Museum and Design Disciplines
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Museum and Design Disciplines

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Museums are no longer concerned with perfecting a specific method of expressing the value of objects which, for the most part, belong to the past. Like few other themes, those of museums get to the heart of a number of unresolved questions of our time: our relationship with the past and also the detachment of the best things we produce (in the material and intellectual fields) from the banality of everyday contexts. These are troubling signs of the difficulties we have in our relationship with the places in which we live.

The early twentieth-century and avant-garde preoccupation that the museum was a pernicious and dusty place in which objects, ideas and physical contexts are separated from each other now seems to be prehistoric. Today we can say that the opposite is true: in territories and cities increasingly unable to express a recognizable identity, museums have been entrusted with the role of rebuilding the only contexts that can be understood in our era. They are islands of clarification in a chaotic universe.

Thus museums no longer deal with just the past, but rather with the present. It is the present, in fact, that is most in need of interpretation and it is no coincidence that the structure of the museum, now that architectural differences that once separated it from other types of functional building have been abandoned, appears ready to gauge itself against the most extreme aspects of the contemporary. From the re-use of factories or power stations to the creation of new forms, today’s museums are, without doubt, the buildings best able to interpret the times in which we live, to the extent that they have become objects of equal or greater value than the artefacts they contain.

This is the case with the Guggenheim in Bilbao and the MAXXI in Rome: examples of a generation of museums which begin with a lavish extremism of contemporary forms, but which take on the ephemeral life of these forms so that they already appear to belong to a past era indelibly marked by their exuberant presence. On the other hand, while the aesthetic aspect of recent museums has failed to avoid the premature ageing that inevitably accompanies architectures which are slaves to their own image, their function has infected other types of building. Stations, shopping centres and airports have begun to assume the practices of presentation and valorisation usually undertaken by museums, to the extent that they often contain parts of these museums as fragmentary testimonies of a typological and functional explosion whose wreckage has scattered everywhere.

Like the perfect map sought by Borges’ cartographer, the perfect museum will soon risk coinciding with the world, thus resembling a physical substitute of a personal and increasingly short-lived collective memory, contributing in concrete terms to the risk, as suggested by Thomas Bernhard, of transforming the world into an immense citation of itself.

*Alberto Ferlenga, Director of the Doctoral School
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Museums: A Field of Action for Design and Architecture

Museum and Design Disciplines, the conference series organized by Matteo Ballarin and Maddalena Dalla Mura has the credit of having brought the museological issues to the very core of the disciplines of design and architecture.

Nowadays museums raise intriguing issues which go far beyond the old concepts of museum architecture and display. This situation is the result of various reasons. Among them, the most important is probably the fact that museums have been struggling for many years against the image of a closed, sacred and elititarian place. As a consequence, the contemporary museum is flourishing as a place for culture, knowledge and communication. This movement has been accompanied and assisted by a positive response from the design world, which has managed to transform established methodologies and professional practices into an articulated set of methods and approaches. Architects and designers have contributed not only to transforming the space of museums and to providing them with new equipment, but also to shaping their communication, aesthetic, and educational strategies. And they have done so by working on the museums’ contents and collections and developing effective collaborations with curators, scholars and educators.

Design culture is certainly aware of its role and responsibility within this situation. This awareness is also at the origin of the Museology of Design Research Group, which works in close collaboration with the PhD program in Design Sciences in order to define the central issues that concern the relationship between design and museum. Some such issues include: the role of the archive and of historical memory; the display modes of design objects and their educational function; exhibition design; the contribution of digital technologies – immersive, interactive and mobile.

Within this framework, the more welcome initiatives are those such as Museum and Design Disciplines, which have the merit of bringing together and comparing the different backgrounds and cultures – history, theory, criticism, design – that sustain diverse PhD programs and that the Doctoral School of the Università Iuav di Venezia has always encouraged and supported. The fact that the papers collected in this publication represent the work of young scholars, researchers and professionals adds further value to this initiative.

Karl Kraus said that it is necessary to equip culture with a space of action. I believe that Museum and Design Disciplines demonstrates that there is a well-defined scope and that there exists a generation capable of dealing with the challenges of the future.

Raimonda Riccini, Director of the Museology of Design Research Group
Università Iuav di Venezia
Museum and Design Disciplines
To claim that there exist significant relationships between design disciplines and museums may sound like a commonsensical statement, especially in the wake of the most recent museum building boom, which has stretched into the new millennium and has been characterised by a series of design solutions and proposals that have become part of some urban landscapes and, more generally, of the critical discourse on design. Yet, the most iconic architectural features usually associated with this phenomenon are only the edge of a more varied and complex set of issues, opportunities and relationships that bind the museum with the various fields of design. Moreover, museums are not only the subject (and object) of design interventions at various scales – from urban to that of single exhibits – but are also active factors and actors in the preservation, construction and dissemination of design culture. The desire to highlight and explore this richness of relations – which was also the core of our PhD theses – has been the main motivation behind the conference series *Museum and Design Disciplines*, organised in 2011 on behalf of the Doctoral School of the Università Iuav di Venezia, in collaboration with the Museology of Design Research Group and with the Fondazione di Venezia.
In recent years some conferences and symposia have indeed been devoted to similar topics – such as the role of design museums or the issue of exhibiting architecture –, drawing together academics, scholars and directors from international institutions. Our intention to start a platform for meeting and discussion, however, has been sustained by two very clear aims right from the start: first, to bring together, rather than isolate, the perspectives of the various design disciplines in regards to museums – at least of those disciplines represented and taught within the Università Iuav di Venezia (i.e. urban planning, architecture, product and visual design, as well as visual art); and secondly, to favour contributions by young scholars and professionals whose recent research and experiences treat, investigate and experiment with the mutual relationships of design and museums, opening up new directions for thought.

As concerns the first aim – linking rather than separating the design disciplines –, while the museum certainly raises questions that are specifically relevant for each the single design discipline and profession, it becomes apparent to us that, as a site of intervention and reflection, the museum also offers interesting opportunities for gauging the common challenges and references of the various design disciplines and cultures. As Sharon McDonald has noted, in hailing the age of museum studies, the museum can offer to a variety of disciplines «a site at which some of the most interesting and significant of their debates and questions can be explored in novel, and often excitingly applicable, ways». Moreover, «understanding the museum requires moving beyond intra-disciplinary concerns to greater dialogue with others, and to adopting and adapting questions, techniques, and approaches derived from other areas of disciplinary expertise» (Macdonald 2006, 1).

This may be especially relevant today for design disciplines and design scholars to explore and engage multiple directions: social sciences, cognitive science, geography and economics, cultural studies, history, etc.

Indeed, in recent years this potential has been gaining recognition within and around those institutions – universities and museums – which view practice, critical reflection, and theory as closely related to one another and which do not limit themselves to the repetition of pre-established examples and stories but instead work to produce and share new knowledge. It is here where new generations of scholars and professionals, educated and active in the fields of design and within museums, are investigating and experimenting. Hence our ambition to bring their voices to the fore.

Given this aim, naturally a vast array of topics and issues unfolded before us. Starting from the network of contacts we had established while conducting our PhD research, we collected information both on original studies and research focusing on museums operating in different design fields (industrial and product design, fashion design, architecture, urban planning), as well as on studies that use design knowledge and theory as analytical and practical tools for discussing the museum and experimenting within it.

With the intention of providing some consistency to the convergence of voices from different disciplines, we decided to structure the *Museum and Design Disciplines* program around three main questions: 1. How can design disciplines support the museum in its various functions, and specifically in its social mission? 2. How do museums contribute to the culture of design, in the diverse fields? 3. What challenges will museums and design disciplines face together in the near future?

The first conference, *Society and Participation* (May 12, 2011), aimed at examining the role of design disciplines and practices in relation to the various activities and functions of the museum,
giving special attention to the latter’s social mission and to social participation. The second conference, *Museums for Design Culture* (October 19, 2011), reversed the perspective and focused on how museums can contribute to the preservation, interpretation and spread of design culture in diverse fields, from architecture to fashion design. Our initial aim for the third meeting was to reflect on the future challenges that design and museums are about to face together in the framework of wider social, economic and ethical issues. This brought us to the topic of *Relations*, which certainly overlaps with the themes of the previous conferences but which, for the last conference (December 13, 2011), was centred on the kind of ‘relations’ that develop at the intersection of museum and design practices.

For practical reasons we were able to invite only scholars and professionals from Europe, all of whom, however, are scholars and professionals with international experience, accustomed to considering the wide world of museums, and up-to-date on both design studies and museum studies. Overall, their contributions provide notable representation of issues that are critical to current debate and practice and that enlighten a number of theoretical frameworks that surely deserve to be developed and supported in upcoming years.

The *Museum and Design Disciplines* conference series was made possible by a number of people. We would like to thank the Museology of Design Research Group at the Università Iuav di Venezia and its director, Raimonda Riccini; the Fondazione di Venezia for its collaboration that helped make gathering together such a distinguished number of scholars and professionals possible – for this we are particularly grateful to Fabio Achilli, Guido Guerzoni and the team of Polymnia, wholly-owned subsidiary company of Fondazione di Venezia. We also wish to thank Maria Cristina Crovato, Secretariat of the Iuav Doctoral School, for her assistance, and Dario Martini and Ketty Brocca, PhD candidates in Design Sciences at the Iuav, for their technical support.

We owe a special debt of gratitude to the Doctoral School of the Università Iuav di Venezia and to its director, Alberto Ferlenga, who made it possible for us to meet and who enthusiastically supported us throughout the *Museum and Design Disciplines* program – which, we hope, will be continued in the future by other scholars at the Università Iuav di Venezia.

Reference

According to the generally accepted definition by the International Council of Museums, the museum is mainly an ‘institution in the service of society and its development, open to the public.’ How do design disciplines and practices support the social mission of museums and enhance the participation of individuals and society? From urban planning to architecture and to exhibition design, design intervenes at different scales in creating the conditions that define the interaction between the museum and the many aspects of society – from spatial and territorial, economic and political, to psychological and personal. Through the critical analysis of well-known case studies – such as the Centre Pompidou in Paris or the Guggenheim Museum in Bilbao –, and of solutions specifically designed for different exhibition contexts, and through the deconstruction of discourse and rhetoric surrounding museum planning, the contributions from this first session and section reveal a number of interesting implications, thus advancing new theoretical frameworks for the future.
Critical attention on museums over the past twenty years or so has tended to focus on the products and outcomes of museum planning and development (the building, the exhibition, the programme) rather than on the complex and uncertain process of planning itself. I argue that what is most pressing today is the construction of more sustainable models of museum development that draw on a more diverse range of academic and professional fields, including the design disciplines. As museums are predominantly urban institutions, our cities provide both the most relevant and the most challenging environment for experimentation.

In this brief paper I suggest there are new connections to be made and collaborations to be forged between museum planning and the fields of urban study and planning that imagine the museum and the city in more progressive and creative relationships. My focus is on place; that most difficult of concepts to define and articulate. But, I think it is worth exploring further as it seems to me that place is something that museums can and do make a significant contribution to and it is ultimately places that planners help to shape: physically, socially, culturally and economically.
Place Matters

Place matters to us beyond national boundaries. For me the most effective but sadly least developed element of the Musée du Quai Branly in Paris is the central ‘River’ section that weaves between the four main exhibition spaces. Along part of the River one follows a series of place-based ideas from around the world in a section titled ‘Dwelling-Travelling’. This section includes diagrammatic introductions to a range of cultures and their relationships to place including the ‘landmarks’ of the Canadian Inuit, ‘places of offerings’ in Mongolia, the ‘chequerboard city’ of the Aztecs, the Japanese ‘open house’ and the ‘nomadic house’ of the plains Indians. A tantalising insight into human culture’s relationships with the land and the construction of meaningful places, this could have been a far more central and creative vehicle with which to explore the cultures of the world, including the site, landscaping and architecture of the Musée itself on the banks of the Seine.

Although perhaps not articulated as a specifically place-based discourse, many of the issues that museums are currently addressing such as the nature of history and memory, community and inclusion, identity and belonging, post-colonialism, tourism and regeneration, intangible heritage, authenticity, migration, globalisation, sustainability and our relationships with the natural world, all have specific relationships to ideas of place and to specific places such as cities. These issues are also of great concern to urban planners, designers and artists.

So important is it to human experience of a changing world, I believe place will emerge more explicitly as a key concern of museums development in the twenty-first century. There is much common interest to be found in place across different professions and academic departments, but too often we are operating in isolation or in ignorance of one another.

Place and the qualities of specific places matter to all of us as individuals, as families, as communities; as an ecology and as an economy. The museum, as both idea and public institution could have a key role to play in helping individuals and communities to better understand place and to take an active role in helping to shape places; using the museum as a site of experimentation, participation and deeper collaboration between related disciplines and communities of interest.

This is not such a strange thing to suggest. More than a century ago, several museum pioneers and reformers were taking these very steps within a place-based discourse. John Cotton Dana, Patrick Geddes, and Otto Neurath were all concerned in their own ways with making museums more relevant to social issues and to urban populations (for example Meller 1990, Dana 1999, Mumford 1938, Vossoughian 2008).

For example, Scottish urban planner, museum theorist, evolutionary biologist and sociologist, Patrick Geddes had a strong belief in the potential of new kinds of museums to play an explicit role in understanding the past, present and futures of a city. His Edinburgh Outlook Tower and proposals for museums in his city design reports are testament to his commitment to a new museum idea.

From the Settlement Movement which included museums and galleries, to the Musée Social in Paris and Harvard Social Museum, museums were part of the practical apparatus of addressing the urban condition at the beginning of the twentieth century during the formative years of town planning.

Later in the twentieth century through the influential ecomuseum movement and more recently in the writings of Tomislav Šola (1997), Peter Davis (2011), Robert Janes (2009) and Robert
Archibald (2004) among others, museologists are again advocating a more explicit role for museums to play in our understandings of place, our relationships with the environment, and locating museums at the heart of geographically defined communities. Complementary to these developments is a developing area of academic museum studies seen in the work of Eileen Hooper-Greenhill (2000), Sandra Dudley (2010), Hilde Hein (2006) and Sharon Macdonald (2009) that is concerned with the materiality of the museum as experience and process; that moves beyond the museum idea’s purely physical manifestation.

What is emerging from this work is a more relational, progressive sense of the museum that seeks to reveal and further develop the museum’s connections to people and places. At a time when the sustainability and even the future of the museum idea is under threat in many places, the opportunity now is to reconnect museum planning to urban planning and the design disciplines through the idea of place, which means reaching across perhaps less familiar disciplinary and professional boundaries.

**Relational Place**

I am also concerned that the massive capital investment in our museums and galleries in recent years across the world, which has done so much to fuel and create a global museums industry of museum planners, architects, exhibition designers and others has started to, albeit unintentionally, create a homogenised sense of the museum. Museums seem to look the same, particularly across the Anglophone world that I am most familiar with; a similar language of ‘best practice’ and design flattening out the landscape and diversity of museums.

This can also be seen in much of the Anglophonic museum studies literature where the specificities of place are often largely ignored. Specifically in more critical-theoretical museum study less responsibility is taken for the specific museums and places included within a given study. This is not to say that the chosen examples are irrelevant to a particular research question, but that the particulars of place in the research process are not problematised. This leaves the impression that in our research it is possible to intellectually and physically jump from museum to museum (and increasingly from nation to nation) without reflecting on – or taking responsibility for – the museum’s placed-based context. If museum studies as a field is to connect more to the world it studies and in which the institutional museum emerges, then surely the physical locations of the museums themselves must also be subject to study?

Of course, the picture is more varied than this. We have witnessed a social turn in museum studies and museum practice through an increased focus on the visitor and the visitor experience and with a related literature on aspects of community, social inclusion and participation more broadly (for example, Falk, Dierking 1992, Sandell 2002, Simon 2010). Nevertheless, the creation of shiny new buildings and exhibitions to be passively consumed by visitors rather than created with our communities on an ongoing basis beyond ‘opening day’ is something to be mindful of.

Drawing on more developed ideas of place and planning one can perhaps avoid this. For example, the emergent relationality in museum studies can be taken further through the work of geographer Doreen Massey and planning theorist Leonie Sandercock. Massey’s conception of a ‘progressive sense of place’ in part develops through a walk in her local neighbourhood of Kilburn in north London. Massey reports that,
while Kilburn may have a character of its own, it is absolutely not a seamless, coherent identity, a single sense of place which everyone shares. It could hardly be less so. People’s routes through the place, their favourite haunts within it, the connections they make (physically, or by phone or post, or in memory and imagination) between here and the rest of the world, vary enormously (Massey 1993, 65).

Massey goes on to describe the cultural diversity and post-colonial context of the area before observing that what gives Kilburn (and any other place for that matter) its specificity is, ‘not some long internalised history but the fact that it is constructed out of a particular constellation of relations, articulated together at a particular locus’ (ibidem, 66). Places here are processes. A progressive sense of place is one that recognises how a place is located within and emerges through networks of association and relation. It is political and ethical, taking greater responsibility for the nature of the (in)equalities maintained by local/global connections (see also Massey 2005 and Massey 2007).

This strikes a chord with early museum critique. Didier Maleuvre and Jean-Louis Déotte have identified an ‘anti-museum critique’ in the writings of the French art historian and theorist Antoine Quatremère de Quincy at the turn of the nineteenth century.

Quatremère was particularly concerned by the removal of antiquities from Rome to the then new Louvre in Paris. In this tale of two cities, Quatremère problematises ideas of context and place. His reading of place’s complexity is as relevant today as it was two hundred years ago, drawing together as it does the natural and cultural, human and nonhuman, tangible and intangible elements of place and locality. Writing in 1796, Quatremère argues that

[t]he true Museum of Rome […] also consists of places, historical sites, mountains, quarries, ancient roads, the respective sites of ruined cities, relative geographic features, inter-relationships between objects, memories of past local traditions, existing customs, parallels and comparisons that can only be drawn in the country itself (Quatremère de Quincy quoted in Déotte 1995, 58; see also Maleuvre 1999).

A relational sense of place found at the heart of early museum critique perhaps? One might connect this to the contemporary museological and urban explorations of the architect and designer Calum Storrie. Storrie’s Delirious Museum (2006) is the most developed and creative exploration of the museum/city relationship in the recent museum literature. Storrie’s Delirious Museum is fabricated through the creative entanglement of theoretical source material and methods of urban exploration through existing and imagined museums.

Leonie Sandercock’s vision of cosmopolis deliberately attempts to transgress the theoretical and professional boundaries of traditional urban planning (Sandercock 2003a). Sandercock’s vision is contextualised by three global socio-cultural forces that she identifies as reshaping our cities (and arguably our museums too):

- The age of migration and multicultural citizenship,
- The age of post-colonialism and indigenous and formerly colonised people, and
- The age of women and other so-called minorities, or the rise of organized civil society.

Sandercock calls for a new planning paradigm to meet these changing circumstances rather than relying on traditional ‘rational’ modernist theories of planning, a new paradigm based on a far more open, collaborative and inclusive approach that empowers those that have been traditionally excluded from the planning process.
(Forester 1999, Healey 1997). The model also places strong emphasis on the importance of narrative, story and storytelling (for example, Eckstein and Throgmorton 2003, Sandercock 2003b, and Throgmorton 2003). Planning itself is treated as an act of place and community storytelling; ‘a way of bringing people together to learn about each other through the telling of stories’ (Sandercock 1998, 207). Is this not one of the fundamental roles of museums?

Cosmopolis does not represent a closed theory of planning, rather it presents three elements of lived urban experience to lead the development of the radical model and alter the language of planning: ‘the city of memory, of desire, of spirit, the unruly city as opposed to the planners’ dream of the rational city’ (ibidem).

The more open, critical, creative and progressive senses of place and the city articulated within these developments speak volumes to the issues and opportunities facing museums in their urban contexts today. So, there is a need for both an academic engagement and a professional engagement between fields and disciplines, and preferably engagements that bridge the divide between academy and professions if museums are to extend and develop their roles and responsibilities towards society and participation.

Possibility

Geographers Ash Amin and Nigel Thrift define relational approach to the city that, if one were to replace the word ‘city’ with ‘museum’ offers us a compelling vision of the museum’s possible futures:

The city has no completeness, no centre, no fixed parts. Instead it is an amalgam of often disjointed processes and social heterogeneity, a place of near and far connections, a concatenation of rhythms; always edging in new directions [...]. An everyday urbanism has to get into the intermesh between flesh and stone, human and non-humans, fixtures and flows, emotions and practices (Amin, Thrift 2002, 8-9).

This sense of the museum as a contingent, ongoing process, continually being made and re-made, is central to my idea of the museum and museum development in the twenty-first century; relational everyday museology or museum planning that gets into the intermesh of urban life. The potential of further and long-term engagement between the disciplines and practices of the city and museum planning and development are considerable. For example, ‘idea museums’ or ‘museums of civic engagement’ have developed in growing numbers across the world in recent years. Ideas-based rather than solely collections-based, these museums are addressing often difficult or challenging social and historical issues: from the Newseum and the United States Holocaust Memorial Museums in Washington DC, to District Six in South Africa to the Canadian Museum for Human Rights in Winnipeg and the Museum of Tolerance in Los Angeles.

There are already thousands of ‘place-based’ museums across the globe based on the story of a particular building, village, town, city, region or nation. Indeed, when you think about it, place is pretty fundamental to the majority of museums. This could be a powerful global network for recording, responding and shaping urban change through greater degrees of collaboration between museums, urban planners and designers.

With new museum ideas developing around the world, proving the adaptability of the museum idea, combined with the number of place-based museums already in existence, arguing for the greater integration of and collaboration between museums and cities and planners of all kinds is less a revolution than a recogni-
tion of the possibilities. The idea of the city and the idea of the museum are both constructed through experience, imagination, and movement. We make sense of them on an individual human scale through physical, emotional and intellectual connections through time and space.

So, what role might museums take in the processes of urban planning and development?

– To record and document change?
– To place contemporary development in an historic context?
– To be a catalyst for change?
– To be a forum for genuine debate and decision-making?
– To act as an observatory on the world, connecting the local to the global?
– To change the narrative of a city?

The possibilities are very much open. The museum idea has always been adaptable and entrepreneurial. The opportunities presented will depend of course on the local context: political, cultural social, academic, and economic, on the museums profession, both its immediate concerns and pressures and a much longer-term strategic view, and urban planners and whether the potential relevance of museums to their work might be developed. I am not suggesting that this is a trajectory that all museums should follow. It is not a blueprint, nor am I suggesting that museums become urban planners and vice versa.

One could argue that a logical extension of much of the academic and professional work in museums around social inclusion and participation could develop as a more insurgent and active urbanism, beyond more passive and even anodyne approaches to consultation – in both museum planning and urban planning.

Remember, museums have a public and a public profile that planners and planning often do not. How might this space between museum development and urban development be used both productively and progressively?

Conclusions

In his 1972 book What Time Is This Place? Kevin Lynch made a powerful if brief case for the role of museums in urban planning and development. He writes:

present change can be made legible, past change can be explained in place of the idyllic ‘once upon a time’, continuity with the new future can be displayed [...] self-experiments and ‘museums of the future’ can develop the range of choices ahead. The spatial and temporal environment can be used to shape the attitudes towards the future that are themselves keys to changing the world (Lynch 1972, 117).

Place is emerging as a key theme in museum development and academic museum studies. The museum’s urban environment provides an exciting yet challenging context within which collaboration between museums and planners might develop.

Perhaps the question we should be asking ourselves is what would museums and planners be willing to risk to shape the world for the better and to deliver on the needs and dreams of our citizens?

References

A key issue, theoretical as well as practical, in the design of museums is how the layout of space interacts with the layout of objects to express an intended message, or realize a specific effect. To understand this interaction entails answering three questions: Does the spatial design make a difference, and if so, what kind of difference? How does it relate to curatorial intent? What dimensions of our experience of museums are shaped by the way galleries and objects are organized spatially?

Many museological authors have drawn attention to the importance of space in creating the experience of visiting. Falk and Dierking (1992) see the physical context as one of three contexts, together with the personal and the social, that create the ‘interactive experience’ model. Hein (1998) and Black (2005) argue that architecture provides the intelligible framework so that visitors have ‘the power to select for themselves what to see’ (Black 2005, 149) and so ‘create their own meaning’ (ibidem, 191). Witcomb (2003) proposes the concept of ‘spatial interactivity’ to complement ‘technological interactivity’ and describes an exhibition design that encourages exploration, both spatially and conceptually. Art historical authors like Duncan (1995) and Staniszewski (1998), and the linguist Ravelli (2006), argue that the building layout and the spatial arrangement of objects...
are manifestations of ideology, acting like a ‘script’ or a ‘text’. It is clear from the above that architecture is thought to affect our experience of museums not only through physical form, but also as a system of spatial relations.

When we move in buildings, our movement is restricted by the arrangement of walls that subdivide space and the arrangement of openings that re-unite it. We can illustrate this simply by two notional buildings (Fig. 1): their physical structures and subdivisions are similar, with the same number of internal and external openings. What makes them different is the arrangement of openings. But this is enough to make the two systems as different spatially as they could be (Hillier 1996, 30-31). From the point of view of space, buildings are ensembles and how parts are configured to form wholes is more important than parts in isolation.

Architecture then affects the way we experience museums by the way it constructs relationships among galleries, shaping the way they are explored, among objects, affecting the way they are perceived, and among visitors, creating possibilities for co-presence and encounter. By understanding these three morphologies and their relations, we can begin to understand analytically different visitor experiences of museums. This argument is initially made through a paired comparison of the National Museum of Modern Art, in the Pompidou Centre, Paris, designed by Renzo Piano and Richard Rogers in 1977, and the Tate Gallery, London, the conversion of an industrial building by Herzog and de Meuron in 2000 (Fig. 2).

The two museums share conspicuous similarities. Both are large scale, national museums of modern art, in buildings that constitute urban landmarks, with ground floors conceived as ‘piazzas’ you walk through, and their affinities extend to their collections – both begin with the turn of the twentieth century and continue to the twenty-first. But the experience of visiting the two museums is entirely different, described metaphorically by the museums’ directors as the museum as ‘a city’ (Hulten 1974) in the case of Pompidou, and as ‘a machine for showing art’ (Serota quoted in Tate Gallery Archive 1995, 32) in the case of Tate Modern. So could their obvious similarities hide critical differences?

Looking at the two layouts (Fig. 3), there is a comparable spatial style to be observed: both exhibit geometrical order – they are articulated on a modular grid –, and spatial order – they consist
of similar spaces in similar spatial relations. Both have a tripartite structure and a visual axis that extends the length of the building (Fig. 4a, b). If we draw the visual fields (in grey in Fig. 5a, 6a) that can be seen as one moves along the axis, we see that it gives clues about the global structure, but in both cases as the viewer goes deeper in the gallery, axes become more fragmented, and views shortened. But at Pompidou the dense and multi-directional pattern of spatial connections constructs constantly changing visual relations for the visitor (Fig. 5b), while at Tate Modern the minimally connected spaces create visual fields that tend to be uniform and unidirectional (Fig. 6b).

What emerges from the above is that the two museums have built their spatial design on similar formal principles, but what differentiates them is the way elements are linked together in configurations. This can be shown by using a basic technique of configurational analysis: drawing the graphs of the two layouts (Fig. 7 a, b). In Pompidou, spaces are organized in small rings along the axis, with many points of route choice, so that visitors can make choices, change direction and change their mind — a circulation pattern expressing the urban metaphor proposed by the first Director of the Museum Pontus Hulten.3

Tate Modern on the other hand sets out from the idea that ‘a large museum requires a simple plan’ (Serota 1998, 14), so spaces are much more strongly sequenced, organized either in two small rings or one big ring, around a central space, and where there is choice, it tends to lead quickly to a different space in the same sequence, so creating a more deterministic, or machine-like, layout.

This is reflected in the visual organisation. Using computer-based configurational analysis, we find that while in both cases the main axis constitutes the ‘integration core’ of the gallery (in red in Fig. 8a, b), that is the most visually accessible spaces of the layout, in Pompidou the axis links spaces on each side and guides visitors’ exploration, while in Tate Modern it is a peripheral space which does not play an active role in the organization of movement within the galleries.
5. Line isovist drawn from the main axis of Pompidou that constantly gives clues about its global structure (a), and isovists taken at central points of the galleries, showing the dense and multi-directional spatial connections between them (b)

6. Line isovist drawn from the main axis of Tate Modern that facilitates visitors’ initial orientation (a), and uniform and mainly unidirectional visual fields from central points of the galleries that focus attention locally (b)
These configurational differences are reflected in the way people use the layout. By recording visitors’ routes during their whole visit, we see that in Pompidou each followed a different path, with half the visitors skipping half of the galleries (Fig. 9a). So their routes tend to be individual and exploratory. In contrast, at Tate Modern visitors follow very similar – even identical – paths (Fig. 9b), since the route is virtually a natural progression from the entrance to the end of the sequence. There is also a social effect from the way people explore the space. In Pompidou visitors who split in different directions can re-encounter each other on the axes at different points. The urban-like spatial design maximizes opportunities for encounter and intensifies the sense of being together with other people, which is central to our experience of museums. The situation at Tate is simpler. Since people move through the same sequence of spaces, they tend to remain with the same group. So the layout of Tate Modern appears efficient – it is less likely that visitors will miss rooms – but less socially exciting.

Having seen how configuration affects the generic functions of the layout (common to all buildings), that is, the way they organise movement and create different patterns of co-presence, we now consider the way it relates to the specific function of the museum, the display of exhibits. In Pompidou, the display follows an art historical scheme hanging by movements and artists in a chronological
framework, an organization that recalls Alfred Barr’s famous chart (Barr 1936) outlining the genealogy of modern art, placing the emphasis on the supremacy of Cubism and Surrealism. This narrative structure is expressed in the ordered and hierarchical layout, while the rich network of connections mediates additional relationships between works, multiplying affinities and cross-references.

Looking at a specific object at Pompidou means discovering new relationships, seeing the same work in different combinations, and perceiving simultaneously surrounding visual realities (Fig. 10). But it is no accident that the key works are systematically placed in the spaces that are directly open to the main axis or those structuring the interior axis, while less well known artists are shown in deeper and more segregated rooms (Fig. 11). It could then be argued that space and display, and so the syntactic (spatial) and semantic (objects) aspects of the layout, are in a relation of correspondence: they point in the same direction to support each other and express the intended message.

To the art historical narrative of Pompidou, Tate opposes an ahistorical, conceptual, arrangement. The collection is organized in separate themes seeking to draw parallels between periods and show continuities across time, as, for example, in the juxtaposition of two ‘garden paintings’, Monet’s Water-Lillies (1916) and Heron’s Azalea Garden: May 1959 (1959) (Fig. 12a). In fact, the critical feature of Tate Modern is the high degree of autonomy in the relation between space and display. Axiality, a key internal spatial property of the layout, does not add to the narrative. Long vistas end in dark spaces or on blank walls, and visual dialogues between galleries are rare (Fig. 12b). How can we then interpret the relation between the non-linear view of art and linear progression in space? Information is not arranged in sequence, yet the sequence of visiting is largely dictated by the layout. There is, however, one linking point between space and display, and that is the restrictive function of space: it ensures that the proposed links between works are read as planned, displays are kept apart, and space is not allowed to add new relations. This then seems to be the key characteristic of Tate Modern.

It could be said that the layout is used simply to present, to allow a direct appreciation of works of art. On the whole, the emphasis is placed on evening out differences – between artists, galleries, and densities of space use. The layout minimizes the effort needed for exploring the galleries: ‘One has just to traverse it. He is here. He arrives there. There is nothing else to do.’ And, although the
groupings of works are unexpected, the links between them are already set up by the curator, which suggests less intellectual effort is required by the viewer. All this seems to give a further meaning to the idea that Tate is a ‘machine for showing works of art.’

In Pompidou, the opposite happens. The properties of the layout are not seen only as functional ends that contribute to the clarity of plan, but also as spatial means that serve the presentation of the collection. The layout does not simply present, but represents a specific view of art by being the visible display of its underlying conceptual structure. The focus is directed towards creating and resolving ten-
Maintaining the focus on the main museum function of displaying, we will now introduce a third way of arranging museum space and relating it to the display, exemplified by the new Acropolis Museum, in Athens, designed by Bernard Tschumi in 2009 (Fig. 13a). We will call it the museum as an ‘invisible pedagogy’ (Bernstein 1975, 134). The design is strongly influenced by the site: the foundation integrates the archaeological excavation and the top floor takes the form and orientation of the Parthenon. The museum is organized in 3 levels (Fig. 13b), linked in a continuous loop, constituting a broad chronological sequence, from prehistory to late antiquity (Fig. 17). The different levels also correspond to the general topography of the Acropolis: the archaeological excavation represents the foot of the hill, the ground floor with the slightly ascending ramp, the slopes of the Acropolis (Fig. 14a), the first floor, the Acropolis except the Parthenon (Fig. 14b), and the top floor – the culmination of the route – the Parthenon (Fig. 14c). The route though the museum acquires a symbolic function, both in terms of time and space.

If we look at the organization of space, its key feature is large spaces linked indirectly to each other (Fig. 15): the transition from one gallery to the next requires shifts of direction and changes of level, and is guided by only limited views. Yet it could not be argued that the rule for the organization of space is the control of visibility. Expansive views of the outside and interior visual connections are systematically offered to the visitor, but well beyond the limits of space he is in, as, for instance, in the case of the Parthenon, which becomes the key exhibit of the museum, or the Caryatides, seen from different locations, distances and angles.

But the visual relations are not systematically relations of accessibility and this spatial feature is closely related to the display. While the museological narrative emphasizes the historical sequence, the spatial design synchronizes time, both by making the sequence of spaces less
obvious, and by emphasizing the vertical visual links that cut through the different levels and time periods (Fig. 16), so adding to the narrative an integrated understanding of the history of the Acropolis.

Moreover, the route, seemingly continuous, is in fact a set of choices – as shown in the diagram (Fig. 18) – with divergences and convergences, and takes the form of a series of complex local experiences, created by the way objects are arranged – in a different way in each gallery: in parallel, along the two sides of the axis; off the axis, asymmetrically and dispersed in space; and peripherally around the core of the gallery. This is reflected in the morphology of visitors’ movement: oscillating from side to side, on the ramp (Fig. 14a), meandering among the statues, in the archaic gallery (Fig. 14b), and encircling the Parthenon, in the top gallery (Fig. 14c).

This points to another critical difference between the Acropolis museum and the previous cases: instead of using space to act as a passive background (Tate Modern) or to enhance the impact of objects (Pompidou), objects are used to create space. This suggests that the arrangement of objects, over and above their conceptual content, becomes a message in its own right, which intensifies the topographical sense – a walk up to the Acropolis, through the statues in the open air, or around the Parthenon – a message which is communicated by an embodied experience of space. Visitors are encouraged to appreciate works not only through seeing, but also through moving, and to perceive the Acropolis as a place across history, rather than in history.

Concluding, it could be argued that, in all these cases, the way the architect and the curator arrange space, organizes predetermined movements or allows choices, enforces categorizations or encourages comparative readings, mixes visitors together or keeps them separate, and creates a relation of correspondence or non-correspondence between space and display. In these ways, museums use space either in a conservative way to reproduce relationships that

13. View of the entrance of the new Acropolis Museum. Its foundation integrates the archaeological excavation, while the top floor changes its orientation to reflect that of the Parthenon (a) / © Acropolis Museum. The three-level organization of the building (after Tschumi 2009, 84) (b)
14. The ground floor of the new Acropolis Museum, with the slightly ascending ramp representing the slopes of the Acropolis (a), the first floor, the Acropolis except the Parthenon (b), and the top floor, the Parthenon (c) / © Acropolis Museum. On the right page, examples of visitors’ patterns of movement shaped by the spatial design of the display in the respective spaces of the Museum.
15. The layout of the exhibition floors of the new Acropolis Museum

16. The Caryatides, perhaps the most visually prominent space in the museum, are seen from different locations, distances and angles / © Acropolis Museum
already exist, or in a generative way to produce new relations, both in the exploration of objects and of other people, so creating different kinds of experiences. In Pompidou, the spatial layout promotes an exploratory and socially exciting experience while at the same time it is used to represent a view of art; in Tate Modern it emphasises a more controlled and more exclusively informational experience and is used to simply present works; and in the Acropolis museum, it prioritizes a spatial experience that acts as an invisible pedagogy complementing the formal narrative with symbolic meanings.

Notes

1. For an overview of museums as spatial relations, see Hillier, Tzortzi 2006.
2. For a detailed comparative analysis of the two museums, see Tzortzi 2010.
This paper argues that the design of interactive installations for museums and other heritage sites should be concerned with understanding, supporting and augmenting visitors’ lived experiences in context, thus their ability to actively participate in an exhibition. We use the concept of ‘place’ to refer to the physical environment as it is invested by the qualities of human experience, and to placemaking as the active process of connecting and relating to locations that become meaningful in our lives. We will discuss some of the limitations of existing heritage technologies in considering aspects of active place experience, and will argue how a place-sensitive approach can lead to successful interaction design whereby people establish meaningful and active connections at personal, cultural, social and physical levels to the places of heritage they experience. Through understanding place experience, and designing interactional possibilities that support the visitor experience by allowing people to actively engage and contribute to exhibits, or – in other words – ‘making places’, interactive installations can ‘augment’ the museum in several ways. We will support this argument by presenting a series of projects conducted by the Interaction Design Centre that were guided by this approach, and by showing how visitors were actively involved in the creation and sharing of heritage.
The relationship between museums and other cultural heritage sites and technology has long been under scrutiny. In early examples of technological support for museum visits, visitors have often been thought of simply as passive recipients of content that was pre-prepared by curators, educators or professional guides. However, this attitude has changed by the recognition that visitors have a far more active role: even in a scenario where they are at the receiving end of content while visiting an exhibition, visitors still actively interpret, share, discuss and appropriate it. Moreover, visitors can be encouraged to play an even more participant role by eliciting their comments, reactions and even original contributions to an exhibit or a site. In other words, visitors can ‘make’ what a museum or an exhibit is and how it is experienced as much as professional museum staff. Simon (2010) observes how participation, independent of the use of any high-tech system, has increasingly become a concern of museums, and how even low-technology strategies for engagement can be successful in making visitors active contributors to heritage sites. Technology has not fully facilitated this until very recently, often imposing restrictive interaction frames on visitor activities.

However, a novel trend of research has emerged within Interaction Design to support users’ active appropriation and reconfiguration of technology, and this approach has influenced work on technology for museums and exhibition sites. Previous research has examined aspects of situated conduct in exhibition environments, and explored the reconfiguration of activities visitors perform around technological installations deployed in such settings: for example the SHAPE Project (Bannon et al. 2005) developed room-sized interactive installations based on an understanding of situated activities in museums and allowing for rich interactions around them. At Nottingham Castle (UK) (Fraser et al. 2003), the installation involved participants in a quest for historical clues about the castle that subsequently allowed access to virtual reconstructions of the site. At the Hunt Museum (Ireland) (Ferris et al. 2004), visitors were invited to use technology to investigate mysterious artefacts from the collection and to contribute opinions on their provenance and possible original use. More recently, other projects, such as EQUATOR, have featured exploration of similar issues in a broader range of settings, such as urban spaces (Benford et al. 2006, Brown et al. 2003). These examples show that interesting sets of experimental installations have been realised: however, they are still limited in offering a more generalisable approach to designing participative technology in heritage and exhibition settings that could inform and guide further work.

Attempts at proposing frameworks for the design of public interactive installations are very abstract and usually extract features of behaviour, rather than the richer qualities of visitor experiences. Brignull and Rogers (2003) formalise examples of interaction around public and shared displays through a number of high-level descriptors of behaviours. This framework denotes a stimulus-response view on visitor behaviour, where people are described in terms of their reaction to stimuli that the exhibition provides, rather than as active participants in it. Brown and Chalmers (2003) describe a number of physical patterns of activity and visiting strategies put in place by tourists in urban spaces, and they suggest general recommendations for design that are abstracted from such patterns. Subsequently, in Brown et al. (2005), the authors discuss one design example which embodies some of these design recommendations: this was a rather technical exercise that allowed the authors to develop only one design theme. Although it is clearly connected to previous studies of visitors’ activities, it is still rather abstract and not really connected with the specificity of the locale where it will be deployed and with embodied activities to occur there.
Similarly, Galani and Chalmers (2002) conducted ethnographic studies of visitors in museums in order to inform design of a co-visiting tool. They propose three categories of visitor strategies, and give general design suggestions on how these categories could be supported by technology. On this basis, a prototype was then developed and studied in situ (Brown et al. 2003). The prototype enabled mixed-reality visits to the Glasgow Lighthouse arts centre. Reeves et al. (2005) discuss One Rock, a collection of Augmented Reality exhibition installations, and present an analysis of typical cases of use around it. Similarly to the previous examples we have discussed, the authors draw design recommendations based on generalisations from ethnographic observations of visitors’ behaviour. In particular, a typology of levels of engagement is proposed to aid the understanding of different forms of engagement and interaction with public installations. In these examples of work however, there is no attempt to develop a richer framework to include the physical qualities of the context into design principles for interactive exhibitions, thus excluding an important aspect of how visitors engage with heritage.

The most substantial body of work dedicated to the analysis of forms of interaction and co-participation in context around public exhibits has been produced over the past number of years by researchers at King’s College London. Vom Lehn et al. (2001) present a detailed analysis of conduct in a number of museums and galleries. Heath et al. (2002) and Hindmarsh et al. (2005) have highlighted in more detail how the deployment of interactive exhibitions can engender novel forms of social interaction in exhibition spaces. This body of work has been pioneering in highlighting the
importance of social interaction in shaping visitors’ experiences around exhibits, and in pointing out important design issues for the future deployment of museum interactives. The authors also recognise the importance of the physical setting of interaction: the material features of the exhibit also reflexively inform the production of conduct in connection with the ecology in which they lie. In this respect, they highlight the importance of analysing physical trajectories and bodily movements in conjunction with the analysis of conversations. They recognise that aspects of the material contexts in which the technology will be encountered haven’t been adequately investigated.

However, whilst this body of work is rich in situating conduct within a context, the treatment of context itself is – again – limited: it is seen as a backdrop, rather than a crucial element of visitor experience.

We argue that designing for true participation in cultural heritage requires moving forward by articulating specific features of place and designing for them. Place is intended as a physical environment that is lived and experienced by people: the physical environment has structural qualities that are an essential component of the visitor experience together with the social opportunities that such an environment offers. Therefore in museums and heritage sites, where the physical display is at the core of the visitor experience, the focus should be on the compound of human activities and the physical environment. Only by understanding how visitor interactions are inextricably linked to and in turn shaping the physical context of the exhibition, can we design to augment these activities and to encourage greater engagement and participation. Place is a useful concept to utilise in this respect: we are always en-placed, the physical world matters to us as a lived thing, and when people interact and experience technology this is connected to the environment they inhabit. In order to design effective technological interventions, we need to consider this richness of interaction with the physical and digital in context. Influenced from phenomenology and phenomenological geography, we utilise an articulation of place (Ciolfi 2003, Ciolfi, Bannon 2005) defining it as an emergent, embodied, multi-layered experience of the physical environment at personal, cultural, social and physical levels. Experience of place is invested by personal memories, emotions and identity; social, collaborative and interpersonal relationships; culturally-formed knowledge and understandings; and physical, sensory and perceptual processes. Each dimension is present at any moment of one’s experience of a place, and the experience is shaped by the dynamic interconnections among these dimensions. Each particular experience of place is individual and unique, although it is influenced by the presence of and inter-
action with others, as expressed by the social dimension. In order to understand a place and its inhabitants, all four dimensions and their interplay with each other have to be taken into account. These dimensions do not exist *a priori*, as a series of abstract categories, but emerge and become visible in practice and experience, as they lead to and emerge through people’s *actions and activities*. Through their actions people leave traces of their presence and actions in a space, whether tangible or not. These will ‘shape’ place as it will be experienced by themselves and others in the future.

Clearly, places of heritage are also experienced at these four levels. If we think of placemaking as active process, as the emergence and shaping of a relationship with the world alongside these dimensions, we can see why attention to place experience and placemaking can help shape appropriate technologies to support positive visitor experiences, and to facilitate the establishment of such a connection. Moreover, designing for placemaking includes a concern for social interaction and participation, which have been identified by previous research as crucial aspects of a positive museum visit: participation also can encourage people to share aspects of their place experience. Overall, attention to place and placemaking can lead the successful ‘augmentation’ of places of heritage through technology, so that any intervention extends and enhances the qualities of an exhibit or site, rather than taking away attention from them.

For all these reasons our work is particularly concerned with the situatedness of design interventions: we see design work as a way of maintaining rootedness to a place and embodying specific characterisations of interactions, and facilitating new ones.

Following such a place-centred approach led to design, development and deployment of installations that enabled people’s meaningful connections at personal, cultural, social and physical levels to the places of heritage they visited. *Re-Tracing the Past* allowed visitors to the Hunt Museum in Limerick to explore and comment with their impressions on mysterious museum objects through two fully-interactive spaces, the *Study Room* and the *Room of Opinion*, where physical components of the spaces allowed for interactive behaviour (Ciolfi, Bannon, 2007). In the *Shared Worlds* project, the *Shannon Portal* at Shannon Airport (Ciolfi *et al.* 2007) and the *Recipe Station* at Limerick’s Milk Market (McLoughlin, 2008) enhanced historic public places by facilitating new forms of social interactions: the *Portal* allowed passengers to share digital mementoes of their journey in the form of annotated photographs; the *Recipe Station* encouraged patrons of the market to explore a variety of foodstuffs by providing them with a collection of recipes donated by stallholders and other customers.

Out most recent project, *Reminisce*, introduced an assembly of place-sensitive interactive artefacts into an open-air museum, Bunratty Folk Park (McLoughlin, Ciolfi 2011). Bunratty Folk Park exhibits an array of buildings, artefacts and landscapes from different periods in Ireland’s history; it is a large site offering sparse information to its visitors, who often find it difficult to understand aspects of what they see (for example, the period or style of a particular building) or feel connected to the display (e.g. an empty building with no activities being performed). The narrative we developed for our design is that of ‘virtual’ characters from times past who have left auditory memories regarding their life and everyday activities at different sites of the Folk Park: visitors could collect them by scanning QR codes in particular locations using a mobile phone app, and could also record in real time their own impressions, comments and reactions to what they saw and heard. Participants could navigate through the *Reminisce* sites by collecting ‘souvenirs’ of small everyday objects (recipes, pieces of turf, turf.
hanks of wool, etc.) at each house and using them as a subtle guide to finding more memories. The souvenirs also worked as a key to accessing further digital content: in one of the museum’s buildings, the School House, by placing the souvenirs on an interactive school desk, visitors could listen to all the comments that other participants had contributed throughout the Reminisce trail (Ciolfi, McLoughlin 2011).

By subtly augmenting the museum through place-sensitive components that facilitated interaction but did not take away from the authenticity of the buildings on display, Reminisce supported different kinds of active participation and of social and collaborative interactions: visitors commented richly on the content that was provided to them and were able to relate more to the exhibits. They also were able to leave their unique traces and to contribute to other visitors’ experiences. Reminisce provided additional valuable elements to visiting Bunratty Folk Park by augmenting the richness of the visitor experience at four levels of place experience: it affected the physical appearance of the museum’s exhibits but in a subtle and complementary way; it encouraged the expression of personal memories, emotional reactions and other personal comments; it engendered new forms of social and group interaction and of sharing in the visit; finally it provided greater resonance to the culture of the museum as a ‘living history’ site and to the cultural significance in terms of Irish history and traditions in a way that every visitor could appreciate.

In conclusion, we believe that focusing on place experience and placemaking is an effective way to develop work on ‘participatory heritage’, whereby heritage professionals could also become more deeply involved in the frame of participation, rather than just supporting visitor-generated content. It is important to design for different ‘voices’ in heritage, and placemaking – through the representation of values from different communities in heritage – can be an important concept to inform design for greater participation.

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References


The relationship between cultural policy and urban planning has been at center stage in several international debates. Despite the problematic issues that have emerged, some public rhetoric tends to offer oversimplified visions regarding the complex implications and effects of urban transformation that are linked to cultural life and services. Targeting the rhetoric that refers to museums, one can critically observe and discuss three recurring narratives. First, the ‘Bilbao effect’ interprets the location of a successful museum as a trigger for urban regeneration and economic development. This narrative has been proposed in various contexts, inducing effects that generally do not match with and sometimes are contrary to the policy makers’ high expectations. Second, public-private partnerships are depicted as a means not only for responding to the decreasing resources of the public sector, but also as a panacea for cultural policy making and management. Actual arrangements between different cultural and urban interests reveal the difficulties of cooperating and of sharing high degrees of discretion in decision making. Third, similarly, cultural districts and integrated systems can be instrumental not only for museum management and for the generation of positive externalities, but also for real estate appreciation that is autonomous from relevant cultural policy making.
This rhetoric often proposed the idea that cultural policy in general and museums in particular are an engine for urban and economic development. Drawing on the results of the author’s research activity, this contribution will concentrate on these three narratives. It questions this overall rhetoric and it outlines new perspectives for urban and cultural research and policy making.

The Commonplace of the ‘Bilbao effect’

The ‘Bilbao effect’ is one of the most recurrent success stories regarding the role of spectacular architecture in promoting urban regeneration and economic growth, in city branding and competitiveness boosting. Some authors refer to it as a doubtless success in urban regeneration (Masboungi 2001). More importantly, decision makers have substantially been trying to imitate and adapt this narrative in many contexts.

Many ‘wannabe’ cities have been facing significant problems and failures in trying to replicate the Bilbao story and in promoting spectacular cultural facilities all over the world. For example in the USA: the additions to the St. Louis Art Museum, the Cincinnati Art Museum and the Columbus Museum of Art were recently delayed, the expansion of the Albright-Knox Art Gallery in Buffalo and the University of California Berkeley Art Museum and Pacific Film Archive were abandoned.²

Obviously there are different ways of describing the process of regeneration and urban transformation in Bilbao, but they are not equivalent and they do not have similar basis and motivations. Only recently Thomas Krens publicly recognized the fact that ‘the new Guggenheim became a cultural symbol, but it was based on the foundation of a larger system’ (Koolhaas 2007, 334). Some urban scholars have partially revised their positions too. For example, Plaza curiously concluded a paper titled “On Some Challenges and Conditions for the Guggenheim Museum Bilbao to Be an Effective Economic Re-activator” by saying: ‘Last, but not least, and as a result of all the above, it is inaccurate to define the Bilbao case as a culturally led regeneration process. On the contrary, Bilbao is an integral part of a larger coherent public policy targeted at productivity and diversity, with a strong cultural component’ (Plaza 2008, 514). More sound explanations may vary, also depending on the perspective (among others see Evans 2001, Moulaert et al. 2002, Ploeger 2007), but it is important to make clear that the narrative of the ‘Bilbao effect’ is inadequate and it can induce perverse and paradoxical urban effects.

In Bilbao as well as in many contemporary cities, the pre-occupation with competitiveness has sometimes been translated into large scale development projects from which only a limited
part of the local population takes advantage. In many cases the presence of signature architects and the location of special functions justified variations in the planning procedures (e.g. land-use regulation, height limitations) and the concentration of enormous public investments that provided feasible conditions for real estate appreciation to take place (Moulaert et al. 2002). In the case of Bilbao the public sector assumed most of the risk fostering speculative interventions through Bilbao Ria 2000, whose political accountability seemed limited to some scholars (Rodriguez et al. 2001), and, similar to many Western cities, the provision of collective goods and services have been fueled by rent and tended to rely on the functioning of unequal urban growth and entertainment machines.

The deconstruction of the powerful narrative of spectacular architecture leads one to notice that representing branded and aesthetically striking museums as a determinant factor in regeneration does not correspond to actual urban processes, but, nonetheless, it has been the means for spreading beliefs and behaviors among decision makers and provided certain actors with apparently favorable conditions (Castello 2009, Ponzini 2011, Ponzini, Nastasi 2011).

Public-Private Partnership for Planning and Managing Museums in Contemporary Cities

In the last decade, fewer and fewer urban projects for large museums or cultural facilities have been promoted and implemented by full-public financing or exclusively public policy networks in Western cities. In many cases proposals for new cultural facilities have to be co-financed by local stakeholders. The basic assumption here is that local governments can then draw considerable benefits by redirecting the flow of private real estate value being enhanced by urban regeneration projects towards new public utilities, infrastructures or support to public service provision. Urban regeneration and the increase in marketable real estate values are expected to provide a considerable contribution to wider public objectives.

Clearly, the need for partners willing to finance urban and cultural projects implies negotiating public interventions and leaving part of the discretion, which has been exclusively public for a long time, to private parties.

This poses new questions, especially if one looks at the contents and the spatial definition of public facilities and services in relation to the opportunity for private actors to capture their positive externalities (Codecasa, Ponzini 2011). In different cooperation schemes, it was noted that private parties are not always interested or capable of designing, implementing and managing facilities or services, among which museums. In many cases the increase in financial resources and in efficacy of public-private intervention led to the creation of cultural facilities which in the medium-long term required the public administration to bind significant financial resources for their management, since the private parties were mainly interested in real estate appreciation effects (Ponzini 2008b).

Although public-private programming has not assumed a dominant position world-wide, in many urban contexts it has had significant impact on the relationship cultural policy entails with regeneration and local development. Since the end of the 1990s these new tools and the increase in public-private partnerships in the cultural sphere were adopted in the joint negotiation of urban development projects, the creation and management of cultural facilities and of their ancillary economic activities (e.g. cafeteria, bookshop).
The relevance of cultural clusters, districts or quarters to urban economy is widely recognized. These spatial, productive and consumption conformations are needed by cultural and creative economies, which play an important role in contemporary goods, service and job markets (Scott 2000, Throsby 2001). They have an impact on night-economy such as bars, restaurants or taxis, on tourism and also on local community life (Clark et al. 2002). Furthermore, this impact usually increases real estate values of specific areas (Throsby 2001).

In urban policy making, the main argument adopted to support spontaneous or purposely designated cultural clusters, districts or quarters assumes that the presence of such productions or institutions benefits the urban economy and society, inducing regeneration and revitalization effects. The argument can be easily found in many European and American programs (Montgomery 2003, Evans, Shaw 2004, McCarthy 2005). In contrast to these assumptions we can find a fundamental conceptual criticism: economic models explain the spatial organization of cultural institutions and their positive externalities well, but the urban policy implications of these models are not direct and their understanding is not yet mature enough to harness them. It is not accurate to consider cultural cluster, districts or quarters as explicit policy instruments for local economies or urban revitalization (Santagata 2002). In this sense, the descriptive concepts need to be reconsidered in order to be relevant to urban policy making. In particular, contextual conditions can determine if and how cultural policies for clusters, districts or quarters can directly or indirectly impact neighborhoods and cities.

Probing Three Public Narratives
Regarding Museums and Urban Policy Making

Planning theorists have been debating the importance of the creation of rhetoric and storytelling (among others: Ferraro 1990, Fisher, Forester 1993, Throgmorton 2003). In social sciences narratives are meant to help groups and organizations making sense out of certain set of events and, when it comes to urban planning, also to explain how and why certain processes evolve and affect the transformation of the city (Czarniawska 2002). They are considered to be capable of creating publics, mobilizing social actors, framing policies and, to a different extent, of driving planning action. They are implicit vehicles of principles and values that are part of larger discourses and that tend to frame actual decisions in urban policy making. The importance of legitimization and accreditation of stories has been discussed (Sandercock 2003), as
well as the importance of place in urban narratives. For example, drawing on the case of cultural urban branding in Aalborg, Jansen (2007) undertakes this effort and shows how actual urban planning practices are influenced by the existence, construction and opposition of narratives, generally with little reference to place and space as relevant elements.

If not carefully questioned, contextualized and rebalanced (Soja 2003), one narration can evidently become part of transnational ideologies of planning (Harvey 1985 and 2002). But one problem in current academic planning debate is that the theory produced to explain the relevance of narratives in urban transformation has become more and more sophisticated (Palermo, Ponzini 2010) despite the fact that very simplistic representations circulate and tend to conform actual urban policy making (for example, regarding entrepreneurial cities or regions see among others Jessop 1998; regarding urban competitiveness strategies see among others Beauregard and Pierre 2000; regarding the urban implications of the creative class theory see among others Ponzini, Rossi 2010).

This paper does not provide the theoretical background nor does it give sufficient evidence for maintaining that the three narratives discussed above may be reduced to mere symbolic representations, regardless of positive and negative urban effects deriving from them. Nonetheless, on the basis of this paper, the oversimplifying narratives connecting blockbuster museums to urban regeneration and economic development, the use of public-private partnerships and of integrated systems of cultural offers and consumption should be more thoroughly discussed.

Notes

1. The main elements in this paragraph are taken from Ponzini 2010c.
2. As documented by D. Carroll Joynes in the preliminary presentation of research outcomes regarding fifty cultural building projects completed from 1994 to 2008 in the USA, one can note a significant exclusion of demand side estimates prior to the investment for cultural facilities. See “In the Arts, Bigger Buildings May Not Be Better”, in New York Times online, December 11, 2009. See also http://culturalpolicy.uchicago.edu/research/##infrastructure (retrieved January 2010).
4. The main elements in this paragraph are taken from Ponzini, 2009.

References


Ferraro, G. (1990), La Città nell’Incertezza e la Retorica del Piano, Milan, Franco Angeli.


The term design culture does not mean merely a fixed set of concepts and standards required for practicing the single design professions. Rather, it includes a set of tangible and intangible aspects and qualities, of knowledge and values which operate on a broader level and which are expressed in a multiple of ways – through objects as well as through discourse, through images and spaces as well as through beliefs and relationships. By way of their functions – from the preservation of collections to exhibitions, from the publishing of catalogs to communication – museums certainly hold a position among the actors and factors that contribute to the construction and development of design culture or cultures. The papers included in the second session and section discuss practical and conceptual issues related to different museum typologies (architecture, design, fashion and science), and to the roles played by the different actors (curators, museum critics, researchers) within them. In sum, these papers help highlight new possibilities of interdisciplinary collaboration.
From the Architectural Museum to the Museum of Architectures: Exhibit in Absence/in Presence
Francesca Serrazanetti

During the last years the issue of ‘exhibiting architecture’ underwent great changes and an increase of attention. The link between individual, territory and museum is less and less local, moving towards a diminishing of the borders and a global accessibility to design culture. But, at the same time, there is a renewed interest in the theme of the enhancement of built architecture and in the connection between conservation and innovation of the built heritage, in particular as regards the issues related to the tourist consumption of the ‘musealized’ heritage. As many studies have shown, the preservation and valorisation of cultural sites and architectural heritage is a critical and complicated question. If these actions are necessary for the identity and the memory of the territory and its inhabitants, they necessarily involve two risks: foremost, touristic consumption, secondarily ‘museification’ of sites which should be transformed together with city life. For this reason, it is important to find a way to valorise the immobile heritage, but not embalm it. That is to say, thinking about it as a territory which is subject to continuous transformation and in movement.

In addition to the fact that curatorial practice is being extensively recast, the subject of this paper focuses on the increase in value of architecture ‘in absence’ as a discipline (documents and
simulacra of architecture in the gallery space) and ‘in presence’ as a set of artefacts (the buildings that are in urban space). The aim is then to demonstrate how the architectural museum could assume a new role in respect to its relationship with the evaluation of these two kinds of architectural heritage. In opposition to an idea of the museum as a place of storage, different exhibit modes of architecture have to be taken into consideration, from the museum as a container for exhibition materials (in absence), to the city as an open-air museum (in presence), in order to find a third way capable of correlating them. In this prospective it is possible to spot new forms of exhibiting and to revalue some episodes of the recent past.

The double translation of the word ‘work’ in French (œuvre, the work of mind, and ouvrage, the built work), clarifies the difference between the object of the two exhibition modes: the one that exposes the œuvre refers to the architecture museum, while the one that exposes the ouvrage goes out of the building-museum to be placed in the urban space. Those that can be defined as collections of architecture are thus identified, in absence (in the gallery space) and in presence (in the urban space), in order to be able to study the different modes and types of improvement.

Exhibit in Absence: Museums of Architecture

‘Museums of architecture’ are the subject of the first category. Architectural materials have been collected since at least the early thirteenth century. During the eighteenth century the first architecture museums were established, collecting and housing sculptures, drawings, fragments of historic buildings, scale models and so on. However, such museums were not recognized as the basis of a new entity until 1979, when fifteen recently formed institutions met in Helsinki to constitute the International Confederation of Architectural Museums (ICAM). More generally, architecture exhibitions, hosted in architecture or modern art museums, have played a central role in architectural education in the twentieth century. They have strongly influenced architectural debate, indicating, reinforcing and confirming new directions in research and practice. Such exhibitions were, however, relatively rare in cultural institutions, where architecture was featured only during celebrations of major past or present figures, or within the framework of the world’s fairs and universal expositions.

In the past three decades, however, architecture exhibitions have experienced exponential growth. Furthermore, architectural institutions such as Urban Centres, architectural archives, urban museums, which were born during the twentieth century, became a benchmark for architects as well as for citizens. In recent years, architectural museums and institutions are working to overcome
some congenital problems such as exhibiting the architecture in absence, facing the sheer escalation of the number of documents and representations (drawings, models, computer images, written documents, etc.) generated by the construction of buildings in the late twentieth century, or attracting a wider public and not just the people involved in the work.

A brief focus on the different approaches to the exhibition of the architectural object allows us to understand how it is possible to deal with the physical absence of the pieces. First of all, it is important to point out that the elements that come before the built work (drawings, models, writing) or follow it (documents, representations, descriptions, comments in form of photos, videos, publications, etc.) are not the replacements of an absent object, but are a real presence themselves. Archive materials, here intended in a wide sense, are primary sources to represent the development of architectural ideas and their context.

Starting from this assumption, it is possible to identify different strategies of exhibiting architecture finalized to communicate not just the content, but also the ‘sense’ and the atmosphere of the architecture.\(^3\) As Henry Urbach points out,

when architecture entered the modern museum [...] it was precisely its capacity to produce atmosphere (or space, broadly considered) that was lost. This the deal, it would seem, Philip Johnson made as founding curator of modern architecture. [...] Johnson placed the models on tablecloth-covered bases, as if small sculptures, and instructed installation crew ‘to hang photographs as if paintings’. From this moment forward, architecture was welcome in the museum gallery so long as it agreed to these, or similar, representational conventions and declined, quite simply, to be architecture.\(^4\)

Exhibitions have been recently more and more conceived as narrative and sensorial experiences, which need sceneries around the ex-
hibited objects. In this sense the architectural curatorial practice is becoming increasingly interdisciplinary, requiring a combination of architecture, theatre and scenery, visual art, electronic media, etc. In particular, it is possible to spot a few common practices: the commitment of architectural objects capable of creating new ideas, images and forms of architecture, usually finalized to create installations, often at 1:1 scale;\textsuperscript{5} the use of videos and computer graphics aimed at showing the 3D space of the absent (or unrealized) building;\textsuperscript{6} videos often used as the main elements of the installation in order to create a sense of moving images and to contribute to the exhibition as a ‘montage’ and dramatic construction;\textsuperscript{7} exhibitions also involving other senses, trying to present urban environment as the setting of different sensorial experiences involving climate, sound and smells,\textsuperscript{8} etc.

\textit{Exhibit in Presence: Museums of Architectures}

If these are the most common ways of exhibiting architecture in absence, the opposite strategy for the valorisation of territorial heritage is the ‘Museum of architectures’, which includes and comes from the open air museum model. Born in Northern Europe to preserve and communicate the local culture, it consists, in its first examples, of the reconstruction of buildings, customs, habits and accessories, with the risk of a picturesque falsification made just for tourists. In addition, during the last decades new forms of open air museums have been conceived to make visible the value of the built environment, whether modern architectures or historic sites.

The only example that can truly be mentioned as a proper open air museum of architectures is most likely the MaAM (Museo dell’Architettura Moderna) in Ivrea, which makes a system of the architectures related to the Olivetti experience in the city. The museum has different levels of fruition: the information plaques on the buildings, the in-depth stations; a pocket-guide which delves into the issues involved in the museum buildings. The most important consequence of the museum’s experience is the ‘Quality plan’ that defines the criteria for the buildings’ conservation and transformation. Besides the spin-off of this initiative on the built heritage and the sharing of a common heritage by the public and the local community, the limitations of this kind of operations are related to the fact that they are usually almost always limited to a graphic design, an itinerary, without an out-and-out and steady cultural program or a well-organized information centre, and they do not attract a wide public.

The ‘Museum of architectures’ category, as it is intended to be in this paper, could also include events or temporary projects aimed at attracting people to certain forgotten sites. Happenings, exhibitions, and sets are the instruments used in this field. The aim of this strategy is to show a place in a new way and from an unusual point of view. Theatre, art, and other disciplines are usually involved in these cultural projects and are able to attract a wider range of people. However, they are temporary events incapable of transforming the territory and with a spin-off limited in time.

Furthermore, from an opposite point of view and with a different kind of approach, there are urban or territorial designs that deal with the city memory and the traces left on the landscape, planning a permanent project capable of valorising a place without transforming it and preserving its identifying characteristics. Many examples carried out by architects or urban planners in this field could be mentioned. Nevertheless, these kinds of action are rarely connected with a proper museum and, therefore, they offer neither museological programs/activities nor other forms of production.
and communication of cultural contents which are not necessarily linked to the place.

Architectures on Stage: Conclusions

Assuming that the transformation of the territory involves the protection and enhancement of cultural assets and urban identity, this paper sheds light on – through the issue of exhibiting and ‘staging’ architecture – different methods of intervention that can contribute to this knowledge and decoding. If the enhancement of mobile heritage is traditionally the responsibility of museums, immobile heritage is part of a disciplinary field that involves the transformation of public space. The theme of the preservation of architecture is, nowadays, tied on the one hand to the need to comply with a historical memory and the peculiarities of the identity of the places and, on the other, to the need to transform the reality we live in so that it can respond to contemporary needs of not becoming an object of tourist promotion. In a situation in which we need to recognize the character and quality of the spaces we live in, to decipher and read the architecture, the museum holds a key role. In addition to being custodian of the collections related to built heritage, it must be a place for research, training and debate not only on the architecture of the past, but also, and mainly, on the changes underway.

The mentioned examples aimed to evaluate the state of the art, making a brief system of strategies and objectives. An in-depth examination of such makes the identification of an innovative methodological approach possible: a proposal that, as a matter of fact, makes a system of the strengths and weaknesses of different design approaches. Besides the definition of the two collections, it is possible to point out some criteria that are necessary for the development of an architecture museum which could link the two exhibiting strategies (in absence and in presence). The definition of the museum’s or exhibition’s theme and criteria, first of all, should lead to the definition of the urban figures of the open-air museum of architectures (depending on the spatial, thematic and/or chronological continuity of the object exposed); a ‘collection inside the collection’ should be identified within a museum building that will constitute the centre of the system, where exhibitions focused on architecture simulacra and installations will be hosted; informative stations or exhibition spaces should work as extensions of the path in the open air museum; staging, events and cultural programs should attract a wider public; lastly, a ‘third museum’ should be conceived on the web to eliminate all the geographical boundaries and make information available everywhere.

These guidelines aim to outline actions which, by connecting collections ‘in absence’ and collections ‘in presence’, will explain the reasons for the protection and change of the urban landscape, enhance this landscape without embalming it, and become fully up-to-date access keys to architectural heritage and architectural discipline. In summary, the connection between the two different exhibiting practices should constitute a new and complete methodological framework, liable to make visible the value and characteristics of architecture, in a mise en scène mainly linked to the relationship between the centrality of the museum and the scenarios that it wants to tell.

Notes

Bridging Perspectives: Learning about Design in the Museum
Catherine Speight

Introduction

Innovations in higher education (HE) pedagogy and current ideas informing museum learning practice are prompting discussions about the way museums and their collections can be used as resources for HE teaching and learning. Unlike the services they offer schools and adult learners, museums’ support for HE students is not well publicised. Existing provision for other groups in the museum, suggests that the infrastructure already exists for HE students but the lack of formal arrangements and procedures means that it has not been given the priority or visibility it deserves. There remains most significantly, a lack of specialist knowledge and expertise about the needs of specific audiences in the museum such as HE Design students, and how to effectively engage with them in ways that draw from HE teaching and learning practices (Anderson 1997, Caban, Wilson 2002).

In 2006, the Centre for Excellence in Teaching and Learning through Design (CETLD) was established with the aim of strengthening research into collections-based learning for Design students in HE. A partnership between the University of Brighton, the Royal College of Art, the Royal Institute of British Architecture (RIBA) and...
the Victoria and Albert Museum (V&A), it undertook resource development, research and teaching to support the learning needs of HE Design students in museums working with students from the University of Brighton and the Royal College of Art.  

Drawing on the work and experience of the CETLD initiative, this paper will examine how best to support and facilitate creative learning opportunities for HE Design students in museums. It will highlight findings of the CETLD’s research programme including an examination of how Design students learn to see and interrogate the museum and how they make connections between visual research and the construction of visual material and the design process. I recommend in this paper that museums need to develop their knowledge and awareness of HE audiences (students, academics and tutors); I do not propose that they should offer a specialist service but offer some reasons why it may be worth considering HE as a distinct group while serving the needs of a wider public.

Learning about Design in the Museum: Our Approach

Every good project begins with the spirit of enquiry and with the CETLD our initial aim was to examine how the V&A, an international museum of Art and Design, could support the needs of HE practice-based Design students more effectively. A great deal of research has been undertaken into learning in museums but little evidence exists about the learning styles and needs of specialist subject groups (Caban, Wilson 2002). According to Cross (1991) the learning styles of Designers are systematically different from those of other professional groups and shift during the design learning stage (Wilson 2000). It is important therefore for a museum of Design to know more the learning needs of Design students within its setting; an understanding of designers’ learning styles by both students and educators can assist the learning process (Caban, Wilson 2002) and can help museum staff and Design tutors create useful resources and more meaningful experiences for HE students in museums.

We decided the best way to approach our work was to carry out a baseline study of tutors and students’ use of the V&A working with students from the University of Brighton and the Royal College of Art (RCA) (base = 143). We questioned academic programme leaders and tutors about their use of museums in their teaching and what kind of learning opportunities this would offer their students. In addition, we also wanted to address how students use museums in their coursework, what strategies they use (if any) to get the most from their museum visit and if and/or how their tutors help them to do this. Findings from this study then informed a series of objectives for the CETLD research programme over its four-year duration:

– To explore how Design students use the V&A collection as part of their learning experience;
– To understand what kinds of display and interpretation are most useful and engaging as a learning support for Design coursework;
– To understand the role of the tutor in relation to museum usage; and
– To identify resources which the V&A could provide in order to support Design students’ understanding of collections.

The research programme took an evidence-based approach using a range of qualitative and participatory research methods, which
included interviews, focus groups, and accompanied visits with students at the V&A. This next section highlights some of the findings from the research programme including students’ patterns of exploration and strategies and methods for interrogating the museum space.

**HE Design Students’ Patterns of Exploration**

Findings from our research indicated that practice-based Design students use museums for a range of different purposes including ideas and inspiration, research projects, drawing objects from life and designing and creating objects. In most instances they visit independently rather than as part of an organised visit or tour led by tutors. Students do not prepare for their museum visit because the visit itself is seen as preparation for other things. They have different motivations for visiting museums at different stages of their course. Research by Moussouri (1997) explored how different motivations for visiting museums influence the visitor’s agenda, a process that includes visitors devising their own strategies before visiting the museum. She distinguishes between a focussed and unfocussed strategy. A focussed strategy is where a visitor has planned their visit beforehand, and has identified particular exhibitions or galleries they would like to see. An unfocussed strategy on the other hand is where the visitor is unaware of the collections or exhibitions a museum is offering. Commentators have argued that visitors with unfocussed strategies are likely to be more receptive to what the museum has to offer (Brookfield 1986, Moussouri 1997). Design students have a moderately focussed strategy; they will embrace some level of uncertainty but most will have a perceived goal in mind, whether they are visiting for research or inspiration.

If practice-based Designer students show different learning styles at different stages of their course (Wilson 2000) and in the design process (Caban, Wilson 2002), it is likely that they will experience the museum in different ways depending on their motivation for visiting or what stage they are at in the design process. The work of Kolb (1984) is useful here. Designers are said to be good accommodators and divergent thinkers (Caban, Scott, Swieca 2000). Accommodators are drawn to concrete experiences and testing concepts in new situations. They learn from ‘hands-on’ experiences and prefer acting on feelings to logical analysis (Kvan, Yunyan 2004). Diversers are best at viewing concrete situations from different points of view, using trial and error and looking for multiple meanings. Divergent thinking has a ‘fluency with unusually associated ideas’ (Durling, Cross, Johnson 1996). Accommodators and divergent thinkers coincide with three characteristics of Kolb’s learning cycle: immersion in a concrete experience (concrete experience), observation and reflection (reflective observation) and testing new experiences (active experimentation).

An individual student may be more willing to accept a level of uncertainty and a haphazard approach to their wanderings in the museum (reflecting a divergent thinker) but at a different time may reflect convergent characteristics and want a more concrete and focussed visit. This aligns with Kolb’s theory that learning styles are shaped by individual experience and may change over time or throughout the course of a project (Kolb 1984). Museums can support HE students of any discipline by providing them with an experience that is memorable because it takes place outside the formal environment of the classroom or studio and in doing so, offers space for the third characteristic of reflective thinking (reflective observation) from Kolb’s learning cycle.
Learning to question and to think laterally and creatively about how they use resources can facilitate Design students’ desire to question everything around them. Practice-based Design students are encouraged to think laterally and what has been termed ‘sideways’ in how they approach the museum and its collections. Objects and spaces are key reference points in the same way a laboratory or library may be for other disciplines. The museum shop, for example, can be of equal interest to a Design student as the museum store in the way that objects are displayed to be purchased or consumed rather than gazed and admired:

‘You want to broaden their experience of the museum. Give them the sweet shop. It inspires and interests and guides them in researching.’ Tutor
‘People who don’t go (to museums), they go into shops every weekend. The way they read things is pure. They learn to read objects in shops.’ Student

Visiting the museum shop offers students the opportunity to handle goods, this type of looking and examination of objects is linked to the experimental side of learning, what Kolb calls ‘active experimentation. Opportunities to touch and handle an object enable a Design student to experience what the object is made from, how it was made, what it weighs and so on. There are fewer opportunities to offer hands-on testing in the museum although some museums are now providing studios and resource centres for practitioners to use.3

We have discerned that most tutors have a conflated stance towards museums acknowledging their role as cultural authorities but at the same time questioning their power. The strategies that tutors frequently impart to their students are geared as much towards developing individual and critical perspectives as promoting them as sources of historical information. Students are encouraged to critically interrogate museums’ methods of interpretation and display through a process known as ‘deconstructive inquiry’ (Moore Tapia, Hazelroth Barrett 2003). Such a process challenges modernist modes of interpretation and the traditional didactic approach to learning where information is conveyed through the transmission of knowledge from expert to learner. Design students are encouraged to metaphorically pull part what they see and to ask questions as responses from our CETLD baseline research illustrate:

‘It’s a convention. Can it be subverted?’ Tutor
The underlying doctrine. You’re told what’s right. The cracks start to form when you’re too close.’ Student

Students appear confident in this process at the latter stages of their course. For practice-based Design courses, the studio critique or ‘crit’ provides an opportunity for students to practise their analytical, critical and creative skills by presenting their understanding of a subject verbally and visually.

This is a skill that can be transferred to the museum environment in order to help students engage more critically with the museum and its collections.
Our research also identified that students find museums, especially the V&A, overwhelming at the beginning of their course. At these early stages, they are building a treasury of ideas, objects and images:

‘You just go in to saturate yourself with different influences. No fixed agendas.’ Student

Later on their focus narrows and they can begin to experiment with different mediums and take a more hands-on experience:

‘I come to see particular examples but you get led off. You come to see something not necessarily related to what you’re doing and you get fresh inspiration.’ Student

At these later stages, students become more dedicated to their medium and more motivated about their career and what contribution they can make to the ‘Design’ world. In turn they become more ‘savvy’ and able to articulate how they learn and process the encounter:

‘You see how it’s made. You find a piece and relate to your personal designs.’ Student

Strategies and Methods:

Learning How to See

Practice-based Design students however skilful they are require some initial support and strategic assistance with learning how to ‘see’ and understand the museum. The act of seeing goes beyond looking and is about actively engaging and understanding the object. Students ‘learn to see’ objects throughout the duration of their study and may have different purposes for doing it at different stages of their course for example, if they are problem solving or making an object they may want to see the fine detail of a piece. The word ‘see’ here refers to the visual aspects of understanding an object but also handling it and appreciating different perspectives:

‘There are more styles of learning than are being offered. Tactile, auditory, contextual.’ Student

There was an assumption made by tutors too that Design students are already equipped with the skills and knowledge for interrogat-
ing objects in the museum compared to other specialist groups (Fisher 2007):

‘Think differently! Give them pointers to what they’re looking for. How are they set up to look? How do they get to know the way they’re looking? This is a problem with a lot of students.’ Tutor

‘They are less used to looking at real things. [...] They haven’t clocked what that object is because they’ve just downloaded it.’ Tutor

It was also the view that such skills are simply innate and cannot be taught. Bourdieu and Darbel’s theory of cultural capital is tied to theories about class structure and reproduction of power within societies (Bourdieu, Darbel 1991 [1969]). It may offer some explanation here. Based on research conducted into the way visitors behave in an Art Museum, they argue that only a section of the museum’s audience are equipped with the necessary skills in which to decipher or decode works of art on display. Gunther (1999) has also argued that adult visitors need help with this process and that museums should offer courses on language or symbols to help decode the museum. Bourdieu and Darbel (1991 [1969]) define such skills as ‘cultural capital’ correlated, they say to visitors’ level of educational attainment. They argue that there is an expectation made by museums that visitors already have the appropriate level of knowledge and skills in which to decode the museum. Bourdieu and Darbel (1991 [1969]) define such skills as ‘cultural capital’ correlated, they say to visitors’ level of educational attainment. They argue that there is an expectation made by museums that visitors already have the appropriate level of knowledge and skills in which to decode the museum and to make sense of their experience. A situation appears to have evolved where museums may expect visitors to have been taught the necessary skills in which to understand them; tutors believe that their students do not need such instruction and consequently students are left with inadequate guidance.

How Can Design Museums Support the Needs of Design Students More Effectively?

The literature surrounding social inclusion in museums argues that museums form part of a new cultural paradigm where they are actively engaged in demonstrating, promoting and sharing their knowledge and collections with others as a way of increasing access to their collections and in doing so becoming more responsive to the needs of their audiences (Sandell 2002, Witcomb 2002, Crooke 2008). Museums can appeal to a variety of subject areas and provide a range of resources that are available by choice to a diverse audience however; it is only a few museums that choose to work with students in HE while supporting the needs of other audiences (Herne 2006).

Museums have been described as the literature of subjects (Avann, Wood 1980) with objects categorised and displayed as readable texts. For Design students, the museum is their reference library and its collections their books. The V&A is an important custodian and presenter of such literature being the world’s largest museum of Art and Design. Its collection policy since its founding in 1852 has been to display and acquire objects of merit and educational purpose; its collections were originally assembled as a teaching resources for the Schools of Design later to become the Royal College of Art (RCA). As such one could argue that the V&A has long had a connection with HE from its foundation yet it was only in 2002 that the V&A appointed its first dedicated HE Officer, despite 17 per cent of its overall visitors being students compared to around 2 per cent from schools (2007-2008). HE Officer posts remain a rarity in museums and the CETLD project arose in part from the lack of research into the specific needs of HE audiences in museums. Today the V&A has stronger connections to HE both
as a resource for students and as a research institution. In addition to running a Masters programme in the History of Design with the RCA, the V&A also offers a number of academic fellowships and research projects. But the V&A is an anomaly in the way it has chosen to work with HE, it is fortunate to have both the resources and sponsorship to do so unlike many other non-national museums in the UK.

The current shift in museums’ educational approach reflects a change like other educational sectors towards an understanding of the learner. Museum visitors are no longer seen as passive recipients of information but as active learners who will construct knowledge in an independent and personalised fashion influenced by a range of cultural and social factors. Learning from objects therefore is seen as a conversation between the learner and the object, where the learner brings his or her own individual insight and openness rather than a one way process (Hooper-Greenhill 1999, Hein 1998). It is the case that most museum visitors will remember information that is personal to them and fits in with their background. For HE students, it is the initial ‘hook’ and ‘stirring of interest’ that will guide their experience in the museum. It is perhaps more common for students at the later stages of their course to visit a museum in order to see a ‘star’ object or familiar piece, it is likely that this will then influence how much time they have to spend in the museum and what else they will see:

The four students who were undertaking accompanied visits on their own all identified a ‘star object’ (although they didn’t phrase it as such). These were objects that were either a pre-known favourite such as the case of the Tippoo’s tiger (Ceramics student, Postgraduate) or new objects that were of great interest to the student, such as a silver fruit bowl (Ceramics student, Postgraduate) or particular photograph (Graphic Design student, Postgraduate). In this case, a good proportion of the visit was spent looking at the object, and it was sometimes used as a reference point for other objects or was returned to at the end of the visit (Cook 2006, 6).

Caban and Scott (2010) conducted research at the Powerhouse Museum, Sydney into what Design students need to learn in order to become effective and creative practitioners. They found that the type of constructivist learning that museums embrace provides the optimal conditions that can help Design students to learn independently in the museum. In practice however, students are never totally unaccompanied, exhibitions and interpretative resources are designed to scaffold students’ learning experience in the museum (Smith 2010). This is frequently mediated by what museum staff think as necessary or appropriate for its more general audience in the form of object labels or panels, it may not be sufficient for HE Design students who want to know more about how an object was made, how it works, etc.
The museum of Design I would argue, like any other museum with strength in a particular collection, has a responsibility to develop an understanding or an awareness of its visitors including HE tutors, researchers, academics and students. Most museums acknowledge that supporting the needs of HE audiences is important but lack the specialist knowledge and skills to provide the nuanced services that HE students need or expect. At the most basic level, it is essential for museums to make explicit what services they can offer HE audiences for example access to objects in storage and/or time with a curator or other specialist member of staff. Museums frequently fail to advertise these services because of the demands it places on staff time.

It is here I recommend that HE needs to step up. HE Design tutors have object-based expertise and successful techniques for transferring this knowledge to their students. It is the responsibility of the HE tutor to structure their teaching in a way that encourages their students to develop their own learning frameworks; students (of any discipline) can be taught how to understand the museum and would benefit from appropriating a set of skills, knowledge and confidence that would enable them to approach the museum more critically. This expertise is frequently missing from traditional forms of museum interpretation such as the object label. On the other hand, museum educators are practised in delivering ways of making collections interesting and accessible to a range of audiences but lack the know-how on how best to communicate this information to HE groups effectively. It is not necessary for museums to offer a specialist service to HE in the way they do for primary and secondary audiences but museums with a particular subject specialism such as Design should if resources allow make some attempt to work with a university or HE partner in order to understand approaches to HE teaching and learning. This may inform new approaches to museum interpretation and create more meaningful learning experiences for HE audiences.

There is a tendency for museum and university educators to work within their own subject discipline, each with its own set of beliefs, histories and references. The ‘Communities of Practice’ model as developed by Wenger (1998) and Lave and Wenger (1991) could help identify some of the challenges that arise when both sectors work together. A ‘Community of Practice’ describes an informal group of individuals bound together by shared interest or practice for example, a museum education department in a large museum or a group bound together virtually through an electronic community such as a listserv. Associations and connections within a group and the different exchanges that take place can benefit its members but conversely the group can also be exclusive in the way membership brings with it favours and opportunities. Herne (2006) in his examination of the conflicting conceptions of ‘critical and contextual’ studies held by museum and gallery educators.
and art and design schoolteachers, describes both audiences as ‘parallel’ communities of practice:

Art teachers are potential members of overlapping communities and constellations of communities of teachers. These include those in their own institution such as staff room friendship groups and the subject department to which they belong. They also may well be members of their specialist subject community which is trans-institutional, national and possibly international. Gallery educators similarly are potential members of the constellations of communities of all museum and gallery educators. They may belong to the communities of their discipline field (history, science, art etc.) or to more specialised communities formed around specific focuses: contemporary art or antiquities etc. (ibidem, 5).

He argues that if we accept that they are united by their membership of a subject community then they are in fact constellations of parallel communities. It is also likely that they will be further distinguished by other factors for example, Design educators share a discourse that is constituted by the language and shared experience of their training and museum educators may form a community of practice within their own institution and organisational structure. When working together both have to contend different fields but also different academic judgements and values. The ‘community of practice’ model may provide an opportunity for museum educators and Art and Design tutors to work together, one that embraces their shared discourse but also recognises their role as parallel communities. In this way it may be possible for both communities to share information with each other as well as develop collaborative practices together (Wenger 1998, Boys 2010). In order to achieve this both groups need to be willing and open about the possibilities that working together can provide.

**Bridging perspectives: Building a Collaborative Future for HE Design Students in the Museum**

Museums and universities share a considerable amount of high quality resources and services along with a passion for what they do. Boys states in *Museums and Design Education* (Cook, Reynolds, Speight 2010) that it is only by unravelling what she terms the ‘conceptual spaces’ between both sectors that we can begin to understand the different ways that museums and universities operate and the gaps and slippages in between (Boys 2010). Acknowledging difference and engaging in constructive and critical debate can help both sectors unravel some of the differences and tensions between the two. For university educators, understanding museum approaches to learning offers opportunities to take a broad view on how learning can be experienced. Museum educators need to think more effectively about how HE students, researchers and practitioners use their services rather than seeing them as an extension of their other audiences. For art and design HE, museums could embrace the ‘sideways’ and the ‘behind the scenes’ approaches that creative practitioners require when learning to see in the museum, which may appeal to other museum visitors. It would seem helpful that if Design tutors and museum and gallery educators are going to work together that they understand more about the other, how they think and interpret their role and most importantly how they can best serve the needs of HE audiences. In order for this to happen both groups need to be explicit what it is they bring to the partnership and to articulate any anxieties or differences they feel may affect joint working.

Museums have made important strides in working with different audiences and introducing new perspectives to their collections (Sandell 2002, Witcomb 2002). Most credible has been their work
with primary and secondary education but in this process the needs of HE students has been overlooked. So how can HE Design students learn more effectively from museums and their collections?

Students need to be taught how to understand and use the museum and its collections; students (of any discipline) would benefit from appropriating a set of skills, knowledge and confidence that would enable them to approach the museum more critically. Each museum is different and like the demands and needs of HE audiences are nuanced by their different collections, locations, histories and institutional cultures. Most museums acknowledge that supporting the needs of HE audiences is important but lack the specialist knowledge and skills to provide the services contemporary HE audiences need. Museum educators (and other museum professionals) could benefit from learning more about HE teaching and learning practices, this may then inform new approaches to the interpretation of their collections and perhaps more meaningful learning experiences for HE Design students in museums.

Notes

1. The CETLD was one of 74 government funded Centres of Excellence in Teaching and Learning (CETLs) in English universities.
2. The degree areas included in this project were Ceramics, Fashion, Animation, Textiles, Architecture, Design Products, Photography, 3D Design, Graphic Design, Printmaking, Illustration, Fine Art, History of Decorative Arts and Crafts, History of Design, and Visual Culture. The project was aimed primarily at practice-based Design students.
3. For example, the Makers Dozen Studios are part of a purpose-designed complex of workshop spaces for artists and makers adjoined to the Wolverhampton Art Gallery in the West Midlands (http://www.wolverhamptonart.org.uk/wolves/get_involved/makers_dozen) and the V&A’s Sackler Centre for Arts Education houses a number of design, digital and art studios for workshops, courses and drop-in programmes as well as artist-in-residence studios (http://www.vam.ac.uk/content/articles/s/sackler-centre-for-arts-education-at-the-vanda).

References

Introduction

We’ve seen the growth of a certain kind of cultural tourism. Just as people go to Bilbao to see the museum – architectural tourism is huge – people are also doing that for shopping. They try to find somewhere that’s different and special, and that’s Antwerp (Steele 2011).

In this short abstract, Valerie Steele\(^1\) compares the cultural tourism organized around the creation of the Bilbao Guggenheim Museum (that resulted in the neologism ‘Bilbao effect’) to the cultural tourism that has been articulated in Antwerp in the last fifteen years. In this parallel, what becomes interesting is that at the core of the creation of shopping tourism around Antwerp, there was the creation of another museum, the Fashion Museum of the Province of Antwerp (MoMu). Created in 2002, this fashion museum represented the last pawn of a strategic plan that aimed to transform Antwerp into a fashion city. As Gimeno-Martínez explains in his article “Selling Avant-garde: How Antwerp Became a Fashion Capital (1990-2002),” Antwerp was transformed into a ‘fashion avant-garde city’, in only twelve years, thanks to a series of political, economic, urban and cultural interventions that helped to put Belgium, and more

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\(^1\) Marco Pecorari

MoMu: The MoMu Effect
On the Relation between Fashion Design and Fashion Museum


‘The MoMu Effect’
On the Relation between Fashion Design and Fashion Museum

Marco Pecorari
specifically the Flemish city, on the international fashion map. In this sense, the work of Gimeno-Martínez represented an important step in the understanding of the diverse discourses that ‘fashioned’ Antwerp. As the fashion scholar Agnès Rocamora argues in her Fashioning the City (2009), the ‘fashioning of a city’ is a symbolic and cultural production that involves diverse discourses produced by diverse institutions: government, museums, media, designers, education, etc. Consequently, Rocamora suggests defining the fashion discourse as a ‘conglomerate of discourses whose coming together is structured by the particular field they appear in as conveyed by its members – designers and museums, for instance but also media’ (Rocamora 2009, 58). In this sense, if we look at the fashion discourse that created Antwerp as a fashion city, we cannot ontologically limit our vision to the political, economical, media and urban interventions. On the contrary, the fashion discourse must be implemented by an investigation of other ‘members’ that participated in such a discursive formation. If Martínez focused on some specific ‘members’ and discourses, here I aim to continue his work by focusing on others: the fashion design discourse and the museum discourse. Hence, here I use the term ‘discourse’ in a more inclusive manner as I do not limit it to written or oral utterances but I enlarge it to all those non-declarative practices, like visual and physical interventions, that may be produced by a museum but also by a fashion designer in his/her work. The museum’s discourse is thus retraced through the analysis of exhibitions, exhibition catalogues, collecting practices, curators’ essays or interviews. On the other side, the discourse of designers is read in all the different materials and practices produced or branded by Antwerp fashion designers: from creation of the garments to publications, from commercial practices to the creation of special projects like exhibitions or books.

Through the study of these discourses, my aim is twofold. If on the one hand I want to show their importance in the formation of Antwerp fashion, on the other I aim to demonstrate how fashion design may help our understanding of fashion in fashion museums. Although fashion studies is nowadays a developed international academic field with academic undergraduate and postgraduate programs, research centres and scientific journals, only few academic works have outspokenly concentrated on fashion design theory. If fashion has been often analysed as a social, economic, identitarian or linguistic phenomenon, little has been written on fashion design as a discipline of visual culture, able to generate ideas on our culture. Fashion design has mostly been approached through the lens of art by either academia or museums, which have mostly developed this analysis through the paradigm designer-as-artist. Here my aim is to move such a superficial association forward and deepen the understanding of fashion design in relation to the fashion museum discourse. In this sense, Antwerp represents an interesting phenomenon due to the narrowness and constant overlapping between the fashion design discourse and the fashion museum discourse in the construction of Antwerp fashion.

Hence, this paper points out the relation between these two discourses by initially presenting the Antwerp fashion design discourse and then revealing its influence in the formation of MoMu discourse. In doing so, I will use four/five exhibitions, held at MoMu between 2002 to 2012, to unlock the relations between these two diverse but entwined discourses. These exhibitions will not simply be reviewed but they will be used as hermeneutical tools to explain some specific traits and characters of the dialogues between the fashion design discourse and fashion museum discourse.
In 2007 MoMu organized the exhibition *6+ Antwerp Fashion*, which was curated by the polyhedric figure of Gert Bruloot, held at the Flemish Parliament in 2007 and lately re-staged in 2009 at the Tokyo Palace in occasion of a national promotion of the Flemish region in Japan (Fig. 1). This exhibition aimed to retrace the affirmation of ‘Antwerp fashion’ nationally and internationally. If both the exhibition’s venues testified the role played by MoMu in the construction of Antwerp as a fashion city, the Japan’s venue saw a diverse curatorial approach. Differently from the first venue which was organized chronologically, Bruloot decided to install three thematic boxes aimed at representing the role played by the fashion design discourse in the formation of Antwerp fashion. These three boxes translated the three fundamental variables of the Antwerp fashion design discourse: ‘Fashion Academy’, ‘The Antwerp Six & Maison Martin Margiela’, and ‘The Next Generations’. These boxes showcased old and new creations by students of the Academy, creations by the most important Antwerp designers (Dries Van Noten, Walter Van Beirendonck, Ann Demeulemeester, Maison Martin Margiela, Raf Simons, A.F. Vandevorst), and works by the last generations of fashion designer like Raf Simons, Bernhard Willhelm, Kris Van Assche, etc.

As the exhibition’s catalogue explains, the international recognition of ‘Antwerp fashion design discourse’ began at the end of Eighties with the arrival of a group of fashion designers called the ‘Six of Antwerp’ and the designer Martin Margiela, both of whom attracted attention for their ‘resistance’ to the established practices of the fashion system. As Caroline Evans argues in her *Fashion at the Edge* (2003), Antwerp’s designers adopted the Debourdian practice of ‘détournement’ to turn the fashion spectacle back on itself and reverse its normal ideological function. If Martin Margiela uses a white no-named label to sign his creations in contrast with the trend of celebrating designers as stars, Dries Van Noten staged fashion shows in public spaces in order to bring fashion outside its exclusive rooms. Such a ‘fashion détournement’ included the practice of fashion design as Belgian fashion design. Defined as deconstructivist, avant-garde and conceptual, Antwerp’s fashion designers may completely differ for aesthetics or use of materials, but they all share an extremely individual approach to fashion that was originated in their educational path at the Antwerp’s Fashion Academy, as Valerie Steele explains so well.

[...] at the Royal Academy, students are encouraged to look inward. Most fashion training encourages you to look outward. There, you are encouraged to go deeper and deeper into a subjective consciousness. In Ant-
warp, fashion is a private endeavour, much like writing. Outside influences are internalized and eventually articulated in a profoundly personal voice (Steele 2001, 47).

This method of fashion design aims at an introspective work of the designer, who elaborates a personal vision on fashion that does not follow a fashion trend but reflects an individual path. This ‘personal voice’ employs the languages of fashion to analyse its process of creation, elaborating dialectical reflections on the very practice of fashion design: from Margiela’s obsession with garments’ ontology (shapes, fabric, structure, technique of creation) to Van Beirendonck’s work on the identity boundaries, or Ann Demeulemeester studies of black. Indeed, these designers constantly seek the continuity of an idea: from the drawing of a silhouette to pattern making, from the selection of the materials to the cut of the clothes, from the location for the fashion show to the creation of its invitations. In this sense, fashion design is not interpreted as a mere practice of creating dress but is approached as a process of creation in which designers are producing ideas on our culture that are shaped through the language of fashion design itself. Indeed, this is one of the main aspects that led these designers to occupy, in less than twenty years, an important sector of the fashion industry.

“Backstage I. Selection I”: Fashion Design-ing the Museum

Such an introspective approach to the fashion design seemed to be mirrored by MoMu since its very first exhibition Backstage: Selection I, which marked the official opening of the museum on September 21, 2002. Firstly, the Province of Antwerp decided to nominate as director a ‘fashion insider’ with no museological experience: Linda Loppa. Loppa’s task was to produce a new exhibiting policy oriented to contemporary fashion, and specifically to fashion design, in order to reflect Belgian designers’ impact on the fashion system. As Loppa claimed in the catalogue of the exhibition, MoMu wanted to be very close to the fashion system, to be open to it, to look to the future and to help shape it. Indeed, its closeness to the fashion system was reflected by the initial choice of: staging only temporary exhibitions every six months following the fashion industry’s calendar; buying contemporary garments during the fashion week; and customizing the museum’s guards in accordance to the exhibitions.

The aim was to immediately stage a new approach to fashion to distinguish MoMu from the international scenario of fashion museums. This was immediately translated into the first exhibition Backstage. Selection I: a sort of MoMu manifesto. The exhibition aimed to reflect on the role of the fashion museum and it staged the MoMu archive, as the exhibition’s title suggests. This performance was translated through the exhibition’s scenography where acid-free cardboard boxes were utilised for showcasing garments, but also for performing the chaotic and disorganized aesthetic of the ‘behind the scene’ (Fig. 2).

By staging the archive, MoMu wanted to claim a new ‘open’ approach of the museum to the public that, in this occasion, was invited to visit the entire new structure: from the restoration atelier to the new library. Moreover, the decision of performing the archive aimed to state the new approach to fashion history, where the archive is no longer a closed dead repository of clothes that corresponds to an idea of order. On the contrary, the archive is intended as an active, Derridian dimension where the contemporary dress is put in constant dialogue with the historical dress, but also with other fashion materials (sketches, patterns, etc.), to activate new creative processes of interpreting fashion history.
Backstage, like all MoMu’s exhibitions, was divided into themes, constantly putting in dialogue historical and contemporary pieces. Such contemporary focus of these dialogues was suggested by the origin of the archives, which consisted of a donation from the founders of the museum who were also the founders of the Flanders Fashion Institute. By assembling invitations, catalogues and videos, as well as clothes and accessories, these three archives embodied the idea of fashion design as a process which represented the ideology on which MoMu was created. As the current director, Kaat Debo, argued in Backstage’s catalogue:

What a museum of fashion can offer is a context in which to place fashion, [...] which means not merely lingering on the final product – the piece of clothing – but paying as much attention to the artistic process. A pattern, a sketch, the choice of fabric [...] (Debo 2002, 11).

The Fashion Designers’ Retrospective Exhibitions

This attention to the process of design is always reflected in MoMu’s retrospective exhibitions. The latter do not chronologically showcase the creations of a designer but rather aim to deconstruct the designers’ own process of creation in order to look closely at its specificity. Retrospective exhibitions do not present just garments but, through a massive work on the exhibition’s design, they aim to reproduce the world of the designer in the exhibition. Far from being attempts at presenting the paradigm designer-as-artist, MoMu’s retrospectives are always co-curated with the designer. Indeed, such a curatorial choice is twofold.

On the one side, it can drive the exhibition into a mere presentation of silhouettes or to an extreme research of the spectacle
with less critical view. This could be the case of the retrospective exhibition dedicated to Walter Van Beirendonck where it was difficult to differentiate MoMu’s exhibition from the designer’s ‘Gallery window’: a section of his shop was placed a few hundred meters from the museum. Although the silhouettes were organized into thematic sections, the exhibition’s narrative and design did not facilitate an educative experience for the visitors, who were projected into a surrealistic but confusing realm.

On the other side, the collaboration with designers may give important insights into the designers’ world, enabling visitors to fully understand their work. This was the case of the retrospective 20 The Exhibition: Maison Martin Margiela, where the museum was covered in white (from the entrance desk to the guest book) to resemble the Maison’s use of white paint as a temporal tool to fix places and objects. In the exhibition, the scenography was curated by MoMu’s scenographer Bob Verhelst, who collaborated on the creation of the showrooms’ and shops’ design for the brand. His experience was projected into the exhibition’s scenography which, through the use of trompe-l’œil effect, aimed to resemble not only the Maison’s shops and atelier but also the complex relation between the Maison approach to time and history. The exhibition’s design was a great example of how exhibitions’ scenography may help our understanding of contemporary pieces, like in the case of the section ‘Assemblage’ where a sleeveless fur, made up of the pieces of old skins, was cut in two by a distorting mirror: a hiatus showing the practice of assembly, which is recurrent in the Maison’s creation (Fig. 4).

Indeed the exhibition gave to visitors a clear and complete view on the designer’s past, as well as present and future work. In fact, some mannequins were covered in calico clothes with the label ‘New Collection s/s ’09. Presentation 2/10/08’, waiting to be dressed with the creations belonging to the last collection of the Maison which was shown a few weeks after the vernissage of MoMu’s exhibition (Fig. 5). Indeed, MoMu constantly tries to challenge fashion exhibitions’ ontology by presenting an idea of contemporary fashion where the past must always be seen in relation to the present, as well as the future. This is sought not only through retrospective exhibitions but also through the use of the dictionary of fashion design, which is adopted to unlock and explore the role of fashion in our culture.

“Pattern/Patronen”: Unlocking Fashion through Fashion Design

One of the exhibitions that best explains MoMu’s use of the process of fashion design to read fashion and fashion history is Pattern/Patronen, held in 2003 and curated by the former director, Linda Loppa, in collaboration with Kaat Debo.9 As the name of the exhibition suggests, this exhibition used the pattern as a device through
which to read fashion and its attributes. As Debo argues in the cata-
logue’s exhibition:

From a technical standpoint, the pattern is a two-dimensional transition between the three-dimensional body and the finished piece of clothing. Every pattern carries within it the potential garment and, therefore, the potential body (Debo 2003, 9).

The exhibition drew what I would define as a ‘landscape of the pattern’, which had as two extreme poles: its physical technical element, on the one hand, and its conceptual relation to the body on the other. Within this scenario, MoMu explored the other aspects that the pattern as a historical fashion device may bear: the role of pattern maker in design and his/her social condition, the evolution of the measurement of the modern body, the historical changing of pattern-making, and some peculiar examples of contemporary designers who specifically reflected upon this technique. In the exhibition, the pattern is recognized from its invisible but fundamental role in fashion design. Furthermore, the pattern is aestheticized through graphical games on walls in front of which stands the related dress (Fig. 6). The aim is to perform its ‘translative nature’: its capacity to translate designers’ ideas into objects, but also its capacity, as an object, to translate the idea of the process of design (Fig. 7). Moreover, the use of the pattern is also a moment for MoMu to reflect upon one of the most intricate challenges for a fashion museum: the presence/absence of the body.

Indeed, Pattern showed how an element in the process of fashion design can help us to unlock and open up the entire fashion scenario intended as a phenomenon that involves issues of identity, gender, economy, anthropology, history, and aesthetics.
Fashion as a phenomenon of visual culture at large and not only the mere practice of making garments.

*Fashion Design as a Reflexive Discipline*

What I tried to point out in this short article is that MoMu’s experience shows how contemporary fashion design bears a *reflexive character*, one that can be used as a method to read fashion and its history. Similar to other disciplines of design such as architecture or product design, fashion seems to produce, in its own practice, those methodological tools that can help us to reveal its nature and its role in our culture. At the same time, I must report how the nature of the Antwerp fashion design discourse led MoMu to concentrate more on the production of design rather than on the dissemination or consumption of fashion or mass-fashion: two geographies which fashion museums must begin to investigate also in a different manner than that used by ethnographic or social history museums.

Despite these future landscapes, what I attempt to reveal is that MoMu used the specificity of Antwerp’s fashion to install such a method into its museological practices. To some extent, we may say that MoMu has *fashion design-ed* its museum in accordance to the Belgian fashion design discourse. The closeness to the fashion system, its collaborative retrospective exhibitions, or the approach to fashion design as a process are only a few examples of the ways MoMu used to develop its museological practices. In this sense, fashion design is approached as a discipline capable of self-reflection and able to produce those instruments that may be used afterwards as hermeneutic tools or metaphors to read fashion in its complexity. In this sense, the ‘MoMu effect’ must not only be seen as the cultural iceberg of a shopping phenomenon but as an example for future reflections on fashion on behalf of museums, where fashion may finally be freed from forced but inevitable parallels, as Germano Celant suggested more than sixteen years ago.

The magical instance of the cut that makes the garment has thus passed through all the various thresholds of artistic creativity. The time has now come for fashion to decipher its latent forces and desires and recognize itself as free and original discipline, knowing full well that art will never lose sight of it, but only continue to respond with cuts and critiques (Celant 1996, 27).

*Notes*

1. Valerie Steele is currently the Director of the Museum at FIT (Fashion Institute of Technology) and editor of the scientific journal *Fashion Theory: The Journal of Dress, Body & Culture*.
2. Rocamora retraces the fashion media discourse in ‘an original analysis of fashion writing and images in contemporary French fashion magazines and newspapers’ (Rocamora 2009, XIV).
3. The reason behind Martinez’s choice relies on the disciplinary aim of his article (urban studies) and on the frame of time analysed by the scholar (from 1990 to 2002: the year of MoMu’s institution).
4. In 2006, the first academic centre on fashion studies, the Centre for Fashion Studies, opened within the Department of Art History at the Stockholm University.
5. The most recognized scientific journal of fashion studies is *Fashion Theory: The Journal of Dress, Body & Culture* published by Berg Publisher. Furthermore, there are more established costume and dress history journals like the American *Dress* (1975) or the British *Costume* (1967). In 2009 Berg Publisher decided to start a new journal called *Fashion Practice* as a counterpart of *Fashion Theory*.
6. On the side of many schools of fashion design, only few academic courses investigate the poetics of fashion design. In the last ten years, few publications and academic courses have started to explore this overlooked dimension. A seminal work in understanding the poetics of fashion design is *Fashion at the Edge. Spectacle, Modernity and Deathliness* by Caroline Evans (2003). In her work the fashion scholar aims to show how fashion designers, in their practice, act as historians, excavating and revealing the traces of the past in the present. Another interesting examples comes from the Università Iuav di Venezia and specifically from the research project *Il Progetto della Moda*. Lead by Mario Lupano and Maria Luisa Frisa, this group of researchers focuses on fashion design theory, constantly experimenting new forms of criticism on fashion. The output of their research is diverse and may take the shape of a book, an exhibition or a conference. Recent and important examples of their work are the exhibition *Vreeland after Vreeland* curated by Maria Luisa Frisa and Judith Clark (Palazzo...
Museum Experience at the Interface of Design, Art and Science
Gerid Maria Hager

The Ars Electronica Center as part of Ars Electronica Linz dedicates a unique dramaturgy to the juxtaposition of contemporary art and modern science. With its open labs and interactive scenarios it sees itself as an infrastructure for curious minds. The examination of technology, new media and their influence on social processes has always characterized both the content and artistic approach of the Ars Electronica Center. However, the focus is never primarily ascribed to media or technology, but always to its human dimension and to the people themselves. Thus experience, active discovery, exploration, experimentation, and play with all types of media are central to its participatory museum approach. They form the main basis for discussing current issues at the intersection of art, technology, science and society.

Dealing with new technologies, the museum raises questions about their ubiquity in everyday life and their representations in multimedia. It considers their effects on networking and telepresence, on new interfaces, interactions and collaborations between humans and machines, on the emergence of new realities, the redefinition of dimensions such as space and time, or on the mining, visualization and interpretation of data and information.

References

Evans, C. (2003), Fashion at the Edge. Spectacle, Modernity and Deathliness, Yale, Yale University Press.

7. Gert Bruloot is a fundamental figure in the creation of ‘Antwerp Fashion’. Often collaborating with designers, he opened the first shop in Antwerp which sold Antwerp designers’ creations and also became one of the founders of the Flemish Fashion Institute in 1997.
8. Linda Loppa is another fundamental figure in the affirmation of Antwerp as a fashion city. After graduating in fashion design at the Academy, she opened the first shop on international contemporary fashion, selling Japanese, Italian and French creations. Continually active in the fashion field, she began teaching at the Academy at the end of 1990s, and became Director in 1981.
9. I must report the most famous exhibition on contemporary fashion history is Malign Muses: When Spectres Turns Back, held at MoMu (September 18, 2004 - January 30, 2005) and then re-staged under the title Spectres, held at Victoria and Albert Museum (February 24, 2005 - May 8, 2005). However, here I decided not to present this exhibition for two reasons. Firstly, Malign Muses was not an in-house exhibition, as it was curated by the independent fashion curator Judith Clark and consisted in a collaboration between MoMu and V&A which hosted the second venue of the exhibition. Secondly, this exhibition has been at the centre of many debates and has been overly discussed in diverse works on fashion curation. To read a review of the exhibition see O’Neill 2008.

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From a human perspective, these questions deal with the influences technologies have on our cultural practices – on how we work, research and communicate today, on how we create meaning and knowledge, and on how we learn and collaborate.

Committing to a hands-on and learning-by-doing approach, we see our museum as a prototype where we experiment and play not only with technologies but more so with the conditions they create. At the centre of attention are conditions such as free access to information, tools and spaces of creation, interdisciplinarity and collaboration, prototyping and integral design thinking. In naming the Ars Electronica Center the ‘Museum of the Future’ we are – together with our visitors – in an ongoing process of designing and implementing a museum prototype of a new kind (Blacher, Hager 2009) that not only displays but reflectively tries to integrate current movements and socio-technological changes into its museum practice.

Approach towards a Holistic View on Design

The development of technology – for better or for worse – is inseparably intertwined with the evolution of the modern human species (Nye 2006). Indeed, some point out that design, especially since the nineteenth century, has been a driving force of change and of the acceleration of new developments (Fuad-Luke 2002). Our exhibitions focus on new technologies and their revolutionary potential in different realms, particularly the arts, the modern sciences and their intersection, to produce new world views and ideas of man.

With old and new technologies we no longer only design objects in which and with which to live, but more and more we willingly and consciously design our food, our crops, and the animals we eat – in effect, the global environment we live in and the impact it has on our human bodies (Foyer 2009). We design workflows, entire industries, production lines and virtual worlds. We design local weather, our babies, spare and automated body parts, even though we are only just beginning to understand their interdependence and relationships on a broader basis.

Over the last thirty years there has been an ongoing shift in design education, design theory and practice. It has now been widely discussed and acknowledged that the question of design is no longer merely a question of material form and function, and no longer only interesting to architects, product designers and web developers. Designing has broadened from a material and object-focused activity to an interdisciplinary activity (Walker 2009) with a focus on processes, services and systems, and a new awareness about the idea that humans carry great responsibility for their creations (ibidem, Marshall 2009, Papanek 1984). Designing today asks for thinking and acting on macroscopic as well as microscopic levels, being able to connect such levels in meaningful and sustainable ways (Thackara 2005).

But if we go to museums and look at the commonly associated use of the word design, it is mostly encountered in the context of product aesthetics, objects, images or user-product-interactions. Hardly ever do museums in their exhibitions or educational programs accommodate the shifts that have taken place in the awareness about design as a hybrid discipline with its potential impact on personal, local and global levels (Drenttel, Lasky 2010).

The Ars Electronica Center is not a design museum in itself, nor does it explicitly cover the topic ‘Design’ in its exhibitions. However, the museum inherently strives to inspire the general public to look at and to creatively engage with the designed world around them. We try to open pathways of thinking and playing with
design through activities which focus on a variety of design aspects of modern life.

One step in this direction – as mentioned above – is to personally engage visitors in a new type of museum experience characterized by co-creation through hands-on experimentation and participation. Furthermore, exhibitions which connect art and science, and which try to grasp the scope of modern technologies’ impact on everyday life, offer a broad view on design topics in terms of content.

**Main Exhibition Spaces and Themes**

*Artists, Creators, Engineers* cluster different exhibitions and projects that focus on the work of creative artists at the interface of technology and society and for whom technology is tool, medium and content in equal measure. These artists combine an artistic vision with a high level of technical know-how, and provide key impulses to reflect and shape our modern media-based society.

In the *GeoCity* visitors can examine global and local developments and their impact on the networked, built and natural environment. *GeoCity* provides an interactive experience that brings together multi-layered data about our world and the city of Linz, and makes it possible to playfully explore this information, while simultaneously raising questions about the individual in a networked world. In practice, visitors can, for example, combine the metadata of the city of Linz and generate a distinct image of it, or observe the development of their own neighbourhood based on maps from past years.

The main exhibition space – *New Views of Humankind* – consists of four labs and facilitates active encounters with modern technologies in different fields. The BrainLab explores the production of images from inside our bodies through, for example, Brain-Computer Interfaces. It examines how such technology affects our general understanding about ourselves as humans, and how our brains work to allow us to perceive images and our surroundings in the first place. In the BioLab visitors get involved with the very basic building blocks of life via microscopes, DNA analyses and plant cloning. In the RoboLab visitors learn all about what it could be like to live together with machines, robots and androids. In the FabLab – a workshop of the future – everyone can easily experience and use tomorrow’s fabrication technology today – laser-cutters, 3D-scanners and printers, intuitive design methods and software.

Above all, specific practices can connect museum visitors with design matter. Below are six of those practices in place at the Ars Electronica Center. Despite being presented as distinct examples, they are continuously, if not simultaneously, applied on many more occasions.

**Key Practices**

*Embodied experimentation.* The need for overcoming the dominance of visual sight seems obvious, and is evident in the teachings and findings of the fields of philosophy, education and the arts. We need to holistically use our bodily and sensory possibilities if we want to tap into our potential to fully learn, understand and experience the world and ourselves in it (Gross 2011, Pallasmaa 2005). Developments in modern technology and artistic reflection on how such developments permeate our daily lives support this viewpoint. Jones even develops the idea of ‘a new sensorium’ in which body and technology merge to form a completely new realm of perception (Jones 2006).
1. Visitors not only look at, but try out the robotic tail *Silfulin* by Ryota Kuwakubo / Photos: Gerald Sixt, Karina Hurnaus, rubra

2. Walking through the reactive *Hylozoic Grove* by Philip Beesley / Photos: Ryota Kuwakubo, Nicole Grüneis, Cerid Hager

3. Participants experiment with their bodies, space and light as a ‘system in flux’ before bringing their experiences to the art piece *LOST #2* by Ryota Kuwakubo. They can then already connect personal meaning and literally a full body of knowledge about its creation and design aspects / Photos: KIOKU Keizo, Marlene Penn

4. *Procedural City* by Procedural generates virtual city structures from visitors’ fingerprints / Photos: Florian Voggeneder, Lois Lammerhuber
Given the above considerations, one of the main objectives in the museum is to facilitate multi-sensory experiences on different levels. On the one hand, it is possible to actively encounter and experiment with prototypes at the intersection of art, science and technology, to generate a better understanding of their overall design and their possible implications on people and their lives (Fig. 1, 2). On the other hand, the power of kinaesthetic experience is harnessed in order to learn about and apply the process of creation including all its parameters such as space, time, material, form, dependencies, etc. (Fig. 3).

**Structural exploration.** We also engage visitors in a more procedural hands-on exploration and mediated discussion to find out about basic components, ideas and concepts that underlie the design of different things. They are invited to look at nature and evolution itself as the most successful designer and focus on how to unravel single aspects while still trying to grasp a bigger picture and context (Fig. 4, 5).

**Critical reframing.** The ability to change perspective, to look at things differently and to find multiple ways to describe an issue or situation leads to a flexibility in design thinking and is seen as a highly important design skill in today’s complex and interconnected world (Kretschmar, Wustrack 2009, Paton, Dorst 2010, Whitney, 2009). We mostly use reframing as a way to open up the discussion about critical aspects of certain technologies by introducing unusual views, often through controversial artistic projects (Fig. 6).

**Reflective tinkering.** At the same time, tinkering triumphantly regains value as a basic, much needed skill and cultural practice.
It can creatively and playfully engage people in design processes and at the same time open up whole new possibilities for learning environments (Balsamo 2009, Seely Brown 2011, ‘The Tinkering Studio’). In the museum we offer settings for reflective tinkering which are usually drop-in-and-out, open for multiple audiences and open-ended. Materials are basic and mostly known to the users even though often in a different context. Visitors can loosely make up ideas, quickly realize them, review, adopt or reject them, and thus improve them and their knowledge in an ongoing cycle (Fig. 7).

Creative prototyping. The Ars Electronica’s FabLab offers an intuitive and easy entry into design matter and concepts of modelling and prototyping with new technologies (Posch et al. 2010). The FabLab is composed of a Design Area, a Fabrication Area and a Gallery where visitors can experience the full cycle, from idea to the fabrication, of a prototype on different levels of complexity. They can create personal meaning and value from the design process by getting actively and creatively involved, by being able to take their prototype home or leave it in the FabLab Gallery on display (Fig. 8). Extended workshop areas and special programs make it possible to further examine design and production – expanding the act of creative prototyping to building real usable objects/things (Fig. 9).

Constructional learning. As one of the promising perspectives to include in a comprehensive learning framework of the twenty-first century (Thomas, Seely Brown 2009), constructionism was coined by Seymour Papert and stems from research on computers and learning. Constructional learning refers to the idea that
knowledge and personal meaning are actively constructed by the learner while making external artefacts, one could say, while being actively engaged in design activities (Kafai, Resnick 1996). While we facilitate constructional learning in the museum in many ways, we particularly engage children in activities that make them design, build and tinker with new technologies (Fig. 10).

Conclusion

At Reasons Not to Be Pretty: Symposium on Design, Social Change and the ‘Museum’, experts – designers, historians, curators, educators and journalists – suggested strategies for museums to become crucial public spaces engaging in a holistic design approach towards social change. The suggestions presented included: moving beyond the object, understanding museums as educational platforms, including non-traditional museum practices (e.g. awards, research, public lectures and conferences) and turning museums into ‘owners’ of critical large-scale topics (Drenttel, Lasky 2010).

The approach of the Ars Electronica Center can be seen as a best-practice example of the incorporation of such strategies. Nevertheless, in addition to the aforementioned strategies, and inspired by our museum experience, I suggest another crucial strategy: that is, to radically open up towards active contribution and participation, as described above. Then, not only can we foster within the general public a critical and creative look onto the designed world, but we can also raise awareness about the possibilities and responsibilities of actively participating in the creation of a culture, an environment and eventually, of a future worth sharing.

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The museum is by definition a place where relationships are established: relationships between objects, between people, between people and objects, thoughts and ideas, past and present, memory and future. Design disciplines and practices themselves propose, study and define relationships – whether visual or spatial, material or ideal, or whether involving the individual or a social group. The topic of relations includes, to some extent, issues that have already been addressed in the previous sections. However, the aim of this section is to focus on certain specific questions that arise where museum and design intersect. The papers presented in this last session examine the existence and position of museums in the contemporary city (through the lens of urban planning and architectural theory), the need for museums to collaborate with other institutions (such as universities which produce content and research in the various fields of design) and, lastly, new technologies and how they change the role of the museum with respect to its audiences, with particular reference to the idea of virtual museums.
The ‘city of museums’ is in urbanistic sense the highest achievement of the relationship between the museum and the city. My doctoral thesis *City of Museums. Museum Clusters in the Contemporary City* considers this relationship in a new way, from the point of view of the ‘museum clusters’, with the aim of contributing to a better understanding of the impact of museums on the contemporary city.

*The Place of the Museum in the Contemporary City*

In our culture the museum occupies a privileged place symbolically, but also physically, in the city. And not only does it occupy it, but it also creates, defines, changes it, and gives it meaning. That place is in the museum cluster.

The enormous growth of the number, size and importance of museums in recent decades has also increased the number, size and, above all, visibility and impact of the physical concentrations they form in a continuous global process. My discovery, that ninety-five percent of the world’s most influential museums already form some kind of agglomeration, indicates that the future of the museum is in the museum cluster.
And in the cluster, the museum changes; the meaning and the importance of its basic aspects change. My hypothesis is that the urbanistic aspect – its location and relationship with the city – takes precedence over the museographic and architectural aspects in the architectural project of museum.

The logical proof is concise and clear. The content and the architecture of the museum merge into the cultural density of the cluster, in a part of this place which they highlight in the foreground. The place – the cluster – thus becomes the key to a new reading of the museum and of the city, showing a profound change in their relationship and in their conception. This place also changes, becomes a multi-place, acquires new dimensions. It still represents the physical location in the city, but the urban form that the museum cluster takes, the dynamics and relationships it establishes, and the public space it creates in this interaction with the city now attain an extraordinary importance.

Through a historical, comparative and critical analysis of these four dimensions of the place of museums, I proved the hypothesis on the primacy of urbanism in the architectural design of the museum. I contributed also to the theory of *locus genii*, demonstrating the ultimate role of the museum cluster as the force of cultural gravitation, the force that generates, organizes and transforms the museum system and the system of the city.

1. **Location: The Place in Time**

Through the historical analysis of critical urbanistic operations, primarily of the nineteenth, twentieth and twenty-first centuries, I stressed the strategic importance of the grouping of museums as a factor of connecting and changes in the structure of the city. I show that the choice of location is no longer just a selection of the site most representative and most suitable for the museum, but the choice of the place from which the museum will have the broadest and strongest influence on the city. This place is in the museum cluster, where the impact of the museum increases and expands, and where the spirit of the city, time and knowledge is concentrated.

2. **Urban Form: The Place in Space**

Museums have conquered the entire urban morphology, grouping in blocks, streets, squares, neighbourhoods, parks, hills, islands and banks of museums and emphasizing the qualities of urban fabric, greenery and water in the city structure (Fig. 1). The urban form thus becomes a key component in the critical mass that makes the museums recognizable as a cluster; it becomes a part of their identity and their educational programme – a point which I especially stress and support in the thesis – and even their brand, promoting urban and cultural references so famous as the Villa Borghese and the Paseo del Prado in the Parco dei Musei (Museum Park) and the Paseo del Arte (Art Walk).
With the addition of culture, the museum clusters change the typology of urban spaces and create a new centrality and monumentality. Many museum clusters connect in polycentric networks and grow in spectacular urban gestures, creating the ‘city of museums’ as a cultural, educational landscape in the new scale of the city. I show that from the perspective of the city the largest legacy of the museum boom is the creation of a museum infrastructure of new proportions and potentials, giving to the urbanistic impact of the museum a new dimension, the dimension of the generator of identity, structure and cohesion of the post-metropolis (Fig. 2).

3. Urban Relations and Dynamics
The museums create the urban place also through the relationships and dynamic interactions among themselves and with the city, as important components of the urbanistic aspect of the museum. And in return, the diversity of users and uses creates in the museum cluster the cultural, social and economic dynamics, contributing to their integration into the urban environment.

Reflecting the museum’s relations with the society, this relation field expands the museographic and urbanistic impact from the cluster to other spaces, flows, publics and functions of the city, and opens opportunities for continual change. Through the dynamic ‘project’ of the museum cluster the changes in the ‘project’ of the city are anticipated and a flexible framework is created for new ideas, situations, practices and, ultimately, appropriations, which bring life to the museums, as well as culture, contemporary condition and cohesion to the city as a whole.

4. Public Space
In this interaction of the museums and the city, the museum cluster is built as a public space. The museum cluster redefines the notion of the public sphere and clearly illustrates the transfer from public institutions to public space.

In this social change, the urbanistic dimension of the museum acquires primary importance. As shown in the diagrams, this aspect of the museum project appears as the entrance of the city in the museum, as the coming out of the museum to the city, and as the clustering and involvement of the environment, through which it grows into a macro-planning of the ‘city of museums’, capable of generating cohesion, identity, form and structure in the city (Fig. 3).

These manifestations of the urbanistic aspect of the museum converge in the public space, which links the museums in the cluster and the cluster with its urban environment. Thus the public space becomes a crucial mediator between the museums and the city, but also between different audiences and functions, spaces and
flows, between the fast and the slow, the derive and the shortcut, the old and the new, the playful and the educational, the commercial and the immaterial, the order and the unexpected, between the utopian city and the city in which we live.

It emphasizes the extreme importance of the connections between the components of the museum system, and the connections with other urban systems, the importance of accessibility, circulation, links, flows and networks they establish. This way, through the museum cluster, I show the new demands and expectations from the public space in the new century, as a three-dimensional exhibition, relational and educational space, a space for interaction with the heritage and with the city.

**Broadening of the Theory**

Through the thesis in parallel I extend the importance of the museum cluster, or of the urbanistic aspect of the museum, in urban planning theory and practice. During the two and a half centuries of its existence, museum architecture has been established as an architectural manifesto. Based on this analysis, I demonstrate that the museum cluster – either as a set of the most representative buildings constructed for other purposes, like the very Piazza San Marco, the Uffizi, the Louvre or the Zeche Zollverein, or as a museum complex built in a planned manner, like the Museumsinsel, Königsplatz or Kulturforum – represents an urbanistic manifesto and embodies the highest aspirations in the creation of the city and the image that the society wants to display of itself (Fig. 4).

Even the biggest cultural and architectural icons are subordinated to the cultural gravitation force and the imperative of place, showing the polysemy of the dominance of the urbanistic aspect in the museum. The Centre Pompidou, the Guggenheim New York, the Guggenheim Bilbao or the Sydney Opera House, viewed from the urbanistic position, are parts of museum clusters, and even are structured as clusters *per se*, bringing together different cultural spaces and institutions (Fig. 5).

As icons, with the spectacle of architecture, with their image and world fame, they indicate, in an extreme manner, the museum clusters’ need for visibility in the contemporary city. As clusters, with the spectacle of urbanism, they create and emphasize the values of the
city and connect it. By a spatial didactics they explain the development of the city, and by a process of transformation they update it – the *locus genii* in the contemporary city is at once *locus mutationis* and *locus connectionis*.

**Triple Effect**

This manifesto is expressed in all scales and levels of the museum system. I argue that today the museum as a museum-cluster, the cluster of museums and the ‘city of museums’ become micro-, meso- and macro-levels of an urbanism of densities and flows that maximizes the use and impact of museums and public spaces in the mobilization and dissemination of culture. The changes on these three levels, as three dimensions of the urbanistic aspect of the museum, demonstrate my theory and its importance for the future development of museums, the city and society (Fig. 6).

**Meso-urbanism: Museum Cluster**

The context of the knowledge-based society and of the intelligent city puts a whole new emphasis on this museum system, opening the opportunity to create and disseminate a new culture, mainly urban, and the opportunity to essentially innovate and enrich the system of the city. The museum cluster, as the centre of my research and a privileged place from which to observe the museum and the city, undergoes radical transformations.

A fundamental change Beaubourg symbolized was the reorientation from the content to the audience, from inside to outside, from the collection to the public space, from the museum to the museum cluster. Confirming the hypothesis of my doctorate, this transition from the ‘Age of acquisition’ to the ‘Age of use’ moves the focus in the conception of the museum from museography and architecture to urbanism, to the relationship of the museum with the city and the citizens. Thus discovered, the potential of the museum to change and renew the city, to create new flows and centres, with the grouping multiplies and definitely places the museum in the cluster (Fig. 7).

Abandoning the isolated, monofunctional, introverted model of campus, the museum cluster opens up to new uses and users. It counteracts the great and very present problem of invisibility and lack of connection and definition by emphasizing the unity, iden-
tity and relations, while the visual, programmatic and physical accessibility become a condition for the museums within the cluster to realize their urban and cultural influence; they become a key urbanistic principle.

Just as the culture moves and becomes more dynamic, the museum cluster moves and changes. The content and didactic intentions of the museum spill into the three-dimensional public space of the cluster, built now also underground, in height, under the roof and over the very form of the museum itself. The architecture of the museum in the cluster is subordinated to the relationship with the city. Subtle architectural installations, upgradable and reprogrammable; changing facades as displays, exhibitions, or vertical gardens; architectural structures as topography, fluid and in movement, all highlight the place of the museum and the urbanism of the cluster, transforming the architecture into its public space (Fig. 8).

The aspiration of the museum (and of other cultural institutions) to become itself a public space, inside and outside, reflects the change in the public sphere and redefines the very idea and function of the public space. Through the museum cluster it becomes a space of information, culture and education: an exhibition space, medium of communication, medium of externalization of the museum in the city and of internalization of the city in the museum. This new relational space draws attention to the urbanistic, historical, landscaping, and environmental qualities of the city, and creates the conditions for interaction with the city and its values, with its symbolic, object and spatial didactics, giving to the urbanistic aspect of the museum a new and crucial importance.

Micro-urbanism:
Museum-cluster, or Museum as a City

At the micro-urbanism level of the museum, the agglomeration of museum contents and architectures also happens, forming a
kind of ‘inner cluster’, defined here as a museum-cluster. Such programmatic and volumetric complexity converts the museum into an urban fragment, where the urbanistic aspect prevails directly in the design. It requires the reorganization of traditional museums-clusters, ‘museums continents’, identified in my thesis as museum-block or museum-neighbourhood, and on that experience builds new types and models, ‘museum archipelago’, ‘museum collage’, ‘museum of types’.

I argue that this museum-cluster is the ideal museum of the twenty-first century, perceiving only from the urbanistic perspective the fundamental change that eludes architectural and museologic criticism and studies. This museum internalizes the urban functions, elements, spaces and logic, and with them also the complexity, dynamics, freedom of movement and discovery and unpredictability of the city, so desired in the ideal museum of Price, Obrist and Storie.

The urbanism becomes the key for the organization of flows and spaces of the museum, for its new form, and even for its new museography: the new museum is modelled upon the ever-changing city. The history and architecture of the museum and the public spaces, included more and more in the didactic programme of the museum-cluster, highlight its complex urbanistic character. It redefines the flexibility of the museum and unites the museum as a temple, the museum as a factory and the museum as an event into a new museum paradigm: the museum as a city (Fig. 9).

This trend, manifested and confirmed most loquaciously in the latest projects which transform the museum, even literally, into a town, shows that the twenty-first century museum cluster inevitably becomes a cluster of museums-clusters – in Madrid, Amsterdam or Abu Dhabi – and the museum infrastructure reaches the scale of the city and the power to change it.

The transition from the ‘continent’ to ‘archipelago’ is transferred also on the institutional organization of museums. Nearly a third of the most visited art museums in the world, already grouped in clusters, branch and develop into museum-networks as a new growth and organization model of the museum, giving to the place and the dissemination of culture the urbanistic dimension of the Ecumenopolis, and reinforcing the sense of a profound connection between different levels and manifestations of this process.

**Macro-urbanism: City of Museums**

Like the museum and the museum cluster, the city requires re-programming too. At macro–urbanism level, the museum clusters redefine the urban museum system as a ‘city of museums’, which gives the identity and structure to the spaces of everyday life. As activators of the historical, museum and urbanistic values of the city, they transform the exhibition in museums into urban curating and prolong the didactic intentions of the museum on the spaces of the city; the city becomes an exhibition space of the museum and a part of its collections (Fig. 10).
The clustering orders the museum presentation. It enables the thematic grouping and extends such programmatic and intentional distribution on the entire museum system and its theme routes through the city, synchronized, systematized, balanced and adapted to the urban history and structure. Being the spaces most representative of urban development, i.e. the urbanistic manifestos as I argue here, the museum clusters have an enormous potential and obligation to include in this presentation and educational programme also the urbanistic and architectural heritage.

But thanks to its gravitational power, flexibility and capacity of transformation – capacity to change and to update the whole city with it – the ‘city of museums’ orders and connects in a whole also the fragments of the city and adapts them to new urban, social and economic necessities, converting the accessibility and active presence of culture in an urbanistic postulate of the ‘knowledge city’.

The new museumscape spreads the culture and connects the city, addressing two key issues of contemporary urbanism. It reveals a new monumentality, welcoming, topographic, accessible, open and joyful, and a new centrality that expands through museum clusters and changes our perception, experience and understanding of museums and their content. This ‘city of museums’, as a symbol of the entire system of cultural and public institutions and spaces, allows the dynamization and diffusion of culture, the intensification of urban life and the dynamic mutations of the urban and social fabric.

Thus the doctorate not only confirms the hypothesis about the primacy of the place, or of the urbanistic aspect in the museum project, but extends the theory to the importance of museography and didactics in the project of the city, turning the dynamic cultural planning into the model of twenty-first century urbanism.

The successful integrations of cultural and urban planning, of the museum system and the system of public spaces in the system of the city, indicate the way the city can move forward. My thesis calls to pass from the expectations of the ‘Bilbao effect’ to the use and the reorganization of existing museum infrastructure to create the ‘museum cluster effect’. It urges us to use this ‘continuous monument’ in a more creative and intensive form, to make it visible, to activate its museistic, architectural, cultural, educational, symbolic and, above all, urbanistic potential. It demonstrates that, thus transformed and strengthened, it has the ability to reach a critical role in the new model of city and create a dynamic connective tissue as a framework in which the society develops and transforms. It puts new requests even before the public space, demanding that it be the mediator in this transformation.
The main subject of my paper is the relationship between the design museum, DHUB, and the university and research. I will begin with an introduction to DHUB and then explain the difference between our centre and other design museums in order to help one understand what is behind our philosophy. Furthermore, I will describe a few examples of our last exhibitions.

Over the last three years that I have been in charge of the production of the DHUB exhibition, we have made quite an effort to connect the university with the museum, and to connect research with the museum. Including such diverse concepts in a public museum – DHUB is a project supported by the City Council – has been a long and difficult road. Obviously, the inclusion of university studies and research into our exhibitions, into the walls of the museum, has created a new museology, and this new conception begins with the elaboration of our centre.

The Disseny Hub Barcelona, or DHUB, is a merger between a museum, a center and a laboratory. Furthermore DHUB is the umbrella for two museums: a textile museum and a decorative arts museum. The collection belonging to the decorative museum contains circa 8,000 pieces of Western decorative arts, and the collection belonging to the textile museum contains circa 18,000 pieces.
Currently DHUB is set up in two provisional venues: DHUB Montcada for temporary exhibitions, and DHUB Pedralbes for the permanent collections.

Since its creation in 2008, DHUB has been an ongoing work in progress, one under construction from both a physical point of view and, more importantly, from a conceptual point of view. DHUB is a flexible and ongoing structure which is more elastic than the traditional museum; it’s a new scenario for promoting networking.

The scope of DHUB is to involve universities, new technologies and research in all aspects of its projects and that explains why our activities are threefold: that is, based in art, science, and technology. This art-science-technology triangle is capable of generating innovation.

The perception of design that DHUB wants to stimulate is an understanding of design as a constantly changing activity. We look at our centre as a laboratory for innovation.

Why a hub? Barcelona is a hub of design production, an open city with a strong educational base and a long tradition. Although Barcelona is not yet a great design centre, it has the ability to be so. Above all, Barcelona is a trade mark, one that has to consolidate its mark by promoting innovation. Currently we are faced with an enormous challenge, that of developing a great design centre, and this regards not only its physical dimension but also its impact on consumers, designers and companies.

In order to explain how we include university and research, as well as technology in our projects, it is necessary to demonstrate our working methodology and make it understood. As mentioned, the project is young, as is the team, and then we have to be all road, and we work in a 4x4x4 method. We are focused on:

– Product Design
– Fashion Design
– Spatial/Architectural Design
– Communication/Graphic Design

We work in the fields of the museum, scenario, research, action. We work for institutions, professionals, companies, and consumers. We work by annual programmes, a program curated by our general curator. The activities planned by the DHUB describe the mission of the centre: safeguarding the past, observing the present and stimulating the future of the design world.

On the one hand, the DHUB exhibition programme is based on the most classic activities, such as permanent and temporary exhibitions of the collections; and, on the other, our activities include new formats which are more open, in permanent process of construction, and developed as works-in-progress by a multidisciplinary team. It is indeed a more creative model of exhibition.

A Creative Model

For this kind of projects we work with a greater amount of creativity. We start working with the tabula rasa, which means we do not have a previous methodology. Obviously there is no magic formula, nor one static and permanent method, rather each exhibition has its own personalities, goals, context, concepts and also unforeseen challenges. So, in defining our game rules, I have to say that from the beginning of each project we have in mind the following leitmotif: to include research, technology and university inside the walls of the museum.

We try to work on two exhibition levels: the first being the physical, the second digital. The physical level represents the classic needs of an exhibition space: the supports, showcase, lighting,
etc. The digital level is the one that combines physical displays with digital technologies. In other words, our activities require a personal technological terminal -provided at the entrance of the exhibition- which will offer nonphysical information at specific points along the route. In this way that terminal provides the visitor with much more than just physical information, that of more detailed and specific information according to the priorities of the visitors.

During these three years we have developed these two levels in all our projects. Both of them share the challenge of showing the relationship between design practice and design research. At the very beginning, at the first moment of exhibition, when we contract the curator, we give him or her absolute freedom to develop the project with only one condition: we demand that the project be a meeting point for research and university. This relationship is a central priority of our program.

A Tour through Recent Exhibitions

Tourism: Spaces of Fiction (03.12.08 - 24.05.09). DHUB’s first exhibition was a very ambitious project in intellectual terms and it is the first project where we introduced the DHUB’s model. It was the exhibition that opened the DHUB, so we were very aware that it would be an exhibition that could determine the public’s perception of us. During this experience we put in practice the two levels of lectures: the physical and the digital. For the first level the exhibition’s approach was focused from a design point of view on the field of tourism industry, currently the leading industry in Spain. It was structured in different sections, that of cinema, publicity, and architecture. We attempted stimulate reflection on the relationship between design and architecture and that of the tourism industry. For the second level we put an experimental project into practice with new technology: the RFD radio frequency and a new device.

This took place at the entrance of the exhibition where we designed a metal grid from which were hung 100 tablets of ultra-mobile pc. The tablets contained extra information about the different sections of the exhibition: texts, images and also a documentary film. The exhibition had very little graphic or text-based information. Around the rooms we put a series of tags on the walls which put visitors in contact with the tablet uploads and the information about this particular section or installation.

To develop this program we worked with the Universitat Politècnica de Barcelona (UPC), which advised us on the best possible technology (radio frequency, ultra sounds) and also helped to test the software. It is interesting to note that PC ultra-mobile has never been used before for this proposal, so it was a challenge to
develop a software and a graphic design concept according to our requirements.

It was an experimental project right up until the day of the opening; however it was a successful experiment, one which we have repeated in all our subsequent exhibitions, obviously making some improvements and updating the content.

Souvenir Effect (16.06.09 - 13.12.09). Here too we maintained the tablet and the software and continued to work with the Universitat Politècnica de Barcelona in order to improve it. It is important to mention that on this exhibition we were interested in promoting local creation of design. Together with the curator of the exhibition we decided to offer the last section of the exhibition, which we called Imaginary Souvenirs, to young design studios. Thus the curator made a selection of five studios with the idea that each one would contemplate, design and produce an imaginary souvenir. The DHUB financed the project and offered the designers a space – inside the centre – in which they could develop their prototypes over the course of a three-month period prior to the opening of the exhibition. This space would be the seed of the laboratory.

The resulting prototypes from the five studios were presented at the opening: Brosmind Studio developed a souvenir for Gotham City, Causas Externas produced a souvenir about the voyages of Ulysses, Guillem Ferran about Gulliver’s Travels, Mar Llinés about The Little Prince and Marc Morro about Metropolis.

Fabrication Laboratory (16.06.10 - 29.05.11). With this program we opened a new format, a format that went far beyond the simple display system. This event consisted of different types of activities, from exhibition, real time fabrication laboratories, workshops, lectures, to exercises with universities and live experiments at the Laboratory, ac-
tivities which were all part of the exhibition. Hence three new spaces were created within the exhibition: The Lab, the Laboratory, the Conference Room, and a space exclusively dedicated to the University. The main exhibition, the reference exhibition which remained for the entire length of the program, was Full Printed, offering a selection of amazing objects produced with 3D printers.

The first university exhibition that we exhibited inside the Fab program was Fab(Bots) Fabrication Robots. This exhibition exhibited ten projects of master level students from the Architectural Association School of Architecture of London and the Institute for Advanced Architecture for Catalonia (IAAC). The exhibition showed how a new generation of architects and designers are researching new production processes. All the projects prioritized the production processes over design. Because for us, the process is very important, it is more relevant than the result or the final product. We are not focused on the result, we are focused on the process, and that is one of our main differences from other design museums.

After Fabots, and in the same space, we showed an exhibition in collaboration with the cluster Smart Geometry, called Working Prototypes. Smart Geometry is a network of architects, engineers and designers in the field of computational design and digital manufacturing. This exhibition showed a selection of prototypes from a workshop held in IAAC and supported by the DHUB. The participants of the workshop worked for a new design system with a wide variety of rich experimental approaches and techniques.

Interaction Laboratory: The Senses of Machines (21.06.11 - 27.05.12). This year’s programme is Interaction Laboratory, a selection of different activities showing different levels of interaction between people and machines. On this project we collaborated with the IDAT Institute of Digital Art Technology of Barcelona. A cluster from the IDAT developed the first level of the exhibition by creating seven projects to explain the basic concepts of the Interaction. Besides the main exhibition, in this programme we also offer, universities the chance to focus on one subject regarding the interaction. In the university rooms, since the opening until now, we have shown projects from the Interdisciplinary Masters in Cognitive Systems and Interactive Media programme of the University Pompeu Fabra of Barcelona, wherein a programme of interactive software with medical profits is being developed, and also the Robotic Department of the Universitat Politècnica de Barcelona. Currently, we are preparing the presentation of twenty projects by the Designing Quality in Interaction Research Group from the Department of Industrial Design at the Eindhoven University of Technology, the Netherlands.

Wallpaper (Study gallery) (07.07.10 - 31.10.10). Both in the case of presenting our own collections, as in the case of a more traditional exhibition, we also wanted to include research and university and succeeded in doing so. This is the case of a kind of exhibition that we called Study Gallery. The Study Gallery is a free space in which to visualize and study museum collections. DHUB uses this space to regularly present its collections and new acquisitions. We have produced four study galleries: Spanish posters, fashion prints, dressing tables and wallpapers. In the first study gallery, we called for a public contest for the space and graphic design, which was awarded to a local studio, Emiliana, whose design of the space included the drawers that we have reused in the following studio galleries. The study gallery gave priority to the documentation of the pieces and included pieces never previously shown. We commissioned the curating of this kind of exhibition to specialists, mainly university professors, so that the documentation of the pieces would be done by PhD students from university departments of art history.
In conclusion, and in reference to the relationship among the museum, the university and research, I would like to highlight that our projects are based on research lines that include universities, technology and industry.

No one doubts the qualities of museums or the importance of preserving and understanding the present as a consequence of the past. However, I believe we are living in a new scenario that requires other models of exhibition capable of incorporating innovation and creation. In this sense we are more a laboratory than a museum because we clearly focus on experimentation and genuine creation. The challenge of developing a design reference centre in Barcelona has indeed been a great one, because it is a new and still developing format which must include the practice and active participation of students, professionals, designers, producers and consumers.
Introduction

One of the principal conditions of modernity in representation is universal access to images, both in the original and in reproduction.

Richard R. Brettell (Modern Art 1999, 78)

Over the last decades, the multiplication of museological institutions, on an international scope, provided the opportunity for large scale investments in museum architecture, which assumed an increasingly important role, within the context of urban renovation and contemporary iconography. A determining factor for the progressive democratization of culture is the globalization of access to information and the diffusion of museum icons. This means that the museum is gradually closer to the public, both from a material and from a virtual point of view, once the new sociological and technological conditions facilitate the display of the original works of art, as well as the their digital reproduction. In this context, the evolution of information and communication technologies reformulated the dialectic relationship between original and reproduction, reinterpreting the notion of authenticity in art and architecture.
In 1936, Walter Benjamin considered that the ‘aura’ of the original work could be destroyed with the reproduction but, at the same time, acknowledged that this phenomenon opened up new cultural possibilities as ‘for the first time in world history, mechanical reproduction emancipates the work of art from its parasitical dependence on ritual. To an ever greater degree the work of art reproduced becomes the work of art designed for reproducibility’ (Benjamin 1936).

Aware of the critical relevance of the image in modern society, André Malraux points out that the History of Art, since the mid-nineteenth century, tends to be the history of what can be captured by photography (Malraux 1947, 123). In his influential essay *Le musée imaginaire*, Malraux explains the concept of a ‘museum without walls’, composed of photographic reproductions of works of art. According to the author, printed photos can connect the real materiality of museum collections to individual or collective imaginary and, therefore, the ‘museum without walls’ can be a privileged environment to promote visual arts among a wider audience. Nevertheless, Malraux excluded the work of architecture from this imaginary museum, arguing that photography could never reveal the scale of the buildings from the outside, nor accurately illustrate the depth of their interior spaces *(ibidem*, 161).

Half a century after the publication of *Le musée imaginaire* it is self-evident that the diffusion of works of art through pictures has gone global. Moreover, it often influences or substitutes the direct contact with the originals exhibited in museums, but, unlike Malraux predicted, this trend is not limited to museological contents, affecting also the architectural container. In effect, the images of new museum architecture are nowadays object of an equivalent, or even superior, mediatisation than that of the greatest art masterpieces and, thus, definitely contribute to improve museum and city marketing, attracting large numbers of visitors to the real places they represent. This can be easily verified with a simple search on the Web, which currently acts as the preferential mirror of collective imaginaries. In official museum websites, as well as in personal web-pages or blogs, edited by professionals or occasional visitors, the pictures of collection displays or temporary exhibitions are as common as images of museum buildings.

**Re-thinking the Exhibition: From Narrative to Database**

If the generalized reproduction of art and architecture through images gradually redefined the concept of museum, since the beginning of the twentieth century the idea of exhibition was also reinvented by artists and architects. As Erkki Huhtamo points out:

> A key factor in this respect is the emergence of exhibition design as a new medium within the avantgarde art movements […] In their own ways artist-designers like László Moholy-Nagy, El Lissitzky, Herbert Bayer and Frederick Kiesler reacted to the challenges posed by new media technologies, like photography, film, and sound recording (Huhtamo 2002, 123).

In fact, some of the most representative artists of this period rethought the exhibition process, promoting the active role of the spectator and focusing on the gallery space as part of the creative project. Marcel Duchamp claimed that art was a result of the relationship between object, space and viewer, configured by the exhibition (Rico 1996, 31). This move from a narrative vision of museum contents to a system of interacting elements was as innovative as his idea of a portable museum, expressed in the series *Boîte-en-valise* (1935-1941), questioning the relative importance of the ‘original’ work of art (MoMA, 1999).
Another pioneer project was the Abstract Cabinet designed by El Lissitsky for the Landesmuseum, in Hanover which, in continuity with previous projects like the Proun series (1919-1923), put the emphasis not on the individual work of art but on space itself. Space was no longer regarded as a static environment, but as a changeable context, where the visitor could move sliding panels in order to show or to hide certain paintings. In the same museum, in 1930, Alexander Dorner invited Moholy-Nagy to create the Room of Our Time (Raum der Gegenwart). Although it was never realised, it is an early example of a multimedia exhibition project, given that the artist ‘included an ample selection of visual technologies: photography, film, reproductions of architecture, theatre technique and design’ (Huhtamo 2002, 126).

Frederick Kiesler also introduced a radically new approach to exhibition design, namely with revolutionary projects such as the International Exhibition of New Theatre Techniques (Vienna, 1924) or the interior designs for Peggy Guggenheim’s gallery Art of This Century, in New York (1942). These works reveal Kiesler’s interest in generating a system of spatial interactions by merging the artworks and the architectural container into a free-floating space, based on his idea of corealism as the dialogue between man and his natural and technological environments. The architect also anticipated the diffusion of museums through the Web in one of his most brilliant (but not realised) projects, inspired by the advent of television: the Telemuseum (c. 1930). As he explained:

> Just as operas are now transmitted over the air, so picture galleries will be. From Louvre to you, from Prado to you, from everywhere to you. You will enjoy the prerogative of selecting pictures that are compatible with your mood or that meet your demands of any special occasion. Through the dif-

All these experiences from the first half of the twentieth century revealed the adoption of a non-linear perspective in exhibition design, suggesting a visual and spatial approach to the notion of hypertext. It is no coincidence that an innovative non-linear process of storing and retrieving data, the earliest model for hypertext, known as Memex, was conceived in the United States by Vannevar Bush, in the mid-twentieth century. Even having independent developments, the ideas of Malraux and Bush converged to the concept of virtual museum (Huhtamo 2002, 123).

After the first forms of local networks, multimedia and microcomputing in museums in the 1980s, the introduction of Web and mass digitalization in the 1990s, the Web 2.0 revolution in the beginning of the millennium reinforced the idea that new technologies require new cultural paradigms.

According to Lev Manovich:

> After the novel, and subsequently cinema privileged narrative as the key form of cultural expression of the modern age, the computer age introduces its correlate – database. Many new media objects do not tell stories; they don’t have beginning or end; in fact, they don’t have any development, thematically, formally or otherwise which would organize their elements into a sequence. Instead, they are collections of individual items, where every item has the same significance as any other. [...] Following art historian Ervin Panofsky’s analysis of linear perspective as a ‘symbolic form’ of the modern age, we may even call database a new symbolic form of a computer age [...], a new way to structure our experience of ourselves and of the world (Manovich 2010, 65).
The Internet as an Extension of Existing Museums

A virtual museum, also known as digital museum, cybermuseum or webmuseum can be defined as ‘a museum that exists only online’ and ‘can refer to the mobile or World Wide Web offerings of traditional museums (e.g., displaying digital representations of its collections or exhibits); or can be born digital content such as Net Art, Virtual Reality and Digital Art’ (“Virtual Museum,” in Wikipedia).

As André Malraux envisioned, museum icons are now accessible to millions of people all over the world, because almost every art museum, from anywhere, has a website. In fact, most on-line museums correspond to existing institutions, with their own buildings and their own collections. In spite of the fast adoption of new media technologies by museums, the use of three-dimensional resources on this kind of websites tends to be limited to conventional standards and, frequently, the museum website appears as a mere compilation of institutional brochures or exhibition guides. As Eli-Onora Cardellini notes,

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\text{even today most museum sites follow a simple two-dimensional layout, while still exploiting the dynamic nature of hypertext, and the realisation of websites remains in the realm of graphic design and apes all the clichés of the printed page. [...] On the other hand, at least for now and with rare exceptions, the on-line museum does not present itself as an alternative to the real museum but acts as a means to promote it, postponing the three-dimensional experience to an actual museum visit (Cardellini 2001, 468).}
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Regardless of these limitations, most museums use data-base and Internet facilities to register, organize and present their collections to a wider audience. The most visited museums in the world (like the Louvre, Metropolitan Museum, Tate Modern or Prado) have also some of the most popular websites, with sophisticated tools to explore their works of art. In Portugal, the collections of all State museums share the same inventory data-base, available on-line as Matriz.net or Matriz.pix.

This idea of a common data-base and website for several museums was also the basis for Google Art Project. After a former experience, in 2009, with The Prado in Google Earth, in February 2011 Google Art Project was launched as an on-line compilation of high-resolution images of artworks from seventeen museums and galleries worldwide, such as the Alte Nationalgalerie in Berlin, Rijksmuseum in Amsterdam, National Gallery in London, Museo Reina Sofía in Madrid, State Hermitage Museum in St. Petersburg or Kampa Museum in Prague. Besides exploring the collections of these museums with high-resolution images that allow progressive zoom-in for a detailed observation of a specific work, the project also includes a virtual tour around the galleries with a ‘walk-through’ feature that uses Google’s Street View technology.¹

But it is not only the management and the diffusion of cultural heritage that changes with the presence of museums on the Internet; the experience of the visit is also affected, namely in what regards the notion of place, once that ‘Net is ambient: nowhere in particular but everywhere at once’ (Mitchell 1995, 8).

New rituals on museum visit derive from the sense of ubiquity provided by the Internet. Some institutions explore the possibilities of simultaneous locations in their virtual representations; the Guggenheim Foundation website, for example, works as an interface that invites the visitor to discover the different museums in New York, Bilbao, Berlin and Venice, as well as the on-going construction of the Abu Dhabi museum. The common website links to
the particular webpages of each museum, including a virtual tour to each one of the buildings.

In other cases, such as the Virtual Museum of Canada\(^2\) or the Museum With No Frontiers,\(^3\) the websites were created as platforms to articulate different institutions, and combine links to official websites of existing museums and links to virtual exhibitions and other web-specific contents. The production of web-based contents is also a characteristic of contemporary art museums, whose websites often include artistic projects specially conceived for the Internet. One of the first experiences in this domain was when, in conjunction with the exhibition The Museum as Muse: Artists Reflect (1999), the Museum of Modern Art, in New York, commissioned two on-line projects: Fred Wilson’s Road to Victory and Allan McCollum’s The Registration of an Artwork. Two years later, the San Francisco Museum of Modern Art (in co-operation with Intel Corporation) presented the exhibition 010101: Art in Technological Times, both in the galleries and on-line, featuring works of art in different media by 35 artists and designers.\(^4\) More recently, the New Museum in New York integrated the Rhizome project, dedicated to the creation, presentation, and critique of emerging artistic practices that engage technology, and whose programs happen mainly online.\(^5\)

As Antonio Battro points out, ‘The problem is not only to “digitise” everything that is worthy of publication on the web but to produce new contents, to propose new activities, to explore new links within the arts’ (Battro 1999).

The Virtual Museum as an Alternative Project

With the development of immersive and augmented environments we have indeed reached a strange new plateau in the human condition, as we rapidly transit from analog to digital modalities. These are zones of pure simultaneity, absolute simulation, instability, and instant electronic transmission. All representations of the physical, if desired, can be removed – no vanishing point and no horizon. The once stable laws of time and space have been effectively rendered null and void; entropic delirium slips across the curvatures of time. Space is no longer something one moves through – space now moves through us (Beckmann 1998, 4).

Digital technologies have influenced the development of contemporary art and architecture, creating new references for the design of temporary exhibitions and museum buildings. Along with the proliferation of on-line representations of real museums there is a growing number of projects specifically conceived to exist only on the Internet, such as the MUVA - Museo Virtual de Artes, ‘a 100% virtual museum, that has no counterpart in reality and is related to the frustrations and limitations stemming from certain socio-economic realities and to the constraints of the Uruguayan society.’\(^6\) Although it has been conceived as a web-only museum, the building appears in a reproduction of a real cityscape, in the middle of a small bay along the Montevideo coastline.

In 1999, the Guggenheim Foundation commissioned Asymptote Architects (Hani Rashid and Lise Anne Couture) to design a cybmuseum, conceived as a navigable three-dimensional object, ‘a new architecture of liquidity, flux, and mutability predicated on technological advances and fuelled by a basic human desire to probe the unknown.’ Emerging ‘from the fusion of information space, art, commerce, and architecture’\(^7\) the Guggenheim Virtual Museum provided a new perspective on museum architecture, opening the way for web-based museum buildings. In spite of this pioneering experience, virtual museums did not evolve as much as could be expected. Rather than proposing radically new spatial experiences many of the
web-specific museum buildings consist of very conventional and often architecturally poor exhibition spaces, particularly within contexts such as *Second Life*. In fact, the perception of these virtual environments can be very similar to the representations of existing art museums, as normally the digital buildings replicate the experience of entering a hall, choosing an exhibition, walking through the galleries and contemplating the artworks. For Frances Dyson, the recurrent adoption of recognisable elements on virtual architecture ‘is not just an evidence of lack of imagination,’ but rather a consequence of the function of cyberspace: ‘to offer users a sign of their own mortality, of their own inevitable biology, of their need for walls within a context where the verisimilitude of the simulation is plainly not the issue, where walls are plainly no longer necessary’ (Dyson 1998, 42).

Nevertheless, ‘the virtual museum differs from the real one because it allows access to digital spaces acting as a place of transit’ (Cardellini 2001, 468). This vision of the virtual museum as a place of transit is linked not only to the idea of continuous navigation as the essential experience of the cyberspace, but also to ever-changing environments.

**Between the Screen and Building:**

*Redefining the Imaginary of Museum Architecture*

Historically architecture has always struggled with this dialectic of the real and the virtual, where the stability and actuality of architecture is tempered by the poetic and the ineffable nature of meaning and experience.

Asymptote Architects

The history of architecture has always been associated to the relationship between image and reality, graphic representation and construction. Visionary utopian projects like Etienne-Louis Boulée’s plan for a Great National Museum in France (1783) or Le Corbusier’s Museum of Unlimited Growth (1939) were not expected to have material existence and, thus, remained as virtual references for later developments in architecture. In a similar way, some virtual museums of today undertake the condition of alternative spaces, ‘museums without walls’ accessible only on the Internet.

On the other hand, the increasing possibilities of architectural digital representation are used, by many architects, to produce innovative three-dimensional models, which correspond to a project phase, and are used to test architectural solutions prior to the construction process. Architecture and animation software experimentation has, thus, introduced important changes in design methods and, as a result, new forms and structures emerge in the field of architectural creation, including museum buildings. Gradually, the geometric principles of architecture divert from Euclidian and Cartesian paradigms, to pursue parametric generation of volumes and spaces, according to concepts of non-linear dynamics, fractal geometry and free-forms, as the museums designed by Frank Gehry (Guggenheim Bilbao, 1991-1997) or Zaha Hadid (Contemporary Arts Centre, Cincinnati, 2001-2004, MAXXI, 2003-2009), eloquently illustrate. Those works of architecture would not have been possible without digital technologies.

Many recent projects for museums and art centres reveal the boundless universe of digital free-forms; among the most relevant examples are some unbuilt designs, such as the Eyebeam Museum of Art and Technology, in New York, by Diller Scofidio + Renfro (2001) or Sheikh Zayed National Museum in Abu Dhabi, by Snohetta (2007). However, this typological revolution should not be regarded as a mere consequence of the application of new media to architecture. In fact, it is part of a cultural process that tends to
elect the curve and the ‘fold’ as dominant forms, as a conceptual alternative to the orthogonal geometry prevalent in classical and modern architecture. In this scenario, the impact of information and communication technologies is redefining the imaginary of museum architecture, introducing a new range of shapes, materials and spatial solutions.

Confirming that data-base tends to be ‘the centre of the creative process in the computer age’ (Manovich 2010, 69), museum architecture values interconnection, fluidity and reversibility, rather than hierarchy or narrative in spatial organization, as Asymptote’s projects for the Guggenheim Virtual Museum or the Perm Museum, Russia (competition, 2007) clearly demonstrate. As Eleonora Cardellini stated,

the dichotomy which has always been seen to exist between architecture and nature, because of the former being ‘fixed’ and ‘inorganic’, the latter ‘dynamic’ and ‘organic’ now offers new themes for debate. Today’s architectural research passes through fluid spaces, biomorphic forms, transparent filters, through environments with soft transitions and light, changing thickness and hybrid materials whose transformations can be simulated and experienced through the computer (Cardellini 2001, 469-470).

At the same time, the duality of transparency and technology, which was explored since the Crystal Pavilion, in London, designed by Joseph Paxton (1851), and was reinvented in the framework of Modern Movement in paradigmatic projects such as Mies van der Rohe’s New National Gallery, in Berlin (1962-1968), acquires a new dimension in contemporary museums. The modernist concept of transparent facade leads to a vanishing surface, a changeable sensitive skin that reacts to light and context, as happens in Kazuyo Sejima and Ryue Nishizawa works, namely in the New Museum of Contemporary Art in New York (2002-2007) or in the project for the IVAM Extension, in Valencia, Spain (2004). In other buildings, as the non-realised Centre for Art and Media Technology, in Karlsruhe, designed by Rem Koolhaas (1989-1991) or the Institute of Contemporary Art, in Boston, conceived by Diller Scofidio + Renfro (2002-2006), the facade can work as a large scale electronic screen, assuming digital technology as part of the urban intervention.

The poetics of these principles in museum architecture depend, to a certain extent, on the real experience to be completely achieved, as ‘communication and culture are global and virtual but also require spatial markers’ (Castells 2010, 434). Therefore, it comes as no surprise that the most interesting museums are not web-only projects, but representations of existing buildings or projects that aim to be built because, in museum architecture, real life contexts still seem to be much more inspiring than purely virtual environments.

Notes

8. Having about one million active users in 2011, ‘Second Life is an online virtual world developed by Linden Lab. It was launched on June 23, 2003. A number of free client programs, or Viewers, enable Second Life users, called Residents, to interact with each other through avatars. Residents can explore the world (known as the grid), meet other residents, socialize, participate in individual and group activities, and create and trade virtual property and services with one another’ (“Second Life,” in Wikipedia).
References


The museum-temple, museum-plaza, museum-school and museum-workshop; the museum as a place of entertainment, an institution that promotes dialogue, a means of interpretation or a system of links. Far from being over, the debate on this complex organism (“the building type that best reveals our cultural horizon”, according to Robert Venturi) continues to draw in figures from different disciplines and to raise numerous issues for potential investigation. The Fondazione di Venezia greatly welcomed the proposal made by the Università Iuav di Venezia to join a platform of talks on the complex relations between museums and design disciplines.

Since 2005, the Foundation has been working on the creation of M9, a centre of cultural production that will represent, study and reflect on modernity and contemporary times, and, while doing so, has had to address the design practice or rather practices ‘applied’ to museums. In unison with city, regional and heritage bodies and the local universities, the Foundation has both explored the urban implications of M9 (the first museum to appear on the Venetian mainland and a potential model for the creation of a new form of urban quality), completed its architectural design (appointing Sauerbruch Hutton, the winner of an international competition by invitation; Iuav made a major contribution to its concept), and is currently developing the exhibition design (inspired by cutting-edge similar experiences).

The speakers in the Museum and Design Disciplines cycle and especially those exploring the links between the museum and the city, between museum planning and area planning, reminded us of many issues encountered in recent years and to which we responded by establishing a shared process founded on the maximum collaboration between client, architect, exhibition designers, public administrations and protection bodies. Other speakers produced ideas prompting the further exploration of certain museographic and museological issues which we are already analysing: from the configuration of exhibition spaces to the impact these decisions make on the visitor experience; the development of ‘place-centred’ interactive installations; the examination of the (now unavoidable) interfaces between technology, new media, sciences, arts and social processes; and even a rethinking of the very concept of the museum in the digital era.

Our collaboration with the Doctoral School and with the Museology of Design Research Group is part of a long-term Iuav and Fondazione di Venezia process based on constant exchanges with the local area, community and world of research. Participating in this programme of encounters and challenging that which has been achieved so far with the M9 project, has not only given us a chance to reflect but also a foretaste of what we want M9 to be: a constantly evolving publishing machine and a vibrant ideas workshop, capable of dialoguing with all those who are designing and expressing ideas in the city. As David Chipperfield said in an interview on M9, ‘the museum cannot just be the type of building you go to three times in your life: once when you are a child, once when you have children and once when you take your grandchildren... It has got to be a cultural centre with events and those things. Then it can do something for the life of a city.’

Fabio Achilli, Director of Fondazione di Venezia
Architecture and Relations: 
The M9 Project
Bettina Magistretti / Sauerbruch Hutton

How does museum planning today allow us to reflect upon multiple relations that architecture has to consider? What are the difficulties implicated and what are the opportunities that can be arise from such relations?

First of all, it is a relation of the museum to the culture, in particular concerning the role of the museum in the new millennium. It is a relation of the museum to the city (in this special case, the relation between Venice and Mestre), a relation to the urban context, to a historic centre and the post-war constructions around it. It is also a relation to the client, here a private foundation, but also to a city that shows a public interest for this project. It is a relation to the museum concept, to the customer/visitor, to the environment.

What relates to the role of museums: traditionally they consisted of collection and documentation which is often the basis (or the result) of research activities; traditionally museums were related to history or, more generally, to the past; however, museums have always brought information (documents, objects, images) to people and thus exhibitions are means of communication. Today, in the new millennium, museums still have collections, but they are no longer necessarily physical: so the collections can either be data-based or a database themselves.
Curators are asked to explain themes by putting different kinds of information in relation to each other. Rather than past-related, today’s exhibitions tend to give an interpretation of the present and to reveal future scenarios as a result of what happened in the past. In fact museums may act more as an editor than as a collector. The M9 project and the museum could be seen in this vision, especially in the context of Venice and its cultural buildings. This is perhaps one of the first assumptions which helps us better understand how architecture design responds to this issue.

The second assumption regarding the role of the museum – or better, the role of M9 as a museum – is the relation between the cities of Venice and Mestre. In comparing the lagoon and the terra ferma (mainland), there are several differences to be observed: in population, in extension (a very important aspect is the relation of the whole city to the size of the city centre), in the number of public buildings and museums (numerous in Venice, whereas Mestre has only one cultural centre).

Therefore M9 will not only have the role and function of acting as a counterpoint to Venice, but will also be a compensation for the lack of cultural input in Mestre: a counterpoint because it will offer an alternative museum concept in contrast to the traditional museums in Venice; a compensation because – even though the target is international – it will be a social-cultural institution, mainly addressed to a local population.

M9 will be situated at the edge of the historic centre, in a very prominent position along Via Poerio, the main east-west axis, at the intersection to the main square, Piazza Ferretto. The project is the recovery of an abandoned area which has been inaccessible to the public for a long time. In this context, M9 cannot just be seen as a museum project but – such as the MACBA in Barcelona, the Guggenheim in Bilbao and other projects – it has to be considered as an urban revitalization project, where the museum acts like the motor of the project and the cultural building becomes the starting point for an urban re-systemization and revaluation of the surroundings.

Of course such a project is of public interest and must be part of an overall regional and urban development plan, which in fact it is. Even though the client is a private organization, every detail of the project and of its development has been determined in an official agreement between the client and the city: the building volume, the building area, the destination of the areas and buildings, the accessibility of the area to the public and even the opening hours. This could appear as a minor detail, but it is not because – for example – the energy demand and consumption of a building depends on the opening hours and, eventually, it leads to a concept of energy conscious design for architects, engineers, designers and planners.

To be more precise, I will now describe the project in detail, starting from the urban context and the ‘city district’ concept. As already mentioned, the M9 site is at the edge of Mestre historical centre, near Piazza Ferretto and the Dome. The site is divided into three lots, since the museum is just a part of a larger project that provides for a very equilibrated plan of area destination: commercial use, through the transformation of the former convent; office use, through the conversion project of a 1970s building; cultural use, in a huge lot in the back of the site that will house the new museum.

A further design task, in terms of relations, was to respond to a very inhomogeneous urban context. In fact, even if M9 is close to a historical centre, inclusive of monumental buildings (the Dome, the Civic tower, the Theatre), in the surroundings there are also very small sized buildings as well as medium-sized constructions from the post-war period, the 1950s, 1960s, 1970s and even later.

One of the main targets of the design brief was to create new relations within the city, a new permeability through the city in or-
der to connect and link M9 to the urban context. More specifically, a southern permeability connects the pedestrian area of Piazza Ferretto/Via Poerio to the south to the main traffic routes leading to the railway station and Venice; an east-west permeability establishes continuous sequences of urban spaces and links to the Corte Legrenzi, and other courts in Mestre.

The project responds to the above mentioned targets with two main strategies. The first is the decision of dividing the volume of the new museum into two buildings: the former dedicated to the museum and public functions, the latter to staff and administration. Another strategy is to use different volumes in an attempt to bring into dialogue the main constructions of the post-war area and the small one-storey buildings around Corte Legrenzi.

To respond to the design brief – and then to create permeability – a diagonal passage was designed. It will create a strong link between M9 and the city, from Via Poerio to Via Pascoli, Via Brenta Vecchia and the other surrounding streets, giving value to the north-south and the east-west connections.

The project is located on the main axis which connects various squares in the centre of Mestre, along Via Poerio, where once the Marzenego river flowed but which is now covered by a boulevard. The most important tool for planning was the black and white plan of the city that allowed architects to check whether the concept of linking spaces and of continuity was achieved.

The hedged area, which is the area of the former Convent and of Via Pascoli, is very close to the city centre, but had in the past blocked the network of the city for a long time. Now, with the development of M9 and the future envisaged expansion of the historic centre, it is possible to identify new main public places in the city: the Toniolo Theatre, Piazza Ferretto and the Dome, the Convent with the new covered square and the museum building.

The museum is part of a district concept which gives to each function portion and proportion: on the ground floor there are retail functions and public space, such as the foyer, the auditorium and the bookshop; in the administrative building there are the administration functions, but also spaces for retail use. The exhibition functions – dedicated to both permanent and temporary collections – are situated on the elevated levels, while all the service functions (depots, workrooms, parking services) are underground in the basement.

The covered convent courtyard will act as an event space for the city. It will be surrounded by commercial areas, restaurants and bars. The commercial area and the museum are linked to each other not only theoretically, but also physically, since the new con-
The position of the buildings has been chosen in order to achieve the maximum permeability among the buildings themselves and to connect squares; the choice to break the available volume of 40,000 m$^3$ into two blocks helps to make the volume somehow smaller in the urban context.

There are other relevant relations we wanted to create with the city and the urban context. The first is the relation between back and front. As the images show, in the front, on Via Poerio, stands the Convent, the church and the 1970s office block at the corner of Via Brenta Vecchia; whereas the museum is at the back of the site. The planning process wanted to bring the back to the front, to make it a new gate to the historic centre of the city and to connect it to the historic square of Piazza Ferretto.

Seeing the site from the south, from the corner between Via Pascoli and Via Brenta Vecchia, one sees how the new museum will open a new perspective to the south of the convent, so that the rear facade becomes the new frontal facade, with a new square and a new public space. So the museum is not only a container for art and exhibitions, but also contributes to city life, bringing public use to new urban spaces.

The axonometric views show also the relation of heights, which is the main tool to solve the problem of integrating a volume of 40,000 m$^3$ into the existing urban fabric. The use of different materials (ceramic tiles for the coloured surfaces, concrete for the white ones) and of different heights has revealed to be the best way to put the new construction into dialogue with the existing buildings, and in particular with the three-storey building of the convent and the one-storey buildings in Corte Legrenzi, as well as with the very high surrounding buildings of the 1950s and 1970s.
Another issue of relations between new and existing buildings is the colour. Through researching the facade colours of the surroundings, we found them to be quite neutral: blues, greys, beiges and some dark intensive reds. This is reflected then in the colour concept of the new building. These colours help the eyes to break an enormous volume in the city down to a smaller pixel size.

The most important plan of the project is the ground floor plan. Architects know that black and white plans show positive and negative spaces: the dark spaces are enclosed volumes, while the white spaces illustrate all the public areas, that is, the public courtyard of the convent and also the new ‘piazza’ surrounded by convent, museum, administration buildings and former stable buildings. But the white spaces are also the interior area of the museum on the ground floor. Hence the ground floor shall become part of the public urban space.

In entering the new building I wish to explain how Sauerbruch Hutton tried to respond to this new concept, a museum without a collection, which could be approximately described as a quarter permanent collection, a quarter temporary exhibition, a quarter public functions, and a quarter public administration and services. As far as the public functions are concerned, the idea is that the ‘piazza’ and the exterior flow into the interior of the building, making the auditorium a sort of free theatre in the external space, with connections also to Via Brenta Vecchia. Even with its materiality (concrete facades and the stone paving), the exterior continues to flow into the interior space and along the main staircase, leading to the exhibition spaces on the upper levels. The third floor is the space for temporary exhibitions: it is a very flexible space that could either be empty or house any kind of temporary exhibition. The building is quite closed with the facade but still allows some views on the city, for example from the education activities room or from the third floor lounge and terrace to the historic centre of the city.
How can the architecture respond to the demand of a very flexible space and how could we respond to creating a museum without a collection? The museum is basically a huge container (1,350 m² per floor) of empty space: it is entirely reduced to a very well-organized circulation concept and to a flexible planning in terms of structure and services of the exhibition areas. More complicated are the floor plans of the underground level, where the entire area is very condensed: technical and service spaces, public areas for the toilets, the foyer and the cloakroom.

From the architectural point of view, the exhibition spaces are very flexible, but very neutral, and actually do not respond to a collection, but are rather a container. The main design parts of the building are the public circulation space and the staircase leading from the ground floor to the upper levels: this is where we put much of our design into the planning.

The exhibition spaces can be considered like black and white boxes: the first two levels are dedicated to the permanent multimedia exhibitions, which do not require any light at all, thus they have mainly closed facades and are called ‘black boxes’; the third level, instead, is adapted to modern contemporary exhibition standards and has natural zenithal lighting and is thus called ‘white box’. The grid of the exhibition spaces provides the necessary flexibility in terms of technical equipment, which is entirely condensed to corridors, stairs, elevators and technical shafts. Sections show the public ground floor leading up to the basement level and the elevated floating-like exhibition levels above, with different heights and connections. This exhibition space could still function as a typical museum layout with galleries, but also as a large space with smaller exhibition spaces. The technical equipment is completely hidden within the structure and provides all the necessary requirements for exhibitions: artificial and natural lighting, ventilation, heating, cooling, and acoustic systems.

Lastly, in accordance with Sauerbruch Hutton’s energy conscious design concept, every possible renewable energy source is used: rain collection, photovoltaic panels, geothermic solutions and mass activation for heating and cooling.

Sauerbruch Hutton was founded in Berlin in 1989 by Matthias Sauerbruch and Louisa Hutton. Its main features are an energy conscious design style and the use of polychromy. Sauerbruch Hutton won the M9 International Architectural Competition held in 2010 by the Fondazione di Venezia.
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