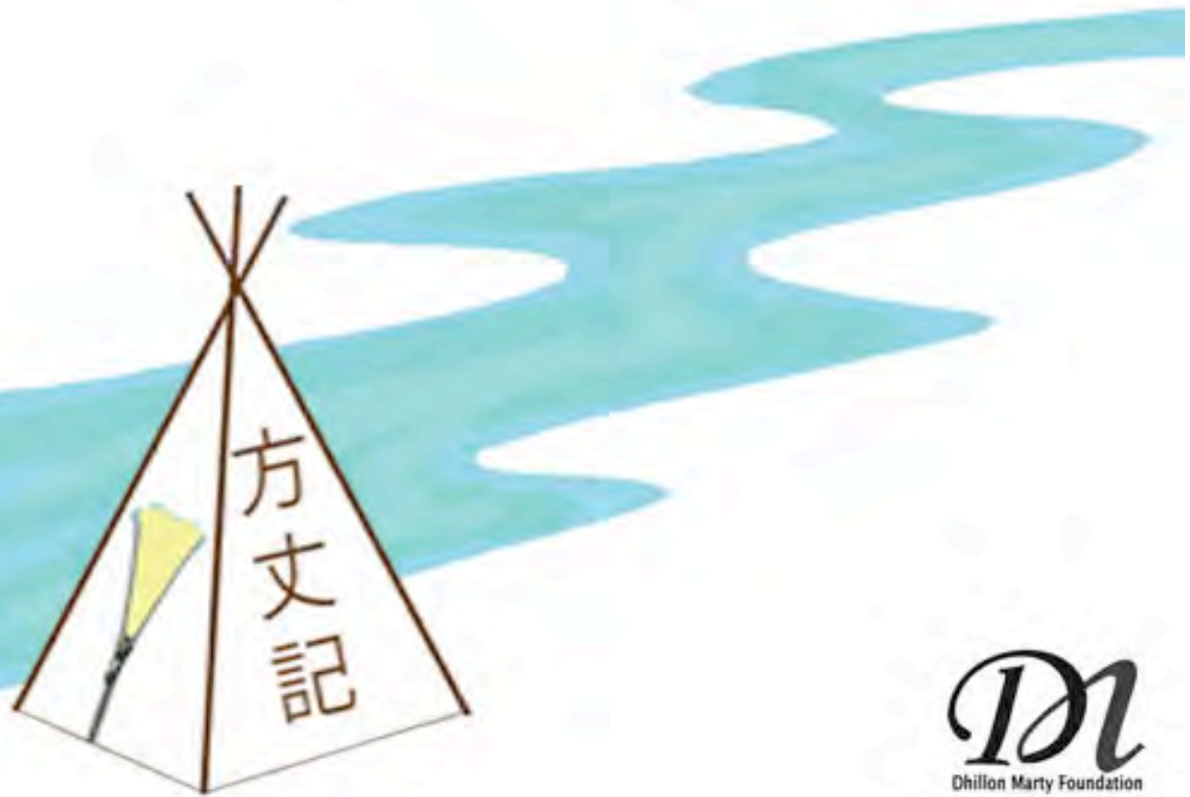
"The waters of a flowing stream are ever present but never the same,"
Hojoki (An Account of My Hut) by Kamo no Chomei (1155-1216)



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DHILLON MARTY COMMUNITY WEEK 2013: MATERIAL EQUILIBRIUM PROCEEDINGS

DHILLON MARTY COMMUNITY WEEK 2013

MATERIAL EQUILIBRIUM

"Flowing with nature, not standing against it. Smelling the earth, listening to the wind, dancing to the shakes of the land, soaking in the warmth of the water, viewing the waves of the land that shakes and makes us tremble, the wind that roars and makes us whistle. This Land."

-Sonia Dhillon-Marty

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Diva-Oriane Marty, assisted by Saci-Elodie Marty

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Community Week 2013: Material Equilibrium

Proceedings

Contents

Introduction

Odile Decq, Paris, France

The Material Equilibrium Workshop in Japan is an opportunity to take into account and rethink the role of architecture in local conditions and the role of the architect in the world.

We all know that today we need to preserve the vital resources of our planet after its excessive use in the past industrial era.

To reach that universal goal, architects have a role to play and need to find new architectural answers. But, this question is not only a technical problem to solve but a social and humanistic one too.

If architecture is a discipline integrated in environment, it can't remain mainly focusing on form. Architecture has to be more open to the human sciences for establishing new conceptual processes for our future. It can't remain self-referencing and must be more understanding of the knowledge of the world around.

When the first duty of architecture is to provide a shelter for everyone and when cities are becoming increasingly the last "natural" environment of the general population, architecture becomes a trans disciplinary process connected to social action, philosophical, aesthetical, technical and biological cultures. These other fields and disciplines will help to push

further the limit of thinking and practicing together with a better global and local understanding of the world and of the human being. Architecture can be renewed and architects can help people to live in a better environment.

In 2010, I was asked to write a text about the future of the city and this is what I sent:

"There is no future for the city

There are only multiple futures

There are no two similar urban territories

One inhabitant in two is living in cities

Half of the urban people lives in the city in a sedentary way

Others are traveling for many different purposes

Every urban territory is singular, extended or condensed,

Every of them is offering different ways of urban living

Urban people from here are not urban people from there

There is sometimes nothing in common between them if it is "a life in a city"

And it is there that all of us will live".

I wish that architects and artists, working together in rethinking the materiality of a proposal as well as the meaning of a temporary pavilion, could be a first step for a better understanding of people's needs.

Forward

Sonia Dhillon-Marty, President, Dhillon Marty Foundation, Tokyo, Japan

Welcome to Community Week 2013: Material Equilibrium, the first in a series of annual community weeks to connect architects, artists, and cultural thinkers with regions and topics that are fertile ground for advancing design in the service of long-term social and environmental good.

As rapid globalization offers unprecedented exchanges of opportunity and information across the globe, I am deeply concerned that these open doors also have the potential to disconnect emerging generations from longstanding regional cultures that have historically served to reinforce cultural mores and morals. To me, this makes it even more critical to cultivate global citizens who are intellectually and morally sophisticated. The object of the Dhillon Marty Foundation is to re-root and to elevate today's globalized society using art and design to communicate important ideas across religious and national barriers.

I am honored to be able to host this inaugural community week in Japan to be able to connect this group of extraordinary individuals to the profound richness of the nation. The Ise Jingu Shrine, the apex of Shinto shrines, embodies principles of cultural and environmental sustainability as well as the power of exceptional design to create things of lasting worth. The Japanese ways of living from Nogyo Taiken that inspired

community supported agricultural (CSA) programs in the ‘70s in the US to Kamo no Chomei’s Hojoki (10 by 10 feet hut) from the 12th century are as much relevant today as they were then. I am certain that our shared pilgrimage to this shrine along with our visit to Miyagi Prefecture to reflect on the effects of the 2011 mega quake and tsunami will bring light to the beauty, nature and vagaries of our shared world.

It is my hope that these shared experiences will spark and fuel our teams of designers to use the Dhillon Marty Hojoki-mobile pavilion design charrette competition to challenge the existing role of art, design and regional engagement in this globalized world. It is truly exciting to be able to offer such a design challenge to re-shape the role of art in society and the environment and to offer the chance to begin to replace existing paradigms of material consumption with other ways to create experiences of value. We will end our Community Week with a symposium at The University of Tokyo with a key note speech by Mr. Yoshimasa Hayashi, an introductory speech by Mr. Kengo Kuma, and panel discussions by all the invited scholars from across the globe.

As we gather in Tokyo to close our week, I hope that we will feel as much a sense of beginning as of closure. As the events of this week foster important new ideas, our work to curate and to disseminate these new narratives begins.

October 18, 2013, Tokyo Japan

Editor's Note

In 2013, the Dhillon Marty Foundation invited an international group of leading-edge architects, architecture students, and cultural thinkers to begin to uncover what it means to engage the dynamic nature and multiple scales of material in design. While the contributors represent nearly a dozen countries, it is fitting to be considering the nature of material and the nature of equilibrium together Japan, here at the narrow edge of the circum-Pacific seismic belt, a place of dynamic and perpetually renewing beauty. The following essays, also the proceedings of the Community Week 2013 Symposium in Tokyo, represent these many perspectives on and design work related to community, material, and equilibrium.

Erin Moore, University of Oregon, US

The Material Sublime

Beverly Choe, Stanford University, US

The English Picturesque Garden movement of the 18th century established an aesthetic ideal of the landscape which oscillated between two states: the Beautiful, and the Sublime. Through the construction of "natural" gardens, landscape designers choreographed experiences of a nature which were thought to elevate one's mind and consciousness. In "A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and the Beautiful"1, Edmund Burke described the passion, terror and disorientation caused by untamed nature: "The mind is so entirely filled with its object that it cannot entertain any other, nor reason on that object which fills it. Astonishment is the effect of the sublime in its highest degree." In contrast, Beauty, often manifested through rolling verdant hills and curved pathways, evoked a softer experience characterized by pleasure and tenderness. Picturesque gardens typically incorporated both of these idealized states, guiding their subjects through romantic, curved and verdant paths, only to be interrupted by a grotesque ravine, ruin, or grotto. This element of contrast and surprise elevated the experience of the garden from a mere stroll, to one of revelation.

Fig 1. El Anatsui, "Fresh and Fading Memories", 2007

I will use the framework of the Beautiful and Sublime in discussing the work from a selection of artists, whose use of materials evoke both the pleasure and surprise first laid out by Burke. Unlike the experience of a garden, which is activated by

the movement of the body through space, the experience of these pieces hinges on a realization of the material presence or absence of the sculpture. Most of these artists use the stuff of quotidian life to create their pieces: cups, garbage, or building supplies whose period of utility has expired. Manufactured products, both consumable and durable, produce an immense amount of waste, much of which does not re-enter the production cycle. Once consumed, products are routinely discarded, increasing the pressure on landfills. 2 These are the ruins of global manufacturing processes, and the result of consumer desires which tend towards excess. This is also the gap within which the selected artists operate. These artists disrupt the normal flow of materials into the waste stream through their acts of selection, conceptualization, and assembly. Their refinements and redefinitions will illustrate a term which I will call the "Material Sublime", in which the refuse of everyday life is transfigured into a work of commentary, resistance, or a catalyst for social equilibrium.

The Material Sublime merges the everyday detritus of modern living with the transcendent quality of aesthetic beauty. This term will become clearer as we understand the art pieces, the artists' construction processes, and the effects of the work.

El Anatsui

El Anatsui, a Ghanaian-born sculptor who lives in Nigeria, assembles discarded metal parts with copper wire. In his installation at the Palazzo Fortuny for the 2007 Venice Biennale, entitled "Fresh and Fading Memories", a tapestry of metal liquor bottle caps hangs in front of the Gothic facade. From a distance, its golden rippled surface appears to cling to the walls of the Palazzo, registering the contours of its projecting balconies. Though distinct, the installation also looks seamless, as the shimmering drape matches the gold and rust tones of the Palazzo's bricks. The bottom seam, however, is gathered and folded to make way for the large entry arch, animating the fabric-like quality of the construct.

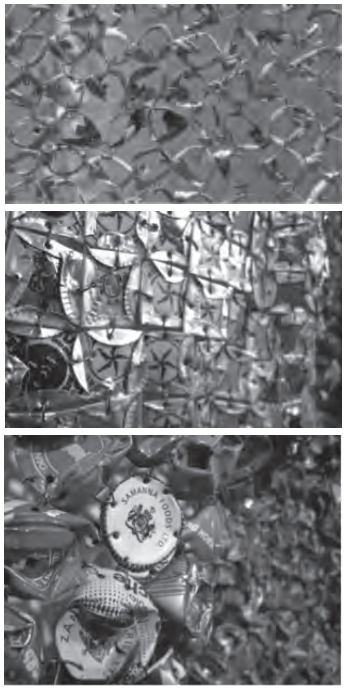

Fig 2.

Fig 3. Tara Donovan, “Untitled”, 2003

A closer examination of the surface reveals the surprise: the installation is constructed of thousands of individual bottle caps, individually pierced and tied together with copper wire. These bottle caps were collected from a distillery near El Anatusui’s workplace in Nigeria and his repurposing of the objects reflects a local cultural practice. In an interview on Art 21, El Anatsui describes how when ceramic pots break in Nigeria, the fragments are used as sacrificial offerings to ancestors.3 Hence, these pieces, which in many cultures would be discarded and forgotten, are instead granted a sacred status and present an opportunity to honor the deceased. In the same interview, he expands on the symbolic nature of the fragment. “..fragments” can—and do—serve positive functions, such as breaking bread into fragments with wine symbolizing communion and the coming together of the disparate into a unified whole with common purpose. I have come to regard the function of the fragment as a useful tool in my practice, with which to explore and analyze life as it is, and not what we want it to be.”4

In this installation, we can see that both the parts, through the unexpected bottle caps and their meticulous assembly; and the whole, through its dazzling and unified presence, contribute equally to a dual experience of beauty and wonderment.

Tara Donovan

Tara Donovan is an American artist whose large-scale installations transform the physical properties of everyday objects such as straws, toothpicks, or tape; by aggregating those objects to mimic expansive, natural processes and formations. In a 2003 piece, “Untitled”, she uses the module of a disposable cup to create a cloud-like ceiling within the gallery walls. Gluing thousands of cups together, she exploits the slight taper of the cup to create continuous, curved surfaces. These

prosaic objects, when subjected to a systematic, repetitive operation, yields a vast and variable cloudscape. The size of the construct matches the scale of natural elements such as waterfalls or clouds depicted in paintings from the Picturesque period, and elicits a similar awe.

As a material study, this process produces a trove of unexpected effects. The lighting behind the swollen formations magnifies the translucent quality of the foam, imparting a weightlessness to the installation. The cavity of the cup intended to hold liquid dematerializes; while the thickness of the cups' rims, en masse, produce a skeletal latticed surface. The tension between the drooping gravity of the forms and the material lightness of the installation is both startling and beautiful.

Ai WeiWei

Ai WeiWei's installation from the 2013 Venice Biennale, "Straight", takes a more political and confrontational position: it acts as a rebuke against the Chinese government's anemic response to the 2008 earthquake in Sichuan which took thousands of schoolchildren as victims. Resisting the government's attempt to minimize the scale of the damage and death toll, Ai Wei Wei's sculpture aims to expose and take account of the profound losses.

In an act of atonement for his government, the artist recovered thousands of mangled steel reinforcing bars from concrete school structures which collapsed during the quake, and straightened each one individually over a two year period. Taking inventory of the different diameters of the bars, he then painstakingly arranged and stacked them according to size, creating a 150 ton topographic memorial. Despite the beauty of the sinuous forms, one cannot ignore the badly scarred and corroding bars which transport the memory of the casualties and their tragic deaths. The material in this piece is the evidence, the metaphor, and the memorial, and the overall effect provokes a unique form of the Sublime.

Rachel Whiteread

In 1993, British artist Rachel Whiteread was commissioned to create a

Fig 4. Ai WeiWei, “Straight” 2008-2012

Fig 5. Rachel Whiteread, “House”, 1993

Fig 6. Gordon Matta-Clark “Bingo”, 1974

piece entitled “House”. Set on 193 Grove Road, in a Victorian home slated for demolition, Whiteread cast its interior spaces in concrete. After the concrete cured, the house itself was peeled away from the new structure, creating a astonishing record of the negative spaces. The banal cells of Victorian living suddenly take on a monumental presence, and shed light on the ephemerality of the original structure. The materiality of the piece yields multiple contradictions. For example, the solid mass of the concrete is impenetrable while possessing the inscriptions of entry and passage. The bulbous projections of the cast are at once appealing, familiar, and uncanny. Window which once provided open views become opaque extrusions from the outer surface. One is suspended between a state of pleasure and disorientation: the Material Sublime.

Gordon Matta Clark

Another artist with architectural interests was the late Gordon Matta Clark, who was trained as an architect at Cornell University in the 1960’s. Unlike the additive processes of some of the previously discussed artists, his operations were decidedly subtractive. Matta Clark’s architectural extractions were often performed with a chainsaw, incising sectional cuts through deteriorating and abandoned structures. In his 1974 “Bingo”, one observes an archeological fragment of a home from Niagara Falls which Matta Clark sliced into rectangular sections. In this fragment from the Museum of Modern Art’s collection, Matta Clark preserved a moment in the decline of an ordinary home, presenting it in a truncated, disembodied form. His interest in the relentless decomposition of matter drove him to expose this often invisible process. Although some of the facade fragments from “Bingo” were preserved; of others Matta Clark expressed a desire that they would be “gradually reclaimed by the Niagara Gorge River.”5 This offering back to nature suggests a

completion of a material cycle and a longing for equilibrium. Matta Clark's conception of time was not limited to a decade or even a lifetime, but rather on the scale of the geologic.

The effect of this piece is unsettling yet revelatory. The stairs and floors which used to buttress the wall are cut away, leaving raw, unfinished edges. The cuts through the window and door jambs deliver an uneasy scale to the openings. The door takes on the shape of a window, while the window assumes the proportions of a door. The memory of the steps and wall partitions provide an eerie testament to the passage of time and the process of deterioration. Although distressing in some ways, a beauty emerges from the textures and traces of human inhabitation recorded upon the houses walls and elements.

The Material Sublime is a term which describes the simultaneous astonishment (Sublime) and pleasure (Beauty) to be found within each piece which has been discussed. Each artist's unique material practices produce a beauty which alters our perceptions about the everyday materials from which the pieces are wrought. Whether seeking a unified community, social justice, or a transformative experience, these pieces divert or subvert the common cycling of materials as a way to raise consciousness. When seen through an expanded view of time, these pieces collectively blur our understanding of beginnings-endings, order-entropy, and the sacred-profane.

References

1. Edmund Burke, A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and the Beautiful, (Cary, Oxford University Press, 2009), 64.

2. Daniel Hoornweg and Perinaz Bhada-Tata, "What a Waste: A Global Review of Solid Waste Management", (World Bank Group, 2012), 29.

3. Art 21, Season 6 "Viewer Q&A, Responses from Catherin Opie, El Anatsui, and Marina Abramovic", accessed 10/8/13, http://www.pbs.org/art21/season-6-features/viewer-qa-responses-from-catherine-opie-el-anatsui-and-

marina-abramovic.

4. Art 21, Season 6 “Viewer Q&A, Responses from Catherin Opie, El Anatsui, and Marina Abramovic”

5. MOMA Learning, “Bingo, Gordon Matta-Clark”, accessed 10/10/13, http://www.moma.org/learn/moma_learning/gordon-matta-clark-bingo-1974

Figures

1. Image credit: http://www.kcrw.com/etc/programs/at/at070626the_art_of_el_anatsu

2. Image credit: http://www.eatmedaily.com/2009/03/at-the-armory-show-installations-by-el-anatsui-food-art/

3. Image credit: http://www.acegallery.net/artwork.php?pageNum_ACE=10&totalRows_ACE=60&Artist=8

4. Image credit: http://www.designboom.com/art/ai-weiwei-straightens-150-tons-of-steel-rebar-from-sichuan-quake/

5. Image credit: http://www.airsdeparis.centrepompidou.fr/viewtopic.php?p=285

6. Image credit: http://www.davidzwirner.com/exhibition/bingo/

On Material Ethics in Works of Architecture: From Forms to Materials Towards a Hylomorphic Equilibrium

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Material Ethics : An Overview

Ethics is used, more often than not, as a synonym to morality confusing thus its distinct character in describing a habitual way of being rather than an obedient, law abiding way of behaving which identifies with morality. So, before discussing material ethics it is necessary to clarify the notion of ethics first, in its original sense but also in the way it will be discussed hereafter. As discussed by Aristotle in his major ethical treatises, such as the Nikomachean and Eudemiam Ethics, and as it is herewith proposed, ethics is the outcome of ethos, a series of actions and deeds and an overall mode of living a life.[1]

Morality on the other hand prescribes in a normative sense and in specific moral laws what is good and what is bad in either religious life with the ten commandments of the Judaic law being an archetype, or in civic life with Stuart Mill's utilitarianism and Immanuel Kant's ethical imperative being the dominant paradigms. Ethics is certainly about what is good or bad, what is right or wrong, as morality is, but only indirectly and suggestively judging from existing examples and not in a prescriptive way. Ethics is acquired only by doing as a way of habit and predisposition.

The ethics of our times and their consequences on other human beings and the planet as a whole has rightly become a dominant contemporary issue dealing with what seems to be an impasse. Despite amendments and revisions, our ethics fail to address problems contemporary life. What

is needed, perhaps, is an attempt to a shift of position and focus from our ethics to 'other' ethics, if we are to end up with an enhanced ethics which acknowledges and pays justice to other ethics as well. We should actually move from human-centered ethics to the ethics of otherness; a move from our ethics to the ethics of other human beings in contemporary multiracial-multicultural societies, to the ethics of other living beings, like animals and plants that share with us our planet, and the ethics of other in reference to ecosystems, the natural environment and our planet as a unified living entity.

Within this vast array of instances of otherness, nature and history are prime categories in and occupy a special place as the big others; nature by superseding our lives and including us as yet another evolving species, according to the deep ecology and the environmental ethics of Arne Naess, and history as a big other by superseding our lives in being been done and finalized beyond our intervention and also qua tradition, in Gadamer's sense, that is handed down to us even against our will and claiming relevance to our contemporary values. Nature and History are icons of otherness as they are equally and equivalently both ours and beyond us.

Ethics of otherness, as a way of understanding our world and creating meaning in our lives encompasses not only other human beings and animate life but also artifacts, objects, buildings and places we engage in our everyday communal and cultural life, and constitute integral parts thereof. Architectural works in particular, as objects in themselves but also, and more importantly so as constitutive of the places they partake to, have been par excellence those inanimate objects that absorb, disseminate and express our ethics by being the ethic bearers of the socio-cultural life the partake.

Yet, architectural works at all scales, i.e. as buildings, places and settlements, have been mainly considered as having a character and being expressive of certain ethics on the basis of their formal and stylistic properties rather than in their material consistence.

The architectural debate until recently has been exclusively centered

upon architectural form and formal styling. Even ethical considerations of architecture, as being truthful or not to building materials, has been considered not as an alternative ethics to formalism but again for the sake of justifying architectural forms on ethical grounds. Since the Renaissance, when mental labor for the creation of architectural forms has been divided from the manual labor of crafting building materials, and more recently since Modernism, the dilemma of material vs. formal ethics, conceptualized as the controversy between tectonics and abstraction, still holds.[2]

It seems that after an excessive attention being paid to architectural form in recent history after Modernism, we witness nowadays a major turn towards the material basis of architecture, the building materials themselves in their sustainability, their properties and attributes and their life cycle. This major turn in both architectural theory and practice marks the characteristics of a new ethics concerning the materials themselves, a material ethics.[3]

In this vein of contemporary architectural theory and practice, we come to acknowledge building materials, despite their inorganic state, as real others presenting qualities and characteristics, as embedded energy and cultural meaning; materials as a part of reality we necessarily engage with and feel their resistance, their responsiveness to our working of them and finally their engagement with us in a dialogue concerning their constitution in form. This ethics of materials refers to their substance, attitude, predispositions, capabilities, workability, transformability and their carrying capacity of formal transfiguration and cultural meaning.

So, it is not a matter of our ethics in using, reusing and recycling them, but a matter of acknowledging their ethics of responding, resisting, presenting and acting in a dialogue with our intentions to use them as well. With materials as others, as parallels and equivalent to ourselves entities, we have to come in dialogue, if only to enrich and enhance our ethics.

It has to be made clear that in speaking of material ethics there should be no confusion with ‘material ethics of value’, as theorized by Max Sheler and

Nikolai Hartman, in which the term 'material' is being used metaphorically to denote a content oriented ethics and a fundamental axiology.[4] Nor is material ethics, as herewith proposed, related to materialism of any kind in which materials are used as a metaphor for economic substructures of social meaning in Marxian theories or as physical substance of scientific and philosophic explanations and, more generally, as mere substratum vehicles for symbolic and cultural meaning to be invested upon.[5]

In opposition to such diverse materialisms, material ethics relates to materials in their materiality, exhausting their meaning not only on some culturally imposed on them value but on their value of being themselves as well. Thus, material ethics is not a form of a culturally vested humane ethics, but an ethics of the materials themselves, in their characteristics, attributes and lives and in their diverse transformations and uses they undergo through human intervention. Material ethics concerns materiality as the qualities of materials and not some kind of materialism as yet another imposed theory on physical matter.

In suggesting material ethics in the literal sense of the term 'material', we actually take materiality to be a vehicle of reality, reality as opposed to both abstractions from it and metaphors of it. So, we'll be arguing for a material ethics in its literal, immediate and real sense; an ethics coming from a sensitivity to building materials not because of their 'naturalness' alone (wood, stone, clay, thatch,..), but also for their tectonics, their inner tectonics of how they are made and the broader tectonics they could partake of in works of architecture.

This plea for 'material ethics' is twofold; a plea from our human centered ethics towards the ethics of otherness in the world in its many instances and at the same time a plea away from the dominance of architectural formalisms imposed on materials to the reality of the materials themselves. Subsequently, an attempt will be made towards shifting our attention from the antithetical position of matter and form to their feasible equilibrium and synthesis in

architectural works as manifestations of both their substantial materiality and essential form.

Materials in Dialogue

Contemporary sensitivity and ethical urge to materiality should avoid the risk of being idealized or else our impositions upon materials would be perpetuated by the substitution of their reality with our conceptualizations and interpretations of them. Equally, we should avoid turning materiality to materialism. Mere reusing and recycling of materials is not even an adequate enough sign of sustainability as it may well be the mark of an intensive and exhaustive use in a utilitarian mode instead of reusing as giving new life to materials. In this case, continuation of use would not be reuse or recycling of the material itself but degradation in using it as available inert mass. As such, reuse and recycle of materials don't mark a sensibility towards materiality, but a continuation of the Modernistic functionalism in a new guise, or disguise. Reusing could end up in abusing materials as such as for example is the extreme case by turning marble to marble dust for casting souvenir statuettes and wood to pellets. In paraphrasing Nietzsche's famous dictum 'there are no facts only interpretations' it seems in an analogical sense we could say that in those instances 'there could be no materials as such only their uses and reuses'. [6]

Yet, materials are substances with particular qualities--but again not qualities for use but qualities that inherently characterize them--qualities that due to their specificity present resistance to imposed stress in terms of physics but also in terms of imposed individual and cultural meanings. Materials are presented to us, in the Heideggerian sense, as resistant to forces, susceptible to gravity, able to correspond and mainly open to dialogue in their use, forming and re-forming. Materials should be treated as 'real other' in both senses; as tokens of reality to measure our intentions and will against and also tokens of otherness, as having their own existence beyond our will to use them.

Traditional craftsmanship is a prime example of coming in terms with

materials in their intricacies, qualities, potentialities and capacities to be parts of building forms. Tsunekazu Nishioka, a famous Japanese master carpenter, the master carpenter for the restoration of the temples of Horyu-ji, the oldest wooden architecture in Japan and the rebuilding of Yakushi-ji's west pagoda in Nara, wrote a book with the quite eloquent title 'Ki-no-Kokoro', which could be translated as 'Tree minds' (or, the tree has a spirit of its own), where his deepest veneration and understand of wood as a building material is fully expressed. His empathy to wood went as far as feeling pain in his hand if an improper drill was exerted on wood.

I quote from his sayings in a meeting with Kazuhiro Ishide:

"Pagoda framework is a set of tree's peculiarities."

"If you do such a thing (inappropriate cut), hinoki (the Japanese cypress) would start crying."

"Hinoki has its own Hinoki's life."

Finally, Nishioka makes a very succinct remark that clearly places aesthetics as subservient to and part of material ethics:

"What you are building now becomes a culture of the town after 50 years. That is the building we have to construct. If we make the best use of real materials rather than spending more money, we can create beautiful things. And the beautiful things must be remained. I disagree that it is beautiful because it is old, but I agree that it is beautiful because it surely is a real thing, even getting old. Although I understand you are engaged in designing, not only you draw a drawing but also you should breathe a life into the building with craftsmen together. So you must have that kind of sense of responsibility to deal with architecture." [7]

We could trace such sensitivity to the intrinsic qualities of materials even to the foremost pioneers of Modern formalism. Louis Kahn, before thinking out the form of a building, he carefully and caringly considered the intrinsic

qualities, capabilities, capacities and limitations of the building materials he was about to use. His famous dictum, often repeated in his teaching while gesturing with a brick in hand, what the brick wants to be, not only expresses his sensitivity to materials and an ascription of an alternative ethics to them and an independent will distinct from ours, but also the way this sensitivity could be embedded in architectural forms through the proper use of materials. Kahn, in answering his rhetorical question, a brick wants to be an arch, affirms the necessity for materials to find their proper place in a broader than themselves entity, as opposed to many possible improper ones.

Umberto Eco, in his keynote lecture for the 23rd World Congress of Philosophy, argued against Rorty's denial of any intrinsic nature to objects and materials by insisting on the existence of a mini reality of objects and materials manifested by their resistance to irrelevant interpretations projected on them. He stressed that interpretations are cultural constructs that regulate meaning of objects and materials and objects are susceptible to manifold interpretations; yet not any meaning and interpretation can be imposed unless verified by the object or the material itself. Eco calls this intrinsic reality of things which is beyond projected interpretations, Negative Reality, i.e. reality defined as what you cannot do with objects and materials.[8]

This negative reality of materials relates to their stable kernel which defines the lines of resistance towards using, forming and molding them. So with materials, many forms are possible but not anything goes. As U. Eco states it:

"This idea of lines of resistance, by which something which does not depend on our interpretation challenges them, can represent a form of Minimal or Negative Realism according to which facts, if scarcely tell me if I am right, frequently tell me that I am wrong."[9]

Materials are always dynamic in their own sense and it is always a matter of compatibility and appropriateness in our using them. Apart from gravity and inertia, materials present to us their capabilities and limits in terms of their workability, their ability to be transformed, their ability to be reused, an array

of diverse compatible uses and their overall capacity to embed and withhold cultural meaning.

Towards this acknowledgement of their inner and intrinsic dynamics and as an antidote to current excessive functionalism which embraces even ecological and sustainability approaches, I will try to articulate notes towards a theory of a 'new hylomorphism'. In short, from the still dominant utilitarian dictum 'form follows function', we should rather turn our attention to 'form follows the functioning of the matter' towards an equilibrium of ethics; ours and that of the materials.

From Materials to Hylomorphism

From the time of Aristotle, hylomorphism is about giving meaningful essence to the substance of materials by giving form to matter.[10]

'Hyle' in ancient Greek, but still in use in Modern Greek, is wood, woodland, wood cut down, fire wood and finally material, stuff, raw material of which a thing is made. As an abstract noun, hyle denotes par excellence reality, the real tactile substance of any object or thing. Hylomorphism expresses the inextricable bond between 'hyle' (wood, matter) and 'morphe' (form). The matter of a thing is that of which this thing is made and the thing in itself can be considered as matter to something else it forms part thereof. Clay is matter in relation to a brick and a brick is matter to an arch made of bricks.

Aristotle discerns between substantial forms and accidental forms. A substance necessarily possesses at least one substantial form with essential properties without which there cannot be as substance; it also may possess a variety of accidental forms which it may lose without losing its substance.

All these arguments are deployed by Aristotle in his discussion about the human soul in general and the relation of body to soul in particular. Aristotle treats body and soul in terms of matter and form respectively. A body needs necessarily the soul in order to be alive. Moreover, since the human body continuously changes from birth to death what keeps its diverse phases

together and enables our identification of the body through time is the soul and the soul only.

We can consider this relation of matter and form in the wider framework of Aristotle's teleology according to which each thing has a tendency to fulfill the reason for its existence as such and we can benefit from those discussions, as to the formability of materials in a twofold sense:

a) Matter has an inner, intrinsic to it, potentiality, a set of potential forms, which cannot be described in advance but they can be discerned from non possible forms. So, materials can receive a manifold of possible forms but not any form. It should be noted that potentiality relates to the real existence of matter, whereas possibility is an external to matter abstraction. So, we should consider potentiality to be a quality of the material while possibility is an external contingent condition for matter to unfold its inner potentiality. Thus, individuality is ascribed to matter considered as having a life.

b) Apart from its inner potentiality, matter needs a function in the form of an external necessity to cause its formation or re-formation, quite like any individuality needs external reference, something beyond itself to acquire meaning and value.

Towards a Critical Hylomorphism of Architectural Works

It is necessary now to come up with a contemporary synthesis of materials and forms in a systematic way that could do justice to both materials and forms on equal terms.

We should turn our attention to the ontology of matter instead of its usability and utility alone and interpret architectural form as the image of a reached equilibrium with matter. We should consider an architectural work as a living organism, a center which integrates materials and energies under some kind of directive influence or compulsion, to form a characteristically organized unity.

So in the case of architectural works and due to their bonds with human

beings, we have to move from both Aristotelian hylomorphism which ascribes to the primacy of form and the modern hylomorphisms which give primacy to matter alone. Hylozoism, could perhaps establish a balanced attitude to both materials and forms by attempting a synthesis of both form and matter in an ontological sense.[11] By ascribing life to inanimate matter, close enough to the original Shinto practices of yorishiro according to which objects like trees, rocks and places able to attract spirits and thus acquire a life of their own, hylozoism could establish an ethics of objects rival but also complementary to human ethics. Hylozoism could oppose both; reductive materialism of monism, but also the soul/body dualism inherent to all forms of hylomorphism.

An architectural work is more than its components and while we should be open to employ both the new enthusiasm for generative forms out of algorithmic processes in design and production and the equally new sensitivity to sustainability, we should not forget the possible pitfalls of diminishing architecture to either a temporary fashionable trend, a fanciful object oriented industrial design of just functional environmental engineering.

In contrast to fashionable contemporary imagery, architecture has to aim to monumentality, even if historically aware of its ad hoc consideration as transitory. In contrast to fanciful industrial design objects, architecture is not just useful but is an entity in itself; it is not about interesting novel shapes but about forms that beyond any functionality they serve, they also establish themselves as part of this world.

Architectural works, due to their social importance, showcase par excellence embedded cultural meaning and deserve to be considered not as depositories of building materials, but as works of accomplished cultural meaning embedded in matter, a valuable proof of how meaning is created out of matter. That is what is architecture is about, that is what art is about, that is what cultural communal meaning of objects, buildings and places is about.

If the ritual rebuilding of the grand Ise shrine can teach us a lesson, it would be its using traditional materials in their authenticity and intricate tectonics

in order to articulate meaning in human artifacts and express of cultural communal life. The art of its making, as a process and a final work, expresses exactly this harmonious equilibrium between matter and form and ultimately between nature and culture. The very definition of art, at all times, relates to this equilibrium since the major aim of art is to turn matter into cultural meaningful forms. Additionally, the rebuilding of Ise shrines can teach us that, through the continuity of its recurrent every 20 years reconstructions, it attains permanence and ethical cultural meaning instead of temporariness and transient taste that characterizes most architectural production. Otherwise, in environmental terms it could be diminished as an obsolete curiosity that, for a utilitarian minded technocrat, could even be considered as a waste of energy in physical and social terms.

For materials, old and new, what is important is to avoid overuse, underuse and abuse and try instead to attempt the right and appropriate to them use. It is exactly this righteousness and appropriateness both as an attempt and as an accomplished fact that constitutes the core of a new 'material ethics'. This is, perhaps, the best lesson from Ise as a prime example of practicing this kind of alternative, and even rival, ethics of materials in coexistence and dialogue with our ethics. Finally, I would rather attempt to rephrase the title of this symposium from 'material equilibrium', which at least on the molecular level it happens anyway, to the equilibrium between matter and form, or else to equilibrium between our ethics, in response to our necessities, and the ethics of materials, emerging out of their properties. This kind of equilibrium could be culturally meaningful for local communities of the world.

References

1. Paul Ricoeur is one of the few philosophers who acknowledges and discusses the difference between ethics and morality. Cf. Dauenhauer, Bernard and Pellauer, David, "Paul Ricoeur", The Stanford Encyclopedia of Philosophy (Winter 2012 Edition), Edward N. Zalta (ed.), URL = http://plato.stanford.edu/archives/win2012/entries/ricoeur/ . For an account of his Philosophical Ethics, cf. Paul Ricoeur, Oneself as Another, translated by K.

Blamey (Chicago &London: University of Chicago Press, 1992).

2. On tectonics as an alternative history of Modern architecture in opposition to the dominant one focusing on styles and forms, cf. Kenneth Frampton, Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture (Cambridge, Mass.: MIT Press, 1995). For a pre-Modern discussion of tectonics, cf. Gottfried Semper, Style in the Technical and Tectonic Arts, Or, Practical Aesthetics, transl. by H.F. Mallgrave and M. Robinson (Los Angeles: Getty Research Institute, 2004)

3. For a comprehensive compilation of current practices which re-appraise craftiness, materiality and the re-emergence of the tectonic in architectural works, cf. Gail Peter Borden and Michael Meredith, editors, MATTER: Material Processes in Architectural Production (London & New York: Routledge, 2012). More specifically cf. 313-327 (Kiel MOE: Matter is but Captured Energy), 379-395 (Santiago R. Perez: Towards an Ecology of Making), 409-423 (Marcelo Spina and Georghina Huljich: Composite Tectonics - From Monolithic Wholes to Manifold Assemblies), 425-435 (Rhett Russo: Alternative Forms of Malleability).

For a critical appraisal of materiality in architecture, cf. Andrew Benjamin, In: Katie Lloyd Thomas (Ed), Material Matters: Architecture and Material Practice (London & NY: Routledge, 2007).

4. Eugene Kelly, Material Ethics of Value: Max Scheler and Nicolai Hartmann (Dordrecht, Heidelberg, London & New York: Springer, 2011).

5. The Atomic Materialism of Democritus, the anti-religious Scientific Materialism of Hobbes, the Historical Materialism of Fr. Engels and the Dialectical Materialism of K. Marx, along with emergent and non-reductive materialisms of the philosophy of mind are some notable instances of Materialisms in the history of thought.

6. Friedrich Nietzsche, On Truth and Lie in an Extra-Moral Sense, Walter Kaufmann, transl. The Portable Nietzsche, Viking Press, 1976.

7. Kazuhiro Ishide, The meeting with the master carpenter Mr. Nishioka, in:

http://www.hophouse.co.jp/en/story/index.html

8. Umberto Eco, Some Remarks on a New Realism, address to the XXIII World Congress of Philosophy, Athens, 4th – 10th August 2013. In: http://www.wcp2013.gr/files/items/6/649/eco_wcp.pdf?rnd=1375884459

9. Umberto Eco, ibid.

10. Aristotle discusses in depth the relation of material substance to formal essence in his Metaphysics, Book H. For an introduction to the terms and arguments, cf. Terence Irwin and Gail Fine, translation, introduction, notes and glossary, Aristotle: Selections, (Indianapolis/Cambridge: Hackett, 1995), 583(form) and 596(matter)

11. Jane Bennett, Vibrant Matter: A Political Ecology of Things, (Durham &London: Duke University Press, 2010).

Ise

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Abstract

This dissertation examines the historical, political and esthetical importance of the Ise shrines in Japan, which are reconstructed every twenty years, thus conveying to our present a replica of an original architectonic form, derived from archaic granaries. This iteration has been able to take place on account of the link between the origin of the shrines and the Imperial Japanese Family; and later, of the one between military power and Shinto, using Ise as a nationalistic symbol. A very old promotional policy has made of Ise the most important and popular pilgrimage site. During the XIXth century, foreign visitors started to visit Ise, much for their deception; it was only after Bruno Taut's visit in 1933, that appreciation for the shrines esthetics radically changed. After the war, in 1953, due to changes in the sociopolitical and religious balance in Japan, the architect Kenzo Tange and the photographer Yoshio Watanabe, gain access to the forbidden inner precincts of the shrines of Ise, and reveal them to the world; Tange converts them into the prototype of Japanese architecture. Japan enters the modern age, and at the same time, explores its past. Metabolism surges and rethinks the new city, producing works and projects that give a new impetus to the Modern Movement, and injects it with optimism; it also assimilates the past.

Foreword

I am not a writer, nor a critic. My interest in the past, in the shrines of Ise or in any other noteworthy place, owes to my conviction that, as an architect, I

need to possess an extensive knowledge of the past to be able to confront the present.

This succinct paper derives primarily from the knowledge of professor Jonathan M. Reynolds, who kindly sent me his “Ise Shrine a Modernist Construction of Japanese Tradition.” , Kenzo Tange’s brilliant essay in Ise: Prototype of Japanese Architecture; and Japan Project, the compelling reportage-history-essay by Rem Koolhaas and Hans Ulrich Obrist were also consulted to great advantage; and as a result of a twelve hours long visit, in 2006, to the visible parts of the shrines and the mysterious forest of Ise.

Ise

The origin of the Ise Shinto shrines goes back to a legend of prehistory where emperor Suinin decided to move the small sanctuary dedicated to the goddess Amaterasu – the solar divinity from whom the imperial family claims to descend – to a larger site, which he asked a princess to look for. When the princess came upon the forest of Ise the goddess told her: “it is a secluded and pleasant land. In this land I wish to dwell.”

The architectonic shape of many of the temples and shrines of Japan derives from, is a transformation of, the archaic rice granaries: a raised-floor enclosure, built with wooden boards and a thatched roof. In Nara and Kyoto granaries built within the precincts of temples have kept their essential architecture, simple and strong, and have been converted into “Treasures”, keepers of relics. For a primitive rural society, the storage of grain becomes something sacred and requires divine protection. It is quite probable that the architectonic shapes of Ise’s simple and unadorned shrines of all ornaments derive from those of ancient granaries.

Traditional Japanese architecture requires constant repairs, which are customarily carried out. But it is one thing to repair and another to rebuild: to be rebuilt is to be born again, and this is what happens in Ise; the periodic reconstruction, every twenty years, of the two shrines, has conveyed to us, time notwithstanding, for over thirteen centuries, the essential image of their

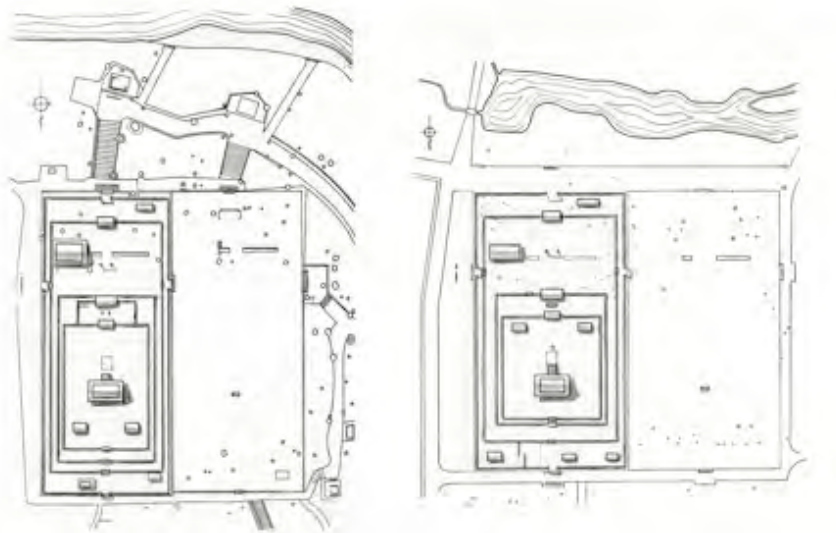


Fig. 1: Both shrines to the same scale: Naiku and Geku.

architecture and their construction system. Other shrines in Japan were regularly rebuilt but few in true accordance to tradition. Things are different in the case of Ise because its perduration is linked to the legitimacy allotted the imperial family as by the legend. This is what made the perpetuation of this extremely expensive cycle possible for centuries; no one knows what the cost is. The first recorded reconstruction took place in the year 690. Since then, 62 others have, including the most recent one, in 2013. A calculation shows some hiatuses that are also registered.

There are two shrines, apparently exactly alike: the Inner Shrine, Naiku, and the Outer Shrine, Geku; the first dedicated to the Sun Goddess, Amaterasu, and the latter to the deity of agriculture and industry, Toyouke. They are six kilometers apart, isolated inside a dense 70 meters tall, cryptomeria forest. Both located on flat, almost square platforms, the sides of which are some 100 meters; they are built on a bed of large stones, with taluses along the

edges due to the uneven ground, and covered with a thick layer or pebbles and white stones making up the pavement – a wise way of draining that flat surface extending over a hectare. The sides are aligned with the cardinal points. The shrine, which encompasses exactly one half of the platform, a 50 meters by 100 meters rectangle, is entered from the South. When I visited them in 2006, both shrines took up the eastern half of the platforms; the other half was an empty white surface, bright, immaculate (it is cleaned every day), which contrasted with the forest's dark greens, within an admirable and moving landscaping enterprise. This white, barrier-free, open surface, no one can tread: it is the sacred ground of the following reconstruction.

All Shinto shrines deny access to the inner precinct. The Ise shrines comprise four precincts, the third and forth of which – the true interior – are inaccessible; the second precinct allows for ceremonies honoring special guests; the first precinct, a very narrow one, is open to pilgrims and visitors who are forbidden to take pictures, only drawing being allowed. The restrictions for Buddhist priests are more stringent yet: they cannot even approach the accesses to the forest. The priest and poet Sigyo (XIIth century), who lived in a hut located as close as his Buddhism allowed him to, wrote: "I know not what is within / But I am in tears with gratitude."

The Ise shrines have been places of massive pilgrimage for centuries. In the XVIIth century, visits were publicized through printed brochures showing itineraries; later, at the end of the XVIIIth century, the brochures included woodblock prints of imaginary aerial views of the shrines. Five million pilgrims were registered in 1830. As was to be expected, lodging facilities and souvenir shops sprung up around the shrines to provide for the influx, and, as in any pilgrimage site, the great majority of visitors came to have fun, to eat and to drink in the brothels. At the beginning of the Edo period there were an estimated one thousand prostitutes in the brothels of the Ise area.

Having been educated in a culture that considered architecture as an art inseparable from ornament, the first foreigners to visit Ise, in the last decades of the XIXth century, were not favorably impressed. In addition, it was the

time of eclecticism, any style belonging to any culture and any period was allowed; an imperialist mentality prevailed in England, France, Belgium: all cultures could be used. Professor Jonathan M. Reynolds's research on the subject, in which I found a great deal of information referred to here, reveals the disenchantment of learned travelers with the primordial, unadorned architecture of Ise. How could they not have preferred the profusely decorated Nikko complex? Ise was not mentioned in European and American travel guides. The curious thing is that the Meiji Restoration government, in 1868, allowed and encouraged foreigners' visits to sacred shrines, as a show of openness. Ralph Adams Crams, the American architect and Gothic Revival devotee, describes Ise as "sufficiently ugly and barbarous". I wonder what Japanese intellectuals, artists and architects of that time thought of Ise. Could they have thought as much?

Everything changes with the visit of the German architect Bruno Taut in 1933. Very active during the second and third decades of the XXth century, Bruno Taut was the author of the Crystal Palace in Colonia, in 1914; as a theorist, he wrote several books and manifestos, as Glasarchitektur (Crystal architecture); he is associated with expressionist architecture. (During that same trip, he visited the villa Katsura in Tokio. He might have been the first person to visit it, because it was closed and nobody did. He is amazed by its simplicity and the asymmetric connections of the pavilions). Bruno Taut put the shrine of Ise at par with the Parthenon. The relationship between the location and the construction materials was the key to Taut's evaluation. He asserted that this relationship, which is brought to light in Ise, produces the true essential expression of Japan's cultural identity, and added that Ise was the greatest and most completely original creation of world architecture. He also remarked that Ise was the abode where Japan's national spirit dwelled, always renewing itself as the eternal life of Nature", and concluded that after the first visit to Ise he knew what Japan was. In his book Japanese Architecture, published in Tokyo in 1936, Bruno Taut asserted that the two masterworks of Japanese architecture were the shrines of Ise and the Villa Katsura in Kyoto.

The new leaders, who took power following the Meiji Restoration in 1868,

recognized the ideological potential of Ise and of Shinto religion. In 1869, the Emperor visited the shrine for the first time, amid a blaze of publicity used to consolidate nationalism, which would later become blind militarism, leading Japan to the invasion of China and Manchuria. In 1945, after the defeat and the profound tragedy of Hiroshima and Nagasaki, the occupation forces introduced reforms to cut the links between ultra-nationalism and Shintoism, including the shrine of Ise.

When the occupation ended, in 1952, the world marveled at the speed with which the Japanese society and political system adjusted to the new independence. The "Japanese miracle" on the economic level, in the arts (the Tokyo Vanguard), and above all, in architecture, was the talk of the day. Kenzo Tange brought together and led a group of young creators who were just as anxious to explore their tradition as the intellectuals, sociologists and psychologist driven by the new independence. The role of the shrine of Ise as an origin thus reemerged, the way Taut saw it, but this time around questioned and analyzed by young Japanese architects. (Tange already knew about Ise in 1942, as a very young man; he had won the competition for the "Greater East Asia Co-Prosperity Shpere Memorial", a nationalist folly aiming at legitimating the focal point of which was an enormous reinforced concrete sanctuary inspired by Ise the invasions of Asia. His project was a large complex situated near Mount Fuji, the focal point of which was an enormous reinforced concrete sanctuary inspired by Ise). In 1953, seven years after he founded the Tange Lab – a workshop on architecture, teaching and debate – he managed, together with Noburo Kawazoe, to gain access the third and fourth precincts of the recently rebuilt shrines of Ise, just before the sacred objects were brought in. They were shown all the buildings and allowed, which was unprecedented, to photograph the exteriors of every structure.

The best architecture photographer of Japan, Yoshio Watanabe, immortalized that adventure in unsurpassable black and white images. They were published in a Japanese edition with essays by Tange and Kawazoe, in the late fifties. In 1964, the MIT Press in Cambridge, Massachusetts, published Ise, Prototype of Japanese Architecture, by the same authors.

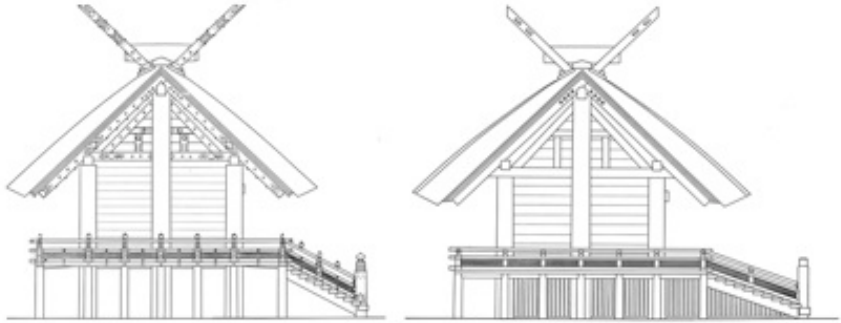


Fig 2. Lateral elevation of the shrines to the same scale: Naku and Geku

Designed by Yusaku Kakemura, the publication is beautifully printed, with all the photographs by Watanabe, including new aerial shots taken in 1960. It is a bibliographic gem (a used copy of which, in perfect condition, I miraculously acquired ten years ago).

Tange interprets the architecture of the two shrines of Ise at length, on the basis of a dichotomy existing in the Japanese architectonic creation, the prototype of which can be found in Ise: a primeval, prehistoric drive towards energy and exaltation – "Jomon" –, and another towards equilibrium, clarity and serenity – "Yayoi". These contradict each other and subsist within the forms and construction systems of sanctuaries. Tange compares this dichotomy to the Greek opposition between the Dionysian and Apollonian confronting each other in a creative struggle. In Ise, the "Yayoi" is the drive towards formalization; it works against the "Jomon," the vitalist drive, the generative force. Let me open here a parenthesis with a note from the great writer Yukio Mishima: "Essentially, Japanese culture does not distinguish the original from the copy. The best example of this can be seen in the construction of the Ise shrine. The most recently built is always the original. […] The copy becomes the original. That concept dwells in the depths of our minds to this day." An

assessment matching Tange's oppositions.

Tange compares both shrines in Ise – the Inner, Naiku, and the Outer, Geku –, he analyses the spatial organization of the three buildings – the Grand Shrine and the two "treasure" houses – occupying the fourth precinct. In the Naiku, the Grand Shrine is situated facing the entrance, and the "Treasures" at the back. However, at the Geku, both "Treasures" are on each side of the entrance and the Grand Shrine on the back, isolated; it floats on the pavement's white surface where the visual impact is the greatest. Tange adds to this that the Geku is less ornamented, compared to the Naiku, which is probably why the appearance of the original is better preserved in the former.

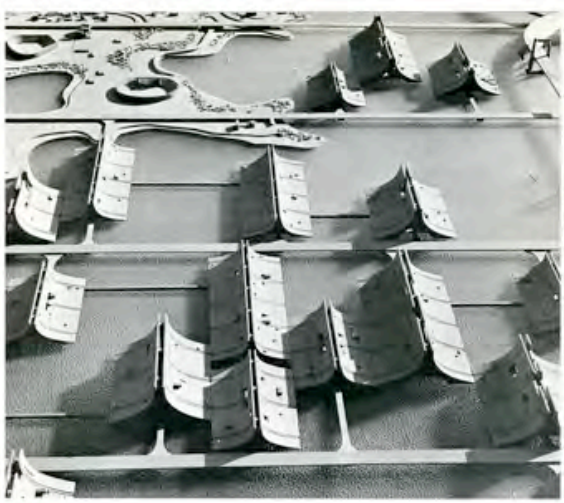
In 1960, Kenzo Tange was probably the qualified architect whose works were the most numerous around the world. He was 47 years old. His buildings and projects surprised those who, like me, were beginning to deal with architecture; his forms revealed something deeply Japanese and were completely novel and contemporary. His determination to explore his origins was rooted in his subconscious and informed his creations in an indescribable way, without direct allusions. He attended the last meetings of the C.I.A.M. (Congrès International d'Architecture Moderne), dialogued with everyone, gave conferences all over the world. He talked about "vitalism" hidden in the forms, that energy that had to be released: "…vitalism always destroys our reality, but it builds the future…"; we must: "…exercise the synthetic dialectics of tradition and destruction…"

And, it was Kenzo Tange who inspired five young men, trained in his workshop, in his "Tange Lab", – Isozaki, Kato, Kurokawa, Maki, Ekuan – to lead the first renovation of the heroic Modern Movement that sprung up during the second decade of the XXth century, the great death-leap of the history of art: the Metabolism (thus named by Kawasoe) takes charge once again, thinks up the new city for the future. It thought big anew; during two decades it gave birth to projects and works that filled us with optimism.

Let me finish with this visual comparison. . .

ISE PROTOTYPE OF JAPANESE ARCHITECTURE
The M.I.T. Press, 1965

Geku Shrine at Ise circa 690



Kenzo Tange - George Braziller, N.Y. 1962

The Landscapes of Change: East-West Intercultural Exchange as a Model of Cultural Equilibrium

Aris Kafantaris, Kengo Kuma Design Lab, University of Tokyo, Japan

"Nature knows no pause in progress and development, and attaches her curse on all inaction." Johann Wolfgang von Goethe

Looking for answers in contemporary Japan

The March 2011 earthquake and tsunami drew the world's attention to Japan once more, and the noise would have by now subsided had it not been for the lingering effects of the crippled Fukushima power plant. Political and environmental sensibilities aside, a recurring motif in the press coverage of the disaster from its beginning and through its escalation is that of arrogance against nature. Japan, a modern post-industrial nation and the third largest economy in the world underestimated a very real danger and proved unable to prevent disaster. Questions of liability will eventually be resolved through investigative legal channels but still, the feeling that our contemporary culture is failing in some fundamental way cannot easily be shaken.

The problem acquires more layers of complexity when one considers the fact that contemporary Japanese architecture is gaining more prominence day by day. With five Pritzker Prize winners among the ranks of Japanese architects , there is no shortage of contemporary pilgrims coming to Japan with almost the same sense of mystification and wonder as they did five centuries ago, right after the first contact with a European mission. But how can we really learn from a country with such a multi-layered, notoriously difficult-to-translate culture and a recent record of disaster that seems to contradict its own philosophical roots?

What I want to suggest in this very short paper is that the answer might lie in looking back. However, I do not mean back in the past of Japan, but back in the past of Europe, during a time when the cultural walls were

unusually porous and the contact between East and West changed both sides considerably. I am consciously (ab)using the two cardinal terms of East and West, which admittedly represent little more than constructed images. But it is the very nature of conceptual images that makes them so effective in disseminating ideas, like they did in the 17th and 18th century Europe. Then, the European perception of Landscape and Nature in its entirety underwent a radical change. Looking into that period might provide us with cues for the present.

The sublime Nature that came from China

If it is not clear yet why I am turning to a discussion about Landscape, I will try to explain. A culture's attitude towards Nature is one of its defining elements, being deeply linked to its social, religious and political foundations. Arguably, there is no other field of artistic expression where this attitude is more directly expressed than landscape architecture. The act of morphing the land and the placing living things according to aesthetic norms is revealing of the concepts that underlie the relation of Human and Nature. Perhaps because of the fact that landscape had been highly politicized in Europe, we fail to see that what we called Western Civilization has had more points of contact with the Far East than what is commonly acknowledged. Especially the Japanese approach to nature -which is rooted both in the local traditions and imported Chinese Archetypes- evokes powerful reactions to Western sensibilities. One contributing factor seems to be the fact that when a major shift happened in European perception of Landscape in the 17th century, one of the main forces supporting the paradigm shift was that of the Chinese Garden. During the beginning of what would later be called Romanticism, it was the image of China that spurred on a radical change in the European perception of Nature .

The theatrical stage of that change happened to be England. After a long civil war ending with the dethronement of Charles I and a short lived Lord-Protectorship under Oliver Cromwell, English society was marching towards parliamentary democracy. The champions of this change however were not

Fig 1. The shift from this (Jardins du château de Versailles, by André Le Nôtre, late 17c)

Fig 2. To this (Redgrave Hall by Lancelot capability Brown, circa 1760)

Fig 3. Was to a great degree facilitated by this (Matteo Rippa, Morning Glow on the Western Bridge)

the simple folk but the ever increasing educated bourgeoisie and the former noble families. It was the landowners, for land meant voting rights in the House of Commons, who started re-imagining the political system of the fledgling Commonwealth. And this political system found a fertile ground for expression in landscape design. Noblemen in political exile would re-discover the joys of life in the countryside and would start creating gardens that brimmed with symbolism and metaphor . Concurrently, natural philosophy was undergoing a major shift in England, with John Locke introducing empiricism. Pure, archetypal concepts were surpassed in importance by physical experience, which was considered the only measure of human knowledge. Even the meaning of he adjective natural changed during those years.

In this rapidly transforming cultural environment, the Landscape Garden was gradually born, and flourished in its contrast with the rigid, regal French Baroque gardens. It was not just an aesthetic but mainly a political contrast that underscored the difference between the English and French ruling classes of the time, and its main expression was through the newborn art of Landscaping. As is usually the case with major shifts in art and science, the density and complexity of the conditions that brought forth the paradigm shift are difficult to discern given the temporal and contextual distance. For a few writers , the main parameter that is often overlooked is the gradual seeping of information about China, set in the context of political turmoil.

It was during these major politico-philosophical shifts, that the presence of China was lingering in the background like a fantastical ghost. Since Portuguese and Spanish missions created an uninterrupted Sino-European network of communication in the 16th century, a fashion developed that rapidly swept Europe. From painted porcelain and fabrics to furniture and decorative paper, the royal courts of Europe were hungry for anything

Chinese. However, the contact with those foreign objects brought upon an unplanned-for side effect: a gradual change in aesthetic perception. While I intend to avoid long quotes in this paper, the following abstract is so revealing of the importance of Chinese aesthetics in Europe that it cannot be omitted . It was written in 1690 by Sir William Temple -a prominent diplomat and essayist- and preceded the Landscape garden by many decades:

"Among us [Europeans], the beauty of building and planting is placed chiefly in some certain proportions, symmetries, or uniformities; our walks and our trees ranged so as to answer one another, and at exact distances. The Chineses scorn this way of planting, and say, a boy, that can tell an hundred, may plant walks of trees in straight lines, and over-against one another, and to what length and extent he pleases. But their greatest reach of imagination is employed in contriving figures, where the beauty shall be great, and strike the eye, but without any order or disposition of parts that shall be commonly or easily observed: and, though we have hardly any notion of this sort of beauty, yet they have a particular word to express it, and, where they find it hit their eye at first sight, they say the sharawadgi is fine or is admirable, or any such expression of esteem. And whoever observes the work upon the best India gowns, or the painting upon their best screens or purcellans, will find their beauty is all of this kind (that is) without order." (1690:58)

This text has sparked furious debate among historians of art and architecture, especially as to the degree in which it could have affected the birth of the concept of Landscape Garden in England, and even Romanticism in Europe as a whole. I myself had written my graduation thesis on the subject, which is unfortunately too expansive to be pursued here. What is most important though, is that China had a strong cultural presence in 18th century Europe, and being something foreign and largely unknown, it became a receptacle of new Ideas. Multiple texts were written about Chinese technology, cities and gardens. Ironically enough, one of the most famous ones, "A Dissertation on Oriental Gardening" by William Chambers, sparked a political storm that almost set an end to Chinese fashions and largely contributed to the underrating of its importance in the 19th and 20th centuries . The adverse

reaction towards that dissertation ended up being one of the major obstacles in discerning the actual effect of Chinese aesthetics in 18th century Europe. However, the image that was being constructed of China was much more important that the actual Chinese gardens.

According to the writings of Chambers and some of his contemporaries, the Chinese, in contrast to the Europeans, worked in harmony with Nature when they designed gardens. In these same texts it was described how in China, the distant landscapes became part of the garden by the act of "borrowing" and how the geographical limits of the landscape would be hidden by moats and high planting. Most importantly though, it was stressed that the Chinese aesthetic was natural, as opposed to the European which was deemed contrived and artificial. Designed landscapes in China were imitating Nature and emulating its forces by incorporating circadian and seasonal motifs, by allowing water to flow and selected plants to grow wild. All things considered, many of the descriptions were exaggerations -and sometimes even fabrications- but what is most important is what they stranded for: a call for change in natural philosophy, in politics and in life style. That Image had a true basis rooted in the actual Gardens of China, but in all other respects was a malleable construct that changed according to the European theorists' expectations and hopes.

The importance of the Image, for a cultural Equilibrium

Likewise, the qualities that we often seek and admire in Japanese architecture are the lightness, consideration and care with which it assimilates itself into its environment. The blurred borders, the non-rigid structures, the modularity and the recyclability of architecture stand as testament to a different approach to that of the West -or what we usually understand as West-. It is very similar qualities that attracted designers and landscape architects of the 18th century to Chinese Gardens. The shift away from monumental, symmetric and all-encompassing gestures towards soft, natural, asymmetric and even whimsical compositions developed conjointly with the shift in philosophical attitude towards Nature. The well-endowed Bourgeois of the 18th century

would march off to voyages that invited a sense of peril and awe, a feeling of respectful confrontation. Instead of trying to subjugate Nature, the Romantics felt the need to understand its force and thus try to approach Sublime beauty and this was primarily expressed through their Landscape art, either as painting or as actual terraforming.

Europe's turn towards nature in the 18th century was to a considerable degree facilitated by its contact with Eastern sensibilities, through China. More importantly though, the shift happened during a time that in Europe the intellectuals were seeking answers in questions that had risen out of a climate of political and cultural uncertainty. At this point -perhaps somewhat casually- I cannot help not to consider the similarity of that cultural context to the one that we are experiencing today as foreign scholars in Japan. Are we not still trying to conjure up an ideal Japan that lives in perpetual harmony with nature, employing centuries-old sustainable technologies? I truly believe that we are, more so because we need that Image to move forward at an age where the question of sustainability in all its cultural incarnations has become a pressing issue. That is to say, that Japan matters just as much as a symbol for what we seek in it, as an actual example of the ideals that we want to validate. Japan is a modern country with ancient traditions that still live through. It experiences the same pitfalls that we do in the rest of the world, and it has to do so under a cultural heritage that is constant reminder of the existence of a different way.

The example of the Sinophile Romantics showcases the importance of cultural exchange as a catalyst for innovation. As we try to tackle with the notion of Equilibrium by looking towards Japan, it is worth to consider how this exchange might take place. I would finally like to close this essay with some thoughts that I initially intended to use as an introduction. Searching for a lexical definition of the word "Equilibrium", I came to realize that this word has as many definitions as are the fields in which it is applied. "Equilibrium" as a concept is ever present in a wide range of scientific fields, from mechanics, thermodynamics and chemistry to evolutionary biology and economics. Despite this apparent multiplicity, the core meaning seems to always be the same: a state of dynamic balance, where two or more fluctuating forces keep cancelling each other out, in a system that

auto-calibrates itself constantly. Equilibrium is a precarious state of being, always on the verge of a catastrophic collapse that will in turn lead to a new equilibrium. In that sense, it looks like what we are striving towards is both a cultural -between East and West Images- and a natural -between our culture and Nature- equilibrium. By confronting Japan's rich tradition and stark reality I believe that we could evaluate and deconstruct our preconceptions, thus turning Japan into a catalyst for change in architecture and design. Japan could become our contemporary counter-balancing force as we strive for Equilibrium, much in the same way that China did if for 18th century Europe.

Notes

1. "Lessons of a Triple Disaster." Nature.com. 07 Mar 2012

2. Which places Japan second after United states (7 winners) in number of laureates

3. In 1543, a Portuguese ship, landed on Tanegashima, after being blown off its course to China

4. Lovejoy, Arthur O. The Chinese Origin of a Romanticism

5. A prime example would be Rousham Gardens by William Kent, replete with political symbolism in the form of artificial ruins and sculpture complexes

6. Turner, Tom. English Garden Design: History and Styles since 1650

7. See Arthur Lovejoy and Osvald Siren

8. Art Historian Nicholas Pevsner wrote on Temple's text: "This passage is one of the most amazing in the English language. It started a line of thought and visual conceptions which were to dominate first England and then the World for two centuries"

9. "Memoirs of the life, works, and correspondence of Sir William Temple"

10. See "Imaginary Gardens", by Aris Kafantaris

Viewpoint

Anne Rose Kitigawa, Chief Curator of Collections and Asian Art, Jordan Schnitzer Museum of Art, University of Oregon, US

From my perspective as a Japanese art historian and curator, it has always been fascinating to note how traditional Japanese architecture (whether residential, professional, or ritual) has responded to geographic, climatic, historic, and cultural forces, as well as to deeply held–and sometimes contradictory–aesthetic values. Examples are as wide-ranging as the grand Shinto shrines at Ise, Izumo, and Sumiyoshi; the stately Chinese-inspired temples Hôryûji, Byôdôin, and Mampukuji; the imperial palace in Kyoto and the aristocratic shinden residences that surrounded it; Katsura, the exquisite sukiya villa; the impossibly "modest" and yet transcendent teahouses inspired by sixteenth-century tea master Sen no Rikyû; the great Zen temple complexes of Nanzenji and Daitokuji; formidable castles such as Himeji; outlandish political structures intended to awe and impress such as Nijôjô in Kyoto and Tôshôgû Shrine in Nikkô; as well as modest minka dwellings of all types, traditional theaters and shops; and late nineteenth through early twentieth-century buildings modeled on Western architectural prototypes.

It is well know that the tectonic activity of the Japanese archipelago and the flammable nature of the raw materials (mostly wood, straw, and paper) used to erect most traditional Japanese buildings required technical flexibility and spurred creativity. Although through the centuries Japan received successive waves of influence from China and Korea (and more recently from the West) that affected the plans for numerous Japanese structures, those influences

were counterbalanced by an indigenous appreciation for raw materials likely inspired by the value placed on unadulterated natural forms in Shinto, Japan's indigenous religious tradition.

While the climate variability of various Japanese regions has encouraged a number of distinct building types, most (of necessity) share ingenious strategies to weather earthquakes (e.g., a nail-less, post-and-lintel system with non-load-bearing walls) as well as an additive, modular structure– whether lengths measured in ken (the bay width between two wooden posts) further subdivided into shaku ("feet") and sun ("inches"), or area measured in tatami mats (though mat sizes differed by region). Moreover, the transmission of traditional carpentry skills through well-established guilds, such as those responsible for the rebuilding of Ise Shrine every 20 years, insured that the highest possible standards were maintained.

The Japanese respect accorded to knowledgeable elders and the value placed on harmonious cooperation were well suited to the collaboration required to erect ambitious, complicated structures and provide an inspiring example for contemporary projects planned on a global scale. In addition, the innate sensitivity to nuances of environment, season, and function accord well with modern interest in sustainability and functionality.

The Mobile Pavilion concept embraced by the Dhillon Marty Community Week 2013 project will provide a valuable opportunity for a group of distinguished international architects to grapple with the challenge of conceptualizing a flexible, mobile structure inspired in part by the idea of a shin'yo, or (o)mikoshi – the portable shrine used to transport a kami (Shinto deity) from the main hall (honden) of a Shinto shrine to a temporary resting place (otabisho) during special festivals. I look forward eagerly to participating in the discussions toward that end, as well as to seeing the strategies put forth by our talented architect colleagues.

History is Directed by Disasters – Why We Should Examine our Own Ground

Kengo Kuma, Tokyo, Japan

What I am most interested in now is inverting the structure of a culture that is centered on the city. The twentieth century was an age of industry and an age in which everything from material goods, information and culture flowed from metropolises to local towns and villages.

Following the same vector, architecture too flowed from the center to the periphery. Concrete, steel and glass produced in metropolises were transported to localities, and buildings throughout the world came to be constructed of the same materials with the same details. Trends in design too flowed outward from metropolises. The flow of information in the twentieth century followed a familiar pattern: trends that emerged in New York, London or Paris were transmitted to Tokyo and reached local towns and villages in Japan several years or decades later.

The end result was the destruction not only of local culture but of all local life. Local buildings were once constructed of locally produced wood, stone, clay and paper, but such materials fell into disuse. Craftsmen skilled in the use of such materials lost their livelihoods and disappeared, and no one was there to follow in their footsteps. Local economies and lives as well as local cultures were destroyed through this process.

I am convinced that the earthquake and tsunami that struck the Tohoku region of Japan on March 11, 2011 provide an opportunity to invert this twentieth-century social and cultural structure. That is because the Tohoku

region is the area with the richest natural environment in Japan and the place where many craftsmen with skills that utilize that natural environment lived and worked. However, the Tohoku we saw destroyed by the earthquake and tsunami was not the old Tohoku with which we were familiar. It was not the Tohoku with the rich natural environment, the Tohoku that had been a paradise of craftsmen. Row after row of prefabricated housing units had been assembled from parts prepared in factories, and the people of Tohoku living in those units commuted to work in cities by car. A lifestyle similar to that of American suburbanites had destroyed the rich and distinctive culture of the Tohoku region. When I saw tsunami washing away those American-style houses and cars, Noah's Flood came to mind. God sent the biblical Flood to punish an arrogant, corrupt humanity. The earthquake and tsunami seemed to me an expression of the anger of the gods at the way all of us had forgotten or ignored the fearsome power of nature. In that sense the tsunami was much like Noah's Flood.

The Tohoku region is a special place for me personally. I opened my office in 1986, but the bursting of the economic bubble in 1992 began a decade of recession in Japan. During those ten years, I received no commissions in Tokyo. My office managed to survive by doing small, local projects.

I was helped out during those ten years by jobs in the Tohoku and Shikoku regions. Those are the most underdeveloped and impoverished regions in Japan. One reason for this is their distance from Tokyo, but another has to do with topography. Steep mountains rise all the way to the coastline in both Tohoku and Shikoku; as a result, large plains do not exist, and areas are cut off from one another. Both Tohoku and Shikoku are essentially collections of countless small valleys.

This topography hindered the dissemination of a central culture transmitted from Tokyo. Because of this topography, both Tohoku and Shikoku lagged behind other regions with respect to twentieth-century trends. Conversely, it was thanks to this topography--those valleys--that both Tohoku and Shikoku retained the rich culture characteristic of small places.

The richness and strength of that culture cannot be understood until one has worked together with the people who live there--until one has made things, eaten local food, drank local sake and talked together with local craftsmen. In the decade after the bubble burst, I had an opportunity to learn from Tohoku and Shikoku the richness of small places. I probably would not have been able to change had I not had those ten years of experience. I probably would not be designing the kind of buildings I am designing now. That is why I continually tell students that a recession is the best of times for an architect and that having no jobs is the most fortunate thing that can happen to an architect. One tends to repeat one's past; one rarely attempts to change. One does not try to learn from the changed circumstances of a new era.

The biggest thing I learned from Tohoku and Shikoku was that relationships are what makes a place rich. A place is not rich simply because it has a beautiful natural environment. A place is not rich simply because it is blessed with natural resources such as wood or stone, or because many skilled craftsmen live there. The relationships that tie these things together are what makes a place rich. Places that were rich in that sense once existed in countless number in Japan.

The German architect Bruno Taut perceived that Japanese architecture was an architecture, not of form, but of relationships. He declared that by comparison European architecture was an architecture of form and that European architects were formalists. In 1933 Taut escaped Germany where the Nazis had taken power and after traveling by the Siberian Railway took a boat across the Sea of Japan, arriving on May 4 in Tsuruga. He headed directly for Katsura Detached Palace in Kyoto. May 4 happened to be his birthday.

Taken by Japanese architects to visit Katsura Detached Palace, Taut, who had no background knowledge of the place, stopped in front of a fence known as Katsura-gaki. His eyes filled with tears. The Japanese architects were astonished by this unexpected reaction.

This world-famous architect whom they respected, the avant-garde architect and leader of the modernist movement who had designed the Steel Industry Pavilion (1913) and the Glass Pavilion (1914), had suddenly begun to cry in front of a shabby bamboo fence in an old garden built in the seventeenth century. What had happened? Who was this man?

Taut later wrote a book entitled *Nihonbi no saihakken* (The Rediscovery of Japanese Beauty) and devoted many pages of it to the detached palace. He discovered from his experience at Katsura that the essence of Japanese architecture is "relationships." Taut explained that from the standpoint of European formalism, the Katsura buildings are nothing more than shabby huts. In fact, when Le Corbusier, whom Taut accused of being a formalist, later visited Katsura Detached Palace in 1955, he left behind only the negative comment that "there are too many lines." His reaction was the polar opposite of Taut's.

Taut discovered in front of the fence in Katsura a "relationship" he had never seen before. Katsura-gaki is a fence made of bamboo. However, the bamboo in this case has not been cut and detached from the earth. Bamboo culms still rooted in the soil are bent and woven into a fence.

Taut had never seen such a thing before. It was architectural yet natural, natural yet artificial. Moreover, this miracle was achieved thanks to the amazing skill of craftsmen. There was indeed a "relationship" here--a relationship established between a natural landscape, natural resources and craftsmen coexisting with nature. If one looks at just the resulting form, it is nothing but bamboo leaves. However, he was suddenly moved to tears because he realized that there was an underlying relationship here.

Countless such relationships existed in Tohoku and Shikoku as well. In each small valley, trees grew, and those trees gave each valley its own unique texture, color and fragrance. Unfortunately, this volume cannot give the reader any sense of that fragrance. Fragrance also played an important role in Japanese culture. Fragrance is traditionally deemed more important than appearance in the selection of a tree. Craftsmen lived in each valley. Using the rich resources

yielded by the valley, they made things and constructed buildings. In doing so, they were very much like mothers giving birth. Through their production of things using that place as material, place and humans were connected. It was through the act of production that the valley and humans were connected.

Many cultural anthropologists have pointed out that this relationship--the production of things using place as material--is the most important relationship for humankind. The father principle is universality and objectivity, the drive to dominate and govern the world according to one rule. The child, on the other hand, rebels against the father and opposes him with an individual's subjectivity. Production by the mother mediates in this opposition between father and child.

Poststructuralist philosophers (such as Derrida and Kristeva) have pointed out that acts of production by the mother are the essence of the concept of *chora* (place) which Plato stated at the beginning of *Timaeus*. Universal principles exist in the world, but at the same time the world is a collection of countless, heterogeneous places. Plato pointed out that acts of production by the mother resolves this seeming contradiction.

Plato's concept of chora closely resembles the concept of guardian spirits of places that has been traditional to Japan since ancient times. The world is saved from opposition and schism between father and child through continued production by guardian spirits. Similar beliefs and ideas existed in many places in the Neolithic period, and Plato's concept is said to be an extension of those beliefs and ideas.

I learned the significance of production from Tohoku and Shikoku. Architecture is an act of producing a thing from a place; it is production by those who live in the place. Such acts of production connect place and human beings. It is that great truth that I learned from Tohoku and Shikoku. I decided then to engage in architecture once more in earnest, and in that sense Tohoku and Shikoku are for me a mother, indeed more a mother than my own mother.

Borrowed Matter

Erin Moore, FLOAT, University of Oregon, US

Individuality and the Molten Source

"Dear man, just let me have myself
On loan for quite a little while.
I will come back to you. We men
Are not born more than once, you know,
And naturally we make a fight
To keep the self with which we came
Into the world.—Are we agreed?"

Peer Gynt, *Henrik Ibsen*, 1876

At the close of Ibsen's dramatic poem, Peer Gynt is frightened of the button maker's ladel of molten lead. The button maker's warnings that he will return Peer's soul to the molten source make him face the temporary nature of his individuality and his existence. In this example, Peer Gynt's soul and the button maker's own buttons exist only in the temporary gap between their casting and their re-melting. [1]

I believe that other material things are just as ephemeral as these cast buttons. Like buttons and souls, buildings and material objects also only exist for the time between when they are "cast," taking timber from forests, steel from ore, and gypsum from chalk mountains, and when they are "re-melted," when wood waste is burned for energy, scrap steel is smelted, and gypsum is

Fig 2. **The Borrow Stools** (Erin Moore, FLOAT, 2013) are dry rounds that can be split into firewood and burned. The stools bring to light the energy and carbon that is bound up in plant material. Wood is a product of photosynthesis that borrows energy from the sun and carbon dioxide from the atmosphere. When wood is burned, equivalent quantities of heat energy and carbon dioxide are returned to the atmosphere. The matchstick legs (and accompanying axe) connect our everyday experience of material with global carbon cycling—from carbon sequestration in forests and wood products, to carbon emissions from biomass combustion. The Borrow Stools are meant to take on the beauty, function and danger of that bound-up carbon and energy.

returned to the soil. The individuality of material things is ephemeral, existing only between the time of their assembly and the time of their disassembly. In my mind, designing and making are processes of temporarily *borrowing* materials before they are returned to the metaphorical button maker's ladel, or to what I see as the ecological "whole."

In keeping with the laws of physics, matter and energy cannot be created or destroyed. It can only be transformed. The richest thermodynamic and ecological functions—combustion and phase change, photosynthesis and decomposition, and biological life itself—are all re-organizations of elemental matter and chemical energy on a magnificent scale. Design can be understood as an attempt at choreographing relationships between matter, time and the elements. Especially in this time of massive industrialization, the creation of building materials like cement from limestone, timber from forests, or steel from ore and coal, represent enormous transformations of matter and energy. Instead of being objects, I agree that materials can be more usefully understood as *actants* that have their own vitality (referencing Jane Bennett's use of Latour's term in her own "Political Ecology of Things").[2]

In this view, made things—buildings and material objects—can be understood as cast or finished "buttons," existing only liminally between the before and the after. This mortality, or at least this ephemerality, of material things is poignant. In 12th-century Japan, the poet Kamo no Chomei seemed to embrace, if regretfully, the ephemerality of both building and inhabitant in his description of his *hojoki* (small hut). In the lifetime he describes, many buildings and neighbors are destroyed by fire and earthquake. He writes: "The master and the dwelling are competing in their transience. Both will perish from this world like the morning glory that blooms in the morning dew. In some cases, the dew may evaporate first, while the flower remains--but only to be withered by the morning sun. In others the flower may wither even before the dew is gone, but no one expects the dew to last until evening."[3]

For Peer Gynt, the prospect of his re-melting is an ugly one, while the morning glory and dew drop that Kamo no Chomei describe are beautiful

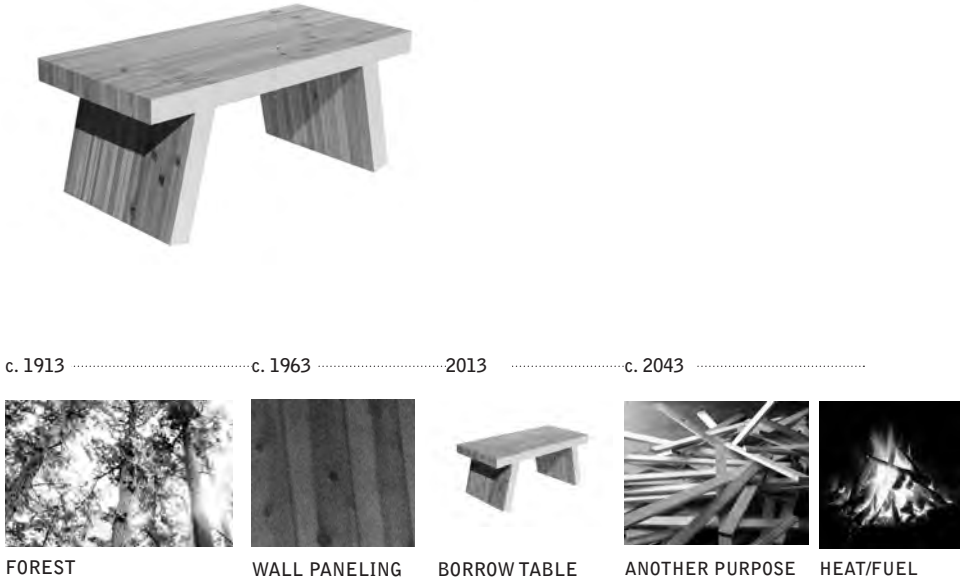


Fig 2. **Borrow Table** (Erin Moore, FLOAT, 2013). Douglas Fir timber seeded in forests in Oregon 100 years ago and cut 50 years ago to be used as a wall finish and then disassembled is now temporarily assembled in a table before the energy in that wood is reclaimed for another use or for fuel.

even if they are both, like Peer Gynt, nearly gone. Even in Kamo no Chomei's terrible description of burning homes, there is a sublime beauty in his description of the "brightness of the fire reflected against the solid cloud of ashes blown up in the night sky." Like the dew drop, the houses that Kamo no Chomei describe must be viewed in their current state and also in their potential to evaporate. Their beauty depends on both.

Expanding Meaning/Secret Sharer

The perception of beauty that transcends the "cast" state to include also the metaphorical "re-melting" is an appropriate way to account for the aesthetic nature of materials themselves rather than just the nature of the mold or the shaped object. The narrative story (in reality or perception) of the source material for constructed things can be beautiful or ugly or somewhere in between. The story of the Ise Jingu cypress forest and perpetual re-building of the shrine is a beautiful one of synchronizing cycles of human construction with cycles of photosynthetic growth. Other stories of building material manufacturing are not as beautiful, like the role of cement production in global climate change.

The idea that the meaning of a work can incorporate far-reaching ecosystem impacts echoes art theorist Rebecca Solnit's description of the meaning of a bronze sculpture:

A reader wrote to a local magazine recently, objecting to the ecological rhetoric in the work of a bronze sculptor. The letter pointed out that the ratio of disturbed earth to extracted copper is 364 to 1 and that therefore, somewhere out of sight, a considerable pile of tailings exists in conjunction with the sculpture. I am fascinated by this way of looking, by the implication that the meaning of the visible sculpture should incorporate that unseen heap or even that although the modernist sculpture would be the bronze alone, the contemporary work incorporates that secret sharer, the mound of tailings.[4]

The work here illustrates my own *Borrow Series* of works meant to draw attention to the nature of material beyond its current state and to incorporate the source and potential of that material in its expanded meaning.

May, 2013

FESCUE AND TWINE

May 19-20, 2013

Borrow WINDOW

c. July, 2013

SPENT FESCUE
AND TWINE

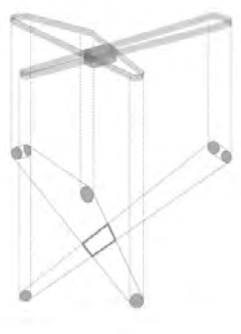


Fig 3. The **Borrow Window** (Erin Moore, FLOAT, 2013). is the most temporary assemblies of the Borrow Series to borrow material to make space. Assembled in an oak grove with twine and with long spring grass from the site, the window was disassembled and returned after just one day.

References

1. Ibsen, Henrik, and Rolf Fjelde. 1980. Peer Gynt. Minneapolis: University of Minnesota Press.

2. Bennett, Jane. 2010. Vibrant matter: a political ecology of things. Durham: Duke University Press.

3. Kamo, Chomei. 1972. The ten foot square hut, and Tales of the Heike; being two thirteenth-century Japanese classics, the “Hojoki” and selections from the “Heike monogatari.”. Rutland, Vt: C.E. Tuttle Co.

4. Solnit, Rebecca. 2001. As Eve said to the serpent: on landscape, gender, and art. Athens: University of Georgia Press.

Material Consumption + Value Transposition

Benjamin Prager, University of Oregon, US

What are alternatives to material consumption and how can design give value to the immaterial?

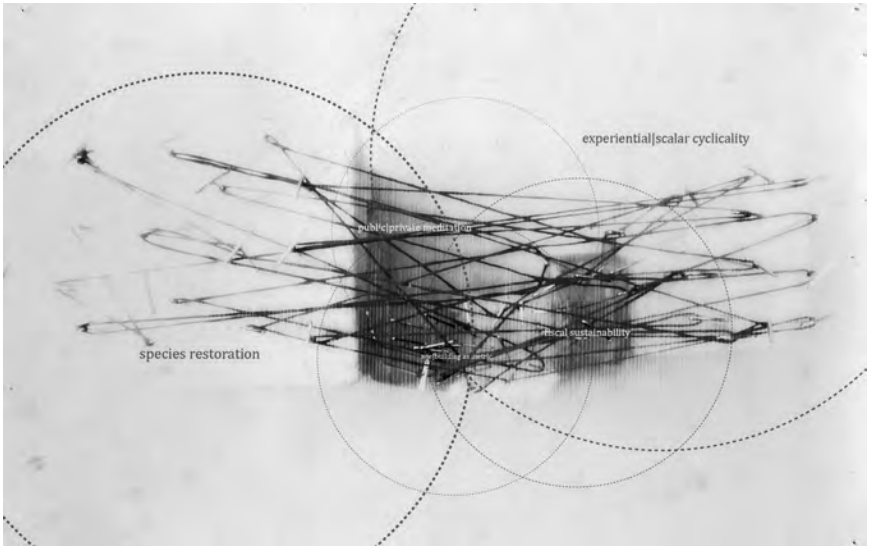
Community Week 2013: Material Equilibrium Prompt

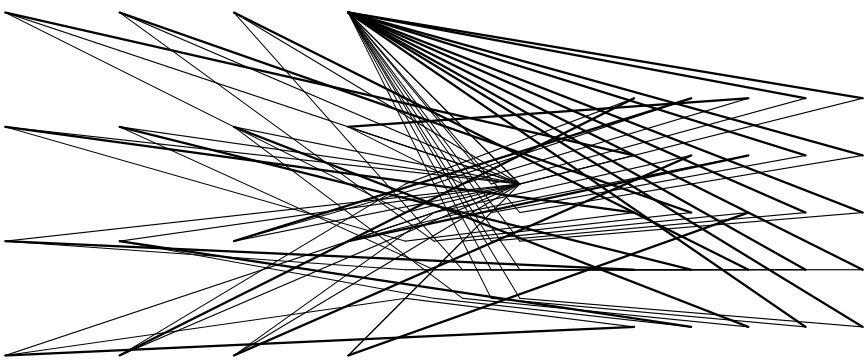
This question embeds two a priori conditions into material consumption as it pertains to design. First, alternatives to material consumption are necessary because material consumption is itself inherently bad. Second, designers can attribute value to the immaterial. I believe we can make two minor amendments to make the question more powerful and bring us ultimately closer to redefining how and what we consume, and as a consequence, produce globally in hope of a return to equilibrium.

Material Consumption

"What are alternatives to material consumption..."

First, the assumption that material consumption is inherently bad omits that only a specific type of material consumption, the irresponsible type, is wasteful. Every action taken, mammal, amphibian, plant, or inanimate, consumes material. A human breathing, bird eating, fingers typing on a keyboard, a wave transforming a stone to sand, is an act of one sort of material consumption or another. Consuming oxygen produces carbon dioxide, consuming feed produces fertilizer, consuming electricity through a computer produces ideas for dissemination, and consuming stones produces a beach. If each action taken is seen as a form of material consumption, then may we rephrase "What are alternatives to material consumption?" to "How can material consumption


experiential|scalar cyclicality
public|private facilitation
species restoration
ethical sustainability



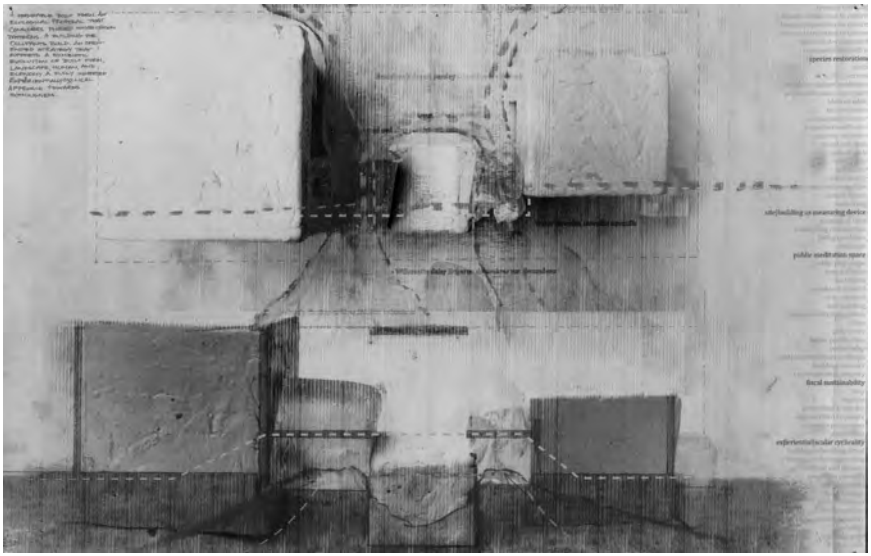
be productive?" or better still "How can material consumption be more productive than it currently is?"

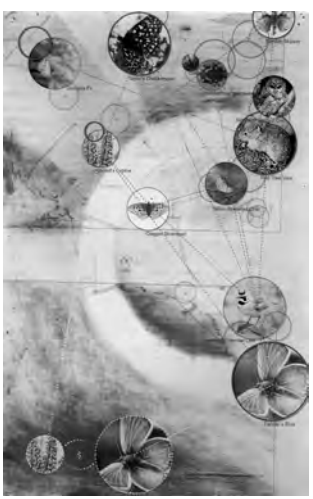
Considering material consumption as a potentially fruitful process simultaneously recognizes material consumption as native to natural processes and proposes an emergent framework of inquiry that can transform existing materially consumptive habits into materially productive practices. It forces designers to inquire about the completeness of the consumer-producer relationships that emerge as a result of designs. Who are the material consumers and the material producers? What material is being consumed and what material is being produced? How much material is being consumed and how much material is being produced? How much more material should be produced as a result of consumption? How will we consume the material and how will we produce the material?

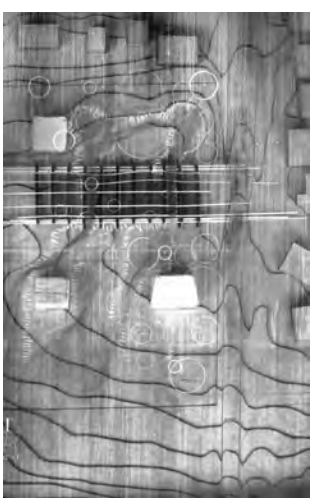
The drawings that accompany this text were created for a hypothetical project for the development of a Buddhist temple for a client in Portland, Oregon. It attempted to take the questions of the consumer-producer relationship into account in the design response.

For instance, if the project asked, "Who are the material consumers and the material producers?" under the existing paradigm that portrays material consumption as a negative process, the consumers are as follows: those attending Buddhist services consume the service, flowers, food, and perhaps the gasoline necessary to attend, while the building consumes electricity. The producers are solely those individuals performing the Buddhist service. Therefore, to reduce material consumption, designers might propose better building insulation or passive heating and cooling strategies to reduce material consumed by the building.

I believe that if we ask the same question under a slightly altered paradigm that proposes that material consumption can also be highly productive, the design response would be drastically reconceived and holistic. If the network of cars used to arrive at the service could harness and transfer kinetic energy







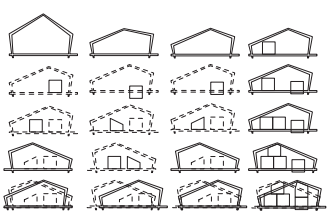
to the building, those attending the service and their cars become a part of the productive process. If the flowers used in the ceremony were of the right species, their consumption could be ecologically productive.

These drawings attempted to analyze the complexity of the relationships of the competing systems involved in the design proposal including the Buddhist belief system, ecological restoration, financial viability, the lifespan of the built environment, and community longevity in order to distill a unique design solution that successfully transforms material consumption into a site-specific productive process. Through the layering of various data, a solution that brings material consumption into equilibrium with material production emerged. The proposal called for an endangered native species of flower, the Kincaid Lupine, to be simultaneously farmed for species restoration (addressing ecological restoration), sold for ceremonial purposes (addressing financial viability and the weekly Buddhist ceremony), situated on site to minimize building impact and maximize viewing pleasure (addressing the lifespan of the built environment), and sponsor educational tours (addressing community longevity).

Immaterial Value

"… and how can design give value to the immaterial?"

As designers, artists, scientists, philosophers, and industrialists, at the most basic level, we take an input, whether a request from an individual or group for a house, sculpture, chemical compound, question, or product, and transform it into an output that creates value. Where a market exists, that value is relatively easy to translate into an understood, quantifiable value. Where a market does not exist, in particular, for the immaterial, the value that we create is either hard to quantify, as in the case of contingency value approaches to determining the monetized cost or willingness-to-pay for the maintenance of an endangered species, or impossible, as in the case of the consumption of an intriguing idea or a pleasant experience even though we can not deny that value exists in both.



Therefore, I propose that we augment the question "…how can design give value to the immaterial?" to "…how can design show the value of the immaterial?" We know that the consumption of a well crafted experience of a space, object, sound, or idea produces a material or immaterial reaction for an individual or group. What we can't yet communicate is the value that results in the consumption of the immaterial experience. The drawings included with this text attempted to do just that, to mix data driven analysis with ethereality, to bridge the gap between a rigorous scientific understanding of the interactions between complex systems to the experientially quality of the interaction between a representation of an idea and its viewer. When displayed, the various media types used encouraged spectators to touch the drawings to physically connect the visualization of an ephemeral Buddhist experience to the materials consumed to represent it, bringing the viewer closer to experiencing the value of the immaterial behind the visualization.

Nevertheless, as long as a market does not exist for the immaterial and we are unable to quantify the value of the immaterial, we will continue to struggle to display the value of the immaterial through primarily visual means. A transposition of the immaterial to the sensorily experiential can bring us closer to demonstrating the value of the immaterial and ushering design into an era that explicitly incorporates post-materialist ideology.

How can media implicitly incorporate material ecology?

The diagrams above proposed local site interventions for a Buddhist complex in Portland, Oregon and served as a method of identification of the five networked systems with potential building impact: endangered species flows, site occupant financial independence, public engagement in meditation, construction material cycles, and material visualization of natural processes. By integrating a comprhensive set of media tools, including plaster, watercolors, chalk pastel, digital photography, ink and pen, and 3D modelling software, the diagramming process is forced to acknowledge myriad scales of site intervention. The pace of work with chalk pastel differs to such an extent from the pace of digital parametric modeling that each medium suits

itself ideally for different scale of site intervention considerations, enabling the designer to optimize the use of each medium and bring the whisper of "ecological sustainability" through each layer of work.

How can design media define value for the immaterial?

Through data analysis in digital mapping and database tools and abstract diagramming with hand media, the proposal developed a call for a Fender's Blue Endangered Species Farm, in which the Fender's Blue butterfly and Kincaid Lupine are both intensively farmed to restore the species and provide financial profit and ceremonial flowers for a Buddhist temple in Portland, Oregon. The client necessitated that financial independence be an integral component of the design proposal, requiring that the building and site intervention not only meet the programmatic needs of a Buddhist complex but that they also help sustain the financial viability of the temple. A dilemma arose at the intersection of sustainability and media: what media materials do we have to identify and understand how ecology and economy intersect while also allowing us to effectively design and communicate a valuable response?

What media tool transposes ecological design to policy?

The exploratory process for this Buddhist temple consisted of an iterative process that moved back and forth between digital and analog methods. parametic modeling helped in initial form finding while ink, watercolor, and photography generated ephemerality. However, conversations with the Portland Chamber of Commerce and the Planning and Zoning Board were held informally via telephone, limiting the only material transposition of planning and industrial policy to design criteria to fragmented conversation or digital files available on the internet, well short of a media platform necessary to integrate the complexity of ecological systems into the complexity of a design proposal. What materials can be developed to integrate the aesthetics of ecology to the public policy of ecology or industry?

References

1. Allen, Stan. “Diagrams Matter.” ANY 23: Diagram Work: Data Mechanics for a Topological Age. June 1998: 15-19. Print.

2. Bennet, Jane. “Vibrant Matter: A Political Ecology of Things”. (Durham, North Carolina: Duke University Press, 2010)

3. Kempf, Petra. “You Are the City: Observation, Organization, and Transformation of Urban Settings.”

4. Baden, Switzerland: Lars Müller Publishers, 2009.

5. Paglen, Trevor. “Experimental Geography: From Cultural Production to the Production of Space”, in Experimental Geography: Radical Approaches to Landscape, Cartography, and Urbanism, ed. Nato Thompson (Brooklyn: Melville House, 2008).

6. Rees, William. “Economic Development And Environmental Protection: An Ecological Economics

7. Perspective.” Environmental Monitoring and Assessment 86.1-2 (July 2003): 29-45. Print.

多様な素材による多様な形態を扱う構造設計法を探る

Composing Structural Design Methods for Diverse Forms Composed of Diverse Materials

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建築の構造は、多様な素材による多様な形状が多様な工法でつくられ、多様な外乱を受ける。この複雑な対象物を設計する手法を構築することによって、材料特性を生かした形態を実現することができるようになる。近年必要性が増している図面化できないほど複雑な形状を設計する手法の構築にも活用できる。

Structure in architecture is the appearance of diverse forms composed of diverse materials, constructed by diverse methods, and exposed to diverse impacts.

If we can compose a single structural design method for those complicated targets, we would be able to design more material-oriented forms based on dynamics, geometry and craftsmanship.

It will also be valuable for the situation that we are now in, attempting to design and construct forms so complicated they are difficult to even draw.

Glass and Acrylic Structural Opportunities

Fig 1. Proposal for Transparent Glass, Resin Structure, **EXTREME NATURE**, Venezia Biennale 2008. Slender, rigid frame structure using high strength steel with glass walls acting as tension elements. The heat camber method used is important in forming the camber which reduces deflections as well as bending stresses. Development of Manual Form Finding Software to find optimized location of columns. Architect : Junya Ishigami, Structure : Jun Sato

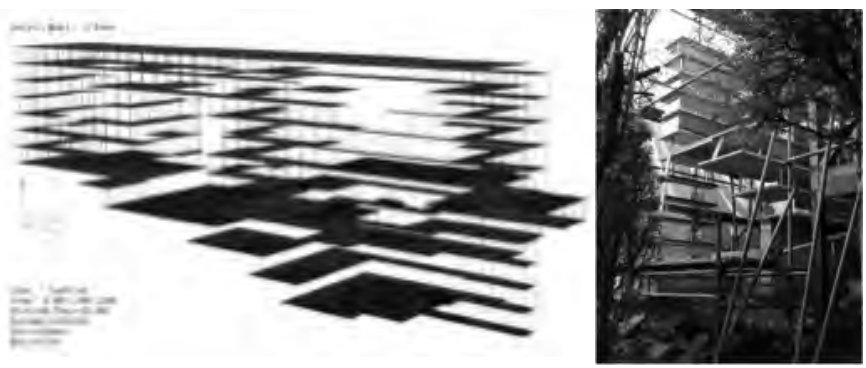


Fig 2. Iz House, Stacked structure of glass and acrylic resin walls. Architect: Sou Fujimoto, Structure : Jun Sato.

Fig 3. “Pop Up Stained Glass” and Research of Stained Glass Structure. Design & Research: Jun Sato Laboratory

Steel Forms based on Welding Technique and Operation of Buckling

Fig 4. Research Building, Hakodate Future University. Steel mesh structure composed of vertical and diagonal elements Architect : Riken Yamamoto. Structure : Jun Sato.

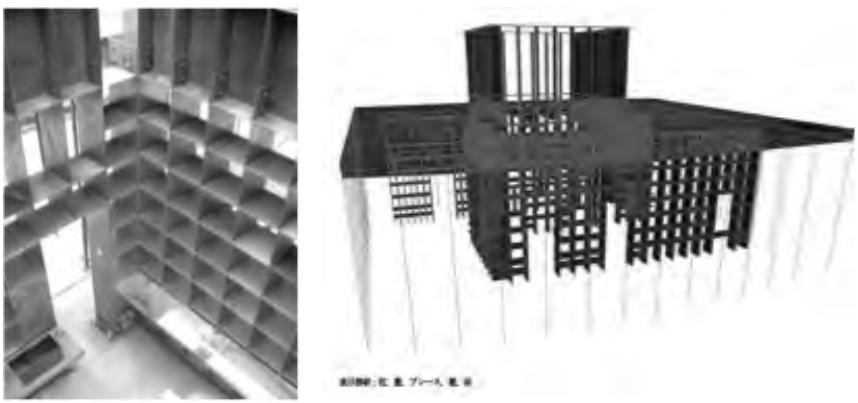


Fig 5. Tsuda Veterinary Clinic. Steel grid structure composed of 6 mm plate elements without a backboard. Buckling is controlled by the placement of the grid wall. Architect: Kazuhiro Kojima, Structure : Jun Sato.

Proposal for Wooden Structure Developing Traditional Connection System “Kigumi”

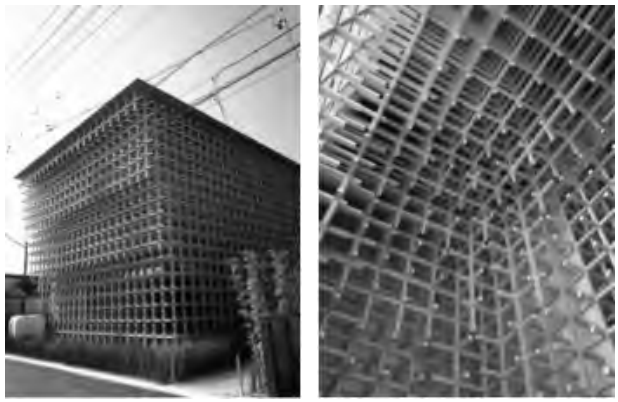


Fig 6. Prostho Museum Research Center. Timber 3D grid structure without metal fixings at joint. Architect : Kengo Kuma, Structure : Jun Sato.

Fig 8. Ashikia Community Hall. Thin laminated timber structure inspired by the structure of a bamboo basket.Architect : Akiko Takahashi, Hiroshi Takahashi / Workstation, Structure : Jun Sato.

Fig 7. “Kigumi” Trial with Kengo Kuma : Starbucks Coffee in Dazaifu(left), Sunny Hills in Aoyama, Tokyo(right).

Copper, Aluminium, Carbon, Membrane

Fig 9. Copper Shell for "Earth: Material for Design" by National Museum of Emerging Science and Innovation. We calculated energy consumption of processing the copper shell by hammering. We found it was only 7 % of the energy used for processing when 93 % for manufacturing copper plate industrially. Design : Jun Sato Laboratory.

Fig 10. Balloon. Aluminium "balloon" of height 14m, weighing roughly 1 tonne The balloon has an aluminium lattice frame skeleton and is filled with helium gas. Architect : Junya Ishigami. Structure : Jun Sato.

Fig 11. MOOM (Membrane Oom). Tensegrity structure composed of membrane and aluminium pipes. Length 26 m, Span 8 m. Design & Construction : Kazuhiro Kojima Laboratory, Tokyo University of Science. Structure : Jun Sato.

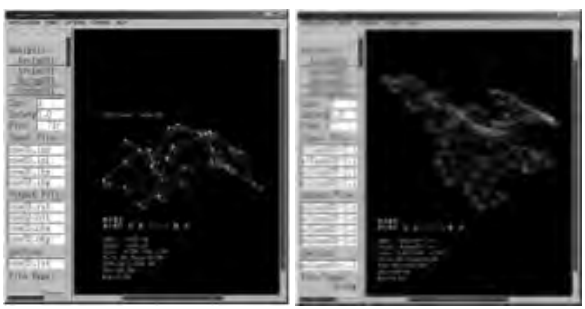
Complicated Forms that are impossible to draw

Fig 12. ? cube. 60 mm cubes made of hemlock spruce connected by "?" shaped eye bolts. The structure gradually changes from a hard structure at the base to a membrane-like structure on the roof. The distance between nodes is the dimension of the cube elements of dimension x 1, x $\sqrt{2}$, x $\sqrt{3}$. Design & Construction : Ken Yokogawa Laboratory, Nihon University. Structure: Jun Sato.

Fig 13. "Big Art" in the Archi-neering Exhibition. Tensegrity structure composed of a membrane supported by carbon (CFRP) pipes. Designed and Constructed by about 15 students. Structure : Jun Sato et al.

Forms Generated by Manually Operated Form Finding Software

Fig 14. Community Centre, Kawatana Onsen. Polyhedral form generated by moving nodes. Development of software for form finding under several load combinations such as gravity, seismic load, snow and wind. The parameter to be focused will be safety ratio, energy absorption. Architect: Kengo Kuma, Structure: Jun Sato.



References

1. “Items in Jun Sato Strucural Engineers”, LIXIL Publishing, 2010. Contents: Structural Tests, Construction Site, Terminal Photos, Material List, Manually Operated Form Finding Software, Explanation of Structural Analysis, Source Code of Structural Analysis Program, etc.

感性を育むこと

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■同じ風景、同じ素材

グローバル化によるローカリティーの損失

インターネットの出現によりグローバル化が進む一方、世の中が均質になってきている。
ターミナル駅などインフラの集中する場所は、地価の高騰により資本力のある企業の参入を促している。そして、日本全国どこの駅に行っても、大手フランチャイズのファストフードやカフェ、コンビニばかりで、ローカルな風景はみられなくなった。地方の住宅街もまた、同じようなハウスメーカーの家が立ち並び、そこで人々は生まれ、暮らし、死んで行く。

経済的論理から生まれたフェイク建材

住まいなどに使われている身近な建材に注目してみよう。木目の床や壁、ドア、家具のほとんどが実際の木ではなく、印刷であることをどれくらいの人が知っているだろうか。

Figure 1: ぺらぺらのシートに木目を印刷した建材「オレフィンシート」

これらは大量生産という経済性、工場で作り現場では設置するだけという施工性、見本とまったく同じものを間違いなく提供できるというリスクヘッジ、そういった供給側の論理から生まれたものだ。
大量供給されているメーカーの住宅、マンション、商業施設、そこに使われている建材のほとんどは、このようなフェイク素材である。こういった素材に囲まれた空間で暮らすことに、私は違和感を覚える。
魚が切身のまま泳いでいると思っている子供がいると聞くが、本物の木の色や香り、手触りなどを知っている子供は少ないのかもしれない。
印刷技術を駆使し、本物とほとんど区別のつかないフェイク建材は工業技術の賜物だ。その出現により、同じ表情の建材の大量供給が可能となった。ところが、素材の「味わい」や「個性」とみなされていた不均一な質感や、経年による表情の変化といったものは、いつしか「瑕疵」として扱われクレームの対象となってしまった。
今や本物の素材良さを知り、求めているのは、建築家と一部のユーザーのみだ。需要の少ない本物の素材はコストがかさみ、生産が減少しつつある。これが健全なバランスとはどうしても思えない。これではモノに対する愛着が失われていくだけだ。過剰供給の行き詰まりが見え始め、今ある物をどう更新していくかが問われるこの時代にこそ人の感性を育むための空間や機会が必要なのではないだろうか。

■身の回りから気づくこと

経年変化が生む味わい

私の実家の階段は、塗装された木製のものだ。経年変化により、ステップごとに足を乗せるところだけ、互い違いに剥げている。きっと家族全員同じ癖があるのか、或いはその剥げによって癖が継承されているのだろう。長年の生活の軌跡が刻まれた、家族と家の歴史を示す象徴的な場所である。

劣化することを前提としていないフェイク素材には無い味わいを感じる。

Figure 2: 実家の階段

「無い」ことが生む感性

京都にある妻の実家は築３０年ほどの建売住宅だ。この家の脱衣場にはドアが無い。かつてドアはあったが外してしまったという。ダイニングスペースに面しているにもかかわらず、完全に開放されていて、風呂上がりの姿は丸見えだ。勿論、最初は使うことに戸惑うが、意外に慣れてくる。誰かがそのスペースに居ることを認識していれば、着替えていても見られないし、見ようともしないからだ。
これはまさに伝統的な日本家屋の「障子」と「ふすま」の有様と同じだ。壁のようなハードな遮蔽物が無く、気配が筒抜けであろうと「プライベートな出来事は開かないことにし、見ないことにする」という文化だ。
相手への配慮や気配りを通じて、他者との距離を測る日本人特有の感性がここには息づいてた。

Figure 3: 脱衣場のドアが無い家

■建築設計で試みていること

手の跡を遺す

『和処　晴と褻』を設計した際、誰でも気兼ねなく和むことができるよう、店内の仕上げを全て人々の痕跡が遺る素材で造り上げた。壁の一部は和紙貼りとし、和紙を貼る前に新聞紙をしわくちゃに貼り付け、凹凸のある下地をつくった。それは職人の指導のもとで、実際にその店で働くスタッフの手によって施工された。このように、自らが働く空間を自分達の手で作ることで、職場への愛着が芽生え、和紙という素材にふれる貴重な体験となった。

Figure 4: 和処　晴と褻、凹凸をつけた壁

テーブルには、店舗で提供する野菜を漉き込んだ和紙を貼った。テーブルによってそれぞれ違う野菜が漉き込んであり、和紙職人の協力により制作された。客が触れられ

るところにリアルな素材感をプロットすることで味覚だけではなく、手触りや視覚的にも楽しんでもらえる店舗を目指した。
こういったワークショップ的なものづくりのあり方は、店舗に限らず地方の活性化や町おこしの機会として有効なのではないだろうか。

Figure 5: 和処　晴と褻

気配を感じながら繋がる家族

札幌に建てた住宅『Northern Nautilus』では、個室どうしは繋がっているものの、壁やドアの高さの調整により、視線が通らないようにしたり、床レベルを替え、空間が立体的に繋がるようなデザインとしている。家族同士が個々のプライバシーは守りつつも、お互いの気配を感じ、声を掛け合いながら暮らすことができる。家族の繋がりとともに空間的な広がりを常に感じられる家にした。

Figure 6: Northern Nautilus

Figure 7: Northern Nautilus ダイアグラム

空間の質の変化で感性に訴える

『サンウェル ミューズ 北参道』は原宿に程近いエリアにあり、都市のなかに有機的な優しさや艶めかしさを表現することで、社屋としてのアイデンティティを建築に持たせようとしたプロジェクトだ。
敷地が角地であったことから、接する前面道路をつなぐ路地状の抜け道をつくり、そこを峡谷のような曲面壁に挟まれた建物内への導入部とした。
キューブ型を形成する面を漆喰としたのに対し、曲面壁にはその柔らかさを質感でも表すため、板張りとした。それによって、異なる質感を持つ素材を対比させるとともに、キューブのもつ都市性と曲面のもつ有機性を対比させた。
訪れる者に空間の質の変化を体験させることで、そこに入る前と後で違う感性を呼び起こそうとした。

Figure 8: サンウェル ミューズ北参道

Figure 9: サンウェル ミューズ北参道

都市とくらしのインターフェースをつくる

『N-HOUSE』は、クライアントとの２年に及ぶ徹底的なコミュニケーションのなかで、その人柄を知ることから生まれた。
それは、居住空間として機能性と心地よさを備えただけではなく、都市に対し個性を示しながらも、適度な社会性をもった家だった。
そのため、個性的なファサードを徐々に風景に馴染ませるよう、外壁は珊瑚砂を骨材とした白セメントの左官仕上げとした。プレーンな白ではなく、骨材に珊瑚を混ぜることで、鋭角的な印象を和らげるとともに、経年変化に対し味わいが生まれると考えたからだ。

Figure 10: N-HOUSE

ファサードの浮いている部分からは、中庭が垣間見える。ここは中庭への風の通り道でもある。この抜けによって閉鎖的になりすぎず、中庭で遊ぶ子供たちの声が聞こえたり、住人の階段を上り下りする姿が垣間見え、街に対して適度な親しみやすさを表している。一見、重力的にアンバランスに感じられ目を惹く部分が、外部に対しては住人の気配を感じさせ、内部にとっては外の様子が伺えるインターフェースとなっている。

Figure 11: N-HOUSE

竣工後、この土地の新参者であったクライアントは近隣住民をホームパーティに招いた。すると招待した全員が集合し、これまで無かった近隣どうしの交流が始まったという。
隣人の顔も知らないまま暮らすことの多いコミュニティの希薄な東京において、ひとつの住宅の出現と住人の姿勢が、コミュニケーションを生むきっかけになった

■出会いの芸術

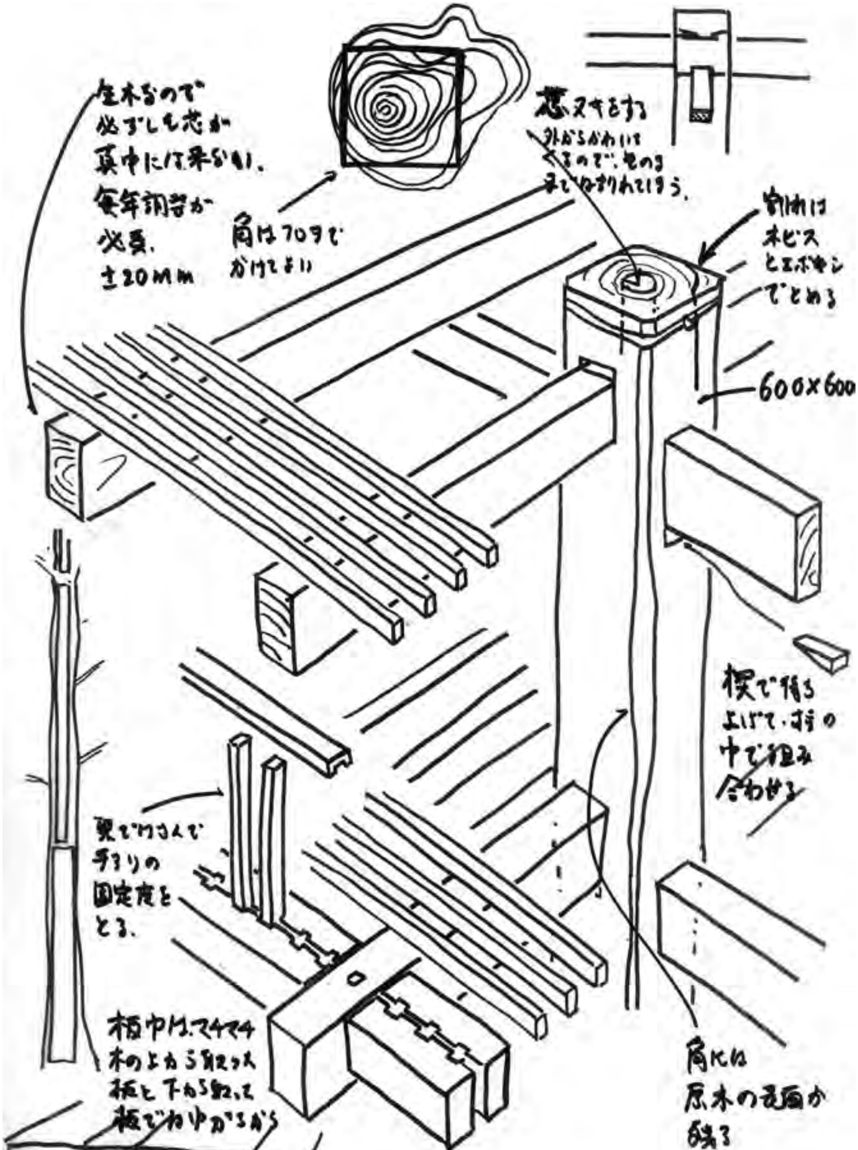
人は，それぞれ育った環境で違った感性を持っている。建築の設計はクライアント自身に自分がどのような空間を良いと思い、嫌いだと思うのか、建築家という他人の感性を通してひとつひとつ気づいてもらうという、途方もない作業の連続だ。
そのなかでクライアントの個性を引出し、愛着を感じられる建築を大事につくって行くことが、自分の建築家としての使命なのだと思っている。
そして、そこに住む人だけでなく、その街に住む人、そこを通り過ぎる人にもインスピレーションを与え、その人の人生を彩り、豊かな感性を育むような建築を追求したい。

「人生は出会いの芸術である。」
ブラジルの詩人、ヴィシニウス　チ　モラエスの言葉である。

Asahi Kindergarten

Takaharu Tezuka, Tokyo, Japan

This project is the reconstruction of a kindergarten lost in the huge tsunami in 2011. The project is funded by UNICEF. We used massive trees killed by sea water. These trees used to be religious symbols of the local villager. They were planted after tsunami in 1611, which happened exactly 400 years before the tsunami in 2011. These trees and kindergarten were owned by Daiyuji Temple. The main building of the old temple is on the hill. The height is just enough to evade tsunamis in the long history. Many of the villagers survived because the priest of the temple used to teach them to escape to the temple. Every piece of the building of Asahi Kindergarten including structure, floor and handrail, was curved out from these trees. The circumference of some of the trees exceeded 5m. No metal joint was used. We


生木なので
必ずしも芯が
真中には来ない。
毎年調整が
必要。
±20mm
芯ヌキをする
外からかわいて
くるので、そのま
まではわれてしまう。
割れは
木ビス
とエポキシ
でとめる
600×600
中で組み
合わせる
手すりの
固定度を
とる。
板巾はマチマチ
木の上から取った
板と下から取った
角には
原木の表面が
残る

used traditional joinery and wedges, because we know these old techniques has been making Japanese traditional architecture to survive more than 1300 years.

The massive column with sectional dimension of 600mm x 600mm are the message to the children who are going to live after 400 years, to tell “these trees were killed by tsunami, and you have to run up to the building when a big earthquake comes.” We can’t stop tsunami coming, but we can leave a message with the building. The building is not shaped inventively. It is about the message to reach 400 years in future. If you are there, you will feel the power of 400 years old trees, and you will understand the message immediately.

Performing the [Spatio-Material-Temporal] Interval

Beth Weinstein, University of Arizona, US

Introduction

Performance is both a thing we or things do and a thing done. Architecture may equally be argued to be a thing we do (as a practice) and a thing done. What is the relation of the doing to the done, of the action to the object, of the becoming to the being? I am interested in how we perform the designing, the making, and the unmaking of space in regard to the performance of and performance in space. In the context of the Dhillon Marty Foundation Community Week I would also like to place special attention to the performances of matter and tempo in relation to the devising, the making and unmaking, and the inhabiting and performing of architecture.

In order to discuss the performance or performativity of architecture, of space, material, in tempo, I would like to first establish a few references and frameworks for discussing performance from the perspective of performance studies and other fields that have inflected heavily upon theories of performance. I hope to offer examples of how, where, and when performance resides in architectural practice (a doing), the work-product (a thing done) and the performance of and in space as a confluence of doing things and things done. My scholarly research and creative work as architect and as design studio leader is located at the seam between the practices of architecture and performance. Through several works including a work-in-progress, this essay will address the confluence of these seemingly opposing and what I believe to be complimentary practices of architecture and performance.

Performance

In the developing years of performance studies George Gurvitch, a sociologist of law, "called attention to the theatrical or performance elements in all social ceremonies." Anthropologist Milton Singer further defined cultural performances as possessing certain features: "a definitely limited time span, a beginning and an end, an organized program of activity, a set of performers, an audience, and a place and occasion of performance." Certainly we can identify social ceremonies related to the making of architectural works: the placing of the first stone, the topping off ceremony, and the passing of the keys, to name just a few.

While these are performative events related to the making of architecture, we can also argue that performance resides in the designing of space, the making of space, in the inhabitation of space, and in the animation in/of space. David Leatherbarrow, in "Architecture's Unscripted Performance," opens the first chapter of Performative Architecture: Beyond Instrumentality by arguing for a "shift of orientation in architectural theory and practice, from what a building is, to what it does." Marvin Carlson, in Performance: A Critical Introduction, similarly points out the "shift in many cultural fields, from the what of culture to the how, from the accumulation of …data to consideration of how this material is created, valorized, and changed, to how it lives and operates (read "performs") within the culture, by its actions." Leatherbarrow concludes his essay by emphasizing the importance of the performances that arise from not only technological rationality, of engineered structural and environmental building systems' performances, but also the situating, in culture, environment, and program, that enables the unforeseen performance to unfold.

I will return to situating further along this thread that I am unraveling, in this context of this Community Week, to contemplate the ritual and cyclical reconstruction of the Ise Jingu Shrine. I would like to dwell upon this act of building, this doing, more so that the thing done, and to unpack what the doing affords.

Performance as Liminality

Several performance theorists "view performance as an activity somehow 'set apart' from that of everyday…" and within this setting apart there is further emphasis on the relation of performance to rituals and rites of passage, (to) the "'in-between-ness,' (the performative act's) function as transition between two states of more settled or more conventional cultural activity… a border, a margin, a site of negotiation..."

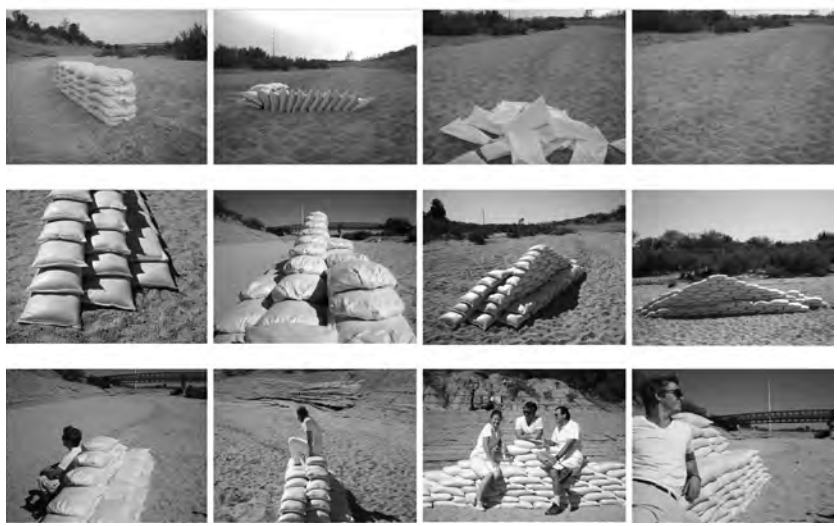
This doing, this performance of bringing into being, this becoming, is a critical in-between state, a state between non-existence and being. It is a spatial and temporal inter-regnum. According to ethnographer and folklorist, Arnold Van Gennep,

rites of passage normally involved three steps, with particular types of rite involved in each: rites of separation from an established social role or order, threshold or liminal rites performed in the transitional space between roles or orders, and rites of reincorporation into an established order.

"(Liminal activities) provide a space removed from daily activity for members of a culture to 'think about how they think in propositions that are not in cultural codes but about them.'" In addition to a momentary lapse from existing systems of order, scholar of 'play' Brian Sutton-Smith points out that there is "'something to learn through being disorderly.'…the possibility of alternate orders." As Sutton-Smith argues:

The normative structure represents the working equilibrium, the "anti-structure" represents the latent system of potential alternatives from which novelty will arise when contingencies in the normative system require it. We might more correctly call this second system the protocultural system because it is the precursor of innovative normative forms. It is the source of new culture.

This liminal space and time, this performance as the in-between and as the becoming, affords an instance for critical re-consideration, for a moment



removed from the normative order of being to a conscious awareness of becoming. The liminal space and time allows the performing otherness – other orders, other spaces, other ways of inhabiting space. It a space and time in which to rehearse potentiality.

Framing of Research into the Space for Performance

As an architect frequently working in collaboration with performance makers, and contemporary choreographers and dancers in particular, several years ago I became interested in contextualizing my work within what revealed itself to be a larger phenomenon of collaborations between these two spatial disciplines. Included in the roster of architects who have designed sets or environments for dance are Diller Scofidio and Renfro, Frank Gehry, Jean Nouvel, Dominique Perrault, Zaha Hadid, Tod Willaims and Billie Tsien, and many others. Beyond the artifacts—the sets and dances—that emerged from these collaborations, I am interested in the creative conversations, concepts, methodologies, and processes behind these projects, and how the potential of the space pushed the potential of the dance, and the inverse, the continued creative invention afforded by this feedback loop.

Interviews with both the architects and choreographers about their collaborative process, and analysis of the sets and performances, led me to draw several conclusions. The most obvious, but foundational for what follows, relates to disciplinary specific processes/working methodologies, and by extension to the kinds of artifacts generally produced through the creative process. Examining architectural environments for primarily non-narrative contemporary choreography, the two disciplines generally work in opposing directions: architects develop designs along a seemingly linear and narrowing path, from a multitude of ideas (or singular idea), through schematic to increasing levels of detailed development, towards the ultimate goal of arrival at absolute specificity that informs the fabrication and assembly of the singular and definitive design, even if the path that lead there was circuitous and nonlinear. The dance work at the outset may have been given a large general structure within which a series of separate parts were developed

or just as conceivably the organizing structure and parts developed in an emergent, bottom-up fashion, with the fragments or segments layered, ordered in time, interwoven, superimposed, etc. However a dance's ordering or structure which may primarily be temporal, unlike one that is physical and subject to gravity, may at any time be inverted, cut up, and reorganized. This, in fact, happens frequently, as part of the creative process, not unlike when a sketch is flipped over or mirrored and suddenly the internal ordering of a design makes more sense in relation to external forces. In dance, this re-ordering of the parts not only is feasible in the early development, or sketch, phases as it is in design of constructed space, but up until the last moment, and, I note, continuing until even after the premiere, until after the so called "piece" is complete.

This observation, of the potential to continue to choreograph, to re-order parts, to continue to "design the dance" even after the dance was completed, raised the colossal question as to whether architectural design and realization could also abide by, be freed by, these laws. Just as a choreography may be created with inherently flexible structures, open to reorganization—as in the work of Merce Cunningham, who ordered and assembled choreographic vocabulary bits by rolling dice, or William Forsythe who sets up cueing structures and contingencies that link parts—I sought to know where and when similar potentialities could be created in the associated architectural works.

In "Performing Architectures: Closed and open logics of mutable scenes" I discussed a spectrum of scenographic environments for dance that, to differing degrees, had integral to their designs the potential for transformation. In some cases these were transformations or the revealing of multiple facets of a construction over the course of the performance. At the other end of the spectrum some designs had, due to the physical elements and their connections, the potential for near infinite assemblies and thus spatial configurations. Amongst these examples, Jean Nouvel's design for The Future of Work (Hanover Universal Expo 2000, with a multi-day dance choreographed by Frédéric Flamand with Charleroi/Danses) was a literal scaffold, which,


TRANSFORMING FROM THE FESTSPIELHAUS, HELLERAU
INTO EL LISSITZKY'S PROPOSED SPACE
FOR TREYYAKOV'S I WANT A CHILD IN THE MEYERHOLD THEATER
TRANSFORMING
INTO FREDERICK KIESLER'S ENDLESS THEATER
WITH A CENTRAL TOWER
AND SPIRALLING RINGS FOR ACTORS AND AUDIENCE
TRANSFORMING
INTO THE TOTAL THEATER BY WALTER GROPIUS
FOR PISCATOR'S EPIC THEATER
WITH SURROUNDING TOWERS AND PROJECTION SCREENS
TRANSFORMING


NTO THE THEATER OF THE FUTURE
WITH ITS ROTATING RING STAGES
HIDING AND REVEALING ACTORS AND CONSTRUCTIVIST PROPS
TRANSFORMING..
NTO EDOUARD AUTANT'S THEATER DE L'ESPACE
WITH ACTORS AND SCREENS AROUND AND ABOVE
TRANSFORMING
INTO A FULLY IMMERSIVE SET
NVIRONMENT FOR JACQUES POLIERI'S MULTI-MEDIA
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THE CURTAIN CALL

due to the system-logic of the design—as a kit of parts to be assembled if various ways—allowed for several reconfigurations in other spatial containers. The set not only allowed adaptation to these other venues, it also allowed for significant re-configuration of the relationship between the space of the dance and that of the audience, as well as impacting upon the ordering and spatiality of the dance itself. The potential to make and unmake the dance and its spatial container extended the life of the work, allowing for continuous development from the same foundational spatial and choreographic system.

This and the other examples shed light on the potential to continue to make, not just adjust, the creative work again and again. The underlying structure and concept of such works, the tool kits for their realization, create potential for other iterations, instances of designing, developing, becoming. It is not so much in the fact that these were designs for performances that a liminal condition, an in-between, a set-apart space and time for critique and projection occurred. The liminal condition, the in-between of becoming again and again, was embedded in the design process which was itself a system, a game if you will, that allowed itself to be performed. Through the performing, the playing out, of the design system different spatial outcomes, that yielded other performances of the space, emerged.

Performing the design process

How to play space, to teach the playing of space within the context of architectural education? The above discoveries, of the potentiality of the performing of the design system, of the importance of creating or discovering a liminal condition to explore otherness, logically led to development of new methods for teaching and practicing the design process. In the context of my teaching courses that focused on the design of performance space—literally theater architecture, scenography and event space—both through top down or preconceived structures and through bottom up or emerging practices, the designs developed as systems to be played, to be performed, to be made and unmade as integral to the design intention. Both sought out or explored the potentiality of liminality.

The first explored the in-between space of a dry river bed as the site of separation and encounter between two communities, and, on a specific date, the site of a one-day event. The project directly embraced liminality – the spatial liminality of the dry river bed and the temporal liminality of the activities occupying an otherwise uninhabitable space. The issue of making and unmaking, of an architecture that appeared to emerge from nothing and disappear into nothing was both a conceptual as well as pragmatic constraint. Working with what was there – the dry sand – presented itself as the logical construction material, gathered into sandbags and stacked and organized according to a set of rules, and emptied back into the river at the conclusion of the event. The conceptual proposal, developed by Jennifer Heinfeld (UA B. Arch, 2010) informed an installation that was created later that fall, further downstream, for a community event focused on raising awareness about water and other environmental issues (figure 1). Thirty students from diverse disciplines gathered in this otherwise non-space of the dry river for a day, in the making and the unmaking of a space, in a collective choreography of filling and spatially organizing one-thousand sand bags at dawn and then emptying the bags of their sand after dusk.

I present this project in this context for several reasons. The design had built into it the potential to be performed in may ways, to be realized in various physical organizations (a high separating wall, a low line to be sat upon, an elliptical space) and sites, allowing it to have multiple manifestations. It was a tool, a tool for an event that brought students and community members out of the familiar space which they control – the design studio – into a no-man's land in the midst of the public realm; to make a space of human habitation, and then to erase that condition, returning it to its state of being a non-space. It created an event of collective making and unmaking – a collegial activity bringing together people who'd never met, or who'd known each other for years but had never done anything, playful or pragmatic, together before that day.

A second project, which eventually was named SHiFT in recognition of the primary spatial action, also explored spatial and temporal liminality, and the

potentiality of a spatial system. The seven students in the seminar developed a spatial tool kit with which to construct the primary quality of each of seven 20th century performance spaces that had been the topic of their research. The making and unmaking of each of the researched theaters was then scripted into a thirty-five minute performance, and presented within a space at the threshold between the School of Architecture and the Arts Campus (figure 2). The students performed this shifting of spatial elements, recognizing that the few moments in which the configuration of volumes represented the studied theaters was a small fragment of the performance. The majority of time was dedicated to the taking things out of one figure, into some other order, and then strategically placing things into some second order.

The project also explored other unfamiliar zones; the students worked in a public space in which they were subject to questioning by the public. They worked with their bodies to explore the clarity of their ideas as manifest in space at 1:1. They spent as much if not more time and effort on the in-between figures as on the actual figures, on the actions associated with that dis-ordering and re-ordering, on the action of doing more so than the objects, the things done.

The last project to discuss is a work in progress that had its first manifestation as SHUTTLE: a mobile desert performance laboratory. SHUTTLE involved a four-thousand mile road-trip through deserts of the American West and an international group of artists and researchers engaged in a diversity of performance practices. As the architect amongst the group my contribution involved two scales of spatial design. The larger of these “designs” could be called the dramaturgy of the journey—the spatio-temporal narrative unfolded by our movement through a diversity of landscapes. The second, at human scale, involved the design of the mobile infrastructure and performative cargo—the elements that allowed us to both store and carry our gear and to create an environment for our nightly gatherings and other activities (figure 3). Each day we were confronted, intentionally, with the challenging of situating ourselves and our practices in relationship to a new environment; these ranged from high altitude to below sea level, toxic lakes to America’s most

magnificent national parks, agricultural and military conditions, border lands and works of land art. In these contexts each day presented the challenge of making a site-specific, a site appropriate, or site responsive environment with the toolkit of elements I had designed. The elemental tool kit included lines, surfaces and volumes, of wood, metal, natural and synthetic textiles, ropes and an array of mechanical connectors. Although the elements of this tool kit had already been determined, the making and unmaking of space could not be preconceived. Rather it had to be performed live in response to the specificity of the topography, heat, rain, daylight available, insects and other temporal forces. Each day presented the challenge of performing designing live, of engaging my collaborators in the designing and space making process, and, a few hours later, the unmaking of the space and its re-ordering within the compactness of the van.

The daily arrival at a new location made integral to the larger "performance research" this interval of becoming, the interruption in the ordering, of both the site and situation arrived at and of the ordered cargo. Referring back to Brian Sutton-Smith's statements, each site and situation demanded a playing, a performing, a disordering, in order to discover through this act of making and unmaking of space the possibility of some place as of yet unforeseen. In some cases this making of space facilitated the event of the evening or mid-day meal; in other instances the making of a space created an interval for pausing, for stasis, as an interruption in the movement. In some instances that space and that time caught between the making and unmaking, that interregnum, led to the development, the performing of unforeseen actions and interactions, of new practices for performing our being together and performing in and with the landscape.

Closing up the Interval

In packing up what feels like a highly disordered collection of threads, knotted with each other and into the sites in-between places, I'd like to dwell for a moment on the opportunities afforded by the performing of making





and unmaking space, by the events that occurs in the interval created both spatially and temporally.

Those gathered in this space are concerned with the making of space and, as we are together in some sort of connection, tenuous or strong, to the Ise Jingu Shrine, we are also concerned with the unmaking of space. The shift of emphasis from the thing done to the doing, and the undoing and redoing again and again, offers our contemporary cultures an opportunity to celebrate, through our actions and engagement in making, the perpetual renewal of the world we live in and shifts focus away, through the unmaking, from the valuing of the thing done. The former celebrates the creative act, the social inter-act(ion), and the cyclical processes that connect human lives with other cycles and life cycles, be those other species of animals or plants, or cycles of seasons, wet and dry, or years between significant events. Remembering that events repeat, such as the regular intervals of monsoon rains and drought, of forests burning, or in this instance that a shrine be unmade and remade, assists us with this practicing and performing of becoming, by engaging us in the performing, designing, becoming with matter, with space and with tempo.

Acknowledgments

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References

1. Elin Diamond, Performance and Cultural Politics, (London + NY: Routledge, 1996), p. 5. Quoted from Performance Design, Hannah, D. and Harslof, O. editors. (Copenhagen: Museum Tusculanum Press, 2008), p. 13.

2. Georges Gurvitch. Sociologie du Theatre. 1956. Quoted from Marvin Carlson, Performance: a Critical Introduction (London: Routledge, 1996) p11.

3. Milton Singer, Traditional India: Structure and Change, Philadelphia, PA, 1959. p xiii. Quoted from Carlson, p 13.

4. Leatherbarrow, David. "Architecture's Unscripted Performance," in Performative Architecture: Beyond Instrumentality. Kolarevic, Branko and Ali Malkawi, Editors. (New York : Spon Press, 2005) p. 7.

5. Marvin Carlson, Performance: a Critical Introduction (London: Routledge, 1996) p. 212. Author's italics for emphasis.

6. Leatherbarrow, p 18.

7. Dwight Conquergood, "The Institutional Future of the Field," address given at the first annual Performance Studies Conference: The Future of the Field, NYC, 24 March, 1996. Quoted from Marvin Carlson, p. 16.

8. Arnold van Gennep, The Rites of Passage, trans. M.B. Vizedon and G.L. Caffee, Chicago IL., 1960, Quoted from Marvin Carlson p. 21.

9. Victor Turner, The Ritual Process: Structure and Anti-structure, Chicago, Ill., Aldine Publishing Co., 1969, p. 22. Quoted from Marvin Carlson, p. 16-17.

10. Brian Sutton-Smith, "The Games of Order and Disorder." Paper presented to the symposium "Forms of Symbolic Inversion" at the American Anthropological Association, Toronto, 1 December 1972, pp 17-19. Quoted in Turner, From Ritual, p.28. Quoted from Marvin Carlson, p. 18-19.

11. Beth Weinstein (2013) Performing Architectures: Closed and open logics of mutable scenes, Performance Research: A Journal of the Performing Arts, 18:3, 161-168, DOI: 10.1080/13528165.2013.818328