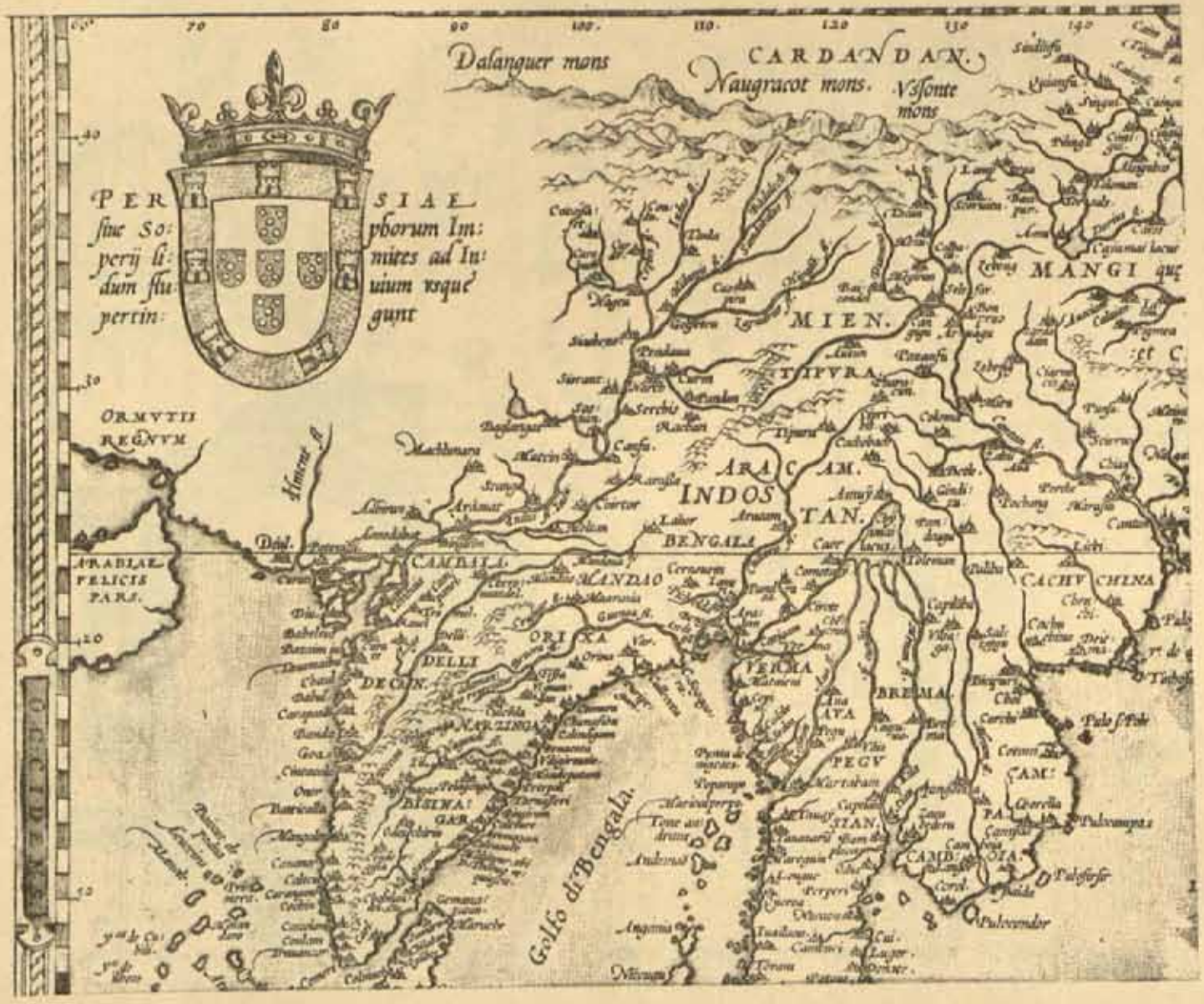
For his map *Indiæ Orientalis Insularumque adiacientium typus*, Pl. XXII, Ortelius has consulted Gastaldi in orographical matters, as is seen both by the names and the form of Dalanguer mons, Naugracot mons and Vssonte mons, — and Mercator in hydrographical matters. Mercator's Indus is of Ptolemæan type, and such it remains with Ortelius. The Ganges is combined with the Canton river, and still it is much shorter than the Indus, which gives us an idea of the great deformation the form of the continent has had to suffer. Even in details Ortelius has followed Mercator; so, for instance, Mien, or Burma, is placed west of the Jumna: the countries are removed to the west, the rivers to the east. It is a relief to return to Gastaldi after such cartographical orgies!

Pl. XXIII, finally, is a reproduction of a part of Ortelius' map: *Persici sive Sophorvm regni typvs*, showing the sources of the Indus and the Oxus. The form of the Indus is, to a considerable degree changed from the sheet in the same atlas which I have represented as Pl. XXII. But the type is practically Ptolemæan. Chesmur, Kashmir, and other names on the banks of the feeders are the same as on Gastaldi's map of 1561. The mountains Dalanguer and Naugracot are artistically drawn, in horizontal perspective, the vertical perspective belonging to a much later time. They form the watershed between the sources of the Indus and the Amu-darya, a view that is generally correct, and had been adopted by Gastaldi, after the original example of Ptolemy. The lake from which Gastaldi makes the Amu-darya start, is much exaggerated in size on Ortelius' map, where it is called Abie fons. Even in our days the view that the Amu-darya starts from a lake, Chakmak, has had defenders, a view that has been definitely proved to be wrong by Lord CURZON.[1]

Amongst the maps from the sixteenth century which I have seen, one, entitled *Chinæ, olim Sinarum regionis, noua descriptio. Auctore Ludouico Georgio, 1584*, (Pl. XXIV) is the first in which Ptolemy's Ganges has been completely, and in a most revolutionary way abandoned. We shall have to consider this extraordinary type in the next chapter, dealing with more famous draughtsmen, who adopted this type of the Ganges. For the present be it sufficient to say, that the two principal source branches

[1] The Pamirs and the Source of the Oxus. London 1896, p. 36 et seq. Reprint from the Geographical Journal for July, August, and September 1896.

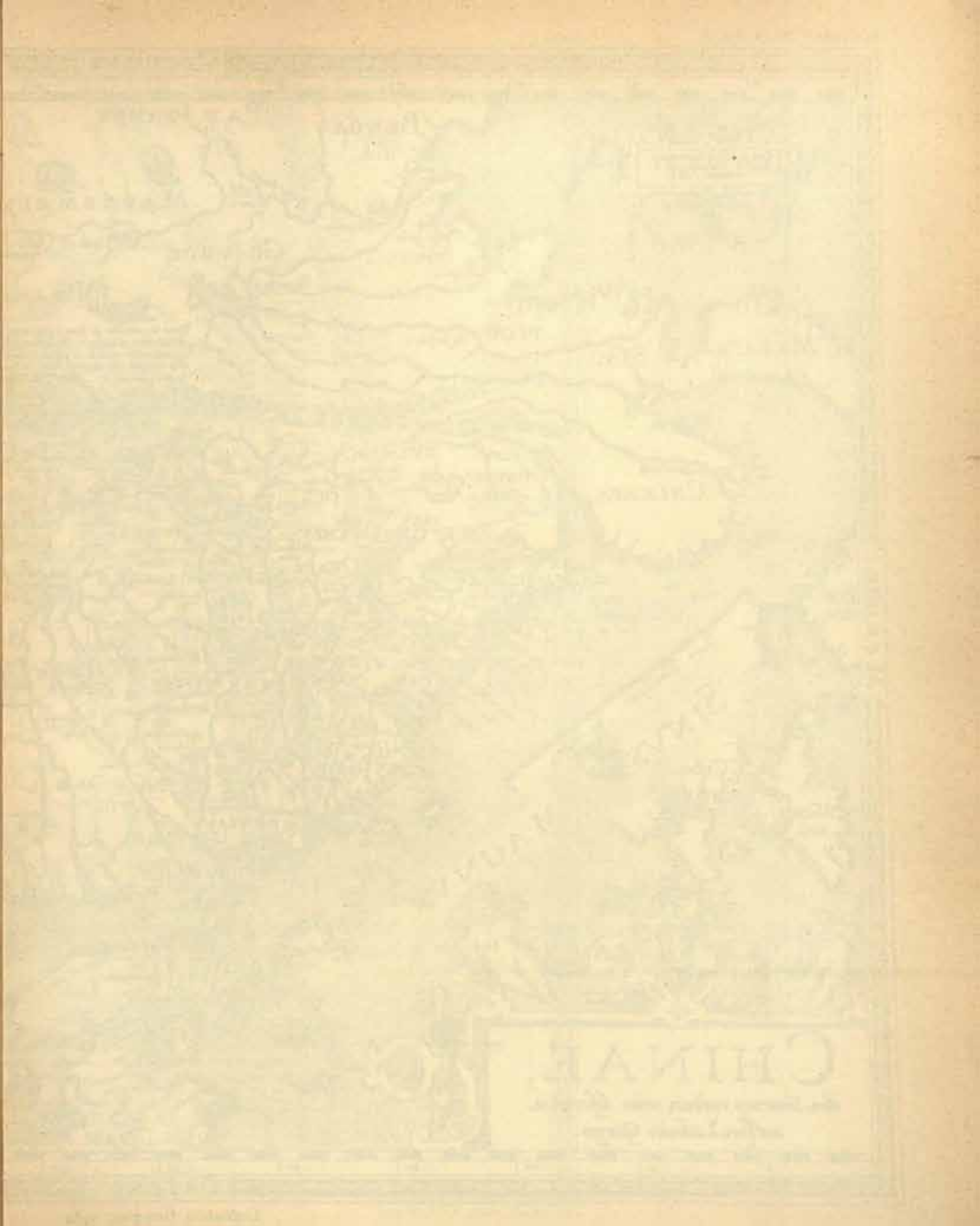
When Captain John Wood, in 1838, discovered the Sor-kul (Lake Victoria), he was sure he had found the source of the Oxus. He says: »before us lay stretched a noble but frozen sheet of water, from whose western end issued the infant river of the Oxus». And again: »This, then, is the position of the sources of this celebrated river . . .» He called the lake Sir-i-kol. A Journey to the Source of the River Oxus. New Edition. London 1872, p. 232.



Ortelius: Indiæ Orientalis, Insularumque adiacientium typus, 1570.



Ortelius: Persici sive Sophorum regni typus, 1570.



OCCIDENS.

BENGA: LA.

PAN TANES

MAVREMAI ER.

MVXEN: TVS.

DESE RTVM

DOVISI: VAL

GO VROS.

BRAMAS.

PEGV.

MALACA.

SIAO

SVINAM.

CAVCHIN: CHINA.

CHIAMPA.

QVIN CII.

QVICHEY.

QVAN: CII.

IVNNA.

IVQVAM.

SAN:

CII.

XIAM.

XII.

HONAN.

QVINCII.

CHE

NAN:

QVII.

QVIAM

XANTON.

IA

PAN.

Bor: neo.

Las Philippi: nas.

SINVS MAGNVS.

Cubo.

Minda nao.

MERIDIES.

SEPTEMTRIO.

CHINAE,

olim Sinarum regionis, nova descriptio.
auctore Ludouico Georgio.

ORIENS.

Ludouicus Georgius, 1584.

GEN. STAB. LIT. ANST. STOCKHOLM

are called Caradris flu., and Beperi flu., names which at any rate have a certain resemblance to Ptolemy's Sarabis and Bepyrrus.

Another curious phenomenon that we meet for the first time are the two source branches of the Hwangho, the one coming from far away to the north, the other from an enormous, oblong lake to the south, simply called Lacus, and which shall also be considered later on.

LINSCOUTEN's work[1] is accompanied by two maps, though not by his own hand. The first is a world map on Mercator's projection: *Orbis Terræ compendiosa descriptio* of Petrus Plancius. Here the Indus is as usual with its sources in Chismere. The Ganges has a meridional course and its two-headed source north of the Himalaya, east of the meridional Imaus, a type which often returned in later years. To the west of the same mountains is Lop desertum. The Chiamay lacus with its four issuing rivers is as usual. The second map in Linscouten's work falls east of our regions.

[1] Itinerario, Amsterdam, 1596.

CHAPTER XXI.

MAPS OF THE SEVENTEENTH CENTURY.

On our wanderings through the centuries we have to proceed beyond the middle of the seventeenth before we can talk of any definite change in the right direction in the field of Central Asiatic cartography. Properly speaking it is a disappointing task to search through the maps of three hundred years without finding any reliable information about the country we are studying in this work, and still it is a task of absorbing interest, at least for those who have seen these regions with their own eyes, and therefore will understand how and why this *terra*, surrounded with its girdle of *montes inaccessibiles*, could remain *incognita* for such a long time. The maps will tell us, far better than any words, how human knowledge, slowly but surely, conquered the coasts, and, step by step, proceeded from them towards the interior; how China, India, Turkestan and Siberia little by little assumed more reasonable forms, while the nucleus of High Asia, Tibet, still remained unconquerable. In the seventeenth century we shall see how the scientific explorers at home and in the field will approach the borderland of Tibet without reaching the country itself. On some maps from this period even the name of Tibet will be missing, while other draughtsmen are very uncertain of its whereabouts. Still the journeys of Odoric and Andrade remain forgotten and have no influence at all on the maps, with only one exception, Kircher's map, Pl. XI. But after the journey of Grueber and Dorville in 1661 and 1662 the cartographers could no longer ignore the mysterious country, which so far had been a fata morgana to them, and had, towards the eve of the next century, to assign for it a place somewhere north of India.

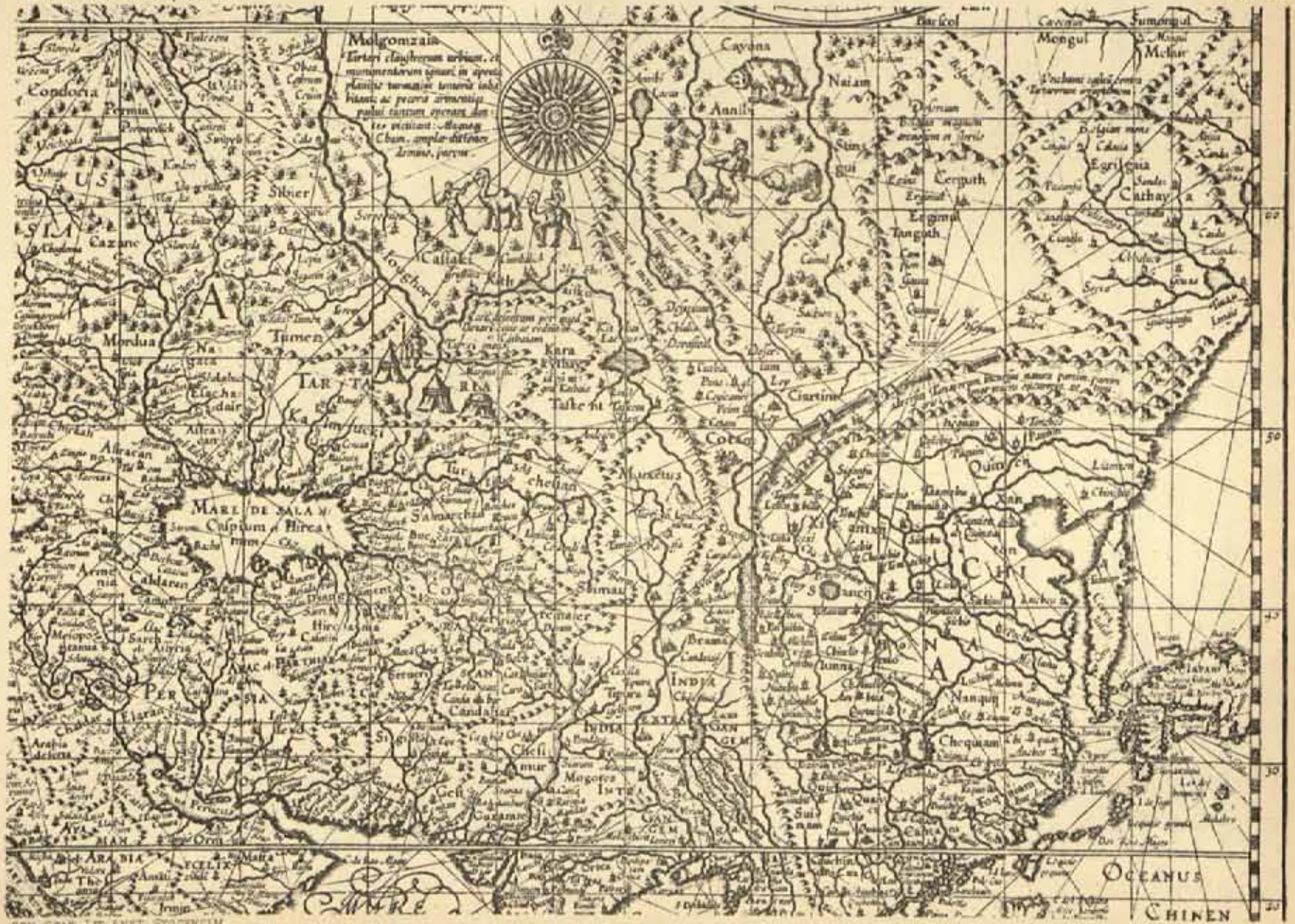
The first map we are going to discuss is the »*Novissima ac exactissima totius orbis terrarum descriptio magna*» by JODOCUS HONDIUS, Amsterdam 1611, Pl. XXV.[1] He conscientiously used the material existing at his time and as no new information had been won from the countries north of India, he has nothing to add beyond the

[1] Map of the World by Jodocus Hondius 1611. Edited by E. L. Stevenson and J. Fischer. New York 1907.



GEN. STAB. LIT. ANST. STOCKR.

India and Central Asia on Jodocus Hondius' Map, 1611.



Part of the Map of Franciscus Hocius, about 1640.

standpoint of Mercator and Ortelius. Mercator had spoilt the Ganges and had been assisted by his personal friend Ortelius. Under the weight of such high authority Hondius could not return to sound classical lines, and did not dare to take the Ganges back from its unfortunate visit to China. The Indus keeps its ground, and has the same type as on the maps of Gastaldi, Mercator and Ortelius, a type which was inaugurated by Ptolemy. Ortelius and Hondius have made the river, after the junction of the Panjab feeders, too long, which is a step in the wrong direction from Ptolemy, Gastaldi and Mercator. The Chiamay Lacus is also there with its fan of issuing rivers.

I have mentioned above Thomas Herbert's book,[1] which brings us nothing new from our rivers and mountains. But he had travelled in India and knew that the Ganges was not situated in China. So on the little map (Pl. X) accompanying his book, the Ganges has returned to its old place, and it even shows how the sacred river comes down from a rock in shape of a cow's head, situated near Hardware in Siba. The Lacus Chiamay he has left alone. The general features of the Indus are somewhat better than on the maps of the great cartographers, though Attock is placed below Multan. The name Peniab is adopted, but Satlej, which had come down from Ptolemy to Gastaldi, Mercator and Ortelius, has not been entered.

Quite a new type both in hydrography and orography of Central Asia is to be found on a map with the following title: *Nova Orbis Terrarum Geographica ac Hydrographica Descriptio, ex optimis quibusque optimorum in hoc opere Auctorum, Tabulis desumpta à Franciscus Hoeius* (Pl. XXVI).[2] In the northern half of Asia the Oechardus fluvius and Bautisus are still to be found as in Mercator's time, but Marco Polo's stations are transplaced from Oechardus to another gigantic and more westerly river, on both sides of which Peim, Cotam, Lop, Desertum Lop and Ciartim are situated. This river is partly in connection with the Chinese hydrographical system, partly it comes from a very great oblong lake, which is also to be seen on Hondius' world map (Pl. XXV). Further west Taskent is placed near Kithai Lacus, through which the upper Ob flows. On the Oechardus is Turfon, on the Bautisus Camul. Caindu and Thebet which Mercator had allotted to the Bautisus, have again disappeared.

The Indus is unchangeable as always and exactly the same as on Hondius' world map. Regarding the Ganges the difference is so much the greater. The river has returned definitely to the Gulf of Bengal, its course is meridional, and it is in length nearly twice the Indus. The source, near the Ptolemæan Turris lapidea mons, is therefore situated almost straight north of that of the Indus. It is surprising that

[1] Some Years Travels into Africa & Asia . . . London 1638.

[2] Remarkable Maps . . . Edited by C. H. Coote, Amsterdam 1894. The editor informs us that it is the earliest large map on Mercator's projection issued in Holland in the beginning of the seventeenth century. The original plates were first engraved for Blaeu in 1605. The name of Janssonius has been replaced by that of Hoeius, the name of Allardi (Coster) by that of Allardt who flourished about 1640.

so much uncertainty could prevail in Europe regarding the Ganges, which had been drawn far more exactly by the Alexandrine cartographer 1500 years before.

As a consequence of the exaggerated length of the Ganges, the chain of mountains, running west to east, which had been accepted by nearly all geographers and maps, has disappeared almost entirely. Only the meridional Imaus is left in the middle of a net of irregular and fantastic ranges.

One clearly sees how Ptolemy's authority begins to shake. But this was no gain for geography. Where Ptolemy has been respected, as for instance in the case of the Indus, the Oxus and the Jaxartes, the map is tolerable, but to the east and N.E. of that region nothing corresponds to reality.

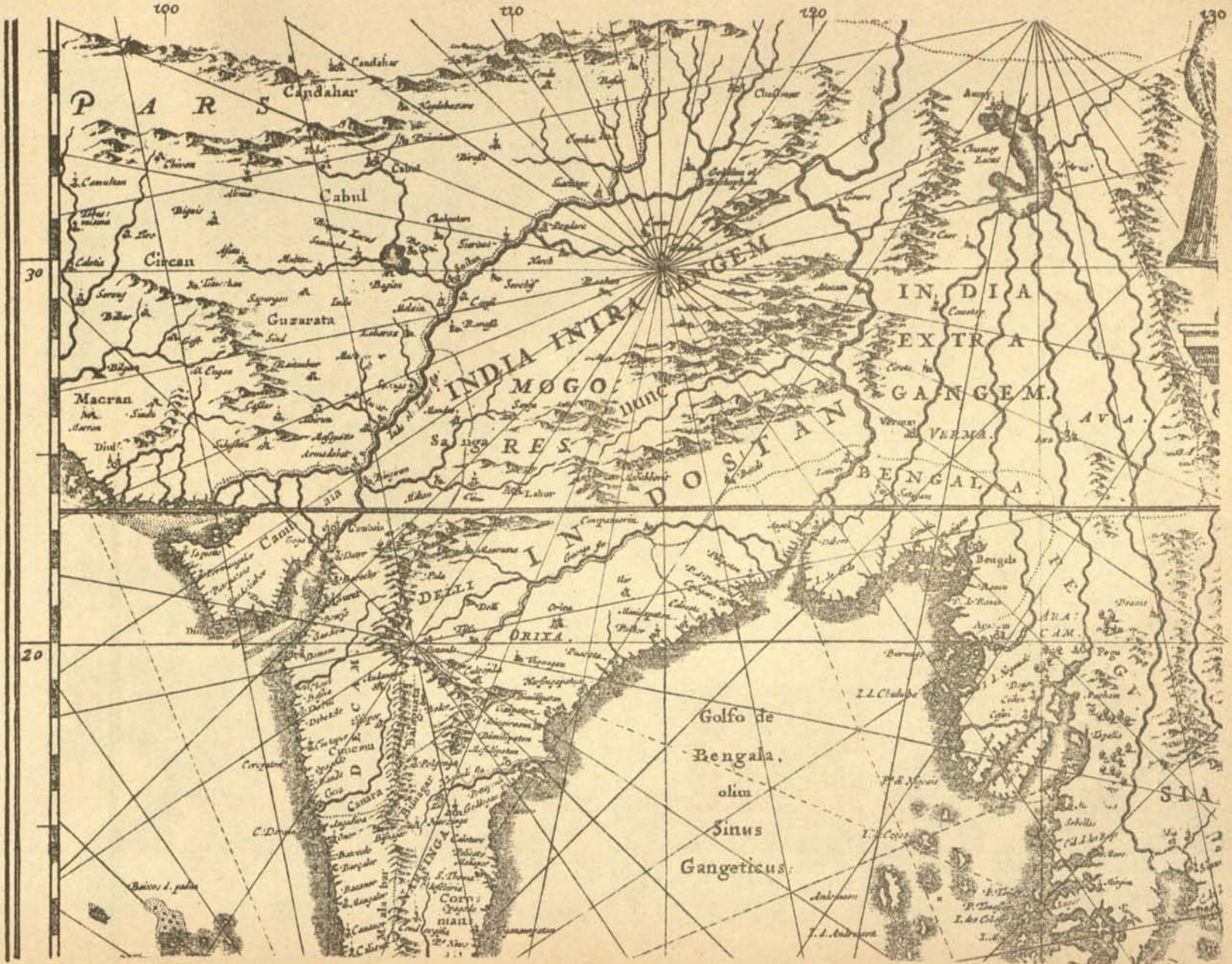
We now have to consider two maps that are of the same type as that on Pl. XXVI. So far as rivers, lakes and mountains are concerned it may be called Janssonius' type. The first, Pl. XXVII, has the title: *India quæ Orientalis dicitur, et Insvlæ adiacentes.* It is first known to us in GUILJELMUS BLAEU's »*Le Theatre du monde, ou Nouvel Atlas*», 1640.[1] The second, Pl. XXVIII, is from IOHANNES IANSSONIUS' *Newer Atlas, oder Weltbeschreibung*, Amsterdam 1641, and has the title: *Asia recens summa cura delineata Auct: Iud: Hondio.* It was prepared in JANSSON's offices in 1632.

Comparing these three maps, Pl. XXV, XXVII and XXVIII, we at once see that they are founded on one and the same original drawing. The Indus is of Ptolemæan type. On the map bearing HOEIUS' name, Pl. XXVI, the river flows S.S-W; on the two others S.W. As can be seen on Ianssonius' map of Asia, of which Pl. XXVIII is a part, the source of the Ganges is much farther from the Indian Ocean than from the Glacial, and should on a modern map have to be placed in Dsungaria, 48° N. lat. instead of 31°. If the draughtsman had really felt confidence in the situation he has given to Marco Polo's Cotan, Poin, Ciarci, and Lop, he would have been alarmed at the thought that the Venetian traveller on his way eastwards from the last mentioned place to Sachiu in the province of Tangut, should have been obliged to cross the upper course of the sacred Ganges. But he has not been sure at all, and following the example of Mercator he has entered the same places once more, namely, on the great river, which we remember from Pl. XXVI, and which obviously is a forerunner to Hwangho.

On Pl. XXVI the lower Ganges had a S.S-E. course, on Pl. XXVII and XXVIII it runs to the S.S-W. No rest is given the sacred river. In the course of a few years it has been swinging like a pendulum between Canton and Bengal. And when at last the mouth gets settled in the Gulf of Bengal, the whole course of the river begins to swing the other way, while the Indus, the river of Alexander the Great, was too firmly fixed by historical events.

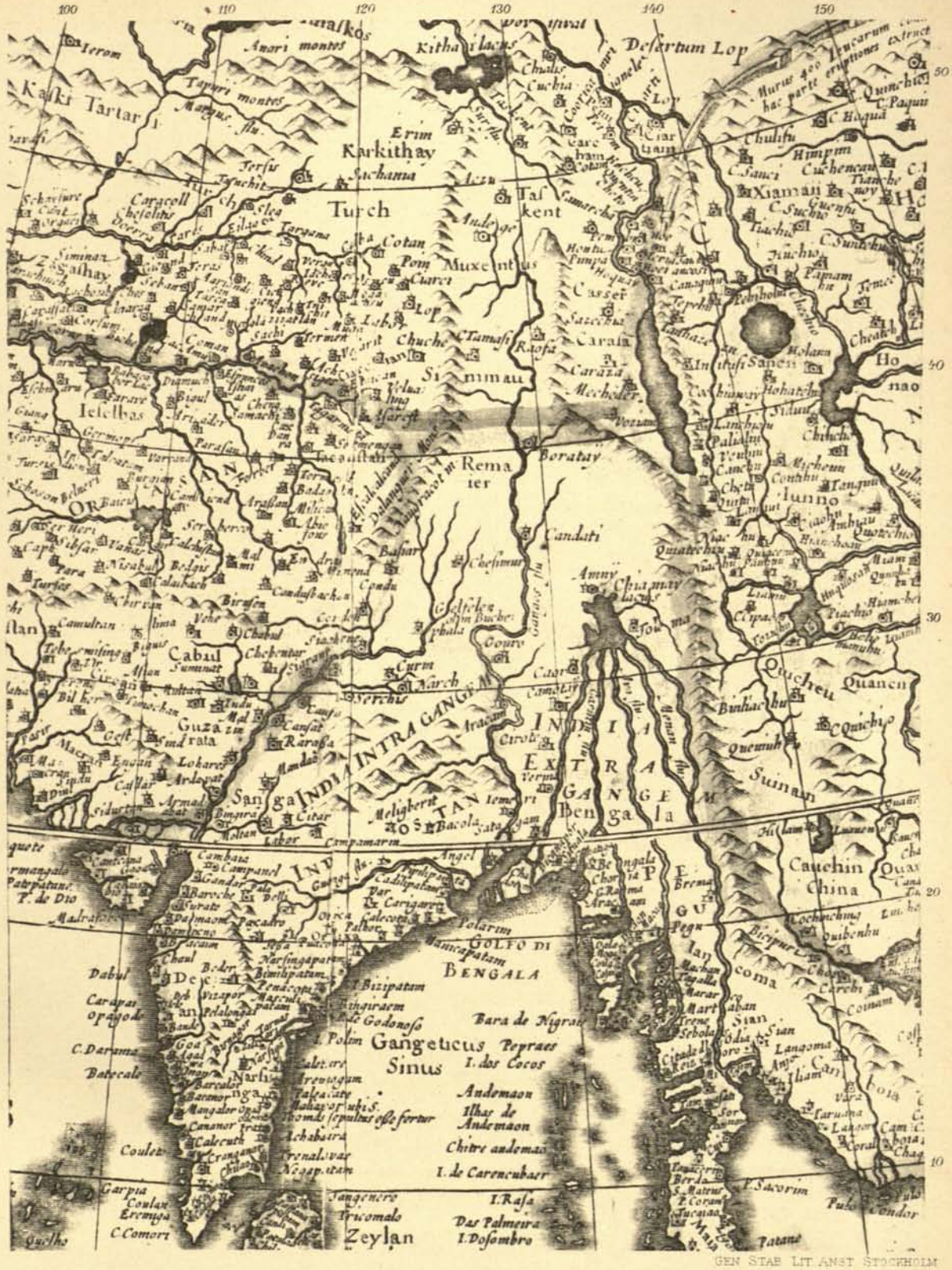
Of the three rivers we shall have to work out through the following chapters, the Indus, Satlej and Brahmaputra, until I have the honour of leading the reader

[1] Remarkable maps . . . Edited by C. H. Coote.



GEN. STAB. LIT. ANST. STOCKH

India in Blaeu's Atlas, 1640.

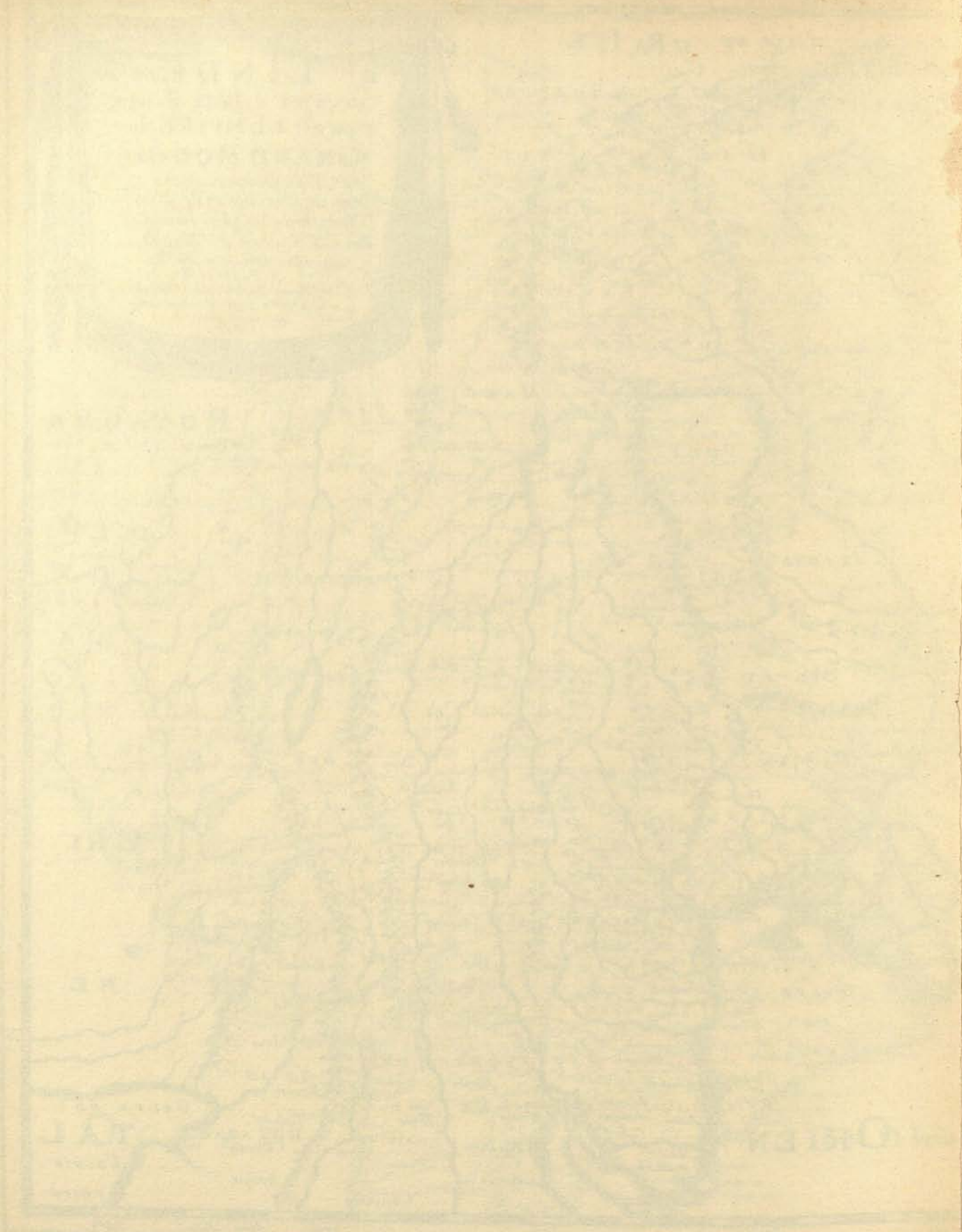


Iohannes Ianssonius, Amsterdam 1641.



Sanson d'Abbeville, 1654.

GEN. STAB. LIT. ANST. STOCKHOLM



to their actual sources, only one, namely, the Indus, appears in the three maps we are discussing now. The Satlej which was clearly marked on the maps of Gastaldi, Mercator, Ortelius and Hondius (1611), cannot be identified on the maps of Blaeu and Janssonius. For on the easternmost river of Panjab, which should be the Satlej, we find Chesimur, Kashmir. On Hoeius' map, Pl. XXVI, on the other hand, Chesimur is located further south and at the west side of the Indus. At an epoch when Ptolemy begins to fall in disgrace, Zaradrus fluvius is one of the treasures he takes with him to the valley of oblivion, and it should take many years before this river was restored to its right place.

As to the third river, Brahmaputra, there is even less sign of it on our three maps than on Ptolemy's, and even Gastaldi's, unless the westernmost of the four rivers coming from the Chiamay Lacus is an embryo of »Brahmas son». But this is a problem to which we shall have to return later on. For the present be it sufficient to point out the important part played by this lake and its gigantic emissaries, forming a combined lacustrine and fluviatile system which occupies a considerable area of completely unknown country. In their desperate attempts to solve the question, which, even in our days, has not been definitely settled about the courses and origin of the Indo-Chinese rivers, the old geographers have saved themselves from the dilemma by creating an enormous lake, a real »Mother of the Waters».

On all three maps Aracam (Arakan) is placed on the Ganges; Verma on the river from Chiamay lacus is Burma.

The mountains on the three maps are about the same. On Pl. XXVII they are more collected together and forming more natural ranges. On Iansson's map (Pl. XXVIII) the names Dalanguer and Naugracot are adopted. Perhaps Simau (Pl. XXVI), and Simmau (Pl. XXVIII), is nothing but (Mon)s imau(s)? Otherwise the classical names are rarely used on the maps, though Iansson cannot abandon them in the text to his atlas.[1]

Proceeding from Janssonius 1641, Pl. XXVIII, to SANSON D'ABBEVILLE 1654 (Pl. XXIX)[2] we become aware of an enormous improvement. The Lac de Chiamay is the same, but the whole hydrographical arrangement of the Ganges and the Indus is changed in the right direction. The source of the Ganges is brought down from 48° N. lat. to 41°, and the source of the Indus is to be found in Rahia Tibbon, probably the Raja of Tibet, i. e. Ladak, as it is north of Cassimere and its capital

[1] The text in the Newer Atlas does not at all agree with the map. In the chapter Asia it says: »Unter seinen vielen und grossen Bergen theylet derjenige dessen Name Taurus, gantz Asiam von einander ab und fangt an den Ufern des Meers gegen Morgen an.» If the mountain begins in the east and divides the whole of Asia it must run from east to west. But on the map it runs from north to south, and the name Imaus is found very near the coast of the Glacial Ocean. Of the source of the Indus the same text says: »Dieses Wasser entspringt in dem *Iugo* oder obersten Güpffel des Bergs Caucasi welcher Güpffel Paropamissus, von denen so jetzund darbey wohnen Naugocrot wird genennet, laufft nach seiner gantzen länge auff 900 meyl wegs . . .» And finally: »Unter solchen Bergen hangen der *Imaus*, *Emodus* und *Paropamissus* als des *Caucasi* stück und theyl gleichsam aneinander.» The text is therefore correct, but the map is wrong.

[2] L'Inde deçà et delà le Gange, ou est l'Empire du Grand Mogol . . . Paris 1654.

Sirinaker. The rivers of Panjab begin to abandon the Ptolemæan type. As Lahor is correctly on the Ravi, the next river to the S.E., with Sultanpore, must be the Bias, and the next, Coul fl., the Satlej, which has its sources in southern ramifications from Himalaya.

The great northern water-parting of the Indus and the Ganges is called Mont de Caucase. North of it are the sources of Amu-darya, Tartarie, Tibet, and Turquestan. Tibet is shown as a little part of Tartarie. South of Mont de Caucase is a network of ranges in all directions. One is called Dalanguer Mont, another Dow Lager M., Dhaulagiri (?). Naugracut is not used as the name of a mountain, though as a rule, on maps of the seventeenth century this denomination stands for nearly the whole Himalaya. On Sanson's map it only signifies the province and the town in Kangra, and is comparatively well placed.

The upper Ganges goes through a lake at Hardwar in Siba. Serenegar, known from Andrade's journey, is placed below instead of above Hardwar. The Ganges has still a nearly meridional course. The chief impression one gets from Sanson's map is that it is founded on fresh and more reliable information in the country itself.

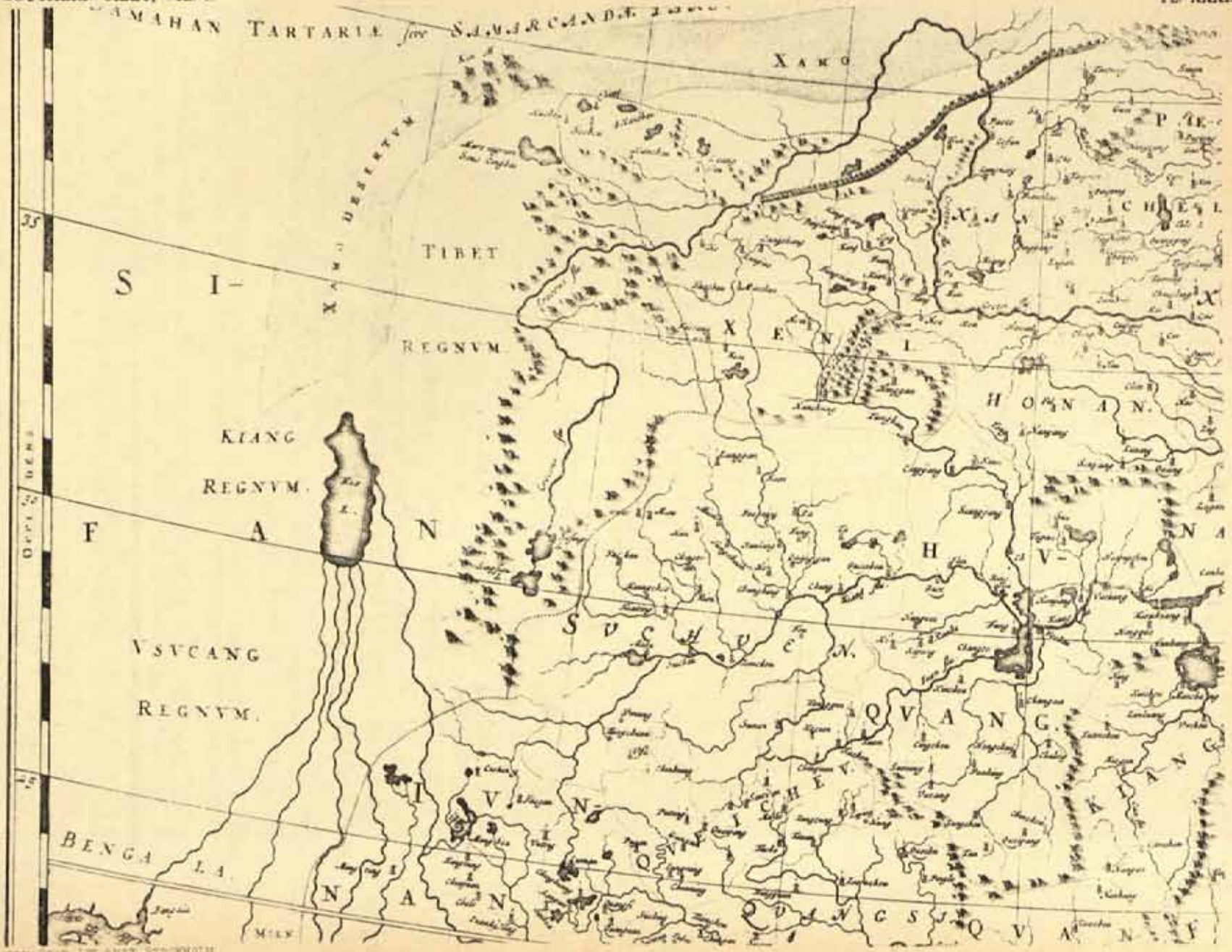
Another map of the same draughtsman has the title: *Description de la Tartarie*, is engraved in Paris 1654, and published in Sanson's atlas: *Cartes generales de toutes les parties du monde*, 1658 and 1677.[1] With a few exceptions this map (Pl. XXX) shows all the characteristic features of those by Hoeius (Pl. XXVI) and Janssonius (Pl. XXVIII). The Oechardes and Bautisus are there under somewhat changed forms; on the latter Marco Polo's Sachiou is entered. The Caramoran or Hwangho has dropped the branch which came from the great oblong lake, which, itself, has disappeared. There is no sign yet of Koko-nor which will soon begin to wander about in these regions as all the other lakes. The source of the Hwangho is situated at a short distance from the coast of the Glacial Ocean, just as before. The Chinese have through centuries, though without sufficient proof, been supposed to regard the Tarim as the upper course of the Hwangho. If this view has been known to Ianssonius and other cartographers of the seventeenth century, one could understand why they have placed the stations of Marco Polo on or near the upper course of the Hwangho. The river (Pl. XXX), on which we read Calachitæ (Karakitai?), and lower down Lop, should therefore be the Tarim. Cotam, Peim, and Ciartiam (Cherchen) are placed south of the main river, as is indeed correct. As the last fragments of Ptolemy's Oechardes and Bautisus, with Turfan and Camul, are also, beyond doubt, the Tarim, we should be able to trace this river thrice on the maps from the middle of the seventeenth century.

The classical Imaus, that is to say the northern half of its meridional part is still there, near the source of the Hwangho. It seems to us strange to miss such geographical

[1] V. Kordt: Materialiy po Istoriy Russkoy Kartografiy, Series II, I: XX. Kiew 1906. In Nordenskiöld's Periplus, p. 193, is a reproduction of Sanson's map Asia, from L'Asie en plusieurs cartes, Paris 1652.



Sanson d'Abbeville, 1654.



Imperii Sinarum nova descriptio, 1655.

regions as Dsungaria, Tian-shan, Eastern Turkestan, and Kwen-lun, though they had been crossed and seen by several travellers. How utterly they are missing is best seen by the fact that the Siberian Ob and the Indian Ganges have their sources in one and the same range. In a corner between two ranges N.W. of the source of the Ganges sufficient room has, however, been found for Tibret forsan et Tobrot.[1]

Only a year after Sanson d'Abbeville's map of Tartaria had appeared, or in 1655, Father MARTINI published his Atlas of China which marks a perfect revolution in the European conception of the far eastern empire.[2] We have to direct our attention only to the frontispiece map: *Imperii Sinarum nova descriptio*, of which Pl. XXXI is a part. To begin with, the course of Hwangho, or Croceus flu.,[3] has been much corrected, and the river takes its rise in two lakes, Sosing and Singsieu, as is indeed the case.[4] West of Hwangho the Koko-nor makes its appearance under the name Mare nigrum Sinis Cinghai. The Chinese name of the Blue Lake is Tsing-hai, so *cæruleum* or *cæsium* would perhaps have been more adequate than *nigrum*, in a country with many Khara-nor and only one Koko-nor. However, the existence of the lake on the map proves that Martini has never confounded the Koko-nor and the Chiamay lacus, which sometimes occurred in later years. He does not reject the latter, which he calls Kia L., for he had no reason to disbelieve its existence.

Xamo desertum he identifies with what the Europeans used to call Desertum Lop. To the north of the sand desert he has Samahan Tartariæ sive Samarcandæ Pars, which is surprising. And south of the same desert is Tibet Regnvm. Then follow Kiang Regnvm and Vsvçang Regnum all of which belong to the western countries of Si-fan.[5]

As regards the situation of Tibet, Martini has given a new impulse to the development of European knowledge. And still he has a very uncertain conception of where it really is. On his map he places it in the Koko-nor district which we know is inhabited by Tangut and Mongol tribes. But in relation to Martini's Koko-nor it is to the S.W. as is correct. Speaking of the country Laos, or the N.W. part of Siam, which he correctly places east of Arakan, Father Martini quotes the manuscript of Father LERIA, in whom he has great confidence, and who, during his mission travels, had visited Laos, and found it inundated by its rivers in summer. »For when the snows of the mountains of Tibet, — I (Martini) believe that he (Leria)

[1] Probably misprint for Tibbet and Tobbot.

[2] Novus Atlas Sinensis a Martino Martinio soc. Iesv descriptvs, . . . 1655.

[3] »fluvius Hoang nomine, Croceum aut luteum dico, id enim Sinice sonat, à colore» . . . (Martini, p. 14).

[4] »Ortus Hoang fluvii est inter Australes montes Quenlun, quos incolæ Otunläo vocitant.» Otunlao must be the Odontala of the Mongols, specially as Martini relates that the water comes up in more than hundred springs.

[5] In an article: Relation de la Tartarie Orientale, Father Martini says: »Les Chinois disent que ce Royaume (Si-fan) est borné par les montagnes de Min, & par la Riviere Jaune qui y passe. Ces montagnes ont beaucoup d'étenduë, & se joignent enfin à celles de Quenlun, qu'on nomme autrement les montagnes Amasées, d'où la Rivière Saffranée (Hwangho) tire son origine.» Recueil de Voiages au Nord, Tome III, Amsterdam 1715, p. 163. This is an extract from the Latin text in his atlas.

means Yunnan, which borders on Tibet, — begin to melt, the rivers swell to such a degree that the whole country becomes inundated of it, as Egypte from the waters of the Nile.» [1] In this case Leria probably means Salwen and Mekong which have their sources in Tibet, and only flow through Yunnan.

Finally Martini has heard, from Chinese informants, that nearly all of the greatest rivers which flow to the south, amongst them the Ganges of Bengal, and the rivers of Pegu and Siam, have their sources in the mountains of Kwen-lun. We must remember that Martini had at his disposal for the countries west of China only very poor and false maps, and that he had no easy task in locating the Kwen-lun; which he supposes is not very far from Lahor and the kingdom of Tibet.[2] Thus in this case the Ganges comes from the Kwen-lun. But at another place [3] he says: »Just there (note: from where the Ganges takes its source), towards the west, is a very great lake which is called Kia, from which come the Ganges & the other rivers I have marked on the map.» It would therefore seem as if Martini imagined the Kwen-lun to be situated somewhere between the Tibet Regnvm and the Kia L. of his map, as the Ganges comes both from the Kwen-lun and the Kia Lacus. And here we have the poor Ganges starting upon a new visit to China.

It seems to have taken a few years before the great northern branch of the Hwangho, coming from its lake near the coast of Mare Tartaricum was finally extirpated from the maps. While F. DE WITT on his map of about 1660 [4] has accepted the Hwangho of Martini, he has retained the long northern branch, which is to be found on Ludovicus Georgius' map of 1584 (Pl. XXIV), and then on Hoeius' of 1600 (Pl. XXVI), and on Ianssonius' 1641 (Pl. XXVIII). THEVENOT, who makes a reprint of Martini's map, has entered a river coming from the west and flowing north of Kokonor,[5] and not existing on the original map. Kircher faithfully follows Martini.[6]

Returning to the S.W., we find that also the example given by Sanson d'Abbeville in 1654 was followed in the next years. Such is the case with the Indian map of de Witt, about 1660, on which the Cincui Hay Lacus stands as an anachronism,[7] and with a map of NICOLOSI, 1660.[8] To the same category belongs the map illustrating the work of FRANÇOIS BERNIER, 1670,[9] and certainly innumerable others.

---

[1] Novus Atlas, p. 24; Recueil, p. 164.

[2] »Montes Quenlun, quibus ortum (of Hwangho) debet, omnino Amasæos esse existimo, eosque haud ita procul dissitos ab altera magni Mogoris Regia, quam Laor vocant, aut a regno Tebet, imo iisdem in montibus scaturire Gangem Bengalæ. Meson Laorum, Historemque Cambogiæ, aliosque non ignobiles fluvios, qui Sion & Pegu regiones irrigant, ipse locorum regionumque situs suadet. plurima enim maximaque flumina, quæ Austrum versus manant, inde suam petere originem, demonstrant Sinæ.» Novus Atlas, p. 14.

[3] Novus Atlas, p. 23; Recueil, p. 163.

[4] Tabula Tartariæ et majoris partis Regni Chinæ.

[5] Relations de divers voyages curieux, Paris 1666.

[6] China Illustrata, 1667.

[7] Magni Mogolis Imperivm de novo Correctum et Divisum Per F. de Witt Amstelodami.

[8] Dell' Hercole e stvdio geografico di Gio. Battista Nicolosi . . . Vol. 2. Roma 1660.

[9] Voyages de François Bernier, Amsterdam 1699. The first edition appeared in 1670.

Before we leave the influence of Sanson d'Abbeville over Central Asia, and pass on to an entirely new type, and before we have to consider the further adventures of Koko-nor, a lake which was rediscovered, though not visited by Martini, we have to go back upon two questions not dealt with hitherto. The one is Benedict Goës, the other the first appearance of Koko-nor.

Benedict Goës travelled 1603—1607. His narrative was published in 1616 by Father Trigault. On Sanson d'Abbeville's map of 1654 some names appear which can hardly be taken from any other informant than Goës. Such names are Ciarcur (Goës: Caracar), Tanghetar (Goës: Tengitar), Egriar (Goës: Egriar), Horma (Goës: Horma), Sark (Goës: Sarc), and Cuche, or Cuchia (Goës: Cucia).[1] Several other names mentioned by Goës and entered on Sanson's map, were known before, as Attock, Iarchan, Cascar, Aczu, Chialis, Turfan, Camul, Cotam, and others.

Benedict Goës is therefore a new element added to Central Asiatic cartography, though, of course, he has not made it easier for draughtsmen to understand the relative situation of mountains, rivers and cities. Martini's map of the Hwangho had a very great influence which stretched far towards the interior of the continent. And on Kircher's map of 1667 (Pl. XI) we clearly find an attempt to bring Goës' route into harmony with the cartographical image then existing of Central Asia.[2] He has even entered the route of the Jesuit, though he places it between the Montes Tebetici or Himalaya, and Caucasus mons, which, if the map only approached correctness, should be the Tian-shan. This is one proof that Goës does not assist the cartographers. Another we shall find in Cantelli's map of 1683.

As regards Koko-nor, we found on the map of 1584 (Pl. XXIV), »auctore Ludouico Georgio», an oblong lake, at least three times as large as the Chiamay Lacus, and simply called Lacus, from which the southern branch of the Hwangho took its rise. The same lake reappeared on Hondius' World Map of 1611 (Pl. XXV), and is still nameless, unless Cirhcuai la stands for Cirhcuai lacus. On Hoeius' Map of the World (Pl. XXVI), which dates from about 1600, but was republished about 1640, with later discoveries, the lake is called Lacus Cuicui Hay, which has some faint resemblance with Hondius' Cirhcuai. On the maps of China and Tartaria in Iansson's Newer Atlas 1641,[3] the mysterious lake is called Lacus Cincui Hay, which approaches the correct spelling much nearer than Cuicui Hay and Cirhcuai; that all these versions have their deriva-

[1] Father J. Brucker: Benoit de Goès, Lyon 1879.

[2] F. G. Kramp is therefore only partly right when he characterizes the cartography of the period about 1680 to 1690 in the following words: »The maps of Northern and Central Asia which up to that period had appeared in Europe outside Russia, were not based on actual observation, but can only be described as cosmographical systems graphically represented, as much as possible supplemented by the accounts of mediæval travellers.» Remarkable Maps, Introduction.

[3] The first of these has the title: China Veteribus Sinarvm Regio nunc Incolis Tame dicta, and is a copy of the above-mentioned map of Ludouico Georgio, 1584. The second is called Tartaria sive Magni Chami Imperium. On the map Asia recens summa cura delineata, auct: Jud: Hondio, also published in Iansson's Atlas the lake is drawn in the traditional way, but the name has not been given. (See Pl. XXVIII.)

tion from a common source is evident, though they have been spelt in a more or less careful way. Sanson, 1654, rejects the lake, so far as can be judged from his maps Pl. XXIX and XXX. On Martini's map, 1655, the oblong lake has disappeared definitely, but the name has, in a purer version Cinghai, been transferred to the real Koko-nor.

We have thus the series Cirhcuai, Cuicui Hay, Cincui Hay, and Cinghai, all of which are the Chinese Tsing-hai or Koko-nor, and we are justified in surmising that the mysterious lake is nothing else than the Koko-nor. For some 60 years Hwang-ho has been supposed to come, partly, from this lake, but Father Martini has got more reliable news, and shows that it has no connection whatever with the river.

Pl. XXXII is a reproduction of a most interesting map: *Indiæ Orientalis nec non Insularum adiacentium Nova Descriptio Per Nicolaum Visscher.*[1] The editor, C. H. COOTE, says of it: »It will be convenient to note here the date of the production of this map; it will be found inserted in J. Jansson's *Novus Atlas, das ist Welt Beschreibung 5th vol., Grosse Atlas (8th part) Wasser-Welt, Amsterdam, 1657—58 folio. (Brit. Mus. 9 Tab. 23.)* Also in other editions of about the same date.« It would therefore seem to be certain that the map must have been drawn before 1658. But SYLVAIN LÉVI proves in a most convincing way that this cannot possibly be the case.[2] For NICOLAUS VISSCHER has, probably as the first amongst cartographers, made use of Grueber's discoveries, and Grueber finished his journey in 1662. According to Lévi our map, Pl. XXXII, was inserted in *Atlas Minor sive totius orbis terrarum contracta delineatio, ex conatibus Nic. Visscher (Amsterdam Bat. apud Nicolaum Visscher).* The *Atlas Minor* has no date, but the map, Pl. XXXII, can under no conditions have appeared before 1663. All the names mentioned in Grueber's narrative, as related in Kircher's *China Illustrata*, appear on the map, even with the characteristic spelling which comes directly from Grueber. Coote's assertion that the map should be taken from Jansson's *Novus Atlas* is therefore, according to Lévi, inacceptable, and even a hasty examination shows that Lévi is right.[3] Visscher places Necbal with Cutlu, a misprint for Cuthi S.W. of Lassa; then follow Cadmenda, Hedonda, Mutgari, Battana, Benares, Cadampor, and Agra. Patna had appeared already on Herbert's map of 1638 (Pl. X), and on Sanson's of 1654 (Pl. XXIX), though placed far above Benares. When Visscher hears the name Battana of Grueber, he believes it is another city and has both Patna and Battana on his map.

[1] Remarkable maps etc. Part III, No. 4.

[2] Le Népal, Tome I, p. 90 et seq.

[3] Grueber's stations were: from Lhasa 4 days to mount Langur, which Kircher identifies with Paropamisus and Marco Polo's Belor, but which in reality is Himalaya. Thence Grueber travelled one month to the first city of Necbal (Nepal), Cuthi. The next station is Neste, and then the capital Cadmendu, from where he had 5 days to Hetonda (Hetaura) and 8 days to the first city of Mogul, Mutgari (Motihari). Further 10 days to Battana (Patna), 8 days to Benares, 11 days to Cadampor and, finally, 7 days to Agra. Compare also: Richard Tronnier: Die Durchquerung Tibets seitens der Jesuiten Johannes Grueber und Albert de Dorville im Jahr 1661. Zeitschr. d. Gesell. f. Erdkunde zu Berlin, 1904, p. 328 et seq.



Nicolaus Visscher's Map, about 1680.

Visscher does not believe in Kircher's identification of Grueber's Langur with Belor Mons, and prefers to leave the mountains between Lassa and Necbal nameless, and to remove Belor Mons far to the north. What is curious is that Kircher himself does not seem to believe in it. In the text he concludes that Marco Polo calls that country Belor, »in which, a short time ago, Thebeth was discovered».[1] Further he says that Marco Polo's description of Belor does not in the least prevent its identification with Langur. But on his map he follows the map of Visscher and places Belor mons far to the north of Lassa, while even the name Langur mons is entered on the map on the range between Lassa and Necbal.

To the N.W. of Belor Mons Visscher has a Consagni Mons Lapideus. In Trigault's edition of Goës the ordinary jade is said to be won in a mountain at 20 days' journey from Khotan and called Cansangui-cascio, which means »stony mountain; it is probable that it is the same which in some geographical descriptions of this kingdom is called with that name». Brucker supposes that this passage comes from Father Ricci, who herewith makes allusion to Ptolemy's Turris lapidea mons.[2] But this is wrong, as Brucker shows, for Goës' Cansangui-cascio is simply the Turki Kan-sang-i-kach, or mine of jade.[3] Visscher, and with him Kircher, have thus transplanted this relict from Ptolemy to the mountainous regions north of Lhasa.

It is under all circumstances clear that Visscher's map must be posterior to Grueber's journey.

The western continuation of Grueber's Langur is called Montes Tibetici and Serenager Montes, from Srinagar in Garhwal. North of the former is Tibet Major, north of the latter Tibet Minor, which to its north has Kaskar Regnum with Iourkend and Kachger placed on one of the Gangetic feeders, a great mistake, that had not been committed by Sanson ten years before. Kashmir is called Iachmire which may be a misprint; Chiaracar, Parvan, and Angher are from Goës.

Sylvain Lévy has discovered Grueber's route on Visscher's map and from it concluded that the earliest date it can have been printed is 1663. Just along the northern edge of the map I find a route, which François Bernier describes from native information which he obtained during his visit in Kashmir 1664. On Visscher's map this route starts from Kashmir and runs eastwards, indicated by the following stations: Kachaure, Gourtehe, Eskerdow, Cheker, Kachger, and Iourkend. In Bernier's

[1] China Illustrata, Amsterdam 1670, p. 66. The first edition Rome 1667. »A short time ago» refers to Andrade.

[2] Trigault's work, which appeared in 1615 and 1616 has the title: Nicolaus Trigautius S. J., Belga (de Douai), De Christiana expeditione apud Sinas suscepta ab Societate Jesu, ex P. Matthæi Ricci ej. oc. Commentariis. Goës' annotations were put into order by Father Ricci. The obligation in which Trigault generally stood to Ricci he explains thus in the introduction to his Regni Chinensis descriptio, Ex Varijs Authoribus, Lvgd. Batav. 1639, p. 2: Quamobrem, ut Societatis nostræ ingressum in occlusos tot seculis vastissimi hujus regni fines, & rei Christianæ primitias apud illustrem hanc gentem, ab hoc oblivionis interitu vindicarem, aggressus sum ea, quæ à P. Matthæo Riccio suis commentariis ad posteritatis memoriam quotidianis, post obitum relicta sunt, historica narratione complecti.

[3] Benoit de Goës, p. 31.

narrative we read:[1] »The first town they passed in returning was Gourtche, the last town dependent upon Kachemire, and four days' journey from the city of Kachemire: from Gourtche, they were eight days in reaching Eskerdou, the capital of Little Tibet; and in two days more they came to a small town called Cheker, also within the territory of Little Tibet . . . In fifteen days they came to a large forest, on the confines of Little Tibet, and in fifteen days more they arrived at Kacheguer, a small town which was formerly the royal residence, though now the King of Kacheguer resides at Iourkend, a little more to the north, and ten days' journey from Kacheguer.«

There is no room for a doubt; all the names mentioned by Bernier are entered on Visscher's map. Visscher's Kachaure is simply a carelessness for Kachemire, and in Gourtche the c has been read as e. If Visscher had recognised Bernier's Kacheguer and Iourkend as Marco Polo's Cascar and Yarkan, he would not have placed these cities on the Ganges, though, after all, he is less to be blamed than Sanson d'Abbeville who, on another of his maps (Pl. XXX), has them on the Sir-darya. And Visscher was justified in following Bernier's text: »They say that Kachguer lies to the east of Kachemire inclining somewhat to the northward.« The route in question is not the ordinary Kara-korum road, which starts from Leh and not from Skardo or Iskardo, and which first reaches Yarkand and then Kashgar; it is a more westerly road Bernier has heard of, which does not touch Yarkand at all.

As Bernier's narrative was published for the first time in 1670,[2] Visscher's map cannot possibly have been published before that year.[3]

Now, as Kircher's map is from 1667, and Visscher's from at least three years later, Visscher has not needed to read *China Illustrata*, for he has found all the material of Grueber ready on Kircher's map. All the names he uses appear on the latter: Lassa, Cuthi, Cadmendu, Hedonda, Mutgari, Battana, Benares, Cadampor, and Agra. His Belor Mons and Consagni Mons Lapideus are directly copied from Kircher, even the horizontal perspective and the shadows, as well as the Montes Tibetici. He has followed Kircher's example in adopting Martini's source of the Hwangho, origo flu. Crocei, but retained, between it and Lassa, the mysterious lake of Chiamay. The Mongol name for Lassa, Burantola, which probably appears for the first time on Kircher's map, he has regarded as superfluous. Kircher is also the first to mention and to represent the name of Nepal on a map.

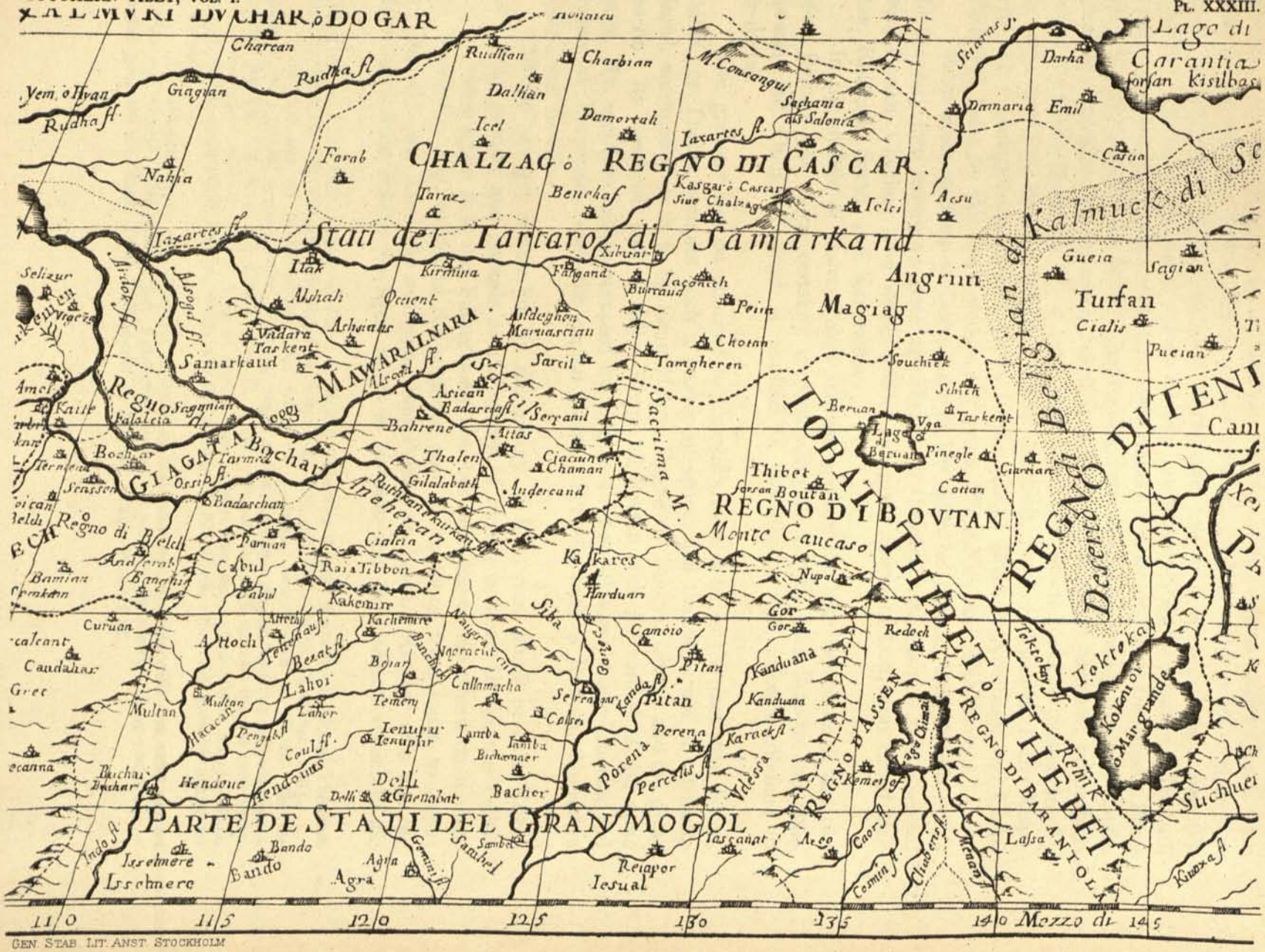
Pl. XXXIII shows us a reproduction from CANTELLI's map of 1683, published by V. KORDT.[4] The sources of the Indus and Ganges are as usual, the Satlej is rudi-

[1] English Edition of A. Constable, p. 427. Bernier got his information from merchants from Kashgar whom he met in Kashmir.

[2] Histoire de la derniere Revolution des Etats du Grand Mogol, Dediée Av Roy, Par le Sieur F. Bernier Medecin de la Faculté de Montpellier. A Paris MDCLXX.

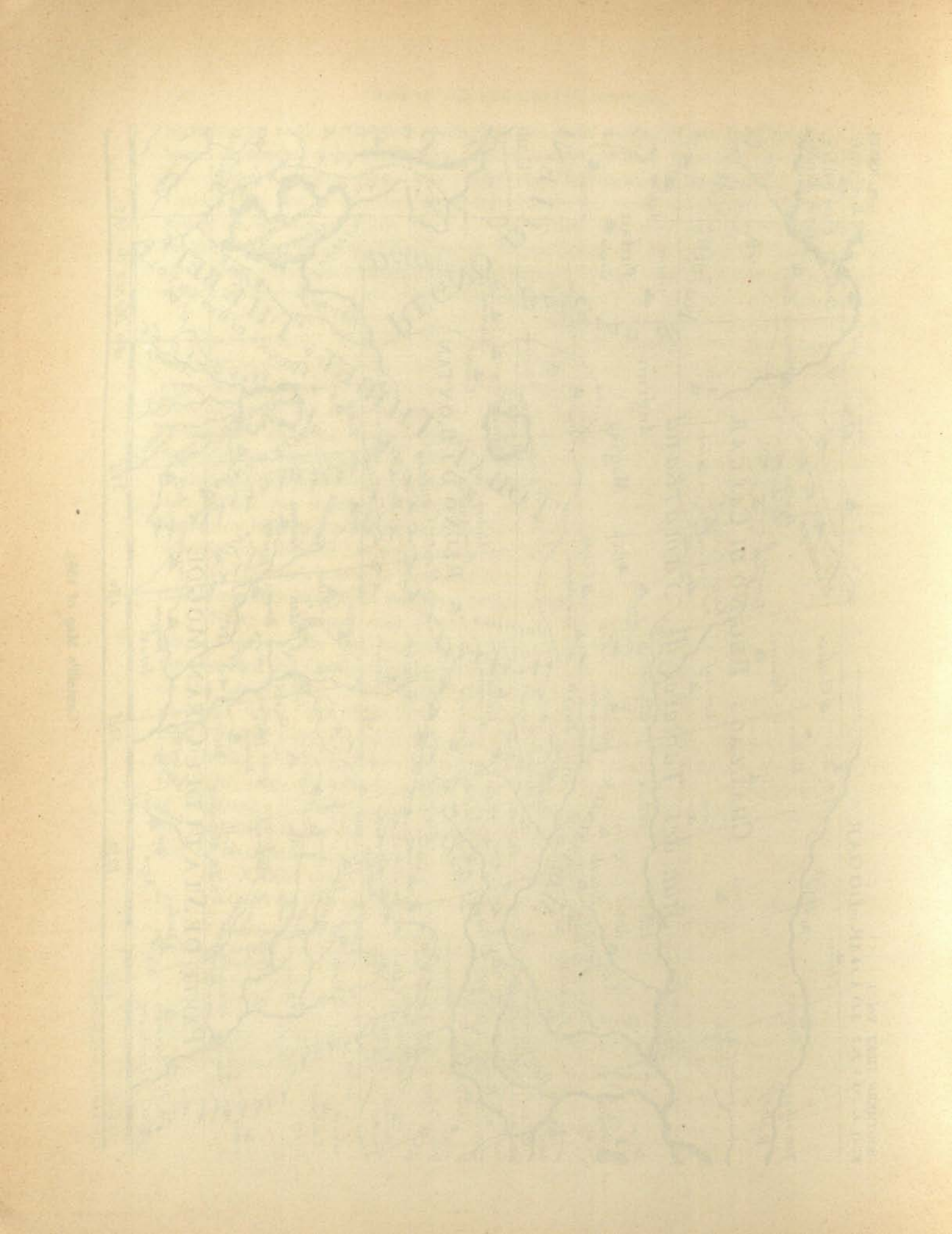
[3] Dr. E. W. Dahlgren tells me that, according to the best sources, Visscher's Atlas Minor dates from about 1680. Under such conditions Sylvain Lévi's and my own efforts to prove that the map in question cannot have been published before 1663, and 1670, should practically be superfluous.

[4] In Materialiy po Istoriy Russkoy Kartografiy. The complete title is: La Gran Tartaria diuisa nelle sue parti principali da Giacomo Cantelli, da Vignola, conforme le relazioni, che s'hanno da



GEN. STAB. LIT. ANST. STOCKHOLM

Cantelli's Map of 1683.



mentary, and Brahmaputra is, as always, missing. Himalaya is called Monte Caucaso; at its southern side is Nupal with Tavernier's spelling, and in its western part Raia Tibbon north of Kakemire or Kachemire, just as it is on Sanson's map (Pl. XXIX). We recognise many names directly taken from Goës for instance Gilalabath (Goës: Gialalabath, Brucker: Jelalabad near Kabul), Ciaciunor (Goes: Ciarciunàr, Brucker: Tchar-tchounar; or better Chahr-chinar, the four plane-trees), Serpanil (Goës: Serpanil, Brucker: Sar-i-Pamir), Sarcil (Goës: Sarcil; Brucker: Sirikoul; or perhaps better Ser-i-kol), Sacritma M., a very steep mountain which could be passed only by the very strongest horses,[1] Iaconich (Goës: Iaconich, Brucker: Yakarik; better Yakaarik), M. Consangui (as above), Gueia (Goës: Cucia, Brucker: Koutcha), and Cialis, which has been on the maps since many years (Pl. XXVI and XXVIII etc.).[2]

With these stations of Goës, Cantelli has done his best to bring Marco Polo's old itinerary into harmony; there are Kasgar or Cascar, Peim, Chotan, and, a second time, Cottan, Ciartian, after which follows the great desert of Lop, also called Belgian, Kalmuck, Samo, and Karacathay.

In the middle of Marco Polo's stations appears the lake Beruan with the two cities Beruan and Vga, certainly corresponding to Edrisi's lake Berwan and cities Berwan and Oudj. Taskent is marked on this lake as well as on a tributary to Sir-darya.

The greatest interest attached to Cantelli's map is to us the fact that Tobat, Thibet, or Thebet occupies such a prominent space, and that it is not at all badly placed, surrounded as it is by Gran Mogol, Regno di Tangvt, China, and the great deserts. Its northern half is called Regno di Bovtan with the capital of the same name. Its southern half is occupied by Regno d'Assen (Assam), Lago Chimai, and Regno di Barantola, with the capital Lassa. Between both is Redoch, Andrade's Radoc, our Rudok.

Finally we get a new link in the history of Koko-nor, which he calls Koko-nor o Mar grande, and regards as the source of Hoang o fiume Giallo, the Yellow River. Here again it is old Father John Grueber who leaves his traces on a map. On Visscher's map we found the southern part of his route, from Lassa to Agra; on Cantelli's we have the northern, from Peking to Lassa. Kircher who has the whole route from Peking to Agra, refers in his text only to a shorter version of the

---

gl'Itinerarij de P. P. della Compª di Giesú di Monsú Tauernier e dalle Raccolte di Monsú Theuenot e data in Luce da Gio: Giacomo de Rossi in Roma alla Pace con Priu. del S. P. l'Anno 1683.

[1] Brucker has no identification. The word has a certain resemblance to Turki. On the Konche-darya I passed a place called Säkitma, which is like Sakritma, though far from high mountains. Scientific Results, Vol. I, p. 499 et seq., Vol. II, p. 561. Sometimes such »names» may be very doubtful. I remember quite a modern map of Pamir where a mountain was called Mount Khoda-billadi. The two words mean »God knows», which was the answer of the Kirgis, when the traveller asked for the name.

[2] De Guignes says: »Je suis porté à croire qu'Haraschar est la même ville que celle qui est appellée par Benoît Goez Cialis, par Rubriquis Cealac, & par les Orientaux Ouloug-youldouz. — Histoire générale des Huns, Tome I, II partie, p. XXVIII. Paris MDCCLVI.

narrative, and has, on his map, not a single detail for the road from the Yellow River to Lassa. The Italian version, which has several mistakes, but also several interesting details, was the result of an interview which Grueber gave two gentlemen in Florence in 1666, and which was published in later editions of Thevenot's work.[1] From there ASTLEY made the following extract regarding the road to Tibet, after they had crossed Desart Tartary: »Afterwards he came to the Banks of the Koko Nor, which signifies the Great Sea; being a great Lake, or Sea, like the Caspian, where the Yellow River has its Source. Leaving the Sea behind him, he entered into the Country of Toktokay, which is almost desart, and so barren, that it need fear no Invasion. One meets with nothing but some Tents of Tartars. It is watered by the Toktokay, a very fine River, whence it takes the Name. It is as large as the Danube, but so shallow, that it may be forded every-where. Thence having crossed the Country of Tangut, he came to Retink, a very populous Province, belonging to the Kingdom of Barantola; where at length he arrived, whose capital city is called Lassa.«[2] Thence it is easy to see from where Cantelli has got his material for the entirely new form he gives Koko-nor as well as for his Toktokay, Retink (now Reting-gompa), Barantola, and Lassa, so much the more as he quotes both the Jesuit Missionaries and Thevenot. But if Cantelli had read his Thevenot more attentively, he would have seen that Grueber and Dorville, travelling from Koko-nor to Retink, (the same way as 180 years later Huc and Gabet), had to cross the country of Tangut. This has been placed by Cantelli in Ala-shan and Mongolia, while his Retink is on the S.W. shore of Koko-nor.

The very poor, but very important letters and interviews which, from Grueber himself, have come down to our time, have therefore fructified the map of Tibet in a very high degree, and the hitherto almost unknown country begins slowly to emerge from under the impenetrable mist which so long had covered its secrets.

WITSEN's map of northern and eastern Asia, made in Amsterdam 1687, is regarded as one of the most remarkable of its time.[3] Pl. XXXIV shows a part of it. F. G. KRAMP says in his notes to this map that for the regions east of the Caspian Sea Witsen had translations made from the Arabian geographers while, for China, he used Martini as well as Chinese maps procured and translated for him by Father COUPLET. He has obviously also used Russian material, as can be seen in several names, f. i. Tebetzami, Tiobetz Ansky (Tibetanskiy), and Tangoetska. The last is a town in Tanguth, the two first are the Tibetans, in both cases called Mon-

[1] In the copy of the Royal Library of Stockholm (Relations de divers voyages cvrievx, etc. Paris MDCLXVI), which is at my disposal, this narrative is, naturally enough, missing. In the copy at the Library of Göttingen, which is also from 1666, it has been inserted, but has the year 1673. Tronnier, op. cit. p. 330.

[2] Astley's Collection, Vol. IV, London 1747, p. 652. The Italian original is found in Tronnier's article.

[3] Nieuwe Lantkaarte Van het Noorder en Ooster deel van Asia en Europa . . . door Nicolaes Witsen, anno 1687. In Remarkable maps, Part IV, Amsterdam 1897.



Nicolaes Witsen's Map of 1687.

gol nomadic princes recognising the supremacy of China. The country of Tibet itself is removed to the east of the feeders of Amu-darya, where we still find many of Goës' names, amongst them Parvan, which, together with Cabul, has been removed in a most unfortunate way. In Tibet we find two places derived from Andrade and Kircher, Radoc and Chaparangute. The feeders of the Ganges, which on Ludouicus Georgius' map of 1584 were called Caradris and Beperi, now appear as Candris and Baperi. On the latter, Goës' Hiarchen has got a more easterly position than on Visscher's map. Cascar, the town, is situated on the upper Amu-darya, as on Sanson (Pl. XXX), while the country is east of the upper Ganges.[1] Yarkand is therefore a town in Kashgar, which may be said to agree with Bernier's: »the King of Kacheguer resides at Jourkend».

A new revelation is the Siba lacus, which acts as the source of the Candris flu. The Ganges is thus shown as partly coming from a lake. Witsen's map is so far in accordance with Andrade's narrative, that the Ganges and the river which waters Tibet may be said to start from one and the same mountain near Caparangue. And only there would the lake have been placed if Witsen had followed Andrade's description. He quotes him in his text, where he says that, according to Andrade, the source of the Ganges is always hidden under ice and snow, after which the river bursts from Hardware through the province of Siba, but unfortunately he does not tell us from where he has got his lake of Siba. However, he points out the uncertainty prevailing as regards the source of the Ganges, and has preferred to follow the example given by older authors. And he knows that the river, not far from its source, flows over a rock with a Cow's head.[2]

---

[1] Here his text is much better: »Van Samarkand, reist men door Caskar, Cotan, Erkent, of Hirkanda, na Sina. Van Erkent tot in het Sinesche Landschap Xensi, is een weg van twee of drie Maenden.» Noord en Oost Tartaryen, etc. Nicolaes Witsen. Amsterdam 1785, I, p. 346. The first edition of his work was published in 1692.

[2] Though Witsen does not give us any new information, his passage: Van de oorspronk der Riviere de Ganges, should not be missing in a work dealing with the sources of the great Indian rivers: De oorspronk van de Rivier Ganges, die niet wyt van Mugalia en Kalmakkia gelegen is, was by de ouden niet te recht bekent. Plinius gevoelde daer van, dat die in 't gebergte Hemodus, onder Scythie gelegen, was. Andrada, Jezuit, welke in 't Joer 1624, in 't Ryk Tebet is geweest, zegt, dat men des zelven oorspronk daer omtrent ziet, doch dat die steeds under Ys en Snoeuw gedoken leit, en, na dat langs Klippen en ongebaende wegen gespoelt heeft, door 't Meir Hardwayer, in 't Landschap Siba, dat onder 't Mogolsche gebied behoort, stort, en door het Landschap Kakares vloeit, eindelijk in d' Indische Zee valt. Thevenot, in zijne Indische Reis-beschryving zegt, dat de Ganges en Indus hunnen oorspronk in 't gebergte van Sagatay en Turkestan zouden hebben; welke Landen benoorden aen Indoostan grenzen, en niet wyt van Moegalia en Kalmakkia gelegen zijn. De takken, die aen den oorspronk van de Ganges in mijn Kaert vertoont worden, heb ik, in navolginge van ouder Schryvers, ontworpen; doch achte noodig, de onzeekerheit daer van aen te roeren. Want vinde by zommige de zelve in een andere gedaente afgemaelt: behoudende deze tot dat van de oprechte dreef zal zijn verzeekert . . . Op. cit. p. 315. In these words Witsen shows that the material existing was very familiar to him, and that he had quite insurmountable difficulties to fight in making a map of a country, quite unknown and of which different authors had so different ideas. Rennell's map a hundred years later, was still more absurd, for there the Ganges was intermingled with the Indus and the Satlej.

East of the upper Ganges Witsen accepts the orography of Kircher and Visscher with Consangui mons lapideus, and Belor mons; west of the latter the classical Caucasi montes are still to be seen. In the text he says they are not far from Imaus.

For the Croceus sive Hoamko Fluvius he chiefly follows Martini. An improvement is that the uppermost course runs W.N-W. to E.S-E., instead of south to north. On the other hand Martini's localisation of Koko-nor was much more correct. Witsen identifies it with Chimoi, or Chiamai lacus.

As usual the greatest confusion prevails in the representation of Central Asia, incl. Tibet. Between the Caucasus and the Altai Witsen has only a narrow space for Tibet, Turchestan and Tanguth. Tibet which had been better placed by Cantelli than on any previous map, now covers a very small region in the far west, while the most famous of all Tibetan plants, the rhubarb, is placed far to the east, on the upper Hwangho. This notion comes from Marco Polo, and therefore we find the legend: »Hier valt veel Rhabarber», near Soeksi sive Sochu, and not far from Tanguth.[1]

Witsen has a special chapter, *Tibet or Tebet*, in which he places this country at 42° N. lat., »though others have it at 40°». He has heard that some people make it 20 days' journey round. It is situated to the N.W. of the Chinese province of Xensi, a notion which agrees with Martini's map, but not with his own. According to Father MAGELLAEN's »*Description of China*» Tibet should be to the east of the Mogol's Empire, and its capital should be called Kaparange. From Chinese sources he relates that to the East of Tibet is a city and province called Utsang, Utsana, Ussangue or Sifan, and he quotes Father Andrade, who tells that Ussang or Ussangue is at a distance of 20 days' journey from China.[2] This Utsang is the combined province of U and Tsang, but in Andrade's description it simply signifies Lhasa. Gastaldi's Monte Vssonte may be the same as Monte Ussangue or Mountains of Lhasa.

---

[1] Already the Arab geographers knew the rhubarb of Tibet. Edrisi says the mountains round Buthink abound in this plant. In his description of the province of Sukchur with the chief city Sukchu which belongs to the General Province of Tangut, Marco Polo says: »Over all the mountains of this province rhubarb is found in great abundance, and thither merchants come to buy it, and carry it thence all over the world. (Yule, Book I, p. 217.) Speaking of Suju, the present Su-chau near Shanghai, Marco Polo makes the mistake to write: »In the mountains belonging to this city, rhubarb and ginger grow in great abundance.» For this rhubarb was brought from Tibet for sale in Su-chau. (Yule, Book II, p. 181, 183.) Father du Halde says of the rhubarb: »La meilleure est celle de Se tchuan: celle qui vient dans la Province de Chen si & dans le Royaume de Thibe(t), lui est fort inférieure: il en croît aussi ailleurs, mais qui n'est nullement estimée, & dont on ne fait ici nul usage. — Description de la Chine, Tome III, p. 492. Compare also Tome I, p. 42.

[2] Andrade's passage runs: »Le Tibet . . . comprend le Royaume de Cogué qui est celuy auquel nous demeurons a present (Caparangue, Aoust 1626), celuy de Ladac, de Moriul, Rudoc, Vtsana & deux autres qui sont vers l'Orient, tous lesquels auec le grand Royaume de Sopo, qui confine d'vn costé la Chine, & de l'autre la Moscouie, font la grande Tartarie.» Sopo, Sogpo in Tibetan, is Mongolia. The description is very good.



F. de Witt's Map, middle of 17th century.

Finally the following words of Witsen are worth quoting: »Lop is a sandy desert, which is situated to the west, and outside the Chinese Wall, beginning at the 37° N. lat., at the mountain of Imaus, where the city of Xacheu or Sachion is situated . . .»[1] This proves that even so late as in 1692 the Imaus is confused with the Kwen-lun, and that the enormous highland of Tibet is practically unknown, in spite of the journey of Grueber and Dorville. This conception also agrees with Witsen's map, where Tibet regn. occupies a little corner west of Turchestan, and where only some detached mountains separate India from Central Asia.[2] I have expressed the opinion that Ptolemy's Imaus, Emodus and Serici Montes must have included not only the Himalayas, but also all the other parallel systems up to Kwen-lun. Witsen, as all his predecessors since Ptolemy, has had the same view, and we have to wait still a few years before the mountains of Tibet decidedly begin to crop out from the maps, not simply as isolated border-ranges, but as one solid upheaval of the earth's crust.

Witsen certainly had a great influence on the maps of northern and central Asia for some years. I have inserted Pl. XXXV as an example of this type.[3] On it we find several of the names introduced by Witsen. But there are also great discrepancies from Witsen. The source of the Ganges is much further north, and the sources of the Sir-darya still further north. Chaparangute is located at the very source of the now meridional Ganges, and north of it Turchestania comes in between India and Thibeti Reg., where Thibet or Tobbat is the capital. On Witsen's map Tibet, Turchestan and Tangut lay from west to east; on the present map they fall nearly from north to south. Tiobetz Ansky and Tebetzami are as before. South of the source of the Yellow River is a Belorum R., instead of Belor Mons, and south of it Barantolæ Reg. with its capital Lassa sive Barantola with the true legend: Hæc Vrbs Sedes est Summi Pontificis Tartarorum Occidentalium. It would seem bewildering that Thibeti Reg. is separated from Lassa by such an enormous distance, nearly the half of Asia; but Thibeti Reg. is, as so often before, meant as Ladak and Baltistan, and this country is placed at the upper Sir-darya instead of the upper Indus. In reality the Indus and Satlej describe a curve or bend north of the source of the Ganges, but on the map Pl. XXXV the source of the Ganges is some ten degrees north of that of the Indus. Ever since the time when Ptolemy was abandoned the exaggerated dimensions of the Ganges have been responsible for the horrible deformation of the whole interior of Asia. From all points of view Gastaldi's map of 1561, Pl. XVII, was far more exact than anyone of the later.

---

[1] Noord en Oost Tartaryen, p. 265.

[2] To the 1785 edition of Witsen's work, P. Boddaert has an introductory note, in which he remembers Plano Carpini, Rubruquis and Marco Polo as »the three first travellers through whom Europe got knowledge of Tibet», and where Andrade is said to be »the first to visit the country personally». But he has no correction to make to Witsen's views.

[3] Magnæ Tartariæ, Magni Mogolis Imperii, Iaponiæ et Chinæ, Nova Descriptio ex Tabula Ampliss: Viri D. N. Witsen pro Majori parte aliis Auctoribus Excerpta et dita Per F. de Witt Amstelodami.

According to Visscher Hiarchan or Yarkand, remains on the upper Ganges, while Cascar still belongs to the upper Sir-darya. If Marco Polo, who visited the three corners in the Tarim triangle, Kashgar, Yarkand, and Lop, had only made an annotation of three or four words about the Tarim basin and its main river, the classical Oechardes, the chief mistakes of 400 years in Central Asian cartography could have been avoided. As on Witsen's map Turfan appears in two editions, one, Toerfana, north of lake Bervan, the other, Turpan, on the upper Hwangho.

More interesting than anything else on de Witt's map are the three wandering lakes, the traces of which we have to follow up until they disappear or lead to a real goal. Lake Siba, Witsen's invention, is there, and near it, though separated by a high mountain range, is lake Bervan, which we first saw on Cantelli's map, Pl. XXXIII. The third is our old Chiamay lacus, this phantom lake which has defended its ground against human knowledge ever since 1550, and remains on the maps of 150 years as a monument of human credulity. And here also Witsen's example is followed and the lake called Coconor. Of Grueber's route from Lhasa to Benares only the word Necbal remains.

The last map of the seventeenth century of which I give a reproduction, Pl. XXXVI, is the one by CORONELLI 1695.[1] Here the Ganges, though meridional, has been brought down to a more reasonable length. He has any amount of names for the Himalayas: Monti Cocas, ò Cochias, Albsor, Adazar, e Salatto; Caucasus Strab. et Plin. Caucasiæ Rupes Ptol. Strobilus Arriano. Cascar or Kashgar, Peim and Chotan are better placed than before, though there is also a Cotan S.E. of Lago di Beruan. N.E. of Cascar is Lop, and east of it Acsu. Yarkand has disappeared from the upper Ganges, and so has »Chaparangute». But the city which on Cantelli's map (Pl. XXXIII), was simply called Beruan, has now also the name Chaurana, which may be a new version of the Caparangue of Andrade, the Kaparange of Witsen, the Chaprang, Tsaprang, or Tsaparang as it is now called by different travellers. I do not know what information Coronelli has got. If his Chaurana is really Tsaparang, and if he has heard, perhaps, from some missionary in Goa, that the town was situated west of a lake, his map indicates that the Lago di Beruan is Manasarovar. When dealing with Edrisi we came to the same conclusion regarding his lake Berwan. On the other hand, the Siba lacus has been rejected.

North of the Himalaya, which is indicated only by its several names, we have Thibet, Tobbot, or Tobbat, very correctly placed in relation to India. Turquestan and Vachun are parts of Tibet. The town Thibet is again Leh and Ladak.

The eastern parts are wisely taken from Martini, but there is no Koko-nor at all. Yet Chiamay lacus is there. The great desert has, as on some previous maps,

---

[1] Asia Diuisa nelle sue Parti secondo lo stato presente, Descritta, ... dal P. M. Coronelli ... It is published in Atlante Veneto, Nel quale si contiene la descrittione geografica, storica, sacra, profana, e politica, Degl' Imperij, Regni, ... Dell' Universo, ... Opera e studio del Padre Maestro Coronelli ... Tomo 1. Venetia 1695.

several names, Xamo, Kalmuk, Karacathay, and Deserto di Lupo, which is an excellent translation of Lop!

Herewith we have finished the reviews of maps from the seventeenth century, and must confess that, so far as Tibet and the sources of our rivers are concerned, we are not much wiser at its close than at its beginning. It would be the task of the first third of the eighteenth century to dissipate all doubts of the situation of this country and to draw out some of the principal features of its hydrography.

CHAPTER XXII.

TIBET IN EUROPEAN BOOKS AND NARRATIVES OF THE SEVENTEENTH CENTURY.

It would be a very useless and unnecessary task to try and pick out from all geographical works of the seventeenth century the passages which deal with Tibet. The result of so much trouble would be very disappointing. And after the examination we should feel obliged to admit that the knowledge about this country had gained very little in the course of one hundred years. The brilliant travels of Andrade and Grueber, which are now so easy to follow, could not be placed on the maps existing, as clearly proved by the attempt of Father Kircher. Other information had been gathered by Jesuit missionaries, but was either not published, or published at a much later date.

The present chapter has therefore only one object: to give an idea of the store of knowledge possessed by European geographers, and for this purpose a few examples will be quite sufficient. The ordinary way in which the geographers save themselves from all difficulties is to copy the words of their predecessors from the classics and Marco Polo down to Ramusio, Roë and Terry. One of the passages which are copied over and over again is the one in *Libro Odoardo Barbosa Portoghese*, where the sacredness of the Ganges, in the religious opinion of the Hindus, as well as the source of the river as situated in the terrestrial paradise, is described.[1] Such is also the case with the passage in NICOLO DI CONTI's narrative where he speaks of the marvellous lake between the Indus and the Ganges.[2] From BARROS' assertion regarding the Chiamay lake, first published in Ramusio's work a traditional mistake of 150 years took its origin.

In some books one also recognises the eloquent description Father JARRIC

[1] A questo fiume Gange vano tutti gl' Indiani in peregrinaggio con gran diuotione à lauarsi, perche hanno firmissima fede, che da poi lauati, siano netti di tutti li lor peccati, & per questo salui, concio sia cosa, che il detto fiume vien da vn fonte, il qual ha il suo principio nel paradiso terrestre. — Ramusio, Primo volume Delle Navigationi et Viaggi, Venetia MDLIIII, p. 349, c. The following passage is no doubt taken from Conti: »There is also a lake lying between the Indus and the Ganges, the water of which possesses a remarkable flavour, and is drunk with great pleasure. All the inhabitants of that district, and even those living at a great distance, flock to this lake for the purpose of procuring the water. By means of relays of carriers mounted on horse-back, they draw the water fresh every day.» India in the Fifteenth Century, edited by R. H. Major. London, Hakluyt Society, 1857, p. 22.

[2] Op. cit. p. 378, c. See above p. 175.

gives of Kashmir, a luxuriant country, surrounded by snow-covered mountains, and abundantly watered. To the east is Rebat, as he calls Tibet, with its colder climate. He has heard that some merchants travel from India through Bengal to China, while a shorter road goes through Kashmir and Tibet directly to Caigar or Kashgar, from where it is easy to reach the first Chinese city.[1]

In his work on Great Mogul's empire, 1631, DE LAET quotes the ancients, specially Pliny, and calls the northern mountains Emodus.[2] From Belgian sources he has heard that the Ravi, Behat and Sind take their origin in the mountains of Cassimer and join near Multan. The province of Kabul borders, to the north, in the direction of Corum upon Tartaria, where the river Nilab has its origin. On the banks of this river is Attack, and below it the river joins the Indus.[3]

In what he says of the river Behat we remember Thomas Roe 1617, though de Laet does not find it likely that the river should join the Ganges. The climatic comparison between Kashmir and Tibet he has taken from Iarric. At Hardvvaïr is the source of the Ganges from the rock with the cow's head. In describing the Kara-korum road from Kashmir viâ Tibbon (Ladak) to Cascar, he has more confidence in Finch, 1610, than in Xavier, 1598.[4]

When Father TRIGAULT, 1639, in his compilation on China, tells us that the Yellow River and the Ganges both rise from the Kwen-lun, he must have used the same source as Father Martini, who, in 1655, tells the same thing.[5]

[1] The passage runs: Regnum hoc nulli Indicæ regioni pulchritudine & aëris clementia cedit, etiam media æstate. Altissimis siquidem circumquaque cingitur montibus, niue maxima anni parte coopertis; reliquus ager planus est, elegans, viridantibus herbis variegatus; siluis, hortis, viridariis, fontibus, amnibus ad stuporem vsque abundans. Frigidiuscula omnis regio est, idque maxime ob montes niuales; temperatior tamen est, quã regnum Rebat, quod ab oriente illi adiacet. Mense Maio è frigidis Rebati montibus infinita prope anserum siluestrium aduolant agmina, & in flumina, quæ iuxta Cascimirum, regni caput, decurrũt, velut aliis calidiora, sese immergunt. — Sunt qui iter in Cataiam per Bengalam & Garagati (Calcutta) regnum, in quo Magni Mogor imperium terminatur, patere dicant. Sed mercatores qui viarum norũt compendia, Lahore Caximiram petunt, ac deinde per Rebati regnum (cujus Rex Magni Mogor socius & amicus) rectâ Caigarenum tendunt; atque hinc facilis & breuis ad primum Cataiæ emporium . . . via patet. R. P. Petri Iarrici Thesavrvs Rerum Indicarum. Col. Agr. MDCXV, T. I, p. 558 et 579. Father Iarric himself has got this information from Father Jérôme Xavier, in a letter written 1598, and published in Father Jean Hay's: De rebus Japonicis etc., Antverpiæ 1605. See also Brucker op. cit. p. 11.

[2] De imperio Magni Mogolis sive India vera Commentarius. E varijs auctoribus congestus. Lvgdvni Batavorum, Anno CIↃIↃCXXXI, p. 1 et seq.

[3] Kabul . . ., versus Corum sive arctum fines jungens cum Tartaria. In hac fluvius Nilab oritur, qui versus meridiem descendit, donec cum Indo se conjungat . . . Attack à metropoli sic appellata, ad ripam fluvii Nilab, qui à Coro descendens ab Indo excipitur . . . Corum is therefore a mountainous tract. Should it be the Kara-korum?

[4] Regio (Cassimere) . . . vicina quidem Cascari, sed tam asperis montibus ab illa divisa, ut nullus aditus Caravanis pateat; rari pedites interdum summa cum difficultate asperos hos montes penetrant. In montanis hisce degit Regulus, Tibbon nomine . . . Eadem regio fines jungit cum Regno utriusque Thebet . . . The Rahia (= Raja, Regulus) Tibbon on Sanson's map 1654 comes probably from this version of Finch's Tibbot.

[5] Of the Yellow River Trigault says: Et hoc est Regni Sinensis alterum magnitudine & celebritate flumen, quod extra regnum ad Occasum nascitur, è monte, qui Cunlun appellatur, quem montem vero similibus conjecturis colligitur, eum ipsum esse, vel alium minimè remotum, è quo Ganges creditur scaturire. — Regni Chinensis Descriptio, Lvgd. Batav. 1639, p. 318.

As the magnificent atlas of JEAN BLAEU, of which the eleventh volume[1] appeared in 1663, was an »encyclopedia cartographica and geographica», we cannot expect to find any new information about our regions in it, no more than in the compilations of Sanson, Visscher, Coronelli, and others. The maps are brought together from different authors and epochs; maps from Iansson's and Sanson's offices are seen at the side of such from Ortelius, and others. The same is the case with the text where several paragraphs are more than a hundred years old, and uncritically accepted as true. India is said to be bordered to the north by branches from Mount Taurus, or Imae, a part of Caucasus. The most famous rivers of India, Indus and Ganges, take their origin »from Mount Imae, called by its inhabitants Dalanguer & Naugracot, & are born, according to the opinion of the natives, from one and the same source; in spite of the distance between their mouths being 300 lieues».[2]

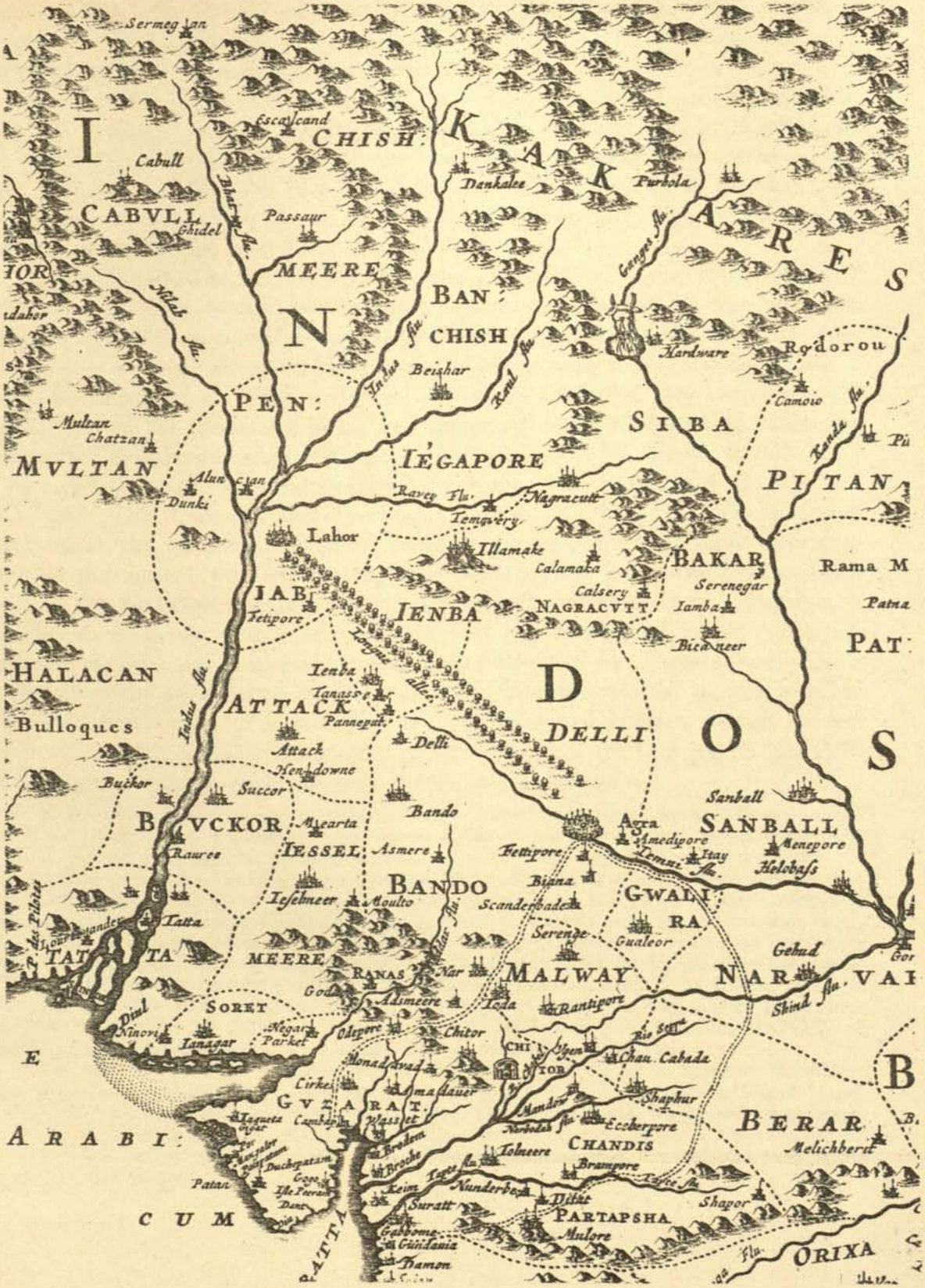
All the rivers of »Pang Ab», so far as they were known in 1663, are enumerated from different travellers. The part of the Imae where Ganges has its source, is known as Montagnes Ussontes. Caximir has the kingdom of Rebat to the east. Then follows, from Iarric, the notion of the source of Chenab as situated in Kashmir, and from authors quoted above, the comparison between the climate of Kashmir and Tibet. Blaeu's volume was published the year after Grueber's return, but the uncertainty about the situation of Tibet is still very great. Having placed the Kingdom of Rebat east of Kashmir, the compilator of this text says of the province of Thebeth, the capital of which is also called Thebeth, that it confines, on one side with the countries of Sindinfu and Caindu, and on the other with Mangi or China, where Marco Polo is his source. The province is said to be great but much devastated by the Tartars. A few pages further on we meet a third Tibet, the Kingdom of Thibethe, bordering upon the dominions of Mogor and specially Kashmir, and being separated from it by very high mountains, which, on account of the snow, cannot be crossed except at certain seasons of the year. »Beyond it is the Little Kingdom of Thibethe under the power of the Moors of the sect of Sofi. The residence of the King is called Babgo.»[3] One feels quite at a loss when the compilator tells us that the inhabitants of this last edition of Tibet are all Christians, and have many churches, and a bishop called Lamhao, — all rumours current amongst the Jesuits at Goa, and giving an impulse and a reason to the journeys of Goës and Andrade. Already before Goës' start, these rumours had been proved to be fables by the famous Father M. Ricci.

When Blaeu's compilator gives the boundaries of China he says that it has »Tibet» to the west. We have therefore in one and the same work a Kingdom Rebat, a province Thebeth, a Kingdom Thibethe, a Little Kingdom Thibethe, and

[1] Onziéme volume de la Geographie Blaviane, contenant l'Asie. Amsterdam, Jean Blaeu 1663, p. 163, 219, 250 et seq.

[2] This is taken from Barros in Ramusio, p. 427, c.: Et secondo la fama delle genti circonuicine, si crede che ambi dui naschino da vn medesimo fonte.

[3] By Little Tibet Baltistan ought to be meant. But Babgo sounds more like Badgao, a city in Nepal, later on known from the journeys of Desideri and the Capuchins.



Sir Thomas Roe's Map. From Ogilby's work. London 1673.

GEN. STAB. LIT. ANST. STOCKHOLM

a country Tibet, all more or less vaguely determined on the map. The reason is, of course, that the author has drawn his information from different works and ages, and thereby created an unnecessary confusion.

BERNHARDUS VARENIUS is regarded as the most important geographer of the seventeenth century. In his *Geographia generalis*, 1664, he stands, however, on classic ground so far as our regions are concerned. He knows the Imaus as two ranges forming a cross, the meridional branch dividing Scythia in the two parts famous since antiquity. The source of the Ganges is placed, he says, by some at 43° N. lat., by others at 33°, and flows from north to south.[1]

Another compilation, very well got up, was published in 1673 by JOHN OGILBY.[2] He does not help us any further, however, and, as all other authors of the time, he quotes the classics, and Barros, Gastaldi, Linscouten, Herbert, Jarric, Bernier, and the rest. The Indus rises from the Mountain Parapomisus, »Ganges (now Guengam) ariseth out of the Scythian Mountains». Later on he says of the two rivers that they »come from the Northward out of the Mountains Imaus and Caucasus, by the Inhabitants (according to Castaldus) call'd Dalanguer and Nangracot, and both (as the Inhabitants affirm) spring from one Head, though some Geographers make the distance between them to be a hundred and eighty Leagues, and others but a hundred and thirty . . .» The confusion is great about the northern mountains; probably no geographer of those days ever knew what the ancient writers meant by their Paropamisus, Imaus and Caucasus, not to mention the Scythian mountains of which nobody has ever had any knowledge.

The river Rawy (Ravi) is said to spring out of Mount Caximir. The administrative division of Hindustan is the traditional from Sir Thomas Roe. So is also the map, the same which in *Purchas His Pilgrims* Vol. IV, p. 432 is called Sir Thomas Roe's map of East India. It is of no special interest, though I insert the part of it which contains the sources of the Indus and the Ganges, Pl. XXXVII. Even the Cow's Head is conscientiously drawn at Hardware.[3]

[1] In the original text the two passages run thus: »Imaüs mons, crucis forma duabus viis progreditur tam versus ortum & occasum, quam versus Septentrionem & Austrum. Septentrionalis pars nunc Alkai perhibetur. Protenditur versus Austrum usque ad Indiæ fines & Gangis fluvii fontes . . . Dividit Scythiam Asiaticam in duas partes, quarum illa, quæ occasum spectat, dicitur Scythia intra Imaüm montem; quæ ortum dicitur Scythia extra Imaüm montem.» — And of the Ganges: »Fons ejus remotissimus ponitur in latitudine Septentrionali 43 graduum in Tartaria (sed quidam retrahunt ad 33 grad.). Ostium in latitudine eadem 22 gr. Fluit à Septentrione in Austrum. Tractus est 300 circiter milliarium Germanicorum. Exundat singulis annis.» — Geographia generalis, In qua affectiones generales Telluris explicantur Autore Bernh: Varenio Med: D. Amstelodami, 1664, p. 94 & 270.

[2] Asia, the First Part. Being an Accurate Description of Persia, the Vast Empire of the Great Mogol, And other Parts of India, . . . collected and translated from most Authentick Authors, and Augmented with later Observations . . . London 1673, p. 104, 199, 242 et seq.

[3] The title of the map is Magni Mogolis Imperium. It is also to be found in Mandelslo's Voyages Celebres & remarquables, Amsterdam 1727, where it is called: Royaume du Grand Mogol, avec tous les Pays qui en dependent suivant les Relations des plus fideles Voyageurs, nouvellement donné au Public par Pierre van der Aa, a Leide. The map of 1727 was simply a reprint of the one from 1673, which was antiquated since Sir Thomas Roe's journey in 1617. It had also been republished by Thevenot in 1666.

CHAPTER XXIII.

VERBIEST AND GERBILLON.

Father VERBIEST, famous for his journeys of 1682 and 1683 through Eastern Tartary, relates what a Jesuit in Persia heard from an Armenian priest who had travelled in Tibet, and from another Armenian traveller, a wise and reliable man, who had passed four years in the country, and whose narrative is so much the more trustworthy, as it agrees perfectly with Grueber's account.

These informants had related that in Asia were two kingdoms with the name Tibet, the Little and the Great. Little Tibet borders on Cachemir of which Bernier had given such a favourable description. But Little Tibet is sterile, and has a cold climate, and very poor inhabitants. Great Tibet which some call Tebat and others Boutan, borders on Chinese Tartary. It is not more agreeable nor more fertile than Little Tibet. There are excellent fishes in the rivers, and there is any amount of milk. Tibet abounds in musk, and in gold, though the natives do not understand how to work in the mines. The air is excellent, and the inhabitants are strong. Lassa is the capital and only city of Tibet; a mandarin sent by the Emperor resides there. Verbiest says that it is three months' journey from Tibet to this city (Lassa), which is situated at the foot of the great wall; the informant must have said that it is three months' journey from the great wall to Lhasa. The whole way one crosses an utterly desolate country where only wild animals are to be found, but several caravans pass between Tibet and China. The greatest man in Tibet is the Grand Lama, »Pontife des Lamas», who certainly is the famous Priester John.[1]

The great Father GERBILLON who, from 1688 to 1698 made eight journeys through eastern Mongolia, either alone or with Father PEREIRA, or even with Emperor KANG HI, gives us some excellent news about Tibet and surrounding countries, far superior to anything existing before this time. Though Gerbillon had never been in Tibet his description of the road from Koko-nor to Lhasa is much better than that of Father Grueber. The vertical plastic which is not mentioned in Grue-

[1] Recueil de Voiages au Nord. Tome Troisieme, Amsterdam MDCCXV, p. 338.

ber's accounts is very sharply modelled by Gerbillon. Amongst all travellers in eastern Asia during the seventeenth and eighteenth centuries the Jesuits are the most reliable, scientific and successful. And amongst the Jesuits those of Latin race, especially Frenchmen and Italians, are the best.

So far Great Tartary had been a very vague geographical region, something like the Scythia of the ancients or Si-fan of the Chinese. Father Gerbillon does not hesitate to demarcate its boundaries: on the west it has Moscovy, the Caspian Sea, and a part of Persia; on the south the same part of Persia, the Mogol, Arracan and Ava, China and Corea, on the east the Oriental Sea and on the north the Glacial Ocean.[1] Most of this vast country is, he says, either under the Emperor of China or the Czar of Moscau. Only the country of Yusbek, a part of that of the Calmucs or Calmaks, Tibet, and some small states in the mountains of Ava and Se tchuen, are independent.

Gerbillon's memoir is of rather historical content. But in describing different expeditions and events he shows how well he knows such places as Touroufan or Tourfan, Yarkian or Yarkan, Hami or Cami, Thibet, Toubet or Tangout, Poutala, Lassa or Barantola. The Dalai Lama resides in his palace, built on the mountain Poutala. »At the foot of this mountain one sees a rather great river flowing, which is called Kaltjou mouren.» It is said to be a very nice place, and in the middle of the mountain is the pagoda with its seven stories. This is probably the first time that the Ki-chu of Lhasa has been mentioned by a European.

A Chinese official in Peking told Gerbillon that it was 400 leagues from Sining to Poutala, and that he had made the journey, during winter, in 46 days. He had found habitations nearly everywhere. »It took him 20 days to reach a place called by the Chinese Tsing sou hai. It is a Lake, or rather it is three Lakes, so near each other that they form only one. It is there that is situated the source of the Yellow River, called in Chinese Hoang ho, which at this place is only a little river with very clear water. To begin with it takes its course towards the south, between the mountains from which it gets the water, and, having grown in volume by the water from the rivulets and the little rivers that flow from the whole country of Coconor, it enters China near Ho tcheou. The same mandarin told me that in the country of Coconor he had passed a river called Altang kol, which means in the Mongol tongue Gold River; it has hardly more than 3 feet in depth, and it empties itself into the Lakes of Tsing sou hai.» He describes how the gold is exploited and says that it forms the principal revenue of the Coconor princes. In many other rivers of the Grand Lama's states gold is found and sent to China.

Martini, in 1655, had brought the first news of the source of the Yellow river to Europe, and he had entered the two lakes on his map.[2] Forty years later

[1] Description géographique, historique, chronologique, politique et physique de l'Empire de la Chine et de la Tartarie chinoise, Par le P. J. B. du Halde. Tome quatrieme. Paris 1770, p. 33 et seq.

[2] See above, p. 193.

Gerbillon conquers the new details quoted above. In his three lakes one of the surrounding small lakes has been included. Tsing-su-hai is the Chinese name for the Mongol Odon-tala or Star Sea, through which the uppermost Hwangho, Altan-gol, flows, and empties itself in the western lake.[1]

Further Gerbillon was told by the same mandarin that from Sining to the very frontiers of the Kingdom of Tibet the ground constantly and at a sensible rate becomes higher, and that the great number of mountains one has to climb when trav-

---

[1] The above description should be compared with the one translated by Bitchurin, from Chinese sources in 1833: »The Yellow River is in Chinese called Khuan-khe, in Tangut Morchu, in Mongol Shara-muren. It takes its origin in the western neighbourhood of Koko-nor under the name of Altan-gol, and runs to Odontala; after going through the lakes Tsariyn-nor and Noriyn-nor it flows to the S.E., and returns to the N.W., and then takes its course to the N.E. . . .» Bitchurin knows four Chinese descriptions of the source of the Yellow River, but specially refers to the one by Amida who in 1782 was sent to make a detailed research of the place. This explorer found at 300 li west of Odontala a hill, Altan-gasu-tsilu, on the top of which a lake is fed by innumerable springs; here is the real source of the Yellow River, for the water goes to Altan-gol, which, itself, has its sources in Bayan-khara-ula. Having received many tributaries Altan-gol flows to Odon-tala, where innumerable springs dip up from the ground, which, regarded from a height, resemble stars, — therefore Odon-tala, and in Chinese Sin-su-khai, the Star Sea. Altan-gol receives the water of all these springs, as well as that of two tributaries, after which it falls into Tsariyn-nor. After running about 50 li to the S.E. it empties itself into the Noriyn-nor; on the way between the lakes it receives four rivulets. Issuing from the Noriyn-nor Altan-gol takes the Mongol denomination Khatun-gol (Princess River). — Istoriya Tibeta i Khukhunora s 2282 goda do R. Ch. do 1227 goda po R. Ch. . . . Perevedena s Kitayskago Monakhom Iakinfom Bitchuriniym St. Peterburg 1833, II p. 180 et seq.

On d'Anville's map of 1733 the two lakes are remarkably well drawn, under the names Tcharin Nor and Orin Nor, S.W. of Koko-nor and on 35° N. lat. Such they remained on European maps for 150 years. Petermann's map, Indien & Inner-Asien, in Stielers Hand-Atlas, N:o 44 b, for 1875, is, for instance, a faithful copy after d'Anville, though Petermann puts the two lakes at 34° N. lat.

On his fourth journey, 1883—1885, General Prshevalskiy was the first European to reach the lakes. He gives an excellent description of Odon-tala, which he found traversed by several rivulets, of which two were more considerable, and formed the sources of the Yellow River. One of them is, as Prshevalskiy supposes, identical with the Altan, or Altiyn-gol of Chinese geographers. He found the latitude to be nearly 35°. His description shows how very correct the Chinese observations had been. »But as they had been incorrectly placed on the geographical maps, as no European had visited them before, I called, with the right of the first explorer, the western the Expedition Lake and the eastern the Russian Lake.» — Att Kyakhtiy na Istoki Sheltoy Reki, St. Peterburg, 1888, p. 153 and 198, and my translation from the Russian original: General Prschevalskij's Forskningsresor i Centralasien, Stockholm 1891, p. 318 and 334; with a preface by A. E. Nordenskiöld. —

On Koslov's beautiful map, Vostochniy Tibet (Kam), May 1900—June 1901, where the lakes have nearly exactly the same latitude as on d'Anville's map 170 years earlier, the names given by Prshevalskiy are retained together with Dsharin-nor and Orin-nor. Koslov calls the Altan-gol Soloma, for which Prshevalskiy had had the name Upper Khuan-khe or Hwangho. But on his general map Attchotnaya Karta k opisaniyu puteshestviya P. K. Koslova v Mongoliya i Kam, we again find the name Altan-gol. The Tsigenor in Bitchurin's translation is probably the Chikey-nor of Koslov's map. The name for Odon-tala, which was written Tsing sou hai by Gerbillon, Sin-su-khai by Bitchurin, and Prshevalskiy, is identical with Father Martini's Sing sieu, while the latter's Sosing may be Oring. The names Expedition and Russian have of course to disappear, as the lakes already were baptized hundreds of years ago.

The two freshwater lakes at the source of the Hwangho resemble in many respects the Manasarovar and the Rakas-tal, and their connection with the Satlej. This fact is the one reason for this digression. The other is that Koko-nor and the source of the Hwangho are situated on one of the highways leading to Tibet, a road travelled by Grueber and Dorville, van de Putte, Huc and Gabet. We shall have to return to this region later on.

elling from China to Tibet, have a much longer slope to the east or Chinese side, than to the west or Tibetan side. Then follows this passage, which is very clever for being 220 years old: »The small mountains, in which the little river of Altan kol takes its source, must indeed be extremely elevated over the surface of the Sea, as this river which is rather rapid falls in the lakes of Tsing sou haï, while the river Hoang ho which issues from the Lakes, has for about hundred leagues a fairly rapid course until its mouth in the Eastern Sea of China; but this country is also very cold on account of its height: as soon as one commences to enter Tibet the ground begins to fall, and the climate is then also much more temperated.«

At a time when Koko-nor was still treated as a suspicious object on European maps, Gerbillon knew that Si hai or the Western Sea, as it was also called, had a length of 20 long leagues, and more than 10 leagues in breadth, and that it was situated between 36 and 37° N. lat., and between 16 and 17° W. long. of Peking. From the west frontier of China he reckons 20 days' journey to Hami, thence to Turfan 7 days, from Turfan to Acsou 23 days, from Acsou to Yarkan 10 days, and from Yarkan to Bochara hardly more than a month, along the road which passes over Kaskar. He gives short, concise and excellent descriptions of roads, countries, climates and natives, and is far in front of his time.

Compared with the other geographers I have quoted above, all of whom ruminate the same old worn material, Gerbillon's annotation about Koko-nor, the source of the Yellow River, and the roads to Lhasa and Bokhara comes like a refreshing breeze of solid information from mountains and deserts in darkest Asia.

CHAPTER XXIV.

MAPS FROM THE FIRST THIRD OF THE EIGHTEENTH CENTURY.

We are approaching the renaissance in the cartography over Tibet, an epoch that is characterized by the single name d'Anville. But before we reach so far we have to remember some of his forerunners, the most important of whom are Delisle and Strahlenberg. However, I am proceeding chronologically as hitherto.

Pl. XXXVIII shows us the map of E. ISBRANTS IDES published in 1704.[1] Ides was sent as an ambassador through Siberia to China in 1692, and returned to Russia in 1694. He had a copy of Witsen's map with him on the journey, and improved it where it was wrong. In its corrected form the map was added to Ides' narrative. Witsen says of it: »Ides' map is to a great part taken from my map ... but he has improved it.»[2]

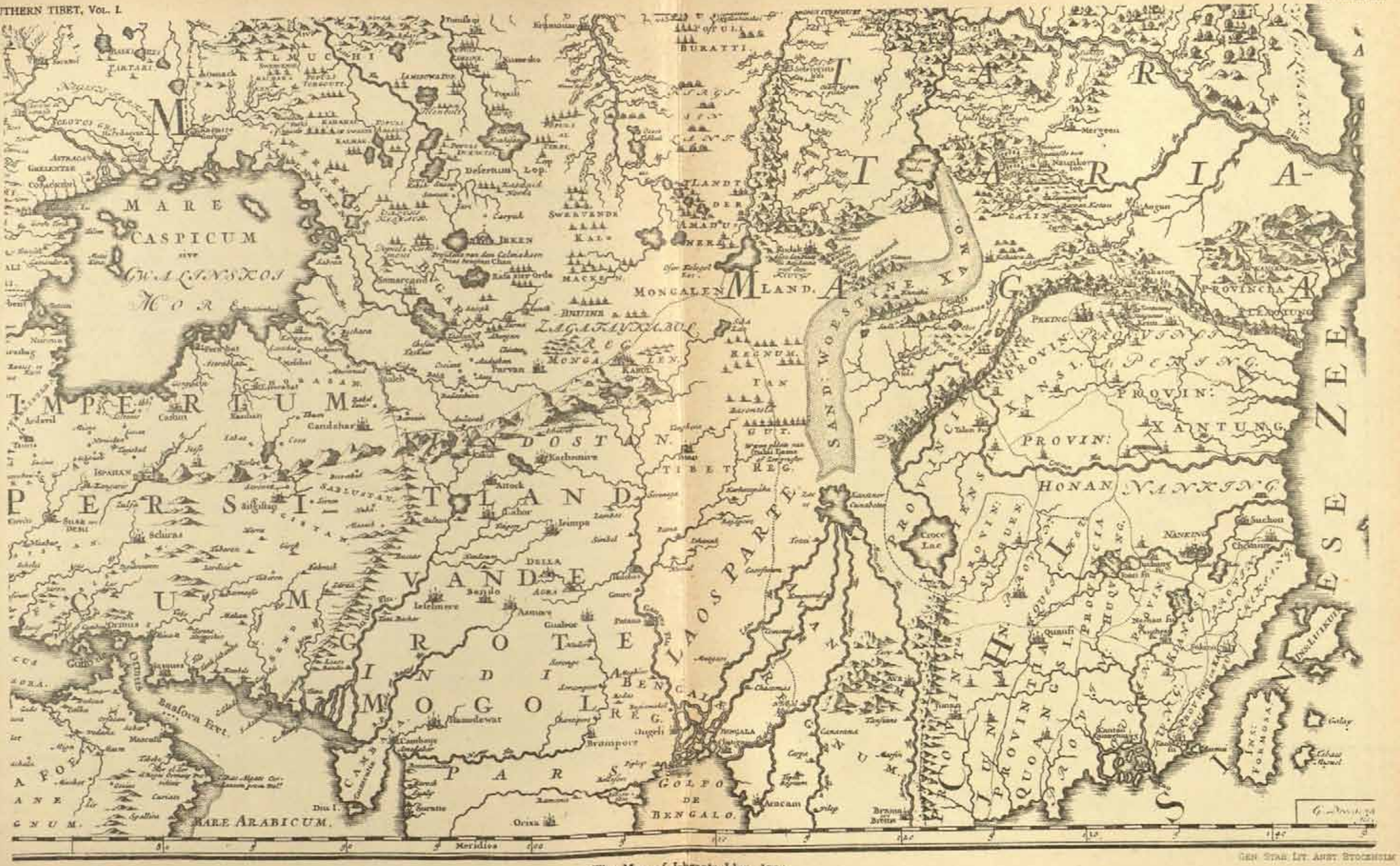
In his text Ides does not touch our regions, and all he has to say of India is that the Great Mogul's kingdom embraces all the countries and dominions which are situated between the rivers Indus and Ganges down to the Gulf of Bengal.[3]

So far as our regions are concerned the likeness between Ides' and Witsen's maps is, however, very insignificant. Ides has obviously, as Witsen, used a good deal of Russian material; nearly all the lakes in the northern half of the map are

[1] Nova Tabula Imperii Russici, ex omnium accuratissimis, quæ hactenus extiterunt. Imprimis viri Ampliss. Nic: Witzen delineationibus conflata, quam ipsa locorum lustratione edoctus, multum emendavit Everardus Ysbrants Ides. — Materialiy po Istoriy etc. N:o XXVI. — The same map, though not reaching quite so far south, is to be found in Recueil de Voiage au Nord, Amsterdam 1727, where it has the title: Carte de la Tartarie Asiatique suivant la Relation de l'Ambassadeur de Russie publiée en 1692, which is wrong, for the map was first published in Isbrants Ides narrative: Driejaarige reize naar China te lande gedaan door den Mokovischen Afgezant E. Isbrants Ides, Amsterdam 1704. In the German edition which is at my disposal: Dreyjährige reise Nach China E. Yssbrants Ides, Franckfurt 1707, the map is wanting. In Recuil de Voiages au Nord the narrative has the title: »Voyage de Moscou a la Chine par Mr. Everard Isbrants Ides Ambassadeur de Moscovie».

[2] V. Kordt: Materialiy po Istoriy etc. Kiev 1906, II, Part I, p. 27. And F. G. Kramp in Remarkable Maps, Amsterdam 1897. Ides himself asserts: »Il faut que j'avoue que je n'eusse peut-être pas pensé à faire une carte générale des Régions que j'ai parcourues, si le célèbre Mr. Nicolas Witzen Bourguemêtre d'Amsterdam ne m'en eût fait concevoir l'idée ... la carte qu'il a donnée m'a servi de guide en plusieurs endroits de mon voyage, elle m'a fourni en même tems un plan, que je n'ai fait que continuer. (French edition, p. 173.)

[3] German edition, p. 431.



The Map of Isbrants Ides, 1704.

GEN. STAB. LIT. ANST. STOCKHOLM



Carte exacte de la **Tartarie**, *avec les routes marquées, dressée sur le Voyage que* Guillaume de Rubruquis *y a fait en l'An 1253. et rendue plus achèvée par des Observations faites depuis. tout recemment donnée au Public par* Pierre vander Aa, *à Leide. Avec Privilege.*

The Map of Isbrants Ides illustrating Rubruck's journey, in Bergeron's »Voyages», 1735.

Gen. Stab. Lit. Anst. Stockh.

called »osero», and the Caspian Gwalinskoj More. Otherwise there is hardly more than the Siba lake that is taken from Witsen. Another feeder of the Ganges comes from the Lac Giamai, which has to its north Kabul, as capital in Zagataykabul Regnum, a really wonderful invention! And still there is a second Cabul west of Kachemire.

The Indus, as usual, does not come from far away; some of its feeders hardly touch the southern foot of the tremendous range which stretches from about the source of the Ganges all the way to Ispahan, but not at all eastwards from the Ganges. Attock, on the Indus, is situated between two considerable lakes, of which the northern one is the Wulur lake, the southern a new revelation. The Satlej is as always rudimentary and not easily recognisable.

Tibet Regnum falls within the catchment area of the Ganges, but Regnum Tangut is east of the upper Ganges, and has Barantola between long rows of nomads' tents and further south the legend: Woonplaats van Dalai Lama of Zeepriester, a notion that now begins to become more familiar to Asiatic students.

The old Chiamay lacus, which is now breathing its last, appears under new names, and east of it the draughtsman has found it more reasonable to combine Martini's source of the Hwangho with Grueber's Koko-nor and call the result Croce Lac, — a sort of »Saffron Lake», after the model of Martini's Croceus fluvius or Yellow River. Ides calls it Crocum Flumen.

If Lop-nor is a wandering lake on the face of the earth, the poor city of Lop and the Desertum Lop of Marco Polo are never allowed to get a rest on older maps. Ever since Fra Mauro and down to Ides, it is never missing, but always situated at a new surprising corner of the map, and always wrong. On Ides' map we find the Desertum Lop at the uppermost course of the Irtish, and not far east of the Caspian.[1] In Zagataykabul is Chiotan, probably Khotan, and west of it Andeghem (Andishan), Occient (Khodjent), and Taskent.[2]

[1] By the way, it should be noted that all the old cartographers wrote Lop and not Lob. So did Fra Mauro, so did Gastaldi, Mercator, Hondius, Jansson, and the others, and so did Ides. D'Anville wrote Lop-Nor, Stielers Hand-Atlas of 1826 has Lop See. Only the same atlas for 1875 has Lobnoor, following Klaproth's spelling. Prshevalskiy who was the first European of recent years to visit the lake Kara-koshun called it Lob-nor, and many maps followed his great authority, so for instance Saunder's Atlas of India, 1889, and Stielers Hand-Atlas for 1901. In 1906, when I travelled in the country I never heard any other pronunciation than Lop, though in the Russian translation of my book »Through Asia», V Serdse Asiy, St. Peterburg 1899, it was changed to Lob. But in this case Marco Polo, the real discoverer of Desertum Lop is a greater authority than Klaproth and Prshevalskiy. Already in 1904 Stieler's Atlas had returned to the version Lop. All reliable travellers, as Stein and Huntington, write Lop. So did Karl Himly in his Chinese translations which he carried out for me (see my: Die Geogr.-wissensch. Ergebnisse meiner Reisen in Zentralasien 1894—1897, Pet. Mit. Erg. Bd. XXVIII, 1900, p. 151 et seq., and Scientific Results, Vol. II, p. 278 et seq.). So does also Prof. A. Conrady in his work on my ancient manuscripts from Lou-lan, not yet published. Curiously enough Dr. G. Wegener, who collaborated with Himly, has Lob-nur (Zeitschr. d. Ges. f. Erd. zu Berlin, XXVIII Band 1893, p. 201 et seq.). Dr. Albert Herrmann has, of course, Lop-nor (Die alten Seidenstrassen zwischen China und Syrien, Wittenberg 1910). The spelling Lob ought to disappear for ever from maps and books!

[2] Under the Title Naaukeurige Kaart van Tartaryen, Pierre vander Aa, Leyde, the map of Ides was much spread during several years. It accompanies also Bergeron's Voyages faits principalement dans les XII, XIII, XIV, et XV siècles, La Haye 1735, Tome I and is reproduced here as Pl. XXXIX.

With his *Planisphère terrestre* of 1682, CASSINI had made a new start for a more modern and trustworthy representation of the earth, but the real reformation in the history of cartography was the work of the members of the French Academy of Science. This period was inaugurated by DELISLE during the last quarter of the seventeenth century, and came to an end about 1720. Delisle is the first modern cartographer in the present sense of the word. He is the great reformer who broke with old dogmatized mistakes and pressed the truth upon his time.[1]

If this opinion is true of Delisle as a draughtsman in general, it is not less correct for the representation he gives of Tibet.[2] Delisle's admirable map of S.E. Asia, *Carte des Indes et de la Chine dressée sur plusieurs Relations particulieres Rectifiées par quelques Observations*, Par Guillaume Delisle, Paris 1705, of which Pl. XL is only a part, shows at once that the draughtsman, with deep knowledge and sharp criticism, has made use of all material existing at his time, and it shows a very serious attempt to combine and compare the different scanty narratives with each other, an attempt that has of necessity resulted in an almost correct localisation of Tibet. Ptolemy has for ever finished the part he had played for nearly 1600 years, and the traditional mistakes of centuries have disappeared almost completely. It is therefore a matter of absorbing interest to trace the chief features of this wonderful map, within the boundaries of the regions occupying our attention.

The northern boundary of Cachemire is formed by a very high mountain range, from which the Indus, Sinde, comes down. On its northern side is Petit Tibet and Eskerdou and Cheker, taken from Bernier.[3] In relation to Eskerdou, Cheker (Shigar) is very well placed, but the capital traditional mistake, that both are situated on the upper Amu-darya instead of the Indus, is still there.

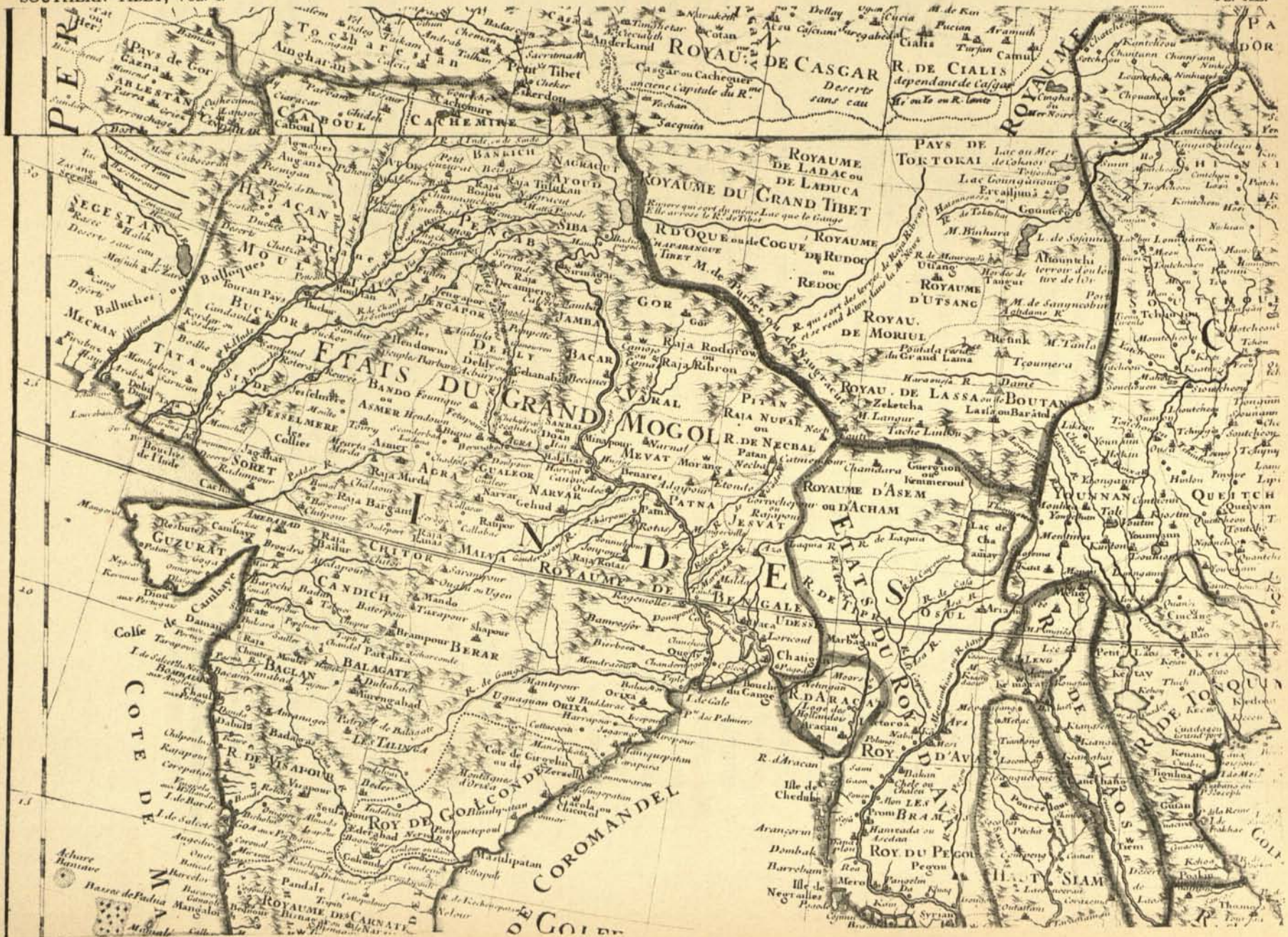
Cachemire with the Wulur lake is drawn at the wrong side of the Indus, the north instead of the south. Lahor correctly raises its walls on the banks of the Ravi, the upper course of which passes by Nagracut. The next Panjab river east of Ravi is called Van or Via, i. e. the Beas, as is also shown by Sultanpor. The easternmost tributary in the Panjab is called R. de Chaul ou de Sietmegus; south of its upper course is a town Sirina or Serinde, now Sirhind.[4] This river is therefore the Satlej. The curious way in which the different branches of the Panjab are supposed

[1] Die Reformation der Kartographie um 1700, von Christian Sandler, München und Berlin 1905, p. 1 and 23.

[2] So far as Central Asia and Tibet are concerned the ambitious Witsen had no reason whatever to write to Cuper, Nov. 5, 1714, as follows: »The Frenchman De Lisle is indebted to my map for all that he gives about those regions.» (F. G. Kramp in Remarkable maps.) It is sufficient to compare Pl. XL with Pl. XXXIV. The discoveries of Andrade and Grueber were open to Witsen as well as to Delisle.

[3] These names had first made their appearance on Visscher's map (Pl. XXXII). But the city Escalcand on the source of Amu-darya, which for the first time was seen on Gastaldi (Pl. XVII) and after him on nearly all maps, is probably nothing but Eskerdou, Iskardo, Skardo, the capital of Baltistan, or Little Tibet.

[4] In 1616 Edward Terry calls the river on which Jengapor is situated, the River Kaul. Delisle has both a city and a province Jengapor on his River Chaul.


ROYAUME DE CASCAR
R. DE CIALIS dependant de Cascar
ROYAUME DE LADAC ou DE LADUCA
ROYAUME DU GRAND TIBET
ROYAUME DE RUDOC ou REDOC
PAYS DE TORTOKAI
ROYAUME D'UTSANG
ROYAU. DE MORIUL
ROYAU. DE LASSA ou BOUTAN
ETATS DU GRAND MOGOL
INDE
ROYAUME D'ASEM ou D'ACHAM
ROYAUME DE BENGALE
ROYAUME DE GOLCONDE
ROYAUME DE VISAPOUR
ROYAUME DES CARNATES
ROY. D'AVA
ROY. DU PEGU
HAUT SIAM
COTE DE MALABAR
COROMANDEL
CHINE
YUNNAN
QUEITCH
Lac de Chamay
Lac au Mer de Cohanor
Lac Gounganour
Lac de Laqua
Lac de Sofamur
Lac de Tolotha
Lac de Tangut
Lac de Yamdrok
Lac de Tchamo
Lac de Tchaka
Lac de Tchaka
Lac de Tchaka

to join, does not matter much, nor the fact that, for instance, Suckor (Sukkor) is marked as situated on the Satlej, though it is in reality on the main river, far below the confluence of all the Panjab branches.

The source of the Satlej is situated amongst the mountains of a province Siba. I am not aware of the origin of this name, which may have been prominent in the beginning of the seventeenth century when Terry and Roe travelled in India.[1] On »*Sir Thomas Roe's Map of East India*» (Pl. XXXVII), the situation agrees perfectly with Roe's text, and from it Siba entered many European maps of India, for instance, Sanson's 1654 (Pl. XXIX). Delisle, who rejects Hardwar, has removed Siba somewhat to the west, and made it rather belong to the Satlej drainage area. On Witsen's map of 1687 (Pl. XXXIV) we have seen one of the feeders of the Ganges coming out of a Siba lake, a view adopted by Ides 1704 (Pl. XXXVIII). Some rumour must have reached Witsen's informant that the Ganges originated in a lake, the lake of Siba. Has now Delisle heard that it was the Satlej and not the Ganges that came from the lake of Siba, — or Siva, Civa, the Mahadeva of Hindu mythology, for indeed some 60 years later Father Tieffenthaler heard the Manasarovar styled as the lake of Maha Deo? Delisle has, however, taken the precaution to reject the lake and only to retain the old name Siba at the source of the Satlej.

The most interesting is Delisle's drawing of the upper Ganges. Here he has followed, or, at any rate, believes that he has faithfully followed the narrative of Andrade, along whose route he has entered Sirinagar, Mana, Badid pagode, Chaparangue or Tibet. These are all the names which are contained in Andrade's narrative.[2] But Delisle's Ganges does not come from a »pool» on the pass of Mana;[3] it takes its origin at a very considerable distance beyond Mana, and flows on its way through a considerable lake, north of the mountains. The lake is nameless as Andrade's »tanque», and it is meant to be the same. East of Badid (Badrid) and S.E. of the lake is Chaparangue or Tibet. North of it a long river running east to west seems to enter the lake, but a legend tells us otherwise: Riviere qui sort du méme Lac que le Gange. Elle arrose le R^e^ de Tibet. Delisle must have felt somewhat mystified by this extraordinary bifurcation, but he had nothing else to do than to

[1] Terry, 1616: »Syba, the chiefe Citie is called Hardwair, where the famous River Ganges seemed to begin, issuing out of a Rocke, which the superstitious Gentiles imagine to bee like a Cowes head . . .» (Purchas His Pilgrims, Vol. IX, p. 16). Roe, 1617: »Siba, the chiefe Citie so called, it borders with Nakarkut Southerly, it is all Mountainous.» (Op. cit. Vol. IV, p. 431.)

[2] After mentioning Agra, Deli and Laór, Andrade has Siranagar, called Sinadagar at another place, Rio Ganga, Pagode Badrid, also spelt Bradid, Manà, Tibet and Chaparangue. Bradid is of course the temple of Badrinat, visited by many pilgrims. »Assi somos passando algũs dias, atè que acabo de mes, & meo chegamos ao Pagode Badrid, que està nos confins das terras do Sinadagar, a este ha grande concurso de gente, ainda das partes mui remotas, como de Seylão, & Bisnaga, & outras que a elle vemem romaria.» (Novo descobrimento etc. p. 4, b.) But Andrade has also heard the real name and even written it down, for he quotes (p. 3) the exclamation »ye Badrynate ye ye».

[3] Only 100 years later this region was revisited by Europeans. On Kingsbury's, Parbury's, and Allen's Map of India 1825 (Additions 1827) the Alaknanda is shown as coming from a pool, Deb Tal, at the southern foot of the Mana Ghat.

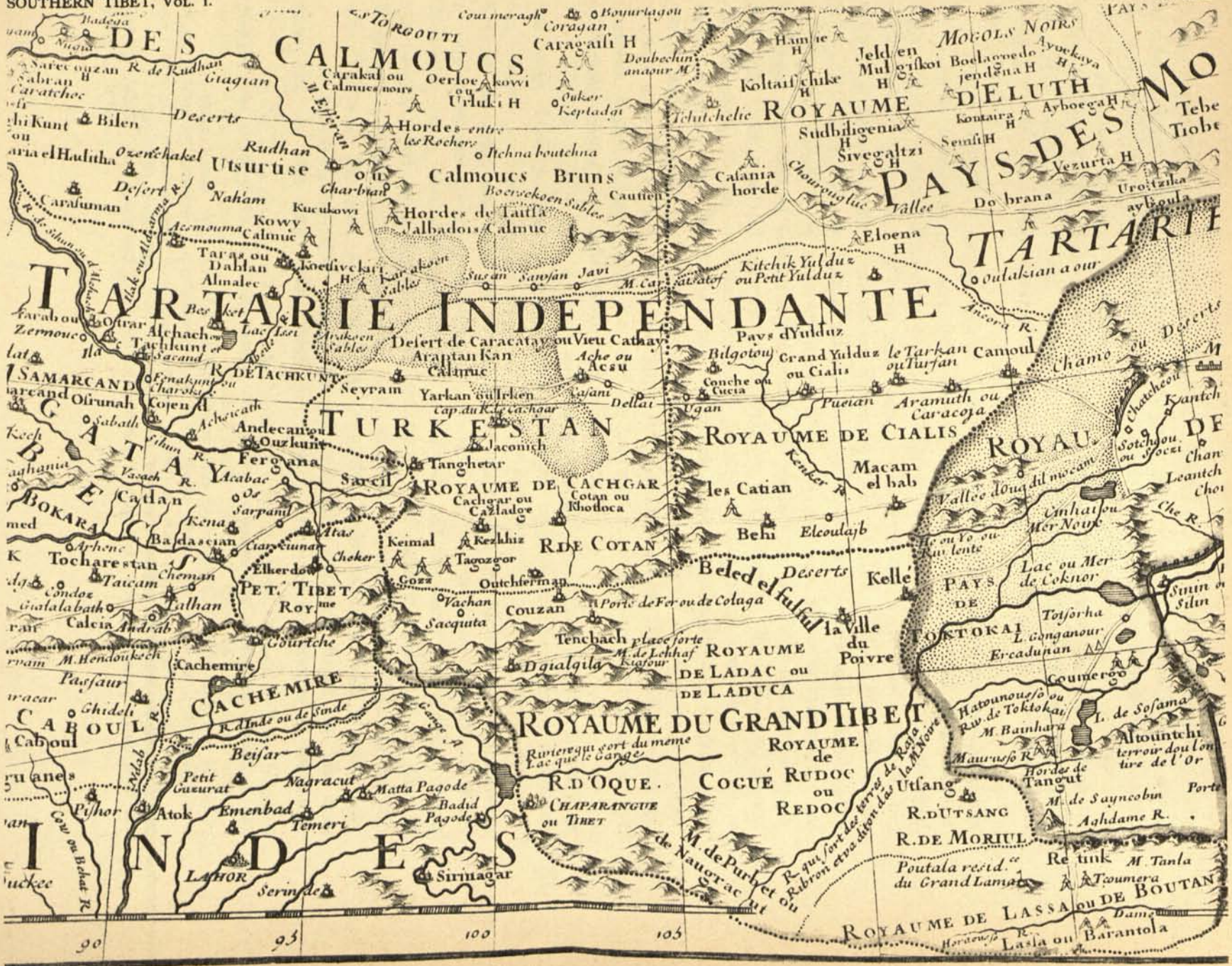
follow Andrade's text, which he has, of course, misunderstood, though his map, when nothing else was known from these regions, seems really to be in full accordance with Andrade's words: »onde nasce o Rio Ganga de hum grande tanque, & do mesmo nasce tambem outra, que rega as terras do Tibet», exactly as the legend on the map. From Andrade's pool issue the Ganges and the river watering Tibet; the same is the case with Delisle's lake. But by Tibet Andrade only meant Chaparangue. Delisle believes he meant the whole Royaume du Grand Tibet which is written north of and along the river; north of it is the Kingdom of Ladac or Laduca,[1] and south of it Rudoc or Redoc. Both Andrade and Delisle leave the river watering Tibet without a name. To Andrade it was only a small tributary to the Satlej; to Delisle it was a great river. He makes it flow through the Kingdom of Cogué, the present Guge, which in reality makes the river identical with the upper course of the Satlej, of which, however, Delisle could have no information. I have shown above that Kircher's lakes, Pl. XI, are the Manasarovar and Rakas-tal. Delisle, on the other hand, who missed the direct information Father Kircher had obtained, had no reason to confuse Andrade's pool with the Manasarovar. Therefore his map has no direct indication of this lake, except that his lake is too great for a pool.

To recapitulate, Delisle's hydrography is the following: the Indus and the Ganges rise close to each other in the mountains of Cachemire, for the river which enters the nameless lake from the N.W. is the uppermost Ganges, as shown on Delisle's map, *Carte de Tartarie* 1706 (Pl. XLI). Two rivers issue from the lake, one running eastwards through Tibet, the other being the Ganges. The Satlej has no connection with the lake. The topography is not bad, though the hydrographical combination of the different waters is wrong. The nameless river should be flowing west instead of east, and join the Satlej at Siba instead of the lake, and the Ganges should be cut off from the lake, and the map would be right. As it is the lake cuts the Satlej in two pieces, of which the upper half belongs to Cogue, the lower starts from Siba.

Only a very scanty knowledge of Tibet had been gained in Europe about 1705, and still it was sufficient to confuse even the most clever draughtsmen. To place the different kingdoms, rivers and mountains approximately correctly in relation to each other was, of course, impossible. Delisle gives us a very fine proof of the maximum of correctness to which such attempts could reach. He separates Tibet from India with a double range called M. de Purbet ou de Naugracut, of which the first name *eo ipso* means mountain.

North of these mountains Delisle has seven kingdoms, or six if Grand Tibet be considered as including the whole lot. Leaving eastern Tibet, with Lassa alone, we have so far five kingdoms: Ladac, Cogué, Rudoc, Utsang, and Moriul. Here again Andrade is his source. For when the Portuguese missionary, accompanied by

[1] In his Histoire . . . du Tibet, p. 39, Andrade uses the form Lodacca.


TARTARIE INDEPENDANTE
DES CALMOUCS
MOGOLS NOIRS
PAYS DES MO
TARTARI
ROYAUME DE DELUTH
Calmoucs Bruns
Hordes de Taiffa Jalbadors Calmuc
Hordes entre les Rochers
Utsurtise ou
Rudhan
Desert de Caracatay ou Vieu Cathay
Araptan Kan Calmuc
Pays d'Yulduz
Kitchik Yulduz ou Petit Yulduz
Grand Yulduz ou Cialis
le Tarkan ou Turfan
Camoul
Aramuth ou Caracoja
ROYAUME DE CIALIS
ROYAU DE
TURKESTAN
SAMARCAND
DETACHKUNT
Yarkan ou Irken
Cap du Kan Cachgar
ROYAUME DE CACHGAR
Cachgar ou Cazladge
Cotan ou Rhotloca
les Catian
Macam el hab
Behi
Elcoulajb
Beled el fulful
Deserts
Kelle
PAYS DE TOKTOKAI
Lac ou Mer de Coknor
Toffortha
L. Gonganour
Ercadunan
Coumergo
Tochare stan
Taicam
Talhan
Calcia
Andrab
Elkerdon
PET. TIBET
Roy me
Gozz
Outchferman
Vachan
Couzan
Porte de Fer ou de Colaga
Sacquita
Tenchach place forte
M. de Lehhaf
Kiafour
Dgialgila
ROYAUME DE LADAC ou DE LADUCA
la Ville du Poivre
Gourtche
Cachemire
CACHEMIRE
Passaur
Ghideli
CABOUL
Caboul
R. d'Inde ou de Sinde
ROYAUME DU GRAND TIBET
Riviere qui sort du meme Lac que le Gange
ROYAUME de COCUÉ RUDOC ou REDOC
R. D'OQUE
CHAPARANGUE ou TIBET
R. D'UTSANG
R. DE MORIUL
Utfang
Tangut
Hordes de
Altountchi terrour dou l'on tire de l'Or
L. de Sofama
Mauruse R.
Aghdame R.
Retink
M. Tanla
Poutala resid.ce du Grand Lama
Teoumera
DE BOUTAN
ROYAUME DE LASSA ou DE
Lasla ou Barantola
Beisar
Petit Guzurat
Nagracut
Matta Pagode
Badid Pagode
Emenbad
Temeri
Atok
Pishor
LAHOR
Serinde
Sirmagar
INDES
Kaschgar
Yarkan
Aksu
Kuchlowi
Kowy Calmuc
Taras ou Dahlan Almalec
Koetiveckari
Nahiam
Charbiat
Caratuman
Ozerchakel
Bilen
Deserts
Caratchec
Sabran
Giagtan
Sarecouzan
Caratakal ou Calmucs noirs
Oerloc Kowi ou Urluk
Caragaili
Coragan
Bourtagou
Coumeragh
Torgouti
Koltaifchike
Tchutchelic
Hamue
Jeldeen Mulgufkoi
Boelaevedo jendena
Ayoekava
Ayboega
Konfara
Sudhiligenia
Sivegaltzi
Semfi
Vezurta
Calania horde
Chourugluc
Vallée
Dobrana
Uroitzika
Eloena
Kitchik Yulduz ou Petit Yulduz
Oulakian a our
Ancora R.
Chamo ou Deserts
Kantch
Chatcheou
Sotchou ou Soczi
Vallée d'Ou dil mocam
Cinhai ou Mer Noire
Che R.
Leantch
Choi
Chan
Silin
Suuin
Hatounouffo ou Riv. de Toktokai
M. Banhara
Horde de Tangut
Porte
Aghdame R.
Poutala resid.ce du Grand Lama
Retink
M. Tanla
Teoumera
DE BOUTAN
Lasla ou Barantola
Dame
Hordeuffo R.
Mauruse R.
Utfang
R. D'UTSANG
R. DE MORIUL
M. de Sayncobin
Porte
Altountchi terrour dou l'on tire de l'Or
L. de Sofama
Hatounouffo ou Riv. de Toktokai
M. Banhara
Coumergo
Tolforha
L. Gonganour
Ercadunan
Lac ou Mer de Coknor
PAYS DE TOKTOKAI
Kelle
Deserts
Beled el fulful
la Ville du Poivre
ROYAUME DE LADAC ou DE LADUCA
Tenchach place forte
M. de Lehhaf
Kiafour
Dgialgila
Porte de Fer ou de Colaga
Couzan
Vachan
Sacquita
Gourtche
Cachemire
CACHEMIRE
Passaur
Ghideli
CABOUL
Caboul
R. d'Inde ou de Sinde

Father GONZALES DE SOUSA and MANUEL MARQUES had made his second journey to Chaparangue, which he reached on August 28th, 1625, he wrote a letter in which he says: »The kingdom of Tibet or The Powerful embraces the Kingdom of Cogue, where we live at present, those of Ladac, Mariul,[1] Rudoc, Utsang, and still two more situated farther east. With the great kingdom of Sopo (Mongolia), which on one side borders upon China, on the other upon Moscovy, they form together Great Tartary.» [2] In this letter exactly the same names are mentioned as those found on Delisle's map.

From the N.E. slopes of the Naugracut mountains, a river flowing N.E. has the legend: »R(iviere) qui sort des terres de Raja Ribron et se rend diton dans la M(er) Noire.» Raja Rodorow or Raja Ribron is to its greatest extent situated south of the mountains. I have not been able to find out what it is meant to be. Rahia Rodorou was also entered on Sanson's map 1654 (Pl. XXIX). Should Ribron be a survival of Riboch, Ribok, Riboth or any other of Odoric's and Mandeville's versions for Tibet? [3] A river originating from the northern slopes of Himalaya, west of Nepal, and east of Chaparangue could not possibly be anything but the Tsangpo. But this river was still unknown, and Delisle's river flows to the N.E., and comes, on the map, to an end in Grueber's country of Toktokai. But on the map of Great Tartary (Pl. XLI) the river continues through Toktokai and empties itself partly into Cinghai, and partly into Coknor. But as Coknor (Koko-nor) is in connection with the Yellow River, the latter, in Delisle's opinion, has its source on the northern slopes of the Himalaya. Still he has also a Hwangho-source after the type of Martini, though he calls the double lake Sosama.

Delisle shows such a great and really touching reverence for the memory of the Jesuit Fathers, that he cannot induce himself to recognise in Grueber's Koknor the Cinghai or Mare nigrum of Martini. And therefore he has two copies of Koko-nor on his map, one with the Chinese, the other with the Mongol name. Here is a new example to the fact alluded to so often in the preceding chapters, that information from two different sources about one and the same geographical object may easily lead to reiterations on the maps. We saw it already in the case of Ptolemy's Oechardes and Bautisus, and we saw it with Edrisi's lakes of Berwan and Téhama, the river being in both cases the Tarim, and the lake Manasarovar.

It is surprising that Delisle having marked Grueber's route on his map does not, in this case, follow the text verbally, for Grueber speaks of »Kokonor

[1] It should be noted that Andrade has Mariul, but Delisle Moriul. Csoma de Körös translates Mar-yul »low country», Hiuen Tsang calls it Ma-lo-pho, Marpo, »red» (Cunningham: Ladak, p. 18). In any case Mar-yul is the same as Ladak, which Andrade could not know, and still less Delisle.

[2] Lettere annue del Tibet del MDCXXVI et della Cina del MDCXXIV, scritta al M. R. P. Mutio Vitelleschi, Generale della Compagnia de Giesu Roma 1628. As this work is not available to me I have the quotation from C. Wessels' article: Antonio de Andrade, Op. supra cit. p. 29.

[3] It has some resemblance also with the Rahia Tibbon of several maps, for instance Pl. XXIX, and Pl. XXXIII. In Terry's and Roe's lists of Indian provinces there are no names reminding of Rodorou or Ribron.

dunque significa . . . Mar grande dalle rive del quale successivamenta discostandosi il Padre, entrò in terra Toktokai . . .», while on both Delisle's maps Toktokai remains at a considerable distance west of Grueber's route. In another point he follows Grueber closely, as may be seen from his maps, namely when the Father says of Koko-nor: »Questo è un mare . . . di done hà l'origine il fiume Giallo di China.»

If Koko-nor appears twice on Delisle's map, we find Lhasa thrice, under different names. The first is Utsang, capital in the Kingdom of Utsang, the two provinces of U or Wei and Tsang, which we remember from the title of the Chinese work Wei-tsang-t'u-chih. This Utsang Delisle places south of the river Maurousso, since Huc's and Prshevalskiy's memorable journeys better known as Mur-us or Murussu, and also as Di-chu, or the upper Yangtse-chiang. North of the river is M. Bainhara or Bayan-khara-ula, continuing eastwards in the range Altountchi »terroir d'ou l'on tire de l'or».[1]

Continuing southwards, past Moriul, we reach Poutala residence du Grand Lama, which is the second Lhasa of the map. The third, Lassa or Barantola, is the capital of the Kingdom of Lassa or Boutan.

E.N-E. of Poutala is Grueber's Retink, at the southern foot of M. Tanla. Is this Tanla meant to be Nien-chen-tang-la, the eastern Transhimalaya? It seems so, for Potala and Reting-gompa are indeed situated at the southern foot of the Transhimalaya. But such conclusions are useless as there are three Lhasa's on the map. Add to this that on the northern side of Delisle's Tanla is a river Aghdame, now known as Akdam, a right tributary to the Mur-ussu. Dr. TRONNIER identifies Grueber's Toktokai with Mur-ussu.[2] On Delisle's map both are entered as separate rivers, and Toktokai is also called Hatounousso. The latter may perhaps be identical with the Hatun-gol of Prshevalskiy,[3] the Mongol name for the Yellow River where it leaves Oring-nor; as gol, ussu, and muren all mean river in Mongol, the river in question can as well be called Hatun-ussu, exactly the same as the Hatounousso of the map.

To return to Tanla we read south of this range the name Tçoumera, which sounds somewhat like d'Anville's Tchimouran and Littledale's Charemaru, as the highest peak of Nien-chen-tang-la is said to be called. On Delisle's map, however, the name is attached to a tent-camp.

---

[1] In Jaggatai Turki altunchi means both gold-digger and goldsmith. In the mountains south of Lop-nor there are many gold-mines, the most important of which is Bokalik. (See my works: Through Asia, II, p. 923, 957, and 960; Central Asia and Tibet, I, p. 470, II, p. 197; Pet. Mit. Erg. Bd XXVIII, p. 6 and 23, where two villages are mentioned, called Altuntji, one near Posgam, the other at Khotan: and Scientific Results, Vol. II, p. 16 and 93, etc.)

[2] L. c. p. 346. I shall have to return to this question in connection with the journeys of Grueber and Huc. For the present be it sufficient to say that Rockhill crossed the river Toktomai on June 18, 1892, and the Murus on the 22nd. Diary of a Journey through Mongolia and Tibet, Washington, 1894, p. 212 and 216.

[3] At Kyakhtiy na Istoki Sholtoy Reki, p. 154.

South of it is Haraousso, a river flowing eastwards, which comes to an end before reaching the eastern boundary of Tibet. Compared with the situation of Poutala and Retink this river ought to be the Tsangpo, but unfortunately Dame, a place in later years mentioned by della Penna and Nain Sing, is south of it, and, still worse, so is Lassa or Barantola the capital of Boutan. The Haraousso is therefore simply Nak-chu, or the upper Salwen, in the neighbourhood of which I was stopped by the governor of Nak-chu in 1901.[1] Nak-chu means Black water, and so does Hara-ussu in Mongol. A good number of Mongol nomads are living in this region.[2] This explains why the Mongol and not the Tibetan name has reached Delisle.

As could be expected Grueber's route from Lassa to Agra is entered. Between Lassa and Tache Linbou (Tashi-lunpo) it crosses a range of mountains, the later on so famous Kamba-la, which is not mentioned in Grueber's narrative. Then follow M. Langur or Himalaya, which is correctly shown as a continuation of M. de Naugracut, and, on the southern side, Couti, Nesti, Catmendour-Patan, Necbal, Etonde, Patna and Benares. At some distance from Tache Linbou is a mountain Zeketcha, which seems to be identical with Shigatse. Grueber had forgotten the magnificent river he crossed south of Lassa, and therefore no sign of the Tsangpo is here to be seen on Delisle's map.

It is surprising that the Tsangpo-Brahmaputra could keep itself hidden for such a long time. The Indus and Ganges have been known ever since Alexander's days, and even the Satlej is marked on Ptolemy's map. In 1705 Delisle believes that he has placed the sources of these three rivers fairly correctly. But he does not so much as suspect the existence of the Tsangpo. Through thousands of years this river remains concealed between Himalaya and Transhimalaya. And still it had been crossed by Odoric, Grueber and Dorville, and perhaps Verbiest and Gerbillon and other Jesuits in Peking had heard it mentioned, for to the Chinese it was very well known. When the members of the French Academy of Science, together with the learned Jesuits in Peking, so late as in 1705, — and after having gathered information about Hatun-ussu, Mur-ussu, Akdam, and Nak-chu, had not succeeded in finding the least sign of the Tsangpo, one may be justified to ask how ever it would have been possible for Ptolemy to draw a map of the whole course of the Tsangpo!

That the transverse valley of the river through Himalaya was unknown to Delisle is not surprising, for it cannot be said to be more than superficially known even in our days. But the lowest part of the river appears now for the first time, under the name of Laquia, perhaps on account of its coming from the district of Lakhimpur? It takes its origin in the Lac de Chaamay, which now, as a rather suspicious object, has been deported into the unknown darkness of Indo-China.

[1] Central Asia and Tibet, Vol. II, p. 374.

[2] »The Dam Sok Mongols living along the Lh'asa highroad north of Nag-ch'uk'a (Nak-chu) are of the same stock as the Ts'aidam Mongols.» Rockhill, »A Diary etc.», p. 157.

Turning our attention to the north we must confess that Tibet is very well placed as compared with Eastern Turkestan. There may even be said to exist an indication of the western Kwen-lun. He has Casgar twice,[1] and calls the southern one »Casgar ou Cacheguer anciene Capitale du R^me^».[2] On his map of 1706 (Pl. XLI), the northern Casgar has disappeared, but »Yarkan ou Irken[3] Cap. du R. de Cachgar» is still ten days north of Cachgar. On Pl. XL Cotan is situated on a river flowing S.E. and ending in »Deserts sans eau». On Pl. XLI the river of Cotan flows north to a desert which is part of Desert de Caracatay ou Vieu Cathay, a name that he prefers to the old Desertum Lop. In this desert he has placed the famous »Araptan Kan Calmuc», who, a few years later sent his armies through Tibet and captured Lhasa.

Other names in this part of Central Asia will easily be recognised. There are the routes of Goës and the itinerary of Bernier, and an Arab itinerary through northern Tibet. Acsu, Yulduz, Turfan and Camoul are well placed. The Kingdom of Cialis is still there and seems to refer to the surroundings of Bagrash-köl. The river of Kenker must be either that of Kara-shahr, Khaïdu-gol, or that of Korla, Konche-darya. There is indeed a Conche not far west of it, but it is an alternative name for Cucia which is Kucha. There is also a Ugan, our Ugen-darya.[4] But only two rivers are drawn in Eastern Turkestan, Khotan-darya and Konche-darya; the Tarim, of which Ptolemy had two copies, is missing, and so is Lop-nor, which is not surprising, for only between 1760 and 1765 Emperor CHIEN LUNG dispatched the Jesuits D'ESPINHA, D'AROCHA and HALLERSTEIN to make a map of the surroundings of Lop-nor.[5]

Comparing the map of 1705 (Pl. XL) with another map (Pl. XLII), 1723, by the same author, we find considerable improvements in several respects. The title of the map is so important that it must be given in full: »*Carte d'Asie dressée pour l'Usage du Roy. Sur les memoires envoyéz par le Czar a l'Academie Royale des Sciences Sur ce que les Arabes nous ont laissé de plus exact des pays orientaux Sur un grand nombre de Routiers de terre et de mer et de Cartes manuscrites detaillées. Le tout assujeti aux observations de l'Academie et a celles des R. R. P. P. Jesuites et autres Mathematiciens Par* GUILLAUME DELISLE . . . *Juin 1723.*» The memoirs which Tsar Peter sent to the Academy were to a very great extent the result of the assiduous work carried out by the Swedish officers kept in Russian captivity at Tobolsk and other places of Siberia, as shall

---

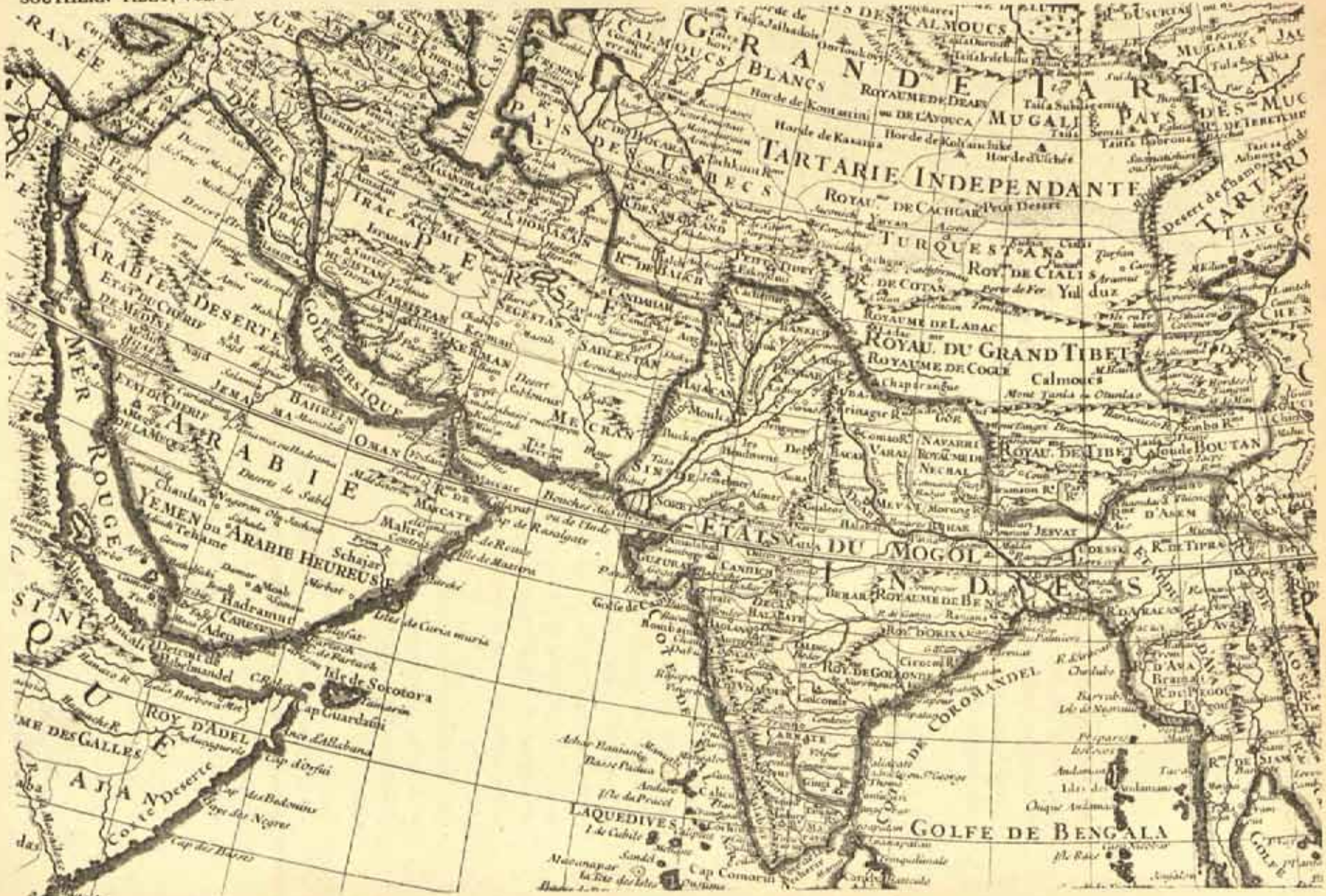
[1] The northern falls outside the margin of Pl. XL.

[2] »Kacheguer . . . was formerly the royal residence, though now the King of Kacheguer resides at Jourkend, a little more to the north, and ten days' journey from Kacheguer.» Bernier, as quoted above.

[3] The name for the place comes from Isbrants Ides' map Pl. XXXVIII. On his map of 1705 Delisle calls the city Hiarcham and Yourkend.

[4] I have described these rivers in Pet. Mit. l. c., and Scientific Results Vol. II.

[5] Scientific Results, Vol. II, p. 273 et seq., Richthofen, China I, p. 690.



Delisle's Map of 1723.

be shown hereafter, though a great part of these communications certainly concerned other parts of Central Asia. The information about Tibet, as shown on the map of 1723, is obviously chiefly derived from the French missionaries of Peking. In 1723 Delisle has indeed, and in a most critical and clear-sighted way, got rid of all the old deformities, which he had accepted on his previous editions.

On the map in question the Indus system is about the same as on the map of 1705, though the Satlej takes its origin in the Himalaya and not in Siba, and then goes its own way down to the delta. The Indus and its eastern tributaries have their sources in Mount Ima, a name that here appears as a link between Imaus and (H)ima(laya). The range separates the Panjab from Ladac, which has now also a capital Ladac, the name Leh still being unknown.

The Ganges may now be said to come only from a pool on the heights of the range, beyond which is the river watering Tibet; it has lost all connection with the Ganges pool. Chaparangue is at its old place.

The south-eastern continuation of the mountains of Ima is called Montagnes de Negracut.[1] This range divides eastwards into two branches, of which the northern is called Mont Tanla or Otunlao; the southern first goes southwards under the name of Tangri or Tangour, which must be bad spelling for Gangri and Langur; then it turns off to the east, corresponding to the Eastern Himalaya.

The most important innovation presented by this map is that Lassa is shown as situated on a great river, Bramanpoutre, which is now recognised as the upper course of the river Laquia. Therefore the Chiamay lacus is superfluous and has been extinguished for ever. For the first time the connection between the Tsangpo and Brahmaputra has been established, from notions collected by the Capuchins at Lhasa and Takpo, but the Tsangpo is called Brahmaputra, and the Brahmaputra Laquia. More than a hundred years later this fundamental truth of Himalayan hydrography was destroyed by Klaproth, and it is not very long ago since it was re-established in its place again.

A mistake is to join the Haraousso or Nak-chu with the river of Dame and Lassa, the Ki-chu, and to include it in the Brahmaputra system instead of that of the Salwen. Comparing this hydrography with the orography of the map one would feel inclined to identify Mont Tanla with the eastern Transhimalaya. But this Tanla is situated north of Nak-chu and is the same as Abbé Huc's Tanc-la.

Towards the basins of Central Asia Great Tibet is bordered by nearly the whole Kwen-lun. There is no river at all in Eastern Turkestan, and no Lop-nor. Cachgar is still south of Yarcan, and Outch-ferman may be Uch-turfan. There is only one Koko-nor, called Sihaï or Coconor, and the Hwangho comes from a lake Sosama, as was only partly the case in 1705.

[1] The city Negracut is on the upper Ravi. There is also a Negarcut north of the Ganges delta.

On his map: *Carte de Perse, 1724*, which is superfluous to reproduce, Delisle shows the source of the Indus in Mont Caucase from where it flows to the city of Cachemir and a lake with a palace on an island, and thence to Atok, receiving the Nilab.

It may be suitable to insert here a few extracts from books and narratives of that time, quotations which will give a stronger background to the high merits of Delisle.

MANOUCHI's *Memoirs* belong to a somewhat earlier period, for he served AURANGZEB who was the ruler of India in 1658 to 1707. But as these *Memoirs* were edited by CATROU in 1709, they may be mentioned here.[1] There is nothing new in the work, which was behind its time, and the author relies more upon the observations of Teixeira, della Valle, Roe, de Laet, Bernier, Tavernier, and others, than his own. Of the Ganges he says that it takes »its source almost at the same height with the Indus towards the North». Regarding the source of the Indus we read: Cachemire is »the most Northern Country of the Mogols Dominions, Scituate at the foot of Mount Caucasus. Cachemire is indeed but one large Valley surrounded with Mountains. Some pretend that the River Indus takes its Source there, but 'tis a mistake not follow'd by any Geographer. Its true that a great many Rivulets rising in Cachemire run into the Indus . . .»

In an article: »*Recherches à faire dans les Etats occupez par les Mahometans*», we get an idea of what was regarded as the chief Indian desiderata of physical geography in 1715.[2] It is a little »Hints to Travellers» 200 years ago. In the Kingdom of Kachemire, it is said, one should try to find out the cause of the sudden changes on Mount Pire-penjale, »where one passes from summer to winter in less than an hour». One feels a suffocating heat at the foot of the mountain and towards its heights everything is covered with ice and frozen snow. Therefore the form and height etc. of this mountain should be examined. In these words are expressed the understanding of the importance in hypsometrical relations, which was, however, familiar to Father Gerbillon some 20 years before. The glaciers and the part they played as birth-places of the great rivers had not yet attracted the attention of geographers.

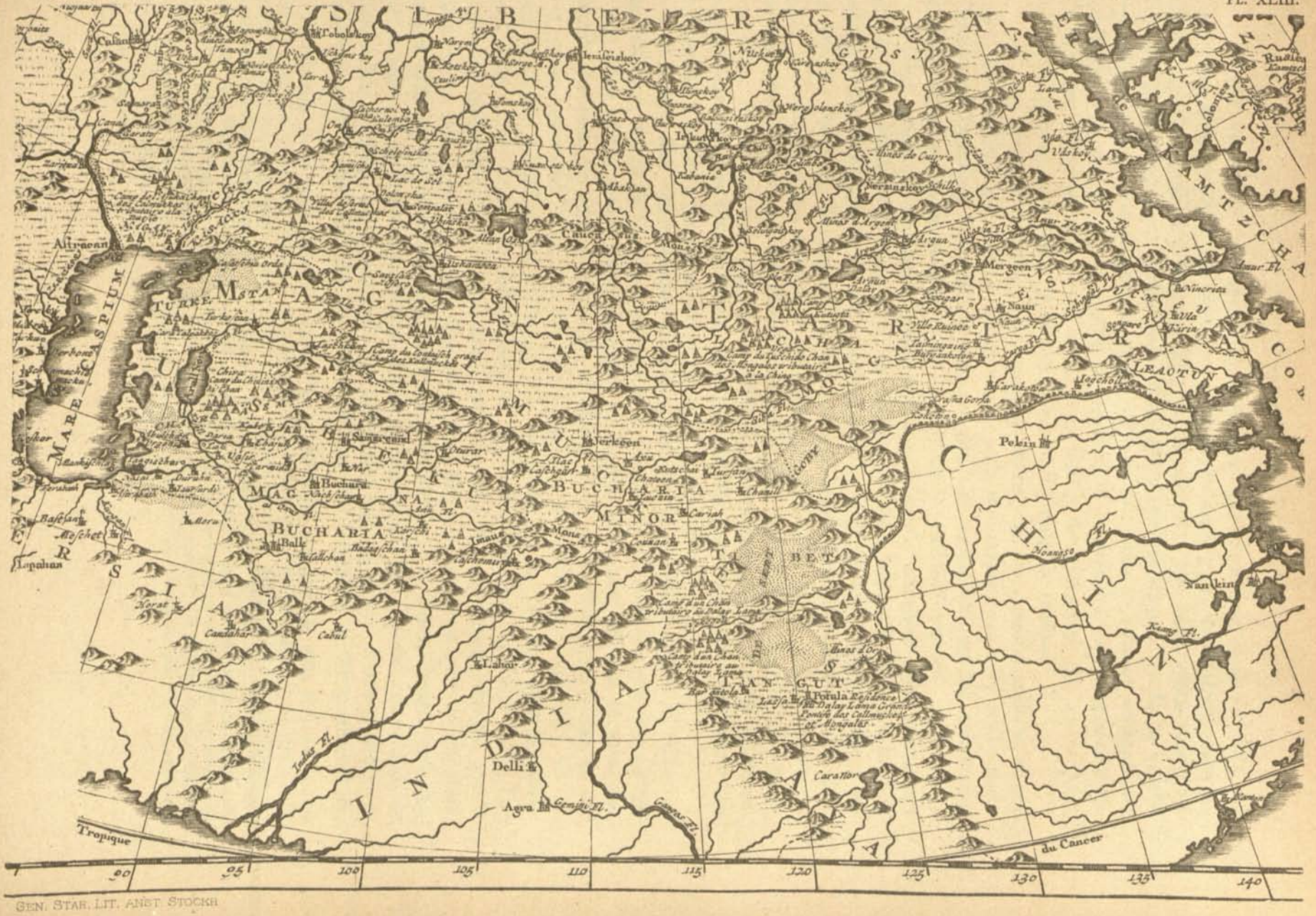
Further: »whether it be true that in a place called Sang-safed, and which is not very far from a great Lake near the even in summer frozen Caucasus, a great noise is capable of exciting a strong rain, and, provided the story to be true, one should investigate the cause of this phenomenon.» Where this »White Stone» and »great Lake» are situated is, unfortunately, not told.

Another matter would be to study the countries situated in the mountains of Caucasus and surrounding Kachemire, and what is to be found in them.

---

[1] The General History of the Mogol Empire, from it's Foundation by Tamerlane, to the Late Emperor Orangzeb. Extracted from the Memoirs of M. Manouchi, a Venetian, and Chief Physitian to Orangzeb for above forty Years. By F. F. Catrou. London 1709, p. 15 and 194.

[2] Recueil de Voiages au Nord, Tome I, Amsterdam 1715, p. 47 et seq.



Gen. Stab. Lit. Anst. Stockh.

»Carte Nouvelle de l'Asie Septentrionale», 1726.

Finally researches are necessary regarding the periodical rains of India, »at what season they set in, if the difference in precipitation is great in different countries, both as regards season and volume; from which direction and with which wind they come to each country of India, and what effects they produce . . . By a careful examination of these countries and these different situations in relation to seas and mountains, etc., one would, no doubt, be enabled to explain the real causes of these rains, of the different seasons of which they fall in these regions, etc. . . .» Very wise words indeed, and which it should take a long time to realize!

A new time is dawning! The map is there with its detailed outlines of the coasts, the physical phenomena which return with the seasons are very well known — and were known in Alexander's days —, but the human longing for conquering the Unknown is no more satisfied with mere facts, it demands reasons.

Tibet remains practically unknown, for Delisle's excellent map does not seem to have made any impression on the time.[1] And, after all, Delisle had only combined the information of his time in a new, original way. Exactly the same material had been at the disposal of Visscher and every other draughtsman ever since 1662. But they had not ransacked the texts so thoroughly as he did. Therefore a traveller who pretends to have lived for a very long time in the Kingdom of Boutan, i. e. Tibet, relies, not upon his own faculty of observation, but on the old maps and geographical dogmas, that is to say, upon the general ignorance, where only such men as Andrade, Grueber, Gerbillon, were splendid exceptions.

If I say that the following passage from the »*New Description*» of Tibet of this unknown fellow is the most important in his store of materials, one may judge of the value of the rest.[2] The Kingdom of Boutan is situated in Asia, he says, and towards the east, he adds in the style of Marco Polo, »it borders upon China, to the west upon Indoustan, that is to say the Kingdoms of Néepal or Nercerri (?), to the north upon the Kingdoms of Foukten (?) & the Kalmoucs in Tartary, & to the south upon Mogol, or even, as some pretend, upon the Kingdom of Syam . . . The country is altogether full of Mountains, why the cold is very strong, though one is rather near the Equator. The Mountains are, the very greatest part of the year, covered with snow, & nearly everywhere totally sterile . . . From Bengal to Lassa one reckons three months journey.» Dam is mentioned, but we are not told of its whereabouts. Lassa is surrounded by mountains on all sides. Musk is the most important trade which was already known by the old Suleiman in the ninth century.

[1] Eleven years after Delisle's map of 1705 (Pl. XL), the »Grosser Atlas über die Gantze Welt . . . von Joann Baptist Homann, Nürnberg M DCC XVI», was published, and all its text, p. 36, has to tell is: »In der grossen Tartarey sind unter anderen folgende Königreiche zum wenigsten den Namen nach am bekandtesten als . . . Barantola, Necbal, Tanju, gross Thibet, klein Thibet, Kasgahr, Samarkand und Balch, von welchen allen man, weil von dem gantzen Land bishero noch nichts bekandt ist, nichts sonders vermehlen kan, sondern es der folgenden Zeit und genaueren Entdeckung überlassen muss.» Here is a cartographer who confesses his ignorance, and expresses his wishes for the future.

[2] Nouvelle Description du Royaume de Boutan, Faite par un Voyageur qui y a demeuré fort long-temps. Le Nouveau Mercure, Paris 1718, p. 73 et seq.

In another book which was written by the elder PETIS DE LA CROIX who died in 1695, but which was published in English in 1722, and accompanied by a map of Delisle, we are astonished to see that no other authors are consulted on matters Tibetan, than the Arabs.[1] The author believes that the »reader will be glad to know some particular account of Tebet», which is situated between 30 and 40° of Lat., and between 100 and 110° of Long., »according to the situation, given it by the Eastern Geographers». — »It contains part of the Region called Turc-Hinde, because it is a part of Turquestan on the one side, and of India on the other. Some divide it into two Parts, calling it the Great and Lesser Tebet. The Great borders on China, the Less is situate to the East of the little Kingdom of Kaschemire, just behind the Mountains; and they are both but six Weeks Journey over. This Country is full of Towns and Villages well inhabited; the People are so good humour'd and chearful, that they breathe nothing but Joy and Pleasure. But what is most surprising, is, that there is a Mountain called Jabal Assumoum ('the Mount of Poison'), which inspires all those with Melancholy who come near enough but to smell it, nay, even turns their Tongues black, in such a manner, that they remain black all the rest of their Lives.» Then follows the ordinary story of the musk and rhubarb. Of the Jaxartes or Sihon he knows that it has two sources in Mount Imaus, and falls into the Caspian Sea.[2]

It is in vain that one reads through the many volumes of »*Recueil des Voyages qui ont servi a l'etablissement et aux progrez de la Compagnie des Indes Orientales*»,[3] for there is not a word about the interior of the country. The musk trade is described, as it was carried on in Goa, and it is said to come from Tartary through China. When Mount Caucasus is once mentioned, the quotation is from Pliny. The whole collection is nothing but capes, islands, ports, ships, coasts, seas,

---

[1] The History of Genghizcan the Great, . . . Collected from several Oriental Authors, and European Travellers . . . By the late M. Petis de la Croix Senior . . . faithfully translated into English, London 1722, p. 58, 116, and 173.

[2] In connection with Caschgar and Hyarcan he has a very surprising story which sounds like a good joke. A »M. Sparvenfeldt, who was Master of the Ceremonies to Ambassadors at the King of Sweden's Court, being at Paris in 1691, assur'd the author that he had read in the ancient Annals of Sweden that the Swedes took their Original from the City of Caschgar in Turquestan».

Probably Petis de la Croix has misunderstood the learned Sparfvenfeldt, though the latter was said to have thoroughly mastered fourteen languages. As a matter of fact Sparfvenfeldt was very far from the opinion that the Swedes originated from Asia. On the contrary, he was, — as his famous countryman Olof Rudbeck, who lived at the same time, — persuaded, that Sweden was the origin of humanity. To prove the correctness of this theory he was despatched, in 1688, by King Charles XI, upon an expedition of several years, which brought him so far as to Spain and Africa.

[3] Rouen 1725; Tome V, p. 13, Tome VI, p. 400.

In another work, Histoire de Timur-Bec, Petis de la Croix, Paris 1722, there is a map, Carte de l'Expedition de Tamerlan dans les Indes, which shows great discrepancies with Delisle, 17 years earlier. The little map is of no importance whatever, but I have given a reproduction of it Pl. IV. It shows that Delisle was not generally accepted. Petit Tibet and Grand Tibet are well placed; the western Himalaya and Kwen-lun are visible; at the upper Satlej is a place Mansar, which reminds one of Manasarovar; M[t] Couké is also below Mansar. The Ganges comes from a lake below which is the eternal Cow: »Vache de piere adorée Par les Guebres» (!).

and trade, the naval achievements of a set of very clever and courageous, and — *sit venia verbo* — stupid sailors, who had no interest for the country at a few leagues from the coast.

I will now say a few words about ABUL GHAZI's genealogical work on the Tartars, specially on account of the accompanying maps.[1] On p. 41 of the French edition we are told that Ogus-Chan conquered the Empire of Kitay, the City of Dsurdsut, and the Kingdom of Tangut together with Cara-Kitay, the capital of which is a great Town; »this country is inhabited by people, as black as the Indians; they live in the surroundings of Lake Möhill between Kitay and the Indies, a little on the south». Behind Kitay and near the Sea Ogus-Chan came across a Chan called Itburak. Some of the strange names in this passage are to be found on one of the two maps in the work, which I have reproduced as Pl. XLIII.[2]

The source of the Indus is situated in the Imaus Mons on the very frontier of Bucharia Minor or Eastern Turkestan. The source of the Ganges is a nameless lake further east in the same mountain. East of the source of Ganges Tibet is shown as situated in Desert Goby, surrounded by mountains. Between both is a »Camp d'un Chan tributaire au Dalay Lama». South of Tibet is a river Yekegoll falling into two lakes, probably a survival of Cinhaï and Coconor. South of this river is Tangut with another tributary chief, and Barantola, and, in the southern part, Lassa and Potala, »Residence du Dalai Lama Grand Pontife des Callmuckes et Mongales».

From this arrangement one gets the impression that Tibet is represented twice on the map, the southern one being called Tangut.[3] Lassa and Potala show that Tangut stands for Tibet Proper, and in Mongolia Tibet is indeed called Tangut. Barantola is the Mongol name for Lhasa, and the capital therefore is marked twice. If the northern Tibet of the map is also meant as Tibet Proper, Yekegoll may be the Tsangpo or Tsangpo-chimbo, which, as Yike-gol, means *The* Great River.

---

[1] Histoire Genéalogique des Tartars. Traduite du Manuscript Tartare d'Abulgasi-Bayadur-Chan ... Leyde 1726. Abul Ghazi, Khan of Khiva, died in 1663. How his History, in 9 books, of Jengis Khan's family, was discovered, is told in the »Au Lecteur» of the French edition: »Le Public est obligé du present Traité à la prison des Officiers de Suede en Siberie; car quelques uns de ces Mrs. qui estoient gens de lettres ayant acheté le Manuscript Tartare de cette Histoire d'un Marchand Bouchare qui l'apporta à Tobolskoy le firent traduire à leurs despens dans la Langue Russe, & le traduisirent ensuite eux mesmes en diverses autres Langues.» These »Mrs» were the Swedish officers Schönström and Strahlenberg, of whom more later on. Schönström presented a MS copy of the work to Uppsala in 1722. The work was published in several European languages. The English edition is known under the title: A General History of the Turks, Moguls, and Tatars, Vulgarly called Tartars ... etc., London 1730; and Vol. II, bearing the year 1729: An Account of the Present state of the Northern Asia, Relating to the Natural History of Grand Tatary and Siberia, etc., the whole compiled out of the Notes belonging to the foregoing History, and digested into Method by the Translator. — The French edition is published by D***, i. e. the Dutchman Bentinck (Barbier).

[2] »Carte Nouvelle de l'Asie Septentrionale dressée Sur des Observations Authentiques et toutes Nouvelles». On the copy at the Royal Library of Stockholm, Aug. Strindberg has written a pencil note: »This first map is the one published by Bentinck in Leyde 1726, and based on Strahlenberg's map.» There is no doubt a considerable resemblance in type between the two, though Strahlenberg's map was published only in 1730.

[3] In a note, p. 42, the editor also says of Tibet: »Il est partagé en deux Parties dont la Partie Meridionale s'appelle proprement le Tangut & la Septentrionale le Tibet.»

South of Tangut is a lake Cara Nor, the same as Ides' Cananor, the Chiamay of older maps. As on most maps of the time Indus and Ganges reach too far north, 37 and 38° N. lat. India therefore becomes, to a great extent, the immediate neighbour of Eastern Turkestan, and Tibet is removed eastwards as if it were situated between India and China.

Regarding the second map, Pl. XLIV,[1] we find that the geography is exactly the same, only the names are changed. Both Tibets are now joined under the name Tangut, and in the northern half is the town Tangut. On the upper Yekegoll is a place Akaschin.[2] Lassa has been changed into the town Dsurdsut, which in the text was said to have been conquered by Ogus-Chan, and Cara Nor is now called Lac Möhill, situated in Cara Kithai, which practically coincides with upper Burma. The map therefore, as its title indicates, agrees with Abul Ghazi's text, but not with real facts. The editor believes that the author, with his Cara Kithai, means Tonkin or Cochin China, as being situated south and S.S-W. of China.

The following passage gives an idea of the conception one had at that time about the nature of Tibet. In a note the editor says that for travelling from Great Tartary viâ Tangut to Tonkin, and Pegu, one has to follow the boundaries of China or Great Mogul, for it is impossible to pass through the central parts of Tangut on account of the vast sand deserts which occupy the interior of this kingdom, and which stretch from the very frontiers of the Kingdom of Ava, to a considerable distance northwards and beyond the frontiers of the Kingdom of Tangut. All that was known of the interior of Tibet had been brought back by Grueber, and he had shown that it *was* possible to cross the country.

Hwangho, under the name Cara-muran, is said to be one of the greatest rivers in the world; it has its source at 23° N. lat. on the boundaries of Tangut and China, »in a great lake, which is enclosed within the high Mountains separating these two States». From its source the river runs north along the frontiers of Xien-si and Tangut to 37° N. lat., after which it continues outside of the great wall and waters Tibet, which shows how very vague the knowledge of these regions was.

On the two maps, Pl. XLIII and XLIV, Jerkeen or Jerkehn is still north of Caschgär, and there are Axu, Kutschaï, Chateen, Luczin, Turfan, and Chamill; the Tarim is finally to be seen, after such a long absence, since Ptolemy; it empties itself into a great lake, which must be the Lop-nor though situated north of Turfan. The mountains south of this basin are called on our map Imaus Mons, on the other Mus Tag.[4] Very likely this more intimate information of Eastern Tur-

---

[1] Carte de l'Asie Septentrionale Dans l'Estat où Elle s'est trouvée du temps de la grande Invasion des Tartares dans l'Asie Meridionale sous la Conduite de Zingis-Chan.

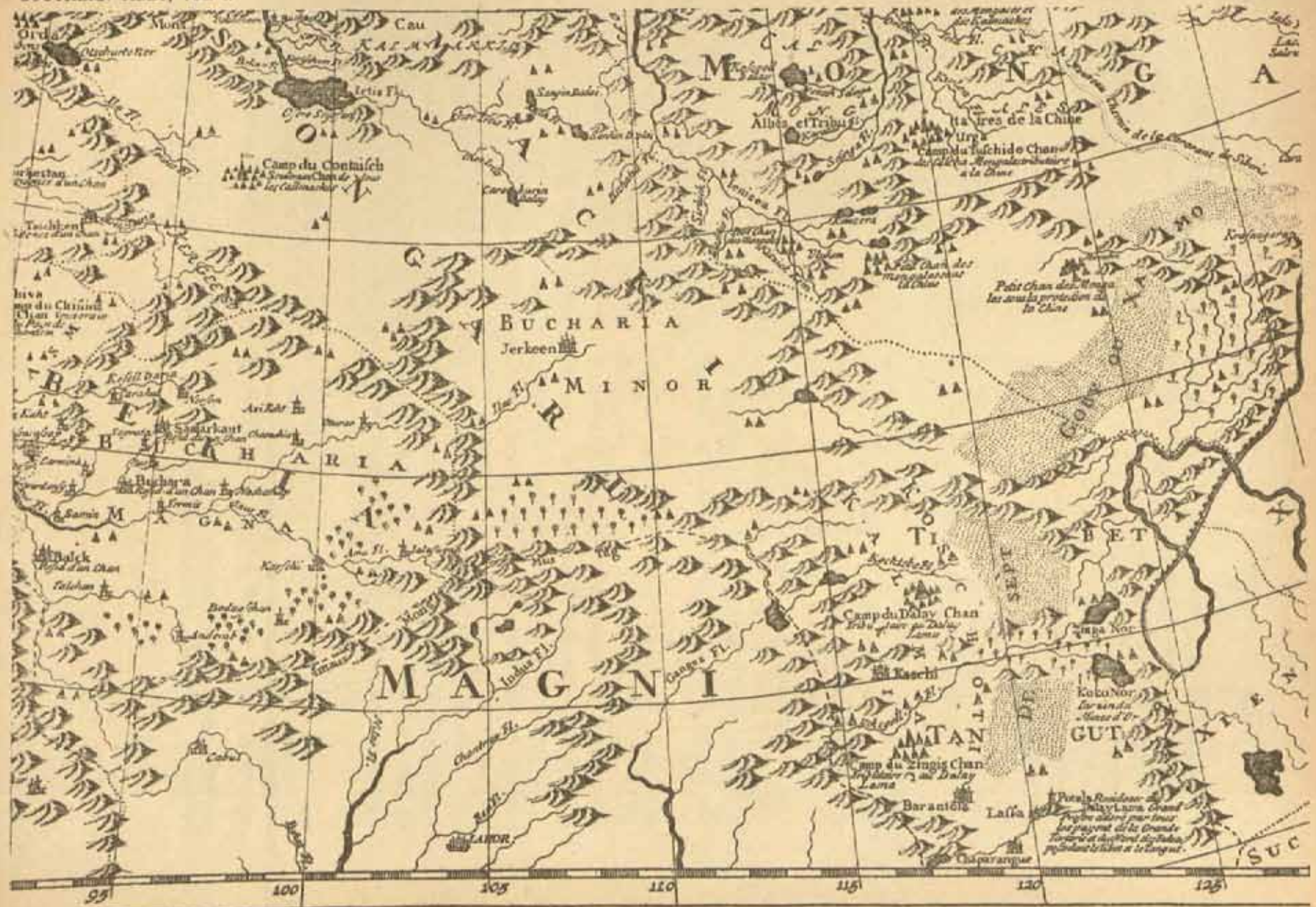
[2] The English Edition, p. 492, says: »by others called Cashin».

[3] French edition, p. 357, Martini had 30°, which is at any rate much nearer to the 35° where the source is in reality.

[4] In the English edition, p. 469, the following explanation is given of the situation of the Kingdom of Kashgar: »'Tis bounded on the North by the Country of the Callmaks and Mungals; on the



The second Map in Histoire Généalogique des Tartars, Leyde 1726.



Part of a Map published in »Journal du Sieur Lange«, 1727.

kestan originates from the Swedish officers, though Strahlenberg's map of 1730 is in many respects much more correct than Pl. XLIII and XLIV.

I cannot help finishing this chapter with a name which will be unknown to many readers, that of the Swede LORENZ LANGE who from 1715 to 1737 made four journeys from Russia to Peking, and played such an important part in the foundation of Russio-Chinese Trade. As he travelled through Siberia and Mongolia, — generally viâ Tobolsk, Tomsk, Kiakhta, and Kalgan we have nothing to do with his experiences here. The impulse to his journey was that Emperor Kang Hi had written to the Governor of Siberia and asked for a physician, an opportunity that Tsar Peter the Great used, not only for sending the English surgeon Garwin, but also to arrange a whole embassy, the chief of which was Lange, who had entered the Russian Service.[1] So far as Lange's diaries have been published they do not contain much geography, but interminable negotiations with the Chinese officials, and very sympathetic descriptions of Emperor Kang Hi. In 1721—1722 Lange stayed in Peking as a resident.[2] Here he seems only occasionally to have heard a word or two about Tibet. Once when he received some Mandarins one of them told him that he had just been ordered by the Emperor to go as an Ambassador to the Dalaï-Lama. A note tells us, from the *Histoire Généalogique des Tatars*, that this potentate lives in a monastery near the city of Potala in the Kingdom of Tangut, on a high mountain south of the desert of Xamo. At another place he says that China has hardly any trade with India, and a note adds that it is so on account of sand deserts absolutely impracticable for merchants.

To the diary is added a map, of which Pl. XLV shows a part. The hydrography and orography are nearly the same as on Pl. XLIII and XLIV, But the lake in the eastern part of Bucharia Minor, which obviously is the Lop-nor, is here cut off from every connection with the Ilac river of Jerkeen. The Ganges comes from two lakes, and its source branch, Kocktebe, is situated in Tibet.

A special curiosity of the map is that Chaparangue, the first really known amongst Tibetan towns, and famous for a hundred years, has been removed from its old home in the west, and changed into a close neighbour to Lassa. And more interesting still: the city is placed on a river coming from a lake, as is indeed the case with Chaparangue or Tsaparang, though on this map the river goes the wrong way. The lake may be Andrade's pool, from which rose a river watering Tibet. But then one cannot explain why the Ganges does not take its rise from the same lake, as in Andrade's narrative.

East by Tibet and the Desarts of Goby; on the South by the Dominions of the Great Mogul, from which it is separated by the high Mountains of Imaus, which the Tatars call Mus Tag (of which Imaus seems to be a Corruption), that is the Mountains of Snow; and on the West by Great Bucharia.»

[1] Die ersten hundert Jahre russisch-chinesischer Politik, von Dr. Bogdan Krieger. Berlin 1904, p. 29 et seq.

[2] His diary from these years has been published in full: Journal du Sieur Lange, Contenant ses Négociations à la Cour de la Chine, Recueil de Voiages au Nord. Tome VIII. Amsterdam MDCCXXVII, p. 221 et seq.

CHAPTER XXV.

LAGO DE CHIAMAY.

Before proceeding further in our researches in the development of the knowledge of Tibet during the first third of the eighteenth century, we have to go back in time and try to trace the history of the extraordinary cartographical phenomenon, which, at its first appearance, was baptized as Lago de Chiamay, and then, with insignificant variations of name, and with admirable pertinacity, remained on nearly all maps for some 160 years.

I will first lay before the reader the material that has been available to me, and then draw the conclusions to which it may lead. It makes no pretensions of being complete, but it is sufficient for the conclusions to which I allude.

Under the heading *Della historia del Signor Giovan de Barros*[1] we find in Ramusio's *Navigationi et Viaggi*, 1550, a short communication, — and still the most complete in existence, concerning the lake Chiamay;[2] he has been speaking of the sixth division of Asia and of the town of Malaca, and then goes on to describe a very mighty river which flows through the whole of Pegu[3] and which comes from Lago di Chiamay, 200 leagues distant to the north in the interior of the country, and in which six notable rivers take their origin. Three of these join to form the great river which flows straight through the Kingdom of Siam,[4] while the other three fall into the Gulf of Bengal. One of these crosses the Kingdom of Caor, from which it derives its name, further through the Kingdom of Comotay and Cirote, after which it empties itself, above Chatigan, in the great branch of the Ganges straight across the island of Sornagan; the second, the one of Pegu, flows through the Kingdom of Aua,[5] and the third goes out at Martaban, between Tauay and Pegu, at 15° N. lat.[6]

[1] Barros was born in 1496 at Vizeu in Portugal. In 1533 he was nominated, by King John III as a Treasurer and General Agent of India. In 1541 he was ordered to write a history of India, a work that was continued after his death (in 1570) and published at Lisbon.

[2] I have at my disposal the edition of 1554, where the passage is read on p. 432, D.

[3] Irrawaddi.

[4] Menam.

[5] Irrawaddi.

[6] Salwen.

Further on[1] he again remarks that the river of Siam comes, to the greatest part, from Lago di Chiamay. On account of the great volume of water this river carries down, the Siamese call it Menam, that is so much as »Mother of the Waters». Then it falls into the sea.[2]

The text, therefore, leaves no room for a doubt, so far as all the rivers, except one, are concerned. As to the Irrawaddi there can be no mistake, for it flows through Ava and Pegu. But Gastaldi's map, Pl. XVI, illustrating the text, does not agree with Barros' description. The map has only four rivers leaving the lake, the text speaks of six, of which the three to the east join and form the Menam, which on the map is only one single river the whole way. The three western rivers go to the Gulf of Bengal. One of them, the one farthest west, traverses the Kingdom of Caor. On its right bank are the cities of Caor and Comotay. Above Chatigan it enters the delta of the Ganges, which it joins at the Ganges-branch on which the city of Bengala is placed. Consulting only Gastaldi's map of 1550, it would be impossible to tell whether this river is meant to be the Meghna or the Brahmaputra or anything else. The second eastwards is the Irrawaddi, and the third is, as indicated by Martaban, Salwen, though its mouth in relation to Tawa and Pegu is misrepresented on the map.

If we remember for a moment the long and hard fight about the source and origin of the Brahmaputra, and that only in our days the transverse valley through which it pierces the Himalaya has been absolutely settled, though situated so near Calcutta, we should not feel surprised that 360 years ago mistakes were committed by those who first heard of these rivers and the countries they crossed. The geographers of generations had to accept the hydrography which Barros with the whole pondus of his name had given, and the mysterious lake with its four rivers crystallized out on the maps, and was impossible to be got rid of until a later time came with fresh information. And still we have to confess that certain parts of the course of Salwen-Lu-chiang and of the Mekong—Lan-tsan-chiang are unknown. The latter river, however, is, on Gastaldi's map in Ramusio, the first to the east, which, under the name

[1] Op. cit. p. 433, A.

[2] As this passage has been quoted in many works and believed in as Gospel during nearly 200 years, I give it also in Ramusio's text. He starts with the Irrawaddi: »che parte tutta la terra di Pegu, il qual vien dal lago di Chiamay, che sta verso tramontana per distantia di 200 leghe nella interior parte della terra, dal quale procedono sei notabili fiumi, tre che si congiungono con altri, & fanno il gran fiume che passa per mezzo del regno di Siam, & gli altri tre vengono à sboccar in questo colfo di Bengala. Vno che vien trauersando il regno di Caor, donde il fiume prese il nome, & per quelle di Comotay, & per quello di Cirote, doue si fanno tutti le eunuchi che sono condotti di Leuante, & vien ad vscir di sopra di Chatigan in quel notabil bracchio del Gánge per mezzo della isola Sornagan, l'altro di Pegu passa per il regno Aua che è dentro fra terra, & l'altro esce in Martaban fra Tauay & Pegu in latitudine di 15. gradi . . . . . Et seguendo piu innanzi 40. leghe è il capo di Singapura, doue principia al lungo del dito indice la settima diuisione che è de li fin al fiume di Siam, che la maggior parte de quello procede dal lago di Chiamay. Al qual fiume per causa della molta abundantia delle acque, che porta seco li Siamini chiamano Menam, che vuol dir madre dell' acque, & entra nel mare . . .

of Mecon is independent of Lago di Chiamay, and has its own course from far away, from the unknown mountains of Tartari Mogori.

Comparing now the map in Ramusio, Pl. XVI, with Jacopo Gastaldi's Tertia Pars Asiæ of 1561, Pl. XVII, we find, on the latter, much more detail, both in hydrography and nomenclature. The hydrography is in perfect accordance with the text of Ramusio. Six rivers leave the lake, the three eastern joining to form Sian or Menan F. The next, the river of Martaban, leaves the lake at a place called Chiamai and has the name Caipumo f. Then follows Aua f. with the cities Aua and Pegu, and finally the Caor F. of the older map, nameless on the latter. On its banks are the Cities Gor, Camotai, and Chirote, and it joins the easternmost branch of the Ganges delta much further from the coast of Golfo de Bengala than on Pl. XVI. Both maps have in the delta the cities Catigang and Bengala, of which the former must be Chittagong. The Island Sornagon, missing on Pl. XVII, may be Sundarbans?

On Pl. XVI Lago de Chiamay is represented as a real Madre dell' acque: it receives no affluents from anywhere, but still emits four enormous rivers. On Pl. XVII it receives at least two strong feeders from the mountains between India and China. Here the lake is called Cayamay Lago; it sends out four rivers, though the eastern has three heads.

North of the lake (Pl. XVII) we find the Kingdom of Macin, which probably is Maháchin or Great China used by Persian writers as synonymous with Manzi, for in Persian parlance Machin and Manzi were identical.[1] There are also two cities, Amuyin-macin and Toloma, reminding of Prshevalskiy's Amne-machin and Soloma at the upper Hwangho.[2] But this is only a coincidence, for Gastaldi has only tried to reconciliate Barros' lake with Marco Polo's geography, as the latter did not, naturally enough, know of any such lake. We have therefore to think of Marco Polo's Province of Aniu, in Ramusio's version Amu, in Pauthier's Aniu.[3] Toloma is obviously Marco Polo's Province of Coloman, which in most versions is called Toloman.[4]

Barros, on the other hand, is responsible for the two names Caor and Camotay, and he has even a Kingdom Caor in the mountains north of the lake, leading our thoughts to the Garo Hills, the western foot of which is washed by the Brahmaputra. But on Pl. XVII the name has been changed into Gor, and the river is a boundary between the Regno de Camotai and Regno de Verma or Burma. As the city of Verma is placed on a river which joins the Ganges delta further south, and as there is no river situated between the Caor and the Ganges on Pl. XVI, the Caor must needs be Brahmaputra, which becomes much more evident on Pl. XVII.

As to the province and city of Caor, alias Gor, we find it mentioned by Terry in 1616: »Gor, the chiefe Citie so called, it is full of Mountaynes. The River Persilis

---

[1] Yule's Marco Polo, II, p. 35.
[2] At Kyakhti etc. p. 150.
[3] Yule, op. cit. p. 120.
[4] Ibidem p. 123.

which dischargeth it selfe in Ganges, beginnes in it.» He adds that it belongs to the N.E. bounds of Great Mogul.[1] Roe says that Gor lies »toward the head of Ganges.»[2] On Roe's map[3] Gor is not at all near the head of Ganges, but on the upper course of Sersily flu., which is shown as a very considerable tributary from the northern mountains. But as Patna is placed on this same river, the Sersily is in fact identical with the Ganges, as Roe's hydrography is very confused.

The Aín-i-Akbari[4] informs us that »Jannatábád is an ancient city: for a time, it was the capital of Bengal and was widely known as Lakhnauti and for a while as Gaur. His Majesty the late Emperor Humáyún distinguished it by this title of Jannatábád.» In the beginning of the thirteenth century Mussulman India could indeed be divided into two separate regions, the Kingdom of Delhi, and the Kingdom of Gour, and on one occasion a Sultan of Gour conquered all Hindustan and the Panjab.[5]

The ruins of Gaur are situated on the left bank of the Ganges, a little east of 88° E. long., and therefore at a considerable distance below Patna, not above it as on Roe's map. This place belongs, as for instance Kashgar and Khotan, to the wandering cities on ancient maps, and on several maps it appears twice, as on Gastaldi's, (Pl. XVII), where we find a city Gaur on the westernmost branch in the Ganges delta; this Gaur therefore comes nearer to the real site. Still I believe that Barros' and Gastaldi's Caor or Gor, cannot be anything but the ancient kingdom and city of Gaur. One should therefore conclude that the river of Caor were the Ganges. But that would, of course, be absurd, as Ganges was known, the existence of Gaur, Caor, Gor also known, but its situation unknown. On Pl. XVII Gor has been taken from the Ganges and transplanted to the Brahmaputra. And still a hundred years later the Ganges was reported to come from the Chiamay lake.

As to Camotay I think it must be identical with Hiuen Tsang's Kia-mo-leu-po or Kâmarupa, which is the Sanscrit name of Assam. According to Cunningham the valley of the Brahmaputra was anciently divided into three tracts, which he describes as the Eastern, Middle, and Western districts, namely, Sadiya, Assam Proper, and Kamrup. The old capital of Kamrup was situated on the south bank of the Brahmaputra, and had another name.[6] The Ain-i-Akbari tells us that the country of Kamrup was »commonly called also Kaonru and Kamta». This Kamta may easily be Gastaldi's kingdom and city Camotay, a surmise which, if correct, confirms the identification of Gastaldi's Caor river with the Brahmaputra in Assam, for Kamta is the same as the present Assam.[7]

---

[1] Purchas, IX, p. 16.
[2] Purchas, IV, p. 432.
[3] Ibidem. This part falls outside the margin of my reproduction of Roe's map, Pl. XXXVII.
[4] Vol. II, translated by H. S. Jarrett, p. 122.
[5] Wheeler's History of India, Vol. IV, p. 45.
[6] The Ancient Geography of India, p. 500.
[7] Nowadays Assam is divided into 11 districts, each under a Deputy Commissioner. One of these districts is still called Kamrup, and is situated on the right or North bank of the Brahmaputra.

On the Gastaldian map in Sala dello Scudo there are only three rivers leaving the lake; on the west river is the city of Bengala; between the two east rivers is Ava. DIOGO HOMEM's map (Pl. XIX), on the other hand, has no Chiamay lake at all, which seems to indicate that this part of Homem's map may be previous to Gastaldi.

The appearance of the lake was of course no improvement on Ptolemy's map. But far more unfortunate was MERCATOR's removal of the Ganges. The Chiamay lacus he has, however, retained, and his Caor river, which can no more join the Ganges delta, goes out at the east coast of the Gulf, passing Catigam or Chittagong; it has therefore a S.W. course and should rather be the Karnaphul than the Brahmaputra, which is, of course, absurd. Gastaldi's Aua river or Irrawaddi has been changed into a Cosmim flu., and there is no Aua on it. The Salwen, Gastaldi's Caipumo, he calls Martabam, and there he is right again. Menan flu. has not been changed at all.

ORTELIUS, 1570, (Pl. XXII), chiefly copies Mercator, but he wisely gives the four rivers the names indicated by Gastaldi. He writes the name of the lake Chÿamai lacus. Gastaldi's Amuyin macin and Toloma on the north side of the lake he has changed into Amuÿ on the north and Toleman on the east. These places had been regarded as suspicious by Mercator, who has not marked them on the Chiamay lake. But Mercator has placed them on another, nameless lake, far to the N.E., where we find Amu and Tholoman. Ortelius has followed his example, but calls the lake Caÿamai lacus. Lago de Chiamay therefore appears twice on Ortelius' map of East India.

LUDOUICUS GEORGIUS shows on his map of 1584, Pl. XXIV, the lake under the name of Chiama lacus with five effluents, joining, as usual, into four rivers, here without names. The Caor river, which on Gastaldi's map flowed W.S-W., flows here S.S-W. Gouro, obviously the ancient Gaur, is correctly placed on the Ganges, and the region of the Govros is situated between the lake and the Ganges.

The first map in LINSCOUTEN's work shows the lake as usual with four rivers but without name. On the second map, which embraces S.E. Asia, only half Chiama Lacus is seen.

HONDIUS, 1611, Pl. XXV, has moved the lake a considerable distance to the north. Only the three eastern rivers have names, the same as those of Mercator: Cosmin, Montaban,[1] and Menan. On the latter is Aracam, though a province and city of the same name is also placed between the Indus and the false Ganges, at the upper course of which we find the Gouros, opposite to Caor on the Caor river. Catigan is now changed into Satagam. The city and province of Bengala is near the mouth of the Cosmin river, Ava or Irrawaddi. Verma, Burma is on the river which has taken the place of Ganges. Burma and Bengal have therefore changed places.

[1] The sea-port at its mouth is more correctly written Martabam.

The little map in HERBERT's work, published 1638, Pl. X, has four rivers leaving the lake southwards, and in their »Mesopotamia» the names of Caor, Auva, Satagam, Brama, and Verma are placed without any kind of order. Martavan is to be found at the place of Bangkok.[1]

On two maps, *Nova totius Terrarum orbis geographica ac hydrographica tabula, Auct: Henr: Hondio 1630,* and *Orbis Terrarum typus de integro multis in locis emendatus, by N. I. Visscher 1639,* which both in reality are the same map, only two rivers go out of the lake, though one of them does so with two head branches.[2]

Gastaldi showed the lake at a considerable distance east of the Ganges delta, so that the Caor river had to flow nearly westwards to reach it. HOEIUS and ALLARDT, 1640, Pl. XXVI, have the Chiamai Lacus straight north of the Ganges delta, so that the Caor river has to flow S.S-E. in order to join it. The rivers are four and have the ordinary names. WILLIAM BLAEU, 1640, Pl. XXVII, accepts Amuy and Tolema, and has both Caor and Gouro, opposite each other. The cities on the Caor river are: Caor, Comotay, Cirote, Verma, and Satagam. The second river eastwards is apocryphic, with the cities of Bengala and Aracam at its double mouth, and Chatigam, a second Chittagong, west of Bengala. The third river, with Ava and Pegu, is Irrawaddi. Martaban is left without a river. In fact the second and third river, Irrawaddi and Salwen, have changed places.

On JANSSON's map, 1641, Pl. XXVIII, the lake has not undergone any notable change from the previous map, and the Caor river flows, as on Pl. XXVII, to the S.S-W. In the text to the map of the East Indies it is said: »Der grösste aber unter den Seen dieses Lands ist der Chiamay, welcher 400 Meyl wegs in seinem bezirck begreifft, 500 Meyl[3] von dem Meer gelegen ist, und viel fliessende Wässer von sich ergeust», — nothing more, but often much less than in Barros' original description of the lake.

In the narrative of his journey the Portuguese traveller FERNANDO MENDEZ PINTO, also mentions the lake. Describing different nations he came across, he says: Nous en vismes d'autres aussi qui auoient d'assez longues barbes, le visage semé de lentilles, les oreilles & les narines percées, & dans les trous de petits fils d'or faits en agraphes; ceux-cy s'appelloiẽt *Ginaphogaos*, & la Prouince dont ils estoient

[1] In a German work on India from about the same time (Extract Der Orientalischen Indien. Das ist Aussführliche und vollkommene Historische und Geographische Beschreibung . . . Alles mit sonderm Fleiss beschrieben Durch Cæsarem Longinvm Historicvm Frankfurt am Mayn 1629, (Second Supplement, p. 91), the following passage is found in the chapter on Siam: »Durch diss Landt fleust der Fluss Menan, welcher gleiche Art hat, wie die andern, uñ entspringt auss dẽ grossen See Chiamay, und fält in das Meer.» As the leading maps of the time accepted Barros' lake, the compilators of geographical handbooks had of course to do the same.

[2] Remarkable maps, II—III, No. 6 and No. 9.

[3] I do not know which kind of miles this is meant to be. The legoa or old Portuguese league, consisting of 3 Milhas, was 6,197 m. long. If the »500 Meyl» are meant as Milhas, the distance should be 1,033 km., which, in a north-westerly direction, and starting from the sea at the Ganges delta should take us nearly to the actual source of the Brahmaputra.

natifs, *Surobosoy*, lesquels par dedans les montagnes de Lauhos sont bornez du lac de *Chiammay*, & de ceux-cy les vns sont vestus de peaux veluës, & les autres de cuit broncé . . . . He even tells about a war undertaken by the King of Siam against the King of Chiammay: Ainsi passant pays il arriua au lac de *Singapamor*, qu'on appelle ordinairement *Chiammay*, où il s'arresta vingt-six iours, durant lesquels il prit douze fort belles places enuironnées de bouleuarts & de fossez, à la façon des nostres . . . . In this case, therefore, the Lago di Chiamay is identified with another lake, unknown to us, namely Singapamor.[1]

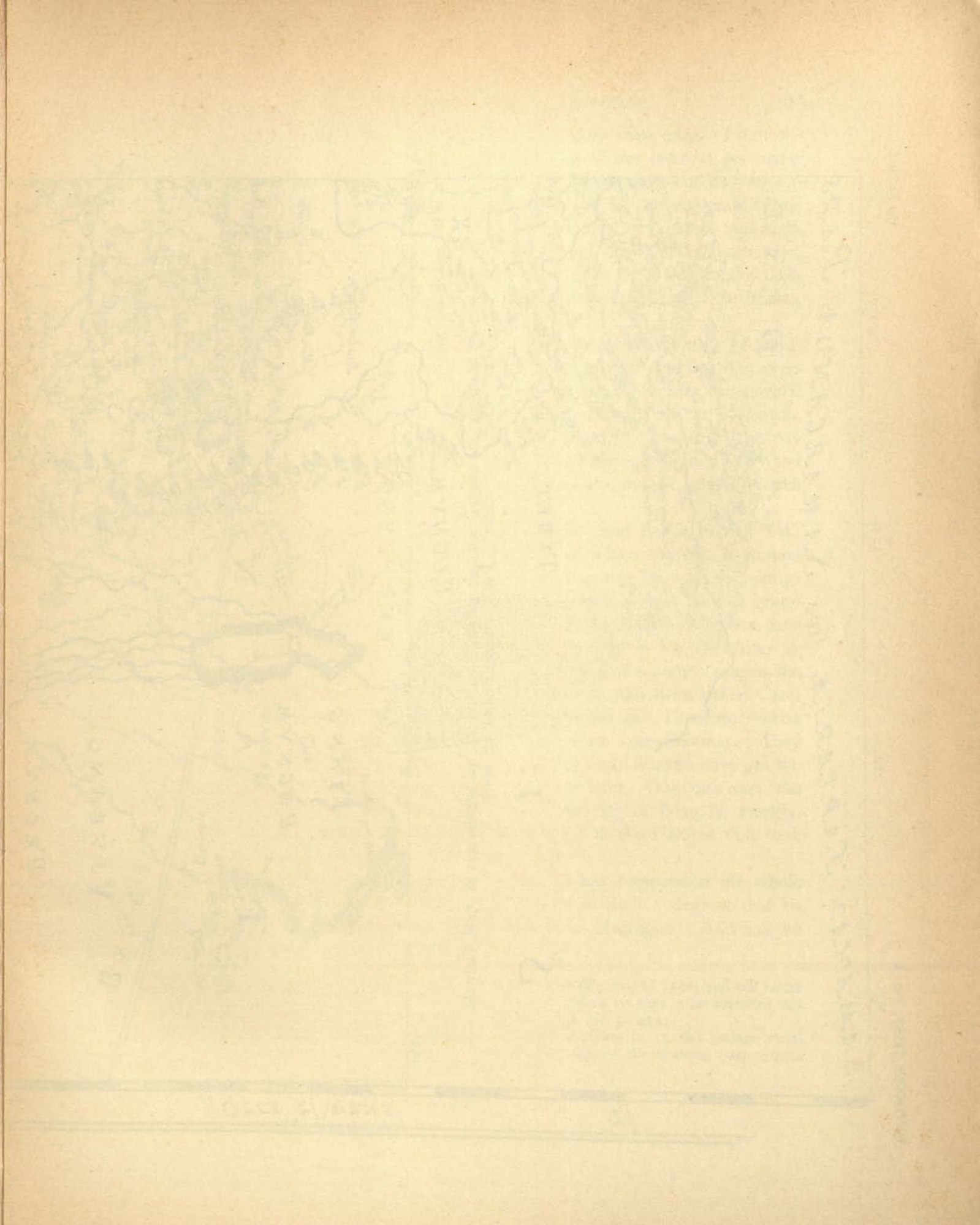
We now come to the *Voyages fameux du Sieur Vincent le Blanc*, published by PIERRE BERGERON in 1649. There are two passages which are too precious to be translated. Speaking of »Sian» the author says:[2] »Ce pais confine auiourd'huy du costé de l'Occident à celuy de Pegu, du Nort au pais de Chiamay . . . La ville de Sian est située sur la belle & grande riviere de Menan, qui vient du renommé lac de Chiamay, & qui a de belles murailles . . .» Further he says of the »licornes»:[3] »Il s'en trouve, à ce qu'ils disent, aux environs du lac Chiamay . . . Ce lac a deux cens mil de tour, d'où sort un grand nombre de grandes & fameuses rivieres, comme celle d'Aua, Caypumo, Menan, Cosmin, & autres, qui ont les mesmes inondations & desbordemens que le Nil. Ce lac a du costé de Leuant de grandes forestes & des marescages impenetrables & dangereux . . .» Of Pegu he says that most of this country is crossed by the great river Amoucharat, or as it is called in Pegu Caipoumo & Martaban . . . »Cependant ie diray que nos Geographes se trompent, qui mettent la riviere qui arrouse le pais de Tangu, pour la mesme que celle-cy de Pegu, quoy qu'elles soient differentes & bien esloignées: Car celle cy vient de ce grand lac Chiammay, & passe à Brema ou Brama.» Finally some Peguans told him that a few years before his visit a king of the old dynasty had several lieutenants in the countries of the Brama »toward lake Chiamay» and one of them was in the kingdom of Tanga, which had revolted against him.

LE BLANC not only knows the size of the lake, he also gives us some glimpses of its natural history. In the great forests and dangerous swamps on the east shores of the Chiamay the unicorns have their *eldorado*. He discusses hydrographical questions, and mentions four rivers: Aua (Irrawaddi), Caypumo (Salwen), Menan (Menam), and Cosmin (Irrawaddi), thus using two different names for one river, and omitting Caor. But the four are only examples out of the »great number of great and famous rivers» which issue from the lake. He even alludes to historical events which have taken place near the lake. He blindly and uncritically believes in its existence. He has never seen it, nor has anybody else. Very likely he has never heard of it either, and only been impressed by the maps of his time. For one can-

[1] Dr. E. W. Dahlgren has directed my attention to Pinto's work. The title of the French edition is: Les Voyages advantvrevx de Fernand Mendez Pinto, Paris MDCXLV, p. 655 and 811.

[2] Op. cit. p. 155 and 157.

[3] The unicorn or Rhinoceros of Burma. Compare Yule's Marco Polo, Book II, p. 107.




SAMAHAN TARTARIÆ sive SAMARCANDÆ PARS
DESE
SINARUM REGNUM
TIBET
KIANG REGNUM
FANUM
VSUCANG REGNUM
BENGALA.
MIEN REGNUM
PEGU
ARACAN
REG. LAOS
TUNGKIN
Kin M.
Xachen
Sochen
Marzagrum
Sinis Cinghan
Kiang
Kia L.
Ganges flu.
Bengala
P. le Ramu
Arracam
CAM.
Mien
Lukiang flu.
Bramo
Siuelan M.
Min M.
Lungan
Micu
Guai
Vachen
Kiungchoa
Kiating
Suchen
Likiang
Cioking
Chinhungu
Mungboa
Pubeng
Kingtung
Chinyuen
Chelo
Iuentiang
Pugan
Gnanan
Iunanang
Chinning
Tsucheu
Kiangchen
Kiai
Che R.
Iuecien
Kiang
Tsochen
Leangchen
Tsiang
Tsiamo
Ho
Kiacung
Tsiamchen
Sangui
Tsiamchen
Tsiamchen
Tsiamchen

not suppose that such a mistake could be committed more than once. From the misunderstanding of one European, Barros, Gastaldi enters the lake on his maps. Nearly a hundred years later another European visits the country, but has no opportunity to proceed towards the interior to persuade himself of the existence of the lake. He had no other choice but to trust the great authority of Gastaldi, and nothing superior had occurred in the meantime to replace him. Now, as le Blanc says, the lake had even become famous, and if it had been audacious to create the lake, it would have been still more audacious to deny its existence. And there it was, surrounded by its impenetrable swamps and forests.

And so it came that SANSON D'ABBEVILLE on his beautiful map of 1654, Pl. XXIX, had no reason whatever to break against the tradition. He has four rivers from Lac de Chiamay, the easternmost with two heads, and he has complicated the hydrography more than his predecessors. The Ava fl. belongs to the Menan fl., while the lower course of the Irrawaddi is called R. de Pegu (Caypumo). The city Gouro is well placed on the Ganges. A new city, Totay, appears on the Caor, and the city Caor is called Caorforan. West of the lake is a province Vdessa, which Lévi, obviously incorrectly, identifies with Orissa.[1]

In 1655 Martini calls the lake Kia L. (Pl. XXXI), and has it to the S.W. of Tibet Regnvm. He has as usual four rivers issuing, of which the one is formed by two very long head-branches. His text to the hydrography is very surprising: »Là même (d'où le Gange tire sa source), vers le Couchant, il y a un fort grand lac qui s'appelle Kia, d'où vient le Gange & les autres Rivieres que j'ai mises dans la carte.»[2] THEVENOT who has a reprint of Martini's map in his *Relations de divers voyages curieux, 1666*, Pl. XLVI, has even added the name Ganges flu. to the westernmost of the four rivers, the one which hitherto had been called Caor. It is worth noting that two such able geographers as Martini and Thevenot reckon the Ganges amongst the four rivers taking their origin from lake Chiamay. They cannot have ignored the previous maps, — from where else could Martini have got the lake at all? Still they do not care in the least for the Caor river. Only one river was known to flow through Bengala and enter the Gulf at the city of Bengala, namely, the Ganges. Thus the Caor must be a mistake, and it was the Ganges that took its rise in the westernmost part of the lake.

Whatever Martini's conception may have been, he has compressed the whole of Asia enormously, and approached the west to the east in such a degree, that his Samarcandæ Pars is just outside the great wall and the Hwangho. And still he

---

[1] Le Népal, I, p. 91. Orissa is well placed already on Gastaldi's map of 1550, and still better on that of 1561. Sir Thomas Roe has his Orixa correctly, and of Udeza he says in his narrative that »it is the utmost East of the Mogols Territorie beyond the Bay». Op. cit. p. 433.

[2] Recueil de Voiages au Nord, Tome III, p. 163. In the Atlas, p. 23, the passage runs: »Inibi versus occasum ingens lacus est Kia dictus, ex quo Ganges multaque alia flumina, quæ mappæ adscripsi, profluunt.»

knows that Samarkand is not far from the Caspian Sea.[1] This compression of the continent has, of course, nothing to do with the Lago de Chiamay.

As a rule the travellers avoid as much as possible mentioning the lake, of which nobody except Barros had ever heard. And if they mention it in connection with the Indo-Chinese rivers it is always with the same words as in the first narrative. The original work of MANDELSLO, 1658, keeps silence, while the French edition, 1727, has taken the lake to grace. WALTER SCHOUTEN, who travelled 1658 to 1665, has found that Arakan, Pegu and Bengal were crossed by a great number of rivers. »Ganges and the great river of Aracan are, by way of branches, joint at several points.» He does not say which the latter river is nor from where it comes, but as no other river but the Brahmaputra joins the Ganges, this river must be meant. Further he says: »The Dutch ships, & those of Merchants from other nations. enter usually on the great river that is called Menam, & which goes out of a great lake or an interior Sea called Chiammai, which is at more than two hundred leagues northward, — & that flows southwards, traversing the Kingdom of Siam for reaching the sea of this same name.» Menam is the only river for which he takes the responsibility of its starting from Chiamay. He has probably seen the Brahmaputra but has nothing to say of its source: »Afterwards we saw the great river of Calcula, which comes also from the East from the Kingdom of Aracan. Here the river Ganges begins to get more narrow.» He is far from clear, but a river joining the Ganges, and coming from the east can only be the Brahmaputra, the Caor river of Gastaldi.

NICOLOSI, 1660, follows Sanson rather closely, though he has managed to complicate the rivers of the Burmese Mesopotamia a little more. In the text of the gigantic *Geographie Blaviane* Vol. XI, 1663, an honourable attention is paid to our lake, but there is nothing new, it is word for word the same story which was told by Barros.[2]

---

[1] Of Samarcanda he says (Ibidem p. 23): »Est, cur credam hasce terras non multum à mari Caspio remotas esse, ab iisque Alexandriam Bactrianam ab Alexandro Magno in Bactris olim conditam haud longe abesse.»

[2] »Mais le lac de Chiamay, qui est du costé du Nord vers la Tartarie, est comme le pere de six grandes rivieres, dont trois s'unissent avec d'autres, & font le grand fleuve qui passe par le milieu du Royaume de Sian; & aussi les trois autres rivieres se vont rendre dans le Golfe de Bengala. L'une traverse le Royaume de Caor, dont elle porte le nom, & celuy de Comotay; puis celuy de Cirote, où se font tous les Eunuques qu'on emmene du Levant, & se va décharger au dessus de Chatigan, en ce renommé bras du Gange, contre le milieu de l'Isle de Sornagan; l'autre qui prend le nom de Pegu, pource qu'il partage ce Royaume en deux, passe par le Royaume d'Ava, puis par le Pegu, & finalement fait un grand Golfe pres de Tavay; & le troisieme se rend dans la Mer à Martaban entre Tavay & Pegu; quelques Geographes nomment cette riviere Martaban.

Au reste, passant du Cap de Nigraes à Tavay, il y a un grand Golfe plein de plusieurs Isles & bancs de sable, que fait à la façon du Gange, un autre grand fleuve qui partage tout le Pegu, venant du lac de Chiamay ou Chiantay, qui est du costé du Nord, au dedans de la terre ferme, éloigné de deux cens lieuës. Avant qu'arriver à la Mer elle court l'espace de cent cinquante lieuës.

Quant à la rivière de Sian, que ceux du pays appellent Menam, c'est à dire mere des eaux, à cause de la grande abondance qu'elle en a, elle vient du grand lac de Chiamay du costé du Nord, où trois rivieres qui partent du mesme lac s'assemblent pour faire ce grand fleuve . . .», Op. cit. p. 198.

VISSCHER's map of about 1680, Pl. XXXII, is of great interest, for here the fresh observations brought back by Grueber, had to be reconciled with the old hydrography, stereotyped ever since Barros' days. Visscher has not dared to change the Chiamay Lacus, nor Amuy and Tolema. The four outgoing rivers are: Caor, Cosmin, Ava, and Menan. The whole situation is deformed as it had been ever since Mercator deteriorated Gastaldi's much better map. The lake has become a very near neighbour to Tibet, Lassa, and Necbal, and Grueber's stations Cuthi and Cadmenda are placed almost on the very bank of the Caor river or Brahmaputra.[1] The lake is fairly stationary; but in relation to the surrounding regions it has begun to wander. It should be specially noted that Lassa is situated on the S.W. shore of the Chiamay.

In his compilation on Persia and India, 1673, OGILBY again tells the old story, the sacred words of Barros: »The Lake of Chiamay, lying in the North towards Tartary, is the Head of six great Rivers, of which three uniting one with the other, make a large Stream, which cuts through the middle of the Kingdom of Siam, as the other three fall into the Bay of Bengala.»[2]

Proceeding a step further we come to TAVERNIER, whose work was published in 1681. In Chapter XVII he deals with the Kingdom of Asem, and again I prefer to quote his own words: »A cinq lieuës de Daca une des rivieres qui vient du lac de Chiamay, & qui de mesme que les autres rivieres des Indes prend divers noms selon les lieux où elle passe, entre dans un bras du Gange.»[3] On this river the great Captain Mirgimola, went with his army to the 29th or 30th degree N. lat., i. e. to the frontier of Asem. The residency of the King of Asem was at Kemmerouf.[4]

Tavernier's Mirgimola is Mir Jumla who had helped Aurangzeb to the throne, and then, in 1661, was suspected by the Emperor and therefore sent on a hopeless expedition against Assam, with orders to conquer the whole country as far as the Chinese frontier.[5] As Mir Jumla during this expedition started from Dacca, on the left bank of the Brahmaputra, and conquered Kuch Behar, on the right bank of the Brahmaputra, the river which Tavernier mentions and along which Mir Jumla went cannot be anything but the Brahmaputra; and as Tavernier says this river comes

[1] In his critical discussion of Visscher's map Sylvain Lévi says: »De plus, obligé d'encadrer les connaissances nouvelles dans les données traditionnelles de la cartographie antérieure, Visscher a logé le Necbal entre le Gange à l'O., et à l'E. un des 5 fleuves par où le lac Chiamay épanche ses eaux dans l'India extra Gangem. Le pays de Bengala le limite au Sud, le pays d'Udessa (Orissa) au Nord-Ouest! Cirote, situé juste au Sud de Cadmenda, entre le Necbal et le pays de Verma (Birmanie) est le pays des Kirâtas, qui occupent les vallées à l'E. de Katmandu. Caor, placé entre Lassa et Cutlu, vient également des géographes antérieurs.» Op. cit. Vol. I, p. 91.

[2] Ogilby, op. cit., p. 105.

[3] Les six voyages . . . p. 390.

[4] This place as well as Azoo, are both entered on Cantelli's map. Kemmerouf is called Karkâlu by Mufazzal Khan. Elliot's History of India VII, p. 144.

[5] Wheeler's History of India, Vol. IV, p. 335. In Elliot's History of India just the passage we should need out of Khafi Khan's Muntakhabu-l lubab, has been omitted. »[Long details of the campaign.]» is all we are told about the operations in this country which was unknown to Europe. — Elliot: Vol. VII, p. 265.

from Chiamay it seems to be the same which had been called Caor by Gastaldi. Gastaldi may therefore have known the Brahmaputra, the famous river of Assam.

Christian Sandler has given us a reproduction of CASSINI's *Planisphère terrestre of 1694;* the first edition had appeared in 1682. On this map the Indus and Ganges are still shown as meridional rivers coming from a range of mountains running East to West, and north of which is P. Tibet, or Little Tibet, while Grand Tibet is east of the Ganges at about the same place where Chiamay lacus used to be, for Cassini has not entered the lake at all. In this he has been wise, but unfortunately he has left only one of the four traditional Indo-Chinese rivers. This is no improvement. The existence of the four great rivers was the important thing; whether they came from a lake or not was so far of secondary importance.[1]

CANTELLI's map of 1683, (Pl. XXXIII), is, whatever else its value may be, very interesting in the history of Lago de Chiamay. He calls it Lago Chimai, and has four issuing rivers, each with only one head. Their names are: Caor, Cosmin, Chaberis, and Menan. The Sinus Argaricus of Ptolemy had by Mercator been identified with the Gulf of Bengal. Therefore Mercator transplanted Ptolemy's Chaberus Fluvius to the place where Ganges had been formerly. Now, by some extraordinary revelation, Cantelli has transplanted this restless river to Lago de Chiamay where it occupies the place which by Gastaldi had been assigned to Caipumo or the river of Martaban, Salwen. The Caor river he drops halfway to the junction with the Ganges and places Assen, Assam, on the west side of the lake.

But there are still better surprises! The lake seems to get unquiet. It is wandering. It has approached Tibet a very great step, nay, so much so, that it has Regno di Barantola to the east, and Lassa at a great distance S.E. Visscher had Lassa S.W. of the lake; now it is S.E., which means that the lake has moved westwards as compared with its surroundings. At some distance north of the lake is Redoch, our Rudok.

Disregarding the rest of the orientation, especially the relation of lake Chiamay to Nupal, Bovtan and Assen, I would ask: which other lake could be practically situated in Tibet, at a considerable distance south of Rudok, and at a still greater distance N.W. of Lhasa, than the Manasarovar! And to make perfectly sure of the identification, the Manasarovar was, since remote antiquity, regarded as the mother of four great rivers, just as the Lago de Chiamay was called a *Madre dell' aque* by old Barros.

It is hardly possible to think that the quite new surroundings of the lake could have been brought forward only by a caprice or coincidence. Cantelli has not been influenced at all by Father Kircher whose map of 1667, (Pl. XI), shows a quite different type. But we should not forget that Cantelli's map of 1683 was published in Rome, where Kircher had questioned Father Roth and the convertite Joseph about And-

[1] Sandler says: »In Hinterindien hat die bisher gewohnte Darstellung, als kämen die vier grossen Flüsse des Landes aus einem See, dem Chiamay lacus, einem sehr einfachen Bilde Platz gemacht.» Reformation der Kartographie, p. 10.

rade's journeys, where Grueber had been interviewed, and where certainly a good deal of information from different missionaries was brought together, of which not an echo has been preserved to our time.

Cantelli's map shows us Lago Chimai and Kokonor o Mar grande side by side, as two great lakes. WITSEN, on his map of 1687, (Pl. XXXIV), makes only *one* lake of both, and calls his new creation Coconor, vel Chimoi Lacus, sive Zim. The lake has now, in its adventurous existence, come so far as to serve as a vicar for Koko-nor! There is no Tsing-hai on Witsen's map. Hwangho does not come from Koko-nor, as on Cantelli's map. The source of the Hwangho is shown as a comparatively small lake. As Witsen probably found it indecent to let the rivers of Caor, Ava, Martaban and Siam take their origin in Koko-nor, he has preferred to deprive the lake of all sorts of effluents, and does not care a bit for the origin of the Indo-Chinese rivers.

Father CORONELLI's map of 1695, (Pl. XXXVI), shows us a new retrograde step. The Padre Maestro denies the existence of Koko-nor altogether, and restores Lago di Chiamay ò Cunabetee to its previous dignity as a *Madre dell' aque.*

F. de WITT's map, (Pl. XXXV), bears no date, but is based on Witsen and other draughtsmen. Therefore our lake is called »Coconor at Chiamay Lacus».

Again, Lassa or Barantola is to the east of the lake. But on the shores of the lake we find old and new names together, as Tolema, Aczu, Socheu, and others, while Radoc, our Rudok, has been removed an enormous distance to the N.N-W. The Burmese Mesopotamia is a mixtum compositum, surpassing everything we have seen hitherto. All the rivers and their branches have names: Caor, Cosmin, Chaberis, Pegu, Ava, and Menan. Necbal, our Nepal, is caught as a fly in this cobweb of rivers, and has Ava as its next neighbour. As all the previous draughtsmen the author of this map is sure of the existence of the lake. The rivers are well known to exist. The space between the Ganges and China is narrow, and everything has to be entertained within this narrow strip of land.

The situation is therefore the following: the Coconor, from which Grueber went viâ Lassa to Necbal, gives birth to the Indo-Chinese rivers. The lake, also called Chiamay, is, as shall be shown hereafter, probably the Manasarovar. The Koko-nor, far away to the north, has therefore been confused with the Manasarovar, still further west. Or, these two lakes, which are separated from each other by 1,130 miles, have been represented by a third lake which does not exist!

Compared with de Witt, Martini was indeed a clever man. For he had a Cinghai or Koko-nor, and a Kia Lacus or Chiamay, quite independent of each other, and several years before Grueber's discoveries were made known to the world.

Witsen seems to be the father of Siba lacus. Perhaps he had heard some rumour that the Ganges came from a lake. Father Martini had positively asserted that the river came from Kia or Chiamay lacus. For Witsen the Siba lacus was therefore at least a surrogate. ISBRANTS IDES, on his map of 1704, (Pl. XXXVIII), goes

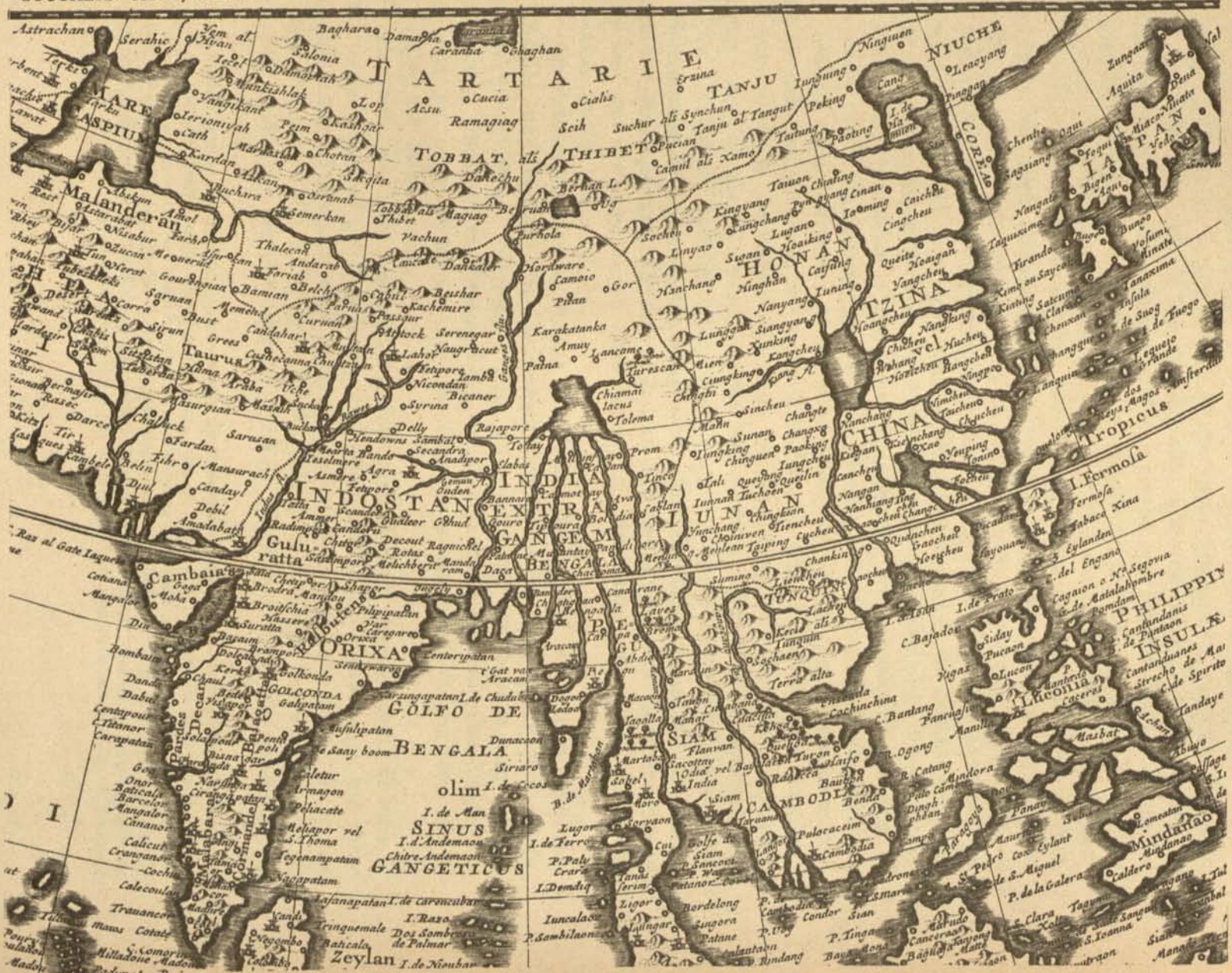
much further. Here our lake has not only definitely begun, but also partly accomplished its homeward journey. To evacuate and extinguish the lake basin altogether has been too much for Ides, and his Caor Flu., Cosminus Flu., Capoumo Flu., and Menamis Flu. still take their origin in the old traditional lake of Barros. But he has changed its name into Lac Kananor et Cunabetee. The latter name, whatever its derivation may be, we have already found on Coronelli's map, the former, Kana-nor, may simply be a careless spelling of Koko-nor. For there is no other Koko-nor on the map, and Croce Lac includes all the lakes of Odon-tala.

But where is Lago de Chiamay? It has wandered north-westwards and is one of the sources of the Ganges, in the middle of the Himalayas. With a slight change of spelling the name is the old one from Barros' days, Lac Giamai! Both the Indus and the Ganges have two lakes at their upper course, and just north of both rivers Kabul is placed. The whole arrangement has a certain resemblance with Kircher's map and his *Origo Gangis et Indi.* The two lakes of the upper Indus do not, however, awake our suspicions, for the upper one is the Wulur lake, and the lower one is situated below Attock. So much the more important is the fact that Ides shows the Ganges as coming from two lakes, one in the Himalaya, the other north of the mountains. The one in the Himalaya, Lac Giamai, is the Manasarovar. On Ortelius' map, (Pl. XXII), we had two copies of the lake, both called Chiamay, on Ides' map we have also two copies, though only one of them is called Chiamay.

From where has Ides got his information, and what news has induced him to undertake such a radical change? The Jesuits in Peking! In his narrative he describes his meeting with Fathers GRIMALDI and THOMAS PEREYRA, and he tells us that none less than the famous Father Gerbillon served as interpreter at the audience which Emperor Kang Hi accorded to the Russian Ambassador.[1] The Jesuit Fathers no doubt knew a good deal about Tibet, which they have not described in their letters and books. Only a few years after the visit of Ides the Jesuits in Peking got a very good native description of the two lakes, Mapama Talai and Lanken, or Manasarovar and Rakas-tal, of which they were told and firmly believed that they gave birth to the Ganges, and to no other river. Why could not Gerbillon have got some earlier news from Chinese sources, and told Ides that in his opinion the Chiamay lacus was the real source of the Ganges, while Barros and Martini had confused it with another lake, the existence of which nobody so far had any opportunity to deny.

---

[1] In Recueil de Voiages au Nord, Tome VIII, p. 150 a chapter has the following title: L'Ambassadeur visite les Péres Jésuites de Peking. Description de leur maison: de leur Eglise: d'une colation que ces Péres donnent à l'Ambassadeur & à sa suite, etc. The audience begins in the following way, p. 134: »L'un de ces trois Religieux étoit François, & s'apeloit Pére Jean-François Gerbillon. Les deux autres, dont l'un s'apelloit Pére Antoine Thomas, étoient Portugais. L'Empereur comanda au premier de venir me parler, lequel aussitot s'étant aproché de ma place, me demanda en Italien de la part de S. M. combien de tems j'avois employé à venir de Moscou à Peking? ... Ce Prince parla ensuite un moment avec le Pére Gerbillon ...



GEN. STAB. LIT. ANST. STOCKH

The Map in Wicquefort's edition of Mandelslo's narrative, 1727.

Lac Giamai on Ides' map is therefore placed a long way west of Barantola and the residency of Dalai Lama, as is indeed the case with Manasarovar.

Next year, 1705, a new change of the scene takes place. Delisle, (Pl. XL), retains the lake and calls it Lac de Chaamay, but removes it so far eastwards as possible, obviously with the calculation that it should not interfere too much with the comparatively settled physical geography of Hindustan and Tibet. The lake is situated straight south of Lhasa, which is also too far to the east. Delisle has dropped three of the four rivers, Irrawaddi, Salwen and Menam, which on Gastaldi's map issued from the lake, though the great French cartographer has not yet dared to leave the Irrawaddi quite without contact with Chiamay: a tributary to the river of Ava, our old acquaintance Caipoumo,[1] still takes its origin from the lake. Otherwise he has only one river that gets every drop of its water from Lac de Chaamay, namely Rivière de Laquia, the river from the *terra incognita* of Lakhimpur. If we compare this modern representation of the lower Brahmaputra with Gastaldi's Caor river of 1561, every doubt disappears regarding the identification of the last-mentioned river.

Delisle does not accept Ides' Giamai lake, but he has another nameless lake which he calls the source of the Ganges, and in his opinion Ides' Giamai must have been the same as Andrade's »tanque». So far he agrees with Ides. Andrade's »tanque» was, as shown above, not the Manasarovar. But Delisle's nameless lake and Ides' Giamai are both in reality, though ignored by the draughtsmen themselves, the Manasarovar, and Lac de Chaamay, from which the Brahmaputra takes its source, is also the Manasarovar. The nameless lake and Lac de Chaamay are therefore in reality one and the same, or, in other words, the Manasarovar has given rise to two false lakes on the map.

But Delisle got time to change his opinion thoroughly. On his map of 1723, (Pl. XLII), the Chiamay has disappeared without leaving any sign behind. Here, only ten years before d'Anville's map was published, we have a map without the slightest trace of the Manasarovar. For there is no Chiamay, no Beruan, no Siba, and no nameless lake. Only the Coconor is left, which at one time played the part of the Manasarovar.

Herewith we have reached the last days of Lago de Chiamay. It took of course some years to get it definitely extinguished from European maps, but those who still protected the lake were ignorant fabricators of maps and books. Examples of such maps are Pl. XLIII and XLIV, where it appears under the names of Cara Nor and Lac Möhill,[2] and Pl. XLVII, which in 1727 was published by

[1] Delisle seems to identify Caipoumo with the Chindwin river.

[2] In Histoire Généalogique des Tartars, it is said, p. 122: »Le Lac Möhill dont nostre Auteur parle en cette occasion est le mesme que nos Geographes modernes appellent le Lac Giammaï ou Koko-Nor, & que les Callmoucks du Tangut appellent encore à l'heure qu'il est Cara Nor: L'Histoire Chinoise est conforme à cet egard à ce que nostre Auteur avance en cet endroit, d'autant qu'elle ne parle jamais de ce Pays, que comme d'un Estat qui a esté pendant plusieurs Siècles sujet à l'Empire de la Chine.»

WICQUEFORT in a new edition of MANDELSLO's narrative. The map comes from the offices of PIERRE VAN DER AA, and is very much of the same type as Jansson's map of 1641, (Pl. XXVIII).[1] At any rate it is nearly a hundred years too old, and shows what the publishers allowed themselves, and what the public had to accept. To the same class belongs the map reproduced as Pl. XLVIII. It dates from about 1739.[2] The Chiamay Lac. has been captured by the Ganges river system, though the old Chiamay Lake, under the name of Cananor or Cunabete, still plays its part as being the source of the four Indo-Chinese rivers. On serious maps the lake does not exist any more, and d'Anville has the sources of the Indo-Chinese rivers in or on the borders of Tibet.

The name of the lake has undergone very insignificant changes in the course of time. Barros writes Chiamay and his spelling has been adopted by Mercator, Herbert, Jansson, Blaeu, Sanson d'Abbeville, Visscher, de Witt, Coronelli, and certainly by a great many others who have not been discussed in the preceding chapters. Gastaldi (1561) has Cayamay. Ortelius writes Caÿamai, though his second copy is called Chÿamai. Hondius and Hoeius have Chiamai. Martini writes Kia, instead of Kiamay. Cantelli has Chimai, Witsen Chimoi, and Delisle Chaamay; names which have only augmented the confusion are Coconor, Zim, Cunabetee, Kananor, Cara Nor, and Möhill. Disregarding these later attempts, the prototype is Chiamay, and such the name has remained from 1550 to 1705, or perhaps somewhat longer, with some unimportant variations in spelling. This is very natural, for the lake had been created by a misunderstanding, and Barros has heard the name as Chiamay. As nobody ever heard of it after his time, the name given by him had to remain intact. Nobody had any new information to bring, nor any new correction to add.

How could Barros positively assert the existence of a lake in an unknown country, where, as has fully been proved by the exploration of a later time, no lake exists at all? This question is impossible to answer with any degree of certainty. Natives on the banks of Irrawaddi, Salwen, and Menam would not pretend that their rivers come from a great inland sea. The information is probably not first hand. It may have come from Hindus living on the banks of the Brahmaputra, who have been convinced that their river came from a lake, which gave rise to three other great rivers. As the Indus and the Ganges ever since Ptolemy's time were supposed to be known as *not* coming from a lake, and as the Satlej was almost unknown,

---

[1] The lake is mentioned in Wicquefort's edition, Vol. I, p. 54, where the province of Udessa is placed between the provinces of Kanduana, Patna, Jesual, and Mewat, and the lake Chiamay. P. 290 he says of the Kingdom of Bengal: »Le Gange la traverse presque tout, & il est encore arrosé par les rivieres du Guenga, du Caor, & du Cosmin.» And of the river of Menan we learn, p. 305: »elle est si longue, que jusqu'ici on n'a pas encore pû monter jusqu'à sa source».

[2] This map which was kindly shown to me at the Royal Library of Berlin, has the title: Asiæ Recentissima Delineatio, qua Status et Imperia totius Orientis unacum Orientalibus Indiis exhibentur Authore Jo. Bapt. Homanno Norimbergæ.


TARTARIA
MAGNUS
MOGOLIS
IMPERIUM
INDIA
PERSICUM MARE
MARE
GANGETICUS SINUS
INDICUM MARE
Regnum Serahic
Desertum Kariack
Karakitay
Karakathay
Usbeck
Mogalia
Tangut
China extra
Pitan
Lassa
Cathay
Golconda
Bengala
Golfo di Bengala
Pegu
Siam
Malabar
Coromandel
Gangetica Ostia
Ceylon
Maldivæ Insulæ
Mogalorum Imperatoris Status
Ditio Principis Talamau
Residentia Potentissimi Mogalorum Chani
Residentia Kalmuchiæ Magalorum Pseudo-Sancti
Ditio Principis Tangut
Principis Arcali Ditio
Principes Vagabundi Tangutici Status
Mogalici Principes Vagabundi Tangutici Status
Principis Tangut Ditio
Principis Tangut Residentia
Principis Tangut

Barros has misunderstood his informant and supposed that the Indo-Chinese rivers were meant. But the informant has meant the four rivers which were supposed to take their rise from the sacred lake of Brahma, and one of which was the Caor river. It is easy to understand that in a time when even Tibet was unknown, nobody would be able to locate this lake, even approximately at its right place. We have also to remember the form and situation given to India, the Indus and the Ganges. It would have seemed absurd to think that the Indus and Ganges came from the same lake as the Caor river. For then the Caor would have been forced to make an enormous bend through the Diserto de Camvl and Monte Naugracot and to enter into very intimate contact with the Chinese rivers. The more natural it appeared that the Indo-Chinese rivers came from the lake that Barros or his informants had heard of.

Barros may have got news of a journey from India to China, or *vice versa*, by some now unknown native or European traveller, or perhaps about several journeys undertaken on that line. He has been told that the road crosses four great and almost parallel rivers. At the same time Barros may have heard that a lake, the source of four great rivers, existed somewhere to the north. He could not know that this lake was the Manasarovar, nor that the rivers were the Indus, Satlej, Map-chu and Brahmaputra. So, very naturally, he identified the rivers with those crossed on the road between India and China. This is most probably the real and fundamental cause of the transformation of the real Manasarovar into the imaginary Chiamay.

It is surprising that the elementary laws of physical geography, of erosion and bifurcation, could be so completely unknown that every geographer born since 1550 accepted without the slightest attempt of opposition such a monstrosity as four rivers, in five branches, flowing out in almost the same direction from one and the same lake. This is exactly what innumerable natives of India and Tibet believed to take place, and still believe, — in the case of the Manasarovar! But that Europeans could be taken in so far is indeed surprising.

Manasarovar became known to the Jesuits in Peking in the beginning of the eighteenth century. In 1733 d'Anville made it known to Europe. Before that time the lake had been unknown, — and still it had existed for 183 years on nearly all maps, but at a wrong place, feeding wrong rivers, and possessing a false name.

We must leave it to philologists to settle the question of the derivation of the name Chiamay. In Hindu mythology the Himalaya mountains have many different names, as Himāchala, Himādri, Himavat, and others. Alberuni calls them Himavant. Moorcroft in 1812 writes Himachal, Francis Hamilton, 1819, Himadra and Himaliya, James Fraser, 1820, Himālā, and so forth, innumerable variations only 100 years ago. How easily could not the word have been misunderstood 360 years ago! And Chiamay is not so very far from Himalay. The informant may not have known the name of the lake and simply called it the Himalaya lake, and indeed the Manasarovar is still regarded as one of the most sacred »tirthas» amongst the Himalaya Mountains.

CHAPTER XXVI.

THE MAPS OF STRAHLENBERG AND RENAT.

Among the Swedish officers who, after the battle of Poltava were sent as prisoners to Tobolsk and other places in Siberia, was Lieutenant-Colonel PHILIPP JOHANN VON STRAHLENBERG, born in Stralsund 1676. After a stay of 13 years in Siberia, he returned to Sweden in 1723, and died there in 1747. No more than his comrades was he broken down by the long and tedious years of Siberian captivity, but used his time to work out a great map of Northern and Central Asia, a work in which he had great assistance from Captain JOH. ANTON MATÉRN and Lieutenant-Colonel PETTER SCHÖNSTRÖM, both Swedes.

It would take us too far to pay due attention to Strahlenberg's wonderful life. In this connection we are only concerned with his work. I have already mentioned[1] the important part played by Schönström and Strahlenberg in connection with BENTINCK's *Histoire Genéalogique des Tartars*, where the author of the explanatory notes is Strahlenberg. These notes were afterwards published as a separate article: *Relation de la Grande Tartarie, Dressée sur les Mémoires Originaux des Suédois Prisonniers en Sibérie, pendant la Guerre de la Suède avec la Russie.*[2] In d'Anville's Atlas, Haag 1737, an article accompanies the maps: *Description de la Boucharie Par un officier Suédois qui a fait quelque séjour dans ce Pays.* According to AUG. STRINDBERG this officer was again Strahlenberg, who dictated the article to a friend, probably Bentinck.[3]

Then follows the most important of Strahlenberg's works, which, according to Strindberg, was first published in Leipzic 1730, under the title *Historie der Reisen in Russland, Sibirien und der grossen Tartarey.* The edition at my disposal was printed at Stockholm the same year, and was translated into several other languages.[4]

---

[1] See above p. 227, note.

[2] Recueil de Voyages au Nord. Tome X. Amsterdam MDCCXXXVIII, p. 1 et seq.

[3] August Strindberg: Philipp Johann von Strahlenberg och hans karta öfver Asien. Svenska Sällskapet för Antropologi och Geografi, Geografiska sektionens Tidskrift, 1879. Band I, N:o 6, p. 1 et seq. And Kulturhistoriska studier, by the same, Stockholm 1881, p. 18 et seq.

[4] The full title runs: Das Nord- und Ostliche Theil von Europa und Asia, In so weit solches Das gantze Russische Reich mit Siberien und der grossen Tatarey in sich begreiffet, In einer Historisch-

Of the importance of this work we get an impression from the following words by Strindberg: »His work, which touches history, geography, ethnography, archeology and philology, aroused, as was due, attention in the whole of learned Europe. It is quoted and mentioned in the *Transactions of the Petersburg Academy*, in the *Mémoires of the French Academy of Sciences*, in *Philosophical Transactions;* it is mentioned and discussed in *Journal des Savants*, very highly appreciated in *Acta Literaria*, translated 50 years after its first appearance, and is still in 1816 cited by Alexander von Humboldt in his »*Vues des Cordillères*».[1]

The work is remarkable for its time. He knows his classics, he knows Plano Carpini, Rubruck, Marco Polo, and everything else that was written about Central Asia at his time. In some places he criticizes Witsen's map. He gives us a new division of Great Tartary, namely 1) Little Tartary far to the west, 2) Usbeck, the country of the Turckomans on the eastern side of the Caspian Sea, the Cosaci Horda and the Carakalpaks, 3) Great Kalmucky under the Chontaish together with the kingdom of Caschkar or Little Buchary, 4) the Mungal kingdom, 5) East- or Chinese Tartary, 6) the kingdoms of Thibeth and Tanguth, »where the Dalai Lama or the so called Priester John has his residency, and where the temporal power is in the hands of two Vice-Roys or Chans, but the soldiery is a kind of Kalmucks, called Coschiuth or Coschioth.»

He finds it difficult to identify several of the names mentioned by Marco Polo, Rubruck, Goës, and others, as many of the places they refer to have been destroyed by later wars and migrations. As Strahlenberg had no opportunity to visit Central Asia personally, he refers to the information he got from Tatars in Tobolsk. They told him that the N.W. frontier of China, where no wall, only immensely high mountains are situated, is called Tzin ma Tzin, or Zinnu ma Zinn. The reason for this should be that at a certain epoch the Kingdoms of Choten and Thibeth belonged to China, and were included in the appellation Tzinn. Though both were separated from each other by high mountains, they belonged to each other politically, and China was understood as Tzin, Choten and Thibeth as Ma Tzin, i. e. on this side of China. The Turks and Tatars, on the other hand, who used to call not only North-China but also Thibeth and Choten Katai, said Katai-Katai when speaking of the whole.

Geographischen Beschreibung der alten und neueren Zeiten, und vielen andern unbekannten Nachrichten vorgestellet, Nebst einer noch niemahls ans Licht gegebenen Tabula Polyglotta von zwey und dreyssigerley Arten Tartarischer Völcker Sprachen und einem Kalmuckischen Vocabulario, Sonderlich aber Einer grossen richtigen Land-Charte von den benannten Ländern und andern verschiedenen Kupfferstichen, so die Asiatisch-Scythische Antiqvität betreffen; Bey Gelegenheit der Schwedischen Kriegs-Gefangenschafft in Russland, aus eigener sorgfältigen Erkundigung, auf denen verstatteten weiten Reisen zusammen gebracht und ausgefertiget von Philipp Johann von Strahlenberg. Stockholm, in Verlegung des Autoris, 1730. — Strindberg enumerates the following translations: An Historico-Geographical Description of the North and Eastern parts of Europe and Asia; London 1738; Description Historique de l'Empire Russien. Amsterdam (Paris) 1757, 2 vol.; Nueva Descripcion geographica del imperio Ruso, en particular y en general. Trad. del Francés. Valencia 1786.

[1] The value of Strahlenberg's work and map for the knowledge of North and N.E. Asia is often pointed out by Baron A. E. Nordenskiöld in his Voyage of the Vega, Vol. II.

Comparing the news he got from his friends the Tatars in Siberia with the writings of the classics, Strahlenberg sometimes arrived at rather adventurous conclusions, the audacity of which we gladly forgive, remembering that he travelled and wrote exactly 200 years ago, when hardly anything was known of Tibet. He says that already in Alexander's time the name Cathai was used by the Scythians, for the Sophitic kingdom mentioned by Curtius is the same as Strabo's Cathæa. »The Sophitic kingdom, however, is nothing else than Thibeth and the country of the Tanguts where the wise and high Priest Dalai Lama lives with his would-be holy Lamas or Priests. For with the appellation of Sophists the Greeks have indicated those, who give themselves up to wisdom . . . And as the Mungals and Calmucks state, their Dalai Lama or so called Priester John has already since some thousand years had his residency in the country of the Tanguhts, he must have resided there already at and before the time of Alexander. And that the Greeks have had some reason to call these Lamas or Priests in the country of Thibeth or Matschin Sophists, is confirmed by the manners and customs these Lamæ still have in their religion, namely the important part that is played in it by sorceries, prophezyings and chiromancy.» [1]

He compares the meridional Imaus with that of Mercator, and both with actual things, and agrees that there is really a meridional range which goes out northwards from the southern Imaus or »as it now is called Imus-tag».

The very greatest part of Strahlenberg's work is devoted to the description of the Russian empire, its name, its situation, boundaries and climate, its provinces, its dynasties, more especially the Romanow dynasty, the government of Tsar Peter, the titles Tsar and Grand Duke, religions, income, army, the aristocracy, the greatest cities, etc., and finally he has a list of minerals, plants, curiosities, antiquities, manufactures, fabrics, »und dergleichen Dingen».

In this list he occasionally mentions things or questions touching upon Central Asia and Tibet. Under the word »cotton» he tells us that the Mohammedans living in Siberia never use stuffs manufactured by heathens, but only such which are manufactured in cities with a Mohammedan population, as Turphan, Chamill, Jerken, Kutzai, Axu, Caschkar, etc. The word Belgian which is found on some maps of the time is, according to Strahlenberg, derived from »bill» or »bell» meaning mountain,[2] while the name Imaus is pronounced Imus-tag, or Imussahr by the Tatars, for »mus» or »maus» means ice, and »tag» mountain; thus the meaning of Imaus is ice- or snow-mountain, and Imaus is a corruption of the native word. Caucasus he derives from the Persian Cuho or Coho (Kuh), mountain.

The musk of Tibet he found to be three times as strong in smell as the Siberian, the price of which was only one fourth of the Tibetan. Regarding the latter he quotes Martini.

[1] Op. cit. p. 40.
[2] Bel means indeed »pass» in Jagatai-turki.


NOVA
DESCRIPTIO GEOGRAPHICA
TARTARIÆ MAGNÆ
tam orientalis quam occidentalis
in particularibus et generalibus
Territoriis
ima cum Delineatior
totius Imperii Russici imprimis
SIBERIÆ
accurate ostensa.
MAGNI MOGOLIS
IMPERII PARS
TARTARIA
CASPIUM MARE
MARE CASPIUM
SARMATIA ASIATICA
TIBET
SINA
MUNGALIA
PROVINCIA CHALCHA
Desertum Mungalicum
Desertum TEOKURIN
Desertum Tola
Desertum KARANGUI
Desertum Tsaidam
REGNUM KASCHGAR
REGNUM BUCHARIÆ
REGNUM CHOTENA
REGNUM TANGUT
REGNUM CASSA
REGNUM NEPAL
REGNUM BOUTAN
REGNUM AVA
REGNUM SIAM
REGNUM CAMBOJA
REGNUM TUNKIN
REGNUM CORAIA
REGNUM JAPAN
REGNUM CHINA
REGNUM CANTON
REGNUM QUANGSI
REGNUM QUANGTUNG
REGNUM FOKIEN
REGNUM QUEICHEU
REGNUM YUNNAN
REGNUM SUCHUEN
REGNUM HUQUANG
REGNUM HONAN
REGNUM SCHENSI
REGNUM XANSI
REGNUM PECHELI
REGNUM NANKING
REGNUM CHANTUNG
REGNUM LIAUTUNG
REGNUM CORAIA
Mungales BARCHAT
Mungales ORDUS
Mungales Tumet
Mungales Cherim
Mungales Kalka
Mungales Turfan
Mungales Hami
Mungales Barcul
Mungales Tangut
Mungales Alaschan
Mungales Ordus

It is of interest to note the comparatively correct idea he had of the general orographic arrangement in Asia. To make clear the »elevations and declivities» he tells us the rate in which the ground is rising or falling for travellers coming from different sides. We know, he says, not only from Marco Polo, Goës and others, but also from travelling Tatars, that those who approach Tartary from Persia and India are three days on the road before they reach the heights of Tartary viâ »Belur and Pamer».

Let us now turn our attention to his map, the southern half of which I have in reproduction, 4/5 of the original size. In the upper corner to the left, not visible on Pl. XLIX, he has a dedication to King Frederic of Sweden. In the lower corner to the left is the title: *Nova Descriptio Geographica Tattariæ Magnæ tam orientalis quam occidentalis in particularibus et generalibus Territoriis una cum Delineatione totius Imperii Russici imprimis Siberiæ accurate ostensa.* Baron A. E. Nordenskiöld who by his own arctic journeys was familiar with Siberia and a brilliant student of old maps, says of Strahlenberg's map that it is a valuable original work, in which a man with a knowledge of topographical drawing has added his own experience to all the most important facts known of these countries in his days. The first copy was completed before Strahlenberg's return from his captivity in 1721. »It was sent to a merchant at Moscow, but when he died shortly afterwards, the map happened to be shown to the Tsar Peter, who did not return it». Strahlenberg, however, who was still in possession of his original sketch, spared neither pains nor expense, during the last three years of his captivity, in travelling far into the country in order to observe everything of note with his own eyes, and to set it down geometrically for a new map. After his return home he saw to the engraving of this map and published it in *Das Nord- und Ostlich Theil von Europa und Asia, Stockholm 1730.* Strahlenberg was also the first to determine positions astronomically in northern Asia.[1]

F. G. KRAMP says that Strahlenberg's map »in many respects superseded Witsen's work».[2] So far as Eastern Turkestan and our regions further south are concerned I would add, that the two maps cannot be spoken of at the same time. For

[1] Nordenskiöld: Periplus, p. 98. In his preface Strahlenberg explains the causes of the delay with the publication of his map. He begs the reader to remember that his health after a captivity of 13 years and interminable journeys could not be the best, and that he therefore could not carry out his work with the speed he had wished, »insonderheit da meine vorige zu zweyen mahlen verfertigte Charten mir als ein Muster von Händen gekommen, so dass alles wieder aufs neue gezeichnet, und ins reine gebracht werden müssen . . .» — It was in 1723 that Strahlenberg returned home. For in 1721 he left Tobolsk together with Messerschmidt, and followed the Irtish upwards to Tara, and further to Tomsk. Here they separated and Strahlenberg travelled to Narim on the Ob and other places. In 1722 they travelled together to Krasnoyarsk. Then Str. went alone on the Jenisei to Jeniseisk. On his return to Krasnoyarsk he received orders to hurry to Tobolsk, as the prisoners could now return home to Sweden. Pallas says of the last separation of the two friends: »Den 13 May ging er auch nach Tobolsk ab, und das war der Anfang von Messerschmiedt's fataler hypochondrischer Periode. 'Ich schied mich, sagt er, von dem frommen, redlichen, fleissigen treuen Tabbert (Str[s]. name before he got his title of nobility), meinem einzigen Freunde und Beystande mit vielen Thränen. Nun bin ich ohne Umgang und Hülfe, ganz verlassen'.» Neue Nordische Beyträge, St. Petersburg und Leipzig 1782, p. 100.

[2] Remarkable Maps, IV.

there is practically no sign of the Tarim basin on Witsen's map, whereas the fundamental features of this region, especially its western part, on Strahlenberg's map very much approach reality and surpass everything executed so far. He is even much superior to Delisle's maps of 1705 and 1723, (Pl. XL and XLII), for while Delisle knows only the Khotan-darya and makes it flow the wrong way, Strahlenberg knows the following rivers: Axu (Aksu-darya), Tersik (Taushkan-darya), Kaschkar fl. (Kashgar-darya), Melescha (Yarkand-darya), Choteen (Khotan-darya), Orankasch (Yurunkash), Karakaisch (Kara-kash), Tarimo (Tarim), Karia fl. (Keriya-darya), Tschikman (Cherchen-darya?), Kipzak Darya (?), and Chaidu fl. (Khaidu-gol), or, in a word, all the great rivers of the Tarim basin, though, of course, much was left to be desired regarding their relative situation. He knows all the cities of the same region and some villages as well, and places them as a rule in correct relation to each other, for instance, not Kashgar south of Yarkand as Delisle had done. Or, to mention only the most important: Kaschkar, Ierken, Sarikol, which has fallen too far east, Kargalagga (Kargalik), Choteen, Karakaisch, Gurumkasch, Gumma (Gume), Modsche (Muji), Karia, Gans (Gass-kul, which he believes is a city), Tarim, marked as a city, Karaschai (Kara-shahr), Chialisch al: Uluk Iuldus, the Cialis of Goës and older maps, Kitzik Iuldus (Little Yuldus), Axu, Baij, Arwat, Kutschai (Kuche, wrongly placed in relation to Aksu), Utschferment (Uch-turfan), and, further east, many places such as Turpan, Chamil, Lukzin (Lukshin, which Grum-Gshimailo found to be situated below the surface of the sea), and many others. Curiously enough he has no Lop and no Desertum Lop.[1] Three years later d'Anville completes Strahlenberg's hydrography eastwards by making the Yarkand-darya fall into Lop Nor.

Of the greatest interest to us is the way in which Strahlenberg has surrounded Bucharea Minor or Eastern Turkestan with mountain ranges, and nobody will contradict my saying that he has known both the Tian-shan and the Kwen-lun. The eastern half of the latter he represents as a boundary between the Tibetan highlands and Eastern Turkestan, as indeed is the case. Regarding its western half he commits exactly the same mistake as Ptolemy, namely, to believe that the slopes falling down to the southern margin of Eastern Turkestan and the slopes falling down to the plains of Hindustan belonged to one and the same range, one single range separating India from the Tarim basin.

Strahlenberg's eastern half of the Kwen-lun is therefore correct, while the western half includes both Kwen-lun and Himalaya as well as everything else situated between them, as for instance, Kara-korum and Transhimalaya. This western half he calls Mus Tagk alias Imaus Mons.

His northern range, the Tian-shan, Strahlenberg calls Musart, and, quite correctly, he has Uramtza (Urumchi), and Barskol Lac. (Bar-kul) north of this range and

[1] Where the Lop desert ought to be, he has a Desertum, the name of which is illegible on the original copy at my disposal. On Pl. XLIX it reads cltus. On Strindberg's reproduction in our Geographical Journal 1879, quoted above, it reads Sultus.

CARTA
AF Songarski -
Kalmückit,
hwar inder Kolonnerne höre,

Renat's Map of Central Asia, brought to Sweden in 1733.

HEN. STAB. LIT. ANST. STOCKHOLM

at its very foot. The interruption caused by the rivers Karausun and Ulanusun, the Black and the Red Water, does not agree with reality. Strahlenberg has practically discovered the existence of Tian-shan, though it seems very unlikely that he ever proceeded so far south personally. Of this fact ALEXANDER VON HUMBOLDT says: »Strahlenberg has the merit to be the first who has represented the Tian-shan as a special, independent range, without knowing the volcanic activity of the same.»[1]

Humboldt is less fortunate in his criticism of Strahlenberg's nomenclature. I cannot help quoting two or three passages by Humboldt in his own words. He says: »Strahlenberg hat den Thian-shan auf der Karte, welche seinem . . . Werke . . . beigegeben ist, unter dem unrichtigen Namen Musart so dargestellt, dass er ziemlich leicht erkannt werden kann; er nennt den Bolor Mustag und setzt dabei noch olim Paropamisus, was auf eine S.—N.-Kette sehr schlecht passt. Die Benennungen Musart und Mustag sind Corruptionen des tartarischen Wortes Muz-tagh.»[2] In connection with Strahlenberg's merit of representing the Tian-shan on his map Humboldt says: »Er giebt ihm den sehr unbestimmten Namen Mousart: der, weil der Bolor mit dem allgemeinen, nichts individualisirenden, nur Schnee andeutenden Namen Mustag belegt wurde, noch ein Jahrhundert lang zu einer irrigen Darstellung und albernen, sprachwidrigen Nomenclatur der Gebirgsreihen nördlich vom Himalaya Anlass gegeben hat, Meridian- und Parallel Ketten mit einander verwechselnd.»[3]

What Humboldt says of such a name as Mustag is quite right; it gives rise to misunderstandings and should disappear from the maps. In our own days one sees from time to time the Western Kara-korum called Mustag from the pass of the same name. I used to call the easternmost range of the Pamir Mus-tag,[4] though Colonel Burrard prefers the name Kashgar Range, a proposal I most willingly accept.[5]

Strahlenberg's Musart, on the other hand, is no corruption, as Humboldt believes. He says the correct word is Moussour tagh or Moussar tagh of which Musart should be the corruption. On the last edition of *Stieler's Hand-Atlas*, No. 62, the name is spelt exactly in the same way as on Strahlenberg's map 183 years ago, namely Musart. The only mistake, very excusable indeed, which Strahlenberg committed in this case was to transfer a name, which belongs only to a very important pass situated just east of Khan-tengri, to the whole system, the Chinese name of which was unknown to the Swedish officer. Another mistake was to believe that Tian-shan consisted of only one single range, but this was also Humboldt's opinion,[6]

---

[1] Kosmos. Entwurf einer physischen Weltbeschreibung. 1858, Vol. IV, p. 607.
[2] Central-Asien, Übersetz. Dr. W. Mahlmann. Berlin 1844. Bd I, p. 372.
[3] Kosmos, IV, 1858, p. 607. Compare also Fragmens Asiatiques, Tome Premier, Paris 1831, p. 48 and 60.
[4] See my little map in Zeitschrift der Gesellsch. f. Erdkunde zu Berlin Bd. XXIX, 1894, Tafel 8. Through Asia, Vol. I, p. 273 and 311, Vol. II, p. 705.
[5] A Sketch, etc. Part I. Calcutta 1907.
[6] Fragmens Asiatiques, map.

and European draughtsmen have made the same mistake regarding Transhimalaya, until I returned from my last journey.

Strahlenberg's Mustag is no corruption either, for the word can as well be spelt Mustag as Muz-tagh. *Stieler's Hand-Atlas* has Mus-tag as Strahlenberg, and not Muz-tagh as Humboldt. »Olim Paropamisus» is unfortunate. But when Humboldt says that Strahlenberg has called the Bolor Mustag, he seems to have overlooked that Strahlenberg, west of his Mustag has a M. Belur, alias Bulut, i. e. Montes tenebrosi, and between both he has a Planities Pamer, or »the Plain of Pamir». Strahlenberg's Mons Belur therefore corresponds to the range I called Sarik-kol Range in 1894, a name that has also been adopted by Colonel Burrard under the form of Sarikol Range. Strahlenberg's representation is therefore in perfect accordance with the actual geography, his northern Mus Tag being the same as the Kashgar Range with Mus-tag-ata, and his M. Belur being the Sarikol Range, and his Planities Pamer being the Sarikol- and Tagdum-bash valley. He even knows the Terek Daban, a name which he gives to a range instead of a pass. Therefore Strahlenberg's map is, in this region, far superior to Humboldt's, which was published more than a 100 years later, for while Strahlenberg has two parallel meridional ranges west of Eastern Turkestan, Humboldt has only one, which he calls Bolor, and which crosses the western part of Tian-shan in a most extraordinary way at right angles. And this western part Humboldt calls Mouztagh, which he supposes to be an improvement upon Strahlenberg's Musart. Humboldt's Bolor should soon be given up, while Strahlenberg's Mustag (Mus-tag-ata) and Musart and his two meridional ranges, which were 114 years older, should live for ever on the maps of Asia.

Strahlenberg was of opinion that the Hindu-kush, which he calls Hendukesch, was the immediate western continuation of Mus Tagk, the southern Mus-tag or Imaus Mons. What else could he do as he did not know the several other ranges north of Himalaya! And we should not forget that the connection between the Hindu-kush and one or several of the ranges to the east is not definitely cleared up yet. The Swedish officer made his observations and combinations from Siberia, and got his information there, and the further south, the greater, therefore, are his errors. He makes the same mistakes from the north that the ancients made from the south. They meet halfway and arrive, in some respects at least, at the same conclusions. So, for instance, the Indus and the Ganges have their sources in the same range as the Keriya-darya. On Strahlenberg's map we find, however, an indication of a double range even in the west. The Khotan-darya and Yurun-kash of the map are represented as coming from a short range situated north of the Imaus.

The upper Ganges and its lake is taken from Delisle. East of it we find Tibet et Tangutiæ Pars alias Lasa Regnum, while Lac. Sofing is from Martini. Strahlenberg has two copies of the Koko-nor, which he calls Zinhac Lac:, and Koko Nor.

Strahlenberg's map is, under all circumstances, well worthy of being drawn from the oblivion into which it has been kept for such a long time.

The second Swedish map, which probably will be unknown to most of my readers, is shown on Pl. L, and known by Swedish and Russian geographers under the name of RENAT's map. This map was discovered by August Strindberg, 1879, in the Library of Linköping, and on the supposition that it would be of greater interest to Russia than to Sweden he sent it to St. Petersburg, where it was published by the Imperial Russian Geographical Society under the superintendence of General O. E. VON STUBENDORFF. A text accompanies the map, compiled from material collected by Strindberg.[1]

In this text we are told that JOHAN GUSTAF RENAT was a lieutenant of artillery who was made prisoner in the battle of Poltava. In 1715—1716 he took part in Buchholz' expedition. On the Irtish the convoy, 700 men, was attacked by the Kalmuks. After a brave resistance the convoy was defeated and captured. Then the text goes on: »Parmi ces prisonniers», dit Müller dans ses 'Notices sur le sable d'or en Boukharie . . .', »se trouvait le sous-officier suédois Jean Renat, qui enseigna plus tard aux Kalmouks l'art de fondre le minerai de fer, fondit des canons et des bombes, fut commandant en chef des troupes Kalmoukes qui étaient en guerre avec la Chine; et après avoir amassé une quantité considérable d'or, d'argent et de pierres précieuses, retourna en 1733 dans sa patrie, en passant par la Sibérie et la Russie.» [2]

Renat brought a map of Central Asia back with him to Sweden, where it attracted the intense interest of the two brothers Benzelius. These very enlightened men hoped to get some important news about the east from their compatriot, who had passed some years on campaigns, most of the time in Asia. Strindberg has made some extracts from their correspondence. In March 1735 Bishop ERIC BENZELIUS wrote from Linköping to his brother Censor Librorum GUSTAF BENZELSTIERNA in Stockholm, and asked him to remind Lieutenant Renat that he had promised to copy the *Charta Geographica Calmachorum* for Benzelius. He says that he has taken notes of what he and Renat had been discussing at Linköping. »Without questioning him one cannot get anything out of him, for he has no erudition at all. May God grant you time, my dear brother, to speak with him.»

Professor BAYER in Petersburg wrote several letters to Bishop Benzelius and asked him to do the utmost in his power to send to the Imperial Academy of Science a copy of Renat's map, which Joseph Nicolas Delisle had had an occasion to see when Renat passed through Russia. It is unknown whether this wish was ever fulfilled.

However, we are indebted to the efforts of the brothers Benzelius and to a third member of the same family, I. A. BENZELSTIERNA, that the map has been

[1] Carte de la Dzoungarie dressée par le suédois Renat pendant sa captivité chez les Kalmouks de 1716—1733 St.-Pétersbourg 1881. The original map to Pl. L is the copy made by Renat, from a Mongol map. Both these are now at the Library of the University of Uppsala. A third copy, the one hereafter called Benzelstierna's copy, is at St. Petersburg.

[2] The Russian Geogr. Society concludes: »Il est évident que Renat n'a jamais visité ces lieux.»

saved, and to the efforts of Strindberg that it was discovered 150 years after its appearance. From the original it was copied by I. A. Benzelstierna in 1738.

Then follows in the text[1] a chapter about the geographical knowledge of the countries shown on Renat's map, from which we learn that several Russians had travelled there in the beginning of the eighteenth century without drawing any maps. It was impossible to make a map from their descriptions. Therefore the Russians say of Renat's map:

L'honneur d'avoir dressé cette carte, en se basant tant sur ses propres observations, que sur des interrogations, appartient donc sans contredit à Renat. Il fut le premier à nous donner un tableau graphique détaillé de la Dzoungarie et du Turkestan Oriental ainsi que des parties des pays contigus, tableau qui, s'il n'avait pas été égaré, aurait été le meilleur, du moins quant à la Dzoungarie, avant l'édition de la carte de l'Asie Centrale de Klaproth et des cartes récentes russes, fondées sur des recherches géographiques immédiates, effectuées pendant le siècle dernier de la part de la Chine et pendant le siècle courant de la part de la Russie . . . Mais dans différents détails, par exemple, dans les contours des lacs Balkhach et Issykkoul, la carte de Renat se rapproche plus des cartes modernes, que celle de Klaproth.

This is very high and very just praise of this old map. But it remained forgotten and never came to play the important part it would have done if it had been known and exploited by later draughtsmen.

Then the Russian article goes over to a very thorough and very able discussion of the map itself. It contains 250 geographical names and legends. Out of this number more than half is still to be found on modern maps.

We are not concerned with the greatest part of the map, but as its southern half embraces regions of Asia, which so late as in 1875 were practically unknown, and where Prshevalskiy made some of his most brilliant discoveries, and as these regions have been dealt with in the preceding chapters, I think it worth while to consider this part of the map. Of Eastern Turkestan the Russian text says:[2]

Le Turkestan Oriental est désigné sur la carte de Renat sous le nom de Kottoner, Kottons, sans doute d'après la ville de Khotan, qui jadis était la plus importante de ce pays . . . Quant à la différence que Renat fait dans l'orthographie du peuple Kottoner, Kottons, et de la ville de Choton, Khotan, elle est de peu d'importance. Même des savants géographes écrivent différemment Khoton, Khotan, Koton, Kotan, etc., et Renat, qui n'avait pas une instruction bien solide, a pu remplacer une lettre par une autre et même mettre un double t sous autres combinaisons étymologiques.

The word Kottonner which Renat has written over a great part of Eastern Turkestan has nothing to do with the name of the city Choton, or Khotan. By the expression Kotton was meant the inhabitants of towns, and especially merchants

[1] Op, cit. p. 9 et seq.
[2] Op. cit. p. 26.

from Bokhara, in the same manner as nowadays merchants from Russian Turkestan who live and trade in the cities of Eastern Turkestan are called Andishanliks, from the city of Andishan. Strahlenberg seems to refer the word to the Mongol word khoto, town, as for instance in Koko-khoto, the Green City, as Kwei-hwa-chöng in Shan-si is called by the Mongolians.[1]

The form Kottonner is Swedish plural, and stands for the English Kottonians. The same word enters in the Swedish title of the map: *Carta af Songarski-Kalmuckit, hwar under Kottonnerne hörer*, or Map of the Dsungarian Kalmucky to which the Kottonians belong.[2]

The cities which have given rise to this name are Kutzä (Kuche), Acksu (Aksu), Utz (Uch-turfan), Kaschar (Kashgar), Iercken (Yarkand), Choton (Khotan), and Kiria (Keriya). The hydrographical arrangement of the Tarim basin is perfectly excellent and very nearly the same as on our own maps.[3] It is far more correct than the representation on No. 44 b in Stieler's *Hand-Atlas* for 1875, which shows the standpoint of the knowledge before Prshevalskiy's second journey. I will only add that on Renat's map the cities Yarkand, Khotan, and Keriya have each been placed one step too far eastwards. For the river west of Iercken is Yarkand-darya, and at the place where Iercken is entered, Choton ought to have been situated. The Tarim is simply called Daria. Chaidu, or Khaidu-gol is there, and Schisken-toroij is Cherchen-darya.

South of the latter is the country of the Kossiauts and the Tanguts. Two important geographical names are entered here: Gas, and Schidam or Tsaidam. A lake in the same valley as that from which Cherchen-darya comes, may possibly be Ayak-kum-köl. Renat has even heard of the gold in these regions, though he has misunderstood the information he got, and places the gold-mines near Kiria, where

[1] Under the word Koton, Choton, Strahlenberg says: Die Ost-Tatern nennen die Handels-Leute Bürger und Bucharen in ihren Städten Choton; Daher die Nahmen der Städte in der Ost-Tatarey als: Kara-koton, i. e. schwartz, Koko-koton, i. e. grün, und Naun-koton dasjenige Koton, das an dem Naun-Strohm liegt. Weil diese nun viel mit Baumwollenem Zeug handeln, sollte nicht etwa der Nahme Catun hiermit Verwandtschafft haben? Welches nicht behaupte, sondern nur eine Meynung ist. — Op. supra cit. p. 389.

Pallas explains the Dsungarian name of a certain sickness, Geile Seuche, with the following words: Die Soongaren nannten selbige Chotton-jarra (bucharische oder Stadt-pochen) weil sie durch die Bucharen unter sie gekommen war. P. S. Pallas: Sammlungen historischer Nachrichten über die Mongolischen Völkerschaften. Erster Theil. Frankfurt und Leipzig 1779, p. 242. In his chapter about the administration etc. amongst the Kalmuks, Pallas writes: Die Dorfschaften oder Nachbarschaften, welche immer auf einem Platz beysammen ihre Filzhütten (Gärr) aufschlagen, und ihre Heerden zusammen weiden, pflegen aus etwan zehn oder zwölf Familien zu bestehen, und werden Chotton oder Chottun genannt, welches etwan einen Hof oder Kreiss bedeutet, weil sie sich am liebsten in dieser Figur lagern: Der älteste im Chottun, dem die Aufsicht der Beywohner aufgetragen ist, wird Chottuni-Acha genannt und hat eine Art von Ansehen unter den ihm untergegebenen Gemeinen. — Ibidem p. 285. And finally, in an Order of Galdan Chuntaiji: Auch alle Rechtshändel zwischen dem Oelötschen und Chottonschen Volk (städtischen Bucharen) sollen genau geprüft werden . . . Ibidem p. 322.

[2] The scale of the map is in Swedish miles, and the explanations of signs refer only to towns, the Regent's tents, and (ordinary) tents.

[3] The text of the Geogr. Society in Petersburg runs: Le basin de la rivière Tarim, qui forme le Turkestan Oriental, est représenté sur la carte de Renat presque comme sur les cartes de nos temps. Op. cit, p. 28.

he has the legend: Här finns guld, or Here gold is found; the original informant meant that many of the gold-diggers came from Kiria.

Proceeding westwards we find, south of Choton, the Garriker, or Garrikians, which I cannot identify. Then follow the Kesmirer or Kashmirians, south of Mustack or Mus-tag. The river which on Renat's map is the river of Yarkand but in reality Khotan-darya, comes from a lake Charchol, obviously Kara-kul, so much the more as it is situated in the country of the Siara-Kolser or Siara-Kolsians, the people of Sarik-kol or Sarikol. In Badakshan again gold is to be found.

Tian-shan is well drawn, and it is called Musar ola, or Musart ula with two Turki and one Mongolian word. The correct translation, Isberg, Ice-mountain, is entered. Issik-kul is remarkably well placed and its form very good. It is called Toskâl Noor and has the legend: Finnes järn sand, or Iron sand to be found. Strahlenberg has the name Issech kul for this lake, not nearly so well placed by him. Renat knows even Son-kul and the Narin river, and has them wonderfully well placed.

The interior of Eastern Turkestan is, on Renat's map, shown as rich in forests, though in reality the forests grow only in narrow strips along the rivers. Only south of the eastern part of the Tarim is the ground marked as occupied with sand deserts.[1]

The Tarim empties itself into the Lop-nor, which on Renat's map is called Läp. In the lake there are some islands. The eastern end of the lake has been rather unknown to Renat and his informants, for a river, Bolansiu, which must be the Bulundsir, enters this part of the lake. Leaving this inaccuracy alone, one cannot help noticing that the orientation of Lop-nor on Renat's map, in relation to the Tarim, agrees very well with my theories about the situation of the old, Chinese Lop-nor.[2] For the Tarim goes straight eastwards through the bed of the Kurruk-darya to the northern, now dried-up lake, and the Cherchen-darya enters the south-western corner of the lake, without joining the Tarim at all. The following is a passage from one of my narratives:[3] »The old chieftain of Abdal, Kunchekkan Beg, a friend of Przhevalsky and also my especial friend, is eighty years old. Both his father, Jehan Beg, and his grandfather, Numet Beg lived to be ninety years of age. Kunchekkan Beg told me, that his grandfather lived beside a large lake north of the existing Lop-nor of Pszhevalsky, and that, where the latter now is, there was at that time nothing but the sandy desert. The first formation of the southern Lop-nor dates from the year when Numet Beg was twenty-five years old, in consequence of the Tarim seeking a new channel for itself, and the lake beside which he dwelt, and in which his forefathers had fished, dried up. It was he (Numet Beg) who founded Abdal, and

[1] In this respect the different copies of Renat's map vary. On the Mogol original, there are no forests and no sand marked, showing that Renat has added these details to his copy from verbal information. On Benzelstierna's copy there are no trees, but only sand deserts.

[2] I have discussed this problem in several of my previous books, more especially in Scientific Results, Vol. II. Compare also Dr. Albert Herrmann's important discussion, Op. supra cit.

[3] Through Asia, Vol. II, p. 878.

there his descendants still live. According to my calculation all that happened about 175 years ago, or say about the year 1720.»

To this Baron von Richthofen says in a note to a letter I sent him from Khotan in 1896:[1]

Dr. Hedin's Berechnung scheint, auch wenn man die Angaben seines Gewährsmannes im allgemeinen als richtig annimmt, zu weit zurückzuführen. Denn wenn Numet im Jahr 1720 ein Alter von 25 Jahren hatte und sein Sohn 1783 geboren wurde, so hätte sich dies im 88 Lebensjahr des ersteren ereignet. Wahrscheinlicher dürfte es sein, dass Numet nicht vor 1750 sein 25. Lebensjahr erreichte und die hydrographische Änderung um diese Zeit sich ereignete.

The latest wandering of Lake Lop-nor from north to south should therefore, according to my first calculation have taken place in 1720, according to Richthofen in 1750. Richthofen's arguments prove that he must be right. As now Renat's map dates from his captivity in 1716—1733, the draughtsman, who proves to be so very well informed in hydrographical matters, has quite naturally placed his Lop-nor in the eastern prolongation of the Tarim—Kurruk-darya. Renat's map therefore provides me with a new proof that my theories regarding the wanderings of the lake were correct. When first studying Renat's map I found an insurmountable difficulty in the fact that it shows the desert north of the lake broader than that to the south. But this difficulty is, on closer examination, only apparent, the northern mountains being the Bogdo-ula and the Barkul mountains, and not Kurruk-tag. And the desert south of the lake is on Renat's map much broader than the present Kum-tag between Kara-koshun and Altyn- or Ustun-tag. On d'Anville's map, published 1733, Lop-nor is also placed in the northern part of the desert, much too far north, or at nearly 42½°. Renat has the lake, as shown on Benzelstierna's copy, at 41½°. The real situation of the now dried-up lake is at 40½°, while Kara-koshun, the new lake, is at 39½°. Even astronomically Renat is therefore more correct than d'Anville.

Strindberg has tried to show that Renat was the first European who travelled to Lop-nor, and not Prshevalskiy. This is so far wrong that Prshevalskiy never visited old Lop-nor, on the contrary, he denied its existence. And as to Renat it seems unlikely that he should have visited the lake personally. The text of the Russian Geographical Society concludes, on insufficient grounds, that Renat never travelled in Eastern Turkestan.[2] More conclusive is a statement by Bishop Benzelius who, in 1738 put some questions to Renat, amongst others about the map. To this question Renat answered: Contaigen giordt Chartan sielf, or the Kontaiji has made

[1] Zeitschrift d. Gesellsch. f. Erdkunde zu Berlin. Bd. XXXI. 1896, p. 341.

[2] Op. cit. p. 7 and 28. The Russian argumentation against Renat's visiting Eastern Turkestan is the following: Müller (in Yeshemesyachniya Sochineniya, 1760, p. 48) relates that Renat was commander-in-chief of the Kalmuks in their war with China; this war took place in eastern Dsungaria and in the country round Hami; but this very part of the map is drawn »très superficiellement et d'une manière inexacte», which indicates that Renat has never visited these regions.

the map himself.[1] This statement cannot be taken literally. The Mongolian ruler[2] can at the most have ordered the map to be made. By whom? It seems very unlikely that any Mongolians, East or West, would have been able to draw a map, the whole appearance of which is perfectly European. The Chinese have always been very clever surveyors, but the map (Pl. L) has not at all the ordinary Chinese habitus, it has not even been influenced in the least by Chinese methods. And as I said before the Mongol original is exactly the same as Pl. L, except the names which are in Mongol writing, and a few details added on Renat's copy. The Chinese always use to show the mountains in horizontal perspective, not in vertical projection. On Delisle's, Strahlenberg's and d'Anville's maps the mountains are still shown in horizontal projection; but on Renat's they are drawn as seen from a bird's eye view, which gives the map a much more modern stamp than heaps of European maps of a much later date.

All we can do is to confess our ignorance about the real origin of this most valuable map, which had been buried and forgotten 150 years when Strindberg discovered it.[3] Anyhow the Russian Geographical Society may feel satisfied that Renat

[1] Några små annotationer giorde wid en kort conference emellan Lieut: Renat, som ifrån Calmukiet återkomit, och Bisk: Högw. H:r Dr. Eric Benzelius 1738. In the Engeströmska Saml. B II, 2, 25, Royal Library, Stockholm, where Dr. E. W. Dahlgren has kindly directed my attention to this document.

[2] Regarding the title Kontaiji or Khuntaiji Pallas has the following passage: Die mächtigsten unter den kalmückischen und mongolischen Fürsten haben sich sonst theils von ihrem geistlichen Oberhaupt dem Dalai-Lama, theils von ihren mächtigen Nachbarn dem Russischen und Chinesischen Beherrscher den Chanen-Titul beylegen lassen, und den Titel Chuntaidshi (Schwanenfürst) welcher vielen Soongarischen, Choschotischen und Mongolischen Fürsten eigen gewesen ist, unter diesen Horden, da sie noch frey und von keiner auswärtigen weltlichen Macht abhängig waren, allein vom Dalai-Lama ertheilt, und gab den Rang über die gemeinen Fürsten und die Rechtmässigkeit der Macht, welche sich solche über die minder mächtige anmasten. Op. cit. p. 275. According to a letter which Father Gaubil sent from Peking to A. M. Delisle in 1755 or 1756, the power of the Kungtaiji seems not to have lasted long. He says: »Il y a quelques années que les Russes allèrent sur la rivière Ili, avec la permission des princes Kalmuks, qui y étaient alors; ils y ont observé sans doute dans le pays entre l'Irtyche et Ili; ici, nous n'avons eu aucune connaissance de ces observations . . . La puissance des Kalmuks Koungtaichi, dont le principal campement était sur la rivière Ili, est comme détruite. Les princes éleuths de ce pays se sont fait la guerre, les princes mahométans de Yarkend, de Kachgar et d'Aksou se sont rendus indépendants chez eux. Le prince de Tourphan s'est donné à l'empereur avec quelque autre. Plusieurs ont péri; d'autres se sont soumis à la Chine, d'autres se sont retirés chez les Russes. L'empereur de la Chine s'est rendu maître du pays des Kalmuks Tchongkar; il a un corps d'armée sur les rivières d'Ili et de Borotala.» Lettres du P. Gaubil, adressées à plusieurs savants de Paris. Nouveau Journal Asiatique, Tome X. Paris 1832, p. 411, 412.

[3] In the last moment before the printing of this volume I get from the Library of the University of Uppsala the copy of a letter, dated Stockholm April 25, 1743, written and signed by Johan Gustafw Renat, and adressed to the Librarian Andr. Norrelius. Having spoken of the Songars or Dsungarians, Renat continues: »Amongst these Songars I have been living, and have got the greatest map (of the four which he had, April 13, presented to the Library of Uppsala) from the Chinese, when they invaded the territory of the Kalmuks at Barcöll (Barkul) or Turphan, a town which also, on some maps, is situated on their frontier. Half of this (map) I have copied carefully with Latin letters, and intended to translate the other half as well: but the fine writing and my weak eyes have prevented me from it. However, I believe that it has been copied in Russia, for, 5 years ago, I delivered it to Professor de Liell (J. N. Delisle) of the Academy in St. Petersburg, who returned it to me, promising that I should get a printed one later on, but so far I have not received it. It has

is not a rival of Prshevalskiy in the discovery of Lop-nor. For if Renat ever was at Lop-nor, it was at the old, Chinese lake, while Prshevalskiy discovered the southern, Kara-koshun, 110 years after the journeys of d'Espinha, d'Arocha and Hallerstein. Even before the journeys of these missionaries, DE GUIGNES had, from Chinese sources, told Europe some important truths about the geography of Lop-nor and its rivers.[1] He speaks of two or three rivers rising in the »mountains to the west»:

L'une, soit que le terrein n'ait pas assez de pente, soit que les sables accumulés en empêchent le cours, s'arrête & se perd au milieu du dessert. Les deux autres vont plus loin, & après s'être réunies, elles se jettent dans un grand lac appellé Lop, qui est situé dans la partie la plus basse de tout ce grand terrein.

The first river is Khotan-darya, the two others Yarkand- and Aksu-darya. That Kashgar-darya is not meant can be seen by the following words:[2] Dans les mêmes montagnes Tçung-ling vers Yerken il sort un grand fleuve qui va se rendre dans celui qui part d'Aksou, l'un & l'autre se jettent dans le lac de Lop.

A new glimpse of the wonderful adventurous life of Lieutenant J. G. Renat is given us in a very able article by SIGRID LEIJONHUFVUD about his wife BRIGITTA SCHERZENFELDT, who was born in southern Sweden in 1684, and thus, 26 years younger than her third husband, Renat.[3] She accompanied her first husband during the Russian campaign of Charles XII, and became a prisoner. At the fortress of Yamishoff, where her second husband was killed, she came into Kalmuk captivity. Here she made the acquaintance of Renat who became her third husband. She accompanied him back to Sweden and died in Stockholm in 1736. In her »personalia»[4] we are told that she got a very high and honoured position at the court of the Kalmuk princesses. When one of them was to get married to a grandson of Ayuka Khan, Mrs Renat was sent to Little Bokharia to buy all necessary equipment for the wedding, which was to take place three years later. She passed two years in Gerken or Yarkand, and as she, a woman, could travel about in the then unknown heart of Asia, it would not be surprising if her husband, who had a still

been copied by a Kalmuk *from the Chinese original*, and this as well as the other map has, on my request, been given to me by the Songar Regent when I left, and this (map) he has himself made of his country. Though I should have been able to enter many names of mountains and rivers which are to be found there, I have, however, preferred to deliver it such as I received it from the Regent personally, — as I have found, on other maps, names of both places and rivers, of which I, during my 17 years living there, have heard and seen nothing.» Uppsala Universitets Biblioteks handskriftssamling, G: 20: a. (Bref till och från G. Benzelstierna). The original map is thus Chinese and copied by a Kalmuk. But probably the Jesuits in Peking have given it its European habitus, which it already had when it came into the hands of Professor Delisle. With the topography of the map Renat had nothing at all to do. Therefore it does not give us any indication about the journeys of Renat.

[1] Histoire générale des Huns, Paris 1756. Tome II, Introduction, p. V.

[2] Ibidem p. XXXIX.

[3] Två kvinnoöden från karolinska tiden. Nordisk Tidskrift, Stockholm 1907, 2:dra häftet, p. 45 et seq.

[4] Personalier öfwer Lieutenantens af Kongl. Maij:tz artillerie Regemente Herr Johan Gustav Renats i Lifztiden Kier Elskelige Hus Fru och Maka, Fru Brigitta Schersenfeldt.

more important and honoured position at the court, enjoyed the same opportunity and liberty. This becomes the more likely as not only »Jercken», but all the other towns of Little Bokharia are entered on the map. And therefore also the conclusion of the Russian Geographical Society: »Il est évident que Renat n'a jamais visité ces lieux», loses very much of its strength. So is also the case with the Russian doubts about his achievements amongst the Kalmuks, for in his letter of resignation from the military service which he sent in 1739 to King Fredrik of Sweden, he says that he has taught 200 Kalmuks the art of artillery, and that he made a campaign with the Kalmuks against China.[1] The above-mentioned »personalia» tell us, that Renat, when he returned home, was arrested in Moscow. The Russians »had got a great hatred to him, on account of the assistance he had given their enemy the Kalmuk to put themselves in a possibility to defend themselves against future hostile attacks». Through the efforts of the Swedish legation at St Petersburg he regained his liberty.

Finally I will say only a few words about a question which has something to do with Renat's map, namely about the wild camel. To the authors of the Chinese annals the wild camel was not the same stranger as to European naturalists. I give only one quotation, from the Thang epoch:

Selon le Thse fou chin koueï, la cinquième année Khaï-youan, à la sixième lune, il vint des ambassadeurs du royaume de Iu-thian, lesquels offrirent quatre chevaux propres au jeu de paume, un chameau sauvage, au pied léger comme le vent, et un na ou renard.[2]

In his geography RITTER mentions the wild camel in several places, for instance:[3] »Im Süden von Turfan ist überall kahle Steppe (Kobi), wo wilde Kameele und wilde Pferde in zahlreichen Heerden umherziehen.» Still zoologists doubted the existence of this animal, until Prshevalskiy, on his memorable journey 1876—77, bought the skins of four wild camels from native hunters. He says himself: »Ich brauche nicht zu sagen, wie froh ich war, Felle von dem Thiere erworben zu haben, dessen schon Marco Polo erwähnt, das aber bis jetzt kein Europäer gesehen hat.»[4] And with full right Dr. Brehm adds: »Prshewalskiy hat im vorletzten Jahrzehnte nachgewiesen, dass in Innerasien wirklich wilde, nicht bloss verwilderte Trampeltiere (Camelus bactrianus ferus) zahlreich vorkommen.»[5]

It is therefore interesting to note, that nearly 200 years ago the existence of the wild camel was known to a Swedish officer. For on Renat's map we find, just east of Gaschon Noor, a lake now better known as Ebi-nor, a forest tract, Carangoj, under which the legend is written: I Inur Skog finns willa Kameler, or, with the

---

[1] Loc. cit. p. 51.

[2] Abel-Rémusat: Histoire de la ville de Khotan, Paris, 1820, p. 71.

[3] Die Erdkunde von Asien, VII, p. 435.

[4] Przhewalsky's Reise an den Lob-Nor und Altyn-Tag 1876/7. Pet. Mit. Ergänzungsh. Nr. 53, p. 19. Marco Polo does not mention the wild camel.

[5] Brehm's Tierleben. Säugetiere — Dritter Band. Leipzig und Wien 1891, p. 151. Compare, concerning the life of the wild camel, my Central Asia and Tibet.

better spelling of Benzelstierna: I denna Skog finnes willda Kameler, that is to say: Wild camels live in this forest.

There is no such forest and no legend about wild camels on the Mongol original of Renat's map; so he has added the information to his own copy. During his visit to Stockholm in the spring of 1913 I showed to Mr. BADDELEY, who was then studying Siberian maps at the Royal Library, Renat's map, and, amongst other things, the legend about wild camels. In a letter dated St. Petersburg, April 29th, Mr. Baddeley writes: »I am sorry to throw doubt on the Wild camel inscription on Renat's map, but I find on Witsen's map of 1687 about the same place 'Hier vallen veele Kamelen', = 'here occur *many* camels'. Of course Renat may have known of the wild camels and purposely made 'veele' into 'wille'; but he evidently knew of this field of information.»

I have looked up the place on the reproduction, IV, 4 in *Remarkable Maps*. The correct spelling is: Hier vallen veel Kameelen. Mr. Baddeley's supposition becomes the more likely as we read at a short distance further N.W.: Hier valt veel ceder hout, which may be supposed to be the forest of Renat. The great difference between Witsen and Renat is, however, that the former does not indicate *wild* camels, and does not write: Hier vallen veel wilde Kameelen, while Renat specially points out *wild camels*. Renat's map is, in its general topographical situation incomparably superior to Witsen's. But still he may easily have got his suggestion about the camels from Witsen, though, as he had heard of the existence of *wild* camels, which was unknown to Witsen, he improved the inscription in the right direction.

CHAPTER XXVII.

THE JESUIT CARTOGRAPHERS IN CHINA, AND D'ANVILLE'S MAP OF THE LAKES AND THEIR SURROUNDINGS.

Richthofen has given us the most admirable description of the Jesuit missionaries' cartographical work in China, and I cannot do better than give a short extract from his standard work. In 1582 the Italian, MATTEO RICCI inaugurated the history of the Jesuit mission in China; he visited many places and founded stations before he finally arrived in Peking in 1601. Seeing the great success of catholicism, in 1617, the Emperor ordered all the Jesuits to leave his dominions. They, however, took refuge and were well received in the houses of converts, and after some years of inactivity were again allowed to stay. New men came out from Europe, amongst others the famous Tyrolian MARTIN MARTINI, whom Richthofen regards as the founder of the geographical knowledge of the interior of China, the Germans, FABER, and ADAM SCHAAL, and the Belgian, VERBIEST. During the dynastic fights they took the side of the Manchus, and their influence with the first Manchu emperors therefore became rather powerful. After the Dominicans and Franciscans had arrived in China, in 1630, a time of disputes began, but the Jesuits kept their ground through great difficulties, and in 1692 Kang Hi issued the important decree which opened the gates to catholicism.

Only very scientifically trained members of the order were sent to China. In 1688 the great Frenchmen, GERBILLON and BOUVET arrived, and Gerbillon accompanied the Emperor on all his journeys. In the midst of new interior struggles which nearly destroyed the missionaries' own prospects of success, the Jesuits won their greatest scientific triumphs, and the first seventeen years of the 18th century mark a real epoch in their history. During these years they accomplished the work of their famous map of China.[1]

When the great Emperor Kang Hi had effected the conquest of China which had been begun by his predecessors, he decided, in 1708, to have a map drawn of his countries, and ordered the Jesuit missionaries, who were learned in mathematical

[1] RICHTHOFEN: China I, p. 653 et seq.

sciences and whose abilities he admired, to undertake the work. They began round the great wall. The Fathers Bouvet, RÉGIS, and JARTOUX determined the situations; the two last-mentioned continued the work throughout the year 1708.[1] In January 1709 they returned to Peking with a map 15 feet long which pleased the Emperor so much, that he desired to have such maps of the whole of his Empire. In May 1709, Régis, Jartoux and FRIDELLI drew the map of Manchuria and the province of Chi-li which kept them busy during 1710. In 1711 Régis and CARDOSO made the map of Shan-tung. Later on Régis was assisted by MAILLA and HENDERER for three more provinces. In 1715 Régis made the map of Yunnan, and afterwards, together with Fridelli, he carried out the mapping of two other provinces. RÉMUSAT says that Régis did most of the work himself.[2] Two memoirs of Régis are published in DU HALDE, namely about Korea and Tibet. But much of the other material in du Halde is taken from Régis, although his name is not mentioned. Du Halde tells us how the missionaries proceeded when surveying the great Empire, »which until now has been so little known, even to the most able geographers». But when the Jesuits began their topographical work they found earlier Chinese maps in every province. No such maps of Tibet, however, were known to exist, though DELLA PENNA mentions some sort of a map in Potala, which he calls a *Tabula Chorographica.*[3]

Tibet was not included in the work of the Jesuits. But Emperor Kang Hi had already sent a special embassy to Tibet. Although the chief object of this mission was a political one, namely, to try and gain the Tibetan princes for the new Chinese policy, the ambassador, who stayed two years in Tibet, had been ordered to have a map drawn of »all the countries which are immediately submitted to the Grand Lama».

In 1711 the map was ready and presented to Father Régis, who was to work it out in the same form as the maps which had been made of the Chinese provinces; but after having examined the materials and put some questions to the surveyors, the Father found that he had no fixed points to start from, and that distances were simply taken from native information. He therefore declined to use the material brought to him.[4] But it was obvious from the material that the country was much

---

[1] ABEL-RÉMUSAT: Nouveaux Mélanges Asiatiques. Paris 1829. Tome II, p. 235 et seq.

[2] . . . et quand on songe qu'une entreprise géographique, plus vaste qu'aucune de celles qu'on a jamais tentées en Europe, fut achevée par quelques religieux en huit années, on ne peut s'empêcher d'admirer cet effet d'un zèle qui n'était pas uniquement celui de la science, quoiqu'il en servît si bien les intérêts. Ibid. p. 237. »Jean Baptiste Régis, jésuite francais, missionaire à la Chine, et habile géographe, doit être compté parmi les savans religieux qui ont fait le plus d'honneur à cette mission de la Chine, si fertile en hommes distingués . . . Tout ce qu'on sait de lui se borne à ce qu'il a fait de glorieux pour les sciences et d'honorable pour son pays.» He lived 36 years in Peking, and died, in 1759, 71 years old. In the history of exploration in Asia Régis' name has a very prominent place.

[3] RITTER; Die Erdkunde von Asien, Bd II, p. 466.

[4] Le P. J. B. DU HALDE: Description Géographique, Historique, Chronologique, Politique et Physique de l'Empire de la Chine et de la Tartarie Chinoise. Paris 1770. Vol. IV, p. 459 et seq.

greater and richer in important geographical matters than had been believed before. Therefore the Emperor decided to have a reliable map made. He ordered two Lamas who had learnt geometry and arithmetic in a mathematical academy which was under the protection of his third son, to make the map of the whole country from Si-ning to Lhasa and thence to the source of the Ganges and also ordered them to bring him some water from that river. The work was carried out punctually. Not until the year 1717, however, was the new map delivered to the Emperor, who sent it to the missionary geographers. They found it by far superior to, and more reliable than the map of 1711.[1]

By means of using and checking all reliable itineraries from China to Tibet the missionaries did their best to construct a map of the whole of Tibet, »the exactitude of which was worthy of the attention of the public», as nowhere else were any details regarding towns, mountains, and rivers to be found. The map of Tibet was added to the great map of the whole of China which in 1718 was presented to the Emperor.

This map of China was engraved in Peking and the Jesuit Fathers sent a copy to Paris, which was presented to the King and kept in his private library at Versailles. Du Halde had a copy of it made in Paris and sent to d'Anville, asking him to reduce it and prepare it for publication. The Paris copy was, however, a very incomplete extract of the original maps, and the geographical names had been translated in Peking by somebody who did not know Chinese sufficiently.[2]

KLAPROTH tells us, that it is wrong to believe that the Jesuit map of Tibet had no other foundation than the work of the two Lamas sent by Kang Hi to that country. The material they brought to Peking was controlled and improved by other persons whom Kang Hi had sent for the purpose of studying Tibet, as well as by the itineraries of the Manchurian armies which, during his reign, pacified Tibet.[3]

From du Halde we learn that the Lama surveyors of Kang Hi had some political difficulties to overcome during the latter part of their work. He says that the grandson of COUCHI HAN, TALAI HAN, was attacked by the great TSEVANG RABTAN. Talai han had some 20,000 men, and Tsevang Rabtan's general only 5,000 or 6,000. But Talai han was defeated and killed and the country of

[1] The following passage is important, and does not throw an altogether favourable light over the way in which the material was used: »Elle ne leur parut pas néanmoins tout-a-fait exempte de défauts: mais par respect pour l'école d'où ces Lamas étoient sortis, ils se contenterent pour lors de corriger les plus sensibles, & qui auroient choqué les yeux de l'Empereur. Ils laisserent même Lasa au dessus du 30e degré de latitude, où les Lamas l'avoient mis, ayant plus d'égard à la mesure actuelle dont ces Lamas s'étoient servis, qu'à l'observation astronomique.» Ibid. p. 460.

[2] »Il ne faut donc pas attribuer à d'Anville les erreurs que présentent les cartes d'après ces calques, et insérées dans la description de la Chine, du P. du Halde. Quand aux feuilles particulières du Tubet que renferme cet ouvrage, d'Anville les a fait copier assez exactement d'après les calques dont on vient de parler; mais il s'est permis, dans la carte générale dans laquelle il les a réunis, plusieurs changemens qui n'ont pas tous été heureux . . .» Mémoires relatifs à l'Asie. Par M. J. KLAPROTH. Paris 1828. Tome III, p. 372.

[3] KLAPROTH, loc. cit. p. 389.

Lhasa was ravaged and all the temples plundered of their immense treasures. All the Lamas that were found were put into sacks and carried away to Tartary on camels. The surveying Lamas, the authors of the map, were also very nearly taken prisoners. As soon as these Lamas heard of the approach of Tsevang's army, they made haste to finish their work. They had just returned from the source of the Ganges when they heard that a hostile army had entered Tibet, and then they thought only of saving themselves. Du Halde believes that if that had not happened, they would have been able to proceed still further.[1]

Here du Halde, or rather Régis whose annotations he uses, has made a mistake. Dalai Khan (Talai han) was the grandson of Gushi Khan (Couchi han), the prince of the Khoshots who had settled down in the province of Dam north of Lhasa. But it was the son of Dalai Khan, LATSANG KHAN, who was beaten in Tibet during the Dsungarian invasion.[2] The Dsungars under Tseringdondob, who was the general of Tsevang Rabtan's (Tse vang raptan's) troops, had probably already ravaged Tibet for some time, when they conquered Lhasa by storm at the close of November 1717, although Father GEORGI says: »Anno tandem 1717 ire jubet, exercitus, alterum in Scelingam ad Lhamam educendum, alterum in Tibetum ad urbem Lhassam capiendam.»[3] For this second army under Tseringdondob had gone through a good many hardships before it achieved the conquest of Lhasa. KÖPPEN relates that it travelled over extremely difficult and dangerous roads through the mountains south of Khotan and entered Tibet from the north, which is a very difficult task even for an ordinary caravan. The army is reported to have taken the Tengri-nor road and passed through defilés farther south on chain bridges without meeting any resistance, as the old Latsang Khan did not believe in their hostile intentions. Other sources give the version that Tseringdondob was beaten by the Tibetans, and finally was only successful on account of several Tibetan princes going over to him.

Now, as the Lama map was brought to the Emperor in 1717, it is hard to see how the Lamas could have met any difficulties from the Dsungarians who captured Lhasa only at the close of November in the same year, unless the enemy had been plundering the country for some time before that date.[4]

---

[1] DU HALDE, loc. cit. p. 465.

[2] KÖPPEN: Die Lamaische Hierachie und Kirche. Berlin 1859. Bd II, p. 190 et seq.

[3] Alphabetum Tibetanum, p. 334. That part of the army which was sent to Si-ning (Scelinga) with the object of liberating the Dalai Lama, was almost annihilated by the Chinese.

[4] E. HAENISCH gives us the following description of the warlike events which took place in Tibet at that period. (Bruchstücke aus der Geschichte Chinas unter der gegenwärtigen Dynastie, von E. Haenisch. T'oung pao Vol. XII, Leide 1911, p. 197 et seq.) In the middle of the seventeenth century the prince of the Khoshots, Gushi Khan, had conquered the district of Koko-nor and Tibet, and expressed, by a special mission to Emperor T'ai Tsung, his submission under China, on account of which the Manchus regarded Tibet as one of their dependencies. But only from the conquest of Potala by the generals Galbi and Jansin, in the autumn of 1720, when a garrison was placed in Lhasa, may the Chinese suzerainity over Tibet be said to be settled. There exist some detailed Chinese works on the campaign against the Dsungarians, from the first military dispositions in the summer 1717 until the Chinese

It is pretty certain that the Lamas have visited the Manasarovar and Rakas-tal and the surroundings of Kailas, as this part of the country is particularly well mapped and, so far as I can see, much better than the rest. But they had no time to decide the question of the source of the Ganges. Here they have relied upon information supplied by natives.[1]

It is difficult to say whether the surveying Lamas or the Jesuit missionaries or d'Anville and du Halde are responsible for the mistake about the source of the

capture of Lhasa in 1720. Haenisch has translated no less than 37 documents on this war. The man who held the power over Tibet in his hand was Latsang Khan in Dam, and Tsevang Rabtan thought the favourable moment had come to beat Latsang with assistance of his enemies in Tibet. As the distance from the Dsungarian frontiers to Tibet was long, Tsevang had to act silently and quickly. The Dsungarian general Tseringdondob (Ssering Donduk) crossed the passes of the Jingkurting mountains and surprised the guardians of Latsang. Only seven months after the Dsungarian invasion in Tibet, Emperor Kang Hi got the first news of what had taken place. Latsang sent word to the Emperor to get his help. The Emperor at once decided to proceed and fight the Dsungars. In the beginning of 1718 one of the two imperial army corps advanced viâ Litang and Batang towards Tibet. But only in 1720 was the offensive taken. August 22 the joint Chinese army stood at the gates of Lhasa. The city was conquered without difficulty. In a proclamation the Tibetans were told that the Chinese Emperor had saved them from the Dsungarian yoke. Tseringdondob and his army seem to have had a very hard time in Tibet. As they had no communication with their own country they had to live on robbery, and suffered horribly from hunger and cold. At the arrival of the Chinese troops they had to return northwards, probably persecuted and constantly attacked by the natives.

The following passage on Tseringdondob's hardships, translated by Haenisch, is interesting: »Als Tseringdondob, welchen Tsewang Rabtan ausgesandt hat, mit 3,000 Mann heranmarschierte, um Tibet zu erobern, ging ihm Latsang mit seinem Heere entgegen und nahm den Kampf mit ihm auf, wobei es auf beiden Seiten weder Sieg noch Niederlage gab. Die Leute aus Tseringdondob's Heer, welches von weit her durch den Schnee gezogen kam, waren verfroren und verhungert, ihre Pferde und Kamele gefallen und krepiert, so dass alle Leute zu Fuss marschieren mussten und sich auf dem Wege mit dem Fleisch von Menschen und Hunden nährten. Von den 3,000 Mann, unter welchen sich mehr Uriyanghai-Leute (eine Landschaft nördl. Kobdo) als Öleten befanden, kamen nur noch 2,500 Mann an. Die übrigen waren zu Tode erschöpft und hatten nicht Schritt halten können. — Hieraufhin gab der Kaiser folgenden Erlass an den Staatsrat: . . . . Nun befand sich noch dazu Tseringdondob's Heer bei seiner Ankunft auf dem Gipfel der Erschöpfung. Und wenn es jetzt erst ins Gefecht gekommen ist, und man den Abgang an Gefallenen und an Krankheit Gestorbenen in Betracht zieht, möchten schwerlich noch 2,000 Mann da sein. Ob er damit noch imstande wäre, Latsang's Burg zu nehmen? Nein! Sondern, wenn Tseringdondob im Sinne hat, das Land mit Waffengewalt zu erobern, so ist seine Streitmacht nicht mehr ausreichend. Und wenn er den Rückzug in die Heimat antreten will, so wird er auch keinen Weg zur Rettung mehr finden. Da es aber nicht ausgeschlossen ist, dass er in seinen Bedrängnis raubend und plündernd umherzieht, so ist es für uns unbedingt nötig die umfassendsten Vorsichtsmassregeln zu treffen.«

Further reports reached the Emperor: »Weiter hätten die Grosslamas Tsolcim und Tsangbu Ramjamba berichtet: Als wir von G'angdiśa nach Lasa heimkehrten, teilte uns Latsang mit, dass Tsewang Rabtan dem Tseringdondob ein Heer von über 6,000 Mann gegeben habe, mit welchem dieser über das Jingkurting-Gebirge hereingebrochen sei und sich in Besitz der gefährlichen Passagen und strategisch wichtigen Plätze gesetzt habe. Mit uns kämpfend habe er mitten in der Nacht die Pässe überstiegen und das Land Dam genommen, wo er zur Zeit noch sitze.«

[1] This also appears from the following passage in du Halde: »Ils se contenterent de faire une carte de la source du Gange, & des pays qu'il enveloppe, sur le rapport des Lamas qui demeurent dans les Pagodes voisins, & sur les mémoires qu'ils trouverent à Lasa chez le grand Lama. Mais ils manquerent à un point essentiel, qui était de prendre hauteur auprès du mont Kentaisse, ou autrement Kan te chan, comme les nomment les Chinois, lesquels étendent ce nom à toute la chaîne de montagnes qui va à l'Occident; ou du moins dans le Pagode où ils s'arrêterent, pour s'informer du cours du Gange qui sort à l'Occident de cette montagne, tandis que le Tsanpou, qu'ils ont suivi et mésuré, vient à l'Orient vers Lasa.« Du Halde loc. cit. p. 465.

Ganges, a question which afterwards was so eagerly discussed in the *Asiatic Researches*. I cannot believe, however, that the surveying Lamas or the Lamas of the gompas round the Manasarovar made the mistake, as even at the present day all Tibetans round the lakes know that the river which issued from Rakas-tal was the Satlej, so much the more, as both Tibetans and Chinese know and use the Tibetan name of Satlej even for that part of the river which is situated east of the Manasarovar. It must have been owing to the misinterpretation of the Europeans who obtained the material; or the Lama surveyors may have been compelled to save themselves before they had time to enter upon that question and to follow the Satlej to the west. However, as the missionaries were convinced that the latitude of Kailas was uncertain, they addressed themselves to d'Anville and found him only too willing to combine the material from the little known parts of Asia which had to be improved in the way that had the greatest probability of being correct. The necessary material for making corrections was regarded to be more easily obtainable in Europe than in China. The most surprising thing of d'Anville's map is, that both the upper Satlej and the upper Indus are dragged into the system of the Ganges. And still the upper Indus, except the very sources of the two branches, is tolerably correct. We find there: Tchasir tong (Tashi-gang), Tchicse (Tikse), Latac (Leh, Ladak) and Pitoc (Spittok). But from Pitoc the river turns straight southwards to the Ganges. On the upper Satlej the hydrography is correct and much better than on many maps, published during recent years. We find the river issuing from Mapama Talai and entering Lanken L and continuing from there as the Lanctchou R (Langchen-kamba) to Cogue (Koge), Dshaprong (Tsaparang) and Tchoumourti (Chumurti), and then, again, suddenly turning south, joining the Indus and forming the Ganges.

As to the sources of the Tsangpo, this part is much more reliable than even the map of NAIN SING. RYDER's map was the first to prove how near the Lamas were here to the reality. To this and other parts of the Lama map we shall have to return later on.

Otherwise there is not much about Tibet in du Halde's compilation. He has something to say of the history and religion of the people. He knows the route from Bengal to Tibet which had been travelled for several years. He thinks that a good deal of the gold brought to China comes from Tibetan rivers.

In this chapter we have to pay special attention to D'ANVILLE's detailed map of south-western Tibet, of which Pl. LI is a reproduction. We have seen from Régis' report in du Halde that, regarding the Ganges, the surveyors contented themselves with the information they obtained from the Lamas in the gompas round the Manasarovar. But as to the lakes and their rivers one has only to compare d'Anville's map with the little map of the lakes which I published in 1909.[1] South-east of L. Mapama we find the mountains of Lantchia Kepou, a region which is

[1] »Trans-Himalaya», at the end of Vol. II.

still called Langchen-kabab[1] or the »mouth of the elephant», that is to say, the source of the Satlej. From a little lake at the foot of these mountains a river flows to the N.W. and empties itself in the Manasarovar. This river is the Tage-tsangpo of my map, which comes from a glacier, Gang-lung, and not from a lake, though a moraine-lake may easily be situated in front of the snout of the glacier. A little farther north d'Anville has another nameless river, which is the same as the Samo-tsangpo of modern maps. This river also comes from a small lake which no longer exists. Close to the east of it we find L. Conghé which is Gunchu-tso of modern maps. The river flowing down from the valley of Pachung is also to be found on d'Anville's map, — without a name. But the mountain at its head, which I passed in 1908, is on d'Anville's map entered under the name M. Patchon, although it has been placed north of Kailas instead of east. There are two lagunæ at the northern shore of L. Mapama, which also existed in 1907 and 1908. To the western lakelet two small rivers flow from the mountains east of Kailas, which is correct, and so is the little river which enters L. Lanken from the north. The general arrangement of the mountains is perfectly correct, proving that the Lamas have understood that the two lakes are situated between two great systems, the Himalaya and the Transhimalaya.

Farther, we find the channel going out of L. Mapama and entering L. Lanken and finally the Lanctchou R., or as now, Langchen-kamba, issuing from L. Lanken. D'Anville's map proves, that in 1717 the channel between the lakes was filled with water, and that the Satlej flowed from Rakas-tal. It also proves that the Samo-tsangpo did not issue from the Gunchu-tso, which would have been a physical impossibility, at least during the latter part of the post-glacial period.

On account of the original maps having been copied, the maps of d'Anville contain errors probably not to be found in the originals. Klaproth, and with him Ritter, regret that d'Anville did not keep to the detailed sheets of Tibet when joining them to his general map of that country which has therefore lost a good deal in exactness. The hydrography of our lakes as well as their surroundings are the same on both maps, but the latitude has been changed from $29^1/_2°$ on the special map to $31^1/_2°$ on the general one, the correct situation being just between the two.[2]

---

[1] Langchen-kamba is the name of the river.

[2] In later chapters we shall often have to refer to this important map, as well as to the general map of Tibet, published by d'Anville in 1733. As the latter is more important in connection with the history of exploration in the country north of the Tsangpo, I have preferred to insert it in the part of this work which deals with Transhimalaya, Vol. III.

The reader will find that I have hitherto considered the world's knowledge of Tibet as a whole. In the following chapters I am going to separate the two lakes and the sources of the great rivers and deal with them separately, leaving the Transhimalaya and Kara-korum systems for special consideration. Exceptions to this rule will be found only occasionally.

CHAPTER XXVIII.

IPPOLITO DESIDERI.

For a long time the most important source in existence concerning Father IPPOLITO DESIDERI's marvellous journey in Tibet was his own letter to Father ILDEBRAND GRASSI, dated Lhasa, April 10th, 1716.[1] This letter has been quoted several times in different books on Tibet and Desideri's geographical knowledge has been judged from it. And therefore, hitherto, he has been wronged, for, since a more detailed account of his journey was published a few years ago, he has proved to be one of the greatest, if not the greatest traveller of his time in Tibet.

It may be of interest to quote some points from his letter to Father Grassi. He calls Himalaya the Caucasus and describes how one range rises beyond the other until one arrives at the highest of all which is called Pir-Pangial. He occupied 12 days in crossing the snow-covered mountains on foot and had great difficulties with the furious torrents and the precipitous rocks on the road, and he suffered a good deal from the cold. He stayed six months in Kashmir[2] and did his best to get some information about Tibet.

Mais quelque soin que je pûs prendre, je n'eus alors connoissance que de deux Thibets: l'un s'étend du septentrion vers le couchant, & s'appelle petit Thibet, ou Baltistan . . . L'autre Thibet, qu'on nomme le grand Thibet ou Buton, s'étend du septentrion vers le levant, & est un peu plus éloigné de Kaschemire. La route en est assez fréquentée par les caravanes qui y vont tous les ans chercher des laines; on passe d'ordinaire par des défilés . . . Le grand Thibet commence au haut d'une affreuse montagne, toute couverte de neige, nommé Kantel.[3] Un côté de la montagne est du domaine de Kaschemire, l'autre appartient au Thibet. Nous étions partis de Kaschemire de 17 mai de l'année 1715, & le 30 nous passâmes cette montagne, c'est-à-dire, que nous entrâmes dans le Thibet. Il étoit tombé quantité de neige sur le chemin que nous devions tenir; ce chemin, jusqu'à Leh, qu'on nomme autrement Ladak, qui est la

[1] Lettre du Père Hypolite Desideri, Missionaire de la Compagnie de Jesus, au Père Ildebrand Grassi, Missionaire de la même Compagnie, dans le Royaume de Maïssur. Traduite de l'Italien. Lettres Édifiantes etc. Nouv. Édition. Tome douzieme, Paris 1781. p. 430 et seq.

[2] HERMANN VON SCHLAGINTWEIT makes him reach Lhasa by way of Nepal, which is wrong. Reisen in Indien und Hochasien, Bd III, Jena 1872, p. 11.

[3] Called Contel in DESIDERI's Italian MS. (RITTER). Perhaps Coutel, or the Persian Kotel pass.

forteresse où réside le Roi, se fait entre des montagnes, qui sont une vraie image de la tristesse . . . Le haut & le bas des montagnes sont également impraticables; on est obligé de marcher à mi-côte, & le chemin y est d'ordinaire si étroit, qu'à peine y trouve-t-on assez d'espace pour passer le pied.

He gives a very vivid description of this horrible journey and the dangerous roads, which make him tremble when he thinks of them. Then he speaks of the very hard climate and of his suffering eyes.

Nous fîmes à pied le voyage de Kaschemire à Ladak, qui dura quarante jours, & nous n'y arrivâmes que le 25 Juin. Ce Royaume du second Thibet, commence, comme je l'ai déjà remarqué, au mont Kantel, & s'étend du septentrion vers le levant. Il a un seul Ghiampo ou Roi absolu; celui qui regne aujourd'hui se nomme Nima Nangial. [1]

Then he talks of the religion of Tibet, a matter that of course would interest him specially. He arrived in Leh, June 26th, and had just begun to learn the language and hoped to see some fruits agreeable to the Divine Majesty »cropping up between the rocks of Tibet», when he was told there existed also a third Tibet.

Après plusieurs délibérations, il fut conclu, contre mon inclination, que nous irions en faire la découverte. Ce voyage est d'environ 6 à 7 mois, par des lieux déserts & dépeuplés. Ce troisième Thibet est plus exposé aux incursions des Tartares qui sont limitrophes, que les deux autres Thibets. — Nous partîmes donc de Ladak le 17 Août de l'année 1715, & nous arrivâmes à Lassa, d'où j'ai l'honneur de vous écrire, le 18 Mars 1716. Je vous laisse à conjecturer ce que j'ai eu à souffrir durant ce voyage au milieu de neiges, des glaces, & du froid excessif qui regne dans les montagnes.

And here his geography came to an end, excepting that he gives four months' journey for caravans from Lhasa to Peking. The letter was written only 22 days after his arrival in Lhasa, so that his impressions of the journey were still quite fresh. And still he has nothing to say about the long journey in Tibet. He has something to tell of the first part of the journey, which was much more difficult and demanded much more attention on account of the accentuated landscape, than the level and open valleys of the upper Indus and Tsangpo. The journey from Leh to Lhasa took him exactly seven months, which is slow travelling. [2]

Ritter, using this same letter, says it is a pity we possess so little information about this memorable journey. He says Desideri's route was the same concerning which BERNIER had got some information and that Leh was rediscovered by MOORCROFT in 1820. But Desideri was the first European who visited Leh, which, before his time, was completely unknown in Europe. [3]

---

[1] Rev. A. H. FRANCKE writes his name Nyima namgyal. He reigned about 1680—1720. A History of Western Tibet, p. 116 et seq.

[2] I have travelled between Shigatse and Ladak in eight months, including excursions to the sides.

[3] »So kurz auch leider der mitgetheilte Bericht ist, so ist er doch der erste, ja früherhin der einzige, der auf diesen höchst beschwerlichen Wegen das ganze Himalaya-Gebirge übersteigt und uns zum ersten Male in diesen Bergreviere etwas orientierte.» Ritter, die Erdkunde von Asien, Bd II. Berlin 1833, p. 434.

In all, some ten letters from Desideri's hand were in existence, although the one quoted above seems to be the only one of geographical importance.[1] In 1875, however, a manuscript of 630 pages in small folio, was discovered in Pistoia, Desideri's native town in Italy. It has the title: *Breve e succinto ragguaglio del viaggio alle Indie orientali del Padre Ippolito Desideri della Compagnia de Gesù.* This title only refers to a small part of the contents, as the author is also dealing with Persia, Kashmir, India and the mission of the Jesuits; and more than half is about Tibet. The manuscript, which is not in Desideri's own handwriting, was published in 1904 by the Italian Geographical Society.[2]

The Congregatio di Propaganda conferred by a special decree of 1703 the exclusive rights to missionary work in Tibet upon the Capuchin Fathers. Therewith began a very interesting chapter in the history of Catholic mission in Asia, a chapter which came to an end in 1745, and to which we shall have to return later on.

In the meantime the Jesuit Ippolito Desideri obtained the permission of the chief of his order and the blessing of the Pope to go out and convert the Tibetans. And it is about the experiences on his long and adventurous journey he tells in the precious and valuable manuscript.

In the first chapter Puini gives a *Descrizione sommaria del viaggio fatto dal P. Desideri.* The missionary left Rome on September 27th 1712 in company with P. Ildebrando Grassi and went to India. From there he took P. MANUEL FREYRE as a companion.[3]

After having provided themselves with an interpreter, Desideri and Freyre left Kashmir on May 17th 1715 and went over a very high and snowy mountain, Kantel,[4] the Zoji-la of our days, and on 30th of May, entered the Primo

[1] N. DELISLE has collected some »Notes sur le Tubet par le P. Hippolyte Desideri», published by Klaproth. Nouveau Journal Asiatique, Tome VIII, Paris 1831, p. 117. It does not contain any important geographical facts. For, travelling from Yarkand to Tibet, it is said, one has to pass the desert of Ngari Jongar, at which one arrives through a passage between two mountains, with the exception of which the whole country is impracticable. At Karthou (Gartok) and in Ngari Jongar there are Tibetan garrisons to defend the passages. Barantola is the name the Chinese Tatars give to Lhasa and the southern part of Tibet. The second or Great Tibet is called Lata yul. The town of Lata is the capital of Great Tibet. Two roads are said to exist between Lhasa and Sining. From Lata for a two months' journey there are no difficult mountains. In the great desert between Lata and Lhasa there are very high mountains, which are the summits of Imaus. Tochoa, Rethöa or Redok »in mongol» are places on the road. The first Tibet is under China, the second is independent, the third is under the Great Mogul.

[2] CARLO PUINI: Il Tibet (Geografia, Storia, Religione, Costumi) Secondo la relazione del viaggio del P. Ippolito Desideri (1715—1721) Roma, 1904. In his introduction, Puini has a note regarding the history of the geographical knowledge of Tibet until the beginning of the 19th century.

[3] I am here going to follow the summary of the diary, only filling in those parts of the later chapters which are of special interest to us from a geographical point of view.

[4] The editor tells us that VIGNE identified Kantel with Zoji-la, but does not quote the place. He gets his authority from MARKHAM (Narratives of the Mission of GEORGE BOGLE etc. . . . p. 304) where it is said: »According to VIGNE, the summit of Bultul (Zoji la pass) is the Mount Kantul of the old maps.» Neither does Markham give the words of Vigne, which run as follows: »The elevation of

or Piccolo Thibet, which in the native language was called Baltistan. From there he entered the Secondo or Gran Thibet, which is called Lhatà-yul by the natives. The capital is Lhè or Lhatà, where they arrived on June 26th. Here they were received with great honours and hospitality by King Nima Nangial, the ministers, Lamas and others.

From Leh their way goes eastwards over an uninhabited plain, called Ciangh-thangh, »the north plain», and finally they arrive in Trescij-khang, or Tashi-gang, as we call it. They left Leh on 17th of August and reached Tashi-gang on 7th of September. A part of this journey took them through mountainous and inhabited country, but later on they arrived at »a wide plain, Ciangh-thang, a great part of which was occupied by dead and rotten water, veines of sulphur and pools of sulphurous water». This »rotten» water and the pestilential air was very dangerous both to men and animals. For some days they had to abstain, as far as possible, from drinking the bad water.

From this description it is not easy to say which road Desideri has really taken between Leh and Tashi-gang. For on the ordinary road there is no bad water nor are there sulphurous pools. The whole way long one is close upon the Indus, and has no need whatever to drink bad water, so much the more as the river is at its highest level at the end of August and beginning of September, and therefore large enough even for very thirsty Jesuits.

So far as I can see, Desideri has not taken the high-road along the Indus, but has gone viâ Rudok. On this northern route he may easily have come across salt water pools. Thus he would have had to cross the western part of Transhimalaya in order to descend from the Chang-tang to Tashi-gang. It must, however, be remembered that the name Chang-tang does not only belong to the plateau-land north of Transhimalaya. For at the present day, when Ladaki merchants go from Leh to Gartok, they always say that they are crossing or going to Chang-tang. Still, Desideri would never have complained of the water if he had followed the Indus.

Trescij-khang »is the last inhabited place in this direction» with a fortress and a surrounding wall and a moat with bridges. Here the dominion of the Second Tibet comes to an end and the Third Tibet begins. As the place was a frontier fortress there was a governor and a garrison in Tashi-gang. The fortress had at some periods belonged to Ladak, and the Dsungarians, and the Tartars of high independent Tartary, who were known to be very ambitious, unreliable and treacherous, were not far off. The King of Second Tibet had given the missionaries letters of

---

the pass of Paien-i-Kotal or Bal-Tal (above—below), otherwise Shur-ji-La (pronounce Zoj-i-La), the hill of Siva, is, by thermometer, about 10,500 feet. The pass I have just descended, is that which is marked as mount Kantal in the old maps. Kantal means a lofty hill or pass, and as it happens to be that by which the low land of Kashmir is quitted on the highway to Duras, it was, of course, noticed by the Jesuit missionary Desideri in his way to Great Tibet and Butan.» G. T. Vigne: Travels in Kashmir, Ladak, Iskardo etc. London 1844, Vol. II, p. 395.

recommendation, and so they were received with great honour and kindness at Tashi-gang. Here they stayed more than a month occupied with preparations for the three months' long journey through the desert which begins from Tashi-gang and trying to find some companions and a good occasion for a start.

»The third Tibet is called Tibet Proper, or by another name Butan, and in the language of the country it is called Po. In its extension from west to east it is very great. It begins from Trescij-khang and Kartôa[1] and stretches the whole way to China. From Trescij-khang to the extreme frontier of China it is a journey of six whole months and somewhat more. In the west this Tibet is bounded by the second Tibet or Lhata-yul; in north-east and east it is bounded by China and by the low Tartary. To the north it is bounded by hard and desolate places, being the way which leads to high independent Tartary and the kingdom of Yarkand. In the southern direction it is bounded by some barbarian peoples who call themselves Lhobà and who do not permit anybody to enter their country. In the south and south-west is a province of Mogol's empire, called Altibari, beyond the Ganges. To the south-east is the kingdom of Nepal. The third Tibet it so vast, that one needs six months good and continuous journey between Gartok and Sining. Its breadth is very different in different places. The province of Zang-tò, which is 2½ months across, stretches far to the north to the wild rocks which are on the frontier to the kingdom of Yarkand, and to the impracticable mountains which form a wall to high, independent Tartary or the country of the Dsungarians.«

This orientation, in a few words, is wonderfully correct and clear, and connects, as it were, Desideri's own discoveries with those of Marco Polo.

On October 9th they start from Tashi-gang for the »gran deserto», accompanied by a Tartare Princess and her court, her officials and ladies, and an army of Tartar and Tibetan horsemen and great caravans with provisions and luggage. Desideri gives an excellent description of the picturesque and lively scenery this tremendous company offered.

Two days' journey from Trescij-khang the party arrived in a »valle deserta» called Car-toa (Gartok) where they stayed till after the middle of October. He says: »To begin with I shall talk of the Great Desert of the west, which stretches from Cartoa to Ngari-giongar, and from Ngari-giongar sinks to Toscioâ and from Toscioâ descends to Retoâ and from Retoâ takes you to the province and people of Zang-to.«

From Gartok they had for about 15 days rising ground to the north, and arrived, on November 9th, at the very highest places which are to be passed during the whole journey, in a part of the desert which is called Ngari. »From these places one goes on constantly sinking the whole way to the very city of Lhasa.«

The following passage of Desideri is interesting:

»The water which from the just mentioned high regions runs to the west, i. e. towards the two above mentioned Tibets, is giving rise to the Indus; the other which streams to the east, i. e. towards the rest of this great desert and towards the lake of Retoa, or, as it is in a foreign pronounciation, Redoc, and towards the frontiers of the third Tibet, is giving rise to the Ganges.«

---

[1] Gartok.

In the more detailed part of the narrative we read, amongst other things:[1]

»This place is called Ngari Giongar and is approached by this people with great respect and veneration on account of a certain Urghien (= Padma Sambava), who is the founder of the religion which is professed in Tibet. — In the same Ngari Giongar there is a mountain, tremendously high, very large in circumference, with the summit covered by clouds and with eternal snow and ice and also very horrible, rocky and difficult on account of the most bitter cold that is reigning there.«

In a grotto in this mountain, Urghien was said to have lived in total retirement and continual contemplation. But now it was used as a temple, and in an annexed monastery there were a Lama and some religious men. The Tibetans visit the grotto where they leave some offerings, and then with much zeal, they make the wandering round the whole mountain which takes some days, and by which they believe that they will receive the greatest indulgence for themselves.

This description of the Kailas and of the Tibetans' veneration for the sacred mountain is also admirable.

»Three weeks after Ngari, going towards the east, you reach another valley called Toscioa; and after some more days of journey another 'rigida campagna' where the lake of Retoa is to be found.«

Or more detailed: »The 1st of December we arrived at a plain place more free from snow, which is called Toscioa«. To let the men and animals get some rest the princess stayed here for two days. Here some shepherds' tents were found. The shepherds were grazing great flocks of ponies, mules and yaks, belonging to the Gran Lama and to the king.

If he did not say that he had some more days from Toscioa to the lake, I should have identified Toscioa with Tokchen. Although, of course, and as he has had particular opportunity to study the pilgrims' wanderings round Kailas and the Manasarovar, one may be allowed to conjecture that he went down from Kailas viâ Darchen to Tokchen, and thence round the lake. This becomes the more plausible when we read the next passage, the most important and interesting in the whole narrative of this able and intelligent Father:[2]

»Further on we passed a plain called Retoâ, where there is a great lake which has a circumference of some days walking, and from which the Ganges is supposed to originate. However, as a consequence of what I could observe on my way and which I heard experts of the places as well as of the Mogol to agree in, it seems to me that the above mentioned mount of Ngari Giongar should be recognized as the true origin and source of the Ganges, as well as of the river Indus. That mount being the highest, from which the land slopes on both sides, the one as well as the other, the waters, either from rain or from melting snow, which descends from there on the western side, flow into the second Tibet, as practically shown by facts; and after having gone through it, cross the Little Tibet. Then rushing down through all the mountains of Kashmir, they finally approach Little Guzaratte to form the Indus, very

[1] Op. cit. p. 44 et seq.
[2] Op. cit, p. 45.

wide and navigable. In the same way the waters descending from Ngari Giongar on the eastern side flow first into the said lake Retoâ, then, following their way down, they form the river Ganges. A proof of that is to be found in the following fact. The golden sand of the Ganges is greatly renowned in the writings of our ancestors; therefore, if we would assume that the origin and source of that river were in a different place, we should stain our ancestors as liars, because in no other place of the river course (except in Mount Ngari Giongar and in lake Retoâ), even the slightest appearance of such sands is to be found. On the contrary, if what I just have said be accepted, that is to say that the source of the Ganges is situated on the said mount and summit of Ngari Giongar and in lake Retoâ, the statement of the ancient writers will be found to be really in accordance with my opinion, because, as it is well known, I dare say, throughout the world, on the shores and in the sands of that lake much loose gold is to be found, which from the surface of Mount Ngari Giongar and other intermediate mountains, is carried down by the waters flowing from thence. To search for such gold and to collect it, Tibetans and some merchants meet from time to time at the said lake, and draw much profit from it. Moreover that lake is the object of a great veneration by those superstitious people; therefore they meet sometimes there in a pilgrimage, and make the tour all round the lake with great devotion believing to acquire many indulgences, and in some way to win many particular jubilees.»

The lake of Retoâ is of course the Manasarovar. It cannot possibly be any other lake. Retoâ or Redoc is Rudok, a name which he has heard and either misunderstood or misplaced when writing his narrative. He has heard that the Ganges was supposed to originate from the lake, exactly as the Lama surveyors were informed and as they represented it on their map. And they visited the lake at the same time as Desideri. But Desideri is more critical than the Lamas on this particular point, because he has observed personally and heard from others, that both the Indus and the Ganges have their sources on Mount Kailas. Regarding the Indus he has not the slightest doubt of this being the case, »as is practically shown by facts». But as to the Ganges, he agrees that from its source in the Kailas it really runs through the lake. And later on he reiterates that the source of the Ganges is situated on the summit of the Kailas and in the lake. Thus he criticises the general supposition of his time only so far that he says the lake is only a secondary source of the Ganges, Mount Kailas being the real and primary source. He describes the course of the Indus all the way down. It is a pity that he does not say where his Ganges goes to. For there can be no doubt that it is the same as the Ganges of the Lamas, i. e. the Satlej.

Desideri confirms the hydrography of the Lamas indirectly. »Parmi però, da quel che ho nel passaggio osservato . . .!» He refers to his own observations on his way. He has *seen* that the source of the Ganges is situated on the Kailas, by which he means one of the small rivers going down to the Manasarovar. And, if he has made the wandering round the lake, he has seen the branch, Ganga, going out of the lake, and therefore gives two sources: Kailas and Manasarovar. He is not to be blamed in placing the source of the Indus on the western side of the Kailas. This has been done 190 years later. He does not know Langak-tso at all.

Then he talks again of the flocks and shepherds and the great amount of butter that goes from this region to Lhasa and other places. On the 22nd of December he came to another plain where he also found several tents and shepherds wandering about with their flocks. In spite of the desert being arid enough and totally devoid of sedentary population, still the Grand Lama has a great profit from its gold and butter as well as from the tolls levied from the merchants of Gartok.

»January the 4th, 1716, having finally terminated to descend the whole of this great desert we arrived to the first population in the third Thibet.«

In Serchià,[1] which was a big fortified place and the capital of the province of Zang-to and where there was a great governor, they had to stop on account of the sickness of the princess. On January the 28th they left Serchià and travelled through many villages and inhabited places, but they had to travel slowly for the princess' sake.

Fifteen days from Serchià they reached another big fortified place, which is the beginning of the kingdom of Sechià.[2] From here they had 4 or 5 days to the great city of Giegazzè,[3] »the capital of the old kingdom of Zang-to, which nowadays is divided into 2 provinces: Zang-to, the capital of which is Serchià, and Zang-me, the capital of which is Giegazzè«.[4] Over Chiangzè (Gyangtse) the party finally arrived in Lhasa on the 18th of March 1716.

A special chapter in the valuable publication of Desideri's narrative has received the title: *Difficoltà del viaggio*, and contains a perfectly admirable description of all the hardships Desideri and his fellow travellers met with on their way, where, during 3 months, they did not see a single village and where they had to bring with them all the necessary provisions, tea, butter, roasted corn flour and mutton, which was excellently preserved by the cold. The horses had to be fed with flour and corn as no grass could be found on account of the snow. They obtained water by melting ice and snow, which, however, can only have been for a certain part of the road; as for the rest they had the Tsangpo near at hand. No firewood worth mentioning could be found and they had to collect droppings of horses and yaks. Camping was cold and uncomfortable on the snow-covered ground. They used round Tartar tents. But whether these were pitched on sand or on frozen ground, they were very much exposed to the furious wind. Desideri tells us how they were dressed and how difficult it was to save one's nose, hands, and feet from being frost-bitten.

The journey is described as specially hard, as one has to be in the saddle before sunrise and ride the whole day till sunset. Amongst innumerable mountains one has to proceed in ice and snowfall, and from scarceness of grass the horses

[1] Probably Saka-dsong.
[2] Sakya-gompa.
[3] Shigatse.
[4] I. e. Tsang-tod and Tsang-med, the upper and lower Tsang.

either die halfway or become incapable of proceeding any farther. When leaving Ladak, Desideri and Freyre and their servants had seven horses, of which only two reached Lhasa, both in the most miserable condition. »Add to all this the impracticability of the road itself, which always is horrible and rocky and where one has continually to rise and descend between terrible mountains and to travel through eternal snowfall and ice-cold, and always to be exposed to the inclemency of the air and the highest rigour of the most bitter and penetrating winds.»

The two Fathers, their three Christan servants and their »infidel» interpreter used to pack their frozen tents in the morning, load their ponies, put the saddles on their riding horses, breakfast and go on. When camping they used to clean the ground from snow, pitch the tents, make them strong with the aid of stones and ropes. Then the animals were let loose, yak dung was collected, fire was made and dinner prepared. In the meantime the fathers read their prayers. And then came the night, cold and uncomfortable, and giving only a minimum of rest.

This description of the manner of travelling in Tibet is classical. Space forbids me to quote it in detail. Hardly any modern traveller has done it better. It is a real and great pleasure to read Desideri's book.

In the next chapter we find his description of Lhasa and its surroundings. Speaking of the vast province of Kham he says that in olden times it was a separate kingdom and that it stretches to the very frontier of China. Several times he mentions the great river, but does not know its name, Tsangpo. When going from Sam-yeè to Zè-thang »one has to cross a great river». Once he speaks of the part of Tibet which is situated »a settentrione del gran fiume». In this northern part of Tibet there is another great desert of three months which begins one day's journey from Lhasa where one goes to the north towards Dam. It continues to Siling. And he talks of the provinces »south of the above mentioned river».

Desideri tells us of the province of Cong-bo that it is divided in the middle by a great river, the same, concerning which he has before said that it passes near Jegaçè, Lhasà and Çe-thang,[1] and which grows bigger by and by on account of all the tributaries it receives on such a long distance. Farther on in some places the river has more space to extend itself.

»In these countries of Cong-bò it has often a more narrow bed and the banks on both sides are higher. In such places the banks make the river very charming, as they are full of cypresses, in which Cong-bò is very rich. All those parts of Cong-bò, which are situated south of the said river, are to the south bounded by the above mentioned peoples called Lhobà' i. e. meridional peoples.»

When Desideri talks of »un gran fiume . . . che passa vicino a Jegaçè, vicino a Lhacà e vicino a Çe-thang . . .» one feels tempted to think that he has made the same extraordinary mistake as BELIGATTI, who practically believed that the Tsangpo

[1] The same names are often spelt in different ways. I have not changed the spelling.

and the Ki-chu were one and the same river. But Desideri had followed the Tsangpo the whole way from near its source, and we shall see in a later chapter that he knew perfectly well which was the head river and which the tributary.

By far the greatest part of Desideri's narrative is a description of the cult and religion of the Tibetans, which is not less admirable than the geographical part. I have quoted above only those parts of his observations which are of importance for this historical sketch. They will be sufficient to prove that Desideri's work is one of the best and one of the most reliable ever written on Tibet and that it leaves far behind it the contemporary narratives of Beligatti and della Penna.

Desideri must be regarded as the first European traveller who has visited and described the Manasarovar, and at all events he is the European discoverer of the Kailas. He is the first explorer in recent times to start the question and controversy about the situation of the source of the Indus, a problem which should become finally solved only 200 years later. It must, however, be confessed that he has conjectured the situation of the source of the Indus very near its real place. He was the first to start the problem of the source of the Ganges, which should be solved more than a hundred years later on. He was told that the sacred river originated from the Manasarovar, but from his own observations arrived at the conclusion that the real source was situated on the Kailas. By a curious coincidence he makes the same mistake as the Lamas, confusing the Satlej with the Ganges. Even on Kircher's map we have seen the Ganges start from a lake which must be the Manasarovar Here it is a pity that Desideri mentions no name at all. If he had used the expression »il fiume» as he does for the Tsangpo, he would have left the question open whether the river entering the Manasarovar and leaving the lake again were the Ganges or any other river. But already the fact that he knows a river issuing from the Manasarovar is important enough. This proves that the superfluous water of the Manasarovar in the winter of 1715—16 ran over to Rakas-tal through the channel. And as the river issuing from the sacred lake was known to proceed to India, we get through Desideri an indirect, though reliable proof, that the Satlej also went out of Rakas-tal in 1715—16. He has given a very correct and clear account of the pilgrimages to the sacred mount and lake. Beyond doubt he is the first European who ever crossed the famous and important pass of Maryum-la. If his Toscioa is identical with the present Tokchen, and his Serchià identical with Nain Sing's Sarka and Ryder's and my Saka-dsong, Desideri can hardly have used any other road than the one crossing Maryum-la. This is the more likely as he travelled in company with a native princess and all her followers, who certainly only would use the most comfortable road, and even this road seems to have been too much for the princess, as she became ill on the way. Professor N. KUEHNER positively says Desideri went over Maryum-la, although this is only conjecture.[1] With the new

[1] Opisanie Tibeta, Vladivostok 1907, Part I, p. 36.

material we now possess one may be allowed to assert that Desideri, in Maryum-la, has discovered the water-parting between the Satlej and the Brahmaputra. Desideri is, finally, the first European who has followed the course of the Tsangpo the whole way from Maryum-la to Chetang and at the same time he has discovered the source of the tributary to the Tsangpo, which is called Maryum-chu.

Add to this the general merit of his narrative, the absence of fantastical speculation, the quiet matter-of-fact way in which he gives his observations and nobody will call it an exaggeration if I regard Ippolito Desideri as one of the most brilliant travellers who ever visited Tibet, and, amongst the old ones, by far the most prominent and the most intelligent of all.

CHAPTER XXIX.

FATHER TIEFFENTHALER, FATHER GAUBIL AND ANQUETIL DU PERRON.

JOSEPH TIEFFENTHALER was a Jesuit Father, born at Botzen about 1715.[1] In 1743 he arrived in Goa, and lived in India for 42 years. In 1759 he entered into correspondence with the famous scholar ANQUETIL DU PERRON, who was then at Surat. Tieffenthaler occupied himself with studies on natural history, religion and geography, and in 1773 his geographical material first came to Europe. In 1776 his three maps arrived through the assistance of M. BERTIN, in the hands of Anquetil du Perron who was then in Paris, where he published an article on these maps, which was reprinted in 1777.[2] In 1784 Anquetil du Perron published, on one sheet, the maps of Tieffenthaler under the title: *Carte générale du cours du Gange et du Gagra.* The parts of this map which are of special interest to us have a short time ago been re-published by M. CHARLES EUDES BONIN,[3] who says that the original map or maps were probably drawn by a Hindu and presented to one of the great Moguls, probably Akbar (1556—1605). These maps or copies of them came into the hands of Tieffenthaler and afterwards to Anquetil du Perron.

In the German edition of Tieffenthaler's, Anquetil du Perron's and RENNELL's work,[4] the editor, BERNOULLI, says, that Tieffenthaler's work to a great extent is taken from Ain-i-Akbari, to which important work Professor Sprengel had directed the attention of the German scholars.[5] Tieffenthaler's work is therefore

[1] He wrote his name Tieffentaller, but I use the spelling of his commentators.

[2] Journal des sçavans, 1777, Janvier. Ed. de Hollande.

[3] Une ancienne carte des sources du Gange. Annales de Géographie N:o 112, XX[e] année, 15 Juillet 1911, p. 338 et seq., and in his book: Les Royaumes des Neiges, Paris, 1911, p. 256—279: Les sources du Gange. BONIN gives a very able discussion on TIEFFENTHALER's standpoint.

[4] Des Pater Joseph Tieffenthaler's historish-geographische Beschreibung von Hindustan, etc., Berlin and Gotha 1785, Vol. I, Preface, p. x.

[5] BERNOULLI continues: »Ausser diesem hat der Pater Tieffenthaler viel andere der bewährtesten Geographen und Geschichtschreiber von Indien benutzt und seine eigenen auf Reisen gesammelten Bemerkungen in seine Auszüge eingewebt. Aus dem allen ist nun ein für Europäische Erdbeschreiber und Geschichtforscher höchst brauchbares und classisches Werk entstanden, das aber an sich, ich leugne dies nicht, noch eine ziemlich rudis et indigesta moles ist.»

to a certain extent a compilation.[1] The editor has only one reproach to make, namely, that the author does not always quote the sources from which he has got his information. However, Tieffenthaler tells us that he has wandered through several parts of India and made annotations of remarkable things. In fact his geography of India was in his own days regarded as a very important work, the result of thirty years' travel and hard work (1743—1773) He says himself that he travelled all over Oudh for a period of five years. »I have not only explored these regions myself, but I also sent a man, aquainted with the elements of geographical science, to the Kumaon mountains, to the waterfalls of the Ghogra, and even as far as the Saltus Deucaronos', to ascertain the distances of the places there from each other, and the direction of the river.» In 1765, when his means were exhausted, he went to Bengal to procure some assistance from »the famous english nation, that is known for its generosity and is philantropic to the miserables and poor», and in 1766 he started on his journey to Gogra. He made a map of the Ganges with all its bends. In his preface he mentions all the places he has seen himself. The sources he never visited. But he tells his readers, that beyond the huge glacier, from underneath which the river issues three yards deep, there is no path leading to the sources of the Ganges. And he adds that there had been a few persons, »that climbed over this icy cliff, at the risk of their lives, in the hope of reaching Mount Kela, Mahadeo's abode, and in it eternal bliss; but they either found a grave in the snow or died from hunger and cold».[2] It is obvious that he has not been to the lakes either. Regarding them one can apply to Tieffenthaler his own words about the ancients, when they call, as he puts it, the actual Kumaon Imaus: »they have not seen these countries and are usually wrong in their determination of distant regions». But in one point he is decidedly right and that is when he says that the source of the Indus is to be found in the Tibetan mountains. Concerning Tibet he has heard that it is 5 months under snow. There is a very soft wool, musk and white cow-tails. The country is governed by a regent called Lama Goru of clerical rank and belonging to an order of hermits and adored as a god. There is in the work quoted above an amusing illustration of »Patala or Patăra», which is the residency of the Lama Goru or Lama grù, i. e. the high teacher or high lord (magnus magister).

In the present chapter, however, we have only to deal with Tieffenthaler's maps so far as the lakes and the sources of the great rivers are concerned. As

---

[1] Sprengel says that Tieffenthaler wrote his geography of India »theils aus eigenen Beobachtungen auf seinen weiten Reisen, theils nach einheimischen Nachrichten, bei denen er aber ausser dem Aj. Acbery viele andere Landesbeschreibungen dieses grossen Reichs zum Grunde gelegt hat.» Geschichte der wichtigsten geographischen Entdeckungen bis zur Ankunft der Portugiesen in Japan 1542, von M. Ch. Sprengel, Halle 1792, p. 34.

[2] Joseph Tieffentaller, S. J. A forgotten Geographer of India. East & West, Vol. V. Pt. I. Jan.—June 1906, p. 400 et seq.

Anquetil du Perron is the commentator, I am going to refer to the French edition in reviewing and criticising his views.[1]

In Vol. II Anquetil du Perron discusses Tieffenthaler's maps and furnishes them with his own criticisms from material already existing at that date.[2] When Tieffenthaler pretends that the real source of the Ganges is unknown and that it will for ever remain undiscovered as the roads beyond the »mouth of the Cow» are impracticable, Anquetil du Perron says that he is of a different opinion »as there is nowhere in the world a road absolutely impracticable for those who have feet», and indeed the source of the famous river had been discovered by Andrade, and was rediscovered later on by Webb and his comrades carrying out Colebrooke's plans for that purpose. He reminds us of the fact that in Bengal and Tibet the idea of the impossibility of reaching the source of the Ganges had grown immovable as the origin of the river was supposed to be in heaven. Then he quotes the views of Linscouten, and of Abbé TOSI who says some people believe the river begins at Mount Nagracot, whereas others think that it comes from far away, from the Scythian mountains and passes through the gorge, at the side of which a rock is like the head of a cow. Tieffenthaler believes the Ganges issues from a rock in the Tibetan mountains at about 33° N. lat. and 73° E. long. from Paris and then enters the gorge of Gangotri »seu Cataracta Gangis, quam etiam Os Vaccæ appelant».

At the end of the 16th century the great Akbar sent his expedition to the source of the Ganges.[3] Discussing the results of this expedition Anquetil du Perron arrives at the conclusion that the »cow's head» is not the real source, but that this must be looked for somewhere in the interior of great Tartary, an explanation that can be understood only if we consider his want of confidence in the Lamas' map, and his negligence of Andrade.

As to the river »Gagra», Anquetil du Perron says Tieffenthaler is the first who has ever mapped it and made the whole of its course known in Europe. But he thinks natives have furnished the information about the upper part of the river.[4]

The Gagra of Tieffenthaler is obviously the Map-chu, which lower down is called Kauriala and Gogra. He found that the upper part of his Gagra was called Sardjou, which is the river known under the names of Kali, Sardu and Chauka.

[1] Description historique et géographique de l'Inde, etc. 1. La Géographie de l'Indoustan, etc., par le Père Joseph Tieffenthaler, Jésuite & Missionaire apostolique dans l'Inde. 2. Des Recherches historiques & chronologiques sur l'Inde, & la Description du Cours du Gange & du Gagra, avec une très grande Carte, par M. Anquetil du Perron. 3. La Carte générale de l'Inde, etc., par M. Jaques Rennell. Le tout, augmenté de remarques & d'autres additions, rédigé & publié en François, par M. Jean Bernouilli. Berlin 1786.

[2] Op. cit. Tome II, II[e] Partie: Le Développement du Cours du Gange & de celui du Gagra, tiré des Cartes Manuscrites faites sur les lieux, par le P. Tieffenthaler . . . 1787, p. 266 et seq.

[3] Vide note p. 72.

[4] This also is obvious from Tieffenthaler's own words: »Neque solum ipsus, hasce regiones perlustravi, sed hominem arte geographica instructum . . . ablegavi, ut locorum intervalla, mundique Plagas rite exploraret.»

As to the origin of the rivers from the lakes, we find in Anquetil du Perron's work the following interesting passages.[1] He talks of two great lakes situated in Tibet.

Celui de l'Est, nommé Mansaroar (ou Mansara), très célebre dans le pays, a 60 cosses de tour, selon le P. Tieffenthaler dans sa notice. Mesuré sur la carte, il n'en offre que 33 à 35. Le Lac de l'Ouest, nommé Lanka, mesuré de même, a plus de onze cosses de tour . . . Selon le savant Missionaire, on dit que le fleuve Brahma poutre (ou poutren), qui va à Ascham & à Rangamati, sort du lac Mansaroar. Du même lac Mansaroar coule au Sud & au Sud-Sud-Est, une rivière dont il n'y a de trace que douze Cosses . . . Du haut du lac Mansaroar, ou Nord-Nord-Ouest, sort un fleuve sur lequel on lit en Persan: grande rivière de Satloudj, qui va du côté du Pendjab et par conséquant à l'Ouest.

To this Persian text Anquetil du Perron has added the following remark: »On dit que le Satloudj, qui va à Belaspour & à Lodiane, sort de ce lac; mais cette assertion ne mérite aucune croyance: car il est plus vraisemblable qu'il (celui qui sort de ce lac) se jete dans l'Allaknandara, qui arrose Badrinat & Sirinagar.»

Regarding the Satledj, Anquetil du Perron has the following passage:

Maintenant quelle difficulté, que le Satloudj du lac Mansaroar, parti du 36° 15 à 20′., se rende au 31, coulant à l'Ouest, depuis le 77° 15 ou 20′ jusqu'au 73° 40′ (le 76 de M. Rennell); ce qui ne fait, à ces hauteurs qu'environ 150 lieues en diagonale: ou même que, suivant la Carte du Missionaire, se soutenant à 36° 35′ de latitude jusque passé 70° de longitude, il baisse à 69° 30′ de longitude, jusqu'au 31e de latitude; espace de 235 à 240 lieues; & paroisse alors avoir sa source dans les montagnes? d'un côté c'est une mer, c'est à dire un grand fleuve; ce qui annonce un cours très étendu, comme nous verrons plus bas à l'Est, celui du Brahmapoutren: & il coule vers le Pendjab: c'est donc le Satloudj de cette contrée. Si l'on suppose que le Satloudj, sorti du lac Mansaroar, se jete dans l'Allaknandara, appelé Gange, ou se réunisse au Gange même, alors ce dernier fleuve viendra médiatement du même lac Mansaroar; ce qui rentre dans l'opinion des Lamas . . . C'est encore de là que le P. Tieffenthaler a pu prendre le sentiment qu'il propose sur le cours du Satloudj sorti du lac Mansaroar: mais la source du Gange, Gangotri, seroit toujours differente de la précédente.

With this view of the hydrography Anquetil du Perron compares the map of Delisle, 1705, (Pl. XL) and finds both views tolerably like each other. He identifies Delisle's lake with Tieffenthaler's Mansaroar and the river of Cogué with the Brahmaputra.

Regarding Langak-tso or Rakas-tal we read:[2]

A côté du grand lac Mansaroar, à l'Ouest, est le lac Lanka que le Missionaire allemand écrit Lanka Dhé, c'est à dire Lanka (lac) d'abondance: de deh, qui donne; ou lac Dew, le lac divin. Ce lac, d'où sort, à l'Ouest, le Sardjou est beaucoup plus petit que le Mansaroar.

So much seems probable, that before 1776, when the Father sent his maps to Anquetil du Perron, probably sometime about 1760 or 1765 as well as in the reign of Shah Akbar, there was a river issuing from Rakas-tal. It is difficult to find out the correct dates. It is quite clear that Tieffenthaler has not got

[1] Op. cit. p. 347 et seq.
[2] Op. cit. p. 350.

anything from the Lamas' map, but has gathered his information from Indian sources and from pilgrims who have been at the place and related to him what they have seen. But he also thinks the matter worthy of further exploration, for he says: »Fontes hujus fluminis, ex narratu viatorum, qui ad hunc lacum peregrinantur, comperti sunt. Certioria alias exploranda.» His wish was to be fulfilled some 80 years later, when H. STRACHEY went to the place.

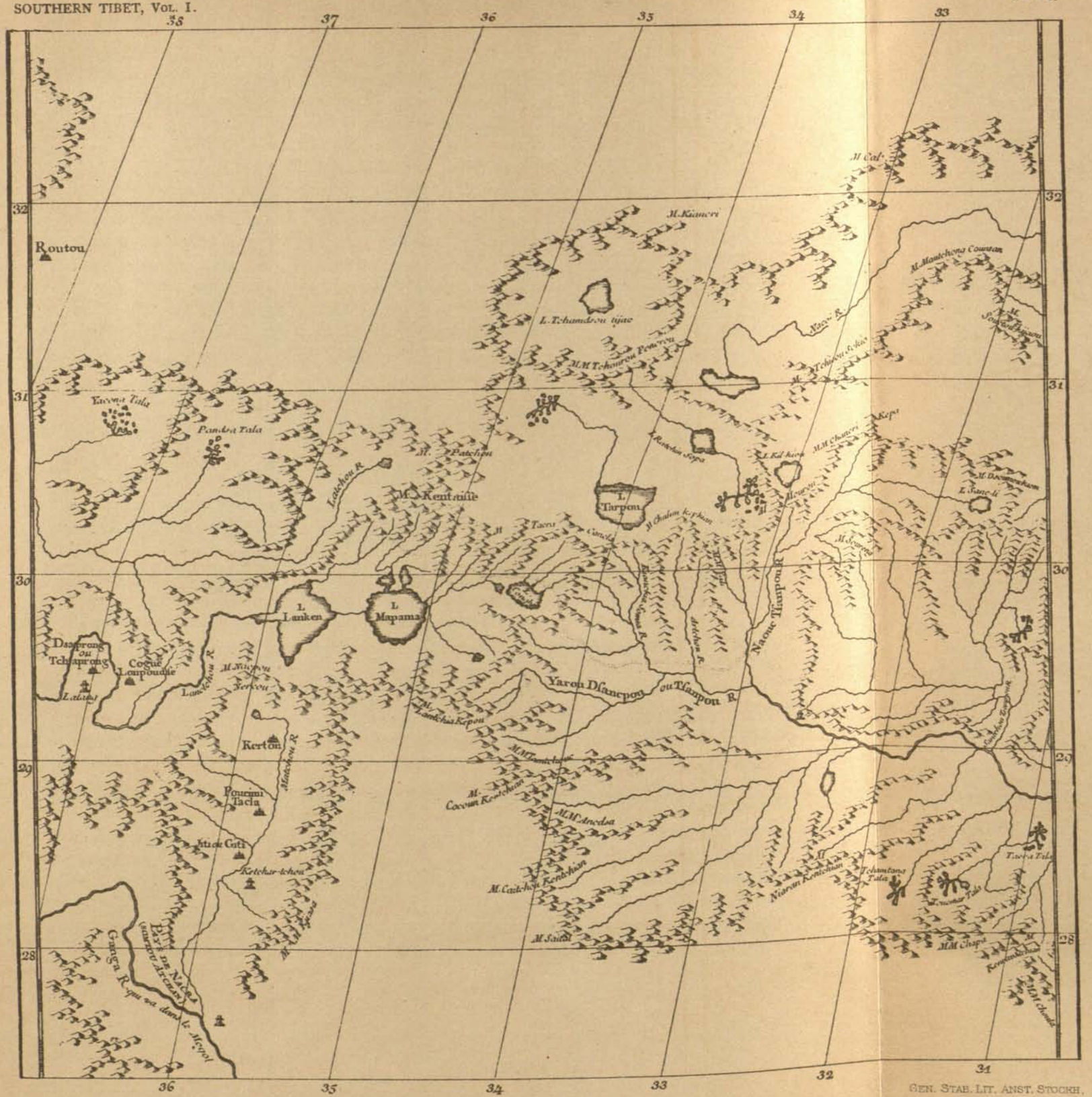
In the chapter on »the identity of the lakes Mansaroar & Lanka dhé with the lakes Mapama & Lanken», Anquetil du Perron compares the Lamas' map with those provided by Tieffenthaler. He reminds his readers of d'Anville's words that Kang Hi's curiosity had given the world the knowledge of the situation of the source of the Ganges. He ordered some men, »instructed in mathematics», to penetrate to the very place, from where the Ganges originates. From their map, »the Lamas' map», d'Anville had learnt that Mount Kentaïssé was the water-shed of two great rivers. One of them, the Ganges, was formed from several sources, and went through first one and then the second of two great lakes and took its course towards the west until it met with a mountain that forced it to turn to the south or to India and only by force could it secure for itself a passage through the mountains.

We have seen before that the explorers of Kang Hi were not less successful than those that Akbar sent out for the same purpose. In the case of Kang Hi's explorers the most serious misunderstanding was the identification of the Satlej with the Ganges. And the same confusion arose from the information brought by Tieffenthaler, who mixed up the Satlej and the Gagra and believed his Gagra to begin from Langak-tso. D'Anville had to trust to the material brought to him, although he found the Ganges to be rather long.

Comparing the Lamas' map with the Indian one of Tieffenthaler, Anquetil du Perron, to begin with, concludes that the lakes are the same, as in both cases they are surrounded by mountains and give rise to several big rivers going east and west. He also compares the names; Chinese: Lanken and Mapama, Père Gaubil: Lanka and Lapama Talaï, the Indian map of Tieffenthaler: Lanka Dhé and Mansaroar.

Then he approaches the question of the rivers.[1] The Chinese map (Pl. LI) shows a great river called Latchou coming out from the mountains, at the foot of which are the lakes; it flows to the west. On the Indian map, Pl. LII, the Satlej issues from Lake Mansaroar, and flows first to the N.W., then to the Panjab. But he forgets that on d'Anville's Lama map there is also a Lanctchou, which issues from Lake Lanken and comes from Lake Mapama. So Anquetil du Perron ought rather to have compared the »Satloudj» of the Indian map with the Lanctchou instead of the Latschou, which does not at all touch the lakes and in

[1] Op. cit. p. 354.



D'Anville's Map of the Lakes and of the Sources of the three great Rivers, 1733.

reality is meant to be the source of the Indus, though not nearly so carefully and correctly represented as the sources of the Satlej and the Tsangpo. But in spite of this, Anquetil du Perron finds the identity of the names, the sources, and the courses of the rivers surprising, and owing to the very meagre knowledge of these regions in his time it is easy to understand his mistake.

He remarks that in the opinion of the natives the Brahmaputra begins from the Manasarovar. On the map of the Lamas (d'Anville) he finds that a great river starts from the mountains situated near lake Mapama, turns to the east, S.E. and south and discharges at Ava. It is called Tsanpou. On the Indian map, again, the Manasarovar is the source of a great river running to the east, north of Nepal. »Le Tsanpou de la Carte Chinoise, & le Brahmapoutren de la Carte Indienne . . . sont donc un seul & même fleuve.»

Having proceeded so far, Anquetil du Perron goes on to examine »whether it is really the Ganges that issues from Lake Lanken as the Chinese map remarks» and one hopes that he will prove that the Chinese (d'Anville's) Ganges is in reality the Satlej; but, hélas, he proves that it is the Gagra, a mistake for which, of course, only Tieffenthaler is responsible.

In a detailed way he shows how and why the Lama explorers are incorrect. And he thinks it is quite sufficient to relate the way in which the map was made in order to be justified in the conclusion: »that the discovery of the source of the Ganges by the Chinese Lamas is nothing less than certain». The imperial explorers had just arrived at the source, — or what they wished should be the source of the Ganges, when their fright of Tseringdondob cut short their work and hindered them from taking the necessary observations on the place. They asked the natives with the result that the same errors that made the map of 1711 insufficient returned once more.[1] Anquetil du Perron's opinion is, that a map such as d'Anville's which was based on no other authority than that of the Lamas cannot be compared with an original map made on the place by the people of the country. Here comes in the great mistake of Anquetil du Perron: that he has greater confidence in the maps sent to him by Tieffenthaler, than in the Lamas' map, sent to d'Anville by the Jesuits. And still he finds a good deal of accordance between the Chinese and Indian maps. The most important exception is that while the Chinese map makes the Ganges issue from the Lanken, the Indian map makes the Gagra issue from that lake. Instead of one mistake another is introduced. Anquetil du Perron believes that the exploring Lamas obtained their information from the village and monastery at the southern shore of Mansaroar (i. e. Tugugompa). And Tieffenthaler knew that pilgrims came from Hindustan to Man-

[1] Bientôt les Cartes des Lamas disparoissent. La Carte du Tibet n'est plus qu'un travail fait sur des comparaisons de routes, d'après l'évaluation des mesures itinéraires des Chinois, sur le rapport des voyageurs. Ce travail, je le veux, sera plus critique: mais ceux qui le font n'ont pas été à la source du Gange, & cependant nous la présentent comme connue. Op. cit. p. 362.

saroar and Lanka, but without regarding the latter lake as the source of the Ganges.

Anquetil du Perron does justice to the Lamas of the monasteries of Lapama. The Lama surveyors ask them the name of the river which, N.W. of the Manasarovar runs to the west, and the Lamas living on the lake answer: Latschou, the same river as the Satloudj of the Indian map. Then they ask the name of the river which issues from lake Lanken and goes to the west, and the Lamas of the place answer: Lanctchou or the river of Lanken, the same river as the Sardjou-Gagra of the Indian map. The explorers ask if the Ganges is not a continuation of these rivers. And the Lamas answer that the Ganges is farther west passing Tschaprang, the place visited by d'Andrade in 1624, who believed that he had discovered the source of the Ganges, while, probably, he has only seen lake Lanken.[1] But, unfortunately, Anquetil du Perron confounds Tsaparang with Deuprag on the Ganges, at the confluence of the Alaknanda. Then he remarks that the Lama explorers give two sources to the Ganges, one from Kentaïssé and the other from Lanken, and below the junction of the two they put in the name Ganga or Ganges. But as thus, nolens volens, the Gagra was taken for the Ganges, »the first and real source of the Ganges rests unknown, as it was before the pretended discovery by the Chinese Lamas.«

We must remember how very little really was known at the time when Anquetil du Perron wrote. No Moorcroft had been at the place, and the only Europeans who had seen the lakes, Desideri and Freyre, had not even mentioned their names. The more detailed report of Desideri was unknown at the time. Anquetil du Perron forgot that the Lama map had been executed with the special and express view of finding the source of the Ganges. And, of course, it was not easier for him or even for Rennell than it had been for d'Anville to make out the complicated hydrography of these places.

Under the heading: »*Le Tsanpou & le Brahmapoutren sont le même fleuve*«, Anquetil du Perron gives a very clever and interesting essay in his work. The natives had told Father Tieffenthaler that the Brahmaputra takes its origin from the Manasarovar. Father Régis had left the question as to where the river really goes to unsettled, but he had thought it most probable that the river finally turned S.W. to the neighbourhood of the mouth of the Ganges. And Anquetil du Perron adds:

> c'est à dire, que ce fleuve sera cette Mer de la Carte Indienne, qui, allant à l'Est ou Sud-Est, passe audessus de Neipal, de Tschoukra, traverse une grande partie du Tibet, & vers les limites de cet Etat, tourne au Sud-Ouest, & coule près de l'embouchure du Gange.

He tries to find from the narratives of Bernier and Tavernier something to support his view, but they only know that the river comes from the frontiers of Tibet.

[1] Op. cit. p. 364.

D'un autre côté le P. Régis nous apprend que le Tsanpou coule des environs du Lac Mapama, & que passé les mêmes frontières du Tibet il tourne au Sud-Ouest, tirant du côté du Gange; & l'opinion du pays est que le Brahmapoutren, qui va à Ascham & à Rangamati, sort du lac Mansaroar, le même que le lac Mapama: Le Tsanpou & le Brahmapoutren sont donc un seul & même fleuve.

He also points to the difference between the view of Régis and that of the Chinese map, which may be explained by the fact that the Lama explorers never went beyond Lhasa. As we know, the question of the lower course of the Brahmaputra gave rise to a struggle that had to continue until not very long ago, when it was finally settled by the Pundits.

Anquetil du Perron sums up the »geographical truths» that are represented on Tieffenthaler's Indian maps, in the following words:

»La premiere Partie de la Carte du Gagra, faite sur les lieux par des Indiens, en présentant les deux Lacs Lanka & Mansaroar, nous donne la source, jusque'ici inconnue, des trois plus grands fleuves de cette contrée; le Sardjou, qui sort du lac Lanka, & dont le cours ne se trouve sur aucune Carte Européenne; le Satloudj, qui sort du lac Mansaroar au Nord-Ouest, & coule vers le Pendjab; & le Brahmapoutren, le même que le Tsanpou, qui a sa source dans le même lac Mansaroar, à l'Est, & qui, après avoir traversé une grande partie du Tibet, tourne au Sud-Ouest, & se jette dans le Gange au dessous de Daka . . .»

He also comes to the conclusion that the lakes as well as Mount Kentaïssé must be removed some five degrees farther north than on d'Anville's general map of Tibet. And this unfortunate idea he calls: »Corrections importantes en Géographie, Découvertes même, s'il est permis de le dire, qui donnent une nouvelle face à la vaste étendue de pays que je viens de nommer.» [1]

Tieffenthaler's maps give indeed a new aspect to the country round the lakes! But has geography gained by these changes? By no means! Starting from d'Anville's map, the map of Tieffenthaler is a great step backwards. One cannot even compare the two. Tieffenthaler's map is very erroneous, whereas the Lamas' map is admirable, although it is 200 years old. The Lamas were quite independent of every kind of religious prejudice, whereas the pilgrims from India under all conditions *had* to believe even what they could not see with their own eyes, namely, that the sacred river Brahmaputra began from the sacred lake, the Manasarovar, and the Gogra from its neighbour, the Rakas-tal. One can easily understand the pleasure it must have been for such a learned and able scholar as Anquetil du Perron to get hold of Tieffenthaler's documents and maps in which he had unlimited confidence, and which he calls discoveries.

Then Anquetil du Perron gives a detailed description of the course of the Gagra. He finds it very probable that the uppermost part of the river, from the lakes and down to the cataracts, is based on the description of a native from India. The rest, from the cataracts and downwards, should be Tieffenthaler's own work.

[1] Op. cit. p. 370.

The whole aspect of the river, and its meridional running in long bends is rather good. We find Taklakot on the left bank, not as now on the right one. The Gagra of Tieffenthaler is in its upper parts called Map-chu, lower down Karnali, Kauriala.

Ritter has no high opinion of the maps drawn by natives.[1]

But when he says that now (1833), as we know the real hydrography of the place, it is easy to explain the mistakes of the Lama map and the Hindu map of Tieffenthaler, he is wrong and too much influenced by Moorcroft. Ritter could not know that although the Lama map was quite a different thing than Moorcroft's map, both were perfectly correct, depending on the periodical changes taking place in precipitation. And still he suspects the possibility of a periodicity.

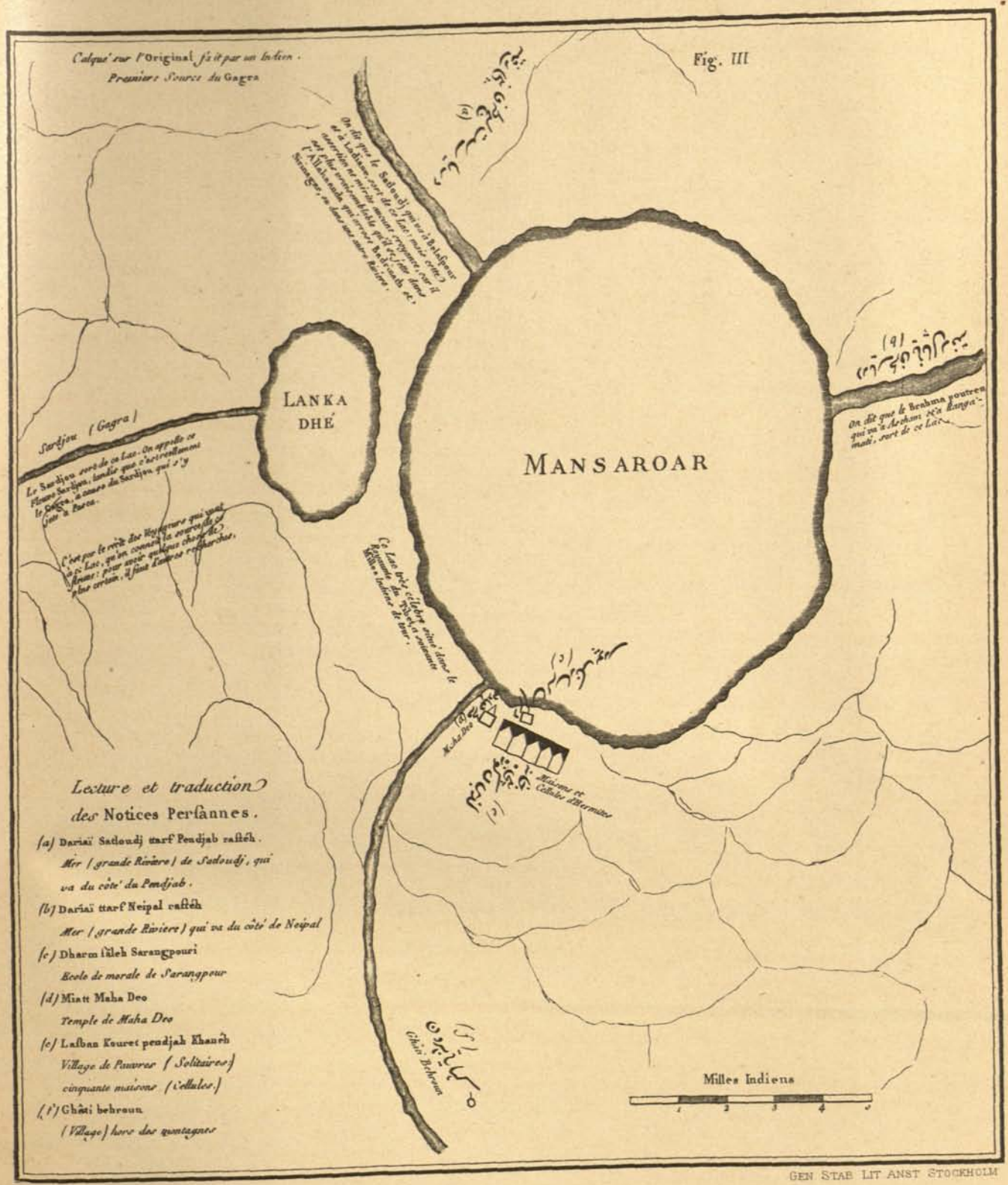
The big map of the Jesuit Father has the following title: *Carte Générale du Cours du Gange et du Gagra, dressée sur les Cartes particulières du P. Tieffenthaler* . . . Par *M. Anquetil du Perron, Paris 1784.*

Anquetil du Perron has only digested the material brought home by Tieffenthaler, and as the material is provided by ordinary pilgrims, and the two European scholars have never been to the place, the result cannot be expected to be particularly good. On Fig. III (Pl. LII) we read the legend: »Calqué sur l'Original fait par un Indien». I will now try to show that this map, made by a Hindu, in spite of its terrible errors, is still an important and valuable document. The Hindu has written some explanations in Persian, and Anquetil has added some observanda of his own.

Beginning from the east, we find a big river issuing from the Mansaroar, and the following Persian words written along it: Dariaï taraf Neipal raftéh, or the river that goes in the direction of Nepal. And Anquetil du Perron adds: »It is said that the Brahmaputra, which goes to Ascham and Rangamati, issues from this lake». The Lama explorers would never have made themselves guilty of such a grave error. The Indian explorer of Tieffenthaler or his predecessor in Akbar's time has wandered round the lake close to the water's edge, for the pilgrims keep as near as possible to the brim of the sacred lake; so he has seen and crossed all the

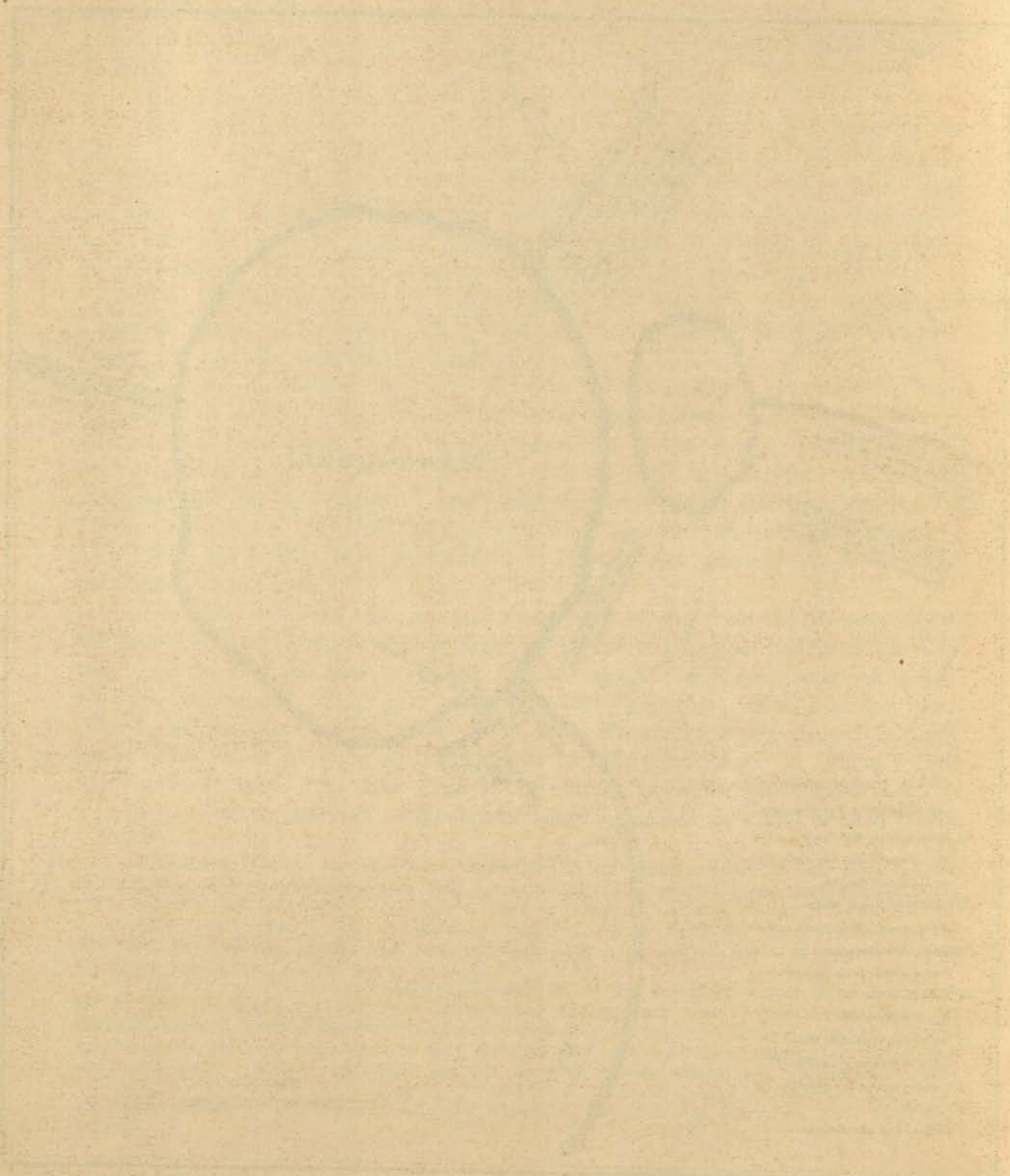
[1] He says: »Alles, was über die Vergleichung dieser scheinbar officiellen und doch in jeder Hinsicht zwar nicht ganz falschen, aber doch nur halbwahren Chinesischen Daten der Tübetischen Lama's, mit eben so halbwahren durch Hindu-Pilger verfertigten Original-Kartenzeichnungen, von den Gangesquellen, mit Erläuterungen in Persischer Sprache, welche beide der Pater Tieffenthaler aus Hindostan nach Europa gesandt hatte, sich nur sagen lässt . . .», well all that is to be said of these maps, has already been pointed out by Anquetil du Perron.

The following golden words which Ritter adds are as true nowadays as they have ever been: »Möge jener scharfsinnig und mit vieler Gelehrsamkeit geführte Streit über beiderlei Darstellungen der Ganges-Quellen, in Behauptung der Hypothesen auf geographischem Felde behutsam machen, um das an fruchtbaren Thatsachen so überreiche Feld der Erdkunde nicht noch durch unfruchtbare Hypothesen und Consequenzen, daraus über Dinge, die man noch nicht genau wissen kann, zu überschwemmen; . . . eine einzige positive Beobachtung an Ort und Stelle klärt alle Zweifel schneller und besser auf, als Probabilitäten, die wir darüber aufstellen könnten.» Die Erdkunde von Asien, Band II, p. 476 et seq.



GEN STAB LIT ANST STOCKHOLM

Tieffenthaler's Map of the Lakes, 1766.



great water-courses entering the lake or leaving it, and all the small ones as well. The Rakas-tal does not enter into the circle of pilgrimage. This is the cause why the Mansaroar is, comparatively, so well laid down, whereas the Rakas-tal is very wrong both in form and size. The Indian pilgrim has seen a river at the eastern shore, in direct communication with the lake, and he has crossed it, certainly not without difficulty. He may have forgotten in which direction the water was running but it is more likely that he wished to make the Brahmaputra begin from the sacred lake. The natives, as a rule, are very good observers in the field, but when religion comes in they *have* to become blind. The year of his wandering has been very rich in precipitation, as can easily be seen from the rest of the map. And hardly any other river can have made the pilgrim think of the Brahmaputra except the Tage-tsangpo,[1] which always and under all conditions carries a much greater volume of water than the other rivers at the eastern side. So, what the pilgrim calls Brahmaputra is in reality Tage-tsangpo.

At the S.W. shore of the lake we find another river, which obviously is one of those which enter the lake from Gurla Mandata. There is no indication on the map as to the direction of its course, but we *know* that it can only be an entering river. Near its mouth there is a temple and a village, the Tugu-gompa.

The information that the lake should be 60 Indian miles in circumference does not agree with the scale below, but it does not matter, as natives always exaggerate such things. The mountains south and north of the lake, Gurla and Kailas, are drawn in very thin outlines and represented as seen from the side. They have no names.

The most interesting information given on the map is, however, the existence of a big river issuing from the N.W. shore and running to the N.W. The Persian legend is very short and clear and does not leave any room for doubt: Daria-i-Satloudj taraf Pendjab rafteh, or, the river Satlej going in the direction of Panjab. The first part of the remarks on this river is correct:[2] »It is said that the Satloudj, which goes to Belaspour and Ludiana, issues from this lake»; that is to say, he has obtained this information from native sources, and it should be noticed that the native informant does not say that the river takes its beginning in or from the lake, but only that it issues from the lake, which leaves room for the assumption that the river Satlej *enters* the lake somewhere else. The information Tieffenthaler obtained from his Indian pilgrim, who had been at the place and who, on this point, was perfectly correct and trustworthy, was, however, spoilt by himself or Anquetil du Perron when he adds: »but this assertion is not at all worthy of being believed, as it is more probable that it joins the Alaknanda, which irrigates Badrinath and Srinagar, or some other river.»

[1] This is also Bonin's opinion. Vide l. c. p. 346, and his Royaumes des Neiges, p. 270.

[2] Bonin says that these legends can only be attributed to Anquetil du Perron. But probably the original information has been gathered by Tieffenthaler.

Tieffenthaler's pilgrim, who knew that this river was the uppermost part of the Satlej of Panjab, had no idea of its going through the Rakas-tal or Lanka Dhé which he had so near to the west. But he never even went so far as to ascertain where the river went to, and thus on the map the neck of land between the two lakes is not pierced by any channel.[1]

But so much was gathered by the pilgrim that a river issued from the Lanka Dhé. It is a pity that just here a Persian legend is missing. There is only a legend of Tieffenthaler, who says that it is really the Gagra that goes out from the lake, and as to the lake, he informs us that it is through the reports of »travellers» the source of the river is known. But he must have felt the unreliability of the statement as he adds the really charming words: »certiora alias exploranda».

Disregarding the Brahmaputra, the most curious feature of Tieffenthaler's hydrography is that the eastern lake is regarded as belonging to the Indus-system and the western lake to the Ganges-system and that the two lakes are perfectly independent of each other. The Lama map made both lakes belong to the Ganges-system, but in this case we have seen that the hydrography was perfectly correct and the only thing unknown was where the river went to. Even if Tieffenthaler believed in the tale of the Brahmaputra going out of the lake to the east, and the Satlej to the west, it is surprising that Anquetil du Perron could ever accept such an extraordinary bifurcation, a case that, at least to such an extent, would be perfectly unique.

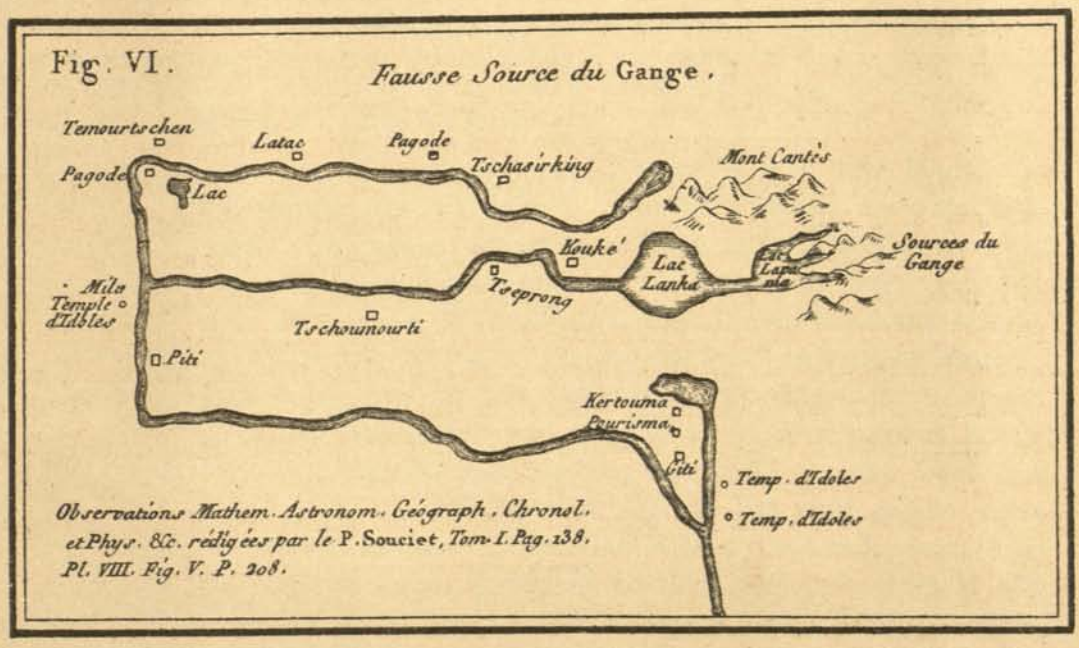
And still it is easy to explain the mistake of Tieffenthaler's pilgrim. We only need to remember that there is one river leaving the Manasarovar to the west, and one river leaving the Rakas-tal to the west. He did not know that the effluents, which he represents as two different rivers, were one and the same, or, in other words, that his Sardjou was in reality the continuation of the Satlej. When he saw the upper Map-chu above Taklakot, he found it probable that that river came out from the Rakas-tal.

Thus we are able to trace the outlines of truth even in this confusion.

In the *Recueil* published by P. SOUCIET,[2] P. GAUBIL gives some information of the sources of the Ganges. The title of Gaubil's article runs: »*Situation de*

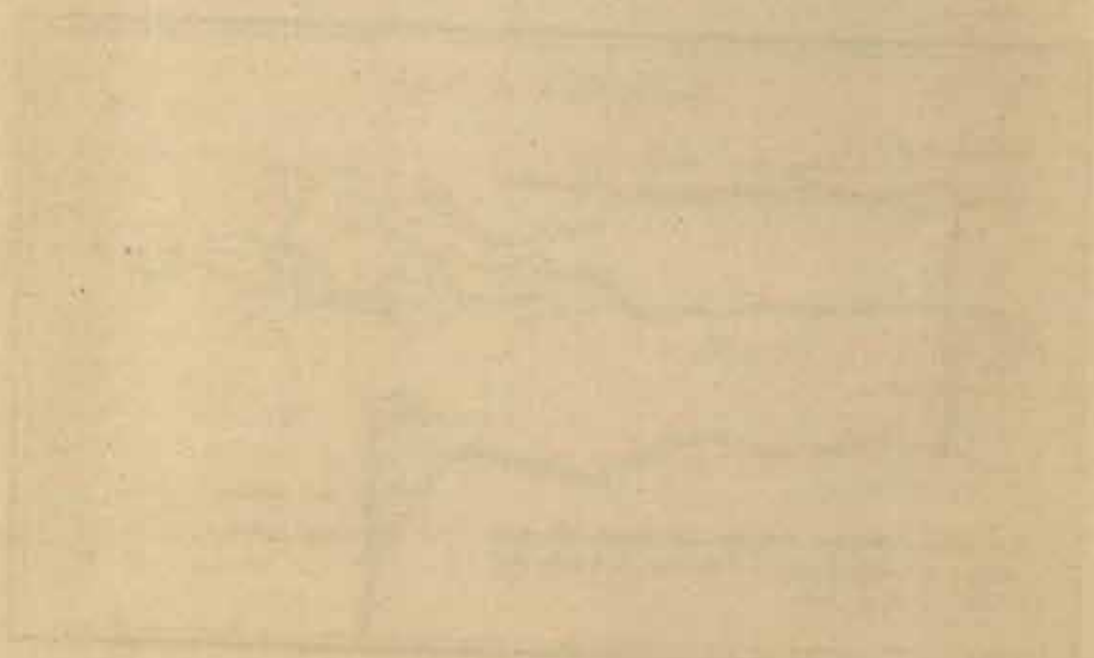
[1] Bonin has a quite correct view of this problem, l. c. p. 346: »ne serait-ce pas là l'indice qu'il existait alors dans cette direction un canal de jonction entre les deux lacs, canal dont le visiteur indigène a seulement vu et dessiné l'amorce au Nord-Ouest du Mansarovar, sans la suivre jusqu'à son débouché dans le Rakas-tal? Les constatations de Sven Hedin ont établi que les eaux de ce dernier lac se déversaient dans le Sutledje lorsqu'elles atteignaient un certain niveau, comme il est marqué sur les cartes antérieures . . . Si donc il y a eu communication entre les deux lacs, comme tout tend à l'établir, le fait de nommer Sutledje l'émissaire Nord-Ouest du Mansarovar n'était pas au fond absurde, bien que l'auteur indigène n'ait pas su où conduire et faire aboutir le canal dont il n'avait vu que la jonction avec ce dernier lac.

[2] Observations Mathématiques, Astronomiques, Chronologiques, et Physiques Tirées des anciens livres chinois, ou faites nouvellement aux Indes et a la Chine, Par les Peres de la Compagnie de Jesus. Redigées et publiées Par le P. E. Souciet, de la même Compagnie. Paris 1729.



Gaubil's Map of the Lakes and the Sources of the Ganges (i. e. Satlej), 1729.

GEN. STAB. LIT. ANST. STOCKHOLM



Poutala, demeure du Grand Lama, des sources du Gange & des pays circonvoisins, le tout tiré des Cartes Chinoises & Tartares, par le P. Gaubil, de la Compagnie de Jésus, avec des Remarques du même Père.»[1]

Father Gaubil is by no means sure of the correctness of the Lamas' map, as he says:

Je ne saurois bien répondre du détour & de la figure du Gange d'abord après sa source. Le P. Régis croit aussi que cela doit être corrigé. Je suis bien sûr que les positions des deux Cartes Chinoise & Tartare que j'ai vues, ne sont pas exactes dans cette carte de la source du Gange. L'entredeux de toutes les rivières marquées dans cette Carte, les environs & tout le pays est montagneux.

Gaubil gives a list of the positions of all the places entered on the map. For Lake Lapama he has 29° 50' N. lat., 35° 50' W. long. of Peking, for Lake Lanka 29° 50' and 36° 30' resp., and for Mont Cantès (Kailas) 30° 30' and 35° 50 resp., and he adds:

Ces positions sont fort approchantes des Cartes Chinoises & Tartares que j'ai vues. Elles me paroissent fautives. Elles n'ont été prises que sur le rapport des gens du pays. La mesure actuelle, faite par des Lamas, a donné la position du Mont Cantès & des lac Lanka & Lapama. Les Lamas y allèrent de Poutala en mesurant.

On d'Anville's map, the sheet of western Tibet (Pl. LI), the lakes and Kailas are on the same latitude as on Gaubil's. Gaubil's material is drawn from Chinese and Tartar maps. The whole situation and the hydrographical arrangement is the same as on d'Anville's Lama map. The names on both maps are also very much the same, although spelt in different ways. Otherwise the habitus of the maps is somewhat different. Gaubil's map was published in 1729 in Souciet's *Observations*, and d'Anville's in 1733. I am not aware whether Gaubil has got his material from the first Lama map which was rejected in 1711 or whether he has drawn his sketch from the same material as d'Anville, that is to say the later and more reliable Lama map.[2] But it may be that Gaubil has used earlier native material.[3] It is also interesting to learn from Gaubil that the Lamas went from Lhasa to the Kailas and the two lakes, surveying on their way up. That is why the map is better in the west than in the east, where danger arose, and better along the Tsangpo than north of this river. Perhaps they did not go at all to Bongba and other places north of the Tsangpo and only had to trust the verbal information they obtained about these regions. At least one gets that impression when comparing the country round Kailas and the lakes with other parts of Tibet on their map.

---

[1] Gaubil has a little map of the sources of the Ganges, which I reproduce here as Pl. LIII.

[2] In his explanation to the maps Anquetil du Perron says: »Enfin la Figure VI[e] (Pl. LIII) présente la fausse Source du Gange, telle qu'elle se trouve dans la carte des Lamas Chinois, dans celles de MM. d'Anville, Rennell &c.

[3] Bonin is right in supposing it to be Chinese, on account of the characteristic way in which the mountains and lakes have been drawn, the almost square outlines of the river-courses, and the Chinese or Mongolian orthography of the names.

Reproducing the important map communicated by father Gaubil (Pl. LIII), Anquetil du Perron gives it the title: *Fausse Source du Gange.* And still this map contains the prototype of the reality. There is, however, the same great mistake as in the Lamas' map of d'Anville and on Rennell's map: the Ganges instead of the Satlej. Or rather: two big rivers, parallel with each other, flowing towards the west. The northern one is the Indus, the southern one the Satlej. But the further fate of these two rivers was enveloped in darkness, for the authors of the map, who believed them to be the feeders of the Ganges, had them to join west of Ladak and then let the joint river turn east again and appear as the Ganges. The northern branch has its source on the north-western side of Mont Cantès (Kailas, Kentaisse, Kang Tise). So this must be the north-eastern branch of the Indus. Further west we find two well-known names on this river: Tschasírkíng and Latac, or Tashigang and Ladak, although the first mentioned place is on the right instead of the left bank of the river.

The southern river is regarded as the real source of the Ganges and at its head our special interest is concentrated. The eastern lake is called Lac Lapama and it is situated south of Mont Cantès and is surrounded by mountains to the east and south as well. Three small and short rivers enter the lake from the east. The northern of these is obviously meant to be the joint Pa-chung and Pa-chen or one or the other of them; the middle one is the Samo-tsangpo of Tokchen; and the southern one is Tage-tsangpo. On Gaubil's map all three are called Sources du Gange, so as to indicate that the river has really three heads.

The water of these three rivers is streaming from Lac Lapama as a short and strong river to Lac Lanka, situated direct west of Lapama. And from Lanka (Langak-tso) the river continues to the west, passing Kouké (Guge), Tseprong (Tsaparang), and Tschoumourti (Chumurti), all places or districts well known to be situated on the Satlej.

If we regard only the upper course of this river to a point a little west of Tschoumourti, we must confess that, if only the name »Gange» were changed into Satlej, the upper part of the hydrographical system would be represented in a perfectly correct way. The explorers from China who drew this map had a clearer view of physical geography than many geographers of our own day. The only point, except the name, in which the native explorers have been uncertain, is: which of the three feeders to the Manasarovar should be regarded as the real source, and therefore they have called all three the sources of the Ganges. To settle this question one has only to measure the volume and carefully study the other characteristics of the three feeders, as I did in 1907.

The channel of communication between the lakes, which was rediscovered by the Stracheys in 1846 and 1848, is marked on Gaubil's map as clearly as ever can be desired.[1] So 200 years ago there was not a shadow of doubt as to its

[1] Bonin says, l. c. p. 348: »Ce que ce croquis offre de plus remarquable, c'est que, pour la premiere fois, il indique très nettement la communication entre le Mansarovar et le Rakas-tal, qui

existence. This proves that, in whatever particular year the map was made, it was drawn during a year with culmination of the curve of precipitation, or the same rainy period as the one in which the definite Lama map was drawn. This period must have stretched over several years. The channel, whether carrying water or not, is called by the Lamas of Chiu-gompa the Ngangga or Ganga, a name which easily may have misled the Lama surveyors.

Finally it is as clear as can be, from Gaubil's map, that the river (Satlej) left Langak-tso or Rakas-tal in the beginning of the 18th century, proving that the precipitation must have been unusually abundant.[1] Gaubil has no tributaries below or west of the lake, which suggests that the Lama explorers did not at all proceed west of Langak-tso. And it also emphasizes the fact that only those rivers which enter the Manasarovar are to be regarded as the source of the main river, a view which is also perfectly correct.

And thus the whole of the Satlej problem is explained in a most natural and reliable way and just as I explained it in 1907 before I knew Father Gaubil's map.[2]

---

forment d'après lui des élargissements d'un seul et même fleuve, issu, par trois branches, du massif montagneux à l'Est du premier de ces lacs, où l'auteur indigène a placé les sources du Gange . . . If Bonin is right in saying this is the first time the channel has been marked in a map, it must be because he regards this map as earlier than the edition of d'Anville, the same view as the one I have exposed above.

[1] Bonin has rather described than explained the maps of Tieffenthaler and Gaubil, and comes to the following results: »En résumé, ce qui ressort de l'ensemble des croquis qui viennent d'être décrits, c'est la constatation sur les premiers (Pl. LII), qui remonteraient à la fin du XVI[e] siècle, de l'existence d'un émissaire du Mansarovar se dirigeant au Nord-Ouest, et sur la dernier (Pl. LIII), qui peut être postérieur, d'une jonction très apparente entre ce lac et le Rakas-tal.» Les Royaumes des Neiges, p. 278. As I have shown above, the emissary of the Manasarovar on Tieffenthaler's map is in reality the same thing as the channel between the two lakes on Gaubil's map.

[2] »Trans-Himalaya» Vol. II. Chapter 2: The source of the Satlej, p. 178 et seq.

I/XI 500 -

CENTRAL ARCHAEOLOGICAL LIBRARY
NEW DELHI
Issue Record.
Catalogue No. 915.15/Hed.-2211.
Hedin, Sven.