ON-SITE

SPRING 2020

ISI FLORENCE
INTERNATIONAL STUDIES INSTITUTE

04 il quaderno

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SPRING 2020

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EDITORIAL

ON-SITE: Where does architecture live?

Franco Pisani

If you do a survey today, asking a number of common Italians "What is architecture?", or – more precisely – what do they need an architect for, most reactions will be weird faces and the answers out of focus.

Architecture doesn't live in people's minds.
In some cases the need for an architect, at least in Italy, boils down to the signature and the stamp needed to obtain building permissions. As such, the architect is only a bureaucratic figure who can validate a construction process, despite being in the dark about either the quality or the goal of that same process. This is the only "specificity" that most people are willing to grant architects. Nevertheless, in Italy, the percentage of projects validated by the stamp and the signature of a professional architect is still very low. The reason being, other professionals too (mainly engineers and "*geometri*")[1] can affect the built environment.

Architecture doesn't live on drafting tables.
Unlike other professions, practicing architecture cannot rely on a strong scientific basis. It does not have (at least today) a solid ground and a set of commonly accepted criteria to guide actions and make decisions. It is incredible how unpopular this professional figure has become in Italy, the country with the highest "density" of architects in the world. According to data shared at the 2014 *Biennale dell'Architettura* in Venice, there is 1 architect every 414 inhabitants in the Italian peninsula. When I tell my students about this, they often ask me why we have so many architects. I honestly do not know the answer, although I must say that studying architecture in Italian universities paves the way for different "interpretations" of this profession. For instance, we have architects working in such contexts as theaters, movies, fashion, photography, landscape, education, product design and many others, but only a few of them are actually involved in shaping the built environment.

Architecture doesn't live in Italy.
In the past, in Italy, architects enjoyed a high social status. To some extent, it still sounds good and fancy to practice this profession, although the average earning is very low. According to a 2019 report by Almalaurea, Italian architects (of which only 45% come from building design)[2] make little money if compared to their colleagues in other countries. On average, it takes six years to become a licensed architect in Italy and another five years for a licensed architect to earn a monthly salary of about 1300 euros. A widespread lack of awareness about this discipline is, in my opinion, the main reason for such critical conditions (more than the incredibly keen competition, as some suggest).

Architecture doesn't live with appeal.
What people think an architect can do for them is far

1_"Geometra" (abbreviated geom.) is the professional who measures, evaluates and designs public or private works of a modest size.

2_27/10/2017 Report by CRESME (the acronym stands for "Centro Ricerche Economiche Sociali di Mercato per l'Edilizia e il territorio").

different from what an architect could (and should) do for them. Somehow, people lost track of architecture. As a consequence, architecture is slowly slipping into obsolescence. Architectural design is not an appealing job anymore. Proof of this is the continuously negative trend of enrolments in architecture schools. Once again, in 2019 applicants to Italian architecture schools have been less than the available spots.[3]

Architecture doesn't live in architecture schools.
The only significant outcome of the recent changes affecting the organization of Italian academic curricula has been the pulverization of architecture as a discipline into a myriad apparently appealing sub-disciplines like interior design, urban planning, product design, landscape design and so on. Centuries of tradition stressing the holistic nature of architectural design have been wiped out by cutting off all the interdisciplinary ties that made architectural design the crossroads bringing together many fields of human expression. By becoming a wide range of disciplines, architecture lost its natural vocation of being the interpreter of the different forces active in the transformation of the physical environment. Consequently, the meaning and the essence of architecture started to be misunderstood.

Architecture doesn't live in life.
Architecture has lost contact with everyday life. It is often associated with glamour and extravagance. It is seen as an exclusive luxury, a decorative and unnecessary contribution to the built environment. It is expected to live in hi-def pictures on magazines and webzines but it is hardly capable of influencing collective imagination. In fact, it does not affect life anymore. Architecture has become inaccessible not only physically but also economically and culturally.

Architecture doesn't live in media.
Media need immediate information, data that can be easy to consume and digest even without any knowledge. As we all know, architecture is hard to define. Like with electrons in physics, it is only possible to define an orbit, a field of tension where architecture can be met. For a long time, architecture inhabited a space somewhere between imagination and reality. It cannot be precise, as it deals with both theory and practice: *Ea nascitur ex fabrica et ratiocinatione*,[4] as Vitruvius said two thousand years ago. More importantly, architecture must have a mutual relationship with life.
Although scientists have proposed hundreds of ways to define life, none of them has been widely accepted. The only sure thing about life is that it must deal with evolution and change. This is why the definition of architecture, too, evolves constantly, thus requiring continuous updates, commitment and faith.

Architecture doesn't live in construction sites.
Sometimes architecture is associated with a technical problem-solving discipline that managers, experts and lawyers can master better than architects do. This adds confusion to fear for responsibilities and the lack of opportunities to practice design. This led architecture to lose part of the specific know-how that was learned in and from construction sites.

Architecture doesn't live in the present.
In a famous lecture he gave in Berlin in 1984[5], Giorgio Grassi compared architecture to a dead language, like Latin and ancient Greek. A language outdated and obsolete in its use, but able to give an incredible contribution to understanding todays' phenomena. An interesting position, indeed. Yet, the risk here is a pessimistic drift infused with nostalgia, suggesting some sort of re-alphabetization in an obsolete language as the only life jacket.
In fact, to be an architect and an architectural educator one must have a vision for the future; optimism, therefore, must be a part of this mind frame.

Architecture's not dead!
This is the violent, intentionally "non-academic" scream that is about to rise at this point of my editorial. In doing so, I am quoting Wattie Buchan, lead singer of the Scottish punk band The Exploited (certainly very far from being a nostalgic Latin scholar)[6].

3_6802 spots - 6897 applications - 5730 accepted students. More than 1000 vacant spots.

4_Vitruvius, *De architectura,* Latin text with facing Italian translation by A. Corso and E. Romano, Turin, 1997, p. 6.

5_G. Grassi, *Architettura lingua morta*, in G.Grassi, *Scritti Scelti 1965-1999*, Milan, 2000, pp. 162

6_The Exploited, *Punk's not dead*, London, 1981.

What if instead of being dead and buried architecture simply hid itself somewhere waiting for better times? In 2002, Rem Koolhaas stressed the notion of "Bigness" in his seminal book SMLXL: as he put it, building was trying to replace architecture, breaking all ties "*with scale, with architectural composition, with tradition, with transparency, with ethics - imply the final, most radical break: Bigness is no longer part of any urban tissue. It exists; at most, it coexists. Its subtext is fuck context."*[7]
Maybe, poor Architecture (scared by Bigness) ran away and was given asylum by its longtime friend and allied Context, turning on the incognito mode. This made it possible for Architecture to become invisible while hosted by Context (to conclude this "moral fable"), with whom it had always entertained a mutual and fertile relationship.

Where does architecture live?
Architecture is alive. It exists in context. What's more, only in context architecture has always found meaning. Context is the ON-SITE of architecture. It is in context that we must look carefully to rediscover the beating heart of architecture.
Architecture and context have always had relations with intricate plots, where cultural, political, economical and technical issues merge inseparably. It is vital to guess, to know which is the structure, the canvas, the picture, the plot where architecture is nested so as to detect it and to re-trigger it.
Context is an unfinished choral book from which architecture takes meaning and energy. In turn, architecture, too, contributes its own "episodes" to it. Context is like a cloud, whose precise form develops from a previous form at a given moment and is doomed to fade in the immediate future, thus leading to a continuous evolution. Architecture operates in this evolution; it is influenced by it and it influences it in turn.
Therefore, it is more important to take into account the structural values of the context rather than chasing the exaggerated individuality and self-referentiality of the building and its technology. Understanding the dialectical relationship between the structure of the context and the formal structure of architecture is a pressing, necessary question if we wish to revive architecture and make it fertile again.
Rescued by Context (to return to the fable above for a moment), Architecture saved its transdisciplinary role. Out of gratitude, it will take care of Context by setting it as the focus of its own interests. Architectural design will use the built environment as a quarry of data able to inform future projects, both from a conceptual and a physical point of view.
Understandably, the most physical component of context is the environment, both built and natural.
Today more than ever the built environment needs design and the multifaceted character of architecture. It requires architects not only as mere designers of good buildings but mainly as professionals able to read, interpret and fix. Due to ecological emergencies, sustainability issues and lack of sensitivity, there is not a single acre of virgin land that is worth "anthropizing" by encrusting it with buildings.
Architects are needed for their capacity of envisioning, thus pairing theory and practice. They are required to help and support decision making; to research building materials and technologies; to rediscover the laws of nature hidden behind codes; to consider and advise the so-called "informal sector"; to fix urban mistakes, to restore and repurpose historic buildings; to speak of style and aesthetics. In other words, they are needed to promote concepts and ideas that can help the built environment evolve toward an accessible and enjoyable place where life can happen.
The built environment is and will be the target of architecture, whether we speak of the natural expression of the rural environment brutalized by intensive exploitation or the urban environment traumatized by a century of economic speculation.

The built environment is the ON-SITE of the future of Architecture.
Architects must master the ability of reading the built environment, of taking the ON-SITE approach as an opportunity to contribute a verse to the plot of the built environment. Under these conditions, reading, understanding and interpreting the built environment are design tools. Verbs like to evaluate, re-use, fix, re-cycle, get rid, clean-up, complete, re-purpose, wipe out, make room, occupy, extend, implement, reorder, sew up and so on must become main actions for architectural design.

7_R.Koolhaas, *Bigness* in OMA, R.Koolhass, B.Mau *S M L XL,* New York, 1995, p. 495

[01] digital collage © Franco Pisani

There are many different tools to read the built environment, and to understand the opportunities it provides for architecture. They range from the more analogical and traditional to the most advanced and digitally precise. They include such "areas" as survey, measurement, sketch, technical drawing, the plans, sections, photography, videos and laser scanning. All of these great instruments are necessary for a correct understanding of the project. Yet, they are not enough. These highly sophisticated tools are very precise but their results happen to be too analytical and specific vis-à-vis the direct and physical experience of the architectural space. The main tool to read the built environment and interact with it is direct, physical experience; in other words, a person accessing that space, moving in it or envisioning to do so. We may sum it all up as follows:

ON-SITE we learn architecture.
ON-SITE we design architecture.
ON-SITE we speak of architecture.
ON-SITE we teach architecture.

Teaching to read context, to respect the built environment, will mean teaching to experience architecture ON-SITE, to became a user of architecture and, last but not least, to be able to speak of architecture. This will make it possible to tell the story of architecture outside architectural offices and schools.

Fiction is the best (and sharpest) way to infiltrate mass media culture. Architectural design cannot but be, in and of itself, a form of fiction. Teaching students to appreciate the built environment and to speak of architecture with words or drawings is a first important step toward a new awareness of the discipline inside and outside architecture schools. Educating students to architecture, making them able to speak of architecture in a precise language that conveys with exactitude *in choice of words and in expression of the subtleties of thought and imagination*[8] will result in re-educating people to architecture.

To teach architecture must be a way of telling people what an architect can do for them ON-SITE.

8_See the chapter titled *Exactitude* in Italo Calvino, *Six Memos for the Next Millenium*, English translation by P. Creagh, Boston, 1988, pp. 55.

CALL FOR PAPERS: On-site

During the building of her 2022 World Cup stadium in Qatar, Zaha Hadid stated, in response to rampant worker deaths on the construction site, "It is not my duty as an architect to look at it" - thus revealing a hidden, contested field in which disciplinary boundaries are currently being tested. While Hadid advocated for strict legal and conceptual limits for the site of architecture, others are currently scrutinizing the site as an underutilized space of design engagement, material and programmatic innovation, and locally activated, responsive architecture.

Historically speaking, the term on-site has denoted both a locational and temporal specificity—defining not only the realm within which a design is to be physically realized, but also suggesting that this realization occurs after the act of design has basically ended. Such a connotation arises from the long-held equation of design (*disegno*) with ideality, and the resulting assumption that the various aspects of architecture's authorship—its conception, iterative exploration, materialization, and refinement—benefit and indeed rely on such a categorical separation between on- and off-site.

The traditional location of the design activity "off-site," therefore, suggests that the site is understood as simply a realm where a fully-formed design is made manifest, and that it is presumed to be devoid of any capacity to host all or part of the design process itself, or to allow the aspects of its character, context, or inhabitants to be harnessed as agents of unpremeditated architectural effects. However, the profound impact of the technological, social, and cultural transformations from the last few decades has led to the decoupling of activities from specific temporalities and locales. As these activities can now take place within new contexts, they have become more situational—transformed by the sites within which they occur.

This paradigmatic shift has likewise affected architecture, dislocating some or all of its procedures from the hermetic confines of the office or studio and allowing them instead to take place within other contexts outside of the specific agency of the architect. Accordingly, new forms and practices of design have emerged that engage the architectural site in novel ways—postponing the closure of the design process so that it remains open to the site's more situational influences.

On-site provides a forum where these recent trends can be interrogated and evaluated. It hopes to examine such works in relation to relevant historical precedents and to sponsor informed speculation about future practices. Relevant approaches could include, but are not limited to:

On-site as data | On-site as construction | On-site as labor | On-site as practice | On-site as experiential On-site as situational | On-site as virtual | On-site as political | On-site as local | On-site as On-site

Editorial Board

_Alessandro Ayuso is a Senior Lecturer at the University of Westminster and an MArch Thesis Supervisor at the Bartlett School of Architecture, UCL. Before moving to London he taught at universities including Virginia Tech and Marywood University, co-founded a practice in New York, exhibited in venues such as McCaig-Welles Gallery in Brooklyn, and studied as a Fellow at Syracuse University in Florence.

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_Igor Marjanovic joins Il Quaderno out of his passion for reading, writing and drawing architecture. He is always curious about buildings and cultures that make them. He is also professor and chair of the undergraduate architecture program at Washington University in St. Louis. He holds a Ph.D. in Architecture from the Bartlett School of Architecture, a Master of Architecture Degree from the University of Illinois at Chicago and a Bachelor of Architecture from the University of Belgrade, Serbia. Trained both as an architect and architectural historian, he investigates the role of pedagogy, exhibitions, and publications in the emergence of global architectural culture. He co-authored a book on Bertrand Goldberg's Marina City and his most recent curatorial and publishing project is Drawing Ambience: Alvin Boyarsky and the Architectural Association (AA), the first public museum exhibition of drawings by some of the most prominent architects—Peter Eisenman, Frank Gehry, Zaha Hadid, Daniel Libeskind, Rem Koolhaas, and Bernard Tschumi, among many others—offering a rare glimpse into a pivotal moment in architectural history and the imaginative spirit of drawing that was and continues to be instrumental to the development of the field.

_Francisco Sanin is a professor at Syracuse University School of Architecture. He has been director of the Syracuse architecture program in London, chair of the graduate program and director of the Florence program. He was born and educated in Medellin, Colombia and is internationally known as an urban designer, noted for his extensive research in the history and theory of urban form. Sanin has taught at Princeton, the Architectural Association, Kingston and Greenwich Universities in the UK, and at the University of Oregon in the USA. He has been a visiting professor in various international schools including Korean National University of Arts, Univesidad Simon Bolivar in Caracas, UPB in Medellin, and Miami University. Sanin is a practicing architect and urban designer with projects in several countries (including Korea, China, Mexico, Colombia Italy, US etc). He has received numerous awards in architecture competition and has lectured, curated exhibitions and published internationally.

ESSAYS

The architect in situ

Kate O'Connor

In archaeology, in *situ* refers to an artifact that has not been moved from its original place of deposition. In other words, it is stationary, meaning "still." An artifact being *in situ* is critical to the interpretation of that artifact and, consequently, of the culture which formed it. Historically, the Architect is the backbone, or spine, that organized, managed and facilitated the project design from inception through completion. The informative demands throughout time, and most recently, have defined and redefined the role of the architect. This liquid and transformative quality can be both a blessing and a curse to the profession based on trends and cultural shifts. A return to cultural fundamentals is essential if, as architects, we are to reengage our ancestral past to the present and towards a collective local global future.

> *"Without culture, and the relative freedom it implies, society, even when perfect, is but a jungle. This is why any authentic creation is a gift to the future."*
>
> Albert Camus

The design seed planted by the *Architect In Situ* cultivates innovative solutions driven by historical and cultural change. The Architect *in Situ* has proven adaptability and necessity within successes. To see the real value of culture is to design through the lens of humanity, and to create memorable and emotionally rewarding experiences.

Origins

The modern day term 'Architect' dates back to the mid 16th century, from the French *architecte* and Italian *architetto*, originating from the Greek *arkhitektn*, where *arkhi* means 'chief' and *tektn* 'builder'. The term 'architect' has been in existence for many centuries, however the architect as its own recognized profession is a relatively modern concept. The term and what it represents has evolved through history to its current form in which architects are seen as highly qualified and educated professionals.

Vitruvius Pollio is often considered as the first recognizable 'architect', known as a great Roman writer, engineer and builder. However, Vitruvius wasn't strictly an architect and did not conform to the perception of architects today. It was the discovery of Vitruvius' great book, *De Architectura* ('On Architecture', published as 'Ten Books on Architecture') during the early Renaissance period that influenced and inspired the architectural movement and was a significant contributor to developing the architect as a profession in its own right. The book was an attempt to summarize the professional knowledge of the day, and to describe the graphic conventions of classical design (Kostof, Castillo, & Tobias, 1995).

Architecture first began to develop as a distinct discipline in Italy during the Renaissance period. Until this time, the practice of architecture, as we understand it today, was not a recognized profession, and unlike the painter or sculptor, the designer of buildings did not have a clearly defined place within the trades. There was no standard training for those wishing to engage in architecture, there was no guild devoted specifically to the professional interests

of architects, and the men who made the plans for churches and palaces were ranked alongside humble artisans (Kostof, Castillo, & Tobias, 1995.)

Evidence of the emergence of the architectural profession as an independent discipline can be seen in 1550 when Giorgio Vasari published the first edition of his history of Italian artists *'The Lives of the Most Excellent Painters, Sculptors and Architects'*. Subsequently, the French writer Philibert Delorme was influenced by the movements in Italy and by the idea of the architect as a profession. He envisaged a self-governing profession of specialists with accepted standards of training and clearly defined responsibilities and privileges. In his *Le premier tome de l'architecture,* published in 1567, he said patrons should employ architects instead of turning to "some master mason or master carpenter as is the custom or to some painter, some notary or some other person who is supposed to be qualified but more often than not has no better judgement than the patron himself". (Kostof, Castillo, & Tobias, 1995) Phulibert defined the roles appropriate for the patron, the architect, and the workman and created guidelines for their working relationship. What made Philibert's view of the profession so much more focused than his predecessors was that he distinguished between the architect and those who designed buildings, but were not, in his view, architects.

Arguably the first architect practicing in the way that we view the profession today was Palladio, who worked almost entirely in what was the Venetian Republic in Italy. Palladio's career was based almost entirely upon the Vicenzan and Venetian nobles for whom he designed palaces and country estates. His reputation was established by his successful entry in the 1549 competition to remodel the city council hall in Vicenza, by his numerous villa designs and by his palace projects. (Kostof, Castillo, & Tobias, 1995)

What makes Palladio comparable to the architect of modern times is his experimentation and use of a range of materials and technologies to suit individual clients' needs. His place in history as an architect is not only based on the beauty of his work but also for the variety of his clients, the varying scale of his buildings and their harmony with the culture of the time.

Evolution of Education

Historically, architecture was seen as one of the arts, and there was no formal training. There were architectural workshops in Italy in the sixteenth century, but very little is known about them and they were not recognized by academics.

The governing body for builders and masons in France, the Royal Building Administration, influenced the organization of the modern architectural office, its delegation of the tasks, business administration, drafting, planning, site inspection, and engineering. This set the standard and curriculum for the first school of architecture, the *École des Beaux Arts* established by the French state.

The *École des Beaux Arts* later acted as a model for America, which sought to create its own identity and style by improving the practice of architecture through better education. This influence became particularly strong towards the end of the nineteenth century when architects were recognized as specialists in their own right, with many wanting to be not just practitioners in an independent field but as academics within that field. America recognized that the success of *École des Beaux Arts* was based on a well-organized curriculum and a rational design theory. The long-established French system was backed by American architects who had been rallying at this time for their own state licensing laws. A number of architectural schools began to appear and would often seek *École des Beaux Arts* graduates as lecturers and staff (Kostof, Castillo, & Tobias, 1995).

Parts of Europe also adopted an academic method of training, however Britain continued with its natural mode of education through the self-controlling mechanism of apprenticeship. "This was a modification of the medieval apprenticeship system. But where an apprentice exchanged his labor for instruction from a master, an articled pupil paid cash to be taught. About one-half of all entrants to the occupation were trained through pupilage by 1800, rising very quickly in the opening decades of the nineteenth century to displace other entry points into the occupation, such as through the building trades. Pupilage usually lasted five or six years, and often included attendance at a local arts academy, and perhaps foreign travel." (Stevens, 2001)

***Architecture In Situ* Education**

Architecture usually does not originate in words,

rather, *images* – composed of lines, forms, volumes, and surfaces – that normally describe the first impulses of design. For the success and training of the *Architect In Situ*, the basic tools of imagination and expression through both tactile and digital curriculum must be developed. This pedagogy integrates design techniques to extend and reinforce the lessons of spatially based conceptual design exercises. Using abstraction and synthesizing objects, exposes design students to the unique blend of visual orientation, creative process, academic investigation and professional training that forms an architectural education. To be successful, the program must immerse participants in an intense architectural educational environment that introduces students to core aspects of a design curriculum as well as to essential architectural principles in general. A greater understanding of both the architectural curriculum and environment is achieved through the construction of studio design projects which equips students with hands-on experience with the design process, program activities which serve to foster a sense of community and enhance teamwork among participants. Field trips aim to broaden the scope of architectural theories, methods, and principles discussed during the program. Students explore the ideas, methods, and issues of architecture with professors and practitioners.

The Bauhaus school curriculum encouraged the embrace of current technologies in order to succeed in a modern environment. While the Bauhaus school of thought believed that the building itself was the pinnacle of all design, their students focused on artistry and crafts across all mediums of design and their school followed a regimented syllabus, which focused on the connection between theory and practice. (Kentgens-Craig, 1999)

Students survey the conceptual concerns of buildings through several lenses. They seek to understand the relationship between the environment and inhabitants and study materials through model making to understand their origin, ways in which they are processed, and behavioral characteristics that determine methods of craftsmanship. Materiality is further explored for its experiential qualities as it is linked to the physical properties, capacities, and vulnerabilities of substance. Finally, techniques used to work those materials are studied as they inform the basic principles, procedures, and details of assembly through tectonic language.

This approach originates from the premise that learning links to the iterative pedagogical model. The main objective is to provide the students with a studio culture which is most conducive for this complex process to occur. Most importantly, project formulations are designed deliberately to foster the gradual progressive development of students. This strategically acclimates and introduces the *Architecture Student In Situ* to a personal cultural experience through studio in their first design exercises.

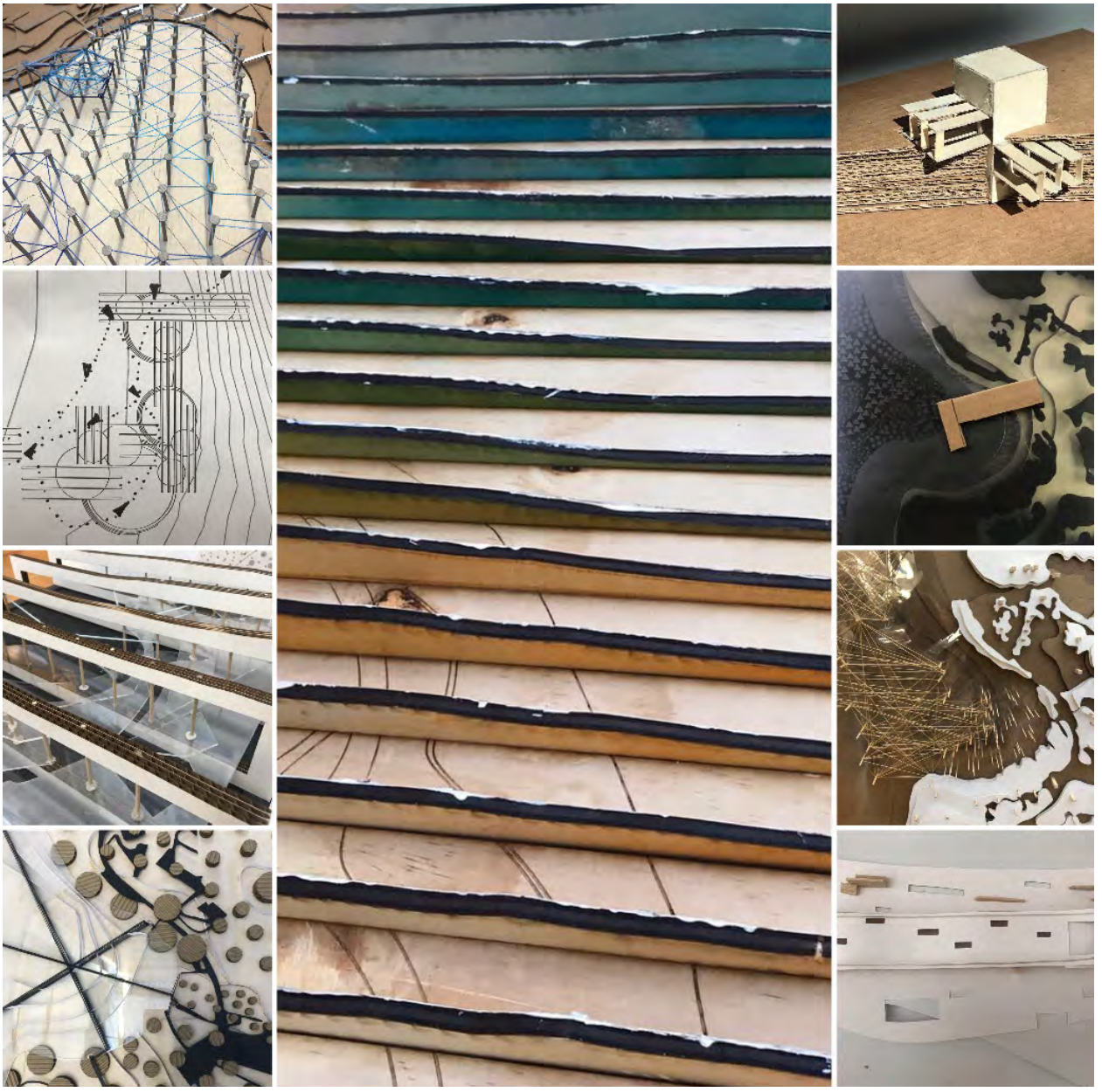
Spatial constructs are introduced through a brief that initiates representational skills and briefs incrementally. This way, inquiries about essential design issues are dealt with gradually and progressively within carefully chosen parameters. This serves the purpose of limiting and focusing the projects content in order to ensure that mastering the basic skills take place prior to introducing more complex ones.

Heuristic Encouragement

> *"The major condition for activating exploration... in a task is the presence of some optimal level of uncertainty. Curiosity, it has been persuasively argued, is a response to uncertainty and ambiguity."*
>
> – Jerome Bruner (Bruner, 1966)

Curiosity becomes the catalyst that drives search, exploration and discovery. It is best achieved in an environment which is *heuristic* in nature, that is, a studio environment where the primary incentive is exploration and discovery. Project formulations are conceived as experimental tasks. The heuristic process essentially operates as a cyclic and nonlinear network wherein students seek to synthesize whole yet incomplete formulations during all of the phases of a project. This approach is echoed by Paul Feyerabend: "Creation of a thing, and creation plus full understanding of a correct idea of the thing, are very often parts of one and the same indivisible process and cannot be separated without bringing the process to a stop... [This is a] process [that is] guided by...a vague urge, by a 'passion'." (Feyerabend, 1975)

"To experiment is at first more valuable than to produce; free play in the beginning develops courage." (Albers, 1938) The aim of the Design your Future



[01] Mapping Exercises, 2nd Year Architecture Studio (Marywood University, Scranton, Pennsylvania. Coordinated by Professor Maggie McManus)

program is to ensure that the student is growing in confidence and feels free to explore and risk, fail and discover. Fundamental in assisting this objective is to ensure–as Bruner promotes–that the benefits of exploration are always to exceed the risks involved; that they are to be valued above any other objective or criteria. This teaching model displaces the teaching-style which coerces students into a fearful, dependent, and submissive 'tell me what you want me to do'-style of learning and replaces it with a summons for all students to discover a personal way of working, using their own history and individual ways of apprehending and imagining the world. The task is used to initiate and cultivate the dialogue between the student and that which has aroused their curiosity and provoked insight. (LaSala)

In this context, team teaching and periodic group reviews are the best venue to foster a more engaging dialogue for a constructive exchange of ideas from all participants. This approach amplifies the scope of the project on a daily basis and the ensuing questioning by students and faculty.

[02] Disassemble and Reassemble – An exercise in Material Exploration (Marywood University 2019 Design Your Future High School Summer Program – Coordinated by Professor Kate O'Connor).

Design students must learn at the onset of their design education to engage big ideas and formulate intelligent and ethical positions of their own concerning matters of significance. At the onset of any investigation, rough constructs are developed by the student. These constructs are daily expanded and amplified by the students in both programmatic intentions and clarity, complexity and rigor of execution. The iterative cycle is repeated and elaborated throughout the duration of the assignment, generating progress in the understanding of the intentions and in the development of the project.

The Relationship between Architecture and Culture

Education of the *Architect In Situ* continues after graduation. Architecture is a manifestation and expression of culture, and as such, the architect must acknowledge and respond to the cultural needs and values of the society with which she interacts.

Historically, culture has been identified with creation of the 'civilized state' and social cultivation (the progressive refinement of social behavior) frequently associated with persons who were educated, stratifying culture into high, low, popular and primitive. The identity of a given culture within a society is that which is sustainable and is widely recognized. But where the primary culture is challenged, sub-cultures emerge and are recognized as tangents to the mainstream, whereas classical culture represented a form of mono-culturalism in terms of nationalism or national identity, as a core to cultural symbolism (Kenney, 1994).

"Culture" originates from the term "cultivation," implying that one has "grown" through knowledge or experience. To be cultured can also mean one is knowledgeable in the arts, or that one is refined. The Encyclopedia of Philosophy definition reads, "the whole way of life, material, intellectual, and spiritual, of a given society." (Edwards, 1967) Similarly, Webster's New International Dictionary defines culture as "the complex of distinctive attainments, beliefs, traditions [which constitute] the background of [a] racial, religious, or social group." (Wilham Allan Neilson, 1941) Culture, therefore, should be understood as involving more than the values and needs of a group of people but the entire "way of life" of that society. That is to say culture is concerned with more than a collection of values; it is a system or complex of distinctive attainments and traditions. Culture should be understood as a system of interconnected beliefs and values.

Culture with a Capital "C"

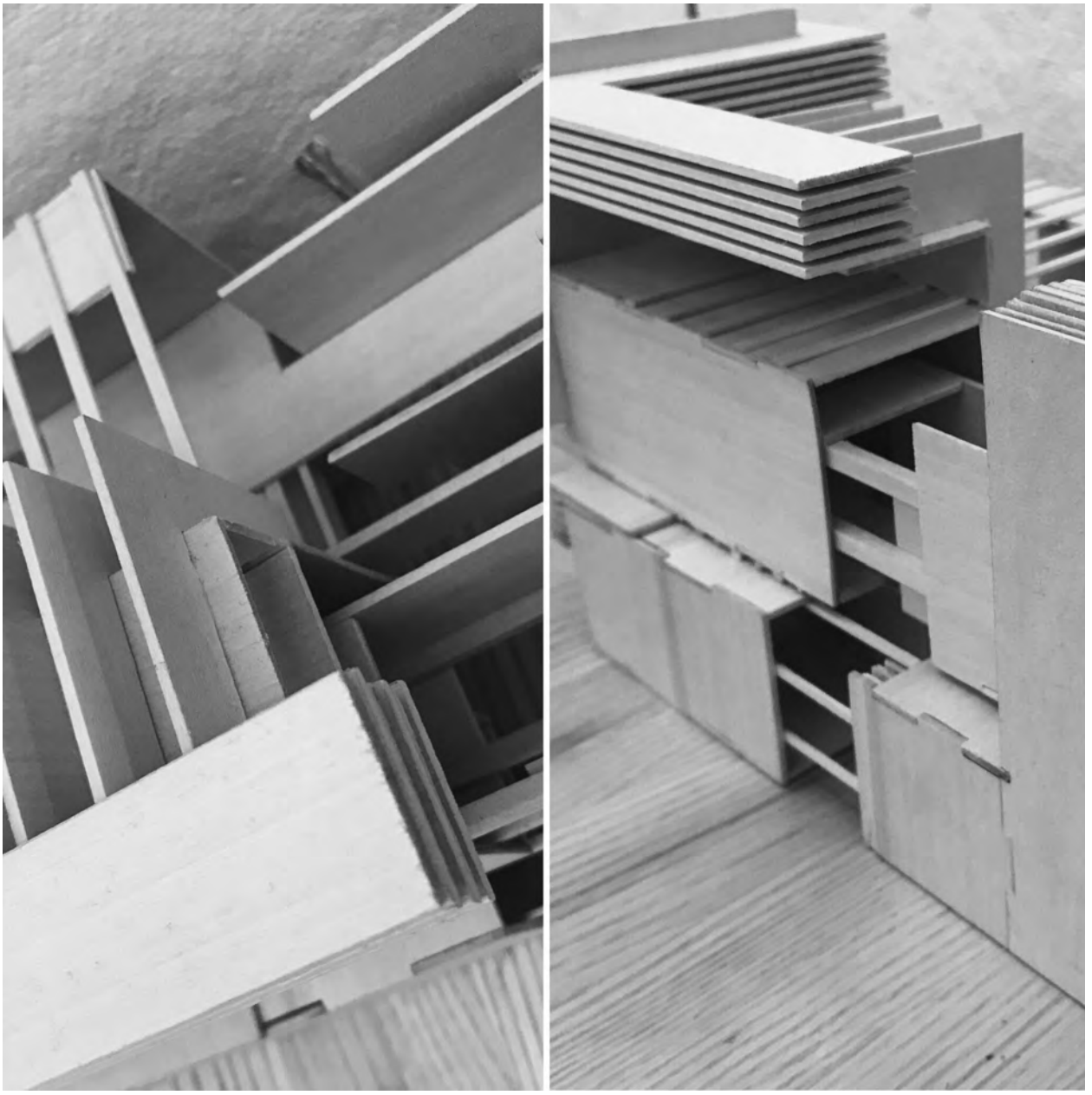
Design and Culture have always been closely interrelated, but in many instances design is measured as the bellwether of culture, rather than belonging to part of cultural context of the society. Design is now the embodiment of a larger process of the creative that has become a means to capture ideation, innovation and enterprise and made to stand for cultural identity.

Traditionally, Culture is referred to as a pattern that signifies human activity manifested by the arts, music, sculpture, theatre, dance, film, fashion, design, food and architecture. In contemporary popular culture, it also includes the Internet, entertainment, and the cult of celebrity, as part of a range of cultural signifiers.

But in a wider ethnographic sense, Culture embraces complex ways of living, value systems, traditions, beliefs and habits; including knowledge, morals, law and customs, acquired by those within that Society. These provide for a set of 'cultural objects', which symbolize a shared schematic experience, and which we recognize as having cultural value. Culture in the classical sense, was considered distinctive and distinguishable, and by definition represented the 'ethos of a civilization'. It was celebrated by its quality, sophistication, beliefs, and level of enlightenment (Carlson & Richards, 2011).

In the 21st Century, the task of capturing Culture for the *Architect In Situ* has become more difficult in terms of expressing culture through the medium of design. Design increasingly struggles for a clear sense of definition, and one is left asking, what can Culture really mean today, if it is no longer tied to consumer lifestyle? We remain in a post-contemporary state where we require a redefinition of meaning, value and identity.

The comprehensive scale and the rapid growth of globalism has undermined independent cultural identities, due to the disparate nature of where design and construction takes place, and lack of knowledge concerning the true origin of materials and products. This is further confused by a combination of diverse sourcing, and unsustainable meth-

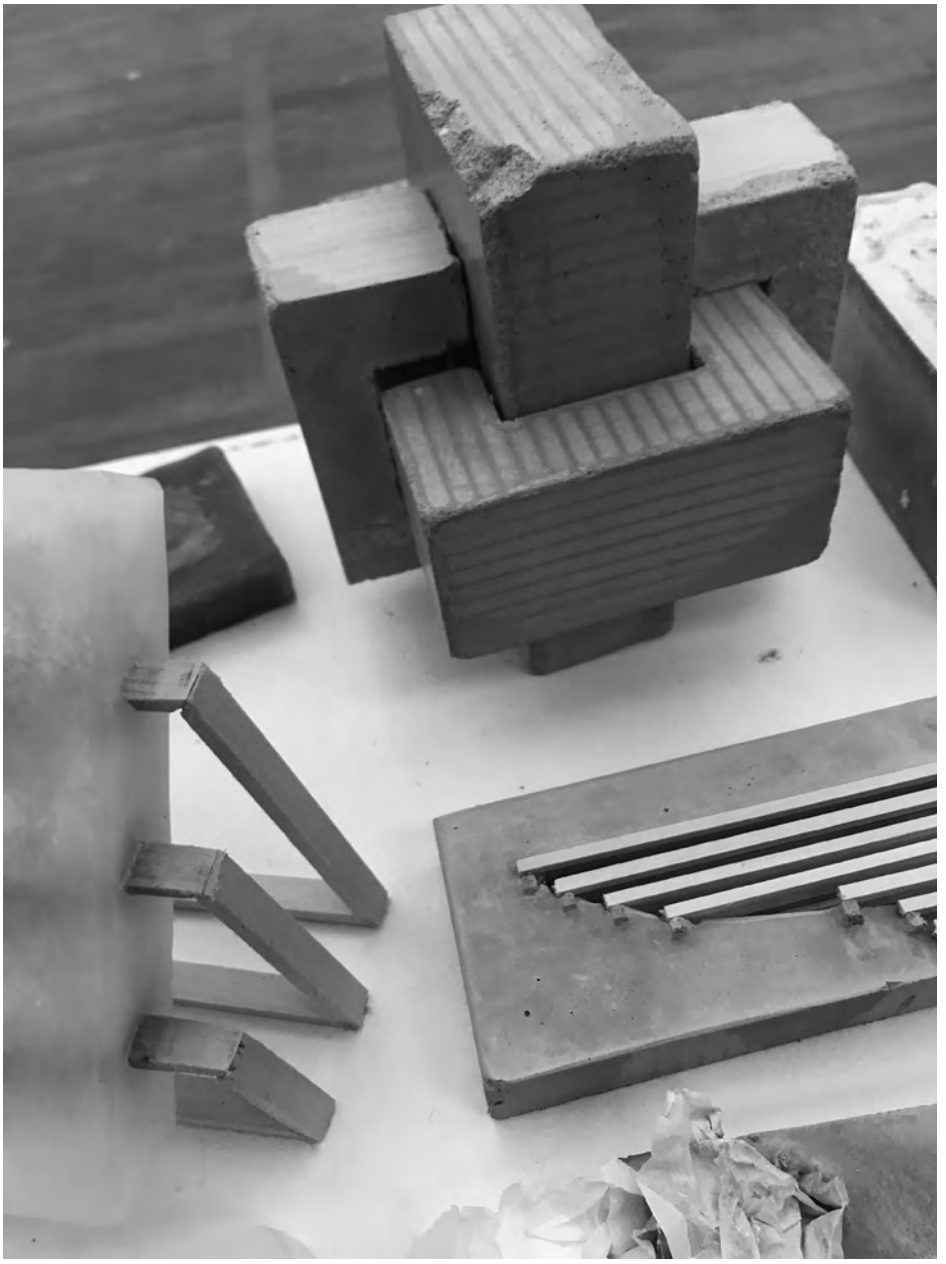


[03] Tectonic Spatial Construct Model, 2nd Year Architecture Studio ((Marywood University, Scranton, Pennsylvania – Coordinated by Professor Maggie McManus)

ods of labor and manufacture.

> *"Lack of culture means what it has always meant: ignoble civilization and therefore imminent downfall."* Frank Lloyd Wright

While it has been argued that design has been manifesting and consolidating an outmoded position in relation to Culture as a monoculture, Design can now adopt a central role as the creative nutrient for a form of 'cultural permaculture.'[1] There is an opportunity to borrow from this concept, to employ an approach to combine the knowledge of indigenous peoples and ethical ecological design, to permit an exemplary form of sustainable 'cultural permaculture' to be evolved. Central to this new concept would be to develop an approach to Culture that maintains an authenticity and meaningful use of identity, through a broad based and holistic approach (Carlson & Richards, 2011).



[04] "The Link" Material Exploration Poured Elements, 1st Year Foundation Studio (Marywood University, Coordinated by Professor Kate O'Connor)

This progression involves a paradigm shift in the nature of cultural dependence – from relying primarily on universal globally imported cultural criteria, to more specific, locally based, and the referencing of native traditions, rituals and symbolism. It is necessary to look further and include values such as authenticity, aesthetics, affectivity and compatibility, and to see the real value of culture as designing through the lens of humanity, to create memorable experiences, and emotionally rewarding objects.

Architecture is a product of the culture that it was designed for. Architects, being inherent problem solvers, typically seek to design spaces for the times and the people who will use them. Architects today have the daunting task of designing for the present and future of a diverse and quickly changing culture. No longer a static creation that performs well for a while, the conviction now is to build in a way that adapts to a culture's changing needs. This is why the architect IS the site and the catalyst for successful design.

1_This term is an adaptation of the term "permaculture" that is typically related to an approach to designing human settlements and agricultural systems that are modeled on a relationship to natural ecology.

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[05] Travel through Synthesis – a Photomontage, (Old Buildings, New Designs – Student Brendan O'Rourke, Professor Kate O'Connor)


GLASS
HANDMADE IN BATH
BUY BRITISH

Ca'n terra. In-site instead of on-site.

ENSAMBLE STUDIO

Ca'n Terra is the house of the earth: first just that, earth, after being quarried with industrial logic, empty and abandoned, to be rediscovered one hundred years later and come to be architecture. If the history of civilization has evolved transforming ideas into matter, here the process is inverted. We enter the space like explorers would do, equipped with the technology that expands our vision in the dark; scanning the solid structure that was left for us.
Behind the scan, the architect's eye, directing, interpreting, creating the space again, completing it with operations that are familiar to the stone mass: new cuts to build using air and light. Architecture appears. Then we can inhabit. In lieu of the imposing action that we often exert on the environment, we propose a trip to the interior being of matter, and recognize the beauty of the spaces that are waiting to be lived.

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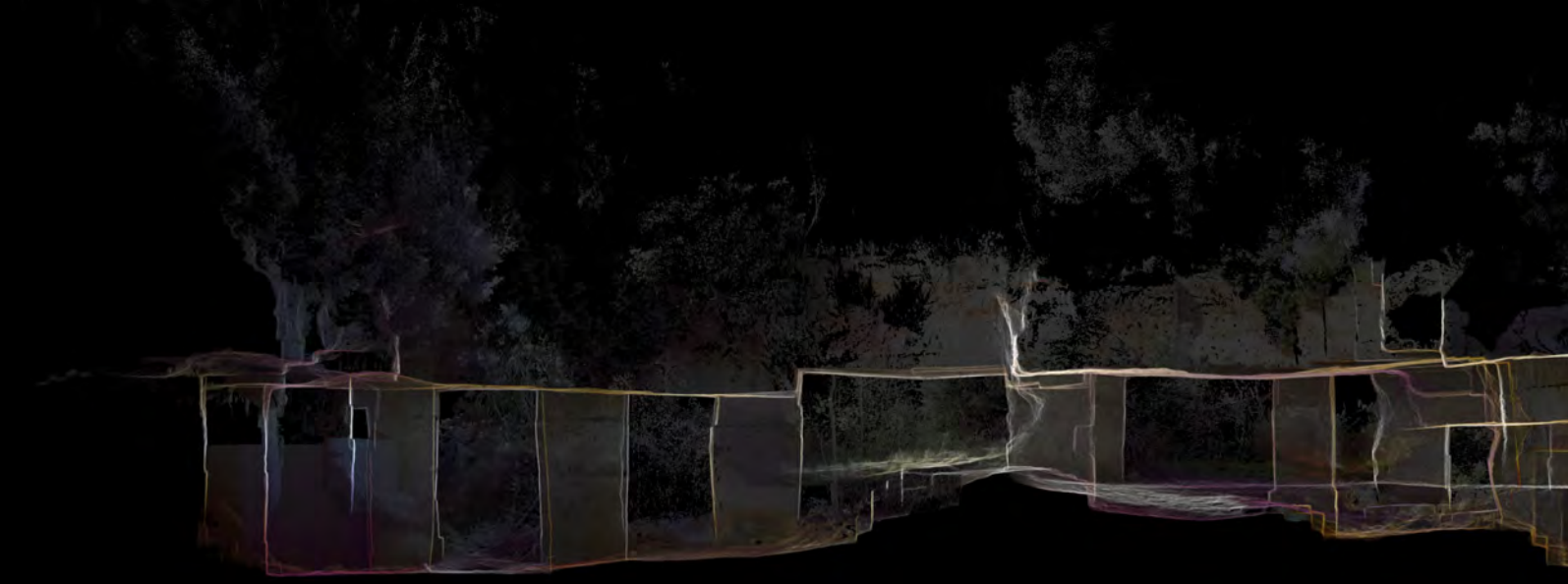
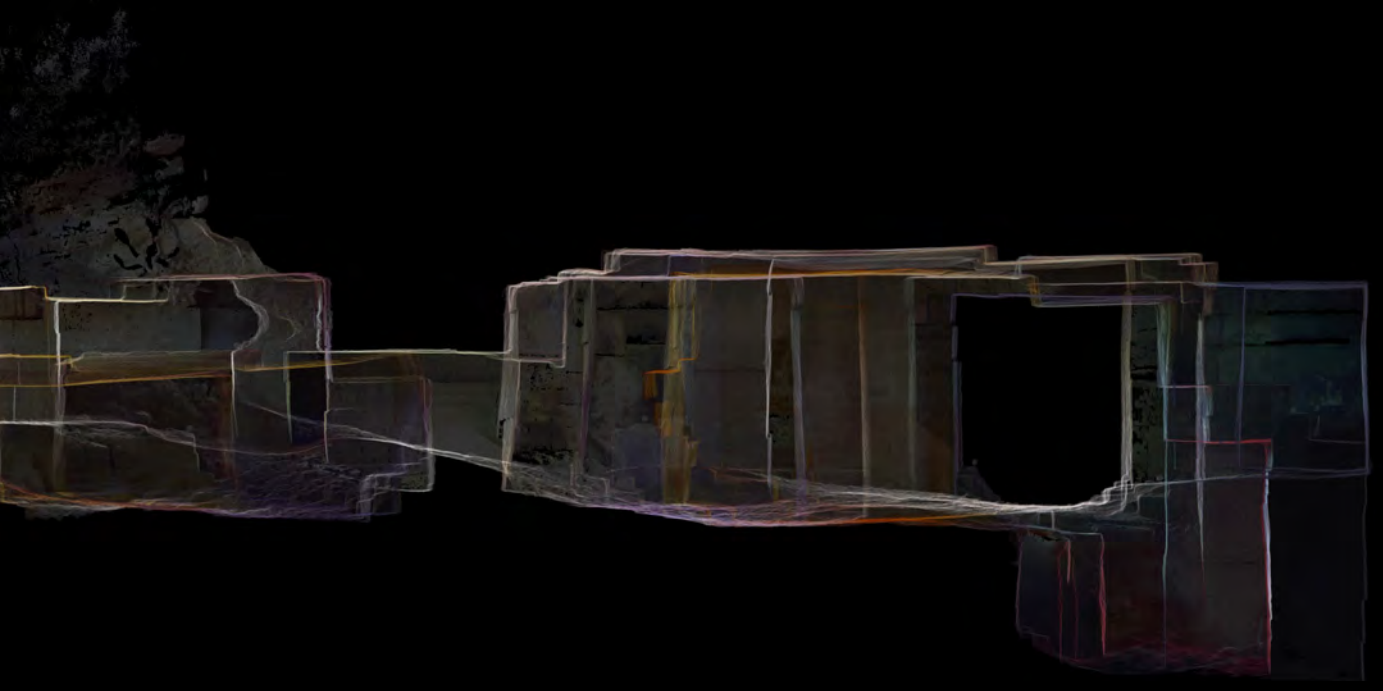
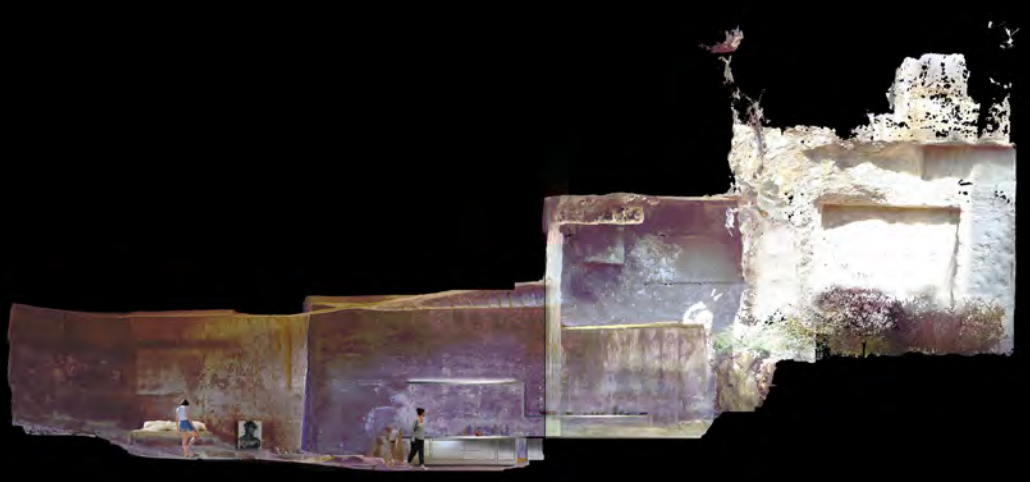
[01] On-site types of enclosures © Ensamble Studio & Iwan Baan



Axonometric View












[07] Post occupancy domestic spaces © Ensamble Studio & Iwan Baan

on the previous pages: © Ensamble Studio & Iwan Baan
[02] Aereal view of Ca n' Terra
[03] Laser scan survey of the quarries
[04] Project axonometry and cross sections
[05] Sequence from construction site operation
[06] The finished skylight room

on the following pages: © Ensamble Studio & Iwan Baan
[08, 09] Post occupancy scenes

Project: CA'N TERRA
Location: Mahón, Menorca, SPAIN
Design years: 2017–2018
Construction: 2018
Author of the project: ENSAMBLE STUDIO
Principals: Antón García-Abril & Debora Mesa
Project team: Javier Cuesta, Borja Soriano, Massimo Loia, Alvaro Catalan,
Marco Antrodicchia, Sebastián Zapata, Arianna Sebastiani, Mónica Acosta, Gabriele Marinello, Mengyuan Cao
Consultants: Urculo Engineering
Program: Residential Landscape

On Site: The Pulitzer Arts Foundation

Liane Hancock

When a project enters the construction phase too many architects live in fear. They fear cost increase, design concession, liability. Fueling this fear is the assumption that the relationship between architect and contractor must be antagonistic. Automation and digital processes present a path to control workflow: less human interaction means fewer mistakes, streamlining procedures, increased efficiency. But what if, as an alternative, the profession elected to value human labor, values communication, values face to face contact? Instead of worry about liability and being fleeced, the construction site could be a place of respect, understanding that each party has something to offer, and that dialogue, problem solving, and change, even after the construction documents are complete, leads to improved design.

AIA A201 and Fee Structure

In today's large multi-faceted projects in the United States, contractually the Architect cannot be involved in how the design should be built: he or she can only stipulate that the result mirror what is depicted in the construction documents. At the same time, the Contractor is expected to labor without becoming intellectually involved in the production of the design. This occurs because the work of the architect and the work of the contractor are separated by the AIA A201 contract.

Instead of creating opportunity for shared control, AIA A201 divides duties to limit knowledgebase and liability. The contract works to protect the Owner, Architect, and Contractor against antagonistic and egregious behavior; unfortunately, this devastates collaboration, as communication between parties muddies the clarity needed in cases of litigation. By being risk averse, the design and building professions exchange innovation and the art of craft for security. As of 2018, weight of this risk has become so significant that the Association of General Contractors declined endorsement of AIA A201. The AGC writes, "The Architect continues to possess significant authority and rights over others, but without the corresponding responsibility."[1]

Traditional fee structure and bidding methods further amplify the issue of responsibility. An architect charges most of a fixed fee prior to entering bidding and construction phases. The contractor calculates fee based on bid documents - changes to the documents increase cost, and if additional fee is not received profit margins suffer. The result? The US fee structure de-incentivizes thinking, change, and collaboration during the construction process. The project is essentially set in stone at the contract negotiation phase. While this creates a clear line with regard to liability, it disadvantages opportunities to collaborate between design and means and methods. In most cases, relying upon best practices for construction is

[01] Conduits for electrical work in the slab © Steve Morby

[02] Conduits for electrical work in the slab
© Steve Morby

sufficient to achieve quality workmanship. However, when seeking extremely precise tolerances, the contractor's means and methods of installation impact design strategies.

The Pulitzer Arts Foundation as Case Study

The Pulitzer Arts Foundation, completed in 2001 in St. Louis, presents a case study in collaboration at the construction site. In the lexicon of theory and history, writers often portray Ando heroically as a master builder focusing upon the handcrafted details of his work. While the details in the construction documents are important, Ando's projects attain greatness by understanding the motivation of tradesmen.

At Pulitzer, Tadao Ando first established a quality standard for construction and then used his knowledge of the trades to garner complete commitment and collaboration. Instead of generating every decision, Ando and his associates, half a world away from the Midwest, provided insight and oversight through carefully orchestrated communication, through letters and fax. On site, Tadao Ando, Emily Rauh Pulitzer, and her owner's representative, Peter Clarkson, established a two-pronged approach. First, develop an unusual code of conduct: everyone was responsible but no one was at fault. Secondly, develop a contract that supported this approach.

At Pulitzer, Ando's standard was "perfect concrete." However, most important was developing a process that constantly questioned methods, and always searched for better pours. By encouraging the tradesmen to engage in this pursuit, Tadao Ando's team appealed to a sense of pride and ownership of the project. "What is most important is that all related people at the job site should have strong will and wish to accomplish their best and perfect work, as good and perfect as was never done before."[2]

Within this project, the architects of record also had an unusual role. Ando's firm did not furnish their standard details. Instead, the architects of record worked from published photographs of Ando's work, and general drawings furnished by Ando's office, to develop their own details, submitting those details to Ando's office for comment and approval. While this seems inefficient, the result was the architects of record became intellectually involved in the design, searching for ways to minimize tolerances and simplify detailing to further the work; Ando's office then adopted these advancements as standard details in future projects. In order to attain smaller tolerances the architects of record needed to understand methods of installation. As a result, the architects of record worked directly with the construction team to develop details, a breach of separation between construction drawings and means and methods, but fundamental collaboration required to achieve Ando's "perfect work."

Once construction began, mistakes became oppor-

[03] The final pour. Emily Rauh Pulitzer, in red, helps run the concrete vibrator
© Steve Morby

tunities to learn: "[The construction team] learned from the mistakes, which is completely different from a normal project. On a typical job, making a mistake means you are going to lose employment. Trying to change that thinking, which is actually the norm in the field, was important to doing Ando's work. On Ando's work, a mistake does not call for any kind of punishment. It's simply accepted. You use it as a learning tool. It's a signal that the work is telling you not to continue down this path," Steve Morby, Construction Superintendent.[3]

At the same time, Emily Rauh Pulitzer followed the uncommon practice of attending nearly every weekly construction meeting, thereby being directly aware of problems encountered in the building. She witnessed the good faith attempts by the contractors, designer, and engineers to resolve those issues. "If I was the client, and I was paying the bills, then I wanted to know what was going on."[4]

To support the entire team's commitment and collaboration, the owner's representative negotiated an unusual contract. While portions of the contract were traditional lump sum bid, the concrete and the electric were on a "cost plus" time and materials basis. Unchaining the fee from percent based profit freed the tradesmen from baseline standard practices of construction and allowed them to engage in the creative testing, thinking, and collaboration that Ando sought without endangering their compensation. While this did not necessarily eliminate possible future litigation, treating the construction team as active participants in the design greatly increased goodwill and communication. Better communication resulted in better solutions – solutions that did not require litigation later.

There were many design solutions that resulted from this collaboration: the following are a few examples. Together the architects and tradesman developed a method for flush mounting outlet faceplates in drywall - a detail that Tadao Ando still uses in his projects today. The tradesmen led in designing a can light detail that allowed flood lights to be mounted flush with the concrete ceiling, without any visible mounting hardware. The poured columns are unlike any others in Ando's work: the tradesmen developed a way to pour them seamless, because they came to the conclusion every side was equally important. For the concrete pours, the tradesmen were instrumental in altering the mix design and developing vibration procedures so precise they required a stopwatch. The result was an extremely smooth and dense surface for the concrete. The construction team even developed a specialized hybrid conetie, to guarantee the crisp edge and maintenance of the smooth surface around this all important detail.
With each day and each task, Ando asked the team to better their work, to advance their personal best.

[04] The conetie detail © Steve Morby

on the following page:
[05] Wall Reinforcing - Corner Detail © Steve Morby

His office created an environment that fostered collaboration and pursuit of excellence. As a result, the construction of the Pulitzer Arts Foundation serves as a model for how the design and construction teams' interaction can evolve into collaboration. To achieve this, however, required that the entire team – client, designers, tradesmen – support a contract that financially sustained flexibility and advancement in design, and provide an environment that eschewed concern about liability. The result was a project that championed both intellectual and manual work throughout the design and construction process, and which resulted in what was widely considered the world's best concrete at the time of its opening in 2001.

1_Associated General Contractors, "AGC's commentary on the AIA A201," June 21, 2018, P 1, https://www.agc.org/commentary-aia-a201 (accessed 15, January 2019).

2_Yano, Masataka. "Pulitzer Building and challenges in the projects outside Japan," Building Pulitzer Colloquium, St. Louis, MO. 2013.

3_Morby, Steve, Interview, Pulitzer Arts Foundation, St. Louis, MO, 2011.

4_Pulitzer, Emily Rauh, Interview Pulitzer Arts Foundation, St. Louis, MO, 2013.

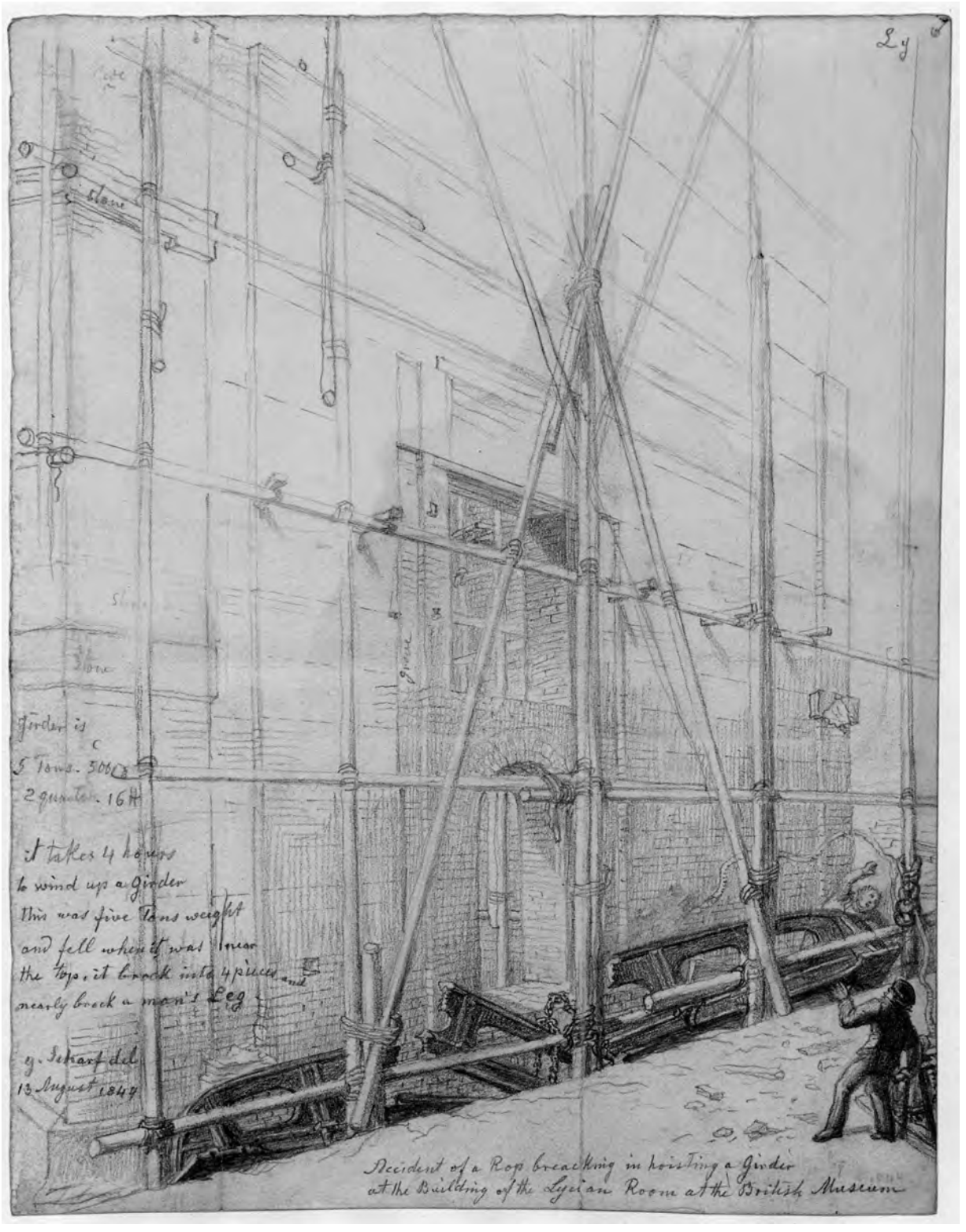
Depicting labor

Jonathan Foote

In 1825 Karl Friedrich Schinkel painted a now lost painting entitled, *Blick in Griechenlands Blüte* (View of Greece in its Prime). A copy by August Ahlborn from 1836 grants access to the scene and immerses us into a magnificent construction site, where athletic builders are erecting an exquisite work of Hellenic architecture (fig. 02). The painting epitomizes the nineteenth century project of recovering the moral and aesthetic clarity of ancient Greece for the modern age.[1] By foregrounding anonymous builder-craftsmen rather than architects or patrons, the sense of intrinsic, cultural heroism is brazenly announced. The common builder sets the stage for the not-so-subtle narrative unfolding in front of us: inscriptions sing of virtuous deeds, the frieze recalls that of the Parthenon, and the double Ionic loggia has a certain resemblance to Schinkel's Altes Museum, at that very moment under construction. The monumental narrative imbued in the half nude workers is bolstered by the marvelous size of the painting, which measures almost two and half meters wide.

Being an accomplished painter well before his success as an architect, Schinkel was probably aware of paintings from earlier periods that featured skilled craftworkers. Typically in such paintings, workers inhabit the margins or orchestrate the background action of some kind of significant building event. Witness Piero di Cosimo's panoramic *Costruzione di un Palazzo* of 1518, for example, where the main protagonists-an in-progress quattrocento palazzo and a gallant but unidentified horseback rider – are set amidst a plethora of unspecified builders and laborers who, upon close inspection, offer a number of lively and curious scenes (fig. 03).[2] In one detail, a pair of sawyers carefully saws a wood beam while a small child appears to collect the saw dust. And further back, along the facade of the palazzo a pair of workers scramble up to the second floor terrace using a taut rope, pulled into place by two other companions. Like Schinkel's *Blick*, the panoramic treatment set amidst otherwise common building activities reinforces the feeling of epic grandeur of the emergent architecture.

Most commonly, depictions of construction sites narrate scenes where the patron and his entourage have just arrived to inspect the building works, a motif observed quite often in illuminated manuscripts from the Middle Ages. In sixteenth century versions, these patrons are typically met by the architect, who presents the construction progress through a model or drawing. Among the multitude of examples from the period, the portrayal of Paul III inspecting the rebuilding of Saint Peter's in Rome stands out, painted in 1546 by Giorgio Vasari and his workshop in the Palazzo della Cancelleria, (fig. 04).[3] Here, the pope emerges prominently from the left edge of the frame to encounter Lady Architecture, supported by her confidants, Painting, Sculpture and Geometry, who unroll a magnificent drawing. Equally dominating is the entangled body of old and new Saint Peter's, under re-construction, pictorially rendered in the background but in conspicuous dialogue with the gesturing Paul III. Off in the distance, as if to remind the



[01] George Scharf, Accident of a rope breaking while hoisting a girder at the building of the Lycian Room of the British Museum, inv. 1900,0725.30, ©Trustees of the British Museum

[02]

viewer that construction indeed continues, a small team of men and beasts are squaring, moving, and fitting stones. Just as the building ornaments are being carved by the workers, so have the workers themselves become ornaments in the witnessing of Paul III's encounter with the building site.

In Vasari's fresco the workers are present, but they have become the supporting cast of a much grander storyline. In terms of pictorial space, these roles can be quite effectively reversed, leading to a more nuanced view of patronage. For example, in one of the several tapestries narrating the life of Lorenzo de' Medici, woven in 1570-71 by the workshop of Benedetto Squilli, the stone carvers for the Medici Villa of Poggio a Caiano are given a quite prominent position in the scene (fig. 2). The building patron, Lorenzo, has arrived with his entourage to the building site, who even has the good manners to bring along a chair for their prince to sit in. Greeting Lorenzo are most likely the architect, Giuliano da Sangallo, and his assistants, who present a wooden model of the project.[4] Unlike the fresco in the Palazzo della Cancelleria, the three stone carvers are notably thrust into the foreground. Since the workers remain diligent and anonymous in spite of Lorenzo's presence, their prominence does not threaten the overall narrative. But the spatial reversal has a more subtle effect, whereby

Lorenzo emerges as the model of an esteemed prince; one who, quoting Niccolò Machiavelli, «... should also demonstrate that he loves talent by supporting men of ability and by honoring those who excel in each craft».[5] The stone carvers are thus cleverly employed to demonstrate Lorenzo's magnificence. We see them without seeing them.

Such representations of on-site activity generally rely on the observer entering into the middle of a peaceful, quotidian scene, with emphasis on the patron or architect. The effectiveness of this technique relies on our typical perception of craft-workers, where their subjectivity is tied to the monotony of everyday work and not to monumental life events. If one continues such an analysis into the age of photography, many of these myths endure. One needs only to recall the iconic *New York Construction Workers Lunching atop a Cross-Beam* from 1932, where a diverse group of immigrant workmen casually take a brake on a cross-beam dangled high over the New York skyline. The photo's enduring fame relies on the contrast between everyday life events (lunch) set casually amidst a decidedly heroic scene of nameless workers, cheerfully escaping imminent death. Two curious aspects reinforce the age-old tropes of the craft-worker: on the one hand, the workers themselves are totally anonymous, and in fact efforts by archivists to identify

[03]

these heroes of the sky have proven controversial or altogether unsuccessful; on the other, and perhaps even more revealing, it is commonly accepted now that the photograph was staged as a publicity stunt to promote the construction of Rockefeller Center, or, to state it another way, to demonstrate the owner's magnificence.[6]

Thus, one may claim that the appropriation of workers by capital (or some other power structure) for its own aggrandizement may be repeatedly detected in how the craft-worker is represented. With this in mind, it is all the more shocking to discover a sketch by George Scharf, who in a rare moment captures the craft-worker's point of view. On August 13, 1844, Scharf encountered a frightening accident during the construction at the British Museum (fig. 01), and he felt compelled to open his sketchbook and meticulously record the event.[7] While hoisting a five ton iron girder into place for the Lycian room - a feat that took four hours - the lifting rope unexpectedly snapped. This caused the girder to crash to the ground, break into four pieces, and pin one of the workers to the ground. Scharf writes on the drawing that the cascading girder, "nearly brock (sic) a man's leg." And even though the man luckily avoided grave injury, Scharf captures the shock and panic of the moment through his own hastily drawn figures. In contrast to the depictions so far examined, Scharf focuses his pencil on a precise moment from the worker's perspective; one

forgotten to history, perhaps, but certainly burned into the memory of the un-named workers who happened to be there. His focus on the worker makes one realize that the common triumphs and toils which are central to the life of the craftworker are generally invisible to us architects.

A close examination of representations of construction workers is so revealing since, when placed in front of the critical mirror, they reveal to us a multitude of prejudices: that workers are compliant, nameless, skilled but not creative, and an embodiment of docile, bodily vitality. Just as construction firms have grown in size and risen in importance in relation to complex building projects, the likelihood that a builder could achieve some kind of creative status on par with the architect is lower than ever. Rather, architects expect builders to be obedient to the design and abundantly skilled, albeit not in any specifically personal way. Although we place great value culturally and professionally on a unique design solution, very few building designs today rely on the know-how of a specific builder or group of craftsmen to implement them. Those working on-site, in contrast to the professionals off-site, remain a transparent bunch - more or less replaceable with another person having the same 'skill-set'. Generally speaking, in public works at least, the construction contract is awarded to the lowest bid, creating a race to the bottom for the increasingly alienated construction worker.

As the profession of architecture confronts its own threats today, workers and laborers are once again put on display. A few years ago an academic discourse emerged about the role of the labor in architectural production, and it seemed that finally the discipline was looking critically at its relationship with those employed on the construction site.[8] To my surprise, however, the abundance of writing has focused precisely on the architect's labor and not at all on those who actually put their hands on the materials of the buildings. By identifying architects with laborers, we call attention to the increasingly oppressive status of architects within the neo-liberal production of buildings. However, in appropriating the term 'labor' to describe the activity of architects, a class of relative privilege in spite of our poverty, we actually conceal a deep distrust toward those who make our buildings. Those who work in the lowest-skilled jobs on building sites are called laborers - they are wage workers who have no intellectual or physical ownership over the durable outcomes they produce. If all of us are laborers, do we find more or less solidarity with those on the buildings site? I suspect that, in moments of such distinction, architects would re-claim their traditional role as above the crafts. In the rare depictions of workers' plight, such as those by George Scharf, I have hope that we can focus more attention on understanding the everyday lives of those who dwell on the building site.

1_ See Paul Ortwin Rave. *Karl Friedrich Schinkels Blick in Griechenlands Blüte*, Berlin: Verlag Gebrüder Mann, 1946.

2_For a summary of recent interpretations and a current bibliography on this painting, see Virginia Brilliant. "The Building of a Palace," catalogue entry in: Dennis Geronimus. *Piero di Cosimo. The poetry of painting in Renaissance Florence*, London: Lund Humphries, 2015, no. 36, pp. 212-215.

3_For a recent analysis of this fresco, see Federica Goffi, "Architecture's Twinned Body," in: *From Models to Drawings: Imagination and Representation in Architecture,* London and New York: Routledge, 2007, p. 94f.

4_Giuliano da Sangallo and Piero di Cosimo, both associates of the Medici family, were close friends, which has led to speculations by art historians that the palace depicted in *Costruzione di un Palazzo* is a reference to the Medici Villa of Poggio a Caiano or Lorenzo's unrealized palazzo on via Laura (also by Giuliano da Sangallo). Dennis Geronimus. *Piero di Cosimo: Visions Beautiful and Strange,* New Haven and London: Yale University Press, 2006, p. 143.

5_Niccolò Machiavelli. *The Prince and Selected Discourses*, trans. by Daniel Donno, New York: Bantam Books, p.79.

6_For a recent critical assessment of this photo, see "Reviewed Work: Men at Lunch by Éamonn Ó Cualáin, Seán Ó Cualáin and Niall Murphy,» reviewed by Darragh O'Donoghue, *Cinéaste*, vol. 39, no. 3 (Summer 2014), pp. 67-69.

7_For an introduction to this sketch, see catalogue for the exhibition, *George Scharf: From the Regency Street to the Modern Metropolis,* exhibition at the Sir John Soane's Museum, London, 20 March to 6 June 2009, no. 31, p. 78. George Scharf immigrated from Bavaria and became an accomplished illustrator and printmaker in London. This sketch reflects Scharf's lifelong concern with common workers, now preserved in scores of sketches and watercolors in the British Museum.

8_Key starting texts here are: Peggy Deamer and Phillip Bernstein. *Building (in) the Future: Recasting Labor in Architecture*. United States: Princeton Architectural Press, 2012; Pier Vittorio Aureli, "Labor and Architecture: Revisiting Cedric Price's Potteries Thinkbelt," *Log, no. 23* (Fall 2011), pp. 97-118; and Peggy Deamer. *The Architect As Worker: Immaterial Labor, the Creative Class, and the Politics of Design*. London: Bloomsbury Academic, 2016.

[04] Giorgio Vasari, Paul III Supervising the Work on Saint Peter's, Palazzo della Cancelleria © Scala.

on the previous pages:
[02] Karl Friedrich Schinkel, Blick in Griechenlands Blüte], 1825. Schinkel's original was lost in World War II. This is a copy by Wilhlem Ahlborn held in the Alte Nationalgalerie, Berlin.
[03] Piero di Cosimo, Costruzione di un palazzo, 1520, John and Mable Ringling Museum of Art, Sarasota, Florida (USA), inv. 22.

On-site as an interdisciplinary practice

Constance Lau

Issues of Site and Authorship

In design practice, site studies are conducted to allow for a subtle and richer understanding of a site which can inform and become part of a design. The argument in this instance starts with the distinction between off and on-site activities and, subsequently, the notion of authorship. While the contributions of these aspects to the practice of architecture are not contested, the first is assumed to comprise of the design iteration processes which explore ideas and concepts while the latter is understood as a 'realm where a fully formed design is made manifest'. More importantly, authorship is assumed to be established during the off-site activities where the design is conceived and developed, prior to construction and/or realisation.[1] The notion of authorship has always been ambiguous in the practice of architecture as the meaning of authorship changes at different stages of the project. Buildings are made by many people, and inherently used and appropriated by different people in numerous ways. Hence the role of authorship contests the straightforward argument that buildings are conceived, constructed and attributed to a single architect and/or a singular source and makes the idea of a single claim to authorship off and on-site questionable.[2] This acknowledgement further dilutes the implied separation between (and definitions concerning) off and on-site activities in this instance. Hence this discussion on the architectural site in relation to design practice focuses on the contributions of interdisciplinary collaborations and the creation of new ways to engage with issues of site as opposed to operating within assumed processes.

The capacity to distinguish between conventional assumptions concerning site studies in relation to design practice in general, and the notion of site-specificity affects the manner in which site information is collected and employed during the working process. A work of architecture may presumably be related to its site simply because the design takes into account basic site data regarding pedestrian and traffic flow patterns, the proportions of surrounding buildings, elevational studies and regulations like 'right to light'.[3] In this pa-

1_As described in the 'On-site' call-for-papers literature, dated 15 October 2018.

2_Constance Lau, 'Montage and Multiple Interpretations' in Dialogical Designs, ed. by Constance Lau (Milton Keynes: Lightning Source, 2016) p. 289.

3_The examples of site studies listed are by no means exhaustive but include a range from masterplan, the immediate context of the said site, and the 'right to light' condition that is a form of easement in English law. This protects the owners of existing buildings with windows to a right to maintain the level of natural light, and will be referred to in the next section of this paper.

per a distinction is made between the site attributes mentioned, which may be accurate for a particular site, but are strategically applicable to most forms of site studies generally required during the course of design development and building. Site-specificity in this instance refers to qualities inherent not only to the site in question, but ones which specifically have the ability to drive and are catalytic for precise on-site design decisions and processes. In other words, the innovative manners of engagement are specific to this one particular site and hence, the precise working methods employed and eventual outcomes are not transferrable. Beginning with the assumption that design starts at the moment of site investigative studies and in order for any exclusive features and traits to be adopted, co-authorship through collaborating with different disciplines to develop new working practices and the sharing of expertise from the onset is important. This is also due to the different manners in which the notion of site is read and understood in other fields like music and art. For instance, in 'Inspired by Bach', the cellist Yo-Yo Ma plays the six 'Suites for Unaccompanied Cello' by the seventeenth-century composer Johann Sebastian Bach separately for different projects and each involves an artist from a different discipline. In Suite One titled 'The Music Garden', the design for a public urban landscape is developed based on Ma's execution of the score. The boundaries between the off and on-site processes are blurred as city officials and designers constantly revisit the site and the design iterations are tested and measured against Ma's performances on-site. Suite Two, 'The Sound of the Carceri' is inspired by the *carceri d'invenzione* or 'Imaginary Prisons' etchings by the eighteenth-century artist Giovanni Battista Piranesi. Ma performs this suite in Piranesi's *Chiesa di Santa Maria del Priorato* or 'Church of St Mary of the Priory', 1765-66, Rome, and the resulting site-specific acoustics are further used to digitally structure and generate the prison spaces that do not yet exist.[4]

These explorations demonstrate the tightly woven relationship between the respective disciplines and the direct influence these specific sites have on the inceptions and outcomes of the design proposals, and vice versa. The circulation that initiates and pervades the Music Garden as well as the virtual spaces inspired by and responding to Piranesi's etchings are 'trans-

4_'Inspired by Bach's Cello Suites 1 & 2: The Music Garden and the Sound of Carceri', <https://mail.google.com/mail/u/0/#search/yoyoma/KtbxLzGSwrptBvXvWgWVqhfrCqcTdHRKrg?projector=1> [accessed 1 December 2018]. The initial site for 'The Music Garden' was City Hall Plaza in Boston, U.S.A. The proposal was eventually redesigned and realised in Toronto, Canada.

[02]

formed by the sites within which they occur'.[5] The argument for engaging with ideas outside architecture seamlessly extends to both the off and on-site negotiations and working processes. Hence not only are the site-specific qualities part of the design but further serve to complete the work. In this instance, the contribution of on-site as an interdisciplinary practice will be further explored through particular viewpoints and working methods in the field of archaeology in relation to the existing site of the National Portrait Gallery, London.[6]

A Tale of Two Sites: Architecture and archaeology

Through issues of transience and permanence, a work of architecture can function both as a historical marker and a catalyst for transformation. In *The Architecture of the City* (1966) Aldo Rossi discusses the manner in which history preserved as built form enables aspects of the past to be experienced in the

5_As described in the 'On-site' call-for-papers literature, dated 15 October 2018.

6_Unless otherwise stated, all mentions of and references to the Portrait Gallery in this paper refer to the National Portrait Gallery in London, United Kingdom.

present.[7] One manifestation is the autonomous on-site physical transformations through the deterioration process of building materials as the enduring and site-specific nature of most works of architecture operates as a documentation of the external landscape. Rossi further argues that architecture is essentially a collection of 'other architectures' located within a historical lineage.[8] This also implies that every site has

7_Aldo Rossi, *The Architecture of the City,* ed. by Aldo Rossi and Peter Eisenman, trans. by Diane Ghirardo and Joan Ockman (Cambridge, Mass.: MIT Press, 1982). First published in 1966 in Italian.

8_Léa-Catherine Szacka, 'Aldo Rossi, Bruno Reichlin, Fabio Reinhart, Eraldo Consolascio, 1976' <http://radical-pedagogies.com/search-cases/e08-eth-zurich/> [accessed 15 November 2018]. This is in reference to *Analogous City*, an artwork produced by Aldo Rossi, Eraldo Consolascio, Bruno Reichlin and Fabio Reinhart for the 1976 Venice Architecture Biennale. The working process and outcome was used to illustrate the 'ever-changing nature of the city, where the form of the city is determined by the historical imagination—collective memories, places, and buildings'.

[03]

its own historical narrative that can be woven into a work of architecture, and this story can be simultaneously composed of material remains as well as related historical events. In archaeology, knowledge inferred from interpreting material finds enables a study of the human past. Architecture is part of this material culture, and through design practice the knowledge and finds can be appropriated to create contemporary relevance. This rigorous translation of research material into works of architecture encourages history to be (re)presented and take on its own relevance in the present-day to further the inherent transformational qualities.

The on-site discussions revolve around the Portrait Gallery. The two sites in question are the original building designed by Ewan Christian in 1896 and the major overhaul by Dixon Jones Architects in 2000. Each site has its own tale from inception to construction which encompasses issues of site, site-specificity and, especially in this instance, the idea of a site within a site. The narratives reveal the design strategies adopted and the consequent responses of each proposal to specific situations. The site offered to Christian was awkwardly shaped with the main plot located alongside Orange Street and a long sliver fronting St Martin's Place which ran parallel to the short facade of the existing National Gallery. This 1838

building was designed by William Wilkins and the only realised portion of Edward Barry's 1876 proposed extension was located on the eastern side of the main building with an elevation fronting St Martin's Place. This elevation was set back slightly from the line of Wilkins's building and left blank. Hence almost half a century later, the sliver of land was only offered to the Portrait Gallery on condition that the new building should cover-up this bare blank wall of the National Gallery. As illustrated by the image of the east wing façade and the accompanying description, Christian's solution was a design that enabled this east wing of the Portrait Gallery to appear as integral with the National Gallery's short façade.[9] In this instance, the site-specific components consist of Wilkins's first three windows for the corner of the National Gallery at the junction of Trafalgar Square and St Martin's Place which Christian cleverly adopted with the use of visual deception to address the stipulated requirements. More importantly, this in-

9_Graham Hulme and Brian Buchanan, 'St Martin's Place', pp. 53-61 and 'Christian's Building', pp. 101-139, in Graham Hulme, Brian Buchanan, John Goto and Kenneth Powell, *The National Portrait Gallery: An Architectural History* (London: National Portrait Gallery Publications, 2000).

novative solution remains specific to this particular situation and site.

A century later, the need for more exhibition space led to similar negotiations with the National Gallery over land and especially a design solution that once again concerned windows, this time to accommodate the 'right of light' easement. The resulting project termed *NPG 2000* was essentially a triple volume block that was inserted into the shared courtyard between both Galleries and necessitated the bricking up of the original courtyard windows for protection due to conservation and planning laws.[10] Hence this material feature of history is completely hidden from the views and knowledge of the current visitors. This process of transformation was chronologically documented by John Goto and the image titled 'High View, Construction of the Floor Slab for the Lecture Theatre' is one in the series.[11]

This building with no elevations can also be read as a site within a site.[12] While design decisions at present have adhered to aspects of historical conservation generally associated with ideas of sustaining and/or concealing, there is the possibility that the reception of excavation and dissemination techniques from considered archaeological traditions will enable innovative manners by which to reveal these features in the future. In archaeology, the distinction between horizontal 'slices of time' and vertical sequences through time translates into the general understanding that contemporary activities take place horizontally in space, whereas changes in those activities occur vertically through time. This manner of reading a site forms the basis of most excavation methodology.[13] Hence the courtyard is understood by archaeologists as a quantifiable material space to delve into as well as a conduit to the past with an existing narrative that occurs within. This emphasis on exposing, reading and utilising specific on-site qualities is mostly a given in archaeology but frequently negated in the process of architectural design. The response to these qualities changes as new finds are discovered and new narratives constructed. Hence the capacity for this ongoing transformational process to guide design practice and perceive the site as a 'space of design engagement, material and programmatic innovation' as well as to develop site-specific 'locally activated, responsive architecture' is apparent in this instance of the Portrait Gallery.[14] The on-site material finds demonstrate the idea of an interdisciplinary practice that enables the transformative qualities of the site to manifest in the design through techniques of archaeology.

On-site and Multiple Interpretations

The notion that history is more often than not situational is every so often overlooked. Given that history is not a static entity and is being created at every moment, the assimilation of history does not occur in isolation and is always dependent on the context that it is read against. In design practice the process of (re)constructing and 'erasing' history is dependent on how a work of architecture responds to a particular site at a given moment, and also how spaces are used and experienced by the inhabitants. Design research has simultaneously introduced different aspects of the architecture in terms of historical events, physical features, and the allusion of these events and features to other narratives. This material provides different ways to read and interpret the historical context, and hence

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10_Ian Latham and Mark Swenarton, eds., *Dixon Jones: Buildings and Projects 1959-2002*. (Melbourne: Right Angle Publishing, 2002). The project was so termed as the negotiations started at the turn of this millennium and the work was funded mainly by Christopher Ondaatje and partly by the *National Lottery* in the United Kingdom. The windows were bricked up for protection in accordance with English Heritage regulations. In general a listed building, the National Gallery in this instance, may not be demolished or altered without special permission from the local planning authority and the appropriate central government agencies. <https://www.english-heritage.org.uk/> [accessed 1 December 2018].

11_John Goto, 'Construction Photography' in Hulme, pp. 157-201.

12_The courtyard insert which also serves as the new entrance concourse is anchored by an auditorium in the basement, a mezzanine floor, balcony gallery and the Tudor Gallery hovering within the triple height space, and is topped off with a 'glassbox' restaurant on the rooftop.

13_Colin Renfrew and Paul Bahn, *Archaeology, Theories, Methods and Practice*, p. 104 (London: Thames and Hudson, 2012). First published in 1991.

14_As described in the 'On-site' call-for-papers literature, dated 15 October 2018.

suitably describes the term 'layers of meaning'. This understanding references the way the notion of time is read against the horizontal and vertical axes in archaeology. Hence the appropriation and integration of considered aspects of archaeological practices provide additional and alternative working methods that further expose history through material finds. The precise engagement with on-site discoveries during the design process actively generates a more informed product that subsequently enables an enhanced appreciation of the work. Through exploring the manners by which each design proposal responded to an existing building and situation in history, these discussions have revealed that the architectural history and architecture of the Portrait Gallery is far more complex than the way the building currently appears. The interweaving of site investigative studies, architectural design, historical research and the practices of archaeology are none more obvious in this tale of two sites where both Christian and Dixon Jones' executions required careful readings of the existing off and on-site conditions from which the corresponding architectures emerged. This is established through the introduction of multiple authorships to enable the expansion of architectural design into other fields, and at the same time being receptive to new ideas, techniques and operating systems. In this instance of architecture and archaeology, the design process is not only postponed so that it 'remains more open to the site's more situational influences', but it has become an ongoing process.[15] Between past and present, reality and imagination, the proposed architecture operates on several levels. This includes being an intervention that engages with the immediate surroundings, an independent entity as a built form, an experience that alters the reading of the existing context and most importantly, an archaeological artefact in the midst of continuous changes. A delicate balance is required between works of architecture being relevant to the present but also not to be entirely chronologically displaced. The creation of new meanings and different readings of the work is furthered through the provision of innovative ways to encourage an ongoing dialogue with the user. This reciprocal relationship between site, experience and use enriches the users' understanding of the context and transforms their perception of history through works of architecture.

The recording and recounting of history is not a linear process and all views expressed are interpretations of selected research material. This notion of authorship includes the (re)construction and/or elimination of material fragments to construct new narratives that are manifested in the eventual building proposal. Rossi's assertion of an architecture of 'other architectures' is expressed in this instance as an on-site practice beginning with Christian's east wing façade. In exchange for occupancy of the courtyard, this segment has finally been returned to the National Gallery that it was always assumed to be fronting. Further ongoing transformations might mean that the windows concealed during the *NPG 2000* overhaul may be revealed in the next design iteration. Hence the introduction of multiple authorships and the inclusion of interdisciplinary practices from the advent of the design process negate the assumed and/or conventional boundaries between paper and material architecture. This enables a continuation of the creative processes in design practice from inception to construction and completion. More importantly, it is inclusive and optimises the transformative qualities of the physical site in design practice.

15_As described in the 'On-site' call-for-papers literature, dated 15 October 2018.

on the previous pages:
[01] This image shows the East wing facade of the National Portrait Gallery, London. Ewan Christian's east wing facade was designed to blend seamlessly into the National Gallery's short facade along St Martin's Place so that the two Galleries would appear as a single building. The success of Christian's design also meant that this east wing was commonly assumed to be part of the National Gallery. Hence this facade has remained little altered over the years despite the east wing having since been given over to the National Gallery during negotiations for the major overhaul in 2000.
(The description of the facade from left to right) The first three windows form part of William Wilkins's 1838 short facade design for the corner of the National Gallery. Christian's design for this east facade of the National Portrait Gallery, almost half a century later, follows the same two-storey height with a continuous parapet and balustrade line. This horizontal line visually continues through to the design of the delineation and string courses. The issue of scale is further addressed by the use of similarly proportioned and spaced Corinthian columns, and rectilinear windows with similar frame details to that of the National Gallery. The facade concludes with Christian's design for the entrance block of the National Portrait Gallery. © the author
[02] This image is titled 'High View, Construction of the Floor Slab for the Lecture Theatre'. This image forms part of a series of photographs that recorded the transformation of the courtyard during the construction process of the NPG2000 project. The picture was taken by John Goto in January 2000.
These blocked up windows are currently hidden behind the internal elevations of the triple height entrance concourse.
© National Portrait Gallery, London

Umarells and the future of our cities

Lorenzo Mingardi

«Is that how you lay a brick? You have to cross them! Otherwise it will all fall on you! ». This is how one of the most memorable scenes of the movie *The Roof* (1956) opens, the masterpiece directed by Vittorio De Sica: an experienced worker reprimands the young colleague who, to make ends meet, is learning how to be a construction worker. Certainly, any old man who has grown up and lived for more than eighty years on the soil of our controversial Peninsula would not have made that mistake. In fact, one of the most unbridled passions of the *Umarells* – a word coined by Bolognese writer Danilo Masotti, who anglicized the term "umarel", a dialectal term used to define an old man - is to admire building sites as an attentive and active spectator. When in any urban area, woven thick with the historic fabric of our cities, scaffolding like an epiphany appears in preparation of a construction site, the umarell instantly abandons the television program he was following (usually on the RAI network) or gives up the idea of going to the café for a soda drink with friends and rushes to the location that provides maximum ecstasy: the building construction site.
This, therefore, is why we often see the umarells supervising the works from afar (the umarell must remain beyond the fence that surrounds the construction site) and often, kindly, reprimand workers who do not execute the masonry flawlessly.

The umarell would never want to dirty his hands with limestone and cement in order to be an active part of the building's construction process, no!

The umarell wants to be the site manager, the shadow who monitors the correct execution of an artifact that could one day become the building in which his grandchildren will live. And so, during our urban walks, when we come across an elder in his eighties who patrols over and criticizes the workers strangled by so much attention, we will not continue on our path indifferently. We will stop and help monitor the construction of our cities.

on the left:
[01] A typical umarell "at work"
© Corriere della Sera and Fatto Quotidiano

Delirious Tehran: vertical abysses of a den[se-]city

Sara Khorshidifard

Opening

The architectural mechanisms of urban voids, whether intended *by* or as remainders *of* designs on sites, are transcendent components of the contemporary city. Voids can vary in intention, from spaces planned with deliberate design decisions, to those empty of function or meaning, to those leftovers from a far or near past. They can also range in connotation, as negative and undesirable vacancies or positive and accessible for creative use, or somewhere in-between. Voids can also range in typology, size and orientation, be horizontal, vertical, or both, in cooperation. The premise of this article is that, after all, voids in various forms and meanings can be useful for cities, mainly examining how big vertical voids in Tehran are opportunistic urban sites at continuous, optimistic stages of becoming.

Even the slightest enduring openings expend opportunistic sites for user appropriation in compact cities. Compared to solids, by better blurring conventional dichotomies such as public vs private and cultural vs commercial, voids make tactical spaces for overturning discrete, mono-functional zoning of the modernist urban project. They also endow the city nonconforming conditions to thrive, yielding a quality of porosity conducive to situational on-sites. Their protean nature ventures buoyancy for a "protean self," as Lifton (1999) writes, fluid and many-sided with "a sense of self appropriate to the restlessness and flux of our time (p. 1)." [1]

Altogether allegorically, assemblage of Tehran voids maps rhizomatic connections throughout the city, reading Deleuze and Guattari (1988), an anti-totalistic a-structural assembly preventing places from finding perfect positions or permanent meanings. Rhizomatic voids sprinkle, akin to Calabi–Yau manifolds engaged in making multi-dimensional spaces. The conjectured spatiality offers platforms to human imagination with myriads of diverse and creative dimensions. Protean, rhizomatic, and manifold aptitudes of voids breed divergence and seepage from any autarchic thought, be it either deterministic concept of public space or architecture willed to condense social behavior. Voids carve out chance conditions on-sites, saturating in/around the architectures' unmatched functionalities not fully premeditated with precise agency by a designer. Chance conditions interposing with odds between predictable forms of the modern city are essentials in making genuine channels for self-reflection and authenticity.

Typologically, Tehran voids are perceived as encompassing sub-types, the understanding of which is useful in expanding its aptitudes within intentional acts of design. The sub-types are not static, but continuously redefined and remade via user appropriation. For this reason, the contemporary landscape is renewed beyond limits of such traditional spaces as squares and parks, and such profit-driven commercial

entities as malls, restaurants and café-galleries. Most opportunistic capacities are found in most physically obsolete and reclaimed grounds, often leftovers from past urban making processes.

As a first sub-type, voids appear as hefty vertical crevasses juxtaposed upon the *dense city* to help it breathe while projecting transcendent permeations into the sky atmosphere. As a second sub-type, voids insinuate as cunning ravines sneaking under the skins of the *policed city* while capturing tapered spatial recesses alongside building edges on streets. Building skins as practical construction elements are also perceived to be independent and discrete. Seen spatially isolatable, the cavities turn functional envelope boundaries negotiable, likewise acting as social-space generators. Eventually, the permeability and threshold qualities ascribed to physical boundaries can generate effusive public-realm spatial dimensions. As a third sub-type, voids can be seen in those outdoor social rooms that are formulating communal, yet phenomenally protected urban alcoves. Alternatives to the pricy and privately-owned indoor commercial spaces, outdoor rooms make more affordable and democratic places for gatherings and meet ups.

Despite the introductory depictions which are put into a tripartite cataloguing of sub-types, this article will *solely* discuss the first sub-type, "the vertical voids," done so to limit scopes, increase profundity and avoid general statements. The article, nevertheless, sees the initial, more broadly-profuse portrayal essential to better interpretations of Tehran's existing void diversities. This is key to relate to and capture the extents to which the city's *otherly* conditions get composed, exposed, reposed, opposed and deposed daily, around, onto, above, under, or even within some of the most functional components of existing architectures.

Delineation

In architecture and urban design, voids take on manifold definitions. Horizontal or planar open surfaces (such as plazas, squares, and parks), vertical concavities (such as city gates and punctured monuments), or others, they all set against solid objects of urbanities. Their fleshly emptiness pours meaning into city-forms, opening up a host array of spatial possibilities to counter modern notions of the ideal or rational city. In undoing conventional modernist urban objects, Akkerman (2009) opposes to voids' subordination beneath objects. Unplanned void places signify pre-rational, genuine and unadulterated schemes leading ways to human cravings for authenticity and projects of urban voids re-introduce into city-forms conduits for self-reflection (pp. 205-207). Part of abilities is in blending architypes and distorting physical frontiers: inside-outside, public-private, or cultural-commercial.

Planned cities put substantial emphasis on built structures, against which voids certainly compete. Emphasizing beneficial more than utilitarian spaces, the opposition regards flexible openings of volumes in-between solids as malleable terrains for urban life and vivid social interaction. Such positive readings are deep-rooted historically, evidenced by significant early icnographies like the 18th-century Nolli map of Rome, highlighting voids as positive public-realm grounds in relation to object figures. In addition to amorphous and communal merits, voids establish connections with natural heritage and ecological assets in biophilic design, additionally bringing in elements of water, wind, air, sun, atmospheric sky, and greenery. In contrast, negative positions also subsist regarding urban voids, referencing insufficient human presence, nonexistence or lacking of built forms, or absence of intentionality, meaning or experience.

Under conditions of rapid growths, intensity of builds impose on cities many compromises including considerations for adaptability of/in built spaces. Resultantly, as happened with the 20th-century modern urban planning, impositions lead singular identity palettes in transforming places. Excess focus on solid builds creates vulnerability, reversing contemporary city abilities in taking on diversities and multiplicities of spaces, places and identities. Simultaneously, the interstitial spaces the urban solids have left behind should not be viewed as meaningless or emptiness. Still, iotas of empty spaces, planned or unplanned, breathe into the city opportunistic sites for positive user appropriations and profound design interventions.

Delirious Tehran

Tehran is theorized as a Paradox City (Bayat 2010; Shahshahani 2003). Not quite the historically-majestic or good-looking amongst cities, Tehran to the eye could perhaps easily get underrated. Not like the

marvelous Istanbul or "half-of-the-world" counterpart, Isfahan, Tehran is not intendedly captivating by wealth of waters, bridges, vaults, or shares of citadels, castles, and mosques. Nonetheless, it presents itself as an inimitable, wonderful oddity, a highly dense yet also penetrable physical reality with protean sites and contributing opportunistic voids. Parts of the idiosyncrasy are in how urban spaces and characteristics are perceived, lived or contested on the ground. As Bayat (2010) puts, "it is a city with extraordinary politics, rooted in a distinctive tension between what looks like a deep-seated 'tradition' and a wild modernity." It is "a city with a tumultuous history that is traversed by glaring contradictions and marked by a persistent social and spatial defiance)" (p. 99). Global perceptions of a traditional city were partly revised in the aftermath of the country's 2009 presidential election, circulating flows of on-site happenings through media images during and after massive street demonstrations. Renewed narratives unveiled complex realities, secular citizenry, and a city possessing indicators of a worldly contemporary sensibility.

This modern political paradox turns architecture generated spaces into contested sites. In this capital of the polity, on the one hand, spaces in the public realm abide by excessive emanating propaganda of the hegemonic ideology (Marzolph 2013; Grigor 2002). The city, on the other hand, has developed its own stout subconscious awareness where incongruous forces and polar opposites have had no choice but to learn to coexist and thrive. Cohabitations improvise daily in concrete manners on the grounds of urban sites. Assertive push and pulls between politically-produced and socially-constructed spaces put the city in momentary processes of becoming and continuous regeneration. Outcomes breed palimpsest qualities, endowing the city liminal geographies, distorted public-private frontiers and enigmatic cultural conditions. These permeate broadly, also into numerous architecturally-generated territories such as the varied urban void typologies. From here on, the article focuses on voids' on-site dimensions and public conditions, exploring atmospheres created by their miscellanies in the existing and contemporary architectures. Urban voids are offering erratic and eccentric, often optimistic plugins into the landscape, bestowing the paradox city some of its unique inimitabilities.

Fixities, Indeterminacies, and In-Between

The relationship between humans and space is an unstipulated one. As Tyszczuk and Petrescu (2007) put it, whether physical, material, social, political, theoretical, pragmatic, cognitive or experiential, indeterminacies make architecture more dynamic, questioning disciplinary limits of its theories and practices. Indeterminacy as postponement of a precise meaning of architectural objects, achievement or idea can enrich the city for more improvisation. Based on characteristics stated earlier, Tehran's holding opportunistic on-sites circumstances is partly associated with its idiosyncratic cultural diversity and socio-political interworking. This is in keeping with an erratic assurance that many leftover spaces and custom-made architectural schemes leave behind. Their architectural void setups also contribute to an *ad hoc* nature of things, much life taking place in the interstitial grounds between fixities and indeterminacies.[2]

Tehran has a progressive contemporary architecture scene that might somewhat go unrecognized or underrated in the Western discourse, especially in the United States. The capital, as well as other Iranian cities present intriguing design landscapes, distinctive and diverse in their essence of form and definitions of order and aesthetics. Simultaneously, indeterminacies shape interactive and performative landscapes of social constructions in architectural sites. Observable variations of non-normative designs as the fixities coupled with the indeterminacies of human experimentations in protean urban spaces contribute vastly to onsite situational influences. These also include categories of the mundane, subtle, and everyday life situations, and milestone events such as social unrests and revolutionary transgressions.

Protean Spaces for Tactics

Furthermore, voids as substantial opportunistic types in the contemporary city act as protean spaces, allowing expressions of citizens' tactical engagements with urban sites (Khorshidifard 2014).[3] Those also suit the active, insightful, fluid and many-sided "protean self (Lifton 1999)," keen on finding new possibilities in pursuits of spaces for personal and group experimentation. Against absolutism, protean self applies

tactics to disturb established grids and geographies of power.[4] Spaces of tactics shape preferred topographies through the appropriations of the spaces of established powers and subversion of their dictated strategies. All such incessant spatial negotiations outline a daily *Zeitgeist* for Tehran, bending other ideal spatialities, for which protean voids spaces perform as platform.

Byproduct sites of authorized spaces habitually witness nuanced and subtle, although contested and unauthorized behaviors.[5] Creative, agile, and opportunistic are on-site practices of users leading gradual transformations of most sanctioned spaces with social constructions *on-the-go*.[6] Faced with inflexibility and limitations in civic options in some sanctioned spaces, citizens derive livelihood through discovering and inhabiting interstitial spaces, found anywhere, from pedestrian parks, sidewalks, plazas, squares, and transportation hubs, to residual vestiges, leftovers and obsolete remainder spaces. An overall extemporized nature of the city results in heterogeneous types including, but not limited to, in and about nondescript apartment houses, or within custom-made civic architectures. Situational experiences add on assets in less rigid, architecture-generated voids.

As every society reflecting particular social space genres breeds unique cultural spheres, this basic understanding benefits from deeper cultural burrowing. Tehran's aptitude is partly rooted in the culture's centuries-old practice of creating impromptu, often, unauthorized and ephemeral gathering places called *patoghs*. Patoghs' contemporary applications expand with other, more recent culture-specific types of protean spaces that are bred by users on the ground. Also more prevalent in accessible urban voids, protean spaces turn into places for protean dwelling and flourishing.

The Opportunistic Paradox

The city bulges spontaneity on par with its openness for tactical engagements in the possibilities presented from within its existing built environments, much of which resulted from formal planning and architecture. The urban development, despite shares of negative parts, the *pars destruens*, puts out positive positions granting the *pars construens*. Hasty 20th century modernization led unregulated and unfettered developments, since resulting in miscellaneous low-quality constructions. Homegrown architects, engineers, and builders outnumbered in breaching the "shadow ethics" of architecture (Owen 2009), actions legitimized outside official published code contexts and characterized with street-smart tactics of getting around rules (p. 91). For-profit ethical implications intensified regarding a city so extremely prone to earthquake, along with urban development mentalities mass exterminating the historic city fabrics (Figure 1).

Smithereens of the old city could have endured until today, being revived to add palimpsest understandings in collective memory. Nevertheless, what could have been astutely drawn upon until now is already extinct, challenging any task of design for keeping alive traces of the past in the present for the future. Regardless of negatives, spatial possibilities and historic remainders subsisting in city infrastructures can perform as perception-enhancing devices. Regardless of intents and origins, or how they are created, the built environment inexplicably contributes to tactical ways of countering the mainstream and domineering cultures. This is to say, even with the deleterious and originally mal-intended, Tehran sites succeed in offering a constructive loose-ness and optimistic elasticity, stretching the space capacities for situational speculation and experimentation. Generally, less-orderly and unfettered assemblage of urban architectures in part prompt an atmosphere endorsing more openness and mottled cultural practices. The following section will focus on the position of vertical architectural voids and their healthy participation in shaping atmospheres of optimism.

[1] Vertical Abysses of A Den[se-]City

The airy qualities of big and noticeable vertical voids are augmented field conditions offering contemporary Tehran a unique atmosphere of liberation. Variously shaped by, in and around the acclaimed and costume-made oeuvres of architecture, the voids valiantly oppose dominant object figures and disrupt rigid senses of urban monumentality. In the city's dense skylines, any spatial openness is sanctification where even the slightest crevasses could soothe and assuage extreme object conditions.

[01] A Qajar-era Palace in Tehran under destruction during the Pahlavi era (Image Courtesy of Ali Khadem, 1937; Source: Institute for Iranian Contemporary Historical Studies).

Not only the big, but also the slimmest available ravines, whether tucked in-between build skins on street edges or on top the city, offer iotas of emancipation in the overall urban experience. Nevertheless, not all urban voids, large or small, would always either intentionally or accidentally result in liberating qualities or genuine public realms. Voids can also remain as pointless gestures or reminder sites of oppression in urban experience. The hoop-shaped, voided posture of the Beijing's CCTV Headquarters, for instance, projects a competent alternative to normative object-oriented skyscrapers. Yet, it is erected with the goal to serve as a symbol of the power of China's digital state.[7] The perceptible colossal void and the building altogether are subordinate to the intent of serving political power. This can stand in contrast with the *true* void, in Dolphijn's (2006) terms, of the Tiananmen Square. The CCTV void gains political gesture while losing rhetorical stance, meaning of resistance, or capacities as social construct (p. 50).[8] Rhetorical stances in the discussions about the Beijing voids can serve as a prelude to discussions on the most important large vertical void of Tehran: the Freedom Tower. In Tehran, the urban presence for noticeably-scaled vertical voids could perhaps trace back to the early city gates known as *Darvazah* (Persian).[9] Despite sparsity being a characteristic of the medieval city, city gates drafted considerable three-dimensional gulfs perpendicular to a mostly two-dimensional experience of the premature, low-density and low-rise urbanization. The walled city in the 16th century under Qajar kings had eight gates that were reduced to six in the 19th century under Pahlavi kings, when the removal of surrounding fortifications created room for the growing urbanization (Figure 2). Today, much of such historic crevasses are lost, leaving only faded traces for collective memory in the contemporary city. In the 20th century, the reforming city made

[02] 19th-century Toopkhaneh Square can be seen as a horizontal void, amongst early key large public squares of the city (Image Courtesy of Antoin Sevruguin; Source: Smithsonian Institution, National Anthropological Archives).

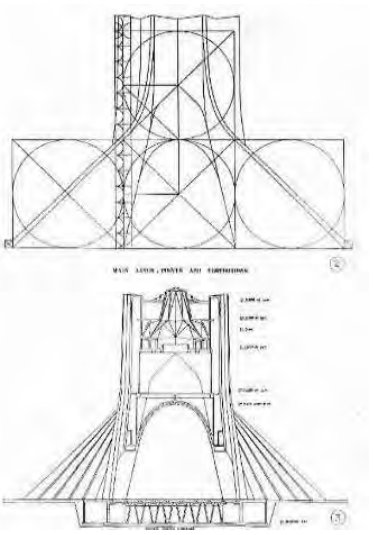
plenteous attempts to redefine its modernity with loftier monuments and iconic architectures.

The Freedom Tower is one such grandiose gesture and Freedom Square is the site where the epic pylon is located.[10] Analogous to Tiananmen, the square united with tower in performance since conception has become a prime spatial force and potent civil stage in the city. The square's large horizontal opening coupled with the tower's vertical cavity marked the most globally-broadcasted site in the political sight of Iran's uprisings in July 2009 after the presidential election. The monument's fame, however, predates 2009, having remained focal as the city's locus for any uprising, big or small, since built. Alongside the 2009 protests, its milestone on-site engagements encompassed much of the anti-Pahlavi demonstrations prior and during the 1979 revolution. The site has witnessed spreads of events beyond unrests in its history, joining forces with *Tahrir*, *Maidan*, *Taksim*, *Wenceslaus*, *Syntagma*, and *Trafalgar* as other urban squares globally with modern revolutionary spirits. Conceived with a distinctive parametric design embedding a premeditated void, the monument has potently gathered people in millions to its sacred forum, always summoning universal witnesses against coercion.

Commissioned by the second Pahlavi king, the tower was designed as a national monument to celebrate the 2,500-year anniversary of the Persian Empire by the Iranian architect Hossein Amanat.[11] Completed in 1971, beyond significance visually, the colossal and monolithic museum building in white stone is still by far Tehran's most acclaimed piece of architecture. The tower's big and upright void has remained the most important gateway to the city. Both physically and psychologically, the void performs as a key threshold in the city's rhizomatic networks grasping its complexities. The architect's intentions truly manifest the best of his time with the use of local building technologies and materials in design and construction.[12] Poetics of geometry dominates in layout, arches, and vaults, typical of Amanat's style, where, according to Shirazi (2018), *temporal* juxtapositions including historical references and *local* juxtapositions embracing place-oriented references become perceptible (p. 158). In addition, Deleuze's (1993) notion of folding and its Van Tuinen and McDonnell's (2010) appraisal qualify in epitomizing the architecture: a political gesture for which the principles of curving, movement, and point of view cannot be localized.[13] Bogosian (2014) also ascribed the Deleuzian reading to this tower, considering the architecture, a first-ever contemporary parametric building, today "more than ever folded into the city," having actually become the city. In essence, *Azadi* was meant to be envisioned as "the most utopian vision of enfolding a nation's culture, politics, and architectural styles into one architectural body."

Meaning and worth of the void mechanism are imperative to the tower's realization. Beyond intertwining with history, iconography, tectonics, parametric design intricacy or Persian architecture borrowings, the key component of the urban void formulates the ultimate sublime feature juxtaposed upon the rest of the urbanscape. *Azadi* has generously opened up to the city in the past four decades mentally and physically, both horizontally with its surrounding oval square and vertically with the chasm, fashioning a multi-narrative, yet, contested site with a pecu-





[03] *left:* The large oval public square; *middle:* tower under construction; *right:* geometrical compositions of the form are represented (Images and Drawing Courtesy of Hossein Amanat).

liar and transgressive sense of publicness. While the act of design ended and Amanat left the country in 1978, a few months before the revolution's fruition, the process of the design's becoming the place of the site just started. The site as matter and the void as air continued to host yet-to-come myriads of spectacles. The unprecedented crevasse of *Shahyad* or *Azadi*, notwithstanding the name, lingers to bestow sparks of capacities to the city to reinvent itself. The site with the void have been leading the rest of the process on the architect behalf, remaining protean and entwined with the paradox city's unending state of becoming.

Ending

First in the list of Tehran's architectures primarily expressing by void rather than solid is the Freedom Tower. The style back in the day initiated a new paradigm and architectural language. Akin to a Calabi–Yau manifold, the space adds more than only three dimensions to the urban experience. The positive void of the figure, in touching to merge while permeating with the ground shapes an unparalleled character for the site. In return, the on-site capacities the architecture affords, harness ongoing inhabitant design appropriations, with voices seeking agency, social change and civil reform. The public void, unquestionably, plays key roles in the contemporary city. With its essence of sparseness amid density, it has been postponing any deterministic closure to its enduring design process.

With its patterns of use in the past four decades, *Azadi* could always platform to negotiate civic discourse where the void is keeping the site exposed to more optimistic situational influences. Vertical void of the monument merging with the oval square remains a theatrical backdrop for an uncannily-unrefined assortment of social movements, *always* contradictory, *always* opposing, and *always* colorful. On the same site, the 1979 baby-boomer crowd's come-together heaving for Khomeini juxtaposes the 2009 millennial mass' "greening" in pejorative response to an embezzled election, both against dominant doctrines. Just like individuals come, go, and change, so do their beliefs and ideas; yet, the void would stay as the oddity connecting to the place new projections of a polarized society. In the face of internal dismays and external rebuffs the society is facing, the design landscape is beyond promising; the bar of design was already raised considering Iran today as an exciting modern architecture destination. The landscape is today marked with numerous urban void antecedents to the Freedom: the Mellat Cinema, Tehran Book Garden, and Tabiat Bridge, to name a few (Figure 4). Despite the omnipotence of such other void mechanisms as public architecture, no other has exceeded the Freedom and never will.

Notes

1_Part of contemporary psychiatric theory is Lifton's description of how people in war-torn, fragmented, and hostile societies create mutable self-definitions, which he termed the protean self.

2_*Fixities* relate to build architectures and political productions of spaces including rigidities implied with codes and regulations, and the lesser available wiggle rooms for diversities or experimentations. *Indeterminacies* associate with open-ended experimentations and social constructions of spaces including improvised and transgressive happenings on urban sites.

3_Protean spaces have stronger capacities to turn into "places of democratic discourse that allow the free exchange of ideas and information, where citizens, particularly, marginalized groups could offer one another mutual support (Khorshidifard 2014, p. 2).

4_As De Certeau (1984) argues, tactics as subversive and rebellious social practices take advantage of available situations to make geographies of *otherness*. Tactics differ from strategies in that they privilege time instead of space, representing the victory of time over space. Tactics "mark the preservation of time against the encroachments of disciplinary space … retain in the collective memory traces of other ways of being in the world and carry within them promises of other spatialities (Gregory 1994, p. 195)."

5_As Lindell (2019) puts it, through time, people appropriate and produce urban spaces in ways to "sustain their economic and social practices, and on the basis of which they develop life-worlds and sometimes a sense of entitlement and belonging (p. 3)."

6_Pertaining to urban development, planning and architecture, while reading Lefebvre (1991), "(social) space is a (social) product" and its complex constructions influence spatial practices and perceptions. Every society reflects particular spaces and cultural spheres, a social existence through unique methods of production. Thus, produced spaces likewise serve as "a tool of thought and of action." The space performs both as mean of production and control, "and hence of domination, of power (289)."

7_Koolhass (2015) describes the architecture as "not something that is only taking away from the city but actually defining a larger-than-itself moment in the city…a key thing in the terms of urbanism (Hustwit 2015)."

8_Tiananmen is "the true oriental void, for it had been a broad, short market street before only recently being turned into a square and had been in no way connected to the façade-less Forbidden City that now heads it (Dolphijn 2006, p. 50)". Contrary to this statement, CCTV is also positively referenced with the two main spatial forces of gravity defining Beijing's character: texture of the Forbidden City and void of Tiananmen Square (Mattern 2008, p. 40).

9_Not originally spirited as public realms, the gates were put as control thresholds to secure and protect places of access to the walled city by standing militia or municipal authorities. Adapting and becoming convivial features, architectural site mechanisms facilitated flows of people, vehicles, goods and animals, circumscribing such early experiences of the new urbanization. Geometric forms of the old gates extended the preceding form such as the vaulted Persian *Iwans* or with borrowing from such ancient sites from the Achaemenids' period as Ardeshir's capital city of Gor, or the Sassanid's stone-carved voided reliefs of *Taq-e Bostan*.

10_The Freedom Tower is pronounced as *Borge-e Azadi* in Persian and Freedom Square is pronounced as *Meydan-e Azadi* in Persian.

11_The tower was named *Shahyad* originally, meaning the king's memorial, but the name had to change quickly in the aftermath of the 1979 revolution in formation of the pious state. Many other names of places did also change around the time, which had associations with previous kingships or merely with the aim to now exaggerate representations of a more religious identity for Iran's highly diverse and polarized, and for the most part very secular society. Such complexities in terms of lack of acceptance for any diversity by reflecting dogmatic and politically-imbued rhetorical stances with such aspects as place naming can reflects the higher degree to which the Iranian architecture-generated sites has to be meshed with the ideologies of the affairs of the state.

12_Building materials include reinforced concrete (grey and white local), stone (Jowsheghan white marble from Kashan and Isfahan quarries near Tehran), and Persian ceramic tiling of *Moarragh* (small pieces joining in patterns) (Shirazi 2018, pp. 156-160).

13_Deleuze writes that "Utopia is not separated from infinite movement," designating "absolute deterritorialization, yet always at the critical point where the latter is attached to the relatively present milieu, and especially with forces that are the fabric of this milieu (p. 95).

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[04] *top: Tabiat* public bridge by Leila Araghian, completed in 2014 (Courtesy of Diba Tensile Architecture); *middle:* Tehran Book Garden by Design Core [4s] Architects & Urban Designers, Lead: Sam Tehranchi, completed in 2017 (Photo Courtesy of Mohammad Shah Hosseini); *bottom*: Mellat Cinema by Reza Daneshmir and Catherine Spiridonoff, completed in 2008 (Courtesy of Fluid Motion Architects 2008, Photo Courtesy of Ali Daghigh).

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"The honor and the shame".
Modernity and archaism in Michelangelo's role at the Laurentian Library

Silvia Catitti

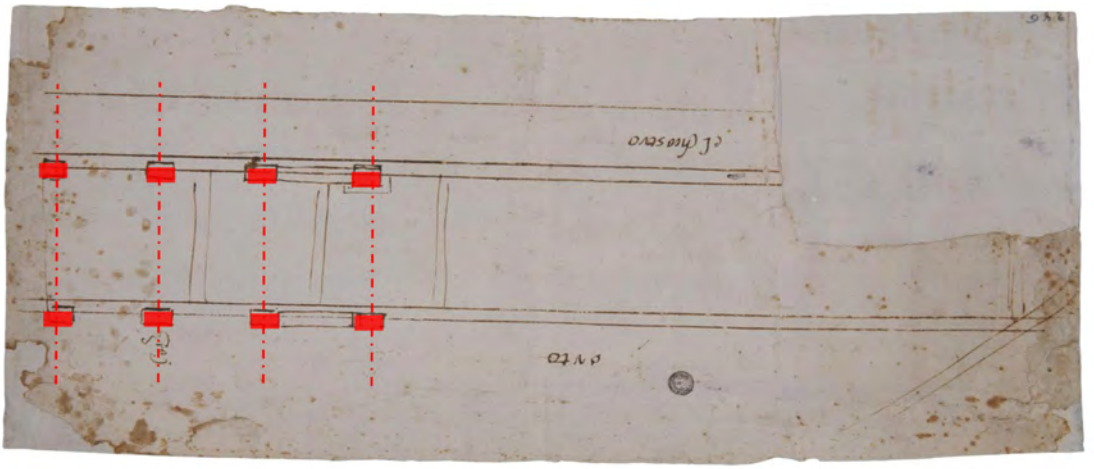
A recent study from the Architects' Council of Europe (2014) casts light on the different ways of practicing the architectural profession in thirty-one European countries[1]. Over a quarter of all the architects in Europe is from Italy. Although architects educated and trained in Italy are highly appreciated in Europe, only 3% of Italian architects work abroad. Italy also boasts the highest ratio of professionals per inhabitant, with 2,5 architects per 1,000 population. Another peculiarity about twenty-first-century Italian architects is that three quarters are self-employed, joining forces with other colleagues on specific projects or issues of problem-solving. In most cases, the modern Italian architect is personally responsible for all stages of the design and building process, including direct on-site supervision of the production phase. Thus, Italian architects today still follow the centuries-old working process, "from producer to consumer." Despite a few obvious differences, the cross section about Italy reveals surprising parallels with the age of Michelangelo.

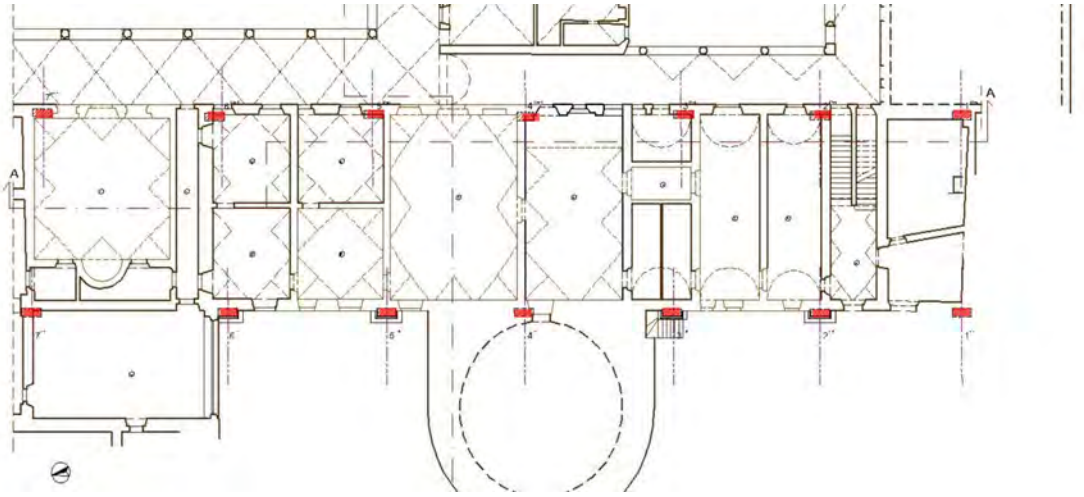
Before the modern internationalization of the construction business, all aspects of the worksite were very local, from the building materials and construction jargon to the workers themselves. Italy was divided into small city-states, and so Michelangelo witnessed a very different geopolitical Europe. When he left his homeland, the Republic of Florence, in 1534 to work as an architect in Rome for the final decades of his career, technically the State of the Church was a territory 'abroad'. Although the work of Italian craftsmen, architects, and artists was extremely valued by European patrons of the Renaissance, these seldom succeeded in obtaining the service on site of the equivalent of a modern *starchitect*. This was due in part to the difficulties of travelling. In addition, local, influential patrons kept their favorite architects constantly at work. And in the pre-Industrial Revolution world, before the spread of modern models of construction management, construction process was slow.

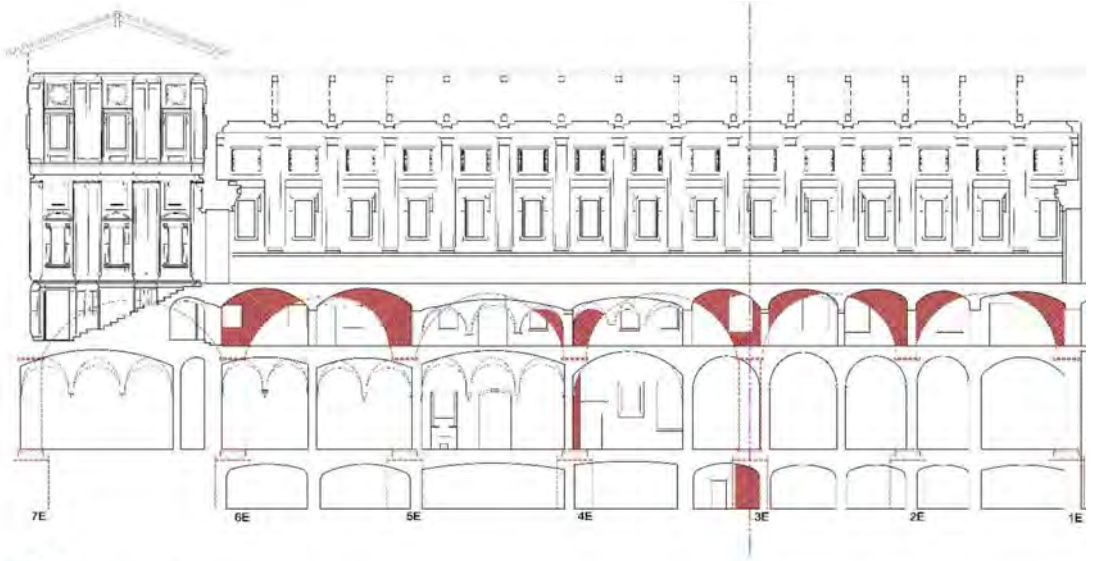
Due to the radical difference in the organization of this profession, before the specialization of professional roles, architects were trained very differently in sixteenth-century Italy than today. At the time of Michelangelo, there was no specific, freestanding academic education for such profession. Boundaries among freelance professional figures operating in the field of construction were blurred. Thus, those who played the

1_https://www.ace-cae.eu/fileadmin/New_Upload/7._Publications/Sector_Study/2014/EN/2014_EN_FULL.pdf

facing page:
[01] Michelangelo Buonarroti, Sketchy floor plan of the Canonry of San Lorenzo, Florence, with tentative layout of the sub-structural piers of the Laurentian Library, 1524 (Casa Buonarroti, Archivio Buonarroti, I, 160, fol. 286r)
[02] Silvia Catitti, Floor plan of the second floor of the Canonry of the Laurentian Library (Substructures highlighted in red, 2008).
[03] Silvia Catitti, Longitudinal section of the Laurentian Library (Survey of the substructures highlighted in red, hypotheses in red, broken line, 2008)







KEY:

- VISIBLE MASONRY, IDENTIFIABLE AS SUBSTRUCTURES OF THE LIBRARY (MICHELANGELO, 1524)
- AXES OF MICHELANGELO'S SUBSTRUCTURAL PIERS
- MICHELANGELO'S SUBSTRUCTURAL SYSTEM (GRAPHICAL RECONSTRUCTION)
- CUT WALLS AND COLUMNS (DIRECT METRIC SURVEY OR DIRECT OBSERVATION)
- CUT WALLS AND COLUMNS (GRAPHICAL RECONSTRUCTION)
- PROJECTED LINES, BELOW THE PLANE OF THE SECTION CUT
- PROJECTED LINES, ABOVE THE PLANE OF THE SECTION CUT

0 1 2 3 4 5 10 20
METERS
0 1 5 10 15 20 30
FLORENTINE BRACCIA

role of the designer and coordinator of a construction site boasted a training in some other craft, such as carpentry, or in one of the other visual arts, such as painting. Anyone could be an 'architect'. A private patron or a public committee requesting custom-made architecture could assign a commission to anyone who proved versed in construction matters. The history of architecture in Italy even includes several cases of patrons as amateur architects. The typical wealthy client of the Renaissance was far more knowledgeable about architecture, structures, and techniques than most modern patrons. Michelangelo too experienced a high degree of exchange with his well-informed patron at the time of the construction site of his most complete building, the Laurentian Library[2]. However, the key to Michelangelo's success was the mutual trust and dialogue with his collaborators that he built on site.

Ever since Giorgio Vasari's 1550 biography of Michelangelo, most texts reiterate the image of him as a surly, tormented genius working in isolation[3]. The impact of this Romantic view is still very powerful today, among modern architects and all others interested in Michelangelo. However, evidence from the building history of the Laurentian Library, one of the best documented construction sites of the Renaissance, shows that the architect was constantly active on site as a problem solver. Here Michelangelo coordinated a team of trusted 'freelance' collaborators, covering a broad variety of roles. The pyramidal organizational structure, of medieval origin, where the architect was directly responsible for all aspects and stages of construction remained the standard process in the Renaissance[4]. However, the need of the architect's presence on site was crucial for another reason. The post-Fordist practice of defining a comprehensive final design, and producing executive drawings before construction began, was unknown in the Renaissance. Unlike buildings today, the overall architecture of the Library was conceived fragmentarily, step by step. Decisions were largely made along the way. Evidence shows that, on several occasions, construction started before the patron gave his approval. Indications provided in drawings and templates were disregarded to the advantage of a more effective design, that Michelangelo discussed, tested, adjusted, defined, and supervised on site[5].

Direct experience of construction site played a key role. Michelangelo had reluctantly accepted to design and build the Library in early 1524 from the most powerful

2_Silvia Catitti, 'The Laurentian Library. Patronage and Building History,' in *San Lorenzo: A Florentine Church*, Robert Gaston and Louis A. Waldman, eds., Villa I Tatti, (2017), 380-424: 385-386.

3_*La vita di Michelangelo nelle redazioni del 1550 e del 1568*, Paola Barocchi, ed., 5 vols., Ricciardi (1962).

4_Silvia Catitti, 'The Laurentian Library. Patronage and Building History,' cit., 391.

5_Silvia Catitti, 'Michelangelo e il disegno architettonico come strumento progettuale ed esecutivo. Il caso della Biblioteca Laurenziana,' in *Michelangelo e il linguaggio dei disegni di architettura*, Golo Maurer, Alessandro Nova, eds., Marsilio (2012), 53-67, 330-333: 58.

and demanding client in Europe, Pope Clement VII de' Medici. This patron invested passion, image, and funding in this building, which was the first freestanding architectural commission the Pope had not inherited from an earlier patron. Michelangelo was constantly pressed by his client about technical and structural matters. The Library was conceived as an additional floor to a pre-existing building, the Canonry of San Lorenzo. Thus, Michelangelo had to reconcile the older structure with the new. It is little-known that, when facing the challenging substructures of the building, he collaborated for a short period with his compatriot Bartolomeo Lippi, called 'Baccio Bigio'[6]. Now obscure, Baccio was trusted by the Medici family because of his skills in dealing with structural matters. What he actually did for Michelangelo is not documented in detail. When the Pope heard about the collaboration, he instructed his spokesperson to tell Michelangelo that, whatever happens on site, "the honor and the shame will fall entirely on him." In case something goes wrong, "He should not say: 'Well, it was Baccio's fault!'"[7] This fascinating quote helps cast light on the issue of "what is a Michelangelo," and on the standard way of managing construction sites in Renaissance Italy. Pressed by his patron, Michelangelo opted for an unprecedented, discontinuous system of foundations. In an early, tentative sketch (fig. 01) Michelangelo represented his idea for the placement of the two sets of piers of the substructure of the library, on the ground floor plan of the pre-existing building. The piers, to be partly inserted into the existing facades, would be tied successfully to the longitudinal walls of the Canonry. However, the piers Michelangelo had initially planned would be independent from the transverse load-bearing walls of the old structure. Eventually, he built his piers in the proximity of the transverse walls (fig. 02). Someone more experienced must have showed Michelangelo that connecting the piers and the existing transverse walls would have improved the link between the new and old building, making the new ensemble more structurally sound. In particular, this additional link would prevent the overturning of the two, long facades under the weight of the new Library and of its content (fig. 03). Very likely, this was the contribution of Baccio, the 'structural engineer', as we would label him today. The substructures worked and the architecture of the Library was – and still is – a success. As expected, the honor – and the credit – did "fall entirely on" Michelangelo. Poor Baccio fell into oblivion, also because, in pre-modern Europe, no aspect of architectural production was covered by copyright. Today, contributions of structural engineers are mentioned in articles and official documents. Nevertheless, when discussing a major project, the general public ignores the names and roles of the firms which played essential, supporting roles. Modern starchitects, just like Renaissance ones, receive all the honor or shame.

6__Silvia Catitti, 'The Laurentian Library. Patronage and Building History,' cit., 394-395.

7_*Il carteggio di Michelangelo*. Posthumous edition by Giovanni Poggi, Paola Barocchi, Renzo Ristori, eds., 5 vols., Sansoni/S.P.E.S. (1965-1983), 1973, III, 106, n. DCLXIV (Florence, Casa Buonarroti, Archivio Bonarroti, VIII, n. 263).

Building buildings. The site of construction

Claudio Sgarbi with a letter by Donald Kunze and a project by Kevin Tomm

Proposal for a Studio Project Outline
This is an invitation to learn to appreciate the ephemeral beauty of building sites, to begin to concentrate not on the object to be constructed but rather on its circumstances, its anticipations and the remains, relics and removals it implies. All those entities that make its presence possible and then lie hidden, vanish or are removed. This is a call to acknowledge all the more or less transitory components and events that will be be present or implied in the construction process, all the necessary temporary apparatuses that will be dismissed or cleared out in the course of the construction or when the building is complete.
Indeed, no building is ever complete but only eventually abandoned[1].

How can the building sites, the sites of construction, be designed and imagined?
firstly we can design the way in which the sites are set up: their location and arrangement, the program, the timing, the scheduling and presence of apparatuses in space, the rational and economic aspects, the supports and infrastructures that they require, the security and safety concerns they engender….
secondly we can design all the individual technological items they are made with: special kinds of scaffolding or crane, mobile accommodations and facilities for workers and craftsmen, machineries to be used in the construction process, peculiar kinds of fences or protections that are required or can be adopted, the technological devices for processing debris, waste and recycling….

There are structures, instruments, items, equipment, elements and apparatuses that must be removed once the "thing" we call a building has reached a certain state, and there are others that can remain or are embedded in the construction. Some equipment can be used again on other building sites or its components can be recycled in other ways. A building that we judge as "complete" presents spaces ready to be occupied by the so-called "users". These spaces seem "empty", but they were once occupied by scaffolding, formwork, supports, posts, machines and the entire workforce that made it – all of which now seems van-

1_*"Un ouvrage n'est jamais achevé… mais abandonné; et cet abandon, qui le livre aux flammes ou au public (et qu'il soit l'effet de la lassitude ou de l'obligation de livrer) est une sorte d'accident, comparable à la rupture d'une réflexion, que la fatigue, le fâcheux ou quelque sensation viennent rendre nulle."* [A work is never completed… but abandoned; and this abandonment, which gives it to the flames or to the public (and that it is the effect of lassitude or the obligation to deliver), is a kind of accident, comparable to the rupture of a reflection, which the fatigue, the annoying or some sensation come to make null]. Paul Valery, https://quoteinvestigator.com/2019/03/01/abandon/, accessed 22 July 2019.

fig. [01]

ished. There is both a poetic and practical dimension to all this appearing, making things right (or looking right) and vanishing.

There are also a lot of elements that leave detectable or noticeable traces of their former presence on the building site, like, for example, the imprint of the formworks on concrete, or the recesses for supporting wooden scaffolding in the old brick buildings, and all the signs of different construction logics.

For security reasons it is now necessary to leave hooks, supports and other minor elements, to ensure the safety of future maintenance inside and outside the building. Some of these elements are very important from a formal point of view even if architects do not pay attention to them.

Building implies a rather complex productive process that spans global distances and connects very complex market chains of manufacturing, assembly and disassembly procedures, material and technological supplies and infrastructural networks of vehicular (terrestrial, aerial and sailing) routes. The building process manipulates a lot of matter, water, electricity and energy supplies, plumbing and network facilities and the human and animal workforces and energies that procure and manage them. The construction site links materials, technical skills, resources, regulations, legal standards, conventions, apparatuses and institutions. All these elements and phenomena establish a very complex and interesting relationship with the "building" that is to be made. They all contribute to making its creation possible and then they seemingly vanish or become silent, latent, or, to use another evocative word, immanent. A "human-made" object is part of a very articulated chain, web or net of intricate necessities and destinies that are meant to become or remain invisible. Next to all that which must be seen, there is a parallel and vast domain of all that which must be hidden. But that which is hidden should not be forbidden to our creative endeavour.

There is a specific space inside (or next to) the build-

fig. [02]

ing to be built that is the laboratory for its own construction, maintenance and implementation. The building has its own generative and operative space inside itself or conveniently dis-located next to itself. The building can be seen as a permanent (never-ending, constantly *non-finito*) process of construction and it needs a special space to fulfil this mandate. In order to exist not as a dead object, but as a timeless process of collective creation, the building needs to satisfy its own daily and long-term demands for care and refurbishment. In the medieval building tradition, this special space was called the *FABBRICERIA* (the space of fabrication).

I am suggesting that we creatively reconsider this operative place and all its circumstances. It is the embryonic place where the living spaces of construction continue to be thought (after the initial design process) and are operatively set into praxis and fabricated – a sort of intermediate space between the building and its design – a laboratory where all the forms that are going to be manifested in the building site will go through a process of exploration and testing in order to be made.

The building site often becomes courtyard, parking, sidewalk, garden or it simply disappears – or becomes what it was – after the building is considered complete. We act as if all the traces of the construction site ought to be removed, but I suggest that some parts of it are worth being well designed, preserved and used in different ways. Some construction processes last so long that the temporary elements and settings they require are as important as the permanent ones. Building sites can have an impact on peoples' imagination that can be very relevant. Moreover some buildings, once completed, need a lot of maintenance and renovation. To be "what it is" a building requires many on-going but temporary occurrences (like glass cleaning, waste removal, refurbishment and controls) that may be more memorable and probably more interesting, than the building "itself".

It's also worth dedicating some attention to the ceremonial aspect of the construction process: the placing of the first "stone", completion ceremonies, openings and other celebrations such as the "topping-out" ceremonies. We certainly don't wait for lucky astral coincidences these days, or do not bury a corpse under the foundations to start a building but we do put into practice many other complex ceremonials such as all the formal bureaucratic ratifications that are demanded by law to start to build and in order to complete the work. Our deterministic way of thinking makes us believe that the rationality of the process is the only thing that matters. But I suggest that our rationality itself forces onto us its own rituals – rituals that propitiate and attempt to secure the successful life of the building. Rationality itself is the ceremonial we set up to exclude and secure the "bad spirits" from the spaces we design and build. The concept of "bad spirits" has been erased from our vocabulary (labelled as superstition) and might even

be offensive to our frame of mind – even if we all believe in "luck". Yet we are all required to fulfil many legal and professional obligations as if, by not doing so, we would threaten our prosperity, provoke dangerous and unpredictable consequences and, indeed, irreversible damages. Instead of consulting oracles we prostrate in front of corporate executive agents. Contemporary legal rituals secure buildings against risk and architects against responsibility. The real conflict lies in the gaps between what is predictable, what is unpredictable and the limits of rational propitiatory rituals. Any building we design and we want to build is a building that must undergo through the ritual of its construction and the rite of passage of this construction has its logic that we assume will be bringing good "luck" to everybody involved in the process and to the life of the building. Ideally we believe that the "tectonic" aspect should be self evident, tautological and contain its ratios within itself but there are always margins of redundancy that betray the hidden sense of what we do, a sense that we often try to hide behind many layers of denial.

All these sets of considerations can be applied to any building process, being aware that any building is an on-going, never ending building process. In terms of architectural instruction and education it would be extremely interesting to imagine the architecture school itself as an "open" construction site. Learning and teaching to design in the face and in the context of a building that is undergoing a constant process of representation, translation, manipulation, suspension, and delay….that is, in the midst of change, would be inspiring.

Imagine for example that an architectural school building:

- undergoes a process of integral renovation;
- is renovated while being kept in use;
- sets forth a renovation that lasts forever;
- creates a construction site that can be both inside or outside the perimeter of the existing building and it can occupy important public spaces (passages, meeting areas, gardens….);
- contains a specific "room" or *raum* inside the building (or as an addition next to it) that will be

fig. [03]

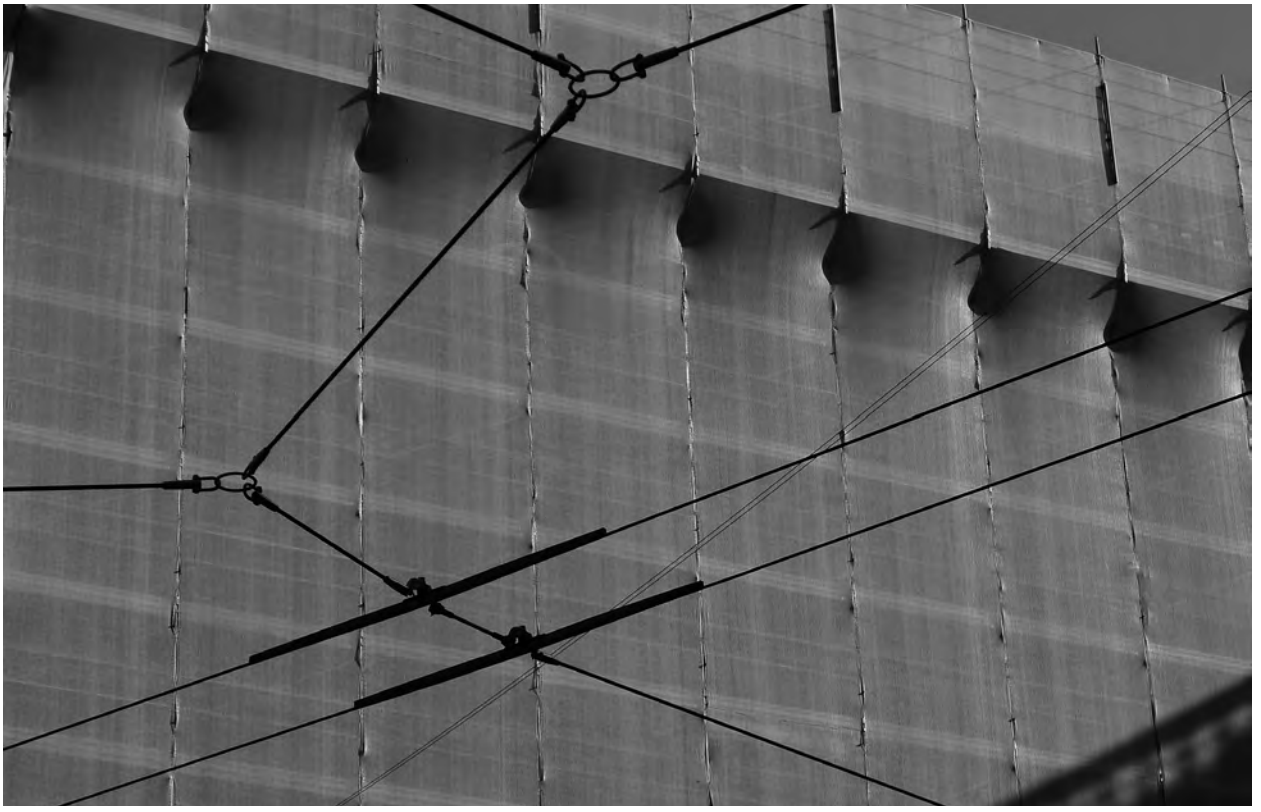


fig. [04]

carefully set up; a space where all the documents and equipment are stored and preserved: the *fabbriceria*. This room can be either mobile or stable and can become a space where the students (and the other users) participate in the process of design and construction from inside the construction site. This is also the place where components and prototypes can be designed, built and tested. It could also become the *fabbriceria* for a larger community of people and for a neighbourhood;
- explores the possibility to design a kind of scaffolding, crane, operable platform or other device that can be "housed" in the architecture building and be moved around in the community or wherever it is needed;
- celebrates and enhances the ceremonial aspect of the school's on-going construction (foundation/ re-foundation, topping, opening ceremonies) ;
- establishes connections with other construction sites next to it or related with it.

This creates a domino effect with many imaginative consequences. Interstitial construction sites can mediate between different sites and can be educative and experimental spaces of exploration and fabrication for a larger community.

I have shared these ideas with a dear friend and his words of advice were very inspiring, as usual:

Letter to Don Kunze: april 20, 2016

Dear Don […] I have to write a program for students I am going to teach design studio […] and I am thinking about asking them to "design" not a building but a construction site [...] all the temporary apparatuses that are necessary on a construction site (in Italian we call it "cantiere") and will be removed when the building is completed. In psychological terms how would you define this process of "removal"? In Italian we say "rimozioni" […] I mean something that must be removed once the "thing" is completed. Your emphasis on metonymy (the site of removal - metonymy and the site of exception) will play a fundamental role in the discussion with the students. May be you can help me with more suggestions [....]

Reply from Don Kunze, 20 Arpil 2016

Dear Claudio, your problem is, as always, intriguing. I have always found the things taken to and then removed from the construction site to be more interesting than the building itself in some cases. The scaffolding is a standard example, but when I was in Macau I realized they still practice rituals of feng-shui on a day-to-day basis. And when you see THEIR scaffoldings which, even for multi-storied buildings, are nothing more than bamboo rods lashed together, you see they need a bit of luck.

In fact, I would look at the luck issue and maybe even use the term "ersatz" as something that has to be rigged up in order to provoke a situation or test a case. "Ephemeral" is the word for things that appear then disappear shortly thereafter.

But, there's also the bigger issue of disarray, and the "field" of the site becomes littered with debris that must be cleaned up.

That which must be cleaned up is closely related to the idea of "that which ought to be destroyed," as in Cato the Elder's repetitive exhortation, "Carthago delenda est!" Carthage must be destroyed! Why? There was no reason, only Cato's drumbeat of insistence that something should be removed forever. Obviously, the issue of litter is ideology at its purest! We want to flush away what we deny happened, but this bit of the Real always tries to return. It is the message of the unconscious of building, coming back in an inverted form — Žižek's "incontinence of the Real." We remove litter to create the illusion that the building has "existed forever," that nature has grown up to it, in the form of a manicured landscape, "as if nothing had happened." The seamless city is a picture, not a real city.

An Indian man was visiting friends in Europe for the first time and they decided to take him to a concert. The orchestra began to tune up and in the silence just before the conductor came on to the podium, the friends said, "You are going to really enjoy this!" and the Indian replied, "I thought I already had!"

The cacophony of the building site is interesting and maybe we should look at time-lapse records. Burial is another related instance, especially in sites where you have to remove bones before you replace them. […]

Don

This project by Kevin Tomm shows how profound the implications of this concern about the essence of the construction site can be.

COURTYARD THEATRE OF THE COSMOS
Text and Drawings by Kevin Tomm

This is a project about a perpetual and indeterminate construction process: the disassembling of a light industrial building and its reassembly into two theatrical spaces, one within and one without.[2] The design is centered on an interior courtyard inside the preserved perimeter walls of the existing building. Across these walls a continuous exchange and manipulation of materials connects the courtyard theatre within and the theatrical workshops without. The excess, redundancy and multiplicity of its constructive components are the resources for the dynamic transferences of materials, program and significance that occur in this project: interior becomes exterior, public becomes private, temporary becomes permanent, and a structural wall becomes the curtain of a theatre. [Figure 05.]

The phase of deconstruction and reconstruction is suspended and prolonged by pressing 'pause' at the moment the roof and floor of the existing building are removed, and before its supporting scaffold is dismantled. The resultant transitional structure—a light steel scaffold on a gabion foundation that grasps the pre-existing masonry walls through the apertures that were once its windows and doors—has an obvious excess and multiplicity of parts. The unusual choice to preserve this structure is a means by which *to imagine as permanent the conditions of excess and redundancy that construction (and deconstruction) processes require.* The question remains: what is the program that makes sense of this indeterminate, transitional domain?

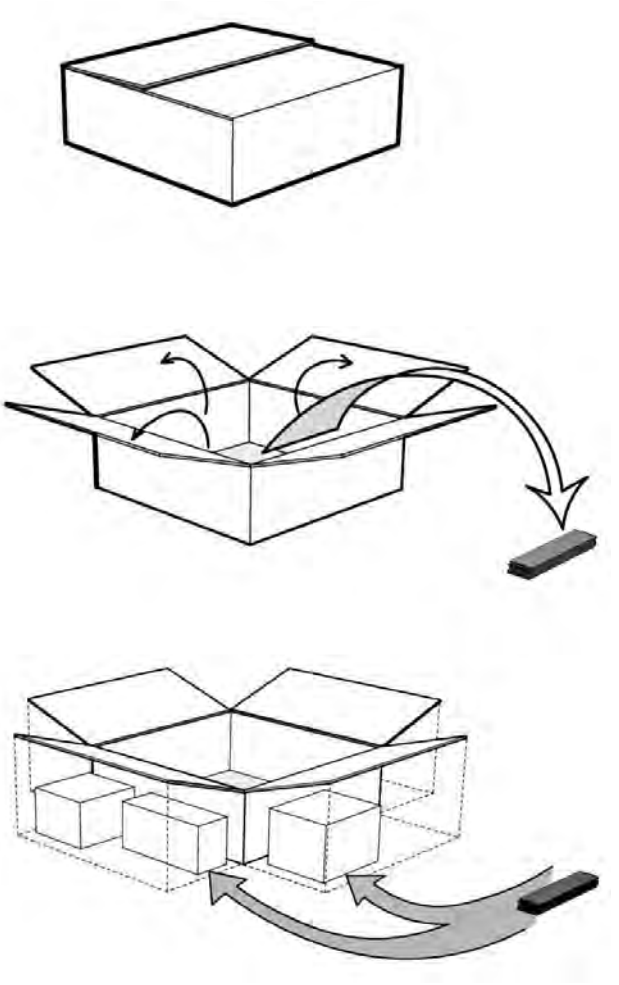


fig. [05]

The proposal for two theatres, the one within the courtyard and the one without, is one possible answer to that question. The theatrical volumes that surround the courtyard house the permanent workspaces in which sets, stages, props and installations are made for use within the theatre that is enclosed. These surrounding volumes house open yards (for both the acceptance and delivery of material, and the accommodation of large constructions) and modest, semi-enclosed workshops that house the tools and machinery required for the construction of smaller scale elements and objects. Building materials are stored in the scaffold walls, and larger, temporary constructions can be braced and anchored to the scaffold as they are built and manipulated. [Figures 06 and 07.]

Within the courtyard itself sets, stages, props and installations are constantly built and dismantled in a continuous process of assembly and disassembly between spectacles. Raised seating is constructed from the wood and steel salvaged in the deconstruction of the existing building. Its perimeter wall carries a roof that shelters both the workspaces without and the theatre seating within. Its internal voids are the back-

2_This project concerns an existing building in Ottawa, Ontario and began as a studio project in the MArch program of the Azrieli School of Architecture and Urbanism. Studio work was performed under the guidance of Sheryl Boyle and Claudio Sgarbi.

of-house of the theatre. Sound and noise are projected through the former windows of the wall, and actors can speak or whisper through these openings. The theatre's seating is freestanding so that it can be altered and rebuilt over time. The masonry wall that once carried a roof and floor now acts as a backdrop and partition—the curtain between front-of-house and back. [Figure 08.]

The choice to suspend a moment in a process of deconstruction that would be otherwise transitional, results in the generation of an enduring domain of continuous construction. The site that has been designed functions like a little *cosmos* of reciprocity and exchange, in which the ongoing movement and reconfiguration of materials between two realms is balanced across their dividing wall. This *cosmos* is governed by two principles; the first principle is like a *law of conservation of mass or energy in which material can neither be created nor destroyed.* It states that *no material may leave the site as waste* and demands that there are means accommodate the disassembly, storage and re-use of all existing constructions. The second principle of this *cosmos,* is its *impetus to continuous change and transformation*. This world does not tend toward a stable and static state, but constantly recreates itself in continuous processes of construction and deconstruction. The scaffold

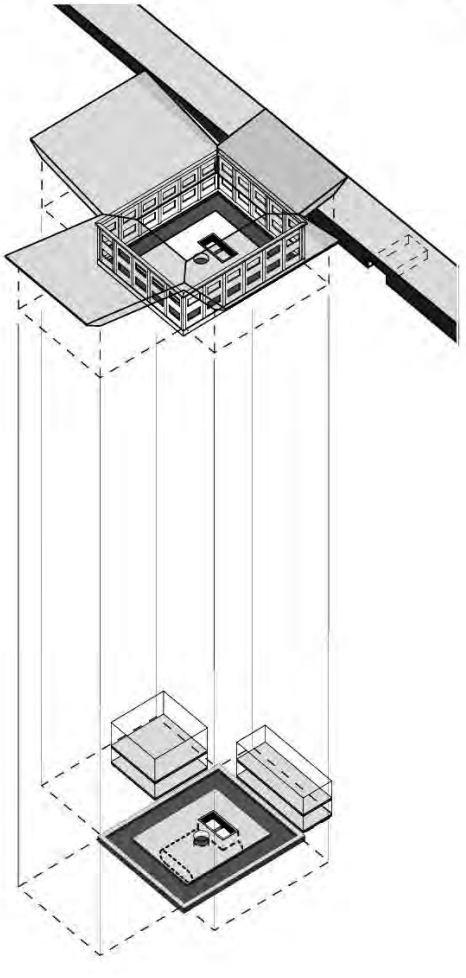


fig. [06]

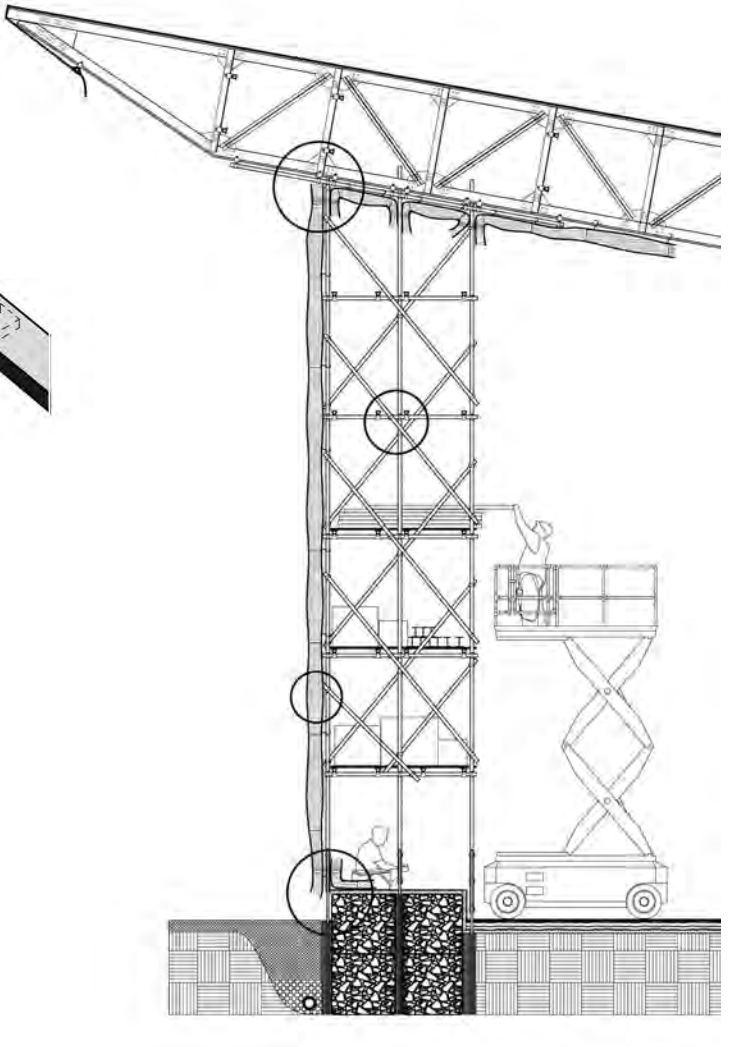


fig. [07]

wall—the ossification of a partial and transitory condition—is the key to this singular *cosmos.* It functions like the 'equals' in an equation—whatever is taken from one side of the wall must be added to the other. It both separates and balances the world's two defining realms. [Figures 09 and 10.]

The first principle of this *cosmos* expresses an idea of material conservation and explores the implications of replacing a practice of 'demolition' with one of 'deconstruction'. Typically, a demolition attempts to remove entirely the existing materials from a site, creating a *tabula rasa* that is free from the limitations imposed by what was there before. Pre-existing constructions become waste to be removed. The second principle of this *cosmos* encourages us to reconsider construction processes as ongoing and indeterminate. Conventionally, we understand the construction of a building to be a singular event that leads to a state of completion which, once achieved, defines the building for what it is. An understanding of construction as ongoing and indeterminate makes it possible for us to imagine architectural projects as shared endeavours to be worked on by multiple hands, passed on through multiple generations, and considered as the adaptable and resilient expressions of a community.

Rethinking the relationship between architecture and construction practice provides a means for asking important ethical questions. Construction processes generate enormous amounts of waste and frequently imply radical acts of environmental despoilment and exploitation. These are facts that we, too often, erase from awareness. I propose a design method that pauses the construction process and suspends it in a state of incompletion. Deferring the end of a construction process can provoke a greater awareness of its means.

fig. [08]

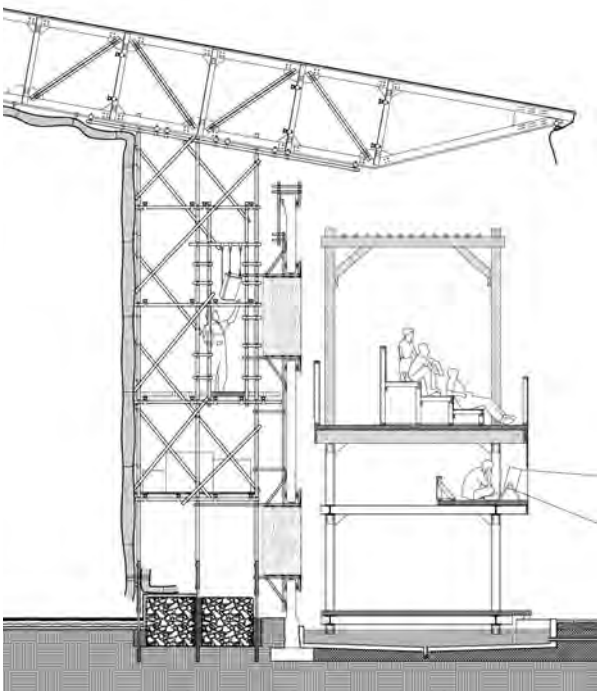


fig. [09]

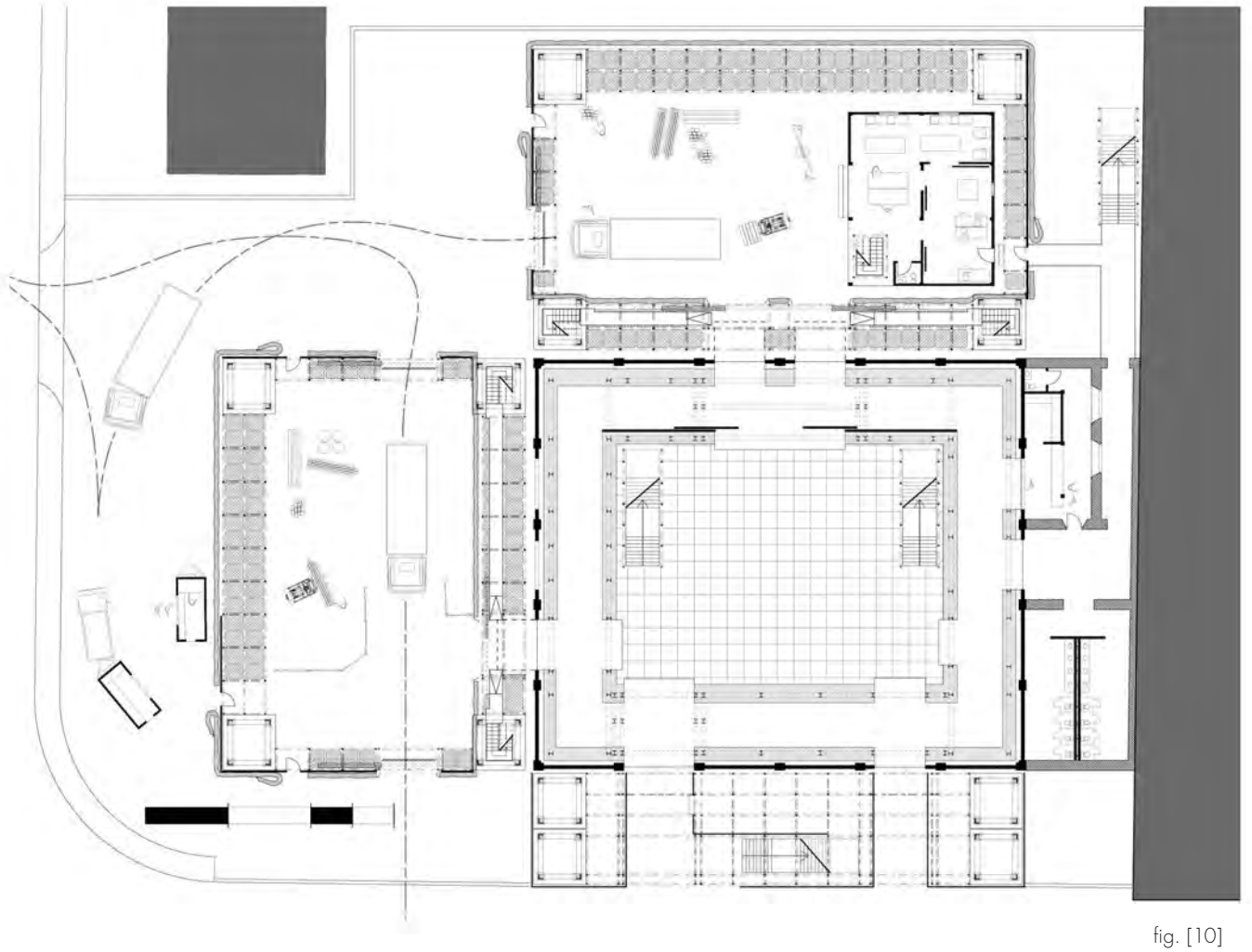


fig. [10]

Figure 1. Growing on Scaffoldings, Havana. *Photo by Fabio Elia Biondi Sgarbi*.
Figure 2. Scaffolding and Cladding. Ottawa National Gallery. *Photo by Claudio Sgarbi*.
Figure 3. Wrapping the Building. *Photo by Claudio Sgarbi*.
Figure 4. Disassembling and Dislocation. *Photo by Claudio Sgarbi*.
Figure 5. Caption: The design proposal imagined as unpacking a cardboard box. *Drawing by Kevin Tomm*.
Figure 6. Caption: Diagram of enclosed volumes surrounding the theatre and the water catchment system of the inner courtyard. *Drawing by Kevin Tomm*.
Figure 7. Caption: Wall section of scaffold enclosed workshop showing storage of materials and insulated hoarding. *Drawing by Kevin Tomm*.
Figure 8. Caption: Section of theatre perimeter wall showing integrated back-of-house and theatre seating. *Drawing by Kevin Tomm*.
Figure 9. Caption: Site section showing courtyard theatre enveloped by surrounding scaffold constructed volumes. *Drawing by Kevin Tomm*.
Figure 10. Caption: Site plan showing an ongoing and indeterminate construction. Theatre sets, stages, props and installations undergo a continual process of assembly and disassembly across the perimeter walls of the courtyard. The site performs as cosmos of continual exchange and reciprocity. *Drawing by Kevin Tomm*.

A poetic form of violence
Notes on architecture at the construction site phase

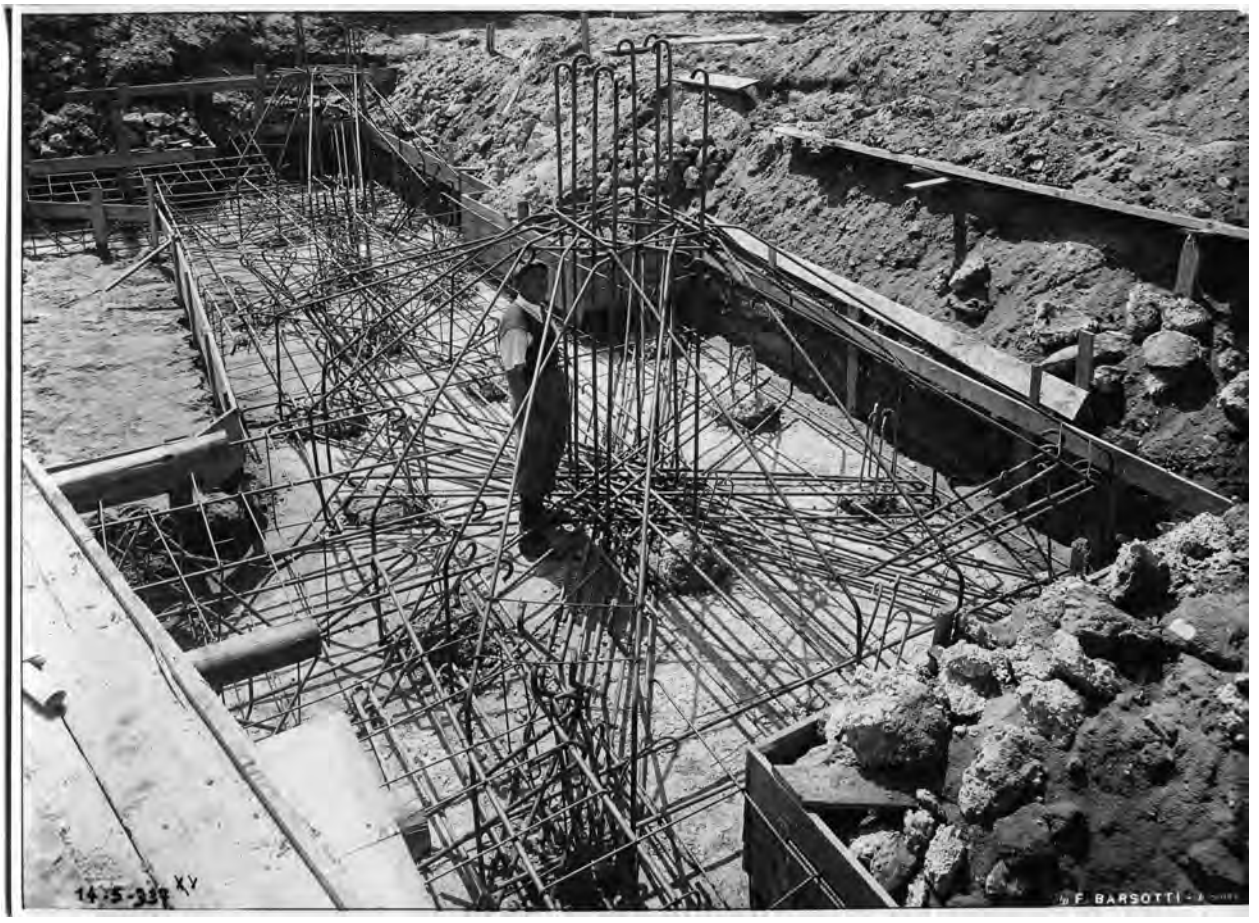
Simone Barbi

«Let›s go back to when the pyramids were built. We listen to the noise of the building site, the place all wrapped in a cloud of dust, showing that the structure is rising. Nowadays, the pyramids appear to us in their fullness. Their presence forces us to keep silent. This very silence helps us understand that human beings long to express themselves; their longing is there well before the first stone is laid».[1]

At the beginning, there is always silence. Then the construction begins, as loud as one could imagine.
That is the sound of ideas when they meet reality. It is a form of exchange: a fleeting madness – if we compare this brief span of time to the eternity that architecture is supposed to seek – and a peculiar form of violence imposed on the site to bring about a change in the *status quo*. A change that will last several decades (at least) or even centuries.
Architecture is, in fact, a particular form of violence. Maybe it is the most radical (literally "ground-breaking") form of violence that men are capable of. For sure, it is the most poetic.
Architecture is also a practice involving so many skills that it cannot be confused with any other form of violence, as they all bear the negative connotation that inevitably comes with the notion (and the practice) of violence. The reason being, architecture forces us to seek art, to reach for a condition that stimulates both beauty and wonder. We intervene in the *status quo* in order to solve tensions and weaknesses proper to a given site. It takes courage to pull off this kind of work. It demands a great deal of consciousness and awareness, owing to the many repercussions it may have on the environment.
What I want to highlight here is that architecture is at once a crucial and necessary activity for human beings. To make this world inhabitable for us requires a substantial amount work. Whatever its nature, it's a kind of work that must cope with reality in a very practical sense. As such, it makes noise. Also, it creates sound and a rhythm. Eventually, it leads to a transformation that cannot but be intrusive, to a certain extent, so as to violate the *status quo*. As architects, we must be careful and devote all of our resources to thinking, designing, and building something that is truly worth the work that so many people put in it. I find this to apply not only to the act of building but to every single phase after it as well.

Every time I watch a report on a construction site I think of (and feel) the greatness of that moment (which the camera conveys so well) when someone is building the future of a place.

1_Louis I. Kahn, *Architettura: silenzio e luce* in Maria Bonaiti (a cura di), *Architettura è Louis I. Kahn, gli scritti*, Electa, 2005, p.134



[02] A worker inside the iron wireframe of a pillar

A report from the construction site of a masterpiece

The pictures in this article allow you to roam through the construction site of one of the most refined, nicely placed, and well-built (and yet very little known) works of architecture in Florence. It's hidden in the Cascine, the beautiful and large park along the Arno River just outside the city center.

Originally, this area was conceived as a military base. Last year marked its first 80th anniversary. Though past 80 now, its buildings make you think that the place must be no more than 30 years old. Obviously, it has a very specific architectonic language and features revealing its "regime allure," as it were. Nevertheless, these buildings were designed and made so efficiently, that they are still solid and in good shape today. They do not demand much maintenance and most visitors soon perceive this whole site as a true masterpiece. As for the making of it, one cannot but be impressed by how quickly the complex was conceived, designed, and realized. In November 1936 Fagnoni was asked to design and construct a military base consisting of 9 buildings. The whole project (31 tables and a site model) was delivered no later than January 1937. In April 1937, works on the construction site started, breaking the silence of the Cascine Park. Soon before WWII broke out, on 27 March 1938, they were finished. It took no more than one year to build the whole military base. Yet, the accuracy of every single detail is tangible; it testifies to the high level of craftsmanship and the remarkable quality of the product. To blend architecture with the surrounding context, Fagnoni chose to use the best materials available on site. In doing so, he went against the Fascist party's

[03] Aereal view of the construction site looking at the pavillions for the "Allievi" and "Comando"

policy of mostly choosing materials from the Roman province. As Fagnoni himself put it, what he did at the Cascine Park was a kind of architecture based on the notion of "dignified simplicity … appropriate to the character and the functions of the buildings, always guided by sound economic principles, so as to obtain the best results with a minimum amount of resources."

An act of violence conceived and carried out so well that even today (80 years later) it evokes a sense of peace, as if it were a form of poetry. As such, it may serve as a good example of the particular (and, perhaps, somewhat extreme) notion of architecture I'm speaking of, that is, the art of building durable things which – at once – stands out as the most pure and poetic form of violence human beings are capable of. It's a notion that we, as architects, cannot reject. In fact, I think we should see it as a constant reminder of the impact our work can have and use it to strike a balance between what the ancient Greeks would call our *hybris* and *aidos,* arrogance and humility.

the first image:
[01] Aereal view of the construction site at the beginnings.

on the following pages:
[04] Pictures of Raffaello Fagnoni (first on the right), ing. Enrico Bianchini and other workers, on site during construction.

All images are taken from the Fondo Raffaello Fagnoni (Archivio di Stato di Firenze) and published with the courtesy of the Archivio di Stato di Firenze


Foto F. BARSOTTI - Firenze


16-9-37 XV

ON SITE EXPERIENCE

The building is enticing and was licked

Johnathan Stitelmann

Juhani Pallasmaa's seminal text, *Eyes of the Skin*, is perhaps the most accessible resource for designers seeking to tap into the phenomenological dimension of architecture. His thesis, that we are visual creatures, and that our other senses play a supporting role is an invitation to take joy in the rich world around us, to re-sensualize architecture. The title of his book, taken from an assertion by the artist James Turrell that our skin can perceive color, is a suggestion of our expansive capacity to process our context.[1] We are hungry for sensory input. When his description of the interplay of senses comes to taste, he paints a tantalizing scene: astonished by the fineness of the marble threshold of the DL James Residence, he is spontaneously, inexplicably drawn to lick it.[2] But does he? We are left to guess. This abstraction, and the elusive nature of his descriptions of senses related to the mouth is where this essay will pick up.

I have taken a direct approach to the sensory experience of buildings, by licking them. This has led, over the past several years, to a store of implicit knowledge about the nature of canonical buildings, beyond their widely-distributed images. It has also stripped the abstraction of drawing, the deference of imagery, from my experience of these buildings. The sensations have immediacy and are surprising.

The practice of licking architecture reveals material qualities, durable effects of atmosphere, and social, narrative dimensions of buildings which may previously have been undetected. Buildings, when licked, send up a set of unintended qualities – flavors, textures, residues – that supersede the primacy of the visual experience. When you're close enough to the building to lick it, you can no longer fully see it. Each building is no longer considered simply by how it looks but by how it tastes, feels and smells. The practice also encompasses story-telling, inviting designers and non-designers alike to take joy and profit from the material world through an attitude of openness and awareness to sensory inputs. At its core, this practice deals in the same mode of awareness a designer might bring to a site.

There are two important byproducts of a site, the site visit and the site plan. In architectural practice, the former may give the designer a direct reference for important axes, vistas, terrain, and conditions, transposed to the latter, where salient information is translated into a drawing with latent potentials. In the practice of licking, a site visit is still important, the body has to encounter the building, but the representation is more open, as this is not a practice of design but deciphering. The sensory encounter of licking equalizes the building as an element of its context, washed over by the same winds and rain, sun and fingerprints, suppressing the visual primacy that dominates in the dissemination of architectural ideas. In landscape architecture, where the design product and the raw materials have perhaps less distance be-

tween them than in Architecture, it is common practice, I am told, during a site visit to crouch down on one knee, open a field knife and scoop a small pile of soil from the earth into one's mouth.[3] This direct, bodily encounter with the soil reveals to the designer the salt content, sand and clay composition, and texture of the soil. Information which may be held tacitly but not inconsequentially.

All this to say, that as part of the design process of landscape architecture, where site and project are often inextricable, the question of "what do we have here?" can be addressed directly through taste. That question, regarding the condition on site, focuses our attention toward the specific character and constituents of place. The knowledge gained through taste becomes instrumental.

In the case of licking architecture, specifically a building that already exists, the design process is not in question. Through the sensory apparatus of the mouth, building and landscape are merged. Almost every building is made of materials brought to the site from afar – and ultimately intertwined – to become an element of the landscape, a big one, typically formed of hard, durable stuff and exposed to the elements. The practice of licking relies on the awareness of the individual to discern certain qualities of the building's touch, taste, and smell. One has agency in defining a new set of information about the building beyond its historic or cultural significance, and exceeding its visual qualities. The process of licking, documenting, and describing is egalitarian. We are all welcome to encounter, interpret, and describe our world on our own terms and with our own senses. The story to come from these experiences adds depth to our understanding of the building.

To that extent, the licked buildings are described according to what was licked, what was tasted, and what was felt, with the goal of detecting information from the building and its surroundings. These are paired with a photograph of the act, proof positive that there was no space between the body and the building, avoiding Pallasmaa's narrative dodge.

Licking buildings started as a social activity among friends. We moved through the city together, talking about what we tasted and felt on our tongues and discussing where to lick, all of which turning into a long running conversation about buildings. As we encountered more and more, the buildings began to tell us a very different story of context, of site, than what we had previously known. We were creating a vocabulary of sense and building that deepened our understanding of materials and of our city. Our perceptions became more real in the telling. I believe this is the crux of understanding site. The following vignettes unfold a story of material, atmosphere, and place.

Saarinen: Ingalls Rink | New Haven, Connecticut

On a warm June afternoon at Ingalls rink I laid on the continuously curving cast-in-place concrete structures at the front of the building (Figure 1). While holding the coarse, crisp edge of the concrete, I leaned in to lick the surface. To my great surprise it tasted like snow or stale ice. I had inadvertently selected a place beside the exhaust fan which had blasted the face of the building with ice-cooled air since 1958.

The experience speaks to the inertia of drawings. The plan of the rink puts the ice decidedly at the center of the space. The experience of the building revealed that the program left unexpected traces beyond the center. There was ice on the inside, and we could tell by the building's breath.

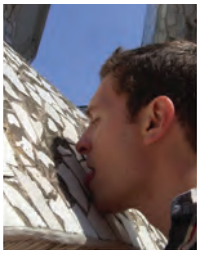
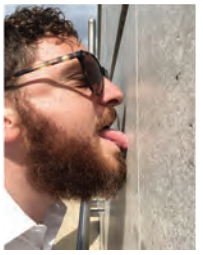
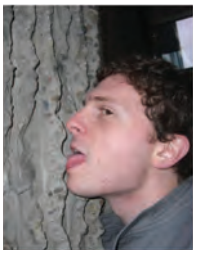
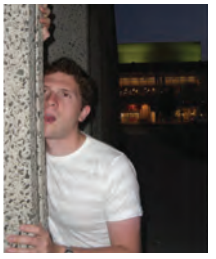
Rudolph Hall | New Haven, Connecticut

I worked down the street from Rudolph Hall (Figure 2), designed by Paul Rudolph, and home to the Yale School of Architecture. On a late spring morning I stood at the main entrance, looking up the vertiginous stairs at the metal Albers line-sculpture. I walked towards the fire door at the bottom of the steps and leaned in, my hands on abraded ridges of concrete. The building tasted like cigarette smoke and car exhaust and left a sandy grit in my mouth which I crunched on as I walked down the street to the model supply store.

Maritime, Breuer: Perelli, Knights of Columbus | New Haven, Connecticut

We went into the field one evening to lick a cluster of buildings, each with a distinctive history. The Maritime building, the Pirelli Tire building, designed by Marcel Breuer, and the Knights of Columbus tower, designed by Roche Dinkeloo, which I had driven past since childhood, marveling at its brownness.

The Maritime building was first. The building is both banal and conspicuous. I grew up on the outskirts

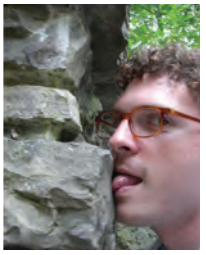
of New Haven, and I remember as a child seeing the building on the cover of the local telephone book. This was an icon of the city. It sits at the center of the Long Wharf in New Haven, among a scrap yard, a sports betting complex, and a theater and on the shore of the Long Island Sound, an estuary between Long Island and the coast of Connecticut. The building is clad in slick granite, pink with shining flecks of black. We got to the building at sunset and piled out of the car. The building was smooth to the touch and surprisingly without taste. This is not a critique of postmodernism – though the building is an example of the kind of corporate master-planned post-modern development that happened across much of the United States in the 1980s. Rather, the building had not picked up the flavors of the sea. The bogs along the Sound have a distinctive odor of salt and decaying plant fiber, a clean rotting funk. None of this had left its trace on the building – it was perhaps immune to projecting or containing the everyday accretions of the environment.

The Pirelli Tire building was a different story. It is located immediately across the frontage road and overlooks the Sound. The Pirelli building had just been purchased by Ikea who had planned to demolish the building. After an outcry from the architecture and preservation community Ikea opted instead to cut off the building's long plinth, leaving a stout tower in a sea of parking, beside an Ikea warehouse. We found a good place behind the building, accessible by the Ikea parking lot. We decided to lick the part of the building that had been patched up after the amputation of its long podium. The building is clad in massive pre-cast concrete panels, each with a deep, geometric relief. We nestled into the deep fins of the panel and pressed our tongues against it. The building tasted like a saltine – a dry, salty cracker. The feeling on the tongue was of the larger aggregate stone cresting beyond the encompassing concrete. Had the miniature crevices in the concrete captured the persistent wash of salt air? This was certainly unintentional; the building was a kind of geological formation that had received environmental input in the very recent past. It was not a Breuer, and it was not Ikea, it was a mountain.

On the same evening, we went to the Knights of Columbus building. We gathered at the base of one of the building's four brown cylinders, clad in a brick that felt like a smooth, surface made of closed bubbles. These were warm from the sun, which had already gone down, and tasted like grass.

Pantheon | Rome, Italy

On my first trip to Rome I found myself in front of the Pantheon. I walked up to one of the columns to the right of the entry. Its surface was thick with grime which softened the roughly hewn stone beneath my fingertips. The smell was intensely biological, an unctuous odor of grease. I leaned in to lick the surface and


was surprised as my tongue moistened the palette of oil leaving a smear of the building on my tongue. I couldn't help but imagine the thousand years of history and fingerprints I had just encountered.

Fallingwater | Mill Run, Pennsylvania

You get to Fallingwater walking over a bridge. The house is visible downstream, lit by dappled light through the dense tree canopy over the building. Its terraces cascade to the level of the water, and the interior reflects that: huge slabs of dark, glistening flagstone evoke eddies in water guided by banquettes, down to a stair and platform for swimming. Around back, beyond the photogenic interior and visually striking procession sequence, thick limestone blocks with knapped edges lay in silence, without ostentation or attractiveness. This is the least spectacular corner of the building, where it is most non-descript and least distinctive. I licked it and the building revealed itself as simply a river house, caked in soot, and must, and silt. The ridges of knapped stone hold a thin cake of sediment which, as it dissolves, gives way to subtle surface roughness. The dominance of the image – the fetishistic symbol of the singular genius architect – gives way to a more mundane reality of a building that becomes musty and mildewy, serving as a home to spiders and moss. This later point is one that I find particular humility in.

The Agora | Athens, Greece

The Agora, at the base of the acropolis, is a winding maze of limestone and marble ruins, slabs of pale beige stone protruding through the grass like malformed teeth through a jaw. On a hot day in May, while walking through the tall grass paths, I knelt to lick the corner of one of these slabs. I was surprised as the stone came to life, rehydrated by saliva. The expansion of the parched stone felt on my tongue like the sound of pulling a pinecone out of a crumpled paper bag.

Disney Concert Hall & The Pritzker Pavilion | Los Angeles, California; Chicago, Illinois

The public façade of the Disney Concert hall is composed of fat, soaring aluminum lobes. On the far side of one of those lobes, I found a spot to lick the building. My expectation was that the building would be flavorless, as most aluminum lacks flavor. I was surprised when the building answered back with a distinctive rosemary flavor. Looking to my right, I saw a small rosemary bush which must have been basting the building with its pollen.

The application of flavor is not uncommon to other Gehry buildings I've encountered. The Pritzker Pavilion band shell at Millennium Park tasted of wintergreen, I presume a result of the cleaning products used on the stainless steel cladding. The counterpoint, of course, is his ICA building in Manhattan, which has no flavor on either its mullions or fritted glass.

Forum Building | Barcelona, Spain

What stood out in the experience of licking the Forum building, designed by Herzog and de Meuron, in

Barcelona was how the scale of the body was indexed by the space. The building looms over the site in two different conditions. The plaza in front of the building is protected by the huge blue mass above, and in a much more intimate condition, the mass of the elevated building marks a datum about 2 meters above the ground. This presented the unique opportunity to taste the metal-clad ceiling plane, composed of triangular panels, each with a texture of small dimples and perforations. To lick the Forum I had to jump. When my face and tongue collided with the building, the wetness of my tongue and the upward thrust of my body melted and shattered a crust of dusty salt.

The flavor was intensely alkaline mixed with a distinctly sea-saltiness, stinging my tongue. One could easily imagine years of sea air blowing through the space framed by the sidewalk and blue mass, depositing a thin film of crisp salt over time.

Casa Batllo | Barcelona, Spain

I was told that Gaudi's greatest building was Casa Batllo. I went on my birthday. On the roof, I approached one of the broken-ceramic-clad sculptural forms sitting at the perimeter of the terrace. I licked one of the fractured white tesserae and tasted nothing. It was smooth, and I could feel where it was edged by a gritty mortar, but it had a complete absence of flavor. This was perplexing and spiraled into thoughts of doubt – about my capacity to taste or my awareness to sensory input – and surprise that something could be so unaffected by the atmosphere.

This is where licking becomes strange. It is a way of knowing, but it is also a way of hoping to know. In this case, Casa Batllo was unyielding, silent. This experience brought to light the desire to sense particularity, and the frustration when it is not present.

Can a designer reliably go to a site and detect something meaningfully distinctive, as a medium for subjective reading and translation of the site?[4] Conversely, is there an approach which is so powerful as to evoke stimuli even in the most banal site? I had hoped that licking the building would do just that, but this building confounded my theory, turning back the analytical power of licking on myself. To what extent does a designer have to be aware when analyzing a site to its particular sensory qualities?

Constitutional Court | Johannesburg, South Africa

The Constitutional Court building is sited near the top of Constitution Hill and designed by Urban Solutions and OMM Design Workshop. The building immediately conveys an intention of transparency, with literal cuts through the walls of the chambers, allowing passers-by to observe the proceedings of the court. This is an intentional counterpoint to the previous building on the site, a prison for political prisoners. After the fall of apartheid, the prison was disassembled, its foundations used for the Constitutional Court (like the supreme court in the United States of America), and the bricks from the original building used to construct the walls of the court.

Brick is everywhere in Johannesburg. Many streets are brick-lined, as are most sidewalks. Rather than the infinite expanses of pourable media, such as asphalt or concrete, the brick has been laid, by hand, in place. The immediacy of work done by countless hands is evident everywhere in the city.

The bricks of the court building do not have crisp edges but are worn soft, abraded by demolition and dry-stacked into walls. I licked a spot on the exterior of the building, outside the main chamber of the court. The taste was similar to many bricks in the world, somewhat like ozone, but musty, bringing to mind a pale green. Some small grains of brick dust came away on my tongue. A small spot of saliva was left on the building for a moment, then absorbed into the material.

While the building is capable of capturing environmental effects, and licking the building reveals those effects, there are other forms of ambiance that elude the sense of taste. In the case of the Civil Courts building, the material is mute regarding the moral schism of Apartheid and the optimistic, didactic attitude of transparency after Freedom.

Pulitzer Arts Foundation – Feast of Facades | St. Louis, Missouri

These explorations culminated in a public program for the Pulitzer Arts Foundation as part of their group show, *Ellipsis* in 2016. The event was open to the public, and on a bright May afternoon, 75 people joined me for a picnic in the courtyard of the building (Figure 11). We lounged on pillows and blankets, drank local beer and coffee, ate local bread, and for desert, licked the building. We lined up along the wall, on the stair from the courtyard to the Richard Serra sculpture, *Joe*. (Figure 12). We all laid our palms on the sunbaked

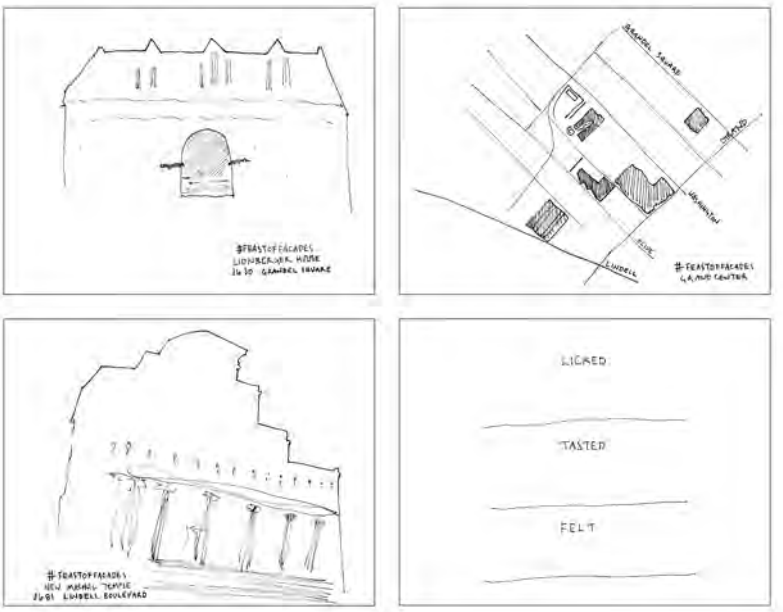


Figure 14. Reverse recipe cards.

building façade and, en masse, licked. The building, designed by Tadao Ando, is exceptionally smooth and surprisingly without flavor (Figure 13).

Each person who attended the event received a set of reverse recipe cards. On the face of each card was a loosely hand-drawn sketch of a local building (Figure 14). The back of the card had space to write what they had licked, tasted, and felt. The intention of the cards was to give each person an incomplete depiction of a set of buildings that only they could fill in with their distinct sensations, reminiscences, and perceptions. These were a template to explore and express their subjective experience of the city. Ideally with friends.

Through all of this, I have learned that there is content beyond drawing that each of us can find and embrace. This is a kind of knowledge particular to design, a searching optimism that declares the viability of experience, accepting the unintended but rich effects of the world. The focus of our work as designers is often fixated on the beginning of a project. We don't always get a chance to see how our work ages and takes on a life of its own. The buildings described above are entangled with their sites at both ends of the process. They are formed from the start in terms of the intentions and desires of architects. At the time each building is licked, it is a rarified but accessible object settling in for the long haul.

1_Juhanni Pallasmaa, Eyes of the Skin (Chichester: Wiley-Academy, 2005),10.

2_Ibid, 59.

3_This information came to me from Kees Lockman, a Landscape Architect, in conversation about tasting sites as part of the design process.

4_I now live in St. Louis, and there is a myth here of the time Peter Zumthor, invited to design the Contemporary Art Museum, drove up to the site, got out, looked around, and declared "I feel nothing for this site."

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