Propagation
A Journal of Science Communication

Museums: The Future Forward

George Jacob

Dr. Saroj Ghose had posed an interesting question in the first Journal of *Propagation* about what the future would bring after Science Centres and Science Cities. *Future Forward* of museums and science centres is about possibilities of reshaping *lifestyles* that civil societies would imbibe and embed in times to come beyond the boundaries of science cities.

Museums are evolving and transforming themselves and the lives of their diverse audiences. They are seeking new definitions, new approaches, new meanings and new opportunities to enhance learning and bring about sustainable change. The spectrum of projects, industry intersect, living culture and mixed use studio concepts featured in this book offer a glimpse into the shape of things to come in the decades ahead, as museums continue to grow in myriad ways adapting to the changing needs of experiential learning and collective memory. What was traditionally within the domain of curatorial academe is increasingly being influenced by those considered "outside" the arteries of museology per se. Exhibits themselves are on the cusp of moving into the *fifth generation*- from the days of the early museums and science centers- from collections based presentations, story-based or themed to interactive hands-on and didactic, immersive scenic and multi-media infused learning environments to those exhibits that offer a visitor-driven presentation of projected outcomes and scenario-building experiences.

Scenario building experiences can be seen at many science and natural history museums on topics ranging from environmental policy, spread of infectious diseases, and mitigation of impending disasters- where visitors create and control scenarios and build-upon controlled and un-controlled evolution of vectors, transmitters and communication-building blocks to create a desired or un-desired impact on a given situation. The experiential analysis provides users of different age-groups to imbibe this layered process.

There is even a Museum of Tomorrow (MOT) in Taipei conceived by JUT Foundation, Chungtai Changhung Construction Company, and Ppaper, open 24 hours a day telling the visitors: "A better tomorrow awaits your visit" as it strives to connect creativity, culture, environment, innovation and aesthetics in different ways. MOT is designed to be nomadic and shift its location frequently. A different approach to learning spawned by the internet is inevitable both at individual and social levels that would impact museums as institutions of non-formal experiential learning, hubs of cultural gathering places and nodes of revival. *Chatrooms*, blogs, twitters and the *facebooks* of our times will soon see unpredictable transformational growth.


Fig. 1.


Fig. 2.

Fig. 1. & 2. : Gwanggyo Green Power Centre: A verdant urban interactive, organic, sustainable, eco-acropolis for 77,000 inhabitants designed by MVRDV Architects.

According to Tom Hennes, Principal of the New York based Thinc Design, the widespread public access to information and, even more importantly, the radical ease with which communities can surf through the Internet, open broad new opportunities for museums to be designed as flexible resources that can be accessed and utilized in many different ways by many different groups and individuals. This suggests a profound transition in the way museums interpret their collections and in the stories they tell, from a fixed

narrative (the museum as preserver of culture or nature) to a dynamic system of narratives (the museum as a contact zone among communities, and a place of ongoing knowledge creation). It means that the design of museum must increasingly blend the core attributes of museums as *places* that hold authentic collections and the potential for exhibits to immerse their users in a particular experience, with the attributes of dynamic information systems to enable museums to generate evolving meanings and interpretation through a continuum of dialogue between their creators and their users.

Museum architecture is increasingly embracing a visual symbolism that is both timeless and futuristic in more ways than one. Globalization is beginning to affect cross-cultural dialog at levels and their impact on the future of museums is yet to be fully discerned. The catalytic coordination of professional resources and implementation dynamics is expanding possibilities of reach and outreach resulting in remarkable optimization of financial and intellectual resources.

Museum designers from different continents are cross-pollinating their creative rigors on to the creation of national museums obtuse to their own cultural backgrounds. Not only has the last decade seen an increased blurring of geo-political boundaries and national identities, it has experienced an unprecedented fluidity of resources that has re-shaped the manifestation of culture and heritage. From conventional leanings of curatorial practices to the frayed edges of neo-economic colonialism, museums face a plethora of challenges as they seek relevance while engaging diverse audiences.

Understanding the immediate needs of institutional planning, while addressing the larger human needs to learn from our shared and unshared histories, our many pasts, our present and our collective future, will increasingly shape the mission of museums in times to come. Resonance with the pulse of pluralistic societies in dynamic flux, will guide the process of exercising judgment, while advancing the continuum of museums as centers of education, equity and excellence.

Visual Vocabulary

Intercultural dialogue is changing the way architects and exhibit designers are approaching the visual manifestation of new museum projects creating a new level of broader subtlety in aesthetic appreciation. Examples abound in cross-cultural interface where one can observe a Japanese architects designing museums in Saudi Arabia or Irish architects transforming a museum project in Egypt or Dutch architects tackling urbanism with a cultural tilt in Korea. The architects and designers themselves are often displaced and nomadic in their spheres of education, training, travels, business locations, cultural sensitivity and interests. As their visual vocabulary expands, so does their palette of creative thought and innovative cross-fertilization. Their ability to rise above a traditional mindset and inspire generations, is often lauded by museum trustees and boards who are increasingly appreciative of fresh-thinking, sensitivity and its potential impact on regional development. Design for design's sake, can only carry the vision so far. Ultimately, the litmus test is in the resonance of the selected visual vocabulary with the institutional mandate of the museum based on the experiential content. The iconic buildings are 3D extensions of institutional brands seeking marketability and sustained credibility.

Globalization

While methodology of museum planning, process, procurement, production and project management are getting increasingly standardized, globalization is also triggering resource-pooling and out-sourcing of various services traditionally held to socio-geographic confines of a region. Design drawings, templates, construction materials, applications and expertise are streaming through a realm of fast pace transportation, internet and skype-laden design-build briefings and presentations. New software programs like Generative Components™, CATIA™ and many others are beginning to enable architects and engineers to generate free-form sustainable buildings, green materials and methods of integration. Programs and customized models offer options and alternate solutions reducing remodeling and redesign time significantly. The seamless integration of communication between museum clients, architects, designers, curators, museum educators, fund-raisers, board-members, trustees and potential donors, is already generating a transformational impact in the ways museums are being conceived, funded and built.

Even as the planning and design-build process transcends geo-political boundaries, crosses over time-zones and melts language barriers, globalization faces a bit of a conundrum associated with the sense of place. Traditional forms, motifs and indigenous techniques ensure cultural continuity and reinforce a sense of identity, while architectural experimentation promotes innovation, adaptability and osmosis associated with iterations of 'international style'. Architectural franchising is also on the rise where iconic national and cultural symbols are often dictated by the styles of lead architects and design

principals. Walking into a museum in the United States could as well be linked with the experiential visit to a museum in, say, Germany- planned by the same master-planners, architects, designers and interpretive teams- all part of a subtle class of conforming to a standardized experimentation with space and methods of communication.

Synergistic Materials

Museum architecture and exhibit production of the new millennium is revisiting the conventional palette of construction material into a vocabulary that speaks to the exhibits in more ways than one. With material applications across conventional lines increasing exponentially like social networking groups through Venn-like intersects, bio-mimicry, bio-degradability and bio-energy are on the overdrive as never before. The building materials are beginning to promote values that answer their co-relationship with their environments. An intelligent adaptation of sustainable and smart materials is steadily making in-roads into a design dialog within the parenthesis of the emotive and the rational. Cross pollination of ideas from materials and technology firms to hi-tech research labs, automotive industry, defense and innovative applications developed by NASA (National Aeronautics and Space Administration) and other research institutions around the world, have yielded a plethora of possibilities for museum designers and architects with museum buildings open to increasing levels of experimentation in conjunction with an underlying sense of moral obligation to sustainable living.

Neo-Urbanism

Younger cities and those in the throes new development are seeing a more rapid revival than the established meccas of culture. The hunger and desire to experiment and make a statement is more pronounced in those domains than elsewhere, where a new breed of approaching and embedding museums is being spawned by the futurists. The Gwanggyo Power Centre designed by MVRDV Architects near Seoul, Korea is a futuristic 6.5 million sq.ft. neo-urban project that weaves in museums, leisure, education, office, retail, housing and other facilities into a continuum of dwelling, sustainable growth. The design is intended to mimic and offer a seamless link between constructed and natural environmental space. It was conceived in rings because the town has different needs for phasing, positioning, and size. Every structure has a terrace with plantations for outdoor life. The plantations are fed by a floor-to-floor circulation system that stores water for irrigation. The end result is a vertical park that reduces energy and water usage. Imagine a museum and science centre 'destination' embedded in this environment with exhibits that explain the mechanics of the functioning


Fig. 3.


Fig. 4.

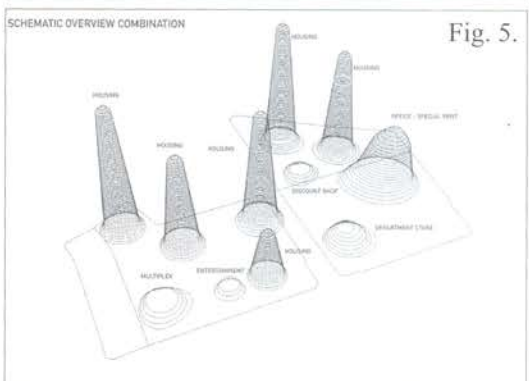

Fig. 5.


Fig. 6.

Fig. 3, 4, 5 & 6 : Water Planet Interactive Gallery: Blending dynamic immersion and reaching beyond the conventional at the California Academy of Sciences designed by Thinc Design.

of the gigantic complex, materials used and advantages to an inherent set of sustainable lifestyle choices.

Imagine, then, the breathtaking sense of possibility involved in the creation of an entirely new city whose primary purpose is to impact its residents in more than one ways. The challenge of Gale International's Songdo City in Korea is to create a city that inspires more than the footprint of the enabling technology and amenities that it provides for value-creation. Currently under construction, this incredible complex includes a 100 acre central park, schools, hospitals, hotels, retail, 30 million sq.ft. of residential space, an Ecotarium, Museum and 10 million sq.ft. of green space, among others, offering an unparalleled new level of excellence in living, learning and working, while remaining connected globally with the highest penetration of broadband technologies on earth creating a "ubiquitous city," or "U-City," in where major information systems (residential, medical, business, education, leisure) share data with computers are built into the houses, streets and office buildings that could yield unpredictable applications.

Extending the imagination a bit further is the Masdar City project- the most ambitious sustainable development initiative in the world today. When built, it will be the world's first zero carbon, zero waste city powered entirely by renewable energy sources taking living to a new level and will lead the world in understanding how all future cities should be built. This $20 billion project will be built in seven years located in Abu Dhabi linked to major destinations and businesses through a car-less, public transport system in conjunction with an innovative personal rapid transit system.

With architecture and new approach to commuting, communicating and sustaining growth on the rise, museums, science centers and exhibit environments and learning methodologies will undergo an unprecedented transformation at various levels. Flick, Twitter, Blogs and Wikipedia like phenomena are fuelling a web-based, highly interconnected complex social network of dynamic dialogue continuously seeking and creating new paradigms and definitions of learning. With Facebook crossing 100 million users in 2008 and You-Tube logging in 350 million user-hits a month, the rising tide of shared learning is forcing museums to seek a fresh perspective on outreach beyond their walls. As the strategy shifts from technology laden living environments to inspirational buildings and cities in which technology enables personal lifestyle choices and corporate innovation, its impact will be felt in the way museums of the future will be conceived, built, used and remembered. Science Centres are not mere containers that hold "content". Science permeates our lifestyle, our dwellings, our travel, our mobility, our connectivity and our thought process in continually evolving myriad ways adding a new meaning to "outreach". The triggers of learning and response follows a continuum with a museum or science centre-visit forming a part of this stream. Smart cities where this experience is extended and experimented with are the new learning environments for holistic exhibit experiences where the immersion is no longer simulated or contrived, but lived.

These transformative changes will invariably require an introspective adaptation of conventional training and currently offered Degree/Diploma/Certificate programs in Museum Studies. Forces shaping and influencing the present and future of museums and science centres are often external rather than from within the parenthesis of traditional museological rigours. This calls for bringing on-board an inter-disciplinary faculty of thinkers and project professionals into non-conventional virtual classrooms and live-labs of implementation that allow for exploration and enquiry in un-practiced ways.

With cooperation, collaboration, creativity and collective-sharing that forms the vanguard of the new age of digital consumption, seeds of inspiration will continue to be sown by museum professionals and those associated directly or indirectly with heritage, learning, and material culture. Every cyclical "seasonal" iteration will bring forth the blossoming of new ideas, harvesting a new appreciation for the world we live in.

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George Jacob has planned, designed and established museums and exhibit experiences spanning 11 countries in his 25 year museum career. He is currently Director of Khalsa Heritage Centre, being set up at Anandpur Sahib near Chandigarh in India.