Accidental Yet Transformative: The Significance of the Bigness of the Turbine Hall in Tate Modern

The Turbine Hall – an atypical scale of a big hall – in Tate Modern comes as a challenge for artists for its unprecedented scale. The goal of this paper is to illuminate the significance of this bigness as an architectural setting that results in a disciplinary transformation of art. The article is composed of two parts. In the first part, two different strategies between giganticism and bigness in coping with the immense space of the Turbine Hall are discussed. The second part extends the discussion of the significance of bigness as a specific site further by referring to Rosalind Krauss's notion of "the expanded field." One result of this dualistic interpretation of bigness is the sublime as embodied in Eliasson's *Weather Project* in which the sublime, considered a quality of the real landscape such as the boundless ocean, is now unfolding within the framework of architecture. With these analyses, this article clarifies the significance of bigness that emerged accidentally but with a highly transformative power of art.

INTRODUCTION

The most distinctive feature of Tate Modern is its Turbine Hall, or the main exhibition space commonly named after its original function as a turbine hall of a power plant. For its unprecedented vast scale, many artists have confessed how difficult it is to work with and within the Turbine Hall. Juan Munoz, an artist who presented a work as part of the Unilever Series, defined the space as "a killer."[1] Rachel Whiteread, another artist who participated in the Unilever Series, expressed a concern that it is "a lot of space to fill."[2] There is a paradox in these comments. The responses to a questionnaire distributed by the Tate in the beginning stage of this museum project revealed artists' preference for a conversion of a warehouse-like edifice for the reason that a conversion would minimize an architectural intervention into the process of artistic creation, while any newly constructed museum by a heroic architect will necessarily regulate their creativity and freedom. The result of the conversion, however, ran contrary to expectations. Once the heavy machinery was removed, the Turbine Hall emerged as a huge container of a void that imposes unfailingly its presence upon any type of artistic practice, rather than operating as a mute insipid background. The

JIN BAEK

Seoul National University

YOON-JEONG SHIN

Seoul National University

accidental emergence of bigness – accidental as it was originally a turbine hall – as a gallery has become the testing ground for an artist's capacity to cope with an immense scale of emptiness. Artists broke their conventions, pushed their limits of conceptions, and fought with the bigness in order for their works not to be swallowed up into nothing.

The goal of this article is to illuminate the significance of this bigness as an architectural setting that results in a disciplinary transformation of art. Specifically, the article analyzes installation works done in the hall such as *The Weather Project* (2003) by Olafur Eliasson and *Shibboleth* (2007) by Doris Salcedo in reference to site-specificity of bigness. The article is composed of two parts. In the first part, two different strategies between giganticism and bigness in coping with the immense space of the Turbine Hall are discussed. The purpose is to highlight the latter as an approach that embodies the sublime related to, but distinctive from, Etienne Louis Boullée's (1728-1799) and Immanuel Kant's (1724-1804) theories of the sublime. The second part extends the discussion of the significance of bigness as a specific site further by referring to Rosalind Krauss's notion of "the expanded field." While criticizing Krauss' categorical division between landscape and architecture, this part illuminates bigness as a new type of site that transcends the division in order to oscillate between architecture and landscape. One practice based upon this dualistic interpretation of bigness is the sublime as embodied in Eliasson's *Weather Project* in which the sublime conventionally considered a quality of the real landscape such as the boundless ocean is now unfolding within the framework of architecture. With these analyses, this article clarifies the significance of bigness that emerged accidentally but with a highly transformative power of art.

THE SUBLIME SPACE OF BIGNESS

The Tate Modern received acclaim for the Unilever Series which uses the Turbine Hall as the site to exhibit one artist's large-scale sculptural installation each year. One of the most acclaimed works was Olafur Eliasson's *The Weather Project* (Fig. 1). This project utilizes fully the scale of the Turbine Hall measuring approximately 152m in length, 22m in depth, and 35m in height. Eliasson installed a series of tactics to evoke an atmosphere. The ceiling was covered with a mirror. A yellow disk was hung on the eastern wall and artificially illuminated by lights behind. A foggy and hazy effect fills up the void, filtering the light emitted from the disk and rendering the otherwise bleak emptiness palpable, touchable and tangible.

A particular interest of this study regards the spatial effect of the cavernous void of the Turbine Hall in Eliasson's installation. Its spatial impression strikes any one in awe in particular if the one enters the hall for the first time. An important theory of architecture that operates as a reference for the significance of this spatiality is Etienne Louis Boullée's theory of bigness. First of all, Boullée differentiated bigness from the gigantic. According to him, St. Paul and St. Peters are failed examples as in these churches "an impression of space" is not achieved. Instead, each element with a colossal proportion in the churches such as the massive pier defines the building to be merely gigantic, not big.[4] The impression of space disappears on account of the dominance of colossal elements filling up the interior.

In contrast, bigness embodies a spatial impression. The focus is not on the objects, but on the space itself. According to Boullée, bigness must impress the visitor with its emptiness. It must appear large and superior, and its immensity must have a power "over our senses that even assuming that it is *repulsive,* it still

Figure 1: Olafur Eliasson, "The Weather Project," © Olafur Eliasson.

arouses our *admiration*."[5] One favored element by Boullée in formulating the space of bigness was the colonnade that surrounds an empty space in the middle. For instance, his Metropolitan Basilica (1780-1782) embodies the impression of immensity achieved through a series of slender classical orders: a continuous series of visual vistas until one gets an impression that he or she cannot count them anymore (Fig. 2). The immensity was not only horizontal, but vertical, too, as the basilica is crowned with a huge dome sitting on a drum portrayed as a circular colonnade.

Boullée's differentiation between the gigantic and the big is highly significant in apprehending the strategies by which artists coped with the scale of the Turbine Hall. Some artists struggled to find the right scale for their work in reference to the huge void of the Hall. In conquering the void, their conclusion was to adopt an overwhelming size through enlarging, amplifying, extending and inflating the works they produced at different sites.[6] Louise Bourgeois made her biggest spider ever, and Anish Kapoor inflated a trumpet to the point that it almost touches the 35 meters high ceiling and occupies the 152 meters long void. These colossal sculptural objects dwarf the visitors. But, more importantly, they scale down, if not dwarf, the bigness of the Turbine Hall. There does emerge a right fit between the void and the sublime on the proviso that a visitor is inflated into a Gulliver. As a result, as Boullée criticized, these art works operate like massive piers in St. Paul and St. Peters. The impression of space disappears in the midst of these objects filling up the void.

2

Eliasson's installation takes a different approach which is in line with what Boullée defined as the big. As a matter of fact, the spatial features similar to, if not identical with, Boullée's space of bigness are found in Eliasson's installation. The vertical steel piers – there are total 21 piers on each side at about 7.2 meter intervals – run like a colonnade on both sides, capturing an empty space in-between. Unlike Boullée's Metropolitan Basilica, there is no dome above in the hall. However, the mirror-covered ceiling expands the space vertically, rendering a spatial illusion of infinite depth. In addition, foggy and hazy atmosphere in which light is traveling is found in both spaces. Boullée's rendering for the Metropolitan Basilica shows a hazy atmosphere where the light emitted from the altar fills up the void. Likewise, fog and haze in *The Weather Project* filters light, imbuing the whole space with tactile fuzziness. Both projects gather

Figure 2: Étienne Louis Boullée, "Metropole", interior view at Corpus Christi (Source: Boullée & Visionary Architecture, 1976).

people around the source of light, as if people were worshipping the sun. This way, Eliasson's installation defines the Turbine Hall as a case of bigness of which Boullée wrote, distancing itself successfully from the gigantic. There is undeniably the impression of space and the size of immensity to the point that one is hypnotized as if he or she were in the middle of a vast landscape.

There is a further lesson about Eliasson's installation one can glean from the discussion of Boullée's bigness. Boullée's space of bigness was interpreted in religious terms. "The immensity of the internal space" arouses the perception of "the absolutely empty, infinite, and autonomous space of God"[7] and in turn the recognition of the ant-like, miniscule condition of the human being overwhelmed by the vastness. One condition that contributed to this sense of tininess in contrast with the borderless vastness was the loss of the earth as the ground of one's corporeal anchoring. Boullée wrote,

> It is same on a balloon floating in the heavens, having lost sight of everything on earth and seeing nothing of nature but the sky. Wandering thus in immensity, in this abysmal expanse, man is overwhelmed by the extraordinary spectacle of inconceivable space.[8]

As discussed previously, this immensity is repulsive, yet admirable. In terms of joining the negative feeling of "being overwhelmed" or repulsive and the positive feeling of admiration, Boullée's position shared a common ground with Immanuel Kant's theory of the sublime. Kant claimed that, before emotion reaches the realm of the sublime, one should go through and overcome the intermediary phase of unpleasantness, fear, or even terror, instigated by what is perceived.[9] In order for this negative quality to become the positive feeling of the sublime, a suspension of the terror should take place through securing a safe place for the spectator to stand. At this moment, the concept of infinity residing in the transcendental mind of the subject triumphs over the power of nature.[10] This distance, which transforms, for instance, a turbulent storm into something enjoyable, monumentalizes the fundamental segregation of the subject from the world, where the world is considered not as the field of the unmediated corporeal experience, but as a two-dimensional realm standing before the mastering will of the supreme subject as the retainer of the transcendental mind.

What light does this discussion of Boullée's theory of the sublime shed on Eliasson's installation in the bigness? The key point is corporeality and the platform. Boullée's case of the sublime was predicated upon the disappearance of the earth and the ensuing sense of floating around in the middle of the vastness. Kant's transcendental mind armed with the concept of infinity any natural spectacle fails to represent by definition is then invited in order to save the floating human being from being completely dominated by fear, unpleasantness and even terror of death.

Eliasson's bigness is different. Eliasson mentioned in an interview that he did not anticipate people bathing under the artificial sun (Fig. 3)[11]. People recline and lie flat on the floor, observing the artificial sun diagonally. An important device in this regard is the mirror in the ceiling. The mirror reflects the artificial sun and refracts its light to the void. It also reflects the viewers themselves lying on the floor. One has not left the earth to be on a balloon and to float around in a space where the horizon has disappeared to open a completely neutral space with no orientation. Rather, the unconventional postures of reclining and lying on

the floor leads one to rediscover the earth as the ground of his or her corporeal existence. However subliminal it is, one is awakened into his or her bodily condition that relies fundamentally on the platform. What renders the otherwise dizzy overwhelming emptiness perceivable is this solidity, constancy and stability of the platform as the abstraction of the earth as *terra firma*. Although both are about bigness, Eliasson's notion regards the rediscovery of the earth and of the corporeal condition of the human being anchored to the ground, while Boullée's regards the loss of the earth that results in a fear to be appeased only by the concept of infinity residing in the non-corporeal transcendental mind.

3

BIGNESS AND SITE-SPECIFICITY

While discussing Eliasson's installation project, a couple of strategies that address the specificity of bigness as a site have been revealed. The first strategy would be giganticism that seeks to find the right scale for the immense Hall by inflating a work of a conventional size. Making a work of art in the void is like a battle. One or the other would be swallowed up, unless there emerges a right balance in terms of scale. The second strategy is contrasted with giganticism. This approach focuses on the emptiness itself as a theme. The sublime has come into the frame of architecture on account of this type of approach. The bigness here penetrates the thematic aspect of art in a distinctive way.

In explicating further the significance of bigness as a site, it is useful to introduce Rosalind Krauss' diagrammatic mapping of artistic creation. According to Krauss, modernist sculpture operated on the condition of sitelessness, or homelessness, and started to be defined in pure negativity by negating architecture and landscape.[12] It was what was on or in front of a building that was not a building, or what was in the landscape that was not the landscape. It was thus something that is both "not-architecture" and "not-landscape."

However, engagement with a specific site, or site-specificity, breaks this paradigm, acknowledging the importance of the place where an artwork is to be situated and with which an art work must interact dialogically. Krauss thus inverted the sitelessness of the modernist sculpture and mapped

Figure 3: Olafur Eliasson, "The Weather Project," © Olafur Eliasson.

an expanded field that was to be opened up by site-specific approach. This move towards site-specificity saves art from negativity – "not-landscape" and "not-architecture" – generating possible combinations of 1) "not-landscape" and "landscape," 2) "architecture" and "landscape," and lastly 3) "architecture" and "not-architecture." Krauss then offered a name for each type of practice that took place in these combinatory arenas: marked sites, site-construction and axiomatic structures.

How may we then understand bigness as a site for an artistic creation in reference to Krauss' mapping? Of course, a sculpture that does not address site-specificity and that is both "not-architecture" and "not-landscape" can be still placed in bigness. However, the scale of bigness is such that a conventional sculpture would be swallowed up into nothing. Sculpture thus transforms itself, beyond defining itself in pure-negativity to engage with the specificity of the site. It is in this context that giganticism emerges. While still maintaining the modernist, object-like approach, works of unconventional scales such as Bourgeois's *Maman* (1999), again the biggest spider she has ever made, and Kapoor's *Marsyas* (2003), "a sculptural inflation . . . made of red synthetic membrane that stretched from one side of the Turbine Hall to the other"[13] have thus come into being.

However, the most creative instance comes at a moment when bigness is acknowledged not merely as an architectural container but as a landscape. This approach has the effect of challenging Krauss' mapping. Her mapping was based upon the presumed categorical division between landscape and architecture. In other words, a site is either a piece of landscape or a piece of architecture, but not both at the same time. This categorical division was the condition that engendered the modernist sculpture in pure negativity and in turn site-construction in pure positivity.

The Turbine Hall confronts this categorical division. It is because bigness touches upon both dimensions as architecture and landscape. Bigness is architecture as it is a constructed and captured space. However, bigness is also a landscape as its extended scale approximates natural entities with its elements: the earth is approximated into the floor to be marked on or to receive the posture of reclining; the sky is approximated into the ceiling; and the atmosphere is approximated into a void. Of course, the elements of bigness are not identical with the natural entities in a landscape at the outside. The floor, ceiling and void are rather abstractions of the natural entities. However, this status as the abstraction of the real is exactly what makes the bigness to be an inspiring site that is suggestive and aspiring, but not imposing and regulatory. This dualistic status also allows the visitors to engage imaginatively, rather than literally and passively, with what is unfolding, joining what they perceive in bigness and what they have experienced in a real landscape.

One example that acknowledges the dimension of bigness as a landscape would be *Shibboleth* (1997) by Doris Salcedo. As if she were dealing with the earth, Salcedo dared to drill into the slick concrete floor and left a 167 meters long crack that meanders through the ground floor. The crack starts as a hairy line, but widens and deepens itself gradually to open a gap of few inches wide and of two feet deep. This bold and daring crack in the floor would have been impossible if one had been dealing with the floor of a conventional white-painted gallery accommodating an autonomous original monumental art work. What

   **OPEN CITIES: The New Post-Industrial World Order**

contributed to the unorthodox treatment of the floor is the original program of the building as a turbine hall to a degree. The hall was filled with noise and was never fully insulated, tightly enclosed, or lavishly detailed. Its floor was where machines were laid out, where holes were unscrupulously dug up to insert anchors and to screw bolts, where oils were spilled to leave stains and skirmishes, and where laborers were stepping on million times to leave dirt. This original building thus stood somewhere between inside and outside, and by the same token somewhere between architecture and landscape. This original status brings the converted building under the same spell. Salcedo took this historical significance of the building as a positive opportunity to work with the floor.

In one way, Salcedo's treatment of the floor reminds one of Richard Long's *Dusty Boots Line* marked in the Sahara Desert. By taking the extended floor as the site itself and taking the void above as the place where the sound of cracking will echo, Salcedo introduces a work of marked site into a museum. *Shibboleth* is an interiorized equivalent of *Dusty Boots Line*. As Long took the land as the canvas, Salcedo took the floor as the site that records her expressive forces. The floor longer than 152 meters accordingly appears as a landscape on which a mark is to be sculpted. Her mark on the artificial terrain symbolizes the screaming agony and pain she experienced as a Columbian immigrant sculptor in Europe. This cracked floor is a metaphor. The European continent appears as a land with a crack that is narrow, sharp, dark and deep, a crack into which immigrants, along with other minorities, have to hide themselves.

Bigness both as architecture and landscape comes to its full force in Eliasson's *The Weather Project* (Fig. 1), a work that would have been impossible without the gallery-turned turbine hall. As discussed, the void itself filled with an atmospheric effect comes to visibility. Along with this thematic shift, the mode of perception changes, too. People lie down voluntarily, as if they were bathing under the sun in a park. The extended platform, the mirror-covered and depthless ceiling and the artificial sun set the bigness to be both interior and exterior, and both architecture and landscape. What falls beyond recognition in the customary perception of the world at the outside such as the earth, the sky and the sun *appear* in their abstracted formats. Eliasson's project leads us to rediscover these entities and renews their significance. The performance of the floor as the proportional figuration of one's intrinsic subconscious connectedness with the earth as the *terra firma* is refreshed. The performance of the ceiling as the proportional figuration of the vaulted sky that never collapses is refreshed. Lastly, the performance of the sun as the generator of life-giving energy is refreshed. The whole setting becomes a metaphor – a kind of Heideggerian metaphor of the fourfold – that refreshes one's relationship with some of the fundamental conditions of human living.

A work like Eliasson's introduces a sublime landscape into architecture. Put differently, architecture operates as the framework to reveal the immensity of the atmospheric void, as if the void at the outside is just there without being much appreciated as it lacks a lens through which to be seen. The landscape such as Boullée's inconceivable cosmic space and Kant's boundless ocean that arouse the sublime has entered architecture, locating the sublime within the domain of architecture. It is a sublime instigated by the vastness, as Boullée and Kant wished. As illuminated above, however, this sublime unfolding within architecture is also distinctive from Boullée's and Kant's. This is because unlike the vastness of Boullée and Kant that puts one under

threat in an infinite void with no established horizon, the vastness in Eliasson's installation is conjoined with the constancy of the platform that acknowledges the corporeal anchoring of the human being. It is this constancy that allows one to be able to perceive vastness in a stable posture from the beginning. Such vastness is sublime, but not fearful. Is there a label for this specific type

4

5
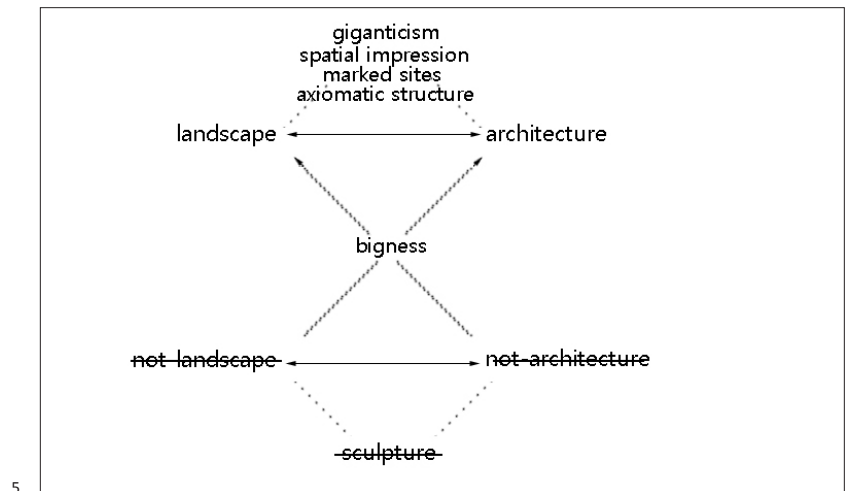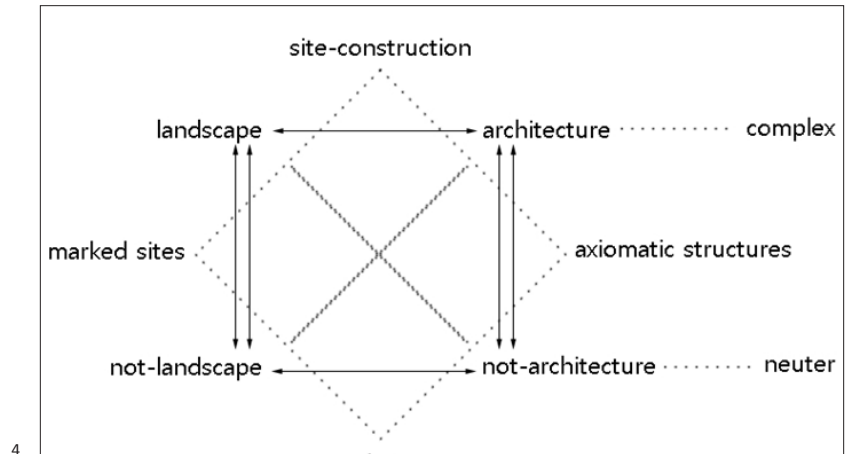
of the sublime that is unfolding within architecture in Krauss' mapping? (Fig.4)

CONCLUSION

This article has explored the significance of the Turbine Hall of Tate Modern from the perspective of bigness as a site for artistic creations. In so doing, the article demonstrated the power of bigness that transformed art in terms of the theme, scale, mode of expression and mode of perception. Bigness as a site towards which specificity has to be addressed comes as a challenge. Its emptiness of an immense size horrorifies an artist. It pushes the limit of his or her conception of art, energizing the imagination of what can be presented in order not to be swallowed up and in order to highlight the emptiness itself as a theme. What is at issue here is not what constituted conventionally the content of site-specificity such as the location, orientation, spatial composition, position of windows and doors, structure, materials and details, but bigness itself. This is not to deny, for instance, the role of the steel piers that contributed to the augmentation of the perspectival depth in the Hall but to point out the fact that the intended effect is,

Figure 4: Rosalind Krauss, "Sculpture in the Expanded Field", in Hal Foster, ed., *The Anti-Aesthetic essays on Postmodern Culture*, 1987.

Figure 5: Revised mapping of Rosalind Krauss' "Sculpture in the Expanded Field."

as Boullée stated, not the illumination of the piers themselves but the captured atmospheric emptiness between the two series of piers.

Krauss' mapping was found instrumental in characterizing the arena of creation opened up by bigness. Bigness as a site oscillates between architecture and landscape. It is a piece of architecture, i.e., a captured space, yet functions at the same time as an outside landscape to a degree thanks to its extended scale with a manifest and monumental visibility of the horizontal platform as the approximation of the earth, the ceiling as the approximation of the sky and the void as the approximation of the atmosphere. Bigness consequently stands somewhere between architecture and landscape, and between interior and exterior. Within this bigness emerge site-specific works such as works of giganticism, of marked sites, and of the sublime emptiness that takes the given immense spatiality itself as the theme. The article highlighted in particular such work of the sublime emptiness as Eliasson's installation. The sublime conventionally understood as a quality of a natural landscape comes in to architecture. Put differently, the sublime is now captured within the framework of architecture.

At a moment when major institutions of art on the global scale are engaged with a fierce competition for public attention, the bigness of the Turbine Hall of the Tate Modern could be simply seen as confirmation and extension of this global tendency to present hyperbolic spectacles. This view seems justifiable to a degree at least. The spectacular series of sculptures of colossal sizes and installations that gives visibility to immensity may define the Hall as the place of ideology that verifies and girders the hegemonic power of the Tate as an institution. Bigness may further be criticized as institutionalizing what was not able to be framed easily before. Once an earth work such as a mark on the earth is unfolding within the bigness, it can be manipulated, domesticated and even purchased. It is this aspect of the relationship between bigness and institutional status the article did not delve into, leaving it as a task of a future study. However, it seems still possible to argue that the case of the Turbine Hall cannot be merely classified as another institutional tactic to be on the edge in the global competition of colossal spectacles. The scale of the heavy machinery and power plant of the industrial era came in to the heart of artistic creation fortuitously. Overlapping of different eras and of different fields marks itself as an event with the effect of reshaping the disciplinary rubric of an involved field. In other words, bigness emerged not intentionally but quite accidentally, while retaining an unexpected force that is highly transformative of art.

ENDNOTES

1. Juan Munoz, as quoted in Adrian Searle, "We are not alone," *The Guardian* (12 June 2001), 13.

2. Rachel Whiteread, as cited in Richard Cork, "Breaking the ice [Rachel Whiteread at Tate Modern](Special Supplement)]," *Art Review 57* (October 2005), 4.

3. A good study into this issue is Wouter Davidts, "The Vast and the Void: On Tate Modern's Turbine Hall and 'The Unilever Series'" *Footprint*, Trans-disciplinary (Autumn 2007), 77-92.

4. Étienne Louis Boullée and Helen Rosenau , *Boullée & Visionary Architecture* (New York: Academy Editions, 1976), p.91.

5. Ibid., p. 91.

6. Wouter Davidts, "The Vast and the Void: On Tate Modern's Turbine Hall and 'The Unilever Series'" *Footprint*, Trans-disciplinary (Autumn 2007), 78.

7. Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science* (Cambridge, MA: MIT Press, 1983), p. 142.

8. Étienne Louis Boullée and Helen Rosenau , *Boullée & Visionary Architecture* (New York: Academy Editions, 1976), p. 91.

9. Lyotard claimed that it is this aspect which Kant "ransacked" from Edmund Burke's theory of the sublime. Jean-Francois Lyotard, "The Sublime and the Avant-Garde," trans. Lisa Liebmann, Geoff Bennington and Marian Hobson, in Andrew Benjamin, ed., The Lyotard Reader (Oxford: Basil Blasckwell, 1989), 40; Edmund Burke, *A Philosophical Enquiry into the Sublime and Beautiful: and Other Pre-Revolutionary Writings*, ed. David Womersley (New York: Penguin Books, 1998), p. 86, pp. 101-2, pp. 107-8.

10. Immanuel Kant, *Critique of the Power of Judgment*, trans. Professor Paul Guyer and Eric Matthews (New York: Cambridge University Press, December 2001), pp. 144-5.

11. Eliasson, as quoted in Kyungmin Lee, "Olafur Eliasson," *WolganMisool* (October 2009, vol.297), 136-43.

12. Rosalind Krauss, "Sculpture in the Expanded Field" in Hal Foster, ed., *The Anti-Aesthetic essays on Postmodern Culture* (Seattle: Bay Press, 1987), p. 36.

13. Wouter Davidts, "The Vast and the Void: On Tate Modern's Turbine Hall and 'The Unilever Series'" *Footprint*, Trans-disciplinary (Autumn 2007), p. 78.

TECHNOLOGY + LIFESTYLE: THEORIES AND METHODS IN AN EXPANDED FIELD

Marcus Shaffer, Pennsylvania State University
Chae-Shin Yoon, Ewha Womans University

The Open City: Technologically Informed, De-formed, Re-formed

"…A consensual hallucination experienced daily by billions of legitimate operators, in every nation… A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding…"   — William Gibson, *Neuromancer*

Perhaps cities, as collections of buildings and spaces defined by systems of measure, have always existed as information experiences - a reconciling of where we are, with what we perceive/measure/know. Cities, determined through successive waves of intentions layered over time and through the aggregation of material buildings, are made of infinite decisions, ideally informed by human needs and cultural agenda. Cities-as-information are made, sensed, used, become *place*; they are cared for, they disappear, they are replaced/reformed, they are remembered. As every city exists as place, they also correspondingly exist as recorded information (form and content synthesized). Maps, plans, elevations, addresses, ordinances, codes, budgets, histories – this Information-as-city is ultimately tied to technologies of construction and to recordings and/or representations. Cities are information in stone and clay, on papyrus and bamboo strips, on canvas and paper, on tape, on disc, in files. Each of these technologies of information has physical form corresponding to human technological advancement – but they are also associated with means of access, and with access times/speed. Now the City-as-information exists in your hand (downloaded in .04 seconds), but until very recently it would not have been unusual for one to devote a day or several days to looking at information charting a city's historical/commercial/political expansion in a library or archive building (every academic has had this experience – one often characterized by a surprising number of interactions, permissions, searches, frustrations, and physical movements). In this outmoded manner, the City-as-information may or may not have been accessible depending on the archive's hours, the person(s) who was attending to/facilitating the information, people who had previously accessed it, etc. Until the advent of mobile information devices and *Real Time*, one could argue that the time/technology of the City-as-information was relegated to the creation of a guarded past tense, and in this regard, authorship, accessibility, and ownership became closed to most city inhabitants rather quickly. The City was NOT Open.

All of this appears to change – and some of the remarkable openings/opportunities are discussed here in the papers that follow – with the rise of a city culture that values information accessibility on every level: personally, socially, politically, logistically, commercially, culturally… *Real Time* information technology has yet to plop a building down in the City or un-build one – we are still waiting for architecture to *Go Live*. But it has, quite dramatically, lost fortunes, shifted borders, filled public squares with protestors, and toppled governments. And all of these potentials ultimately redefine the space/experience of the City; a multinational bank tanks and its Midtown headquarters stands empty, a public square is over-policed or becomes closed indefinitely. In Seoul, on the most mundane level, *Real Time* information technology tells most of us when to show up for the next metro or public bus, which can have a surprising effect on one's experience of the city in that it redirects a collection of two, five, and twelve minute waits over the course of a day. These simple facts, relating information technologies to the physicality of the City, connect us to one of the critical discussions that evolved in two paper sessions entitled *Technology + Lifestyle: Theories and Methods in an Expanded Field* during the *Open Cities* Conference. The topic of that discussion focused on an awareness of the shift from an Architecture that has forever been concerned with improving *quality of life* over time measured in generations, to an Architecture recently tied to *Lifestyle* and the *Now.*

> "Buildings classify themselves as witnesses fixing the way of life and the moral condition of humanity, age by age. "

> "The design and construction of a building involves the full range of technological methods, procedures, and tools that a society has to offer."
> — Auguste Choisy

We can agree that somewhere in the essence of Architecture there is a primordial relationship with technology that is focused on improving the quality of human life – one that began with our mastering control of fire, and then evolved as a path of survival. For centuries this endeavor had two speeds: one geared towards our monumental intentions, and the newer/faster *Avant-garde*. With few exceptions, *The Everyday* (perhaps a phrase that signified a quainter acknowledgement of *Real Time*) was considered too superficial, too transient, too unpredictable to warrant Architectural investment. Buildings, which require a significant investment of time to plan and materialize, traditionally happened at a far slower pace than *The Everyday* – and those Architectures that attempted to address *The Everyday* could only, at best, anticipate or constrain its manifestations. Now we find ourselves fully present at a technological crossroads that has altered the pace of life, similar to the alteration effected by total mechanization in the 1800s. As Mechanization brought with it *speed, efficiency, precision*, and *automation*, these qualities became imposed upon, and adopted by, culture en masse. As with new technologies of this current age, the culture of Mechanization abstracted certain daily experiences that related us to natural phenomena (the adoption of mechanized time over celestial time, for example), *and* it severely tested Architecture's concern with *quality of life*. The past 100 years of architecture is riddled with failings related to humanity vis-á-vis Mechanization; failings of scale, material choice/development, and form. But not responding to Mechanization (and a resultant Industrialization that proved more difficult) was clearly never an option for the architect or Architecture, as stated so lucidly by Choisy in the quotes above.

While it seems that every tool-dependent civilization ultimately yearns for a return to simpler, pre-technological times, to a Golden Age when, "the golden race of people… lived like gods, carefree in heart and free from labour and misery" in reality we go on surviving through our technologies, believing that we are improving in the process.[1] As a profession wed to idealism, hope, and optimism, we must inform ourselves to get it right

this time. Mechanization and Industrialization supported both Democracy and the rise of the Capitalist Free Market, they in turn begat consumption and Media – which we confront now, co-mingled in an entity called *Lifestyle.* Contemporary Architecture, seen commonly as both *product* and *news*, has become increasingly entangled in it. While we should clearly assert that *Lifestyle* is a concern that is distinctly different from *quality of life*, we should not necessarily avoid, or exclude *Lifestyle* from our attention. We simply cannot confuse it with *life* – as *Lifestyle* has less to do with *quality of life*, and more to do with current indicators of Society, and "what Society has to offer." Through venues like *Open Cities,* we can untangle *Lifestyle*, straighten it out, get a look at it.

Those in attendance at the two *Technology + Lifestyle* sessions did just that. What does Information Age Society offer us? Optimistically, our contemporary *Information Society*, one increasingly characterized by *Real Time* technologies and "the integration of computing, sensing, and actuation technologies into everyday urban settings and lifestyle" offers the architect new opportunities for improving our quality of life.[2] Architects/Offices routinely combine technologies of visualization, structuring, logistics, and social media to work non-stop (around the clock, around the globe) in producing buildings faster than ever - and a new level of appropriateness (one that is both informed by, and informs *the local*) is possible with this increased speed and reach. Additionally, the City is ever-increasingly connected to citizens in a dialogue of exchange through mobile information devices. We do not receive information from the City, we inform the City, we co-author the City, and thus the City is Open. In considering details related to these opportunities, we turn your attention to the papers from the *Technology + Lifestyle* sessions. All of these articles are characterized by a great degree of thoughtful consideration and awareness. In detail, they ask us to consider the possibilities implied by information technology-aided *Openness* on one hand, and they prepare us for the consequences of this *Openness* (our vulnerability), on the other. Ultimately, in the relationship between the architect and technologies, there is only one way – striking a balance between opportunity and appropriateness. And in this regard, it is reassuring the works presented here often begin with considerations of intangible information-as-data, yet somehow they direct us back to what is sensible, that which can be constructed, something we can physically walk into/under – Architecture.

We thank our participants for their thoughtfulness, insight, and direction.

NOTES

1.　Hesiod, *Works and Days*, reprinted in *Greek and Roman Technology: A Sourcebook*, Humphrey, Oleson, and Sherwood, eds.

2.　Ro Seongja, "Urban Computing: The City as an Interface and The Architect," *Space Magazine*, June 2014, 559.