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***PLAY* with the Rules**

2018 ACSA Fall Conference Abstract Book

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(tactical) OPERATION I

Date: Friday, October 12, 2018

Time: 9:00 AM - 10:30 AM

Disrupter: Jose Arnaud-Bello

Active Class Space

Ulysses Sean Vance, University of Michigan

Background and Purpose: The formal structure of educational institutions evolves in response to many factors that shape the built environment. In recent years, research has recognized that defining ideal levels of physical activity can dramatically affect the characteristics that architects employ when designing educational facilities. As more of the built environment lends itself to addressing sedentary habits, this research investigates the common barriers to implementing physical activity in the classroom and the corresponding spatial response to issues of limited space.

Objectives: The purpose of this study was to determine appropriate modifications to classroom furnishing arrangements and spatial organization to optimize clear floor space and facilitate the introduction of physical activity breaks incrementally throughout the class day.

Methods: The research conducted included a comparative critical analysis of spatial affordances associated with physical activity and the association of these affordances to specific activities that when within the limited confines of a single classroom inform classroom layout of furniture, clear floor space, and additional furnishing room arrangements. A total of nine propositions were developed referencing parallel investigations into the area of movement associated with early adolescent bodies. The resultant representational documentation focused on modifications to desk and chair arrangements with the intent of optimizing clear floor space for both isolated and linear movements, wherein the allocation of space for these activities was situated around individual and zoned group activities. Each room configuration evaluated the amount of area that could be allocated to the activities and included teacher preferences for activity types as defined by a compendium of activities.

Results: The corresponding documentation of modifications to the classrooms by teachers, beyond the interventions made by this team, is intended to inform the validity of these furnishing arrangements and physical activities zones in the proposition of future guidelines and contribute to speculative design studies of prototypical educational institutions.

Conclusions: The optimization of tools quantifying movement of early adolescent bodies increases the probability of appropriately defining floor clearances associated with specific ages groups. The application of these minute differences in affordances for individual and group configurations when reconfiguring the classroom has also informed considerations of how they affect the management of behavioral issues as much as physical activities.

Implications for Policy and Practice: This research represents one of many means by which providence over healthy conditions can be developed, and how architects can address both the physical affordances of the body and the ability of individuals to attain conditional physical exertion.

Creative Activism: The Youthful Architecture of the “New” Middle East

A. Sameh El Kharbawy

This paper examines the agency of architecture as an instrument for expression, empowerment, activism, and advocacy in conflict areas. It reveals how architecture can effect (social, political) change; how it can function an instrument for activism, mobilization, and protest.

Specifically, I look at examples of participatory architecture in the “new” (post “Spring”) Middle East, in order to reveal how it contributed to individual agency and community empowerment; how it created a unique space for participation in political uprisings; how it offered a space for dialogue

and collaboration between groups in conflict; how it communicated stories across borders and raised awareness about a region that has been troubled and terribly misruled for decades.

This study draws from extended field research as well as from a vast archive of literature on social-political movements in the “new” Middle East. During several visits to the region (from 2011 to 2017) I witnessed vast changes to its cities and communities, and documented them in paintings, photography, and video. Some of the resulting images have been difficult (and difficult to explain), and yet, this visual tapestry quickly revealed a unique spectacle of a new identity; a “new” Middle East of which I was a witness and perhaps, to some extent, even architect.

In writing about this “new” Middle East, I maintain a critical consciousness,; a vigilance in employing those instruments of historical, humanistic and cultural construction from which architecture’s history has often been victim. Focusing on the telling detail rather than detailed telling, my aim in this paper is not to bring any new truths to bear on architecture, but to bring the realities of the New Middle East to bear on our (more realistically, my) understanding of architecture’s political and social agency.

Cultivating a ‘New Normal’: An Experiment in an Ethical Approach to Architectural Education at the University of Johannesburg

Absalom Jabu Makhubu, University of Johannesburg

Tariq Toffah, University of Johannesburg

Architectural discourse in both academia and practice is often dominated by architectural imagery and representation—and typically on western standards, of digital production and perceptions of what is beautiful and valuable. Moreover, this often constitutes the primary counterpoint to the core technical disciplinary competences. Within such a framework of disciplinary valuation, production and reproduction, is an ulterior ethic and ethics even possible, or are these resigned to designated ‘alternative’ modes and sites of practice while a discredited norm remains the normative operating paradigm? How might we change this? How ought we to reevaluate and reorganize the existing knowledge areas within the discipline, and what should be introduced anew into it? How do we understand issues of “context”? And ultimately for whom and for what is design for?

These towering challenges represent some of the questions that drove a radically experimental architecture studio at the University of Johannesburg in 2017. It was made possible only against the background of the nationwide protests across higher education campuses in South Africa in 2015 and 2016 (by protesting students, supported by many non-protesting students and staff), which profoundly challenged the conditions of injustice that underpin the current education project and its associated institutional culture, and which provided a wellspring of inspiration and courage for undertaking such a trajectory of disciplinary and ethical critique.

Thus in 2017 the authors tested an ulterior pedagogy, methodology and ethic in a design studio, in order to open up a space for developing ulterior ethical and critical architectural concepts. The approach unfolded from engaging both social contexts (such as the theories of social change as articulated in collective protest action), as well as engaging personal/experiential contexts (such as opening spaces for voices, ontologies, values and ethics of both students and tutors from their own positionality and lived experiences). The approach also entailed exploring non-conventional and strategic roles of ‘site’, such as offering catalytic templates and opportunities for surfacing ‘other’ values, world-views and forms of socio-spatial organization. Intra-disciplinarily—between architectural and urban design, between technical and discursive foci, and between Design and Theory course modules—as far as possible also made full use of the breadth of knowledge areas available within the discipline to undertake a project of such complexity.

The paper will expand and reflect on this approach and discuss selected student projects as case studies.

Participatory Design through Responsible Games

Chu-Yun Cheng, The Cooper Union

Participatory design has gained widespread recognition since 1997, when Russel Ackoff outlined the idea in “Systems, Messes and Interactive Planning.” This paradigm has revealed the democratic potential of design by considering the public as a primary contributor, while designers are enabler in the design process. However, the prerequisite knowledge needed at every stage of the design process forms a barrier between participants and design. To eliminate such barrier, designers and planners often simplify problems in controlled environments, like games and playful events, for the participants. Although this solution might seem legitimate from a technical perspective, questions of agency, ethics and methodology arise. Is the general public still a genuine contributor when filtered through games and toy approaches? How would a planner or designer employing such a methodology ensure the quality of the outcome?

This reductive adaptation of problems and environments often leads to discontinuity between proposals produced by the general public and executable plans. Thus even while taking advantage of the general public’s knowledge, the “solution” becomes a new problem yet to be solved. Moreover, the design process remains controlled by a few specialists when designers and planners actually manage to bridge the gap.

Participatory design has become purely formal, allows planners and designers to shirk responsibility, and provides politicians a tool to control public opinion. Presently, there is no methodology efficient enough to incorporate non-professional planners/designers directly into the formation of an executable design project without major exclusion.

Consider the games “Circo” and “PLAYtheBLOX.” Developed by Luis Moreno Mansilla, Luis Rojo and Emilio Tuñon, Circo is a game where participants send articles and written ideas on bulletins to each other. PLAYtheBLOX, by Vancouver Design Nerds, places participants around a table to create a sketch. Such games are great for a handful of participants to explore problems at their initial stages. However, in both cases the selected participants become a part of the design team and then design for the general public, which is very different from enabling the general public to contribute their own design.

Although design games such as Alex Gilliam’s “Chocolate Cake Urban Workshop” allow for a larger range of participants to play a significant role in design, these games ultimately neglect the individuality inherent to the design process. The public is still treated as one uniform body, and thus only represents majority voices. Massive contributions from a broad range of participants is too complicated to be integrated by coordinators.

The gap between how participants can respond to a problem and what is necessary for an executable project is inevitably turning the participation of the general public into a formal step in the design process. Participatory design is continually used to avoid responsibility for decision making by designers and planners. This problem requires a sophisticated system which allows for and adapts to extreme amounts of participants. This paper will discuss the key factors and parameters of such a system, including participant number, scale, rule and influence by examining several games used in participatory design in urban planning.

(tongue) TWISTER I

Date: Friday, October 12, 2018

Time: 9:00:00 AM - 10:30:00 PM

Disrupter: David Benjamin, Columbia University

Laughing Matter: Architecture and Physical Comedy

Thom Moran, University of Michigan

The architect Alison Sky interviewed the artist Robert Smithson in 1973. The two discussed entropy, and agreed that architects mostly work against it in a quixotic ambition to idealize the material world. Through their own work, both Smithson and Sky used entropy to critique the idealism of modernism. Sky, along with James Wines, was a co-founder the American architecture practice SITE (Sculpture in the Environment), that is best know for a series of big box showrooms they designed in the 1970s and 80s for the department store chain “Best Products.” These buildings are known for their funny re-imaginings of the big box archetype: the brick facade of one is peeling off, crumbling on another, while another is overgrown with trees.

Due to their irreverent use of architectural elements, the practice is often associated with American Post Modernism, but this is a mistake. The so-called “whites” and “grays” treated architecture as a text and any humor was derived from the structure (syntax) and meaning (semantics) of language. While funny to architects (who doesn’t like a broken pediment?), architecture-as-language left most people out of the joke, and any critique was legible only to the museum-going and journal-reading set.

SITE, on the other hand, was building big boxes in the suburbs that appeared to be in an advanced state of disrepair. They were very conscious of architecture’s ability, and responsibility, to communicate to the public. Ironically, exactly because their work was so physical, it communicated to a broad audience better than the language games of Post Modern architecture. Importantly, their work also offered a sharp critique of architecture’s role in the environmental crisis. By depicting buildings in an arrested state of decay, SITE articulated to the public that material assemblies like buildings, and by extension the environment, are always in a state of entropy, always in transition to something else, always falling apart, even if we can’t immediately perceive it.

This paper will begin with a brief overview of architecture’s long history with language based humor. After establishing the limitations and ethical problems of this type of humor, I will use Henri Bergson’s theory of laughter, along with early slapstick films and contemporary cognitive neuroscience, to explain how and why matter, not language, is so funny. The majority of the paper will be dedicated to a close reading of several projects by SITE, highlighting their use of entropy as humor. Finally, I will identify several contemporary architecture practices (Laida Aguirre, Formless Finder, The LADG, mos, muf, T+E+A+M) whose work is physically comedic, but whose critical aims remain unclear. The piece will end with a call to use architecture’s physicality as critique and not to retreat into the mannered language games of previous generations.

No Frills: The Mass-Produced Ornament Artistically Considered

Ang Li, Northeastern University

In *The Tall Office Building Artistically Considered*, Louis Sullivan retraces the proportions of the American skyscraper to the familiar tripartite formula of the classical column. The lower stories of the building recall the base, the “monotonous, uninterrupted series of office tiers” the shaft, and the expressive organicism of the upper stories the capital. The comparison relies on the power of precedents, reinforcing the established laws of imitation that dictate architecture’s ability to communicate through the ornamental syntax of its facades. First published in 1896, the essay coincides with the completion of Adler and Sullivan’s final collaboration together, the Guaranty Building in Buffalo, New York. Originally commissioned as a flagship office tower for the Guaranty Insurance Company, the building’s illustrious terracotta facades are the product

of a pivotal moment around the turn of the twentieth century when new fire codes, construction methods and corporate clients pushed the building industry into two parallel and opposite pursuits of self-preservation. The first was marked by a shift in emphasis from the design of buildings as unique objects to the development of scalable, material systems around the pluralist rationale of mechanical reproduction. The second saw an attempt to reinforce architecture's agency to reflect the social status and political ambitions of its owners through a renewed interest in ornament's mimetic origins. Both narratives speak to a systemic approach to architectural imitation centered on the relationship between established archetypes and the rules that govern their reproduction. Read within a contemporary context where design discourse is increasingly polarized between technocratic and rhetorical drives, the internal contradictions behind Sullivan's facades provide a productive historical framework for re-evaluating the continuous feedback loop between architecture's material make-up and its semiotic function.

This paper documents the research and material investigations behind a recently completed installation in Buffalo, New York that explores the the evolving role of the mass-produced ornament within contemporary systems of standardization and automation. The project traces the aesthetic and technological history of modular, imitation stone facade systems like terra cotta or "staff" (plaster panel) construction that emerged in the building industry towards the end of the nineteenth century as lightweight and cost-effective alternatives to masonry. This research serves as the basis for a year-long collaboration with a Buffalo based terra cotta facade manufacturer, Boston Valley Terra Cotta, that explores of the anachronistic agency of cast materials to move back and forth between analog and machined processes to recall vernacular craft traditions and at the same time provide a testing ground for emerging digital tools and representational tropes. Using Sullivan's Guaranty building as a point of departure, the resulting installation deploys the company's extensive product catalog of commercial rainscreen systems to re-imagine canonical ornamental orders through a new vocabulary of ready-made, industrially produced counterparts. The piece can be read as both a test case for introducing digital workflows into ceramic manufacturing processes, as well as an act of experimental preservation that questions what it means to reproduce architectural systems that are rooted within a logic of substitution.

On Form, Function, and Ambiguity

Molly Hunker, Syracuse University

Gregory Corso, Syracuse University

Perhaps the most trite and often recited relationships in architectural design is "form follows function." While this notion seems superficial, and even anachronistic, in contemporary discourse, this tenet may be more productive if one considers both of these architectural staples as more malleable equivalents. The equation can then be an exercise in formal experimentation and experiential discovery where form is a vocabulary and function is a spectrum.

As James Wines notes, buildings can be "fragmentary and ambiguous, as opposed to conventionally functional and determinate." This attitude and conceit yields architectural conditions more about possibility than about specificity. In other words, architecture's strength may come from how formal language can induce and provoke rather than prescribe and specify how to inhabit a space or an object. This recalibration brings the body back into formalism, away from autonomous, isolated exercises.

A recent temporary performance theater outside of Chicago built by the authors relies on this productive ambiguity of form to generate space and a range of experiences. This paper will discuss how the project uses a specific formal language (curved undulations) and variation in this language (scale, radii, proportions, degree) to set up a multitude of architectural conditions and ways to engage users. Privileging discovery and wonder, both performers and guests are provoked to interpret the object when conceiving of a performance, when determining how to view a show, or when just relaxing. Coupled with the ambivalence of roundness (form with no front or back, no directionality), the manipulation of the geometry and features within the overall object act as catalysts for playful and novel uses by both the individual body and the larger crowds. Due to the conical nature of the surface (curving in both plan and section), the project demonstrates how rigorous digital fabrication techniques may generate both complexity of form and ease of

construction.

Overall, this paper will highlight how a precise, but functionally vague, formal vocabulary may generate a certain elasticity in how we encounter, appropriate, and utilize the built environment.

Playing Out the Pattern

Roger Hubeli, Syracuse University
Julie Larsen, Syracuse University

With the definition of PATTERN as “an intelligible form or sequence discernible in the way in which it is done,” ‘playing out’ begins at how to use patterning to explore the perceivable performance and formal attributes of a material. Using advanced, high-strength concrete materials for the design of a pavilion; the final form rebukes the traditional ‘rules’ of concrete that it is a heavy and thick material. The pavilion is conceived as extremely light and mobile with a poche that becomes thin, punctured, and seemingly transparent, formed by only two inch thin structural walls. The formal twist of patterns that is used to achieve these attributes reveals the complexity of the performance of a material that wants to generate a completely new understanding of what surface, structure and form can become. Deleuze and Guattari describe this more playful methodology as similar to the Gothic approach of constructing where ‘the static relation, form-matter, tends to fade into the background in favor of a dynamic relation, material-forces.’ (1)

Sheila Kennedy’s argument in *Material Misuse* that, ‘the perception of qualities attributed to materials, and our multiple understandings of what it means to be material, are all integral parts of media culture,’ (2) was the departure for investigating prototypes through digital patterns and typology. Patterns merged the formal expressions of the cross-vaults with the performative needs of mobility for each element. The pattern of voids comprising the concrete surfaces served three purposes to change the perception of the material. First, the pattern of voids aims to make the form appear spatially light with punctures comprising more than fifty percent of the surface. Second, the patterns of voids aimed to reduce the actual weight of the pavilion. And third, patterns were optimized to define the location of voids on the surface so it could maintain as a thin of a surface as possible while still being structural. The paper aims to use three concrete prototypes that materialize the patterns: Punch Card, Baggy Pants, and Wax on / Wax Off method, to show how the design was tested and retested at the scale of digital and analog prototypes to enhance the form, space, and performance of the pavilion. The tinkering with patterns as well as their casting methods translated to multiple iterations of the structural surface to alter the perception of concrete. The paper will outline how through this playful approach, a pattern emerged through continuously playing out the physical test against the digital form and vice versa.

(1) Deleuze, Gilles, and Felix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. London/New York: Continuum, 2004. 401-402.

(2) Grunenberg, Christoph, and Sheila Kennedy. “Material Presence.” *Material Misuse: Kennedy & Violich Architecture, Architectural Association*, 2001, p. 5.

LIFE (style) I

Date: Friday, October 12, 2018

Time: 9:00 AM - 10:30 AM

Disrupter: Jennifer Newsom, University of Minnesota

Checking Out: The Troubling Implications of Building Information Modeling Libraries

Jonathan Boelkins, University of Arkansas

Among the most prominent skills in demand in the profession of architecture is proficiency in Building Information Modeling (BIM), the leading production software in use by practicing architects. Students are keenly aware that they will need to be proficient in BIM to be employable, a need the academy increasingly recognizes and accommodates. While better training in BIM does translate into better prospects for employment and early success, Building Information Modeling implicitly promotes the use of pre-designed, industrially produced building elements such as doors, windows, stairs and railings.

Consequently, architecture students are often designating these elements rather than designing them or even just making significant modifications. Consequently, these standardized elements are used to populate student (and all too often professional) design proposals. The ease with which these common and poorly designed elements are inserted into otherwise thoughtful works of architecture invites criticism and reinforces the importance of the design of a wide array of building elements.

To illustrate this tendency, consecutive advanced undergraduate seminar courses were developed to improve proficiency while revealing deficiencies in the digital tools themselves by focusing on areas of intense detail, particularly in those elements most commonly designated from standardized libraries: doors, windows, columns, stairs, handrails, etc. This process of replicating complex, modern, and entirely pre-digital details and architectural elements improves students' facility with digital tools while undermining their tendency to simply designate mass-produced industrial elements.

Consideration of each element demands the development of custom BIM content that either modifies standard elements available in the software libraries, or creates entirely new 'families' from scratch. Custom content was required to be parametric rather than simply modeled in place, unless absolutely necessary with the intention that these elements (or at least the process used to create them) are portable and capable of being reused or modified in other projects. BIM provides tools specifically for creating certain architectural elements, but the capability of these embedded tools is generally poor and necessitates using difficult and less efficient processes. These courses systematically assert that BIM (and Revit in particular) does not preclude design nor limit the presence of detail at the scale of architectural element, but rather suggest the need to develop more sophisticated tools and menus within BIM, enabling architecture students and practicing architects alike to reclaim these elements and return them to the domain of the architect.

Creative Accounting: Reward and Risk in Professional Practice

Ashlie Latiolais, University of Louisiana - Lafayette

Jonathan Boelkins, University of Arkansas

Most architects can quickly identify financial exposure as the primary risk in starting an architectural practice and creative freedom as the main reward, and these are often misunderstood as being inexorably related. The perception of an inverse relationship between financial success and architectural design integrity results in a kind of martyr complex, one that sees financial struggle as validation.

However, this dichotomy presents a false choice. Financial failure is more often the result of poor management and lack of financial acumen than it is a validation of design quality or dedication to the profession. Architects are simply not trained for the breadth of skills required in architectural practice and are especially ill-equipped to start a practice. The limitations of architectural curricula (particularly at state universities) and corresponding accreditation requirements ensure that no such courses in business skills will become a required aspect of architectural education.

However, Professional Practice courses are an obvious venue for discussing and exploring the broader skills required for success and advancement in architectural practice. In most curricula, only three to six credits are allocated to the development or even awareness of the vocabulary of practice. This inadequacy of professional development during architectural education is a missed opportunity when a distinct majority of students surveyed in the two Professional Practice courses in NAAB-accredited programs under consideration here wish to have their own office eventually. However, virtually none of the students have any formal training in any aspect of business – accounting, finance, human resources, strategic planning, marketing, etc. This deficiency is compounded by declining communication skills, especially regarding writing and public speaking, as exemplified in studio coursework and presentations as well.

The Professional Practice courses compared and contrasted in this paper entry address and resist this problem by offering focused, project-based assignments - one through an extensive series of hypothetical assignments, the other through a quick and intense design-build exercise. These courses reveal areas of practice that are unfortunately overlooked as opportunities for advancement and the skills they require. In doing so, these courses help clarify the risks and rewards of architectural practice as new paths are emerging, ones that offer the wider scope offered by intersecting disciplines.

Life & Hanging Out Your Own Shingle: The Ideal of The Sole Practitioner - What Can We Learn from the Recent Past?

Ruth Connell, Morgan State University

Registration as an architect, in the recent past, meant the freedom to “hang out your own shingle”. While this statement still holds some meaning, the expanded complexity and scale of contemporary practice can make the practicality of beginning an independent practice impossible. This paper will present the career story of a lesser well-known regional architect, who was successful in living a balanced life, while growing a small practice and providing design services to a community, a community formerly without access to an architect.

Joseph Arthur Connell graduated from Washington University in St. Louis in 1952, with a professional degree in architecture, and by 1955 had moved to Corning, New York, where he would practice architecture first as a sole practitioner, and after 1975 with a business partner, and continuing his practice as a small-scale firm until the early 1990's.

In 1955, when he “hung out his shingle”, he rented a desk and corner within a general contractor's office. By 1958, he was practicing out of the ground floor of a new modern home he had designed for his family. Building the practice of “Joseph A. Connell Architect A.I.A.” was based primarily on informal social networking. For example, social clubs, such as the Lions Club, and later the Rotary Club, played a role. Securing regular coverage in the local newspaper was important, such as the published announcement of the start of his practice, stories about new projects and groundbreaking ceremonies, and public speaking including educational talks on the local radio. The essence of establishing the practice was building a strong professional reputation for good service. The individuals who contracted for his design services were rarely experienced in working with an architect. A critical component of his service was guiding clients through the process of working with an architect.

The diversity of projects was huge – especially for a small practice. Building types beyond the more expected set of houses and churches included grocery stores, restaurants, bakeries, buildings for a winery, a factory, a flower shop, a liquor store – and, surprisingly – even a gas station. Advice on historic preservation planning and leading edge passive solar design in the 1970s were a part of his

portfolio of community service.

This presentation will include diagrams of the structure and flow of this architectural practice as a case study of what practice was – and could be – between 1955 and 1995. The paper will focus on the business and economic dimensions of late twentieth century practice, aspects of the construction industry of the era, and related social dimensions, rather than a focus on style or evolution of style. The question of the viability of this business model of diverse building types in the service of a small community will be explored.

What elements can we take from this case study of a practice of the recent past for the practice of the future?

MONOPOLY (poly-opoly) I

Date: Friday, October 12, 2018

Time: 9:00 AM - 10:30 AM

Disrupter: James Graham, Columbia University

Banal by Design: Silicone Joint Sealant and the Supply Chain of Architectural Production

Brent Sturlaugson, University of Kentucky

Since the mid-twentieth century, silicone joint sealant has become increasingly popular in large-scale construction projects. Application of silicone joint sealant occurs where unlike materials meet, and the purpose of this product is to control the transmission of air, water, and sound. Essentially, silicone joint sealant acts as a mediator. Given the ubiquity of this product in the built environment, this paper examines the supply chain of silicone joint sealant to enroll seemingly disparate landscapes into the same architectural system. Like the product itself, this paper seeks to establish relations between unlike parts in the supply chain of construction, acting as a mediator between building material, labor conditions, environmental regulations, and capital flows.

Historically, environmental mediation and its relation to cultural production found a broad audience in Superstudio's iconic project, *The Continuous Monument*. As is well known, *The Continuous Monument* proposes a global infrastructure of uniformly structured and conditioned interior space as a polemical response to largely unchecked suburban growth that was widespread in 1960s Italy. According to Aldo Natalini, however, the proposal "should not be understood in its physical sense, but as a visual and verbal metaphor for a rational and orderly distribution of resources." While not intended as a literal material proposition, considering *The Continuous Monument* as such reveals strong resonances with much contemporary development. Consisting of nothing more than a mirrored surface and a uniform grid, both *The Continuous Monument* and many new constructions rely on the utter banality of architecture in achieving their goals. These utterly banal buildings, in turn, rely on equally banal technology; in this case, silicone joint sealant. Simply acknowledging this resemblance, however, fails to elucidate anything unique about the present moment in architecture and urbanism. Looking with a more critical eye attuned to contemporary political, economic, and cultural phenomena opens the door for new interpretations. In this paper, the assumed materiality of *The Continuous Monument* is used as a point of departure to consider the contemporary built environment as a complex assemblage of social and environmental relations mobilized by design decisions.

This paper is part of an ongoing research project that examines the supply chain of building products in search of a more thorough account of the social, economic, and environmental effects of architectural production. The goals of this research are threefold. First, it seeks to critically evaluate the forces of production in the making of buildings. Second, it aims to provide an empirical base for theories of urbanization that posit the coproduction of urban and rural environments. Third, it seeks to problematize the distinction between social and natural forces in networks of production. By analyzing construction drawings and specifications from two recently completed projects, this paper traces the supply chain of silicone joint sealant to argue for an expanded conception of what constitutes architectural production.

Regulation, Profit, and Power: The Transversal Relationships of Twentieth-Century Aluminum Cladding Production

Tait Johnson, University of Illinois, Urbana-Champaign

Within recent political discourse, much has been discussed about the merits of aluminum tariffs, articulated by debates on the ambitions and limitations of governmental regulation, nationalism and globalism. Likewise, the history of twentieth-century architecture in the United States also reveals the tariff as a subject of debate during and after wartime aluminum production, with extended ramifications for aluminum cladding in architecture. Aluminum cladding production was regulated not only by tariffs, but also by myriad legal mechanisms, such as patents and anti-monopoly legislation. For instance, the aluminum panels on the Alcoa Building (Harrison & Abramovitz, 1953) were manufactured through patented processes, but Alcoa had been subject to decades of governmental action to regulate monopolistic practice.

Scholars have explained mid-century modern architecture as a manifestation of public regulation, private enterprise, or an engagement between the public and the private spheres. Taking this engagement within a mixed economy as a contextual underpinning, and with a particular focus on the economic context of twentieth-century aluminum cladding, this paper suggests the transversal relationship as a framework to understand the development of modern architecture in the United States. Such relationships operate as dislocated, distributed and countervailing interactions that can be simultaneously competitive and collaborative, disabling and enabling of goals and outcomes.

For example, aluminum producers and regulatory bodies engaged transversally, wherein government held the power to enable monopolies (for a given time) by granting patents, and concurrently disable monopolies through anti-trust legislation, with an often-indeterminate boundary between the two policies. Aluminum manufacturers such as Alcoa and Kawneer also engaged in a transversal relationship, simultaneously collaborating and competing for control of resources and markets. Alcoa supplied aluminum to Kawneer, profiting from this arrangement, yet Kawneer competed in the same market with Alcoa in the production of aluminum cladding components. As another Alcoa competitor, Reynolds Metals awarded the Reynolds Prize to projects made with Alcoa aluminum, such as the US Air Force Academy Cadet Chapel (Walter Netsch, Jr., SOM, 1962), simultaneously providing publicity to Alcoa and appropriating the project's fame while associating it with the Reynolds name. This paper argues that such transversal relationships were endemic to the dynamic interrelationship of public and private enterprise in the economic contexts of twentieth-century architecture in the United States.

The interactions between regulators, competitors and collaborators circumscribed the rise to power of aluminum producers and the spread of aluminum in architecture. Aluminum producers sought control of the world's largest rivers, displacing indigenous peoples with dams and lakes to generate the great amount of electricity necessary for aluminum production. Producers also sought control over markets, developing new product lines with a belief, according to Reynolds, that "aluminum markets are made, not born," driving the spread of aluminum cladding.

Drawing from the corporate archives of Alcoa, Reynolds Metals, and Kawneer, this paper contributes to scholarship challenging the epistemological boundaries of modern architecture as a reification of public-private dichotomies and reflects on the limitations of contextualizing contemporary architecture within rigid political constructs, instead suggesting the transversal relationship as productive frame of analysis.

Rules of the Game

Marc Maxey, University of Nebraska-Lincoln

For decades architects played by the rules codified by the American Institute of Architects Standards for Professional Practice. Its canons of ethics set forth professional scripture architects followed for nearly a century. However in 1964, a radical shift occurred in the AIA's concept of practice concerning conflict-of-interest as architects branched into the acquisition of real estate and the construction of buildings. The Standards for Professional Practice were originally developed

to prevent architecture competition organizers from pilfering free designs from aspiring architects, but these standards also codified severe restrictions on self-promotion through advertising or endorsements. Facing external market forces and internal strife, exceptions were carved out in the revised Standards for architects' private projects, and while an expanded menu of possible client services included "feasibility, financing, site acquisition, etc. [which] represent new concepts for the architect's role," the AIA forbade architects to act as contractors, calling it "a conflict of interest which would be untenable"

What did it mean for a developer of a project to hire himself to be the architect? John Portman's projects forged new disciplinary relationships in architecture considered unethical by the AIA. Not only did this create a crisis for the figure of the architect as professional steward, it destabilized the notion of architectural production as a translation of drawing to building by privileging the procedures of development. While Portman was syndicating millions of dollars to invent the atrium hotel, parallel methods were being rehearsed in schools of architecture at smaller scales; at Yale, several architecture students fostered a design-build culture through their own entrepreneurial projects. Their efforts led to creation of the The Yale Building Project under the leadership of Charles Moore in 1967, but they also undermined the profession by circumventing apprenticeships and licensure.

Subsequent revisions of the AIA's code of ethics serve as an archival game of monopoly illustrating market forces brought to bear on the profession. Transformations in the production of architecture expand beyond the drawing set to include financial instruments like the proforma, design-build delivery, while real estate simultaneously emerges as a distinct academic subject, first in business schools, and later in schools of architecture.

This paper will account for the AIA's ethical reckoning of the architecture profession as it branched into development and construction between 1964-1987, and speculate on the state of contemporary practice.

The Architect as Corporation: Doug Michels, Alexandra Morphett, and Universal Technology 1978-1980

Randy Nakamura, California College of the Arts

The work of Doug Michels can be understood as a kind of grand strategy of provocation, boundary testing, and playing with the rules of architecture. From the iconic work of Ant Farm that melded performance, installation and architecture, to his life long obsession with the dolphin as a non-human entity of high intelligence that straddled the boundary between art and technology, Michels's practice continually experimented with the possibilities of architectural practice. This paper focuses on Universal Technology a little-known company Michels co-founded with Australian artist Alexandra Morphett in Houston, Texas. As a company Universal Technology had a very brief existence from 1978 to 1980 and produced very few realized projects. Yet the founding of this corporation encapsulates a crucial point of inflection for architecture, between the neo-avante-garde experiments in the expanded field of the 1960s and 70s and more corporate forms of architectural practice, that in Michels mind, were embodied in the architecture of Philip Johnson.

Branding itself "the Creation Corporation," Universal Technology was meant as a means to monetize the visionary projects that Michels and Morphett had continually attempted to advance and fund throughout the 1970s, which included their plans for a science-fiction movie called "Brainwave" which they described as a "pre-enactment of the first true communication between humans and dolphins." Envisioned as a hybrid of architectural office, ad agency, product development incubator, and media conglomerate, the absurd reach and ambition of Michels and Morphett's company strains credibility. The plan of business for Universal Technology even specifies that the corporation would have offices in the Philip Johnson designed Two Post Oak Central building in the Galleria area of Houston.

In a sense Universal Technology could be seen as part of a genealogy of conceptual provocations that Michels had participated in, most famously with the Ant Farm collective. At the same time

there is a deadpan seriousness in the enterprise that produced a detailed stock offering prospectus and a comprehensive business plan. Despite the absurdity of Michels and Morphett successfully marketing themselves as “image-makers to Corporate America,” Universal Technology anticipates much of what media theorists Richard Barbrook and Andy Cameron described in 1995 as “the Californian Ideology,” a blend of techno-utopianism, economic libertarianism and anti-statism that is endemic to Silicon Valley. In another light Universal Technology could be considered as a kind of corporate instantiation of Michels and Morphett’s architectural and media practices. A practice that games systems of capital to comment on architecture as representation, as intellectual property, and as a type of knowledge work mediated by the machine logics of corporation and computer.

The Commoners

Paolo Sanza, Oklahoma State University

Awilda I. Rodriguez, Oklahoma State University

Are starchitects dominating the architecture market? A recent viewing of archdaily.com reveals a gorgeous house in the Chilean coastal town of Zapallar, House H, by architect Felipe Assadi completed at the dawn of this year; in Palma de Mallorca, Spain, architect Francisco Mangado’s Congress hall and hotel is all but mundane; and in Østerid, Norway, Cubo Arkitekter delivers a highly engaging visitors and community center. More inspiring projects follow, and more names of unfamiliar sounds: Alhumaidi Architects, Funktion Design, Hype Studio, DnA, Reiulf Ramstad Arkitekter. Sporadically, in the succession of this long list of unrecognizable architects sprout familiar faces: Jean Nouvel with new images of his soon to be completed National Museum of Qatar, Steven Holl with the Institute of Contemporary Art at Virginia Commonwealth University, and Renzo Piano proposed residential tower in Miami. The scene repeats when browsing other architectural digital platforms. Work, exceptional work, by little-known architects outnumbers the work by the starchitects.

The paths to stardom by Thom Mayne (born 1944), Bernard Tschumi, (born 1944) Massimiliano Fuksas (born 1944) and the like born prior to 1950 have similar characteristics and can greatly attributed not to talent alone, but to collateral forces, in primus their ability to cultivate relationship with the print media of Europe, the United States, and Japan. For over three decades these architects have dominated the architectural press, and their work has been the reference point for at least two generations of academics. In all these years, there was hardly any new entrant in the elite club. But in a changing publishing world where the rules do not follow archaic principles or preferential status, there will still be room for starchitects? Or they will be relegated as just one of the many talented architects that inhabit every corner of this planet?

This paper examines how print media has unmistakably contributed to the success of few and discloses the challenges and opportunities presented to the “rest of us” by the online publishing environment and by the new era of the influencers or “influenceratis” (social media celebrities) where digital natives are less receptive to traditional publishing media but gain trust by the number of likes expressed by the shared values of a group.

(tactical) OPERATION II

Date: Friday, October 12, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: Jose Arnaud-Bello

Architectural Operations in Informal Neighborhoods

Aaron Paul Brakke, University of Illinois, Urbana-Champaign

Addressing the ethical imperative of architecture has become an important issue for the discipline. The past ACSA conference bore this name, the overarching theme of the 2016 Venice Biennale, Reporting from the Front invited all participants to question the agency of architecture in times of such social, ecological and political unrest and the current US Pavilion at the Venice Biennale challenges the notion of citizenship. While cynical of the notion that architects should serve as saviors of humanity, this paper raises the question, "What operations can architects make that can have impact through resonance in communities?"

The operation I will highlight is that of urban acupuncture, an alternative to the standard practices of urban development that leverage large amounts of capital in search of a return on investment. This will be illustrated through the description of several projects situated in Colombia which have been realized with students with whom we have analyzed the symptoms, identified cracks and taken action at the scale of rural and urban acupuncture. The first project is the redesign of the temporary settlements that have been created for ex-members of the Revolutionary Armed Forces of Colombia. We have deconstructed what the Colombian government has established as zones for the 'normalization' of 'ex-guerilleros' and created new criteria that responds to the needs as expressed by the FARC leaders that we have been in contact with. The second project addresses other Colombians who have been affected by the civil war. Figures such as those exposed by the Internal Displacement Monitoring Centre reveal that 15% of the Colombia's citizens have been displaced. Overcoming the devastation at this magnitude will cost the country more than 90 trillion pesos over the next decade (more than 40 billion USD). An urban and architectural issue that needs to be addressed is the precarious living conditions for the nearly 5 million internally displaced citizens. Maneuvering changes in politics, economic conditions, zoning and trade agreements are but a few of the variables that affect the building industry in the post conflict era. As these issues are outside the control of a designer, it is futile to develop a strategy that is obsolete before it can be carried out. Therefore, the focus must be on tactics. In *The Practice of Everyday Life*, Michel de Certeau explains that a tactic is set up "on and with a terrain imposed on it and organized by the law of a foreign power." As architects, we understand that we "must vigilantly make use of the cracks that particular conjunctions open in the surveillance of the proprietary powers. It poaches in them. It creates surprises in them." This contribution to the ACSA conference 'Play with the Rules' will show how several operations are breaking the rules to address the symptoms of ailing and distressed communities in South America.

Gaming for Tactical Urban Design

Mine Hashas-Degertekin, Kennesaw State University

"To adapt existing definitions, to create new ones, and to speculate on the potential for different actions and different interventions, new methods had to be invented - methods of observation, of modeling, of communication, of programming. This involves a retooling of practices - practices that build, plan, manage and govern, practices that teach, investigate, speculate and narrate."

Raoul Buchanan

Urban design with its data collection processes and close link to policy implementation might sometimes pose a highly analytical approach. Straightforward data, even though evaluated in the light of various creative combinations might result in direct and simple responses without an opportunity for innovative design. Within this context, there is a need to break the cycle of logic,

stir up strains of information and create generative rather than analytic methods in urban design teaching and practices. In an undergraduate urban studio, the students were asked to collect analytical and experiential data via various methods. Then they are asked to create a game to distance themselves from the rational process and randomly mix up all the data they collected with initial design concepts, responses and ideas. The games brought together seemingly irrelevant components of site data such as spatial, social and phenomenal characteristics, concepts from various precedent studies, demographics, spatial alignments, ecological solutions, etc. Although the essence of the game is to create an association between the components and can be seen as a simple permutation, it has to be built physically in order to carry a generative role in design process.

“Playing involves random choices, findings, discoveries. This randomness generates variety and surprise. Random sampling is the technique of cutting through preconceived categories..... A critical mass of random samplings is needed in order to see differences in their manifestations and to establish trends”.

Raoul Buchanan

Playing the game resulted in random combination of a number of conditions that students need to transform into scenarios and design of single moments. These moments are then placed to specific contexts and rationalized in response to each context. The single moments are treated as seeds shooting roots to the surrounding area and providing a framework for their surrounding blocks. Accumulation of the single moments provides a vision and a master plan based on small-scale urban solutions. Hence, the game helps to layout a scalar flux for students, which also weaves a dialog in between analytic and conceptual as well as existing and projected.

It also advocates for a “ground up” and deductive approach rather than a “top down” and inductive approach to the design of urban environments. Master plan becomes a collection of small moments of experience and amusement rather than only a collection of lines, shapes and planes stemming from references impossible to perceive at human scale. In this sense, the studio sets up an exploratory and experimental discourse.

The paper will present examples of the game process and their associated site conditions and resulted single moment scenarios.

The Vertical Fulfillment Center: Towards an Orgatronic Skyscraper

David Salomon, Ithaca College

Julian Varas, Universidad Torcuato Di Tella

For over a century the “social conditions” identified by Louis Sullivan as the forces that created the skyscraper – the “need to do business,” the elevator, the steel frame, rising land values - have remained relatively unchanged. In that time architecture developed an extensive archive of theories and examples for transporting people, objects and energy; providing a consistent interior climate; avoiding unnerving vibrations; and communicating with the city. But these theories are now obsolete or, at best, strive to catch up with ongoing developments.

For example, in the last two decades a new building type has emerged that is equally essential for the contemporary “transaction of business,” namely, the fulfillment center. In addition to presence of digital technologies and advanced robotics found in these facilities, perhaps the most significant shift from Sullivan’s skyscraper to today’s fulfillment centers is the change of orientation from the vertical to the horizontal. Currently these facilities need for large amounts of ground floor space (in large measure to accommodate the still earthbound technologies of trucks, trains and planes) has meant that they have been located away from urban centers where land is expensive and large sites are unavailable.

However, the demand for the goods found in these facilities is greatest in the crowded urban centers. Online retailers are experimenting with different methods for supplying goods to consumers “trapped” in these dense places within hours of them being ordered. All of these efforts illustrate the need for a distribution center in the city center.

The crude cartoons that accompany Amazon’s patent application for a “Multi-level Fulfillment

Center” effectively illustrate the fact that if at the beginning of the 20th century the modern metropolis was predicated on the exaggerated concentration of people and catalyzed by the appearance of the skyscraper, at the onset of the 21st century social and technological developments foreshadow the emergence of the orgatronic metropolis and its architectural enabler: the post-humanist skyscraper.

Humanistic discourse understands architecture historically as an extension of the human body, and the city as the medium that organizes the work and resources that ensure its sustenance. Attempting to position itself beyond those anachronistic conceptions, the orgatronic postulates a radical intertwining of the organic, the robotic and the cybernetic, each of which is considered as a life-form in its own right within the phylogenetic tree. The orgatronic is the horizon of an ongoing evolutionary process that promises to blur the boundaries of their individual identities, creating new species spawned by the interbreeding of humans with their digital doppelgangers.

Starting with and expanding upon these issues, this paper will present the architectural potentials of the post-humanist skyscraper as first developed in a studio organized by the authors at the Universidad Torcuato Di Tella in Buenos Aires in 2018; a studio that explored how the rich architectural intelligence embedded in the skyscraper the architectural potentials of high-rise building typologies as they react to the developments

(tongue) TWISTER II

Date: Friday, October 12, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: David Benjamin, Columbia University

Fonseca's Imaginary Playground

Samriddhi Sharma, The Cooper Union

Looking like architectural models, the works of artist Gonzalo Fonseca (1922-1997) (fig.1) born in Montevideo, Uruguay stimulate the viewer's imagination through the unfolding of different narratives in his miniature sculptures. His sculptures are filled with stories, connections, abstractions, metaphors and associations, something that could also be adopted in architecture models. Fonseca studied architecture at the university of Montevideo for three years, before joining Uruguayan artist Torres-Garcia's workshop school from 1942-1949. There he explored concepts of abstraction and constructivism. The nature of Fonseca's sculptures are an embodiment of the ideas and concepts of Latin American Art that he absorbed from his voyages to archaeological sites, as well as from the relationships he entertained with fellow artists. Another key figure in Fonseca's life was the Japanese-American artist Isamu Noguchi (1904 -1988), whom he met in 1960s and 70s on several occasions, first in NYC and then in Italy. Fonseca and Noguchi shared a close bond based on their unique identities. Their friendship fostered a new understanding of sculpture, which went beyond object making into observing them as a microcosmic way to understand play.

The playful manner in which Fonseca addresses detail and scale in his sculptures enkindles curiosity playing with the viewer's ability to recognize familiar forms, destabilizing them by manipulation. As seen in his Mantelpiece, Brownstone (fig.2) sculpture he uses suggestive forms with secret doors and windows carved into the monolith, teasing the viewer's imagination. Another characteristic element in this is the hand-drawn ladder connecting openings leading to secret passages, such as the one on the left, which leads up to a recessed entrance with a half closed door. The carved out architectural elements in this case suggest a gesture to engage the viewer by the act of intrusion. There is an interplay between wall-relief, sculpture and drawing to represent conflicting conditions of inside and outside through an imagery which flows from existing physical space into an imaginary one.

Noguchi's playground models were realistic models of prospective playgrounds, which represented a collection of ideas addressing the act of play in education and learning by sculpting the landscape to stimulate imagination as seen in the Play Mountain (fig.3). It represents the embodiment of Noguchi's ideas of play. While Fonseca's sculptures are an environment in themselves, a direct translation of Fonseca's ideology of stimulating imaginative play through a series of images which could be used to form associations.

Fonseca maintains the integrity of the block of stone he uses to sculpt. He carves out spaces within them to give a sense of intimacy, creating a dialogue between his work and the viewer. His constructions are an instrument to understand the order of culture and civilization, through their manifestation into miniature models. His scale of operation and the way he constructs frisky elements in his sculptures allows the viewer to participate in the narrative he creates, this is something that Noguchi's pure forms are unable to do. Fonseca's play with time and form into familiarity and absurdity in his sculpture provides the seeds of imagination.

Form(al) Follies: Transactions, Transgressions and Transformations in Architecture

A. Sameh El Kharbawy

In his 1997 monograph in Global Architecture, French-Swiss architect Bernard Tschumi reflected on Parc de La Villette, his highly acclaimed project in the northeast side of Paris. The monograph

was published some fifteen years after Tschumi had won the international competition organized by Mitterrand's government to design an "urban park for the 21st century." La Villette, Tschumi said, "was a break, a very important break for architecture."

What made La Villette such an important break for architecture, Tschumi did not venture to say. But his idea of juxtaposing form and activity – space and event – remains the source of much speculation about architectural form, as an instrument of (social and political) expression, disruption, and transgression. La Villette was intended to supply not a work of architecture, but an original thesis about doing architecture.

In this paper, I probe this thesis. By interrogating Tschumi's (formal) transactions, transgressions and transformations at La Villette and interrogating their theoretical underpinnings, this study endeavors to reveal the significance of those strategies, while setting up meaningful encounters between varied and distinct modes of architectural production.

Negotiating of the Site Towards Creating an Architectural Expression

Sean Burns, Ball State University

Architectural design involves a negotiation of the built intentions of the designer within and among the contextual site. Engaging in "play" with a site requires a designer to strategize how to approach the earth effectively to sculpt space, generate form, and employ structure. Consideration of the site's ground as a pliable surface and forgiving mass, instead of an impermeable condition, can lead to new forms of architectural expression and encourage "play" towards the creation of complex geometries that blur the demarcation between the earth and the sky.

The terms stereotomic and tectonic have been defined and discussed by various authors, such as Gottfried Semper, Kenneth Frampton, Robin Evans, and Gevork Hartoonian. Exploring the writings of these authors reveals that these terms have variations in their descriptions towards methodological approaches to architectural design. Robin Evans, in *The Projective Cast*, defines stereotomy by its etymological derivation: the science of cutting solids. For Evans, stereotomy indicates a subtractive process, concerned with the carving of voids from a solid mass and the resultant surfaces generated to create and define space. Comparatively, Semper's definition of stereotomy, in *Style*, is a classification of architecture related to the "earthwork, formed out of the repetitious stacking of heavy-weight units." Semper's definition suggests an additive process using a taxonomy of aggregated units as a means to extend the mass and strata material of the earth beyond the ground plane towards the architectural creation of a self-supporting structural element.

Tectonics is generally accepted as the art of construction, although explicit explanations also vary among the aforesaid authors in pertaining to this idiom as an approach to architectural design processes and applications. Frampton, in *Studies in Tectonic Culture*, addresses the tectonic as the lightweight frame related to the sky, characterized by its temporary condition, opposed to the permanence resulting from stereotomic processes of architecture more closely associated with the earth. By contrast, Hartoonian emphasizes that the art of construction influences our sensitivity to define space. In his book, *The Ontology of Construction*, Hartoonian focuses on the methods and approaches to creating and detailing structural aspects of architecture, as he beckons the importance of theatricality between the stereotomic and tectonic processes as stated, "It can be inferred that between the structural utility of architectonic elements and their analogical representation, there is a 'void,' so to speak, where the tectonic resides. This void molds architectural knowledge, that is the logos of making."

In 2018, second-year architecture students researched, critiqued, and formulated informed interpretations of the terms tectonics and stereotomics. The intent of this paper is to present the work of these students, over a series of sequential projects, through the lens of their applied interpretations of tectonics and stereotomics. These terms served as a basis for a methodological approach to architectural design that commenced with the engagement and manipulation of the site's surface and mass, through additive and subtractive processes, towards creating a new architectural expression.

Piles and Parlor Games

Jean Jaminet, Kent State University

Many children's games and toys involve the piling of objects, all of which enhance spatial acuity, design thinking, and tectonic aptitude. Beyond the toys that simulate building components, other games of architectural intelligence involve unique objects distributed into seemingly random piles. The cultural relevance of these games may be more playfully productive in building contemporary architectural design and discourse.

Pick-Up Sticks and its contemporary equivalent Boom Blast Stix (fig. 1) are games of skill that involve carefully removing or vigilantly stacking brightly colored objects. The organization and orientation of these elements are seemingly untidy, but have a logic that is not immediately apparent. These parlor games come in multiple materials, from carved ivory to formed plastic, and formal variations include peculiar shaped blocks as well as sticks thematically related to barnyard objects. The enigmatic nature of these games and rules of unspecified of play, where each game is different, have inherent architectural value and require alternative modes of inquiry. Rather than geometric legibility and rectitude (Kipnis, Domusweb.it), an architectural game of piles demonstrates an inclination towards the eccentric and indeterminate.

Piles resist prevailing strategies of uniform classification (classicism), systemic repetition (modernism), continuous variation (parametricism). Instead, piles deploy strategies of counter-figuration (Young, "Doubling"), where uniformity and variation can exist simultaneously. The challenge for contemporary design is not to identify a geometry intrinsic to architecture (Kipnis, "A Family Affair") or validate architecture by a simplified set of relations (Gage, "Killing Simplicity"), but rather to curate, collect, and exhibit the constellation of things that constitute building. This distinction will be illustrated through a number of examples, including an unlikely comparison between the Farnsworth House and the Graceland Mansion – the former dependent on an abstract coordinate system of overlapping rectangular fields, the latter dramatically reshaped by the careful curation of contents.

Piles do not impose disorder; instead, they are more mysterious, preventing the obvious understanding of a building's expression. For example, pairings can create a hybrid plan of adjacent spatial enclosures and meandering pathways (fig. 2); collections of similar building typologies upend traditional urban and domestic arrangements and provoke a dubious relationship between inside and out (fig. 3-4); and stacking with discrete boundaries demonstrates that piles can preference shape, but don't necessarily reject their context (fig. 5). This inclination towards variation can respond more readily to the inherent pressures that buildings and spaces have upon one another by playing with the criteria and constraints that influence architecture.

Beyond these implications, piles resonate with a discipline whose nature is to amass and manipulate matter. An architectural game of piles is untidy, spontaneous, and stimulated by informal arrangements and loose associations, requiring enhanced skill, spirited risk-taking, and creative discovery. In response to an increasing cultural urge to accumulate, architecture may find new disciplinary relevance through creative strategic accretion, allowing participants and spectators to design and evaluate architecture with new disciplinary significance.

Twisting Tesseract: Architectural Representation and the Spatial Fourth Dimension

Jodi La Coe, Virginia Tech

Artists and scientists at the beginning of the twentieth century were attempting to expand the boundaries of human perception, incorporating the educational potential of the play instinct in mental and physical training exercises, in order to conceptualize and, eventually, to perceive a fourth spatial dimension. Their experiments were designed to overcome the mental interference identified by psychologist Wilhelm Wundt as apperception to objectively view sensory stimuli. While many were developing various means to represent higher spatial dimensions in lower dimensions, poet Charles Sirató in his "Manifeste dimensioniste" (1936), signed by many leading

avant-garde artists including László Moholy-Nagy, Marcel Duchamp, Wassily Kandinsky, and Hans Arp, demanded that all artists raise their works to the next higher dimension. However, architects generally remained content with two- and three-dimensional representations.

In his treatise, *The Fourth Dimension* (1904), mathematician Charles Hinton demonstrated how three-dimensional representations do not adequately render all of the elements of matter, only its three spatial coordinates, with engineers relying on supplemental charts, graphs, or diagrams to denote any and all invisible forces related to change over time. Hinton's work furthered that of Immanuel Kant, recognizing that assumptions of universal laws of nature are based on the limitations of sensory perception and, therefore, may be valid only from that particular vantage. After realizing the inherent subjectivity of perception, Hinton developed several means to conceive of higher spatial dimensions: a spoken language using an alphabetic system correlating to changing spatial coordinates and a playset of color-coded blocks to describe a fourth-dimensional geometric figure, the tesseract. Building upon the work of Friedrich Froebel in stimulating the play instinct for educational purposes, these visual aids were intended to expand the consciousness into mathematical forms of extra-sensory perception.

In their manifesto on "Dynamisch-konstruktives Kraftsystem" (*Der Sturm*, 1922), László Moholy-Nagy and Alfréd Kemény called for the potential of constructive systems to heighten the perceptive faculties of the audience. In the following years, Moholy-Nagy developed rotating spiral structures with chutes and ladders, synaesthetic circus-like performances, and interactive exhibition rooms engaging the play instinct to permanently retrain the senses in the exploration of higher spatial dimensions. In his largely ignored speech made at an informal general meeting of the Royal British Institute of Architects on 9 December 1936, Moholy-Nagy implored his audience to discover the unexplored architectural possibilities of forty-four spatial concepts on which he had elaborated in his Bauhaus book, *Von Material zu Architektur* (1929), including "non-Euclidean," "4-D," "hyperbolic," "dance," "cinema," and "imaginary" space. This paper will examine notable exceptions, architects who endeavored to explore the inextricable link between play and the fourth dimension: Claude Bragdon, Rudolf Laban, and Buckminster Fuller, culminating in a recent collaboration between Steven Holl Architects and choreographer Jessica Lang, *Tesseracts of Time* (2015), in which the audience was invited to consider the relationship of "four types of architecture," each relating to multi-dimensional projections of a tesseract.

LIFE (style) II

Date: Friday, October 12, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: Jennifer Newsom, University of Minnesota

Living the Double Life: Between Architectural Practice and the Academy

Jacob A. Gines, Mississippi State University

The architectural academy is flooded with non-practitioners and, in turn, professional practice is overwhelmed with non-academics. This is because architecture, as a discipline, has fairly recently manufactured a paradox between these two worlds and rarely is there one who is able to maintain a thriving dual-existence in both realms at the same time. Forcing all of us, at some point, to decide – shall I practice or should I profess? But why is this choice required?

Cleantoth Brooks in speaking of the poet John Donne's use of complimentary contradiction states, "If Donne could have it both ways, most of us, in this latter day, cannot. We are disciplined in the tradition of either-or, and lack the mental agility – to say nothing of the maturity of attitude – which would allow us to indulge in the finer distinctions and the more subtle reservations permitted by the tradition of both-and." Robert Venturi further argues that, "The tradition of 'either-or' has characterized orthodox modern architecture."

This paper sets forth to dismantle the established false imperative that you have to choose 'either-or' when it comes to the practice of architecture or the teaching of architecture within the academy – and further advocates for replacing 'either-or' with 'both-and'. To further illustrate the value of 'both-and' we might examine the Roman and Byzantine diptych for revelatory insight. These celebratory artifacts are presented with both their binary oppositions and their paired relationships. The two panels might be closely related to one another by their content, technique or composition or they may be in direct opposition to each other. In all cases, a dialogue is struck between the two pieces resulting in the illumination of the whole. In contrast, when panels of a diptych are presented singularly they are always incomplete. The two need each other, thus requiring a hinge to clearly mark their separation and simultaneously join them together.

Similarly, a thriving career that is both practiced and professed is attainable – one might argue absolutely necessary. The success of which is balanced on a finely constructed conjunction wherein the two are occurring at the same time and/or in the same space. This paper will provide specific examples and identify strategies for maintaining both a thriving practice alongside a vibrant academic career. Much of the basis for this paper is constructed from the author's own dual-career and double-life. One life as Vice President of Research and Design at a seventy-person firm in a large metropolitan city; and the other life as an Assistant Professor of Architecture. To make matters more complicated, these two lives are separated by 1,700 miles.

Practice or Perish! Evaluating the Relevance of Practice For Academic Architects at South African Schools of Architecture

Nischolan Pillay, University of Johannesburg

Yashaen Luckan, University of Kwazulu Natal

Universities in South Africa, as with many within the global knowledge society, place high emphasis on research output. Academic staff are recruited, based on their research profile and academic experience. The phrase "publish or perish" consequently emanated. The ensuing frenzy to publish has somewhat devalued the input of professional practice input into the curriculum. A critical question hence emerges: what attributes are required for teaching and research excellence in professional architectural education? This very question has led to universities affording some degree of flexibility to allow for professional practice work by permanently employed academics

due to the recognition that knowledge generation in architecture is actually weighted very heavily in practice. “Practice or perish” is fast becoming the new catch phrase amongst scholars at schools of architecture in South Africa. Is it possible, though, that academics can concurrently have a thriving professional practice? The personal experience of the authors, as academics and practitioners themselves, provides an invaluable source of information through auto-ethnographic inquiry. The paper utilises a mixed methodology based on primary and secondary sources. Qualitative interpretation of data is appropriate to the nature of the research. The research utilised semi-structured interviews to gather rich data that was used to develop themes that ascertain the level at which academics practice architecture and conduct academic work. Preliminary findings reveal that some academics do have thriving practices while advancing their academic careers, however what still seems to be unanswered is the approach used to create a balance between the two. What are the unique characteristics of academic-led practices that mitigate the risks associated with focus, time and energy being divided between academia and practice? This research will be useful to universities and academics, firstly, to explore the benefits of practicing architecture while continuing academic research and innovation and, secondly, to determine the strategies employed by successful academics who have found the vital balance between academia and practice.

Teaching Empowerment and Agency Through Design

Clare Olsen, California Polytechnic State University

Architecture school teaches students to tackle a huge range of design problems using research and analyses as bases for an iterative process of design, essentially the process of design thinking. Yet there’s often a disconnect in architecture schools between learning about the discipline of architecture and learning to have agency in the business of architecture. This investigation asks if the beaux-arts pedagogical model (1), still pervasive in architecture schools today, where studio professors critique compositions, is the best means of empowering students in the professional realm. Although asking students to develop designs in response to a project brief can be productive for students’ self-growth and skill-building, the process does not always teach how to advocate for the value of design in the real world.

The professional path in architecture—school, internship, licensure, career—is, in some ways, straightforward and navigable. In other ways, the system is wrought with challenges including low initial pay, long working hours and vulnerability during market recessions, begging the question, is there a better way to be an architect?

These concerns resonate for students, educators and practitioners. The Architecture Lobby, founded in 2013 by Peggy Deamer and colleagues and now sprouting chapters all over the country, has synthesized pervasive concerns about unprofessional treatment of architects and architecture workers (2). Parallel concerns about student agency and engagement have sparked conversations at recent conferences including ACSA Denver, spawned a protest at Syracuse University and a doctoral program at Princeton (3), and curricular innovations at universities including MIT and Georgia Tech (4). These schools and others, including _____, are developing new models of architectural design pedagogy that emphasize agency and entrepreneurship to empower students and widen the path after graduation.

Interrogating these innovations, this scholarship of engagement asks how architecture schools can teach students agency to advocate for design in broad contexts, not just architecture offices. Even more broadly, this investigation asks how architecture school can teach students to make life better for society and themselves. Using case studies from _____ universities, this paper uses three course models to tackle fundamental concerns about the relationship between architectural pedagogy and professional preparedness. The examples are compared with professional preparedness frameworks established by NAAB, ACSA and the AIA as a means to advocate for new approaches to teaching students about forging careers in architecture and design.

References:

- (1) Drexler, Arthur., and Richard Chafee. *The Architecture of the École des Beaux-Arts*. New York: Museum of Modern Art, 1977.
- (2) “T-h-e A-r-c-h-i-t-e-c-t-u-r-e L-o-b-b-y.” The Architecture Lobby, The Architecture Lobby,

architecture-lobby.org/.

(3) Colomina, Beatriz, et al. "Radical Pedagogies in Architectural Education." *Architectural Review*, Architectural Review, 28 Sept. 2012.

(4) Keegan, Edward. "The Incubator: MIT DesignX Steers Architecture Students Toward Startups." *Architectmagazine.com*, Architect, 11 Jan. 2018 and Lau, Wanda. "The Career Counselors: Dennis Shelden and Scott Marble Recommend a Backup Plan." *Architectmagazine.com*, Architect, 11 Jan. 2018

Risky Matter

Julie Larsen, Syracuse University

Roger Hubeli, Syracuse University

Most research in the material industry has ambition to improve their material and develop new products that expand the range of the material's performance. But typically, the focus is on increasing performance of the materials in relationship to current benchmarks driven by policy or economics. Therefore, more speculative or risky applications are often prevented from advancing by either building code or inertia of the industry. By taking agency early in a material's conception, design can play a critical role in helping to reduce this risk, when given the opportunity to speculate into the future.

For designers to forge unknown territory for an alternative mode of practice, risk is inevitably in the equation. Today, designers are taking more agency in the design process and rather than waiting for a client, they are seeking out collaborators and stakeholders in pursuit of their own agenda. Since any building material is a reflection of the status quo of architectural production, experiments with materials, methods, or technologies require designers to start at the level of 'matter', before a material is yet to be materialized. Similar to the work of the Spanish artist Lara Almarcegui that consists of piles and stacks of raw materials that are void of idealization, or in other words, focusing on 'matter' as an approach, aims to revoke premeditated formal or ideological agendas. Therefore, in order to question the status quo of how we design with materials, designers can take risks by reinterpreting 'matter', before it even becomes a material.

Based on this premise, the proposed paper discusses a design research collaboration between an architecture firm and the material industry that uses design speculation as a method by which innovation emerges from working with the conceptual principles of a material, or, in other words, its matter. In this collaboration, the design process foregrounds the conceptual logic of the material over metrics to avoid premeditated outcomes, specifically leaving the formal and programmatic outcome of the research open-ended. For example, the perception of concrete as a heavy material was replaced by the reality that concrete can be lighter than water and float. And the precise strength and structural capacity is not foregrounded but rather the concrete mix's ability to conceptually be as thin and light as paper and still maintain structural strength. From this knowledge, a prototype emerged that alters the perception of concrete as a solid, heavy material, from the conception of its matter, to become a light, floatable, porous material. This, in turn, defines a new type of resilient shoreline infrastructure that floats and continually adapts to rising sea levels.

The paper will use the project to exemplify a design research process that starts with matter and requires design to take agency in material research and take risks that can lead to unchartered territories.

MONOPOLY (poly-opoly) II

Date: Friday, October 12, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: James Graham, Columbia University

A Variation of 'A Variation on a Theme Park'

Andrew Santa Lucia, Portland State University

"Orlando has become America's capital of transience, with more hotel rooms than Chicago, Los Angeles, or New York."

Michael Sorkin, *See you in Disneyland* (1992)

"These are the rooms we're not supposed to go in... But let's go anyways!"

Monee, in *'The Florida Project'* (2017)

Writer and Film Director Sean Baker's most recent film, *The Florida Project*, traces the life of a series of children and single mothers that live in SRO style hotel arrangements on the outskirts of Orlando, Florida's theme park centers of Disney World and Universal Studios. This film uses an intricate play of architecture-as-character, casting it not as context, but consequence - a central tenet of postmodern placemaking. The film focuses on the lives of Haley and her young daughter Monee who exist just outside of the theme park wonderlands, which promises that dreams come true. More importantly, this essay uses a transdisciplinary approach - art, architecture and film - to engage the theme park urbanisms within the Florida Project. It also uses the film as a foil to discuss certain post-fordist infrastructures that enable the theme park. Instead of critically panning these as solely problematic, I will extrapolate (1) new indicators of cohabitation, (2) old architectural elements that are misused for the sake of play and survival, and use (3) *See you in Disneyland*, Michael Sorkin's seminal essay in his collection *Variations on a Theme Park*, as a litmus test and forecast to provide a disciplinary foundation for this essay. Ultimately, this work provides a projective narrative about the postmodern urbanisms experienced by children and working-class women of color, who live, work, and play in the context of *The Florida Project*.

The Florida Project helps contextualize the intricate urbanisms of resort hotels, tourist economies, and the ecologies of Central Florida. However, through the lens of a young girl and her friends, her mother who struggles to keep this week-to-week rental going, and the intimate relationships between her, other mothers, and other children, we see perhaps one of the most honest depictions of how architecture mediate cultures centered upon some widely accepted rules of play and leisure. In this context, Play is not a positivistic enterprise. It is the navigation of rule based urbanisms, the policies of tourism infrastructures, as well as the aesthetics and ecologies of the Theme Park. Scene after scene, viewers are allowed into a world that is engendered by architecture - the Maison Domino slab hotels, replete with moments of shade under stairs that only children can engage; the anonymity of the hotel door and its mediation of Sex Work; the proximity of higher-end resorts and the illegal access to luxurious space; the harshness of Florida's climate, air-conditioned relief, and a lack of access to transportation; and contemporary dialogues on logistics, from wholesale distribution to informal market sales. The abundant architectural contradictions in *The Florida Project* will help frame a systematic development of worlds that are youthful, but non-ideal, refocusing disciplinary lenses on the resilience of working class people, including children, to navigate these theme-park urbanisms.

Architecture, Fast and Slow: Spatial and Material Procrastination in the Digital Age

Sara Khorshidifard, Bowling Green State University
Hannah Dewhirst, Bowling Green State University

At times when irresistible, all-accelerating technologies prompt normative social influences with growing expectations for speediness, architecture is not immune. Can fast technologies bring slower outcomes? What are possibilities for an intentional deceleration of architecture with technological aids?

Technologies have intervened in many aspects including the temporality, pace or tempo of architecture. Digital technologies are major forces, speeding up how architecture is understood and produced. Despite a universal urge for speed, the essence of architecture par-excellence can long for positive procrastination. Rem Koolhaas once declared architecture as too slow of an art or profession, too slow for becoming revolutionary or influential. In anticipation, slowness is also praised by others as a quality and life philosophy. The claim and optimism together: architecture can appear slower than other fields, but slowness in itself may not be a bad thing. If so, [how far] should architecture try to compensate for its tempo or, instead, should architecture more embrace and benefit from it? While accepting the inevitabilities of joining forces, moving with technological change and digital zeitgeist of the world in our time, how can architecture resist some of the negative pushes? How could it find and frame design values in constructive procrastination? How can those values be filtered in as design strategy?

When, even in the age of speed, slowness is viewed with optimism, therein lies possibilities for new decelerating paradigms in architecture. Attesting to the hurrying forces of technology, globalization, and climate change, the stresses can diminish by slowing down, in favor of indulging in time, finding positive bonds with memory, and using time to reimagine work, politics, and community. Slow architecture is an outgrowth of trendy slow movements adopted in wide ranges from food and philosophy to art, cinema, and city. Slow spaces are theorized as textured, inspiring the senses and the sense of time in buildings. This is projected through straits of endurance, dexterity, sensory effects, tactility, materiality, specificity, delight and contentment (Slow Architecture, O'Brien, 2004). The manifesto formulates mechanisms to resist consumption forces (Manifesto for slow architecture, Beaudouin, 1998), conceiving architecture as a "machine" to slow down time and become the time slowed down (Slow architecture in France, 2010).

The future of cities may well remain digital with technologies persisting their impacts on the limits and possibilities of all disciplines. In a pursuit of slower paradigms in architecture, this paper engages ideas on how temporality can be structured in architectural thinking, sensing, and making. While technologies are best known as leading faster to smarter outcomes, this paper would challenge this notion: could technological advents and growths, which are often equated with speediness, conversely instigate optimistic procrastination? Grounding in the nature of design enticing postponements, the paper attempts to explore, construe, and curate possibilities that fast technologies could bring in the advantage of slower thinking and production.

Play: The Spaces, Bodies, and Rules of Games and Public Spaces

Jeremy Voorhees, Drexel University

"[It is] in playing, and perhaps only in playing, the child or adult is free to be creative."

"It is creative apperception more than anything else that makes the individual feel that life is worth living. Contrasted with this is a relationship to external reality which is one of compliance, the world and its details being recognized but only as something to be fitted in with or demanding adaptation..."

D.W. Winnicott, *Playing and Reality*

In child psychologist D.W. Winnicott's exploration of play and its connection to creativity and reality, he employs play as critical device for both understanding and appropriating the world around

us. Play provides the opportunity to construct a shared reality that is tied to our concrete and social environments, but figures them as an instigator of action rather than a given which must be acknowledged and abided.

In this way, playing finds its most explicit expression in games where rules are constructed within a contrived arena to animate space and give purpose to bodies. Yet Winnicott argues that playing is not simply reducible to either games or children as he argues that “creative apperception” is what opens up the world to our making of it.

Dave Hickey offers a similar argument about the potentially liberating power of rules in “The Heresy of Zone Defense”. Using the rules of professional basketball as a model for tactical (and exhilarating) action, he argues that rather than prescribe movement, these rules foster improvisational response. In a list of founding and guiding principles for basketball glossed by Hickey he writes:

4. Both teams are to occupy the same area, yet there is to be no personal contact. (Thus no rigorous territoriality ... The model for basketball is the polyglot choreography of urban sidewalks.)

This paper will describe a capstone studio prompted by these questions of space, bodies and rules and their potential implications for thinking about urban public spaces.

The first exercise focused on the discrete spaces of games. Spaces were initially produced by a set of formal operations and then populated by bodies in graphic narratives to project their potential use. From this initial speculation rules were constructed for a number of games the spaces and bodies implied. A series of iterations heightened the specific, and sometimes antagonistic, spatial characteristics and organizations individual games required. Ultimately, designs were judged not simply by how well a single space accommodated a single game, but by how a space might prompt multiple games played simultaneously by multiple children.

The second study expanded the contrived and siteless version of play tacit in games and situated it within a historically, though not currently socially, significant public space, Franklin Square in Philadelphia. Similar to the first study, spaces were constructed and explored for their ability to animate bodies and accommodate simultaneous, and potentially competing, uses of space. Using play as a model for the appropriation of public spaces, designs speculated about how the existing conditions could be transformed into something more fair, more exciting, more active, or more public.

Who Needs a Lexicon? Twelve Elements of an Architectural Composition

Sarah Deyong, University of Nebraska-Lincoln

One of the important lessons of postmodernism was its critique of the scientific method. As the postmodernists rightly argued, there is no design theory or method for solving complexity or what Venturi once called “the difficult whole.” In the face of big data and the continued fantasy of processing it, such arguments have come to the fore again, albeit in the context of mounting anxieties over our inability to confront big data and exact any kind of real change.

Rather than retreat from reality and seek refuge in the autonomy of form, however, some practitioners see design in terms of agency and as a spatial strategy for re-organizing the environment. As Thomas Forget has written: “As contemporary practitioners expand the traditional boundaries of design agency, there arises an opportunity to reconsider the form-space dialectic in a manner that lessens the import of form and upholds the value of composition as an organization strategy, as opposed to an aesthetic ideology.”

In the absence of a design theory or prescriptive method, then, the key to any attempt to expand the traditional boundaries of design agency may well be a lexicon of compositional elements – such as *parti pris*, hierarchy, arrangement, figure-ground and phenomenal transparency – which the architect deploys to construct arguments in the language of space and form.

Indeed, the corollary of the thesis in a written argument is the parti, whose origins in the history of architectural education derives from the French term for an intellectually rigorous, design proposition. In its conjugated verb tense, prendre parti means 'to make a decision' and 'to take a position.' It is the main, organizing idea behind the architect's design, just as a thesis in an essay is the author's main insight or idea about a topic, and the main proposition governing the form and structure of a creative argument.

This paper thus argues for the necessity of a lexicon of compositional elements – twelve to be exact – whose meanings have evolved since the first architectural academies and have endured in an oral tradition to this day.

(tactical) OPERATION III

Date: Friday, October 12, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: Jose Arnaud-Bello

Another Rough Sketch for a Sample Lesson for a Hypothetical Course

Antonio Furguele, Wentworth Institute of Technology

The accelerated production and consumption of architectural media requires pedagogy to critically engage communication as integral to its medium. The following pedagogical precedents serve to evidence a series of polemics about media and their latent possibilities: the influential multi-media presentation, 'A Rough Sketch for a Sample Lesson for a Hypothetical Course' in 1953 to its transformation into a mass medium, in the film 'A Communications Primer', and into a proposal to transform MIT's educational model.

A turning point in Charles and Ray Eames' design practice emerged from an important experiment, simply referred to as a 'Rough Sketch'; or, what co-presenter George Nelson referred to as 'Art X', a sample-lesson at UCLA in 1953. This first multi-media presentation combined, "three-concurrent images: live narrator, a long board of printed information, and complementary smells [...] piped into the chemistry lecture hall through a powerful ventilation system." As Charles Eames stated, it was "an attempt to determine how much information could be given to a class in sixty-minutes". He described its goal was to replace the conventional lecture with new teaching techniques, to promote the "[...] break down of barriers between fields of learning ... making people a little more intuitive ... [and] increasing communication between people and things." The 'Rough Sketch' played with communicative principles to challenge the dogmas of education in order that it "decompartmentalize" specialized scientific knowledge and render it accessible to other design communities.

More well-known than a 'Rough Sketch' is what emerged from it: A 1953 film by the Eameses, titled 'A Communications Primer'. The 22-minute film placed into public discourse the emergent theories of post WWII mathematics, game theory, and cybernetics. As Charles Eames stated, the film was "aimed essentially at an audience of architects, [...] the primer was the outcome of a feeling that processes based on information theory must be an essential component of city planning". It introduced designers to the fields of communication as essential to all social and technical systems and provided an introduction to the concepts of transmission, noise, redundancy, feedback, storage, and importantly, control: The Information Age's first film for architects, by architects, about the architecture of information.

While the film 'A Communications Primer' became a precedent for the emergent discourse of communication design, the 'Rough Sketch' was further developed into a proposal to transform MIT's educational model. In 1969-70 Charles served on the the Arts Commission at MIT with the express aim to develop this mediated sketch-lesson into a model for implementation throughout MIT departments.

A close reading of these three connected histories, highlight how media was used critically to perform on pedagogic conventions and principles. A sample lesson (Rough Sketch - Eames, Nelson, Girard, 1953), a film (A Communications Primer - C. & R. Eames, 1953), and an educational model (MIT Arts Commission Report - C. Eames, 1970) trace three related pedagogic forms, that deployed media -- not simply as a device to hold and transmit information, but as instrumental to the educational message.

Architectonics: The Infancy of Architectural Discourse

Shantanu Bhalla, The Cooper Union

The Irwin S. Chanin School of Architecture's Architectonics studio, the very first course in the school's curriculum, presents a curious instance of creative invention in the pedagogy of architecture. Architectonics, a derivative of the Greek *arkhi* ("chief, first") and *tektōn* (a craftsman, spec. a carpenter), has evolved to suggest a fundamental basis of architecture—a primordial sense of coordinating elements, materials and concepts. While most professional schools compartmentalize this notion into epistemological objectives, the Architectonics studio uses the sensibility of coordination to holistically embody architectonics as "the first steps" toward creative opportunity. By analyzing the work in the Architectonics studio instructed by Elizabeth Diller, from 1983 to 1985, this research reveals a stage of infancy, within the pedagogy of the school, for creatively playing with—bending and extending—established "rules" of the discipline.

The problems presented in the studio, of "the Beam" (Fig 1.), "the Connection" (Fig 2.) and "the Balance" (Fig 3.), investigate the evidence of particular stabilities, and re-evaluate preconceptions of architectural sensibility, reason and utility, while in search for alternative failures and equilibriums. In addressing the coordination of connections, elements emerge and converge collectively along the process of gestaltic transformation from part to whole. The work that manifests from specific moments, such as the sectional drawings of a bow that study dynamism in compression and tension (Fig 1.), or, using counterweight principles to physically build a balance that poses "known" against an "unknown" (Fig 3.), does not produce a utilitarian manifestation, but a potential temporality; an architectural culture of play.

Architecture calls into play disciplinary praxis, trans-discursive theory and fantasy, questioning Huizinga's writing in *Homo Ludens*. While outlining the contribution of play, as an element in art, to culture, he proceeds to assert that "the processes of plastic arts", of which architecture is a part of, he points out, "run completely outside the sphere of play". Across the 20th century—between the role of architecture as an instrument of socio-cultural policy, and its constructive processes—the relationship of play and architecture, shrouded in moral ambiguity, is not addressed often enough. On unpacking the rigorous pedagogical archive maintained by the Irwin S. Chanin School of Architecture, a critical manifestation of this relationship is clearly revealed.

This research insists that the space of radical opportunity in architecture, arbitrated specifically in pedagogy, assumes the nature of Winnicott's "potential space", and Architectonics, introduced to stimulate the coordination of primordial architectural elements from representation to construction, produces work that resembles Winnicott's "transitional objects". Bearing resemblance to the prevalent avant-garde pedagogies of the VKhUTEMAS, the Scuola Di Architettura Organica and the Institute for Architecture and Urban Studies, among others, which stand vividly as playgrounds for creative, radically critical and inventive thinking, the pedagogy of this Architectonics studio, then, serves to establish and locate infancy and play in architectural discourse.

Play in Architectural Pedagogy: Shifting Allegiances And Trading Projects

Malini Srivastava

Mike Christenson, North Dakota State University

Johann Huizinga posits that "First and foremost, then, all play is a voluntary activity." For Huizinga, children need play because it "serves to develop their bodily functions and their powers of selection," but for adults, "play is superfluous." Play for adults is therefore not "ordinary": it allows them to step into a temporary sphere of activity with its own disposition, such that while play is in progress it has "movement, change, alternation, succession, association and separation." Huizinga posits that nearly all higher forms of play have elements of repetition and alternation like the warp and woof of a fabric. Play becomes memorable, and if repeated, tradition.

In our work as instructors in a professional architecture degree program, we each strive to create and foster environments in which students take a stake in a studio's collective outcome. In responding to weaknesses in traditional "group work," we have developed two related but distinct

studio pedagogies which employ forms of play.

The SHIFTING ALLEGIANCES pedagogy begins with a time-limited iteration exercise in response to a playful yet challenging design problem, for example, designing a new skin for the human body. Each student produces approximately 10 sketches, so that within 60-90 minutes, roughly 100-200 ideas are ready. Next, through structured and rapid play (taking turns to move sketches), the students group the work into tentative conceptual categories. Once the choices for categorization are exhausted, students coalesce around ideas based on interest. This process is repeated at least twice during the semester with ideation, exhibition, and categorization, as the projects develop under shared and shifting authorships. Additionally, each student takes leadership of a specific aspect of the project, with other students as support. These leadership roles are traded throughout the semester, and thus every student is simultaneously a leader and assistant for various subject areas. Consequently, allegiances are not tied to people or groups but to ideas based on interest.

In the TRADING PROJECTS pedagogy, every few weeks, a review discussion occurs at which the students exchange projects with each other. While exchange may be systematically managed by the instructor, the students tend to “buy in” more actively when it is structured as a form of play, e. g., when the group acts collectively to assign projects, or when individuals enter into strategic negotiations on a pattern of exchanges. In any case a student should not “inherit” a project which they have previously held. The act of trading projects is intended to invigorate collaborative discussion through play, and to bring about situations in which several individuals have a stake in any given project.

AUTHORSHIP. We have found under both pedagogies that simultaneous individual and cooperative work tends to build more conducive and productive social structures than traditional studio pedagogies. In both pedagogies, as students playfully and deliberately cycle between projects, they also adapt ideas from each other. The resulting issues of authorship prompt us to assess the artifacts produced by individuals throughout the semester as well as the collective efforts of the studio.

The Ghost in the Machine: Integrated Design as a Hidden Tool of Innovation

Damon Caldwell, Louisiana Tech University

“Rules are for the obedience of fools and the guidance of wise men.” – Harry Day

In 2014, the National Architectural Accrediting Board (NAAB) changed its student performance criteria and made a bold statement – integrated design is fundamental to the future of the profession, and therefore needs to be fundamental to architectural education and innovation. Yet in many architectural curricula, integrated design is still marginalized and seen as an impediment to design exploration; relegated to mundane projects, sites, and pedagogies that shift students’ focus away from design innovation and on to simple and straightforward application of standard technical knowledge. The resulting designs “check the boxes” and thus follow the rules, but do little to advance design as a broader process of experimentation with regard to integrating design with technology, assemblies, and systems.

This paper investigates an alternative approach, where design integration becomes a guiding principle; a framework for the design process. NAAB integrated-design and systems requirements are applied to a year-long Master’s project, allowing the time needed for students to achieve technical knowledge embedded in their formal and spatial aspirations. Development of the tectonic aspects happens concurrently with complex design investigation; each used as lens to critique the other. Systems and assemblies are thus platforms for design exploration, and their feedback prevents designs from developing into superficially expressive images, lacking convincing and sustained depth.

Figure 1: Student Project, final rendering and technical section

Critical to the process, each student articulates a personal design statement which establishes the specific design issues they will investigate. This statement is rigorously critiqued to establish

a set of personal guidelines which run concurrent with general architectural rules. All aspects of the design process are tested against their stated standards, investing each student with design authority over the varied building concerns.

Throughout integrated design exploration and development, problems are assessed for potential advantage to the design vision. Architectural knowledge is implemented through experimental iterations of structure, building envelope, landscape, etc. Development progressively increases in scale and detail, with technical examinations always paired with experiential criteria. In the end, students present expansively rendered visions of their design ideas coupled with detailed documentation; the building understood as a multi-polar event, fully realized as complex yet integrated forms and spaces.

Figure 2: Student Project, structure and façade development

Figure 3: Student Project, final rendering and technical section

In the age of the internet and social media, the power of the image can be seductive. By establishing a pedagogy where beauty is holistic instead of skin-deep, understanding the reality of building technology becomes a virtue, a useful tool that enhances architectural intricacy. Technical knowledge regains its importance as process, allowing the conceptual to be made real.

(tongue) TWISTER III

Date: Friday, October 12, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: David Benjamin, Columbia University

For When Shape Falls Flat / Re-Valuing Profile

Jonathan Scelsa, Pratt Institute

John Paul Rysavy, And-Either-Or

Much attention of late has driven the optical reading of a building's overall silhouette from a specific vantage as a means of embedding overall communicative identity through architectural form. The project of "Shape", as casually referred, builds on the 1972 dilemma of figuration, or decoration as raised by Robert Venturi and Denise Scott Brown, calling attention to the communicative potential of the building's overall whole, either in an an-isomorphic sign or its appropriated volume as a sign-object. The formal reading and perception of shape relies on recognition of its legible, familiar outline arising from the gestalt silhouette of primitive geometry as a whole. When broken down to its contour parts, shape gives rise to an alternative formalism of systematic and compound figuration distinguished by the profile.

The project of shape has left the profession with one means of discourse. Pronounced by Robert Somol in what has become an instruction manual for shape objects, "Green Dots 101", a shape—or logo—building arises from consecutive procedures neutralizing the part in preference for the whole: "Turn a single part or component into the whole...Eliminate the articulation of scalar coding of an architectural device...Develop a precise but vague silhouette." Interestingly, the project is often taught and touted within its economic language of construction, unarticulated by complexities of blob-form but rather simple amalgamation of arcs and lines, ironically implicating an proto-profile procedural alphabet.

For Scamozzi, the profile serves as a semantic device, its lines and curves structuring an individual, autographic expression of the architectural whole. By tracing its linguistic etymology, Scamozzi illustrates the word "moulding" (il modono) derives from the root word 'style' (modo), and even 'model' (modello), indicating they are the raw ingredients of expression and type"[1]. In its collectivity the profile of moulding characterizes the spatial, perceptual, and formal order of an architectural object. The practice of profile, as instrumentalized by Scamozzi, focused not merely on repetition of typical line-types but on their means of aggregation and consumption in light and shadow across multiple disparate surfaces and elements embedding the parts of the architecture with character and meaning.

This paper, its presentation, and associated project Profilog Cabin, explore the contemporary relevance of the profile through analogous review of historical precedents and related discourse concerning the profile as the basis of rhetorical form. The paper will re-consider the profile, through both Luigi Moretti's 1951 Spazio essay "The Value of Profile", alongside scholarly work of the Renaissance architects Vincenzo Scamozzi and Jacques-François Blondel, as an point of embedded verbal syntax of the part to whole, capable of linking discontinuous elements through details rather than bind them in an overall gestalt. The project illustrates the contemporary tectonics surrounding pre-cast stock elements, as means of linking space through thoughtfully considered character based expression and syntax.

Go Figure: Between Object and Field

Adam Marcus, California College of the Arts

This paper presents a series of drawing experiments that explore parametric approaches to constructing figures and fields. The work employs procedural design techniques, computational workflows, and conventions of architectural representation to speculate on alternate approaches to

authorship, agency, and autonomy in architecture. It builds upon several years of ongoing research into parametric and robotic drawing techniques that offer new models for melding computational and intuitive decision-making in the design process.

Each series of drawings consists of a grid of two-dimensional figures generated by an initial rule set that is played out in algorithmic sequence to test variations and difference from one iteration to the next. Arraying the iterations in a grid allows one to perceive both individual figural difference and collective understanding of the parameters that produce the field. The project employs various techniques of architectural representation, projection, shading, and linework to test different methods of reinforcing and undermining both figuration and consistency of the field, always seeking an oscillation between the two. The process embraces the unexpected and emergent effects of algorithmic and procedural design, but it also recognizes that the parameters and rule sets are highly subjective, designed, and controlled by the designer.

The work operates across two aesthetic and theoretical discourses currently in tension within the discipline: the field-driven project that is perhaps best articulated in Stan Allen's 1997 essay "From Object to Field," and the more recent engagement with philosophies of Speculative Realism and Object Oriented Ontology (OOO) advocated by thinkers such as Tom Wiscombe, David Ruy, and Mark Foster Gage. The project acknowledges the OOO critique that, two decades in, the so-called "digital project" has reached a point of formal exhaustion, perhaps most evident in the stylistic tropes of Patrik Schumacher's "parametricism": continuous differentiation and endlessly variable fields that we now often associate directly with computational processes. But the work also is suspicious of the sometimes reactionary impulse that underlies much of the OOO work, its tendency to perhaps too quickly reject notions of relational fields and context in favor of the ideological purity of object-buildings.

This paper argues for a synthetic approach that embraces the OOO critique of digital formalism without discarding computational workflows altogether. It suggests a synthetic approach that leverages computation to engage in systems that accommodate both fields and figures, both contingency within relational networks and formal autonomy of the discrete object. The paper describes four series of two-dimensional drawings—"Figures," "Ghosted Figures," "Nested Figures," and "Layered Figures"—to discuss questions of process, authorship, form, part-whole relationship, and visual effect in the construction of architectural form. By focusing on drawing, the research allows for a direct engagement with logics of procedural design and conventions of representation, and a more elemental way to navigate synthetic approaches to computation and intuition.

Playing with Growth Patterns: Merging Biotechnology and Architectural Design to Sense Environmental Toxins

Frank Melendez, City College of New York
Nancy Diniz, Rensselaer Polytechnic Institute

'The living organism represents, or occupies, a field of force which is never simple, and which as a rule is of immense complexity.'
D'Arcy Wentworth Thompson - On Growth and Form.

This architectural research project, titled Artificial Lucidum, conflates principles in biotechnology with computational processes to design responsive architectural devices that augment bodies with biosensors. The biosensors, embedded within a wearable architecture, measure environmental toxins, and convey this data through an augmented reality interface. The project builds upon ongoing research that is predicated on interdisciplinary collaborations within the fields of architecture and biology.

In the spirit of play, a series of rules were established to set up a framework for a variety of growth experiments that explore the patterns, forms, and morphologies of living organisms. E.coli bacteria and slime mold were grown under specific conditions within various parameters, allowing for a set of criteria in which to assess their unruly, natural growth and behavior. The project adapts a bio

inspired form finding method using *Physarum polycephalum*, also known as slime mold, single celled organisms that can aggregate together to produce efficient, multi-cellular spatial structures. This behavior was then studied using agent-based computational design simulations to generate the design of the architectural devices. Spaces within these devices are allocated to grow *E.coli* bacteria, which act as biosensors that detect the presence or absence of environmental toxins, such as ozone UV light levels, heavy metals, and sulfur dioxide. Bacterial biosensors are created by DNA cloning technology followed by bacterial transformation. DNA cloning allows producing a specific protein by expressing specific genes at high levels in *E.coli*. For example, genes coding for fluorescent proteins like the green fluorescent protein (GFP) can be used as a reporter gene under the control of inducible promoter, resulting in a bio-flourescent effect. The embedded, living *E.coli* bacteria, which have very specific nutrient needs, rapid reproduction rate, and very short life cycle, make them an ideal source of pollution assessment as part of a wearable biosensor. Using augmented reality, the environmental toxins are visualized as quantitative data through a mobile phone app interface. Through the use of these architectural devices, users can understand the invisible, ephemeral aspects of the specified pollutants that are present in their surrounding environment. The project evokes a response to designing the relationship between bodies, and the spatial atmospheric conditions that surround them. The research expands upon concepts related to autopoiesis, by exploring the potentials of feedback within architecture, and a shift from static structures, to dynamic, living systems.

Keywords:

Biotechnology, bio-sensing, responsive, environment, bodies, organisms, bacteria, slime mold, growth, patterns, form

LIFE (style) III

Date: Friday, October 12, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: Jennifer Newsom, University of Minnesota

Sold Out

Gregory Corso, Syracuse University

Molly Hunker, Syracuse University

The name of the authors who constructed this project and subsequent abstract has been redacted and replaced with XXX

This paper looks at how buildings and design work realistically exist in the world for many young practitioners - as a breadth of curated and consumable representations. The age of consumption has asked a lot of the production of architecture, but now the image of the architectural project has less and less purchase as the saturation of visuals becomes significantly greater with every new technology and media stream. However, if we look beyond the proliferation of the image (blogs, books, social media), consumer artifacts are conduits for the dissemination and presentation of architectural work, perhaps more extensively than the actual objects or buildings themselves. What may have existed as an earlier financial model for young architecture offices where original drawings were sold to support practice (e.g. Max Protetch Gallery), the contemporary landscape asks for more accessible artifacts and expedient modes of procurement. From starchitect museums turned t-shirts, to building landmarks turned kids puzzle, the architectural project already exists strongly in the consumer space. Can this latent thread of production be successfully appropriated by the architectural studio?

This paper explores alternative modes of production, representation, and dissemination for young architecture practices through the lens of a recent exhibition of the authors' entitled "XXX, the store". The exhibition was a functioning gift shop consisting of a selection of custom consumer goods (t-shirts, totes, toys, etc) that were representations (merchandise) of XXX's built and unbuilt work. The exhibition was a speculation on how practices can leverage the contemporary cultural phenomenon of mass consumption to augment the trajectory of their practice and generate real traction through a consumeristic Trojan horse. The paper intends to show how the insular nature of current architectural representation can be challenged with alternative modes of communication and production to reach a larger, more general audience - and more importantly, a greater appreciation.

The Architecture Exhibition as an Environment for a Radical Redesign of the Discipline

Charlott Greub, North Dakota State University

The rise and professionalization, around the 1960s, of the figure of the "curator" marked an important point in the configuration of an exhibition's authorship and process, restaging or reframing of art and architecture exhibitions, and questioning processes of instruction versus creation. Such broader shifts in architecture exhibition practices coincided with the emergence of exhibitions conceived as, or concerned with, environments. For example, the work of the Belgian architects' collective Rotor represents a new kind of emerging practice in architecture, in which various disciplines are combined: from research, curating and exhibition making to material studies and re-use strategies. Rotor made its frame with their installation "Usus/Usures" at the Belgian Pavilion during the Venice Biennale of 2010. "Usus/Usures" was entirely made up from salvaged building components, which are usually overlooked and treated as waste, such as carpet, stairs, railings etc. These elements were exhibited in an isolated manner as to draw closer attention to their own intrinsic qualities, despite, or perhaps exactly because of their anonymous and ordinary appearance, and because of the traces of wear and tear caused by everyday use. Through minimal

in its appearance, the exhibition resulted from Rotor's research into and analysis of the use and wear of buildings and building materials.

From thereon Rotor continued its critical investigations in sustainability issues in architecture by curating and designing various exhibitions, including the Oslo Triennale 2013 "Behind the green door" and the 2016 exhibition "Constellations" in Bordeaux.

Rotor uses the spaces of the art world (museum, galleries, Biennale) as realms for political commentary that are critical of the current global economic regime as a cause on the disparity of the built environment. The work of Rotor displays a valuable understanding of the designer's role in society, the material world and the environment. And by directly addressing or challenging the architectural dimension on the notion of environment, the exhibitions suggested new terms on which architecture and design could be practiced, prepared and presented. Architecture is no longer just the object of the exhibition. Instead, the exhibition itself has emerged as an important site for reframing and representing the discipline of architecture.

This presentation interrogates the radicalization of creative practices in relation to the architecture exhibition as an environment and discusses the strategy of appropriation by analyzing two artistic interventions as case studies. Two curated and designed architecture exhibitions by Rotor, first *Usus/Usures*, presented at the Belgium Pavilion at the 2010 Venice Biennale and second *Behind the green door* at the Oslo Triennale 2013 will be analyzed and discussed with reference to statements by the authors in order to explore the nature of critical practice when associated with the architecture exhibition as realm for alternative/radical practices in the discipline.

The Mobile CoLaboratory

Shannon Criss, University of Kansas
Nils Gore, University of Kansas

How can architects forge new paths to practice? Is it possible to use the university as a space that disrupts practice as we know it? In responding to a university strategic initiative to "engage local, state, national and global communities as partners in scholarly activities that have direct public impact" we saw this as an opportunity to build new interdisciplinary relationships in tandem with community groups. A feature of academic research (like any specialized endeavor—such as architectural practice) is that we specialize and focus our research in particular areas. This expertise is valuable, but also limiting in that we can isolate ourselves from each other in our "ivory towers" (from everyday life and from each other's disciplines.). Our individual areas of expertise are often isolated and not optimized for relevance in a world where net-working, relationships and connections are signs of a healthy, thriving society. Academia is at risk to become marginalized; the 'real world' has much to teach us if we can make the opportunity to connect. And, ultimately, there's a lot that we could share and test—ultimately providing alternate ways of thinking and implementing ideas in real places, the alternative values and working methods are developed on the boundaries where the work engages the community.

To explore an alternative practice, we have renovated a vintage 1973 Airstream trailer as a mobile (co)laboratory to make field, engagement work possible in places that it hasn't existed before. It was born out of recognition that there are many faculty and staff on campus whose work is firmly embedded in community issues – from design and urban planning, to public administration, to public health and clinical child psychology—in close cooperation and reciprocal collaboration with community partners in its place of consideration. As a mobile laboratory it was conceived to be inserted into communities to inspire events and collaborative ideas for community design and new ways of thinking about and exercising a healthy community life. The project aims to develop methods and spaces to foster one-on-one collaborative, interactive planning and design to imagine publicly-shared spaces that foster positive community life, promote engagement through art and culture and foster healthy lifestyles in communities.

Creating a neutral, mobile, on-location space has allowed for a whole new level of engagement and productive research to take shape. By having the "problem" lead the discussion, alternative partnerships have been formed, leading to different teams and joint-methodologies. Participatory

design is important because designers, academics and professionals may develop innovative ideas, but their solutions often miss key social needs and insights if communities are not directly involved. This presentation will share the process of making this tool, share some of the new relationships that have resulted, how the tool has adapted to new partnerships needs through time and how this is changing the nature of our practice.

MONOPOLY (poly-opoly) III

Date: Friday, October 12, 2018

Time: 2:30:00 PM - 4:00:00 PM

Disrupter: James Graham, Columbia University

A New Gilded Age: From Gilded Landscapes to Ecological Guilds

Leonard D. Yui, Roger Williams University

The Gilded Age foreshadowed two kinds contemporary landscapes that are ecologically problematic. The first are the productive but contaminated industrial sites, like mining, that fueled the rapid expansion of industrialization. The second are the consumer-based leisure estates owned by beneficiaries of industrialization, of which many are now challenged by climate change and sea level rise. The former offers clear ecological responses, such as to remediate or remove pollutants, but the latter - the playscapes for the privileged - present more complicated ecological responses due to their cultural heritage.

The following will focus on the redesign of the water's edge at Blithewold Gardens and Estate, a prominent residence created during the height of the Gilded Age in Bristol, Rhode Island that is now open to the public. One of its most important assets is its expansive lawn that seems to touch the Narragansett bay water when viewed from the mansion's patio. Yet, the erosion of this piece de resistance by sea level rise and ecological succession are indicative of larger climate change issues that threaten the preservation of these places all over New England. How does a designer preserve heritage while including more ecological processes?

The primary rules for this project are set forth by two opposing entities. The first is the coastal commission of Rhode Island (CRMC) which regulates in general 200 feet inland from any coastal features. The second set of boundaries comes from the client (Blithewold) which shares a strong desire to maintain historical continuity to use the water's edge and as a result enrich the site with more programmatic uses. The conflict arises from regulations requiring protection of coastal edges from humans and the other with the insistence to include more humans. In addition each kind of requirement is not suggestive of comparable problems. For example, coastal regulations do not consider programmatic needs in their ecological evaluations and the client is not incentivized to retract any land or revetment that has been grandfathered into the system. However, it is in this dissonance that both parties understand there is room for play and negotiation.

This project responds to these issues by considering the biological communities called "ecological guilds" that are part of or missing from the site. Guilds are defined as "a group of species that exploit the same class of environmental resources in a similar way." The intermixing of communities such as plant and avian with human species offer a relatable way to consider more holistic ecological design opportunities.

These extreme examples of leisure landscapes may seem benign, but they represent the everyday cultural landscapes that in aggregation are the bulk of today's ecological problems. A project from the Gilded Age does not hide the nature of what wants to be preserved in these landscapes - that they are consumptive and for leisure - and therefore design outcomes have a possibility to share a more honest way to create a new more inclusive Gilded Age.

An Interactive Approach to Planning for Informal Urbanisms

Trevor Ryan Patt, Singapore University of Technology and Design

China's strict division of land into either rural or urban classification based on legal, rather than descriptive, categories governs the property ownership model, development potential, and migration prospects of the land.¹ When urban growth has expended to the surrounding region and villages have become engulfed by the city, they have not been incorporated into the metropolitan

region but become enclaves of rural land, heterotopias separate from the metropolitan planning authority and still held in collective ownership by the village. While agricultural prospects are no longer viable, these villages-in-the-city provide a valuable function in providing rental housing for migrant workers who may be restricted from relocating to 'urban' classed areas. This housing is informally developed to maximize rental income without any coordination at the planning scale (and usually minimal consideration for light access, privacy, or public space). Villages in the city are regularly designated for redevelopment which, despite the increased negotiating strength of villagers, typically involves the displacement of residents and complete demolition of the village structures.²

This research project proposes an interactive platform for rethinking the approach to village in the city redevelopment as a dynamic process. As opposed to a totalizing masterplan, the model instead suggests incremental changes that can engage with the existing village metabolism such as introducing small setbacks to new construction to open up pedestrian links that mitigate the labyrinth of dead-end alleyways, inserting pocket parks into unusable parcels, or coordinating building heights to better ensure access to light and air. Agreeing to these suggestions can be incentivized by the municipal authorities by conceding more allowable floor area, investing in infrastructure like shared lifts, or sponsoring material exchanges (already there is a practice of bricks from demolished structures being salvaged for re-use in infill in new, taller concrete frame structures). The significant aspect of this platform is that these proposals can be automatically generated by a computational analysis and that, because they are fundamentally punctual interventions, they do not disrupt other ongoing informal activity. The combination of dynamic modelling and a limited, 'myopic' multiagent analysis makes this model robust to the kind of irregularities in informal development that cause problems for conventional masterplans. In this way the project can introduce some planning guidelines while also respecting the villagers' self-determination, they can play along, each in their own way—accepting proposals, rejecting them, or just going their own way.

1) Daquan Huang et al., "How Do Differences in Land Ownership Types in China Affect Land Development? A Case from Beijing," *Sustainability* 9, no. 123 (2017).

2) Yanliu Lin and Bruno De Meulder, "A Conceptual Framework for the Strategic Urban Project Approach for the Sustainable Redevelopment of 'Villages in the City' in Guangzhou," *Habitat International* 36, no. 3 (2012): 380–87.

Tan and Schoon, "Villagers' Participation in Mega-Urban Upgrading. Liede Village: Guangzhou's Pioneer." in: Altrock U., Schoon S. (eds) *Maturing Megacities. Advances in Asian Human-Environmental Research.*(2014).

Challenges and Possibilities in the Making of Modern Middle Eastern Oil Cities: J.M. Wilson's Strategic Architecture and Design

Leila Saboori, University of Wisconsin-Milwaukee

The large scale consumption of oil as a source of energy had profound consequences for urbanization and globalization in the 20th century. Oil, as the most precious natural resource, was the target of imperial powers and played a central role in the modern history of the Middle East. Spurred on by the discovery of large quantities of oil in Masjed-Soleyman in 1908 by the D'Arcy Concession, southwestern Iran witnessed an exponential growth in industrial and urban infrastructure. Soon after this, the Anglo Persian Oil Company (APOC) was founded in London, and by 1911, a pipeline distributed oil from wells to island of Abadan where the primary refinery was erected. Within a span of 50 years subsequent to these discoveries, Abadan developed from a village of a few hundred fishermen and farmers to a city of almost a quarter of a million people, the largest in the Persian Gulf region, becoming one of Iran's major modern urban centers. Located at the intersection of oil and space, this paper highlights the role of oil as the key agent of landscape change. Using Abadan in Iran and Ahmadi in Kuwait as case studies, it examines the establishment and development of the oil industry during the first half of the twentieth century and the impact of the British-owned oil company in reforming the traditional urban morphologies of the region. More specifically, this paper evaluates the grafting of Western urban planning models and architectural styles onto local models of development. Debates over space, politics and everyday life collided with the modernization of these oil cities. As commodities were extracted from below the ground,

the landscape above ground reflected the spatial and social segregation of endemic to colonization. A particular focus has been put on the role of the company's Scottish architect, James Mollison (J.M.) Wilson, in redefining the architecture and planning of the region. Wilson's planning and architectural approach in Abadan and Ahmadi followed the Sir Edwin Lutyens's Hampstead Garden Suburb, which was inspired by the Ebenezer Howard's original Garden City idea.

Sidewalk Skirmish

Therese Kelly

Take a jaunt around the Monopoly board properties and you will find not a single public park, sidewalk, plaza, or even public transportation system. Marvin Gardens and Park Place may sound like public spaces, but they're private, and they can be developed quite lucratively. The only truly public property on the board is the jail. And then there's the "free parking" space. Cities have developed and transformed in many ways since the Monopoly board was first designed in 1934, and yet, with its emphasis on private property ownership and the subsidization of space for automobiles, this game lays bare contemporary assumptions about urban spaces that still plague the city of today.

Who owns the ground? Specifically, who has a right to the sidewalk? Take an actual stroll around Downtown Los Angeles' financial district, or Midtown Manhattan, and you will find brass plaques embedded in the sidewalk paving warning, "Right to pass by permission of owner." Midcentury zoning regulations conceived of by well-intentioned city makers, tasked private developers with building the public realm. The resultant open spaces occupy a disjointed, liminal zone between public and private, leaving the adjacent sidewalk a disconcerting place of unease, unclear ownership, and arbitrary regulation.

Today, sidewalks around the country are again a renewed space of contested territoriality with the explosion of alternative transportation methods such as dockless bikes and scooters. At issue is the civic life of the commons. The very business model of these new transport technologies relies on their appropriation of the commons for private means. Cities are struggling to keep up with these new "disrupters," ordering temporary regulations (Santa Monica) and filing cease and desist lawsuits (San Francisco) against the start up companies.

The sidewalk has been always been the sacred place of the pedestrian. And walking is arguably the one mode of transport that is free and accessible to all. Before today's "disrupters," there were the Situationists. They used a different term – "détournment," to describe their devaluation and reassembly of the status quo. Through their Parisian *dérives*, they argued against urban development's "capitalist domestication of space."

By paying for a hop on these scooters, and allowing themselves to be tracked and monitored, users of these new technologies allow themselves to be elevated to the level of commodity. Rather than disrupting the capitalist domestication of space, they turn the very act of using the sidewalk into a transaction.

Perhaps, instead, the user of today's dockless scooter is more equivalent to a modern flaneur, reliant on the crowd but always separate, using the city streets for his own purpose. As Benjamin writes in "On Some Motifs in Baudelaire,"

There was the pedestrian who would let himself be jostled by the crowd, but there was also the flaneur who demanded elbow room and was unwilling to forgo the life of a gentleman of leisure. Let the many attend to their daily affairs; the man of leisure can indulge in the perambulations of the flaneur only if as such he is already out of place."

(tactical) OPERATION IV

Date: Friday, October 12, 2018

Time: 4:30 PM - 6:00 PM

Disrupter: Jose Arnaud-Bello

Beyond the Capitalization of Life: Modernism's Interior Environments of Health & the New Natures of Habitation

Ryan Ludwig, University of Cincinnati

Within the newly emerging context of the Anthropocene / Capitalocene Architecture must be reconceptualized as a constructed environmental localization – a new 'nature of habitation.' As the indispensable product of man's unwillingness to accept the external environment around him/her, it is the synthesis of art and technics towards the sustainment of the human organism now, and in the future.

This paper defines these new natures not simply as definitive physical objects we choose to occupy, but rather as the set of dynamic overlapping material, biological, ecological, atmospheric, climatic and social systems with which we endlessly engage. It raises the possibility for the synthesis of the human inhabitant with his/her 'constructed' environment(s), to undermine and/or overcome the current global neoliberal economic conditions that have resulted in the overwhelming capitalization of life. This approach requires a reimagining of architecture's values towards a more stimulating, more engaging project, one that is physiologically, psychologically and affectively sensitive. Not a path of reform, but of resistance against the need to engage such systems of capitalization in the first place. The potential is for a movement towards a healthier, more meaningful state of Being-in-the-world-ecology as described by the environmental historian Jason Moore – a state that architecture conceived of as a new 'nature of habitation' may readily influence.

To make this argument the paper first examines a select history of Modernist spaces of health and healing, citing the explicit desire to counteract disease and promote wellbeing through architectural intervention as observed in projects by H.H. Richardson, Aalto, Breuer, Duiker, Schindler, Neutra and Le Corbusier.

The current healthcare trend of an evidence-based approach to design is then discussed, prompting the question of what constitutes individual health among such a range of potential users? And how premediated or unconscious bias might impact one's ability to effectively evaluate success. While incorporating a more rigorous empirical method for evaluating the 'performance' of interior spaces, this evidence-based approach is regarded as an expansion of the previous Modernist conception considering inhabitants by way of a human ideal, a standardization of the human body. In contrast to this conception of the health of human beings, Günther Feuerstein's 1960 proposal for "impractical flats" will be discussed. This project conceived of the apartment as a series of tortuous obstacles to be endured, rejecting the mechanized world and all its supposed comforts. More recent works by Arakawa + Gins and Philippe Rahm are cited as contemporary corollaries of this approach.

In conclusion, the paper briefly examines the work of Harvard psychologist Ellen Langer who has advocated for a more mindful approach to interacting with one's physical environment, intent on instigating active engagement and awareness leading to greater health. The historical context of her psychological work on 'mindfulness' is examined, with considerable attention given to her 1979 experiment 'Counterclockwise' showing the positive impact of a specifically altered physical environment of habitation upon the physiological, mental and psychic health of elderly participants.

Hybrid Practices: Risk and Reward Within the Evolving Landscape of Cross-Laminated Timber Utilization

Edward Becker, Virginia Tech

Novel building technologies spur new opportunities economically, environmentally, and professionally with cross-laminated timber (CLT) being no exception. CLT is impacting the disciplinary landscape of architecture, development, and construction in the United States through its alignment with the multi-disciplinary goals of rapid, accurate construction and low-carbon built environments, among other benefits. Additionally, the entrepreneurial space opened by the technology is diversifying traditional disciplinary roles. This diversification may be best evidenced by the start-up construction company Katerra. The company has expanded beyond construction into architecture, development, and also CLT panel manufacturing and wood sourcing; the company recently announcing a staggering \$865 million funding round to support new CLT production plants and other company infrastructure. As government entities continue to provide incentive support for CLT utilization, companies such as Katerra will hybridize beyond traditional disciplinary roles to acquire agency and find the financial fruits associated with such risks. Will architectural practices follow this model? And what opportunities to do so currently exist?

With updated building codes to support multi-story CLT construction, state tax incentives to support CLT manufacturing, and private companies such as Katerra acquiring funding external to traditional forestry sources, this proposal explores the rapidly changing landscape of mass timber utilization in the United States – as spurred by the catalyzing effects of CLT – and provides a disciplinary roadmap for architects. This roadmap will illustrate the opportunities, hurdles, and quandaries architects face as architectural practices determine whether or not to engage in the newfound entrepreneurial space of CLT. As entrepreneurial opportunities arise related to local timber sourcing, local CLT manufacturing, and evolving prefabrication and design-build methods, how do architects define risk in such a changing context and how does the discipline relate to the all-important phrase “completing the cycle?”

The recognized rewards of ‘completing the cycle’ are as follows: (1) local, low-value forest products are upcycled into high-value building products such as CLT for local buildings, thus stimulating local economies; (2) local, catalyzed economies then build more buildings with local forest products and increase exports to urban areas, all while keeping carbon emissions low and providing new jobs for low-skill workers. Because ‘completing the cycle’ is an economic objective of various US states, Washington and Oregon in particular, financial opportunity is created that follows government incentives. This in turn opens entrepreneurial space for architects as they select CLT as a building material, soon after facing the widespread challenges of CLT panel sourcing or manufacture and a lack of knowledge about the material generally. The risks of utilizing a new material, particularly a structural one, are also present.

Through first-hand logistical, financial, and architectural design experiences related to CLT, the author’s ‘roadmap’ will explore the evolving landscape of cross-laminated timber utilization in the United States and the conceptualization of risk relative to new materials. The author will frame these items through idea of a hybrid practice – and what that might entail – as well as the opportunities afforded by distributed fabrication networks and architecture’s own discipline-specific knowledge base.

The Language of Traditional Architecture in Contemporary Ghanaian Architectural Practice

Dahlia Nduom, Howard University

Traditional African architecture has long been a source of fascination for many researchers, architects and historians. This fascination has resulted in studies of fractal geometry, inherent in indigenous design (Eglash 1999) and numerous recordings of traditional architecture in books, journal articles and museums around the world.

The traditional architecture of the Akan people in Ghana has also been widely documented. Evident in the architecture is a play of materials which relate to climate and method of construction, which have cultural and formal implications. There is also a complexity in the use of signs and symbols for 2D decorative motif and 3D relief on the surfaces of buildings. These Adinkra symbols each have a specific meaning and are widely used in a playful manner on clothes, furniture and architecture throughout the country. When used on buildings these symbols become an extension of the design language communicating a specific message to the user. The traditional architecture of the Akan people also relates to cultural notions of space as seen in the many compound homes throughout the country.

While these traditional and cultural practices have been documented, there is a void in terms of understanding how the rules inherent in these traditional architectural practices of the Akan people of Ghana can be used as a basis for experimentation and development of a contemporary architectural language. Many architects in the country have struggled with how to reference these cultural and traditional architectural practices while embracing a contemporary design aesthetic, often relying on a superficial application of decorative motifs.

The research presented in this paper aims to fill this void by analyzing traditional methods of construction, the use of Adinkra symbols in 2-dimensional and 3-dimensional applications and the translation from the analogue to the digital. This research analyzes traditional architectural practices and questions how a contemporary design language could be developed with an impact on formal strategies for architecture in Ghana. Key questions explored in the research include; what is the relationship between the analogue/ traditional language and contemporary/ digital realizations? What is the role of technology in translating these relationships into an architecture that is contemporary yet references these cultural and traditional elements? How is the architectural design and language created from these experiments reminiscent of the traditional or analogue original? How can an analysis of these traditional 'rules' lead to playful experimentation while honoring cultural traditions?

The paper explores these questions by presenting ongoing work done by the author which tests strategies studying how the traditional and cultural Architectural language of the Akan people in Ghana could translate to or inform a contemporary language for the design of various typologies in the country. This research adds to the growing body of work and interest in African architecture and proposes solutions to incorporating the language of traditional architecture in contemporary Ghanaian architectural practice.

The Softest Power

Fionn Byrne, University of British Columbia

An ongoing preoccupation of the profession of landscape architecture has been the design of nature to improve the well-being and mental health of urban dwellers. This focus was a primary tenet of Frederick Law Olmsted, and while for Olmsted, much of the belief in the healing powers of nature was conjecture, today there is a large and growing body of evidence that shows that environmental factors play a key role in treating, maintaining and improving overall human health. Whether physical or visual, exposure to nature has been demonstrated to alter mental states through reducing stress, restoring attention, and improving emotional connection to place, to name only a few mechanisms recognized in the scientific literature.

Accepting that differences in environment correspond to differences in human health, it is understood that landscape architects, through the design and improvement of spaces of nature, act to positively shape physical and mental states. Indeed, it is critical to the profession of landscape architecture to make a strong assertion that how nature is designed, and consequently perceived, matters, for if there was no measurable difference between the health impacts of a self-generating nature and the work of the trained landscape architect, then design services would be far less necessary. This being the case, the landscape architect is responsible for shaping environments which aim to have a controlled, predictable and measurable impact on the mental health and well-being of the public. This paper extends the trajectory of this argument, asking, what if any, is the professions obligation to contribute design expertise to sites facing the combined challenges of a

significant depression of human health and the loss of nature.

Afghanistan serves as a test site for this provocation, where years of conflict have left this once densely treed nation with one of the lowest percentages of forest coverage in the world. In this post-conflict environment, the American taxpayers have already been funding a Military reforestation campaign through the well-supported Commander's Emergency Response Program. To date, a variety of scales of tree plantings have been undertaken by the military with little design interest. Yet following Olmsted, it is recognized that an increase in tree coverage, as an analog for an improved nature, can positively impact perceptions of a local environment and consequently the mental and emotional health of local citizenry. Thus, for the American Military, the design of nature presents itself as a cost-effective tool for large scale environmental and attendant community wide psychological modification, with benefits increasing through time as plants mature. Landscape design is then well within the doctrine of "soft power" and show strong potential to contribute to the winning of "hearts and minds." Yet this conclusion, for many, will uncomfortably set questions of environmental and social justice at odds. Whether in Afghanistan, or returning to Olmsted and working domestically, this paper asks: while designing to restore mental health and well-being, do we not also have the obligation to comment on the political structures in place which perpetuate this suffering and inequality?

(tongue) TWISTER IV

Date: Friday, October 12, 2018

Time: 4:30 PM - 6:00 PM

Disrupter: David Benjamin, Columbia University

Balancing Act: Techniques and Technologies for Managing Multiple-Objective Problems in a Comprehensive Studio Context

David Newton, University of Nebraska-Lincoln

The architectural design process involves balancing multiple quantitative and qualitative objectives, understanding the trade-offs between these objectives, and dynamically reprioritizing them when the goals of the project inevitably change. The design process can therefore be understood as a multi-objective problem (MOP), and sometimes as a dynamic MOP (DMOP). Failing at this balancing act can lead to cost overruns, under-performing buildings, and injury. Therefore, educating students of architecture to manage the trade-offs between competing objectives is crucial. In North American Universities, the comprehensive studio represents an important moment in the curriculum where balancing objectives takes on new levels of difficulty. How can educators effectively teach students to manage MOPs and DMOPs within a comprehensive studio context? How can design exploration be promoted within the constraints of a comprehensive studio? Can technology play a role?

Traditional pedagogical approaches to comprehensive studio have emphasized the application of factual and procedural knowledge, while focusing less on knowledge involving models and theories of the design process itself (e.g., conceptual and metacognitive knowledge). This type of strategic thinking, however, is crucial for managing the complexity of a comprehensive design problem because it can provide frameworks to breakdown the complexity of design problems and promote a critical reflection on the steps necessary to solve those problems. Exposing students to conceptual and heuristic models that deal specifically with MOPs and DMOPs can therefore improve student success.

Dynamic multi-objective optimization (DMOO) is an emerging area of research in the fields of computer science and optimization that offers a rigorous conceptual framework by which to better understand MOPs and DMOPs. It also provides methods to find optimal design solutions as well as methods for the comparative analysis of those solutions and their trade-offs. These methods, however, are often biased towards the goals of optimization with less of an emphasis on exploration. A cut-and-paste application of DMOO, therefore, might not be efficacious for architectural design. This research investigates how DMOO frameworks and tools can be adapted and integrated into a comprehensive studio curriculum and assesses their value through their application in a senior comprehensive studio at the University of Nebraska-Lincoln's College of Architecture in the Spring 2018 term.

This conceptual framework was coupled with a unique DMOO design tool developed by the author that emphasizes exploration and is capable of simultaneously optimizing quantitative and qualitative objectives. The tool was used by each student at the building and detail scale throughout the term to explore optimal design solutions in relation to balancing structural, daylighting, programmatic, and aesthetic objectives. The student design outcomes and user experience from the term are analyzed in this work and used to demonstrate the advantages and disadvantages of this approach. In addition, this research contributes valuable methods that educators should consider when integrating MOO and DMOO into a comprehensive studio curriculum.

Playing with Geometry and Physics: Designing and Constructing Ultra-Thin Shells

Clare Olsen, California Polytechnic State University

Edmond Saliklis, California Polytechnic State University

The thinnest concrete shell ever designed and built by pioneering engineer-architect Felix Candela, the Cosmic Rays Laboratory, was a mere 5/8". Using hyperbolic paraboloid geometry with extreme efficiency, the resulting compression-only form made concrete appear almost paper-thin. Cosmic Rays is a structural dare-devil's favorite game—How thin can concrete go and still stand up?

As this canonical work demonstrates, shell structures are fertile (play)grounds for design. Three iterations of an interdisciplinary architecture-engineering design studio asked the same daring question, and student teams of four or five designed, analyzed and constructed a play-house size model of their shells in just 10 weeks. Given the tight schedule and limits of shells, there were numerous constraints at play. Teams were given the choice of sites/programs in four cities around the world, all with high risk of lateral movement. The options included a spa in Japan, a museum in Miami, a skate park in Madrid or a pub in Portland. The program complexity and scale, about 10,000 s.f., required interior partitions, which are not intrinsic in the context of shell structures. Large sites and programs made form-finding at once playful and challenging.

In the pursuit of ultra-thinness, students were required to develop funicular-based, compression-only shells. Using contemporary, game-changing modeling and analyses software, play was made light and easy using physics-based digital form-finding with Kangaroo, enabling the rational efficiency of Candela's Cosmic Rays, but with funky forms. "Anchor points" were placed according to plan ideas and degree of openness desired—the more points at which the shell was anchored to the ground, the more enclosed the shell became. Finite element analyses of dead and lateral loads and time-history lateral response enabled refinements in form until all team members were comfortable with the designs.

The shell forms were resolved in four weeks after which students developed low- and medium-tech strategies for construction. A construction scheme was designed for the full-scale shell at the chosen site, and an analogous construction scheme was developed for a play-house sized model built on campus. In the end, the students won: the learning curve was extreme, but the resulting shells structures provided palatable lessons about team work, form-efficient geometry and the best goopy-consistencies for concrete. The triangulation of design, analysis and construction proved critical for understanding form-efficient structure, and performing these varied steps made learning comprehensive, but perhaps more importantly, fun for all involved.

Please note: In order to show an example of design, analysis and construction, only one project is shown in the graphic attachment; however, numerous exciting projects will be shown if selected.

Poker as a Design Analog

Eric J. Jenkins, Catholic University of America

Poker as a Design Analog or
Everything I wanted to know about architecture I learned playing Texas Hold'em

"A card laid is a card played."
Søren Kierkegaard, Søren Kierkegaard's Journals and Papers

"In poker, you don't get paid to win, you get paid to make the right decisions."
Mike Caro, Caro's Fundamental Secrets of Winning Poker

"Life is not always a matter of holding good cards, but sometimes, playing a poor hand well."
Jack London

Well-designed games share much with architectural design and playing them can assist in design

education and modeling them can help enhance teaching methodologies. In this paper I will posit that when teaching architectural design -- helping a student develop design thinking and problem solving abilities, introducing collaborative skills and inculcating pecuniary value--it is necessary to engage in design analogs. One such design analog is adapting game theory and counterfactual regret minimization found in the card game Poker.

One definition of a well-designed game, and perhaps its resilience, is one in which the experienced player can discover new levels of understanding yet, at the same time, the novice player can comprehend and, the times, even win the game. The card game Poker is one such game and is, arguably, an analog to architectural design thinking that is effective in design education: players engage in systematic, strategic and risk-laden actions with what has been and what has yet to be given or dealt and, even at its most cutthroat, is a social and collaborative exchange. Using a reflection-action process at specific decision points, its clear set of rules and the game pieces gives rise to unanticipated play and conclusions: the game is simple, not simplistic; complex, not complicated.

Studies in game theory suggest that Poker and other similar skill-based, strategic games provide frameworks in which students begin to understand risk management, distributed cognition, decision making, psychology, self-assessment and most important, socialization. Kevin Desmond, professor of MIT course Poker Theory and Analytics, argues that poker transfers especially well into situations where there is “decision making with incomplete information, reading the actions of others and begin being comfortable with self-assessment” (MIT 15.S50 Poker Theory and Analytics).

Architectural practice is inherently complex requiring both procedural and factual knowledge in complex, ever changing contexts developed through collaborative effort. How to best prepare young students for this complexity remains the fundamental question of architectural education. One method is engaging in multiple analog studies that introduce and develop a student’s problem solving, collaborative and coping abilities. By studying game theory and playing games, specifically, poker, a student engages tacitly in the design thinking and design methodology of contemporary praxis.

Punning as Process

Sarah Hirschman, University of California, Berkeley

This paper reports on a recently opened exhibition of experiments into using syntactical arguments in design to investigate the double-faced quality of puns in language. _____ presents an exaggerated environment, a space of mixed metaphors and misaligned referents. Using the techniques of comedy and improvisation as alibi, it deliberately confuses scale, material, and identity in an effort to recontextualize the architectural exhibition as a productive contrivance. Rather than models or drawings to be observed with distance, the show presents models and drawings that are inhabitable and whose status is confusing, fluctuating between referents just as the pun does. Embracing the “yes, and...” improv philosophy, _____ offers a collection of experiments into repetition, representation, and reference. The pun is a doubling of meaning, a layering on of content, communicating within communication. _____ proposes a new way of approaching quotation that makes use of humor structure. The layering of meaning present in wordplay is used to choreograph architectural effects.

In the studio environment, students are encouraged to establish priorities, to identify specific effects or conditions that they aim to enable with their designs, and to constantly test their proposals against these goals. Popular choices are openness, disorientation, distortion of perspective and visual layering or revealing of information - all specifically spatial conundrums. Visceral, reflexive responses to architecture are generally off the table. The way that humor and comedy work aren’t extremely well understood - there are a number of compelling but competing theories about the social, emotional, and cultural place of humor. Laughter, though, has an appreciable, measurable effect. It is a response, a reaction, a symptom of something. This investigation is interested in that something, and in particular how architecture might begin to play with it for the express purpose of producing laughter.

The projects collected in _____ dig into this new question, send out feelers on the many fronts of linguistics, comedy performance, precedent, and humor theory to develop parameters around how architects might begin to talk about funny things in a serious way to reveal a new type of spatial experience. Humor can be a pedagogical as well as a formal tool. Humor is not considered “serious,” but it produces some of the most meaningful social and cultural connections. What if taking jokes seriously and mapping out the ways that linguistic, cultural, and visual cues affect our understanding of a situation revealed another way to experience space, to engage with an urban context, or to develop design strategies? This paper will outline propositions for a new design theory of humor, in particular in how the structure of the pun might be leveraged for the communication of architectural ideas, drawing conclusions from the experiments presented in _____.

CANDY LAND (scape) I

Date: Friday, October 12, 2018

Time: 4:00 PM - 6:30 PM

Disrupter: Antonio Torres, University of Illinois at Chicago

Charles Moore's Watermelon Pyramid: Playing with Scale, Function, and Symbolism

Lori Smithey, University of Michigan

The postmodern architect Charles W. Moore (1925-1993) is well known for his work in supergraphics, a low cost technique of applying large-scaled geometric designs in bright colors to interior spaces creating dynamic spatial effects. Less studied within the architect's oeuvre is the migration of this graphic approach to three-dimensional objects that cannot be easily qualified as a room, a piece of furniture, or an architectural model, but rather answers to all three. In particular this paper examines Moore's plywood pyramid that, on the second floor of his Centerbrook home, stood simultaneously as a scaled model of an ancient monument, an oversized dollhouse, a modestly scaled bachelor bedroom, and a symbol of US currency, all while being painted to look like a watermelon. It's indeterminate scale, function, and symbolism together raise questions about the construction of age, race, and gender in the domestic interior – suggesting that Moore's playful work is not simply staging an aesthetic escape, but rather tethering design to a material world of social practices. In moving from the formal problem of a house within a house at his earlier home in Orinda, CA (1962) to the social and historical problem of worlds within worlds at Centerbrook (1969) we can see pulses of the sociological and ecological currents emerging in architecture in the 1960s and 70s, yet here played out within the domestic interior rather than an overtly heroic polemic set on the urban stage of bionetworks. In a 1975 lecture at Tulane University, Moore outlined his definition of "the architectural fairy tale" by drawing a line between fairy tale and fantasy. There, Moore defined fantasy as irrational and separate from both the realms of possibility and of lived life. In contrast he qualified the fairy tale as starting with the familiar but extending to immeasurable dimensions. While the architect made a semantic distinction between fairy tale and fantasy, this paper looks more broadly at the ways in which flights of fancy implemented through the architectural dimension serve to tie architecture to its socio-economic context rather than simply setting it free.

Confetti Urbanism

Clark Thenhaus, California College of the Arts

In the absence of pre-existing rules, the production of atmosphere and experience supplants the conventional placeholder(s) of disciplinary or systemic protocols with qualitative effects that expand inherited definitions. Perhaps, then, we can think of Candy Land as analogous to broader physical arrangements whereby loose, fleeting, and informal organizations affiliate with explicit functions and experiential intentions. In this way, Candy Land associates with confetti – simultaneously immersive yet fleeting, informal yet temporarily specific, and individuated yet collectively social. This opens conceptual territory for an expanded definition of confetti as both a material and organizational logic as applied to spatial design, which reads as follows:

Confetti

(kuh n-fet-ee)

Plural noun, singular confetto [kuh n-fet-oh; Italian kaw-n-fet-taw]

1. Small bits of material, usually colored paper, thrown or dropped from a height to enhance the gaiety of a festive event
2. A large quantity of small materials in which the relative space in-between produces the effect of colorful flatness that is both literal and abstract
3. Temporary material "droppings" encouraging an alternative image of an existing public, institutional, or civic landscape by partially obscuring the existing ground

4. A simultaneously retrospective and projective event-based physical accumulation of material on a ground where more complex assemblies & assemblages have mingled, are mingling, and will mingle again
5. A non-hierarchical, material composition of a non-patterned, scattered arrangement giving the appearance of fullness
6. Accommodates and enrolls new material additions along with the diversity of existing materials, objects, subjects, and “things”
7. Encourages unforeseen affiliations between distinct entities within an otherwise normative arrangement or proximity of known things

When applied to an urban landscape doubling as a student work yard for the production of art, we find that confetti becomes an urban experience unifying disparate and un-relatable obligations or materials.

Confetti Urbanism reimagines a two-acre urban site, the Back Lot, in San Francisco affiliated with an art school as a lively layering of architecture, furniture, plantings, and human activity. The 73,470-square-foot site presents the prototypes of Designing Material Innovation exhibition while continuing to support students engaged in design activities, making art, and hanging out. At once display venue, work yard, and social space, the Back Lot is equipped with shipping containers for storage, a material reuse center, a facilities management outpost, and a welding station as well as picnic tables, planter box trees, trash cans, hammocks, and debris. Rather than impose a singular order on these disparate operational and social infrastructures, Confetti Urbanism celebrates the diversity of the Back Lot’s many components. Strewing these components across the pavement as though they were tossed confetti creates a loose yet carefully studied frame for the prototypes on display. Painted discs, ribbons, bands, and shapes cue visitors to move, stand, and look in particular ways. Subtle tensions and alignments among Back Lot elements draw out the nuances in the five exhibited projects, animating the Back Lot site through a pervasive back-and-forth between autonomy and engagement, environmental effects and graphic image, and function and festivity engaged through individual experiences, ages, and social encounters.

Lessons from Polo: Creatures in the Expanded Athletic Field

Joseph Altshuler, Illinois Institute of Technology
 Julia Sedlock, Cosmo Design Factory

“Pitches have an extraordinary beauty that has evolved from chaotic vernacular origins. Somewhere in that minimalist arrangement of rectangles, circles, and dots is a trace of the landscapes of folk football: centre circle as lake, penalty area as village gateway, and goal as church.”

—Sam Jacob, “Folk Football: Landscape, Space and Abstraction”

Candyland is populated with a host of subjectivities and vital matter: gesticulating plum trees, humanoids with peppermint appendages, bats that feed on long strands of red licorice, and a vibrantly viscous pool of erupting molasses. Yet its game pieces, as placeholders for human subjectivity, are tethered to a singular pathway from which they may never stray, and which denies direct experience or perception of these diversely enticing sugary landscapes. While Candyland’s graphic representation of another possible world is seductive, its potential is stymied by the alienation of its anthropocentric worldview, where humans are predetermined winners based on the initial privileged shuffling of a hierarchical “deck” of species and subjectivities. Access to these broader territories and co-occupants from non-anthropocentric points of view requires us to re-train the spatial and ontological cognition of how we see and understand the world, to get off the singular path and to share space with the creature-like candies and candy-eating creatures. The discipline of architecture grants power to the floor plan (the drawing type to which a game board path might be assigned) in enacting how the spaces we inhabit organize relationships to other beings. In this paper, we focus on a “life-size” game board, analyzing the extra-disciplinary conditions of athletic fields for planimetric enactments of creatureliness, defined here as a perceptual enhancement or alteration that challenges the anthropocentric assumptions of the status quo.

Sam Jacob’s well-documented obsession with the football pitch highlighted its history as a graphic abstraction of an urban condition where the game was played between neighboring villages with boundaries and goals defined by ponds, gates, homes, and churches as opposed to geometrically

regular white lines applied to a well-groomed field. Whereas Jacob rereads history through his own disciplinary fascination with graphics, vernacular architecture, and contemporary popular culture, we will speculate future possibilities for human and nonhuman co-habitation through interpretation of a different category of athletic turf—the polo field. Among the categories of sport that involve animals (hunting, racing, fishing, and fighting), polo promotes the greatest interaction and cooperation between human and nonhuman persons, including horses, elephants, or even yaks (when played in Mongolia). One might even argue that in water polo the human player itself is transformed into an aquatic creature.

As a world within a world, sports fields demand that occupants alter their makeup—both cognitively and cosmetically—in order to make meaning and pleasure out of its constructed territories and team affiliations. This paper will explore how those territories and “teams” might engage augmented interactions with context, rules, otherness, and a relationship to the ground. In the process, we might understand ourselves, nonhuman people, and built things as companion creatures participating in a shared game brimming with treats.

Pop-things: Architecture’s Play with Image Construction

Benjamin J. Smith, Tulane University

Ludus and paidia—two qualities of play—exemplify two methodological paradigms in contemporary representational practices in architecture. Ludus, structured play, and paidia, unstructured play, establish two qualities to examine architectural representation as a communicative discourse. This paper develops this idea as a response to a paper and a projects session at the 2018 national ACSA conference. The paper session, “Drawing in the Post-Digital Era: From Exactitude to Extravagance,” and the project session, “Media Investigations,” presented theoretical and tactical responses to the role of image construction as defining characteristics in contemporary architectural representation. Building off of these themes, four projects by architects will be analyzed from the context of structured and unstructured play to provide a context to investigate this subject. The projects include: MOS’ “A Situation Constructed from Loose and Overlapping Social and Architectural Aggregates,” Atelier Manferdini’s “Building Portraits,” Zago Architecture’s “Visual and Performing Art Center at the University of Illinois at Chicago,” and MALL’s “Another Axon” These projects present architectural propositions that explore the idiosyncrasies of activities that determine architectural program, the composition of graphic composition and pattern, and the legibility of tectonic configuration. What becomes clear in each of these examples is that image instead of drawing, or pixel instead of vector, or as Dora Epstein-Jones described in her 2018 ACSA paper, “That Guy There: The New Convention of the Populated Plan,” content instead of process, shifts thinking about the means of production to drive alternatives for results. On one hand, design relies on the rules of conventions, typologies, programs, composition, and tectonics to make its efforts coherent, on the other hand, freedom from these rules allow architecture to exceed boundaries and create visionary innovations. By grappling with the consequence of architecture’s results through two means of play, the efforts of representation can be shown to appeal to pop cultural influences of identity curation through image construction.

CHUTES AND LADDERS (and ethics) I

Date: Saturday, October 13, 2018

Time: 9:00 AM - 10:30 AM

Disrupter: Julia McMorrough, University of Michigan

City as Camp, Architect as Camper

Ellen Donnelly, University of Nebraska-Lincoln

Architecture promises stability and permanence through built form. But these aspirations are threatened in today's rapidly changing and unstable world, and new relationships between urbanism, transience, and the politics of property ownership offer clues to how architecture might engage with our volatile present. To this end, what if architects operated more like campers? Campers establish communities that are both temporal and spatial; these communities are typically conceived as temporary but often become permanent through recurrence or duration. The home of campers—the camp—is a combination of generic and highly personalized spaces. Some camps, as communities, are propelled by social media (i.e.: #vanlife), while others emerge from centuries old tradition or knowledge (i.e.: pilgrimage camps). Historically, camps transformed into permanent settlements (cities), but the recent cultural focus has been on the temporary nature of camps including refugee camps, festivals like Burning Man, and seasonal cities like Slab City. As shapers of cultural identity camps provide useful lessons for architects. Their histories, logistical apparatus, governance, and temporal qualities comprise a set of logics that enable fast, temporary, flexible urbanisms and can re-orient our thinking about domestic space and cities.

Regardless of the motive behind a particular camp, they are living systems that can be rapidly deployed, altered and dismantled. The methodologies used to construct and deconstruct camps reveal cultural values toward the built environment and the earth. The act of 'camping' requires participants to step outside of their everyday routine, whether by choice or circumstance. The act of removing oneself from the ordinary, and committing to the daily work and visceral engagement encountered through the multiple versions of 'camping' has the radical ability to shift, alter, challenge and expand world views and expectations.

If architects act as campers and approach the design (of spaces, buildings, cities, communities) as emergent rather than deterministically permanent, how might the discipline shift towards a more nimble and projective, rather than responsive, practice? This paper will explore camp—as a place and an act, and campers as the protagonists—to propose a new way of seeing, being and operating within our current cultural context. Studying material cultures, histories, and multiple subjectivities in relation to architecture's fixity (or lack thereof), will provoke new ways of engaging cities, communities and spaces.

Neighborhood Houses as Moral Place: Spacemaking of a Social Infrastructure in Milwaukee

Mania Tahsina Taher

Key Words: Neighborhood house, Infrastructure, Community, Spacemaking, Milwaukee

This paper explores the moral significance of neighborhood centers as social infrastructure for cities and how these places shape people and create agencies in community development. Neighborhood houses are institutions that provide educational, recreational and moral support for the betterment of families and communities in the marginalized city neighborhoods. This institutional concept stemmed from the early settlement houses back in the early 20th century. Settlement houses acted as places for refuge and access to resources for European immigrants to the USA. Settlement houses were based on the moral model and run by social philanthropists. Neighborhood houses perform as state-sanctioned institutions for providing access to resources for

free- teaching English, citizenship rights, wellness sessions for women, homework help sessions for young people, early childhood centers for kids and toddlers, and so on. The organizations provide opportunities for the marginalized people in urban areas to build community and provide support for them as an extended network beyond friends and families. The paper discusses neighborhood houses located in the context of Milwaukee's segregated urban landscape. The majority of these neighborhood houses evolved to serve the disadvantaged African-American neighborhoods in North Milwaukee, starting in the mid-20th century. At present, they are also the state's support organizations for resuming social sustenance among the relocated international refugee families and communities in Southside Milwaukee.

This paper begins with the discussion of moral aspects of place based on the works of Derrida, Foucault, and Levinas in particular. This discussion lays a foundation for answering these guiding questions: What are the principles of a moral place? How do people associate their collective identity to that place? How do people's accessibility, shared placemaking, and everyday activities shape the moral place? The answers lead to the spatial analysis of previous settlement houses as model of moral spaces. The discussion further explores how the ethical principles of settlement houses in Milwaukee were transformed and represented in spatiality through the neighborhood houses. This also portrays a comparison of their place principles to socialize and integrate immigrant and migrant communities in the new cultural landscape. Based on literature reviews, interviews, and observations, the paper claims that the ethical imperatives of these neighborhood houses are working as part of the social infrastructure system in Milwaukee. These communities are being served with respect to their unique ethnic identities, and therefore the organizations are successfully performing as a moral place for all. This paper charts the spatial principles of the neighborhood houses, and analyzes how the principles have shifted over the time periods in terms of understanding spacemaking and community building among the ethnic neighborhoods.

Nomadic Details. Methodologies for Ludic Construction.

Nicholas Boyarsky, RMIT University

There is a strong cultural prejudice from Huizinga, via Loos to Sol Lewitt that excludes architects from the canons of play as our work is deemed too serious and too functional to be truly creative and free. As Huizinga wrote in 1949 'the architect can only work by means of diligent and painstaking labour...The man who is commissioned to make something is faced with a serious and responsible task: any idea of play is out of place'. 1) Paradoxically Karl Marx had presciently rescued architecture from this silo when, in comparing the architect to the bee, he observed 'But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality', 2) in other words imagination, and by implication play, is the distinctive and defining attribute of the architect.

This paper will be based on my practice research PhD 'Serious Play. A Deltiology of Practice', completed in 2016, in which I argue that, in the development of a project, the accidental, the contingent and the unexpected can reveal their own distinct logics that can, if discerned and followed with sufficient wit and imagination, lead to divergent worlds of inventive possibilities. Similar to the way that play is dependent on continuing reinvention, role playing and a constant testing of the rules of the game itself, ludic practice operates existentially at the edges of a continuously expanding field.

This paper will focus on the architectural detail in my practice and will argue for the role of the detail as a nomadic and ludic element that is not irrevocably tied to the building in which it sits but rather has a life of its own. By cutting the detail loose from its architecture I am suggesting that it can be part of a more dynamic network of routes and voids such as are found in the city. My argument concerning the ludic detail uses the deltiological method 3) to highlight contradictions and inconsistencies within the normative production of architecture in order to make space for more creative practices that can engage with ideas and concepts that are usually excluded.

The role of architect in neoliberal society is one that needs constant redefinition and reinvention in order to survive, to have influence and, ultimately, relevance and that this is a serious game with such high stakes that it must be played to the last stand.

Huizinga, Johan, *Homo Ludens: A study of the play element in our culture*, London, 1949.
Marx, Karl, *Capital Volume 1 Part III: The production of absolute surplus-value invention*.
In the mid 20th century deltiology has been defined as ‘the study and collection of postcards’. The word derives from the ancient Greek deltion which is the diminutive of deltas, a writing tablet which I take to mean ‘small texts’.

Poverty and Poop Trains: Cities’ Hidden Impacts and the Vanishing of Rural America

R. Todd Gabbard, Kansas State University

On September 12, 2016, New York was cited by Arcadis as the most sustainable city in the United States. On April 3, 2018, CNN reported a train of 200 containers filled with human waste outside the rural town of Parrish, Alabama. The ten million gallon ‘poop train’ originated from waste treatment facilities ringing New York. The train, destined for Big Sky Environmental’s landfill, had been side-tracked for months, its ‘death smell’ overpowering the town of 982.

It is well known that urban growth comes at a cost, a cost borne for decades by the extraurban. It is further apparent that sustainability, wealth, quality of life, and just about any other metric that counts favorably for urbanism is offset by an impact on the people and landscape of rural America.

Accounting for a little less than a quarter of the population, but three-quarters of the nation’s landmass, rural America is more than ever a forgotten place, a non-space. The rural landscape is the source of both raw and processed material necessary for urban sustenance, but is increasingly disinvested of infrastructure and amenities assumed as givens by urban dwellers. At the same time, anything unwanted in the urban realm finds its way to the hinterland – waste, unsightly industry, the chronically impoverished. In a very real sense, the rural landscape is the new inner city – impoverished, unadvocated, ignored.

We already know what happens when an entire geographical region is ignored. Let us not make the same mistake again. If an architectural agenda hopes to make real, lasting impact in an era of increasing peril, it must consider the rural. This paper will examine the current state of rural America, focusing particularly on the Midwest, the nation’s breadbasket, outline some precedents for positive action, and open up discussion for the future.

<https://www.arcadis.com/en/united-states/news/latest-news/press-releases/2016/9/new-york-city-earns-most-sustainable-us-city/>
<https://www.cnn.com/2018/04/03/us/parrish-waste-poop-train-alabama-trnd/index.html>

CLUE (-d in or out) I

Date: Saturday, October 13, 2018

Time: 9:00 AM - 10:30 AM

Disrupter: Tamar Zinguer, The Cooper Union

Draw Story: Domestic Territories / Iconic Constructs / The City and the Beach

Karla Sierralta, University of Hawaii At Manoa

'Talk Story' is a Pidgin term used in Hawaii to define chit-chat and informal conversation. From gossip to small talk, to community meetings, to academic lectures, both formal and informal events reference this term to specify friendly dialogue, discussion and debate. But, like many terms in Hawaii, Talk Story has a deeper meaning rooted in oral traditions, where history and culture are taught through stories, song, and hula passed on from one generation to the next. Talk Story can be a mundane, critical, or playful way to approach something serious.

'Draw Story' intends to translate this concept into architectural inquiry through image-making.

This procedural rule-set can be described as a game of forensics. A player is provided with a series of shifting lenses through which they investigate the subject. As evidence is revealed and multiple paths are explored, new narratives are uncovered, culminating in endings that are unforeseen and at times wondrous.

Architectural images are used to develop ideas, convey information, and provoke the imagination, both in ordinary and fantastical realms. Drawings, photographs, film, models and other representational media tend to be intimately related to the subjects they are portraying, frequently becoming the topic of discourse themselves.

What makes an image a mere representation? When does an architectural artifact become the creative work itself?

Draw Story focuses on cultivating observation as a means of collecting creative content and exploring the process of drawing as both an analytical tool and a means of discovery. A framework, based on parallels between the process of creative writing and designing a graphic piece, guides the four-phase methodology:

1. Fundamental Understandings introduces the diagnosis, including definitions of character and motive.
2. Focused Explorations allow discovery through operations of measuring, observing, testing, disassembling and abstracting, thus partially revealing attributes and personalities.
3. Layered Compositions delineate strategies, combinations, plots, and sequences.
4. Edited Narratives define mannerisms, visions, fictions, and interpretations.

This paper will present student work explorations developed in three realms: 'Domestic Territories', an introspective study of the spaces we inhabit daily, including objects, behaviors, and sensations; 'Iconic Constructs', a diagnostic investigation focused on renown buildings that characterize Honolulu today; and 'The City and the Beach', a projective exercise that imagines parallel dimensions of urban environments that exist between the natural and the man-made.

These projects investigate and illustrate various scales and levels of human - spatial interaction; depict everyday life in the context of built environments; and test the boundaries of drawings from object to subject.

Draw Story provides a medium for expansive rule-sets, evolving strategies, and multiple interpretations, a series of 'game states' for exploring architectural space, questioning its character, and ultimately re-defining its identity.

Gaming the Dream House

Greg Snyder, University of North Carolina at Charlotte

Gaming the Dream House examines the intersection of an assortment of contemplations on the dream house in order to identify the repertoires of formal and spatial orders, and attendant consciousness, that underlie this category of thinking through dwelling. There is a rich tradition of contributions to the discourse on the Dream House – from the ideal to the actual: Gaston Bachelard and John Soane could be nominated as the patrons of these two poles. The writing of Bachelard and the collecting of Soane suggest that the Dream House is an enterprise that entails the mythopoetic and a will to deliberate through possession.

The instigation of this work is prompted by the habit of using a bookshelf, literally and metaphorically, to collect and organize the assortment of references used in support of preparing and delivering lecture in one of a variety of seminar courses. However simple, it is a surprisingly effective means to simultaneously collect and organize thinking while also contemplating possible alternative dialectics invited by juxtaposing some of the references that are less friendly to one another. A quote from Italo Calvino's *The Uses of Literature* gives some cover to this habit:

A book is written so that it can be put beside other books and take its place on a hypothetical bookshelf. Once it is there, in some way or other it alters the shelf, expelling certain other volumes from their places or forcing them back into the second row, while demanding that certain others should be brought up to the front.

In the course of developing a collection of lectures on the Dream House, the themes of collecting and curating recur through quite a broad variety of references. Many are quite familiar such as Bachelard's *The Poetics of Space*, the John Soane House, and even Martha Stewart publications and the IKEA catalogue. But others were not anticipated – Walter Benjamin's *The Arcade Project*, various traditions of the Cabinet of Curiosities, and even the *Encyclopedia of Diderot and d'Alembert*. Each of these references address collecting, ordering, and indexing in ways that are suggestive of formal and spatial translations.

The thinking that is available as a product of the juxtapositions and adjacencies (an activity conceived of as "gaming") of these models may have already had its day in academic discourses, and there is a scenario where this is not even considerable in the age of the internet and the efficiency of search algorithms. But maybe there is more than historical value in looking at these models. Maybe there is some other instrumental value in looking at these models of collecting, ordering and indexing. For the purpose of this paper the proposition is that the value lies in identifying the repertoires of formal and spatial orders, and attendant consciousness, that might inform an Architecture of the Dream House.

Growing up Modern - Domestic Narratives

Julia Jamrozik, University At Buffalo, SUNY

While architecture's occupation has not concerned greatly either the historian or the preservationist, this decade has brought forth scholarship on the complexity and richness of this experience and the deeper understanding of buildings that it carries, in terms of both personal narrative and a broader political and socio-cultural perspective. (1)

This paper is based on the project 'Growing up Modern', which is a foray into the field of oral history typically not investigated in architectural scholarship. While many institutions have accumulated interviews with significant architects and landscape architects, the perspective of the user remains largely unexplored by this method. (2)

As part of 'Growing up Modern' we wanted to speak not to the adults who first inhabited canonical Modernist houses and housing, as they would have been either those choosing to commission or choosing to live in these avant-garde settings, but rather we wanted to specifically hear about the experiences of their children. Beyond the sheer practical impossibility of speaking to the parents, we are interested in the perspective of the children, as potentially more objective and neutral

inhabitants of Modernist domestic spaces. We were fortunate to interview Mr. Fassbaender, Mr. Tugendhat, Mrs. Zumpfe, Mrs. Goron and Ms. Moreau. They were the original inhabitants of the row houses by J.J.P. Oud in the Weissenhof Estate in Stuttgart, Germany (1927), the Tugendhat Villa by Mies van der Rohe in Brno, Czech Republic (1930), the Schminke House by Hans Scharoun in Loebau, Germany (1933), Le Corbusier's houses in Pessac, France (1924) and the Unité d'Habitation apartments in Marseille, France (1952), respectively.

The subjective and partial memories of past inhabitants are rich in anecdotal and personal detail and speak to the messy life of architecture beyond its inception and construction process. With the passage of time these memories can become blurred or exaggerated, but the layers of meaning they carry bring a visceral sense of understanding and empathy to our contemporary experience of heritage.

These domestic narratives will be further explored in this paper through the example of one of the houses visited and documented through photographs.

(1) including Kenny Cupers' "Use Matters: An Alternative History of Architecture")

(2) a significant exception: Thanks for the View Mr. Mies: Lafayette Park, Detroit by editors: Aubert, Cavar, and Chandani

Scripting Space / Int. Study in Secluded New England Mansion – Night

Brian M. Ambroziak, University of Tennessee-Knoxville

Games such as Clue appropriate language and impose narratives that trigger a participant's imagination and arouse existing biases. The possibility that "Professor Plum did it in the Study with a Candlestick" yields a signified response pulled from the subconscious of the player that is instantly reinforced by the physical image of a staunch old academic. A playing card is then positioned on a board where signifier and signified coexist. Such wonderfully rich narratives reinforce the important role that language plays in the construction of spatial identities. So whereas, similar to the process of collage, the combination of images register new possibilities, the combination of words achieves a similar goal but with a greater degree of confidence by designers that have spent the greater portion of their formative years using words and numbers rather than images. This paper questions the degree to which such narratives can be communicated through conventional systems of orthographic projection, systems that often times do little to evoke direct linguistic relationships.

The territory of this investigation is positioned firmly within a filmic discourse that draws heavily upon the 'archetypes of the unconscious' found in Stanley Kubrick's adaptation of Stephen King's novel "The Shining," the suburban heterotopia of Tim Burton's "Edward Scissorhands," the non-linear narrative found in Quentin Tarantino's "Pulp Fiction," and the maniacal level of detail in Wes Anderson's "The Royal Tenenbaums." The original scripts for each of these films provide insight to how designers might leverage unique aspects of the screenplay in the development of multivalent space. One can easily argue that theoretical projects such as Superstudio and Piero Frassinelli's "Twelve Cautionary Tales for Christmas: Twelve Ideal Cities," Rem Koolhaas's Architectural Association thesis "Exodus, or the Voluntary Prisoners of Architecture," and Bernard Tschumi's "The Manhattan Transcripts" exploit the breadth of this representational middle ground inherent to the screenplay positioned between literature and architecture. Drawing heavily upon filmic techniques, these precedents use writing in a strategic way to advance a discourse that traditionally privileges the image. Frassinelli's essay that first appeared in AD #12 biases writing in its original state, one ideally suited to the multimedia slide show it evolved into a year later. Koolhaas's thesis uses language in a deliberate manner so as to increase the subversive possibilities of each collage. Koolhaas's unique nomenclature animates a series of solitary frames and positions them within an overarching script and allows us to consider ourselves as "prisoners" rather than mere participants. Tschumi's "The Manhattan Transcripts" is probably the most often cited precedent when it comes to filmic tradition within systems of architectural representation, but in this case it is used as a counterpoint as it excludes language, intensifies the dominance of the image, and situates itself more closely to the technique of storyboarding.

An examination of intermediate representational forms such as the screenplay destabilizes more traditional methods through acts of "spatial play" and provides a roadmap for reclaiming the primacy of language as a form generator as powerful as contemporary methods of computational "scripting."

RISK (taking) I

Date: Saturday, October 13, 2018

Time: 9:00 AM - 10:30 AM

Disrupter: Anne Rieselbach, The Architectural League of New York

Against Permanence: What the Monument Could Learn From the Camp

Lindsay Harkema, Syracuse University

Recent events indicate a preoccupation with permanence that is spurring tendencies toward the fortification of borders. Despite the increasingly seamlessness of global communication, economy, and culture, the desire to reinforce national boundaries feeds political and spatial tensions surrounding border situations like the U.S./Mexico wall, the Korean Demilitarized Zone, or the Israel/Palestine debate. Similar sentiments are reflected in the resurgent defense of monuments that have persisted despite their conflicted meaning (e.g., Confederate statues), incompatible with present cultural and social values. The desire for permanence is at odds with political flux, and more broadly, the evolving dynamics of contemporary society.

Along borders and within distinct territories, spaces of exception emerge in free trade zones, embassies, and airport terminals, which operate outside of the authority of their contexts. Such exceptions act in defiance of borders, breaking territorial rules to support contemporary global exchange, commerce, and movement. Unbounded exception also exists in urban contexts, in areas of heightened publicness, civic meaning, and temporary events or occupations. These spatial deviations contribute to a productive dynamism in the built environment, and possible alternative futures.

Architecture participates in the formation of spaces of exception, ranging between the typological poles of monument and camp. While the monument imparts exception by its iconism, singularity, and permanence, the camp operates as a framework – systematic, adaptive, transient. The monument yearns for legibility, the camp is understood through experience. Jacques Ranciere's theory of the 'politics of aesthetics' resonates with the latter, demanding "new forms of individuality and new haecceities...[creating] a common experience in which new modes of constructing common objects and new possibilities of subjective enunciation may be developed." As an architecture of exception, the monument imparts a static image, while the camp, as Susan Sontag writes, is "wholly aesthetic." However, these assumed qualities break down over time. Despite its permanence, the significance of a monument often changes with duration. Despite its transience, the camp persists as permanent state of existence for a vast global population.

Exception holds critical potential for architecture to act as a form of resistance against the spatial status quo, an agent of change within an increasingly homogeneous built environment. Yet for centuries architecture has focused its efforts on the project of monumentality, much less so the project of camp. This project demands a re-positioning of experiments of critical form, a resistance of fixed images – new aesthetic haecceities that foster difference, multiplicity, and change over static consensus. These are the qualities of what Mohsen Mostafavi has recently called an 'agonistic urbanism', seeking a dynamic reciprocity between urban interventions and their social, cultural, and political consequences.

Architecture has long sustained its interest in the material qualities of permanence, iconism, and autonomy – the same qualities shared by static monuments and fortified borders. Amidst growing political uncertainties, architecture is grappling with its next move. At stake is the dynamism of the built environment – its ability to support and encourage change, and the critical spatial practices needed to adapt it.

New Rules for the Radicals: Applying Guerilla Tactics Learned From Decades of Civil War to Confront Spatial Issues

Aaron Paul Brakke, University of Illinois, Urbana-Champaign

The call to this session states, “Confrontation and aggression are necessary to win.” and that risk is a “strategy game of diplomacy, conflict and conquest.” The following tale embodies these characteristics quite literally.

On November 24th, 2016 the Colombian government and the Revolutionary Armed Forces of Colombia (FARC) signed a peace treaty that brought half a century of armed conflict to an end. This milestone came after 5 years of negotiating and after disarmament was complete, Juan Manuel Santos, Colombian President and Nobel laureate, proclaimed that it was, “a special day, the day when weapons are exchanged for words.” Though not the first time that words have been mightier than swords, it is indeed a special situation. The firing has ceased, yet, the aftermath of decades of violence is slowly becoming understood. Unilateral Cease-Fire is not easily attained in zones of conflict and this agreement sets the stage for interesting design opportunities.

Exile and displacement have become the reality for 15% of the Colombia’s citizens according to the Internal Displacement Monitoring Centre. Overcoming the devastation at this magnitude will cost the country more than 90 trillion pesos over the next decade (more than 40 billion USD). An urban and architectural issue that needs to be addressed is the precarious living conditions for the nearly 5 million internally displaced citizens. Maneuvering changes in politics, economic conditions, zoning and trade agreements are but a few of the variables that affect the building industry in the post conflict era. As these issues are outside the control of a designer, it is futile to develop a strategy that is obsolete before it can be carried out.

Therefore, the focus must be on tactics. In *The Practice of Everyday Life*, Michel de Certeau explains that a tactic is set up “on and with a terrain imposed on it and organized by the law of a foreign power.” As architects, we understand that we “must vigilantly make use of the cracks that particular conjunctions open in the surveillance of the proprietary powers. It poaches in them. It creates surprises in them.” We have also been working with students to analyze these symptoms, identify cracks and take action at the scale of urban acupuncture. Tactics are used to exploit gaps in the playing field and to form projects of co-creation that have the potential to generate novel and inventive outcomes. This paper will highlight several examples that have been developed in Medellin and Bogota. One particular example is the work we are doing with a community in the neighborhood San Rafael, Cazuca. We are constructing a park with displaced communities in the periphery of Bogota. This research is ongoing and so in lieu of results; this paper will further articulate how we are probing dis-junctions in the post-conflict context of Colombia and reveal several of the New Rules for Radicals that have merit in our version of the game Risk.

Transverse Landscapes of Learning

Yoonjee Koh, Boston Architectural College

We live in an age of transverse epistemologies. From essays to TED talks; dictionaries to Wikipedia; hand sketches to Instagram, architecture operates in increasingly wide currencies that posit the field with its agency. As much as learning happens in the traditional classroom, mass consumption and reliance on open-access and open-source platforms continuously shift conditions of learning. Contemporary means of information production, dispersal, and regeneration continue to expand, catalyzing inquiries into the medium of the message and the shifted manner of conversation in lieu of new provocative platforms.

Diplomatic negotiations across different media as well as critical curation of one’s own sphere of learning is vital in order to provoke new landscapes of inspiration. Raising criticality in how ideas are formed and executed through conditions, rather than transmitting what to study through inherited disciplines of knowledge, has situated itself at the forefront of our mission as educators, in turn to question – how can learning effectively happen for the rising architect? How do we build upon existing frames of pedagogy in lieu of a wide expanse of readily available sources to nurture learning across different sectors of the architectural discipline?

This paper seeks to locate the common core that bridges across design studio, history and theory, and professional practice through the lens of the learner. By examining a series of pedagogical experiments on discursive exchange across architecture institutions, notions of premise, negotiation, and risk are explored in order to understand the meaning of transverse learning in the architectural realm. We explore how architectural learning takes place within, across, and beyond the familiarly withheld architectural community in order to create synthetic identities of engaging in scholarship and knowledge-finding.

Speculation, Intention, and Imagined Lives: Architectural Drawing Typologies and Qualitative Research

Charles A. Debelius, Appalachian State University

In their commentary on the paradigm wars that dominated qualitative research in the second half of the 20th century, Denzin and Lincoln describe the qualitative researcher as a bricoleur, one who constructs “a pieced-together set of representations...fitted to the specifics of a complex situation” (Denzin & Lincoln, 4). The authors observe that the intensely interpretive work of the bricoleur includes “an aesthetics of representation that goes beyond the pragmatic or the practical” and the development of a focused image that makes visible what was previously invisible or obscured. Weinstein and Weinstein add that the “solution (bricolage) which is the result of the bricoleur’s method is an [emergent] construction” (Weinstein & Weinstein, 161). But, if the aim of the qualitative researcher is an articulate, rich, and insightful work of interpretation, a number of questions arise. How, for example, can one better understand an interpretive process that might lead, on the one hand, to the qualitative research equivalent of Picasso’s sublime Bull’s Head (1942) and, on the other hand, to the forgettable ArcelorMittal Orbit sculpture and observation tower constructed for the 2012 London Olympics?

“The Necessity for Drawing: Tangible Speculation,” a reflection on the speculative aspects of architectural drawing by the late Michael Graves, is a seminal essay in the field of architectural design. Graves describes an architectural drawing typology of three categories: the referential sketch, the preparatory study, and the definitive drawing. Graves essay underscores notion that architectural design, to the degree that is situational, complex, interpretive, and demands full consideration of an aesthetics of representation that goes beyond the merely pragmatic, also relies on bricolage. This paper describes several affinities between the qualitative researcher as bricoleur and the artist/architectural designer as bricoleur and argues in favor of a condition where an understanding of Graves’ typology of architectural drawing typology informs and enhances the understanding of the activities of the qualitative researcher as well as the non-linear nature of architectural design.

Denzin, N. & Lincoln, Y. (2011). The discipline and practice of qualitative research. In N. Denzin and Y. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 1-20). Thousand Oaks, CA: Sage.

Graves, M. (1977). The necessity for drawing: Tangible speculation. *Architectural Design*, 47(6), 384-394.

Weinstein, D., & Weinstein, M. A. (1991). Georg Simmel: Sociological flaneur bricoleur. *Theory, Culture & Society*, 8, 151–168.

CANDY LAND (scape) II

Date: Saturday, October 13, 2018

Time: 9:00 AM - 10:30 PM

Disrupter: Antonio Torres, University of Illinois at Chicago

Are We There, There?!

Nicole McIntosh, Syracuse University

Spread across the American landscape emerge enclaves that exude qualities and characteristics that follow European themes. Located in the suburbs and once founded by European immigrants, today their physical built environment constructs alternative worlds that narrates back to a popular European destination through imagery. Highly curated, through imported historic forms of traditional architectural styles, they resemble what we all know as being 'German', 'Dutch', 'Swiss' or 'Swedish'. With names, such as: Frankenmuth (Germany/Michigan), Lindsborg (Sweden /Kansas) or New Glarus (Switzerland/Wisconsin), they are a postproduction of the theme park. In these towns an unexpected new transcultural scene emerges, based on imported elements and local constraints. Here the architecture becomes foreign to both worlds, but yet strangely familiar to its genius loci of the setting.

A common aspiration of these towns is to preserve and perpetuate the architectural charm of the cultural heritage to enhance the social and economic base of the community. While they all have a distinct history of how they adapted to the desired image of cultural reminiscent architecture, today their setting is regulated and controlled by the rules of a review committee: The Board of Architectural Review (Solvang, California), the Design Review Committee (New Glarus, Wisconsin) or the City Beautification Committee (Frankenmuth, Michigan).

New Glarus in Wisconsin (for example), was founded by Settlers in 1845 and evolved from being a dairy farming and cheese production village to a popular tourist destination. Suffering through the economic change in the late fifties, it discovered a way of survival, a lucrative niche by embracing the image of its cultural heritage. In 1950, a hand full of businessmen, some native to Switzerland, decided to remodel their commercial buildings by 'swissifying' the main façade to attract visitors. Today, the town's Swiss-look is regulated by 'Chapter 118: Building Construction, Article II: Swiss Architectural Theme' in the villages building codes, that describe the idyllic image of an architecture that has long passed in its country of origin. They rely on Swiss design examples that are illustrated in seven picture books that depict a variety of traditional chalet styles in the cantons of Switzerland. Furthermore, a seventeen-page folder with photography of traditional Swiss architecture and postcards of other Swiss themed towns in America (Helen, Georgia/Switzerland) further simplifies these very distinct versions of Swissness into a composed style recognizable as "Swiss." In Wisconsin's Little Switzerland, much like others of this same type, through the literal translation of the desired cultural image, characteristics of built form and material are shifted. And the oversaturated mixed information derived by the sensation and saturation of familiar and alien imagery simply questions; "Are we there, there?"

Double Take

Jean Jaminet, Kent State University

Defamiliarization and estrangement have been absorbed into contemporary architectural discourse by way of current philosophies calling for a return to the domain of real things. Estrangement is the quality attributed to aesthetics that elongates, intensifies, or exaggerates the initial moment of engagement with an art form (Young & Ayata, *The Estranged Object*). Defamiliarization involves design techniques that allow the familiar to enter into multiple and heterogeneous relations. In these terms, the real is not conceived as stable or concrete, but is in fact inherently unstable or uncertain. This revival of realism curiously provokes a second glance at Andy Warhol's contributions to twentieth century art through a contemporary lens.

Warhol's iconic work is grounded in realism through appropriation and de-contextualization of everyday objects. Although this work raises questions about authorship and autonomy, the objects themselves remain largely unchanged. Warhol's later and lesser-known works (particularly his Polaroid still lifes and self-portraits in drag) continue to rely on simulation and repetition; however, these works begin to produce a strange tension by expressing multiple material states simultaneously. This uncertainty, associated with defamiliarization and estrangement, became the aesthetic and theoretical foundation for subsequent studio investigations.

The primary task of the studio involved designing two objects on a site adjacent to the Andy Warhol Museum in Pittsburgh. The objects were stacked vertically, one becoming the site of the other. The building object addressed the volumetric and programmatic parameters of the project; and the ground object facilitated a re-contextualizing of the site through alternative means of representation.

To address the Warhol influence and corresponding issues of realism, everyday objects were collected and mined, not only for their appeal to mass culture, but also to develop ideas about massing, ground, interior organization, and detail. The initial challenge to the status of the familiar involved the piling of these commercial products and mixing of their manifold qualities. Various softwares and similar digital techniques were used to further augment these studies, computationally adjusting their spatial characteristics and heterogeneous formations. These everyday objects were not simply appropriated or simulated; instead, they were piled together, pulled apart, and reconstituted as a distinct new object with a more diverse, but less apprehensible set of relations.

A double take is a delayed reaction to something surprising or significant after an initial failure to notice anything unusual. The title of the studio not only references Warhol's iterative multimedia process, but also challenges architecture to elicit a similar reception of estrangement at the initial moment of its engagement. The broader cultural misinterpretation of Warhol's work parallels the way in which the studio addresses contemporary architecture and its representations. With the digital landscape becoming increasingly inhabitable, the mundanity of the physical landscape becomes more speculative. The subversive allusion to the reality of objects, largely occupying both of these grounds, becomes the territory of fertile architectural production.

Prince Karl's Rock Candy Courtyard

Steven Lauritano, University of Michigan

Verde africano, rosso antico, yellow, gray and white-speckled marble, green basalt, red granite and porphyry – these are a few of the colorful stones that stick out from the walls of Schloss Glienicke's courtyard like so much geological confetti. Today one can examine over three hundred remnants of antique sculpture and architecture arranged in allusive constellations around the Glienicke courtyard's perimeter facades. The collection started with a handful of specimens brought back from Italy in 1824 by the architect Karl Friedrich Schinkel at the behest of his client, the Prussian Prince Karl. At the time, Schinkel was tasked with transforming an existing ensemble of humble buildings into a summer palace worthy of his royal patron. Though Schinkel could hardly have guessed it, when he penciled in the locations of those first few fragments on an elevation drawing of the courtyard façade, he set in motion a game that would play out over the ensuing decades. Almost immediately, Prince Karl began supplementing his remnant collection with an enthusiasm bordering on mania. Whenever new fragment shipments arrived, the prince summoned Schinkel and sculptor Christian Daniel Rauch to scan the courtyard walls and seek out optimal locations for fresh insertions. Over time, groups of embedded remnants acquired sufficient density to suggest strange composite figures: a windmill, a fountain, evocations of domestic furniture – all cobbled together from bits of columns, satyrs' heads, panthers' paws and maenad's hair. Certainly, this ritual remnant emplacement offered Prince Karl an entertaining diversion. But one senses an underlying precision at work, an elusive set of rules informing the game. This is not an atmospheric accumulation of objects like the one assembled by John Soane (an installation Schinkel visited and dismissed as overwhelming and irrational). For all the playfulness suggested by the composite figures of colorful carved stones, Schinkel's pattern making at Glienicke evinces a pronounced didacticism. It is this instructional dimension that my paper aims to elucidate. Ancient fragments

are deployed here with motivations in excess of the familiar project of reforming taste. What specific lessons might Schinkel have hoped to impart to the prince and his guests? Were these the same teachings that drew O. M. Ungers to Glienicke over a century later, compelling him to distill his “Five Lessons” (published by Charles Jencks in the famous AD Profile on “Free Style Classicism” in 1982)? Ultimately, this paper reconsiders the Glienicke courtyard as a nineteenth-century version of the immersive architectural gaming space, positioning the project in a lineage of scenarios – from Aby Warburg’s *Mnemosyne Bilderatlas* to the Independent Group’s *Parallel of Life and Art* exhibition, to the more recent *T_Visionarium* installation at the iCinema Centre) – in which a viewer is invited to read possible relations among a group of discrete objects (or images) in such a way that figural constellations emerge and recede across the array. The paper considers what architects (and building users) might possibly stand to learn by interacting with such hyperimages, both in Schinkel’s age and our own.

Sweet Affects? Political and Ecological Aesthetics in Architecture

Andrea Wheeler, Iowa State University

“Man is only completely human when he plays” according to Jacques Rancière, examining the philosophy of Frederick von Schiller. Rancière’s aesthetic experience is one of equality and heterogeneity; the beginning of a new life for individuals and the community. Aesthetics is politics; but while the sensorium of aesthetic experience is the promise of social transformation, can such political aesthetic fully include the spatiality of architectural aesthetics? Moreover, can such a philosophy extend to ecological aesthetics? If, humane existence includes an aesthetic dimension; if, in the making meaningful of living, aesthetics can spill over into a criticism of the conditions of life: this aesthetics of everyday living, challenges distinctions, between art and craft, beauty and rational thought, play and politics. It disrupts meaning and troubles our usual selves. For Gernot Böhme, new aesthetics, the aesthetics the most appropriate for architecture, is that understood in the co-production of atmosphere; and ecological aesthetics, slightly different in conception, challenges our usual understanding of bodily-selves in the environment. In this paper, I thus examine the political aesthetics of Jacques Rancière and the architectural aesthetics of felt space in Gernot Böhme: looking for new ways of thinking about political and ecological aesthetics in architectural design practices. Sweet affects and play are themes, but the paper has three parts: firstly, a study of context in an examination of the tools and methods of contemporary sustainable design that sidelines aesthetics; secondly, an specific exploration of Rancière and Böhme in aesthetics and architecture, and finally a study of political affect. The question the human child, curious, asks is how can I live, teach me how to live? Is the architects’ political and ecological response an environment for play?

CHUTES AND LADDERS (and ethics) II

Date: Saturday, October 13, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: Julia McMorrough, University of Michigan

Objects at Rest Will Stay at Rest Until Acted Upon by an Unbalanced Force

Molly Hunker, Syracuse University

Gregory Corso, Syracuse University

Large, expensive infrastructural endeavors can yield adverse architectural inertia - a condition of limited adaptability and transitionality. While cities are massive and complex machines, they can also be understood as the aggregation of many smaller actors, objects, and phenomena. A focus on minor but agile, temporary, and mobile agents of the city may lead to new conclusions about the ability for spaces in the city to develop deeper contextual relevance and catalytic potential, and in turn, a more malleable sense of ownership, identity, and public space. Further, given the era of millennials, this perspective may allow for a reinterpretation of infrastructure to be speedy and accessible - even "Instagrammable" - while also being integral to community outreach and the politics of art and space.

One case study in small, quick, and light infrastructure is a recent mobile pavilion for a west coast contemporary art museum. The paper examines how this project - a collection of architectural objects with changing composition that gets deployed anew in a series of different sites - generates public space and public art programming within various underserved communities of the city through mobility, compactness, and versatility. The project's mobility allows it to operate in many different neighborhoods in the city (those generally neglected by contemporary art) rather than statically act in one location and context. Compactness allows the project to easily move and perform effortlessly as an intervention and catalyst for small (but many) unanticipated social experiences within the city. The project's versatility develops a renewed public form and composition as well as identity in each new site.

Through the discussion of the qualities of this project, the paper advocates for minor urban infrastructure that deploys itself flexibly and variably, inviting the (re)discovery and (re)interpretation of the city and landscape anew. In aggregate, these types of urban artifacts, and the activities they instigate, can be understood to produce a robust and nebulous layer to the city - a layer that re-positions the city as a series of small episodic moments rather than grand architectural or infrastructural inventions.

Repository of the Unnecessary

Juliette Dubroca, Washington State University

The earliest archeological evidence of architecture in Japan trace back to storage structures, kura. The underlying historical and cultural implications of this building typology have transcended through time and are today challenged by the post-industrial city's economic and urban priorities.

The kura's sustained presence points to older organizing principles in the pre-industrial city. In the 18th century, kura lined the docks of cities when merchants would often stack their raw wares in the open along waterfronts, which were considered public space, in preparation to ship them, or prior to distributing them. Fires spread easily in these conditions and led to regulations and to the walling off of the waterfront. Merchants began to build kura in these locations to protect their goods and the cities from fire and increase the storage capacity of a given area of land. The cores of city block cores also filled with kura because properties were taxed based on the length of street frontage, thus lots tended to be narrow and deep. This produced a hierarchy of programmatic distinctions, with the prime real estate along the street was occupied by shops while kura would most often occupy the rear of the lot, filling up the block core.

At the scale of the country, the kura were also embedded within a large merchandising network system. The locations of heavy kura ports were primarily based on the government regulations of sizes of commercial ships. This government intervention was meant to deter explorations abroad and intrusions into the capital. The granularity of the urban fabric in these port cities further reflected the shogunate's desire to exert control and limit the accumulation of wealth and power in other hands.

In responding to this call, this paper proposes to bring to light the challenges that the anecdotal and antiquated kura poses to our society's cultural, ethical and urban biases. Reckoned as a bygone piece of the city's infrastructure fabric, the kura present themselves as ruins in today's landscape. Often adjacent to a parking lot, a tall residential complex, the kura are vestiges, disconnected from an old city fabric that was erased by a developer's industrious labor. The kura's extraordinary number seem senseless in the contemporary Japanese city. Indeed, the kura challenges inexorable models of over-use in the highly densified Japanese city, consumed by vacant prime real estate. Though they have the potential for considerable real estate value, their location at the rear of the lot, the fictions strung to the quintessential family survival over the meager years and their extraordinary robustness are some of the factors that contribute to their current existence.

The drawings and models of a studio taught in the Fall of 2017 will be presented. The studio titled 'Cabinets of Curiosities' based its analysis on precedents which present similar disruptive existences in the city: the horreo Gallego (Northern Spain), cabane de pêcheurs (Charente Maritime, France) and net huts (Hastings, England).

Tender Processes: Infrastructural Actors and Imaginaries

Jesse LeCavalier, New Jersey Institute of Technology

Infrastructure—the physical elements that make society possible—is largely imagined as authorless. While other aspects of the built environment, especially buildings, landscapes, and urban designs, can be more easily attributed to a specific agency or organization, infrastructural systems resist this, partly because of their scale, partly because of the entanglements of actors involved in their making, and partly by intention. However, all infrastructural systems, from data networks to highway systems, are products of human authorship. With this paper, part of a larger project-in-progress, I examine the Trump Administration's "Legislative Outline for Rebuilding Infrastructure in America" to better understand the values implicit in the document and the subsequent consequences those might have for the built environment. By looking at a combination of infrastructural actors (e.g. AECOM, HNTB, Bechtel), private finance sources (Blackstone, Macquarie, Brookfield), and public grant programs (TIGER, BUILD), I use the paper to focus on the ways in which processes of infrastructural tendering and constructing are employed to produce local identities around an "infrastructural imagination," especially as it pertains to competing notions of the urban and the rural. Using this evidence in combination with Leigh Star's notion of 'boundary objects,' as well as preliminary visualizations that place these multiple elements into comparable relationships, I make a case for an increased understanding of the process by which infrastructure actually materializes and suggest ways that designers might find points of entry.

Underground is for People: Toronto PATH's condo boom

Erica Allen-Kim, University of Toronto

Laura Tibi, University of Toronto

Every decade or so, Toronto's denizens, planners, and journalists reenact the same critique about the disorienting wayfinding of the PATH, a 10 km system of tunnels, skywalks, and basement commercial spaces. Labelled "Underground City" or "Maze City," the PATH takes the urban concept of a multi-level city to an extreme by transforming the civic realm into a network of interior spaces that actively and passively discourage public use. The PATH is a concourse; a place of purposeful consumption and transit rather than the pedestrian drift encouraged by conventional shopping mall design. In the PATH, the fast moving streams of office workers and paucity of seating leave

little room for the flâneur. Further reinforcing this experience of exclusivity, the climate-controlled environment—with each tower acting as a silo of customers for PATH businesses—has produced a habitus of underground urbanism in which coat-less pedestrians carrying take-out containers rarely pause to check their bearings. The definition of the “public” PATH user has been challenged, however, with the construction of condominiums that include or promise future potential PATH connections.

The possibility of a residential PATH user increases pressure on debates about public goods provided by an urban infrastructure that has been shaped primarily by individual property owners. Commentators circle around a common concern: is this system of concourses and basement businesses a public infrastructure that accommodates different types of users and uses in a public circulatory system, or is the circulation closed to outsiders? A master plan for the PATH (2012) and its extension was created partly in response to the over 7,000 residential condominium units that now have a direct or proximate connection to the underground system. The challenges facing the PATH with this residential population increase mirrors the late 20thc. transformation of North American downtowns. Due to the privatization of underground space, each basement level has different operating hours. Moreover, what feels like a safe space of constant activity, particularly during rush hour, seems eerily silent during evenings and weekends. This paper looks at the calculation of risk and the application of 1960s urban theories to newly proposed PATH extensions that seek to transform the tunneling system into a mixed-use underground downtown utopia. Capitalizing on this vision, real estate developers tout future potential connection to the PATH as a selling point for both commercial and residential projects. “Underground is for People” contextualizes the speculative urbanism of city planners, BIAs, and realtors who envision a multi-level downtown in which the the PATH serves as a vital infrastructure of economic and social growth. This rhetoric is tested against our qualitative analysis of the pedestrian system’s cul-de-sacs, disorienting interiors, lighting and ventilation health effects, and after-hour dead zones. We argue that through this preoccupation with the continuous interior, modernism continues to make claims on the emancipatory potential of pedestrianism yet relies on the logic of the risk society to create spaces antithetical to the ethos of the public good.

CLUE (-d in or out) II

Date: Saturday, October 13, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: Tamar Zinguer, The Cooper Union

A Seemingly Serene Scene: Saul Steinberg's "Strada Palas"

Andreea Mihalache, Clemson University

The year is 1942. The architect-trained artist Saul Steinberg is stranded in Ciudad Trujillo, awaiting to secure his American visa. Among the many artifacts he produces during his one-year stay, there is an ink, pencil and, watercolor drawing titled "Strada Palas," displayed for the first and only time in an exhibition at the Wakefield Gallery in New York, in April 1943. Rendered the way children often express themselves graphically, this autobiographic drawing depicts a domestic interior where mother (Rosa), father (Moritz), and sister (Lica) are sitting at the table, while the young Saul is standing in the foreground and a barefoot girl is serving the meal. The drawing appears to have had a special significance for the artist, who decided not to sell it and never exhibited it again.

Born to a Romanian Jewish family, Saul Steinberg (1914-1999) grew up in the capital city Bucharest and left the country at nineteen to study architecture in Milan. He eventually immigrated to the United States where he lived in New York for the rest of his life, without ever returning to his country of birth. His artistic language has deliberately assumed a mode of representation that is deceptively playful, light, and innocent. Difficult to place under a particular movement or genre, his art escapes categories and reflects upon issues that cover various topics and scales from stereotypes, domesticity, and urban life to warfare and modern alienation. In drawings, sketches, and collages made over the years, he continued to return obsessively to his small family house and childhood street.

Reading Strada Palas in the larger context of his autobiographical work, I am making the argument that Steinberg exercises a unique form of architectural criticism. His work is architectural not because it depicts architectural scenes, but because it constructs a world of atmospheres, and human and architectural relationships that problematizes and undermines our conventions and common places.

With each iteration of his childhood home, Steinberg offers clues for understanding larger modes of inhabitation, social relationships, as well as individual and collective forms of habitus. The use of a (deceptively) playful language is central to his strategy as it allows him to construct a reality that is both historically documented, and imagined, highly personal, and universal. His domestic scenes are descriptive without being explicit, in the way philosopher Gaston Bachelard writes about renditions of the oneiric house: "[i]n order to suggest the values of intimacy, we have to induce in the reader a state of suspended reading."

Holding a magnifying lens, I propose a "suspended reading" of the clues in Steinberg's "Strada Palas" that will reveal larger narratives of nostalgia, social tensions, and urban life, against the seemingly serene background of a family dinner.

Distorted Optics: The Convex Mirror as a Landscape of Play

Farnoosh Farmer

In 1792, inspired by the grotesque statues of monsters and the mirrored ballroom in Villa Palagonia (1715), John Soane used the convex mirror in designing his house-museum in Lincon's Inn Fields to induct the sense of transparency and penetration in between spaces. Mirrors produce a deceptive landscape in the realm of architecture by casting back an invisible entity to the spectator—manipulating visual and perceptual aspects of the space.

Depending on their type, mirrors separate the space from its image in different ways and interfere in the spatial experience. Unlike the flat mirror, the curved mirror generates distorted spaces. It is impossible to superimpose the actual space onto the falsified image produced by the curved mirror. Consequently, the spectators would not be able to verify the accuracy of their own point of view; the falsehood here transforms the space. The curved mirror, convex or concave, becomes the tool for making a playful and subjective secondary space within another space; therefore it performs as a tool for estrangement as if designing a non-existing, playful mental space.

The history of the mirror traces back to the ancient times and into the use of stone, iron and metal mirror artifacts in ancient cultures. As long as techniques of glass-making and mirror-making remained elusive, mirrors were produced nearly always rounded; either convex or concave. Following development of mirror production techniques, the basic curved mirror shifts to the plane mirror and simultaneously found its way into new philosophy of representation. Many artists used the convex mirror as the reflective object of territoriality. Renaissance painter Van Eyck and baroque artist Velasquez incorporated the mirror in Arnolfini Portrait (1434) and *Les Meninas* (1656), to confirm their miniscule presence in a playful space projected on the two-dimensional canvas. In the Arnolfini Portrait, Van Eyck used the convex mirror at the vanishing point of the painting, not only to imply his signature, but also to activate specific aesthetic notions using symbolism. Matsis used the convex mirror in *The Money Changer and His Wife* (1514) to expand scopes of the space, invisible to the spectator, by addressing the exterior within the interior. During the 18th and 19th century, artists used the “Black Mirror” as a landscape-viewing device to distort the perception of the space for producing a re-configured picturesque representation.

But what spatial dimensions are being revealed, or what realities are being substituted through the convex mirror that makes the space playful? By looking at architectural spaces created in paintings, artworks and buildings, this paper investigates how the convex mirror re-structures space in order to construct a playful landscape. The mechanism of non-Euclidean geometry leads to the reproduction of the space in form of an image, which reveals the distorted properties of the space. Thus, in the experimentation of space from one step to another, a glance after a glance, the sense of playfulness embedded in architecture will emerge.

Notes on Hashtag Architecture

Galo Canizares, The Ohio State University

Note 1: The internet is no longer an extraneous, optional playground for the dissemination of information, but rather the progenitor of data including imagery, narratives, and positions. This warrants new modes of conceptualizing the space of the web, which push through the outdated skeuomorphic representations established early in its history. From an architectural point of view, internet space (meaning browsers and screens) could be understood as an infinitely deep three-dimensional space through which users move orthographically. In other words, using architectural analogs, we can extend our understanding of the abstract nature of internet space: the architecture of the hashtag.

Note 2: The internet relies on more than simply data and code. Users manipulate virtual objects through a variety of gestures. These gestures, consisting of tracking pointers, touching screens, typing shortcuts, are manifestations of a new consciousness engendered by ubiquitous computing. Not only do these gestures constitute an extension of ourselves into the space of the screen, but they also relate to spatial analogies with their own lineages, such as Ivan Sutherland’s concept of “rubberbanding.” In order to expose the architectonic qualities of internet space, these gestures must be closely examined.

Note 3: Because the internet creates (close to) real-time links between people and objects across vast distances, it could be understood as a cosmic entity: a vast, complex, ever-expanding universe. Seen in this light, internet space could be associated with an emerging form of mysticism similar to that of the Russian Suprematists. Suprematism and its attendant themes (irrational space, non-figuration, infinite depth) can therefore serve as precedents for an examination of the abstract, virtual void that is internet space.

This paper will expand on these notes as provocations that together propose an alternate way of understanding the spatial qualities of the internet. Looking at figures from the Suprematist movement certain themes will emerge, which—though initially conceived in the realm of painting—can apply to the contemporary experience of browsing the web. For example, we can recognize infinite voids, virtual environments, and geometric behaviors as terms related to software and computing, but also as Suprematist modes of depicting space put forth by Kazimir Malevich and El Lissitzky. Lissitzky's notion of "irrational space" will be of particular use, as it is both a technical way of describing axonometric space, but also a spiritual mechanism, which Yve-Alain Bois has suggested was conceived to force a reflection on an "unrepresentable infinity." Furthermore, Malevich's emphasis on scalelessness through two and four-dimensional representation (planimetry and time) was described by Catherine Cooke as a "paradigm of a space-time universe, which is naturally and logically, appropriate to the new perceptions of how the cognitive and phenomenal world of the late 20th century is operating." Extending Cooke's statement into the 21st century, I would argue that this paradigm is an extremely apt description of how the internet operates today. Therefore revisiting the mysticism of the Suprematists and conceiving of screen space as an ever-changing, infinitely deep orthographic space can further amplify our perception of these hashtag architectures.

Perspectives on Interiority

Florence Twu, School of the Art Institute of Chicago

"Architecture has been inverted."—Beatriz Colomina

Reflecting our period of architectural plurality, this paper explores how the fundamental distinction between interior and exterior space has been disrupted in four primary directions: the increasing influence of digital technology in both social media and smart homes, the relationship between interior space and the psyche, and the 'ecological awareness' of our role in environmental change during the Anthropocene.

In *Toward a New Interior* (2011), Lois Weinthal identifies an increased urgency to theorize the interior as more than mere voids in architectural spaces. Engaging with interdisciplinary perspectives, Weinthal's compendium comes at a time when interior space is increasingly important. By EPA estimates, 90% of our time is now spent indoors. Projects such as interior renovations of existing and historic buildings are increasingly common and often more cost effective and neighborhood appropriate than new construction.

Residential design has traditionally been a site for subversive experiments. From Eisenman's House VI to Diller Scofidio's Slow House and Shigeru Ban's Curtain Wall House, rules governing strict dichotomies between inside and outside, digital and physical, public and private have become increasingly destabilized. Social expectations likewise disassemble precisely through spatial play.

In "Privacy and Publicity in the Age of Social Media," Beatriz Colomina asserts that social media is a primary shift in contemporary life. Public acts can occur from the most private and intimate of spaces. She identifies specific inversions of public, private, interior, and exterior. As a result, spatial play occurs naturally, inevitably, and all too often dramatically. Concurrent to Colomina's observations is the progression of the Internet of Things and its increasing integration into smart homes and other interior environments. With products like Alexa and Nest, domesticity moves ever closer to becoming fully automated. Rem Koolhaas refers to the "potentially sinister" dimension of smart home technologies — surveillance, data collection — but perhaps most concerning is the projection of architecture as mere "carrier of new technologies."

Sylvia Lavin takes an affective perspective, discussing the concurrent development of psychoanalysis and architecture through the houses of Richard Neutra. His usage of architectural features such as the corner and window become specific means for "traffic between inside and out."

In light of the game of CLUE, what is occurring is movement between opposing poles, where uncertainty but also play occur. Like the permutations of CLUE's weapon - room - perpetrator triad, the possibilities are seemingly endless. As boundaries blur further, walls move, planes undulate, perpetrators shift character, weapons blunt and sharpen in turn. This dynamic condition of total play reflects the current relationship between interior and exterior space.

RISK (taking) II

Date: Saturday, October 13, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: Anne Rieselbach, The Architectural League of New York

Encouraging Risk Taking through Ignorance, Failure, Nonsense & Play

George Epolito, De Montfort University

'Logic will get you from A to B. Imagination will take you everywhere'. Albert Einstein

'The unknown offers apparitions, ambiguities, fright, confusion, danger' ... 'The fear of getting lost is sometimes stronger than the act itself, because it means to be adrift, with none of the security associated with the familiar Franco La Cecla

'... inassimilable otherness challenges us intellectually & morally, stretches our imagination, & compels us to recognize the limits of our categories of thought'. Bhikhu Parekh

'Students have to grow comfortable not just with the idea that failure is a part of innovation, but with the idea that confusion is, too'. Jamie Holmes

Prevalent in architecture discourses today, Douglas Spencer argues in his book *The Architecture of Neoliberalism*, is the ideology of neoliberalism with its appropriation of economic and scientific notions such as self-organisation, complexity theory, spontaneous ordering systems, biological autopoiesis, and techno-information (data collection).

This essay begins with a critique of these notions, with particular attention given to how some architects falsely equate the accumulation of facts and data with the easy attainment of design solutions. In other words, how this group of architects believes that empirically derived certainty can lead to innovation via a logical process from A to B.

The essay then segues into questioning whether architecture can learn from other approaches, specifically those espoused by Columbia Professor of Neuroscience, Stuart Firestein in his books *Ignorance and Failure* and by author Jamie Holmes in his book *Nonsense*. Firestein challenges the misconception that a logical process leads to innovation. Instead, he promotes concepts such as not knowing (communal ignorance), idiosyncratic searches, trial & error, missteps, inexplicable data/false findings and failure. Holmes champions similar notions - ambiguity, uncertainty, cognitive dissonance, unpleasant confusion, instability - as means of alleviating the false sense of security that said process instills. He believes these seemingly counterintuitive concepts can lead to opportunities of discovery.

Inquisitive thought, both authors would argue, requires a sense of vulnerability, one that fosters a venturing into the unknown. This essay questions whether these authors' concepts of vulnerability, unpleasant confusion, and instability can be employed as vehicles that encourage students to take risks, to (mis)step into unknown/uncomfortable territories (otherness) in the architectural design studio. Can (seemingly) playful assignments ease the anxiety that comes when challenging 'the limits of our categories of thought'? Can said assignments spark imagination and allow students to grow comfortable from their potential failures?

Selected samples of my students' work over the past dozen years in England are offered as examples to address these questions, not as dogmatic answers, but just for their potentiality.

The four idiosyncratic searches/studio investigations that I have devised are (see images):
place/non-place site analysis - based on readings by Marc Augé and Edward Relph
place/public space analysis – perceived oppositional analysis, Piazza San Marco in Venice
heterotopias - 'other' place analysis based on reading by Michel Foucault
metaphysical perspectives - based on the works of Italian Metaphysical Painters

Fleshy Buildings

Penn Ruderman, Wentworth Institute of Technology

Building envelope design oscillates between two poles. One pole prioritizes an ideological core at the center of the architectural object. Here, the principal tenants of the project radiate to the surface as idealized expression of the internal organization. The second pole positions the surface as a deferential medium, where the envelope embodies climatic and/or civic responsibility.

In “Fleshy Buildings,” teams explore the surface as neither defined by the interior spatial paradigm nor beholden to a contextual morality. Instead, the “flesh” at the periphery is treated as the ideological and performative core, uncovering vital disciplinary questions regarding the intimacy between object and viewer.

THE GAME: FLESHY BUILDINGS

RULES: No one is given the rules. The anthropomorphic, vaguely repulsive name of the course is, at first, the only clue.

GAMEPLAY: Students teams are given 3 minutes to announce a precedent project. The projects for selection are bizarre: A tufted pillow house; a rubber booth; a canvas box; a building of hydroponic fur.... Selection is by affinity rather than rationality. In one week, each team has built a detailed replica of the exterior envelope. One group learned to cast glass. Another lodged a giant plastic egg in a block of polyurethane.

Teams are dissolved.

GAMEPLAY: Each student produces flexible skin prototypes. One may be modeled after precedent. The rest are deliberate deviations. In subsequent rounds, ownership is disallowed. Misappropriation and theft is encouraged. Students claim skins by desire: the soft, sticky, weird.... They abandon their own work in favor of the eccentric objects of their peers.

A premise emerges. The building membrane that maximizes tactile and visual engagement is prioritized. Neither the object nor the viewer can be neutral. Each tempt the other on the spectrum from manipulation to submission.

RULES (PART II): Teams re-form around object affinities. The cabinet of curiosities is confronted by real obligations of skin. Teams present to an expert in building envelope engineering. All presentations must be narrated video. Only the visitor is allowed to speak.

GAMEPLAY: Videos are thorough, thoughtful, and hilarious. The engineer is impressed. Prototypes are shown. The engineer is horrified.

RULES (PART III): THE GOLDEN RULE (Nelson, The Art of Cruelty, 2011)
Students read Maggie Nelson’s essay on complicity between audience and artist in “cruel” performance works. Many assumed the essay would be about geometric ratios. Some thought it was revolting. The resulting discussion of the relationship between architecture and observer/occupant is the best the instructor has seen. The architectural skin is re-cast as the master manipulator, and the moral/ethical position of the envelope is called into question.

GAMEPLAY: Building skins emerge that are technical and sensual. Team names: “Fatty Flaps.” “Diabubical,” “Flesh Mesh,” “Canvas Ripple,” “PerFOAMative,” “Fiber Clouds”, and “Rubba Bubba.” Objectives coalesce from the field of play. Prototypes make precise claims to utility and affect. Fabrication is opportunist combinations of digital and analog. Mock-ups are poured, foamed, carved, sprayed, filled, stitched, and teased into form. Through a focus on the immediate material relationship between architecture and observer/occupant, students redefine the game itself.

iPlace

Rana Haddad, American University of Beirut

Lebanon has been operating within a deterring security and political environment. Its weak infrastructure base, absence of long term planning, sectarianism, and political favoritism have pushed the country's socio-economic capacity to the very limit. As a result, Lebanon records the largest, in its region, of electricity generation and transmission shortages, and the highest of air and water pollution resulting from a critical threshold in waste accumulation and disposal. Moreover, Lebanon registers the highest ratio of refugees per capita (UNHCR).

Today, as the youth are asked to partake in the Lebanese late general elections, one cannot help but wonder how they will find their places of belonging in the city; hence BePublic / Appropriation_2018 befell. The studio took on board Beirut status quo as a fait accompli. Moving away from representation, we chose to take the risk, and move to the streets of Beirut. We could not but notice that ever since the civil war (1975-1990), Beirut's survival was only made possible through its informalities. As dwellers devised their own tactics of making do [faire avec], we chose to join their game, and instrumentalize their tactics. Based on Michel de Certeau, we revisited these informal tactics to empower them as weapons of the powerless.

BePublic / Appropriation_2018, will culminate with 1:1 built installations in the city within the discourse of a participatory approach. We aim to arise a new reflection of the city's normal. As people come to the idea of realization through use, our installations will be acupuncture in the city examining the mundane and the restrained.

BePublic's aim is not about finding solution, but rather for us as players in the city to create the conditions under which something new is to be triggered.

"The problem today in architecture and other things is that representativeness is the dominating question, instead of the desire to create, to see [and] feel a surrounding atmosphere, as if someone touched you, leaving something with you" *.

The built installations, with a short life span, will reveal an implicit liaison between architecture and a hushed public life that can alter the seemingly inevitable privatization of Beirut. By their ephemeral nature, their produced dynamics will effectively amount to a socio-political act. They could last, decay or gradually fade the more they become exhausted by the city. They will act as tool to awaken the citizens' silent rights that have long been numbed.

Keywords: public installations, fait accompli, risk taking, here and now, acupuncture, temporality, ripple effect, city players, informalities, ephemeral, tactics, happenings.

*Reclaiming Art, Reshaping Democracy, Estelle Zhong Mengual, Xavier Douroux. Les Presses du réel 2017)

Who's at the Table?

Shannon Criss, University of Kansas

Nils Gore, University of Kansas

To counter pervasive polarization, and ensure equity and inclusion, spaces for dialogue and empathy are necessary. Finding ways to open up the roles that many play and exercising the ability to work against judgment and bias is critical to finding common ground and moving towards shared, healthy community life. In our work, we consider multiple interests in the pursuit of successful outcomes. We have developed strategies that harness the positive interests and energies of participants to persuade (less-positive) others by evolving and leveraging all of the interests at the table for the ultimate betterment of the project. We are finding ways where local alliances are re-imagined that influence alternate architectural outcomes.

Who's at the Table? is a role-playing game we developed so players can see the process play out in real time by adopting randomly-assigned personas, in the context of a place-based project

proposal (also random). The project is pitched by one of the players at the table, the interests of the different personas are discussed and the project is evolved in the course of the game in a manner responsive to the desires and fears of those at the table. In one example, a project pitched as a simple community garden might evolve into a community garden with a special focus on positive youth participation because Officer Green, a youth resource officer at the table, was willing to put himself forward as a champion of the project, persuading Mr. Brown, a concerned neighbor, that additional activity and eyes on the street would make the neighborhood safer. In this game, players practice empathy and evolve the project into a more achievable incarnation. It demonstrates that the definition of the project through the skills of those at the table may be the most important step in its eventual success. Risk-taking is encouraged and new forms of collaboration and community engagement are developed through role-playing. This presentation will share the development of this game, details of the methods and product, illustrate how this is played and the outcomes of the insight gained by participants.

CANDY LAND (scape) III

Date: Saturday, October 13, 2018

Time: 11:00 AM - 12:30 PM

Disrupter: Antonio Torres, University of Illinois at Chicago

Generative Misbehavior at Play

Naomi Frangos, New York Institute of Technology

Misbehavior, typically associated with social disobedience, inappropriate usage, or ill-functioning machines is recast as an opportunistic condition that fuels the creative design process. As a generative mode of architectural production, misbehavior can be used to subvert the normative conditions of material, process, and use in search of unexpected paths and unspoken narratives. Rejecting a fixed, static or controlled approach in architecture that obeys strict rule-sets, this research explores misbehavior at play as agency for design that incites play through experiential experimentation often overshadowed by pre-configured, pre-programmed or preconceived labels of what we already know and deem acceptable or familiar. Generative misbehavior is unpacked through three oppositional provocations: 1. 'Release, not hold', calls attention to fabrication methods informed by technique or material intuition. 2. 'Play, not prescribe', questions the design of spaces that prescribe particular uses in favor of those that permit the body to take command of spatial decisions. 3. 'Search, not follow', prioritizes the act of finding over the default tendency to concede to a predetermined path that 'plays it safe.'

As a physical investigation of these provocations, our current design-build project to imagine and realize a playscape environment became a testing ground for misbehavior as an agent in architectural design. Using the construction technique of fabric formed concrete, formwork is no longer a fixed condition, but rather a variable apparatus that incrementally shifts the fabric, activated by engaging the body, and together behaving like an instrument that "instructs" the process rather than executes a particular task. The notion of play is decoded through enacted bodily gestures and recorded as sequential movements that recall Eadweard Muybridge's "stop-motion" animated figures and provoke the possibility of an architecture in a state of transition. A series of experiments with fabric formed concrete cast as modular units enabled generative misbehavior to be revealed through the acts of release, play, and search. Bending to external forces, 'release, not hold' revokes the rigid mold and permits gravity, weight, and elasticity to inform the plastic substance to find its own shape against the cloth and allow unexpected forms to emerge. Considering playful acts in relation to the body's still and moving datum lines, 'play, not prescribe' renounces programmed scenarios to allow for play; modulated aggregation and variable undulating surfaces liberate possibilities for unimagined bodily positions in space to occur. Curiosity in the creative process invites 'search, not follow' as a learning paradigm in making, challenging goal oriented paths towards design solutions. Putting these provocations into practice commands architecture to claim its dynamic position by resisting control, throughout its inception and beyond its completion.

Precarious Playgrounds

Sandy Litchfield, University of Massachusetts, Amherst

In his book, *Playing and Reality*, child psychologist D.H. Winnicott proposes that an abstract playground exists between two people in a relationship. This potential space, as he calls it, hovers between the inner worlds of an individual's mind, which are private and subjective, and the external reality that we occupy together, in which observation and experience can be shared. Part of the game is to test our inner world—our ideas, thoughts, hopes and dreams—in and against reality.

For architects, designers and artists, the studio is also a playground, one that facilitates and exercises the imagination through make-believe theoretical frameworks. On the one hand, it is a relatively safe place to take risks, experiment and play. On the other hand, it requires a significant

commitment of time, energy, and money. The value of the studio-as-playground lies in its pretense and potential. It's a place for our imaginations to take off into make-believe worlds as a way to rethink the world we now live in.

Architecture itself can act as a playground too. In the 1960's Cedric Price and Joan Little conceived of Fun Palace, a performative platform meant for all members of society. In this interactive cultural space, the game was to have fun. It was a place for amusement, experimentation, and discovery; a place to create, explore and learn. Although Fun Palace was never realized, it had an enduring influence on future buildings including the Centre Pompidou, and most recently, the Shack by Diller Scofidio + Renfro (currently in construction). But what distinguishes Fun Palace as a play-space is its precarious nature, its indefinite and unpredictable form which allows for the spontaneous activity of reality testing.

This paper argues for three design strategies (rules) that promote play as a form of creative activity and cultural practice: (1) It must have a changeable form, allowing for improvisational extensions, alterations and interventions. Without a changeable form it risks becoming a monument or spectacle inspiring awe perhaps, but not intervention and agency. (2) The infrastructure must be exposed. Without an exposed infrastructure the design risks turning into a simulacrum or hyperreal construction (turn the fake castle at Disney World inside out). (3) It must be designed to be temporary. Without impermanence it risks banality, platitude or sheer exhaustion (imagine a Burning Man that never ends).

Whether it occurs in a studio, or some other built environment, having a potential space to play— to test our imaginations in and against reality— is important not only for creative practitioners, for all citizens. The precarious infrastructure of Fun Palace, along with its shifting ladders and cranes, is comparable to a circus, except here, the spectators are also the players; they make their own acts, their own sideshows, their own rings. They can even invent their own rules (or break the ones in the paper). This 50-year old concept yields important strategies for creating future cultural experiences that are fun, inclusive, and adaptable to changing populations.

Reinventing Familiar Design Tools (RFDT): Architectural Design Process as a Gaming Experience

Ebrahim Poustinchi, Kent State University

This paper offers a project-based research study on the design process using hybrid digital-physical design platforms. The Study presented in this paper—referred to as Reinventing Familiar Design Tools (RFDT), uses both theoretical and case-study research mechanisms to evaluate the possibility of a physical/digital gaming experience/environment as interactive design platforms.

In 2015 curator and critic, Sylvia Lavin called for “new creativity” in her curated exhibition “Man and Machines” at the MAK center of art and architecture in Los Angeles. Lavin describes what it means to be creative today and how increasingly larger amounts of creative resources are being put into producing new tools and concepts that are designed not to make things but, to amplify the creative capacities of others (Lavin, 2015). The RFDT supports this vision and questions the influence of this new “thinking” on not only the new use of the technology in the design process but also on how this “machine” language and thinking-flow would impact/change the way that we can use traditional components of the design process.

The rapid growth of digital design—as a thinking medium has shaped a new understanding of the “Design.” The accessibility of design and prototyping platforms (e.g., online modeling platforms and desktop 3D printer) has established an increasing desire for designing/making among non-designers. On the other hand, the design platforms are not ready for this new audience. The technical, function/command based design interface of most of the design platforms—both digital and analog, makes it almost impossible for a non-designer to design. In comparison to other mediums, disciplines, and devices with a broader range of audience such as gaming, augmented or virtual reality, smartphones, and online websites—to name a few, design software platforms—from an operational point of view, are lacking a significant component: intuitive learning/operation process.

By studying “No Keyboard, No Mouse (NM-NK)” (Figure 1) and “Mixed Architectural Robotic Interface (MARI)” (Figure 2) projects, this paper demonstrated the potential of interactive game-like design environments to promote an understanding of design for non-designers, while simultaneously retaining the creative power of the design environment. The users used the RFDT method to investigate how this interactive/intuitive gaming approach affects the design experience of designers and non-designers. We sought to answer the following questions:

1. How can architectural design process become an interactive, playful experience?
2. How the introduction of the design process as a gaming experience, would influence the design decision-making matrix?
3. What would be the role of an architect in an “all-designer” world?

This paper demonstrates the potential of the RFDT method to redefine the design process through gaming and interaction, with an aim to have an audience that is more diverse not only as the users of the design outcome but also as participant “designers.” This customizable process encourages the hands-on procedures as a feedback and simulation loop to empower an intuitive design learning process through gaming. The research has proven to be an invaluable resource for both designers and non-designers to communicate more playfully, with a universal language.

The Egg Hunt / A Spatial Practice of Informational Exchange

Jonathan Scelsa, Pratt Institute

The egg hunt caters to the human instinct of exchanging information through the playful hiding and later finding of informational objects by a select few that residually activate the spatial environment in which they are concealed. The origins of the egg hunt have been apocryphally tied to spring and metaphorically thereby to the act of re-birth. Most commonly associated with Christian worship, during the Lutheran Reformation, eggs which often featured deeply ornate and symbolic decorations as an homage to a larger narrative, were hidden on the holiday of Easter within the field of the garden as an educational device for children in playful practice. The human compunction for concealing significant objects of information in a larger field has broadened the term of ‘The Easter Egg’ for use in other media, notably in literature, film and later digital video games. As an example, after seeing a film where one becomes aware by rumor of the director’s hidden intention, one begins to lose interest in the prosaic formulation of the narrative or the muscular craft of its world in lieu of the instinct to partake in the playful social game of finding and naming all of the references laid within the sumptuous feast, perhaps even force a second viewing to look harder.

The practice of crafting the ‘egg-hunt,’ is synchronous with the evolution of much of the world-building genre of the video-game. Beginning with the planometric and oblique based exploration games of the earlier 80’s and then later into the third dimensional environments of the 90’s, the hunt entail players to spend scores of time past their completion of the main narrative objective combing the walls of digital palaces, searching for illusionary surfaces that hide rooms with secret information gifted by the creators. Most recently, the design of the game has almost completely abandoned narrative and focused immense designer intention on building detailed worlds with secrets and hidden treasures in order to elongate the playful experience of hunting. Egg-Hunting offers a different way to enjoy or play the media and more often the awareness of the egg’s presence forces a second play through so that the viewer might try to collect all of the hidden treasures. Can architecture learn from this practice, inviting its viewers to search and activate more of the entire space of the building in search of greater meaning or perhaps even come back again through rumor?

This essay will flesh out the history of the spatial practice that is the egg-hunt as it was first enacted in the landscape garden and later through the evolution of video games. The argument will present illusionary details of architectural practices of Francesco Borromini, Vincenzo Scamozzi, Ludvig Mies Van Der Rohe, as well as the work of the author to demonstrate the usage of surface signs, details and signatures that call attention to both intra and extra disciplinary conversations and even the possibility of a political message via double meanings and double-takes.

CHUTES AND LADDERS (and ethics) III

Date: Saturday, October 13, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: Julia McMorrough, University of Michigan

A Transgressive way to Play! Skateboarding and the Oblique

Jose Luis Mateluna, The Cooper Union

“A child sometimes is a product of his environment
And sometime a child’s environment is a product of him”
Mark Gonzales (skateboard legend and artist), Untitled poem, 1999 (marker on paper)
(Figure 1)

As architects, we have been engaging gravity when designing a wall, a floor or a roof. In 1964, the French architect Claude Parent and the theorist Paul Virilio introduced the theory of the Oblique Function, creating an environment built on a continuous surface where floor, wall and roof became one. By transgressing the relation of the vertical and the horizontal in architecture they depicted a new condition for the body in relation to gravity and the forces at play (Figure 2). Simultaneously with their thesis, a new playground was being constructed by children on the streets, skateboarding was introduced, producing - as well - a new modern condition for the body.

Without realizing it, skateboarders were inhabiting and producing the oblique (Figure 3), challenging the normative of what was possible on the ground. With this body engine moving-surface (skateboard) children were defying the laws of physics and creating their own playgrounds and environments. The fluidity, speed, and continuity of skateboarding overlap with Parent & Virilio’s ideas, rendering the activity of skateboarding and its construction a physical expression of their concepts.

Skateboarding became of interest for kids and adults just as it questioned the design of architects and urban planners. The John F. Kennedy Plaza (a.k.a Love Park) in Philadelphia completed in 1965, designed by local City Planner Edmund Bacon and architect Vincent G. Kling, represented the dreams of the city to become modern. With big concrete areas along with smooth benches, ledges and various types of stairs, this space turned into a skateboarding mecca since the 1980’s with a worldwide recognition. This not being the aspiration of the authorities for the space, the city redesigned the park in 2002 in order to eradicate skateboarders from the Plaza.

As a reaction to this event, a new space was constructed in the city, a “handmade” skatepark “by and for” skateboarders that continues to grow under the I-95 in the southern peripheries of Philadelphia. FDR skatepark, built and designed by skateboarders, clearly physicalizes the ideas of Paul Virilio and Claude Parent, constructing a continuous “useful surface” (Figure 4) improving the experience of the fluidity and speed of the activity, helping the body transgress the forces at play.

This research highlights the overlaps between Paul Virilio and Claude Parent’s theories and the evolution of Skateboarding. Discovering their ideas embodied in skateboarding and skateparks, presents a playful new way of reading their work while recognizing the impact of this activity in society. The recognition of the potential of the relation between the body and the forces at play are exhibited as a transgressive way to design, thus questioning our static everyday life spaces and the way we inhabit them.

Amusement: Entry from an Encyclopedia of Calamity-Mollifying Devices for the Modern Metropolis

Elijah Huges, Wesleyan University

As a spatial narrative, architects have long preferred the enlightened ascension of the promenade architecturale over emergency egress and its evocation of irrational frenzy and panic-stricken escape. Like the promenade, egress was conceptualized as a collection of spatial components and visual cues, facilitated by circulatory equipment. By contrast, egress is a topic largely absent and consistently repressed from architectural discourse, as if the morbid implications of its consideration are irreconcilable with a disciplinary unconscious incapable of imagining its own death. The history of emergency escape in architecture is unaccounted for in dominant narratives of modernism, even as the emergence of egress as a designed condition was both a by-product of, and catalyst for, architectural modernity. Just as Elisha Otis's critical invention was not the elevator itself, but the safety brake, the birth story of the tall building in the latter half of the nineteenth century would not be complete without the afterbirth of the fire escape. In both cases, new technologies promised architectural revolution, while safety devices delivered the "non-event as triumph."

In spite of a focus on "fireproof" materials and methods on the part of design communities at the time, and historians since, cities struggled to determine how the lives of their citizens could be safeguarded within an expanding scale of remarkably combustible material, architecturally arranged. Early fire escapes typically arrived on site with other fire-fighting equipment or were deployed from within the building. In 1860, New York became the first American city to legislate the installation of fire escapes on all new and existing tenements. Revisions to the law in 1862 stipulated simply that tenements were required to "have placed thereon a practical fire-proof fire escape." In addition to creating an instant market for fire escape products, the ambiguity of the law prompted a flurry of patent applications, public demonstrations, and marketing campaigns for purportedly practical egress devices (from automated pulley systems to exterior helical slide towers) intended to facilitate escaping a compromised, multi-story building.

Functioning as interfaces between the individual building and the emerging infrastructures of the city, these devices tended to evolve from temporary, transitional, and mobile equipment to embedded, permanent, and spatialized products. In doing so, they implicate architecture not as a source of shelter, but as the site of future emergency from which one will inevitably need to escape. Against architecture's "firmness," the devices re-code architectural space, collapsing interiority and reshaping enclosure. The result is a "paradoxical dualism," or a "double-coding," clearly not in the sense Jencks meant, of Architecture as both "architectural" and catastrophic, shifting at a moment's notice between these two states. From experimental chutes and ladders to the sanctioned "Slide Escapes" and "Smokeproof Tower Stairway" of the National Fire Protection Agency's widely adopted Building Exits Code, this paper will trace the early history of designed egress through a series of specific devices with a focus on slide fire-escapes, prevalent between 1890 and 1930, that were patented, produced, marketed, and sold as devices for both life safety and amusement.

Graphic Fields

Hans Peter Tursack, Massachusetts Institute of Technology

Contemporary cultural criticism of the last few decades has been keen to remind its readers that we are living in a paradigm composed of surface-level illusionism. In philosophy, Fredric Jameson's readings of postmodern space, Jean Baudrillard's omnipresent "simulations" and Mark C. Taylor's work on "dermagraphics" paint a world of ontological smoke in mirrors in which "...if you strip the skin off any structure, you reveal another skin, and another below that". In aesthetic discourse, criticism has similarly shifted from rigorous, deep-structural analyses of form and symbolic codes to descriptions of airy, agile images, fleetingly moving from one medium (or "format") to another at the speed of light. Art and architectural theory - from Hal Foster's critique of the pop commercialization of Post-War avant-gardes, Sylvia Lavin's work on West-Coast Minimalism and projection installation and Giuliana Bruno's catalogue of surface effects in film, new media and the built environment - have also taken up questions of surface vs. depth, atmosphere vs. figure/ground and structure vs. skin with a remarkable sense of urgency.

While a full account of the shift from structure-to-surface in the intellectual climate of the last quarter of the Twentieth Century and the beginning of the Twenty First is beyond the scope of this paper, I would like to begin to construct a framework for understanding the stakes of this movement through the lens of several Structuralist and Post-Structuralist philosophers of surface and vision with Jacques Derrida's reflections on art, literature and philosophy as a key reference point. Of particular interest, is the question of whether it is ever possible to truly escape classical notions autonomy, symmetry and the self-enclosed totality of a work of art; ideals these more recent cultural theorists are so keen to insist are irrecoverably absent in contemporary work. Is our culture truly stuck in a paradigm of surface; a moment in which our art objects (visual, literary or otherwise) participate in everyday life - the banal, literal, surface-level space we ourselves occupy - or can we still attribute an autonomous complexity to such entities?

There is, it would seem, much anxiety around our contemporary moment in which the project of illuminating "underlying structures" (a practice codified in the work of the great German art historians such as Heinrich Wölfflin) have given way to the faster, more immediate problem of surface in art, architecture, literature and film. Where the utopian dream of Post-War neo avant-garde artists in New York was once a phenomenological encounter with a world of objects so completely devoid of complexity, semantic baggage and history that they seemed to exist in the same "real time" and space as their observers, the contemporary artist has far less confidence in distinctions between the real/material and the virtual/cultural.

The Castle of Pertinacity: A Contemporary Morality Play Set in Brooklyn

Margarita McGrath, Virginia Tech

This paper sportively adapts the genre of a morality play to present a true-life case study of two building professionals who played significant roles in Brooklyn development over the last quarter century. The proceedings are set court, with the New York Department of Buildings (DOB) as Plaintiff. The defendants, Supersizer and Fixer, adamantly profess an ethical stance based upon using their expertise to assist clients in optimizing properties - namely, to build more square footage in less time. Chutes and Ladders, the title of this paper session, is a fitting analogue to navigating the building permitting system in Brooklyn.

The morality play format is also an apt format for this chronical on professional ethics. As in early morality plays such as *Castle of Perseverance* (est. 1405-25) and *Everyman* (1510), there is a tendency today to approach modern canons of professional ethics as pitches of good against evil. During the development of the genre over the two hundred or so years leading up to Shakespeare, characters (named after the trait they were designated to allegorically symbolize) gradually took on more nuanced portrayals of human behavior. By *Macbeth* (1623), evil is fragmented and hidden inside multiple characters and Shakespeare leaves the audience to sort out for themselves which characters are evil, and what their objectives and motives are. In our modern *Castle of Pertinacity* Supersizer and Fixer, despite being accused by the Plaintiff of grievous and brazen violations of the building code and filing procedures, won the support of the Brooklyn AIA and many local architects. Like Shakespeare's audience and the local building community, the reader will be challenged to decide for themselves who plays Vice who plays Virtue.

The contribution of the paper to the discipline and practice of architecture is a discourse on ethics situated between the moral agency of a noble profession and the AIA's professional code of ethics. This case study is also pertinent to the discussion of the growing gulf between professional ethics and corresponding spheres of control. The morality play format will serve to structure the situation to create a compelling portrayal of the complexity of ethical practice in the obstacle-ridden landscape of endeavoring to build in Brooklyn, New York.

List of Characters

Ordinarycitizen

The Expeditors --- Supersizer and Fixer (as Good and Bad Angels)

Four Sins - Pride, Lechery, Blind ambition, Greed
Four Virtues - Knowledge, Discretion, Beauty, Freewill
Plaintiff
Professor
Deceit
Loophole
Chattyrivals
Justice, Equity (the Judges)

The Situational Ambience of Play

Shang Wei Lin

Floating in the Grand Canal of Venice, Teatro del Mondo, designed by Aldo Rossi in 1979, was a theatrical space that blurred the line between imagination and facts. The floating theater originated from the eighteenth century carnival, its wood material originated from the Gondola, and the octagonal plan resembled a lighthouse. The aimless quality derived from constant floating and mooring, which produced oscillating skylines wherever it traveled, juxtaposed the archetypal form of grand Italian architecture with toy castle simplicity. The color of the theater was also accentuated by the dramatic reflections of the sunset on the sea.

Rossi's Teatro del Mondo marked a turning point of an imminent construction, signifying possible ways the historical and visual layers of a city can be playfully opened up. It took the form of Shakespearean theater, encircled by three tiers, where spectators could look down to the central stage, the perspective from which people in surrounding buildings looked at it as an entity floating. And just as people observed events on stage, they became characters in the theater at an urban scale. In his early sketches, Rossi drew upon his experience in San Carlone in Arona, a giant statue where he ascended by the stairs to its head and looked out through the two opening of its eyes to the surrounding landscape. He described the interior-exterior quality derived from this collapse of scale. Also revealing of Rossi's play with scale could be found in his sketches of domestic objects and an installation, "Teatro Domestico" for the Milano Triennale in 1986, another permutation in which pots and furniture were displayed on the floors of a cupboard at a house-size scale.

What should be the architecture of a space that sparks play? At the level of image, much can be found in the work of de Chirico, with estranged street scenes and their surreal light-shadow, as well as Capriccios of Palladio's architecture by Canaletto (1697), where imaginary scenes are rendered believable. They defamiliarized the geographic attributes in a city that has exclusive maritime culture and urban space particular to its vernacular scene, such as the Piazza San Marc, and Rialto Bridge. On the other hand, Teatro del Mondo also radicalized the relationship between function and form. The structure was built with metal scaffolding welded on a yacht and clad by timber, presenting the temporality of the space of which theater was just one of the possible programs. It became the metaphoric theater, in which everyone played his/her role in the city.

The movements and mutations of Teatro del Mondo contain elements that produce theatrical plays in a city with a unique configuration. Is it possible that because of floating and mooring, as well as because of the juxtaposition of layers of visual and tactile qualities that displace time and space, Venice is the real Situationist City producing the experience of "Derive" in a most radical way? An experience that instigates our primitive desire of being in unexpected territories like a flaneur.

CLUE (-d in or out) III

Date: Saturday, October 13, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: Tamar Zinguer, The Cooper Union

Clues to a Mystery in Banff; Rebuilding Wright

Kendra Schank Smith, Ryerson University

Albert C. Smith, III, Ryerson University

Yew Thong Leong, Ryerson University

Zaiyi Liao, Ryerson University

Our detective-like research team is piecing together a series of clues in an attempt to rebuild the destroyed Frank Lloyd Wright Pavilion in Banff Canada. The project team consists of specialists in structures, technology, design, history, and heritage. This diverse group of professionals reinforces the idea that design in architecture is not solely about designers but instead involves playing cooperatively with specialists in multiple fields.

Understanding concepts of play have proven useful as we recreate this project. Play, as a philosophical concept (Hans-Georg Gadamer, James Hans), provokes the actions of 'give and take' that can become a design dialogue. Aspects of play include the boundaries ruling the project such as site conditions, local regulations, current building practices and Frank Lloyd Wright's intentions. Play includes representational qualities that make something 'stand for' something else, and in this case the reconstructed Pavilion replaces the old. Further, our team has learned through simulation, a process of representation. The importance of play is the intelligibility or the learning that results from the activity of play, and certainly this project allows the team to further understand Wright's work. An aspect of play includes repeatability and the repeating of Wright's design allows the team an opportunity to alter and manipulate to discover something new.

Hans writes that play "requires that the 'rules' of the game that the work of art itself establishes--the player begins with his [her] own fore-conceptions, but he [she] must be led by the work itself, must accept the rules of the work itself." (Hans, 1980) In an example of how we are using such rules in the concept of play, the Frank Lloyd Wright Banff Pavilion Initiative is recreating incomplete drawings of the Pavilion. We are exploring Frank Lloyd Wright's design process, and specifically, his use of geometries, the drawings for the Banff Pavilion are being re-created. Clues have led to evidence of squares and the golden section ratio in the plan, section, and elevation. From these clues, the research team was able to determine probable dimensions using proportion. Other activities using concepts of play include research into past flooding of the Bow River that contributed to the Pavilion's demise, exploration of photographs and archival materials, heritage principles that will guide the rebuilding, and reconstructive research into materials, mechanical systems, structure and acoustics that will bring the building back to life.

The team is currently looking for clues to provide evidence that will allow an accurate rebuilding of the Banff Pavilion. We have been asking questions such as who or what originally destroyed Frank Lloyd Wright's Banff Pavilion? Was the Pavilion's demise an accident, an act of nature or a premeditated action – and what can prevent it from happening again? Who were the suspects and what role did they play in the original construction? What will allow the Pavilion to function today? We will present the clues, discovered through concepts of play, as we prepare for the rebuilding of the only public Frank Lloyd Wright building in Canada.

MacGuffin

Julia Capomaggi, University of Illinois at Chicago

Alfred Hitchcock developed a narrative technique known as the MacGuffin, a plot device to construct the central focus of a story that could easily disappear or vanish from the main narrative. Hitchcock referred to the MacGuffin as “the thing that spies are after but the audience doesn’t care.” That thing that seems important but could end up being anecdotal at the end.

Starting in issue no. 436, the Italian magazine *Domus* published a series of articles and photographs by Ettore Sottsass where he recorded visits to domestic spaces, the rooms of international cultural figures located in different cities around the world. The photographic record shows interiors that contrast with the reports that are usually published in design, architecture, art and interior design magazines, where the scenes are staged, the spaces empty and the objects neat. Sottsass’s photographs show disorderly interiors, huge parties and snippets of life. What all the interiors he records have in common is that they are not total designs but places where objects generate friction with the space that contains them and informs about both, the architecture and the subject who inhabits it.

The interiors that Sottsass visited serve as prototypical samples of specific situations as models that can be expanded and generalized.

This presentation brings together these photographic records in 4 categories: “Show and Tell Rooms” focuses on the subject as the orchestra conductor of the objects around them, either because of their layout in space, their status as “servants”, their translucent materiality or because they are part of a certain design and life philosophy that affects them. Therefore, the domestic space is their work of art.

“Atelier Rooms” examines the houses of artists where their own work is engaged in ongoing dialogue with everyday life: the work as a permanent occupant of the home.

“Fetishist Rooms” are interiors where the relationship between the object and subject is limited to an intimate circle; the object is the mascot of the house and its meaning is reduced to the system of objects around it and to the public to whom it is displayed. The objects take on a “ritual quality envisioned as an altarpiece for the domestic liturgy”.

Finally, in “Genealogical Rooms,” objects are a record of the generations that have occupied the house, the passage of time, and the different occupants who permeate the space.

Sottsass’s MacGuffin, the proof of the crime which ends up being irrelevant in his stories, is the room itself, the architecture, which recedes into a generic, dispensable background: the room as the container within which the person and their objects are what construct the domestic space. This presentation will link the photographic records and categories defined by Sottsass with several records of domestic interiors in contemporary practices like Sanaa, Johnston Marklee, Lagarita Navarro, Fala Atelier, Atelier Bow-Wow, Junya Ishigami and others, where the works of architecture are presented via domestic interiors which are invaded by objects, plants, works of art, furniture, shoes and actors in a crime scene as a technique for constructing an architectural narrative.

Rooms of Display: Domesticity Within A Culture Of The Exhibition

Jimmy Carter, University of Illinois at Chicago

This paper argues that the role of the exhibition has begun to impact contemporary architecture’s concept of domesticity; a result of conflating the room of the project with the room of the exhibition.

For both the home, and the exhibition, the room can be recognized as a space constructed by its content. Understood in the broadest sense as an enclosure for inhabitation, the domestic room contrasts with the exhibition room, whose content is disseminated, produced, and received through a much wider set of ‘channels’ and media. Yet, in a moment in which our media and information platforms give architects access to everything at once, practices have begun to use the room as both a container of an occupant’s life, and a container of architectural histories. Within this

“atemporal” moment, contemporary architecture has sought to display its referential production just as much as the individual has sought to display theirs. As a result, the rooms of both the exhibition and domestic life have begun to assimilate, often bringing about a denial of open space with room agglomerations. The paper thus seeks to unfold an analysis of the contemporary exhibition room through the work of Office KGDVS, Johnston MarkLee, Pezo von Ellrichshausen, Bureau Spectacular, and DOGMA; all architects who have significantly contributed to the recent rise architecture exhibitions, and played with their conception through the individual room.

While focus on the house—or total living quarters—as a driver of dramatic change is a well-worn critical angle of the architectural movement, the analysis of exhibition culture—in relation to the room—can be used as a paradigm from which to study both contemporary principles and lineages within recent concepts of domesticity. This novel approach is foundational to what I hope will be a new approach to domestic architectural scholarship: the room as a living playground for architectural history. In this regard, the contemporary subject’s space becomes the place to play with time.

The Scene of the Crime: Flatness and the Interior

Constance Vale, Washington University in St. Louis

The prevailing condition of flatness makes the image the premier stage for contemporary conversation concerning the interior. Technologies of surveillance and targeting have reshaped our view of the world through device screens, and while aerial views have grown in importance, so has the desire to produce nested images of the interior. But the interior is resistant to flatness when it is conceived of as a homogeneous space-defining boundary.

A Brief History of Domestic Scenography

To investigate the problem of flattening the interior it is useful to examine the role of the screen and the frame. In linear perspective paintings, the frame surrounds a window to the “real”, the Latin *perspectiva* “to see through” suggesting the screen is immaterial. The perspective is fraught with its problematic claims to objectivity, but history gets a second chance at “seeing through”, the word diorama shares the same meaning.

Dioramas fall between image and object; a diorama may be a painting, a building, a built-in, a model, or a room. The common thread is in the unsettling of frame and screen and the unusual conditions of flatness produced. J.L.M. Daguerre’s diorama building housed two-sided linen paintings, painted on the back not through illusionistic techniques, but by considering the thickness of paint — rendering shadow thick enough to be opaque and light left as emissive blank linen. In Thorne’s Miniature Rooms the walls of the model are always doubled; the first enclosing layer is the interior of the depicted room, while the second is offset from that producing another interior painted in the guise of the exterior. US Colonel John F. Ohmer’s domestic camouflage concealed World War II factories below a faux suburban landscape, consisting of a giant painted canvas with squat models of houses that doubled the screen in the canvas and the mono-focal camera at an extreme remove. The space of these diorama is not the projected picture, it is the screen’s dimensional data and the frame of the interior surface in which the diorama’s interior is variably immured.

A Case Study of the Scenographic Interior

I have engaged the problem of the flat interior in the design of a contemporary diorama for the opera *Hopscotch*, directed by Yuval Sharon. The interior of the pavilion housed 24 concentric screens, live-streaming performances taking place in moving vehicles and locations throughout Los Angeles. The finale placed actors, audience, and vehicles inside the frame: the pavilion interior. Recursivity flattened the interior to the wall that held the monitors and wiring. The expansive city, doubled in the recorded images, flattened into a backdrop.

The Politics of the Flat Interior

The contingent surfaces that frame possible interiors spark the potential of the open, deterritorializing boundaries. Displacing the screen from the frame by misreading the rules of the diorama, opens new possibilities to define the interior through layered representation. Representing the interior as delaminated and thickened gives rise to thinking about reshaping how the interior is depicted, navigated, and engaged.

RISK (taking) III

Date: Saturday, October 13, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: Anne Rieselbach, The Architectural League of New York

Lives Sacrificed to a Beautiful Building: The early years of Sage College, Housing Coeducation and a Reversal of Spatial Autonomy

Sergio Preston, Cornell University

This project takes Sage Hall as its architectural protagonist, during a period from 1872 to 1884. The former date marks its construction on the campus of Cornell University, significant for being the first accommodation made by any American east coast university for the sake of co-education. The latter date marks an incident in which the University's Board of Trustees decreed that all women students who chose not to live in Sage Hall would be expelled. Architecturally, Sage Hall was a key player in each of these episodes. As a dormitory, it programmatically mitigated what was perceived to be women's lesser physiological capacity for academics, and trained women for their social role as men's helpers. Sage Hall was also a clear manifestation of the difference in pedagogical obligations conferred to the male students, and was ultimately a crucial point of leverage by which the Board wrested autonomy and self-governance from the women students. This case study provides a clear picture by which to judge similar, contemporary uses of architecture in securing programs of masculine hegemony.

This paper has three phases, the first establishing the building's context and significance. Sage Hall was built in the shadow of the Seneca Falls Convention, the birth place of the American women's suffrage movement. The fight for women's education was slow in being adopted nationally in part because of understandings of women's physiological inadequacies, which were eventually accounted for in the building's design. Also contextually relevant are Cornell's 1866 Articles of Organization, which unequivocally renounced the dormitory system for any students, mandating a student's right to choose their own lodging to be an essential feature of self-governance.

The Board's position changed during the second phase, when the wealthy donor Henry Sage presented funds for the building of Sage Hall specifically for the sake of housing women. This part of the project traces the Board's reasons for championing Sage Hall, and offers a detailed look at the building itself, particularly the ideological traditions borrowed from John Stuart Mill and John Ruskin that found overt expression in Sage Hall's construction and ornamentation.

The third phase demonstrates how the building was instrumentalized to justify a full reversal of the pedagogical and ideological ends to which the building had previously represented. Most of Cornell's women students chose, for a variety of reasons, not to lodge at Sage Hall. In 1884, however--absent any disciplinary provocation--the Board suddenly announced that any woman unwilling to live in Sage College would not be allowed to continue her studies. No such obligation was imposed on the men students. The rhetoric of the Board centered mainly on the women's obligation to adequately occupy an expensive building for which they had not asked, in whose design they had not been consulted, and whose amenities they found excessive. This phase draws on archival letters circulated amongst the students themselves for a clear eyed criticism of the sacrifice of the University's values and of the women's autonomy for the sake of a beautiful building.

Passeggiata: Architecture that Cheats and Breaks Rules to Make Urban Spaces Interior

James Fowler Eckler, Jr., Marywood University

In a digital age in which maps are rendered in moments in the palms of our hands, cities are being increasingly conceptualized as compositions of streets instead of spaces. They are understood for

their capacity to usher their populations from one destination to another rather than their capacity for community or dwelling. Getting lost isn't valued as an opportunity for discovery, but is instead a waste of time and possibly dangerous. There is safety in sticking to what is known, to homogeneity, to ubiquity. Rules for making cities have evolved to cultivate this kind of anxiety-free sameness.

The rules that govern most of our contemporary urban practices make bad cities. This proposal asks if we can break the rules, change the game, and make active cities with a strong urban culture once again.

It examines a kind of case study, the *passeggiata*. It is an Italian urban phenomenon of community wandering. Daily, streets fill with people moving with no destination to guide them. Their agenda is talking, drinking, shopping. It's slow. It is representative of urban culture – the shared joys, struggles, and values of a community. It defies the rules of the contemporary urban game. Firstly, it defines human behavior within space rather than naming spaces that script human behavior. Secondly, it exists across scales of design, treating the city street as interior and piazza as room; architecture defines the city, not the other way around. Can architecture mold the social forces that bring people together?

Italian cities, while not immune to the forces of homogeneity have proven to be notoriously resistant to them. Why? Are these public spaces simply too old to change, so continue under a kind of historical inertia? Or, are there lessons to be found here that can be applied to the present? It is clear that in places where this kind of community-scale act of dwelling occurs most extensively, urban morphology tends to defy the regulations contemporary cities have come to rely upon.

Rules that delineate inside and out are softened. Interiority exists as a continuum from street, to piazza, to building. The architecture activates public space through permeable, layered edges.

Rules that preserve spaces as pristine and manicured give way to the mess of opportunistic dwelling. Markets, concerts, picnics, bike races occur without warning, often without sanction.

Rules of assignment that stipulate distinct zones of habitation are all but eliminated. Public activities blend as cars, pedestrians, bicycles, and pets jostle to move about within the same spatial limits. Interruptions to this flow are a critical programmatic facet of movement as they tempt the passerby to stop, patronize, dwell.

This proposal explores and documents the phenomenon of the *passeggiata*. It examines elements of architecture that operate at the scale of the city to make urban interiority. It identifies the qualities of architecture that extend beyond the conventional limit of the building to activate public space. It asks what rules must be broken if architecture were to have more agency in making spatial cities.

The State of the Public Palace

Ashley Bigham, University of Michigan

Architects are good at the singular. We study works of singular specificity: location, architect, program, context. We often are less adept at understanding buildings as pieces of a broader network: collectives, systems, politics. In order to understand nuanced relationships between buildings and their cultural and political context, this research advocates for an understanding of both the singular and the collective network simultaneously. Using case studies in the Post-Soviet republics of Georgia, Ukraine and Armenia, this research poses the following questions: What are the risks of seeing only the singular building and not understanding the network of collective knowledge required to create it? What happens to an individual architectural work after the collapse of its broader network? How can new understandings of political networks shape our understanding of architecture?

From 1955 to 1991 a series of Soviet public “palaces” were constructed to serve the general population as sites for communal cultural activities. In a building campaign which spanned across all Soviet Republics, these buildings were the cornerstone of the architectural image which defined a political regime. At the time of their construction, the palaces were categorized primarily by

program—wedding palaces, sports palaces, film palaces and culture palaces. In contrast to their uniformity of programming, the palaces are a unique representation of the cultural and ethnic diversity of the Soviet Union rehearsing local building traditions, materials and ornamentation. Unlike repetitive Soviet housing, the Soviet public “palaces” were unique buildings which often utilized impressive long-span concrete construction to create expansive interiors. Each of the former Soviet countries experienced profound cultural, economic, and societal changes after the collapse in 1991. Many of these buildings adapted, transformed, and survived the tumultuous shift—others did not. It is only recently that scholars in Post-Soviet countries have intensely studied their architectural contributions, and for many buildings it is too late. This paper will also discuss several organizations working to educate the public and preserve the cultural value of Soviet architecture.

As we strive to understand both the node and the network, this research explores how Soviet architecture is viewed today through the lens of independent nations through three case studies: Ukraine, Armenia, and Georgia. This research examines architecture’s capacity to transform, shake off, or rehabilitate its political image. It is a common misconception that all countries which were part of the Soviet Union shared the same culture, but this research highlights the important differences in addition to their shared histories. Located in the Black Sea region, these three countries will provide an important lesson on the relationship between a common shared political history and the diversity of three different cultural groups. This work offers new understandings of political and architectural networks which space across nations, borders, and cultures. It is the result of several years of research and a series of site visits as part of individual research trips and multi-week academic experiences with students. As educators, new understandings of architectural networks can shape the way we teach architectural achievements through the broader lens of global politics.

CANDY LAND (scape) IV

Date: Saturday, October 13, 2018

Time: 2:30 PM - 4:00 PM

Disrupter: Antonio Torres, University of Illinois at Chicago

Design as Play! The Sea Level Rise Board Game

Gabriel Kaprielian, Temple University

The issues presented by sea level rise along the urban edge of coastal cities involve a complex series of challenges including: regional versus local governance, built versus natural environment, vulnerable local and regional infrastructure, diverse stakeholders with diverging interests, and population growth. With each future scenario comes multiple potential outcomes with winners and losers. How can the best policy and design be selected and tested? How will communities learn about different options and strategies for adaptation and be empowered to act? To address the pressing problems for coastal adaptation in response to climate change, ecological degradation, and urban growth, this paper suggests that game play can inspire creative communication and collective optimism.

An interdisciplinary group of students in a five-week summer program designed, fabricated, and played a sea level rise board game to better understand diverse stakeholder interests, test out coastal adaptation strategies, and explore various scenarios to inform future urban planning and design decisions. Students worked in teams on different locations along the edge of the San Francisco Bay, integrating their site analysis and climate change research into the board game. The process of developing the rules of play and game objectives opened up discussion that led to a collaborative and open-ended approach to determine potential outcomes. Students were more likely to experiment with innovative resilient urban development strategies through game play. As a pedagogical approach, designing and playing the board game was a valuable tool for students to conceptualize urban complexity and develop a robust design.

The Sea Level Rise Board Game is made for young and old alike. It seeks to bring people together from all walks of life to have a conversation about the future fate of the place where they live. The board game is contained within a portable box with game pieces, cards, and instructions for play. Maps from different cities can be placed under the board game surface, which will affect game play and strategy based on the past, present, and future site conditions. Stakeholders or “players” may include local government officials, residents, developers, environmentalists, etc. As sea levels rise, will the players choose to collaborate and create a shared vision for a resilient waterfront community, or will they follow their own divergent interests? Players will have the ability to shape the future of their community with adaptation strategy cards and game pieces that include housing development, shoreline protection, wetlands restoration, and public infrastructure in response to chance event cards related to the economy, governance, and environment.

By reflecting on the development and outcome of the sea level rise board game, this paper seeks to answer the following questions. How can games be an effective design tool? Might play enable new discussions to take place? The paper ends by examining the potential application of the board game outside of the classroom to bring together various stakeholders in coastal communities to communicate with each other and develop a greater understanding of potential future planning scenarios.

Irrational Operations

Amir W. Alrubaiy, University of Colorado Denver

This paper challenges a pervading ethic of rationality in architectural education, derived in response to intense economic, social, and environmental pressures, and reinforced by an uncritical dominance of diagrammatic and performative visualization. This overly serious attitude drives an

emphasis on design processes that aim towards formal coherence and conceptual fidelity. This focus risks foregrounding cool rationality and systematic development while diminishing or denying the role of intuitive and accidental leaps. Further, the uncritical use of rational and reductive images within a creative process often serves to marginalize the unintended implications of ungoverned thought. The spatial order of orthographics, the omniscience of axonometrics, the airtight rationality of diagrams and, as David Ross Scheer ('14) argues, the increasing prevalence of performative visualizations, facilitated by BIM and VR, risk premature commitment to the functional solutions. Overreliance on the conceptualization privileged by these modes leaves little room for irrational imaginative thought.

This paper will argue that by creating space for the production unconstrained, undirected, and unresolved images, architectural education can reassert the necessity of wandering speculation in the production of an energetic and inspiring world.

The work presented attempts to reclaim a space for the outlandish and weird within an architecture curriculum through a turn towards an intentionally open process of intuitive and accidental drawing. The paper will focus on a group of graphic projects developed within an advanced undergraduate drawing class, as well as work done in a graduate level immersion studio. Within the drawing class, students develop and exploit diverse techniques such as phenomenal transparency, collage, and texture drawing. They apply these to reconcile incompatible images, visualize incoherent spaces, and illustrate fantastic worlds. The source material ranges from Carlos Scarpa details to selections from Italo Calvino's *Invisible Cities* ('74). In the immersion studio, students enter projects obliquely by attempting to represent apparently unrelated subjects and deliberately invisible influences. The compressed timeframe of this studio forces students to rely on incomplete representations and unresolved conceptual pairings.

These projects intentionally supplant rules governing conceptual and spatial fidelity, imbedded in rational modes of visual communication, for alternate rules governing the communicative power of complex and openly contradictory drawings. While the projects draw from multiple sources, such as the multi-temporal logic of cubism or the provocative exaggerations and impossibilities of surrealism, the work primarily extends the eidetic collage logic laid out by James Corner ('96) and concepts of superimposition and disjunction expressed by Bernard Tshumi.('94)

While it is essential for architectural education to reinforce rational, systematic and ordered habits of mind, space must remain to foster students' attachment to their whimsical, undirected and emotional imagination. The exploration of non-rational images and the development of oblique graphic techniques facilitates this imaginative wandering. Finally, if architecture is to continue to serve as an embodiment of humanity's most inspiring and aspirational ideas, we must consciously adopt representation and design strategies that allow our mysterious and vague inclinations into its space.

Keeping the Discipline in Play: Architectural Thesis Projects Informed by Ludic and Participatory Constructions

Doug Jackson, California Polytechnic State University

The fifth year of the undergraduate architecture curriculum at _____ University is structured around a year-long thesis. These theses are pursued in multiple design studios, each of which provides a unique intellectual and discursive context for this otherwise independent work. In the author's studio, students are asked to consider their thesis propositions through frameworks of openness, participation, and play. Readings and discussions on these topics examine architecture's possible responses to certain contemporary concerns, including the concept of a contemporary participatory culture, and its expectations for content creation, remix and the individual customization of experience, and also architecture's nature as a mass medium within a contemporary media landscape characterized by convergence between top-down media and bottom up participation. These questions suggest the possibility of expanded architectural agency, in contrast to the typically unilateral agency of the architect. In pursuing this possibility, students are asked to consider how the contemporary expectation for creative participation differs from the flexible utility and multi-functionality that characterized previous examples of participatory architecture, and therefore how the affordance of creative agency can be based on pleasure and

play rather than functionality and work.

Accordingly, during the first two months of their year-long thesis, each student is required to design and construct a ludic object as one of their initial thesis design experiments. While these objects explore the unique thesis positions being pursued by each student, they are required to do so in a manner that affords creative user participation. In order to maximize the creativity of such participation, the students' designs must afford engagements that are open to some degree of interpretation, and must ensure that the resulting experiences are not entirely predictable. In addition, they must consider how their objects can employ limits, rules, and constraints to confer value to the user's participation. The construction of these objects—which include toys, furniture, and small installations—allow the students to negotiate the economic, material, and detailing constraints associated with translating their evolving thesis design concepts into physical form. Furthermore, the completed objects are exhibited in a public venue, which allows the students to observe the manner and degree of users' actual engagement with their work.

The concept of play is re-examined at the conclusion of the year through the collaborative design and construction of an interactive exhibition of the studio's work, which is installed in a University gallery. The students are asked to consider forms of presentation that maximize the public's engagement in the work by affording visitors a degree of creative freedom in their navigation of the exhibition's content, and by making that navigation pleasurable. These exhibitions have therefore emphasized issues associated with interaction design, including human-computer interaction and augmented reality, and have involved appropriation and modification of interfaces such as the Xbox Kinect and the Leap Motion Controller to afford users a playful, full-body interactivity. Meanwhile, the students are also asked to design the spatial and atmospheric conditions of these exhibitions in order to transform this familiar gallery space into an engaging space of play.

Reading the Matrix as Terrain: RPG's Persistent Progression as a Curricular Model

Pasquale De Paola, Louisiana Tech University
Liane A. Hancock, Louisiana Tech University
Damon Caldwell, Louisiana Tech University

"It's all about the game and how you play it.
All about control and if you can take it.
All about your debt and if you can pay it.
It's all about pain and who's gonna make it." – The Game, Motörhead

If under the presumption that a game's rules establish pathways for action, does a false nostalgia – inherent in the games selected as metaphors for the current conference – lead to limitations in framing, and solving, problems? Just as technology has changed life, the technological evolution of game development and mechanics has changed the act of gaming: not simply as technique (board vs. computer) but as experience (path-dependence vs environment) and in trajectory (linear vs nodal). Within this framework, the rise of role-playing games (RPG's) provides a new set of metaphors for thinking about curriculum. Using this framework, governing entities like the National Architectural Accrediting Board act as the traditional gamemaster orchestrating the overall gameplaying trajectory through the matrix of the Students Performance Criteria (SPC).

In an RPG, participants assume the roles of characters while collaboratively crafting stories. Participants determine the actions of their characters based on characterization and acquired skills. Within this system, failure or success is based on the ongoing observance of systemic rules relative to a progression through varied narrative elements. In line with the conference's thematic framework of play as a "form of design thinking," the work outlined in this paper explores the persistent progression of "playing by the rules" as a way to articulate an architectural pedagogy, which is structured but still adaptably open to new forms of expression and curricular deviations.

Reading the SPC matrix as a terrain, with defining criteria dictated by NAAB serving as landmarks, can we explore the pedagogical possibility of nodes across this terrain as opportunities for required

“gameplay?” This paper emphasizes how embracing the rules as “checkpoints” can clarify path options across the matrix even as performance criteria and outcomes are updated in real time by NAAB. By “mapping” a matrix that utilizes large data assets as its domain, rather than limiting our options to the given 26 SPC, we are able to create multiple successful paths across NAAB’s terrain through both primary and secondary evidence. This is done by exploring predictive analytics such as patterns, trends, and associations in order to account for 910 possible data points across our curriculum.

Our resulting pedagogy is embedded into the nature and development of matrix and SPC through a process of structured decision-making. This approach not only satisfies the requirements of the NAAB but also puts into play an education framework that is both fixed enough to meet particular educational standards, while still adaptable enough to meet the rapidly changing needs of our profession, and fluid methods by which the current generation of students process and understand information. In the end, it is all about playing the game by taking control of the narrative rules.

CANDY LAND (scape) V

Date: Saturday, October 13, 2018

Time: 4:30 PM - 6:00 PM

Disrupter: Antonio Torres, University of Illinois at Chicago

Computer Worlds

Ellie Abrons, University of Michigan

Adam Fure, University of Michigan

In his 2012 book, *The Interface Effect*, Alexander Galloway writes that "...the computer breaks with those arts (painting, photography, cinema) that fixate upon the embodied human form - the face, but not always, the hand, but not always - and its proximal relation to a world, if not as their immediate subject matter then at least as the absolute horizon of their various aesthetic investments." (1) Now that we live and work in a time of ubiquitous digitality, this distinction between the computer and other visual media is crucial when considering contemporary architecture's relationship to image and representation and in particular, our capacity to visualize new things, be they objects, buildings, or worlds. There now exist modes of vision that are neither simulations of things as if seen by the human eye (such as one-point perspective) nor descriptions of things that rely on modes of abstraction (such as isometric projection). The computer, as a data processor and signal emitter, is blind to such ways of seeing – in fact, incapable of them – and offers alternative modes of visualization that fundamentally break with pre-digital forms of design.

Drawing again on Galloway's text, the computer should be understood as something that doesn't produce visions of a world or for a world, but rather, on a world. (2) In other words, computer vision (if it can be called that – computer processing would be a better term) does not care for humanity – it is concerned neither with reflecting back to us an image of the world nor projecting forward an image of a new world. It is, for itself, its own world. This difference compels us to reconsider the role of computation in design. If, up to now, computation has been used primarily in two modes (as a visualization tool for all types of architectural representations and as a process-based, form-finding tool that can produce near-infinite numbers of iterations) the conception offered here opens a new mode where the glitches, distortions, and grain of computation produce a world which can be seen by human vision but has been created according to the logics of a fundamentally different, computer vision. These new worlds can look familiar (as we're already so accustomed to the physical eruptions of computation into our physical world) and they may appear playful (as the aesthetic registers of digital production so often are) but they represent a profound paradigm shift in how architects make work and the outcomes of our labor.

This paper posits that any capacity for architecture to engage in the imagination and visualization of new worlds has been fundamentally altered by ubiquitous digitality. Through the presentation of various case studies (both built and speculative design projects), it examines the ways in which computers and software not only shape, but increasingly constitute our lived experience.

(1) Galloway, Alexander. *The Interface Effect*. Cambridge, UK: Polity Press. 2012, p. 12

(2) *Ibid*, p. 11

Flavor-Town: Architectural Recipes for Thermodynamic Fantasy

Filip Tejchman, University of Wisconsin-Milwaukee

Hoda Barzegar Ganji, University of Wisconsin-Milwaukee

Nasim Shareghi, University of Wisconsin-Milwaukee

Nutraloaf is a type of meatloaf that is served to prisoners throughout North America, often as a form of punishment. It is by definition an adequate food, providing just the right amount of calories, vitamins, and minerals, to keep a person alive. Nutraloaf is not fun, or pleasant, or tasty. The only praise worthy virtue that Nutraloaf can lay claim to, is that it can be eaten without utensils. In the

context of prison Nutraloaf is...safe.

Are there aspects of our discipline whose consumption or production is subject to the same minimal standards as Nutraloaf? Standards that succeed in merely keeping one alive, and unharmed, but that fail to arouse the senses in the way that a 12-course tasting menu might?

While design studios often enjoy a special elevated and enriched status in architectural schools, the supporting courses, the often joyless meat and potatoes courses, that are packed full of NAAB requirements, —the way that a Nutraloaf is packed with mechanically separated chicken and dairy product —are relegated to focusing on keeping the occupants comfortable.

“Flavor-Town: Architectural Recipes for Thermodynamic Fantasy,” will introduce the techniques and methods —the recipes and secret ingredients — used in a core sequence of environmental control systems courses. We will show you how concepts related to practical everyday cuts like Indoor Air-Quality, Lighting, Acoustics, Heating, Ventilation, and Air-Conditioning, have the potential to be produce engaging design that looks and tastes better than the picture on the wrapper.

Through a series of project based case-studies, emphasizing play as an intrinsic aspect of the production of architectural knowledge, this paper will argue for a radical rethinking of the underlying basis for thermal comfort as a measure of the success of an interior atmosphere. Abandoning the orthodoxies of comfort, spatial hedonism, thermodynamic fantasy, and delicious flows, will be the guide to articulating a new architectural agenda for the application of the theoretical to the practical, and vice-versa. Prepare to start cooking on the way to Flavor-Town!

Glimmering Wildness

Nathan Hume, University of Pennsylvania

A quick glance of the field shows many possible worlds being produced by architects. From snow globes to nations, from infrastructural fantasies to fantastical menageries, from machine vision to gumballed streetscapes. The tendencies illustrate a myriad of possible ways to reevaluate our world and insert new possibilities within it. Two of these genres of world building are clearly defined by their representational techniques. The first being utopic cartoons/flat collages with a pop sensibility and the second, slightly more dystopic, machinic realisms. The poles are reminiscent of the tension in the popular music of the early 1980s. A moment when genres still had sharp lines. Pop and Punk stood in stark contrast. To move into new territory Paul Morley called out for an Overground Brightness. A subversive space which moved sideways between them in order to shed the tropes of the two and produce a more powerful and unexpected effect. Hybrids started to emerge under headings like post-punk and new wave. The serious art students' political protests flirting with glitter and jangly guitars. The dystopic seriousness colliding with the slick pop of the mainstream. Could realism be couched within pop and could pop get a bit of sinister grime? Could one be underground and appeal to a mass audience simultaneously?

This potential flicker seems potent for our current climate. One of extreme cultural, political and architectural poles. In architecture, there exists space between poles of criticality and pleasure to develop a hypersaturated architecture that more productively instigates culture. One which doesn't revert to fantasy or steampunked sci-fi but finds a way to exaggerate and heighten our present world. This condition moves beyond digital tropes which lean too hard on difficulty and darkness or cartoonish proposals so easily passed over from their cutness to produce new alluring worlds. Ones defined by a raw pop, Overground Brightness, and a Glimmering Wildness. Worlds capable of reflecting the strangeness of our contemporary moment and using pleasure, delight, and allure as devices to recalibrate our experience of it.

One area where this strangeness can come forward in producing these affects is the lush, delicious contemporary material possibilities. Through calculated interference between materials textural and chromatic qualities architecture can produce uncanny states of heightened awareness. A subversive space of contradiction resulting in multiple inner worlds unfolds through the interplay between form, materiality, and perception. These worlds create hypersaturated spaces eliciting new encounters through which to recalibrate users understanding of their environment. Forms, materials, and organizations are not just cast against type but enhanced and reworked to fully

reveal their strangeness. Further, a synthetic nature or an artificial rawness provoke traditional notions of the built world and its relationship to 'nature' to shape conditions which reflect our current material culture. A material culture which is straddling between poles such as synthetically produced biomaterials and 'artisanal' wood. These paradoxical combinations serve to open up new saturated conditions within architecture by questioning the ordinary and spectacular in search of a strangeness in the space between to produce a glimmering wildness.

Thermally Active Narratives

Alex Timmer, University of Wisconsin-Milwaukee

The act of creating new worlds in architecture does not require the creation of a world; it mandates the creation of tools which make visible the hidden aspects of the world we already exist within. It requires a shift from closed and isolated modes of representation towards new non-isolated systems. It necessitates new types of description and new ways of looking at existing methods of representation. Thus, for architecture to construct new worlds, we must develop new tools and techniques to be able to see those worlds. The gap between the analytical and experiential provides the space for this type of artifact. It is in this gap that we find new modes and methodologies. The created world is not a new physical space, but a new worldview, requiring that we rethink our methods with a similar enthusiasm to that of Goethe who in 1837 illuminated Luke Howard's new classifications of clouds through poetry. Goethe's work would then become the introduction to the third edition of Howard's work "On the Modifications of Clouds." The essay paired with Goethe's poems provide a complete understanding of the cloud, its analytical and objective reality juxtaposed against its experiential and subjective reality. Thermal aspects of our world, as with of many atmospheric principals, provide a productive area of focus to explore this issue as they tend to either be pulled to the analytical worldview, that of data, optimization and objective realities or to the experiential worldview, that of atmosphere, speculation and subjective reality. New technologies such as the thermographic camera now provide a visual point of access to these new worlds, allowing the designer to play in the gap of the analytical and experiential. As the tools become cheaper and more readily available, a technology once inaccessible due to cost and fabrication, can now be attached to one's smartphone with minimal effort. What then is the role of these new tools placing designers within this gap? How does this representation account for the inherent stability of drawing? How does that same representation account for variability in perception? Too easily these questions have resulted in two separate camps that continue to talk past each other. One unwilling or unable to accept energy's role as a design element, and one comfortable residing in the speculative work, unable or unwilling to tackle the pragmatics of its application. This essay discusses the relationship between these two dichotomies, by exploring the history of the analytical and experiential forms of atmospheric representation and proposing new methodologies that occupy the gap between the extremes. Somewhere between the gestural ventilation drawings of the 1880s and the highly controlled and articulated data-scapes of the current practice are the Thermally Active Narratives.

CLUE (-d in or out) IV

Date: Saturday, October 13, 2018

Time: 4:30 PM - 6:00 PM

Disrupter: Tamar Zinguer, The Cooper Union

No Glue

Margarita McGrath, Virginia Tech

"You are in a splendid chamber thirty feet high. The walls are frozen rivers of orange stone. An awkward canyon and a good passage exit from east and west sides of the chamber. A cheerful little bird is sitting here singing." -- Gillroy's translation to C of "Adventure" from Crowther and Woods' FORTRAN code

This paper discusses a mode of spatial play in architecture shaped by computer games. Attention will be placed on the impact of early text-based adventure games on the architectural plan. The author proposes to use the term "spatial haiku" to describe a picturesque collection of architectural moments untethered by the approach to context taken by the preceding generation of late 20th century architects influenced by Colin Rowe's Collage City.

For the purposes of this paper the archetype for "game space" is Will Crowther's 1976 Fortran "Colossal Cave Adventure," the first text-based adventure game composed of virtual topography, resource management and logic-based problems.

Current scholarship on the impact of computer games on architecture focuses on technology generated and mediated spaces. Examples include computer and video games as practical planning and design tools, as a means to engage the public realm (pervasive or ubiquitous games), and as spawning new spatial typologies such as "cellspace" and "augmented space" (Manovich 2006). Little has been written on the impacts of game space on the spatial design of an ordinary building nor how the "xyzzzy" command - Crowther's magic command that teleports the player between two locations - foreshadows an agnosticism towards the significance of context in architecture.

In *Reckoning with Colin Rowe: Ten Architects Take Position* (2015, Routledge), Bernard Tschumi stated, "The next generation - Rem Koolhaas, Jean Nouvel, myself, and others - would use film instead of painting as its primary visual art connection." The intent of the author is to offer a new media sequel applicable to the generation of architects to whom Bernard Tschumi is our Colin Rowe. "No Glue" is a reckoning with Tschumi: From Collage City to Film City to Game City.

Recent work of graduates from our undergraduate program as well as Koolhaas' Fondazione Prada (2008-18) "a coexistence of new and regenerated buildings" (Koolhaas) will be used to demonstrate influences of Game City at the building scale.

Rules and Rulers: The Beginning of Architectural Pedagogy and its Discursive Paradigm in the USA

Pasquale De Paola, Louisiana Tech University

"Teaching is the canny art of intellectual temptation" - J. Bruner

Winning in a game has a lot to do with how its rules are deciphered and interpreted. This process implies a level of insight and criticality that opens up to multivalent interpretations and flexibility of action, which can provide the groundwork for innovation. Nevertheless, to become critical of the rules and to cleverly challenge them, it is often imperative to deconstruct their originating contextual and methodological framework to better comprehend the emergence of specific norms or patterns. If we understand architectural pedagogy as a multi-scalar game defined by unsettled boundaries,

how do we frame its curricular domain and procedural praxis? And where do we start? In line with the conference specificity and thematic investigation, and to re-think both rules and play, this paper attempts to chart the beginning of North American architectural pedagogy to extrapolate historiographical and contextual patterns of pedagogical formation and curricular outputs in order to advance the discipline and create novelty.

While mainly historical in its discursive narrative, this investigation originates from an outline that includes both pedagogy and learning theories as its primary elements. Pedagogy is broadly defined as the discipline that deals with the theory and practice of teaching and how these influence student learning. Conversely, learning theories are conceptual frameworks describing how knowledge is absorbed, processed, and retained during learning. More specifically, architectural pedagogy has often been characterized by binary models that attempt to balance both professional and artistic issues. Interestingly enough, this appears to be in line with Joan Oakman's definition of "mixed parentage of North American Architecture," which is showcased by the dichotomous relationship between the Beaux Arts and Polytechnic pedagogical models. Certainly, those contrasting frameworks underlined the beginning of architectural education in the USA favoring both technocratic and artistic sensibilities. So, who did it? Where? And how? This paper analyzes two primary pedagogical models with particular emphasis on the ones established by William R. Ware's at MIT in 1865, which was predominantly based on a Beaux-Arts model; and William Le Barron Jenney's "Chicago School of Architecture" and contrasting Polytechnique and engineering pedagogy (and successively implemented at Illinois Industrial University in 1867).

Education is both a complex and deliberate process of drawing out learning, of encouraging and giving time to novel discoveries and innovation. Yet, the "new" can only be generated if we fully and critically interrogate the "old" norms that underline the pedagogical framework itself. The objective is to uncover patterns of instructional focus as well as specific pivotal curricular modalities that have advanced the creation of models and rules of operation and play. Accordingly, the synoptic chronicle offered in this paper highlights overlaps and contradictions inherent to both the Beaux-Arts and Polytechnique pedagogical models, and it does so by placing emphasis on their "establishing rules of play." It is only by tracing the basis and evolution of these dichotomous pedagogical paradigms and interrogating their discursive themes and circumstances that we can "anticipate or even script nascent futures."

The Invented Toy_Gaming Architectural Play

Steven Quevedo, University of Texas at Arlington

Questions, Clues and Answers:

The themes of "PLAY" instigated into the design studio, a desire for creative making. The first step broke down preconceptions of known design processes to establish an environment of creative play. This first phase sought to initiate the students' innate desire to create and make things as one did as a child where no overriding rules or adult supervision prevailed. They were asked to remember how they innocently played, created games and toys of their own making. Each student was asked to bring their favorite toy to class, the ones which still held significant memories of their childhood. These toys were often beat up yet beloved artifacts, saved as personal treasures. In discussing the toys, students related how they created play, the process of designing narratives or games around the toy.

The objectives sought a reflection on design motivation, contemplation on inventive play. Did the toy become an obsession, a desires game, which set an impetus to create for its own sake? Was this play a form of generative art, creating its own rules and environments? In essence, the students were asked to question preconceived pedagogy. How did they choose to design or solve design problems? Were they aware of their own processes? What were their desires as designers? What would be their signature design process? How would they confidently play and take ownership of their process and design?

GAME 001_The Discarded Toy

GAME 001, the Discarded Toy, involved the design of a toy within a limited time frame of 2 days. The students had to improvise a toy, derivative of their favorite object using relics, found pieces and recycled parts of old toys. Three considerations had to address the following: First, The toy would be the first iteration of a narrative, fairytale, movie or play. Second, the toy had to be kinetic, transformative so to activate the storylines. Finally, the toy had to display spontaneity, an inventive play of space and form making, in essence a 3-dimension collage. With this first iteration, the toy was conceived as an object, but clues were to be established into the implied spatial possibilities.

GAME 002_The Toy Re-invented

In the second game, the toy developed into an architectural artifact foreshadowing a parti model for a toy museum and later as a stage set. The transformation of the toy through digital and analog hybrid drawings and models had to imply interior spaces, section or sequence of spaces. For the museum, the toy established a construct for which the spatial experience and display of a toy collection might be established. Surprise and wonder as well as the making of toy rooms developed a richer spatial variance in section and sequence within the museums. As a stage set, the events of the narrative operated to establish architectural analogies with the stage's transformation, again by creating a folly, which conveyed wonder, conflict and whimsical reiterations.

The Practice of Domesticity vs the Ideal of Domesticity in Accra, Ghana: Clues to Generating Housing Design

Dahlia Nduom, Howard University

“Dwellings can be conceptualized as meaningful social and cultural objects” – Setha M Low.

The relationship between the dwelling, culture and identity and its role in shaping the built environment has been frequently studied (Low, Rapoport). This paper builds on previous research on the relationship between culture and housing and focuses on how this relationship can be used to define what it means to dwell in Accra, Ghana. The research uses Rapoport's model of the dismantling of 'culture' as a framework for the study of domesticity in Accra, focusing on the aspects of ideals, images and meanings and their relationship to the built environment through the fixed, semi-fixed and non-fixed features.

Like many developing countries, Ghana and its capital Accra have had to face the challenges of rapid urbanization including congestion in the city center, inadequate infrastructure, sprawl and of course lack of housing. The capital, Accra is the largest urban area in terms of population, with an estimated population of approximately 2 million people and a projected population of 4 million people by 2020 (Grant and Yankson 2003). The population has steadily increased over the years as people from the rural areas flock to the urban areas in search of jobs and better opportunities. In addition to the influx of people, land tenure issues, cost of living and access to financing have resulted in a severe housing deficit which government policy has been struggling to address.

Due to this housing deficit many people in the capital city live in a multi-habitation solution. The research focuses on the multi-habitation occurring in compound homes in Usshertown, Accra as clues to understanding how to develop housing in the capital while maintaining the social and cultural practices typical to this spatial relationship. These compounds consist typically of rooms around a courtyard with shared facilities and are reminiscent of the traditional dwellings occupying this structure and social system.

This research studies how residents utilize varying degrees of public, private and semi-private spaces within the compound analyzing how spaces are co-opted, privacy is carved out, how spatial interactions occur, and how residents make these spaces 'home' in these primarily rented facilities. The research juxtaposes this study with interviews with residents where an understanding of images and ideals for the ideal home is unpacked.

The research aims to understand the relationship between current practices of dwelling and the dwelling 'ideal', assessing areas of overlap or discontinuity in residents' images and ideals. Understanding this dichotomy could begin to shed further light on what it means to dwell in Accra, and provide information for how to approach housing design in the city.

RISK (taking) IV

Date: Saturday, October 13, 2018

Time: 4:30 PM - 6:00 PM

Disrupter: Anne Rieselbach, The Architectural League of New York

“A Fur on a Rock, Next to a Fire, in a Cave”

Shannon Starkey, University of San Diego

In 2017, the Museum of Contemporary Art in Los Angeles mounted an exhibition of Rick Owens' furniture. The show brought a new focus to the relatively small line that has existed for more than a decade in the shadows of his growing fashion empire. But while the exhibition featured the final product, articles and interviews centered largely on the various architectural and art historical references and the design and fabrication processes. Aside from the laundry list of references contextualizing the work – Brutalism, Modernism, Land Art, Monochrome Painting, Minimalism – the profile of Michele Lamy, thus far publicly known only as Rick Owens' wife and creative muse, was elevated as an equal partner in the production of the furniture, a venture that was initiated immediately following their marriage. Collapsing sculpture, architecture, and décor, the furniture reifies a narrative of design as a kind of couples counseling in both its formal aesthetic and material form. In fact, the performance of an entangled, interdependent personal relationship and professional business is central not only to the furniture line, but to the entire Rick Owens brand, despite continuing to carry his name alone.

Lamy, one-time protégé of Deleuze and former lawyer, cabaret dancer, fashion designer, restaurateur, filmmaker, and fashion figure, first met Rick Owens in Los Angeles when she hired him as a pattern cutter. Their romance began just prior to the launch of his eponymous line in 1994. As Owens garnered prominence in the fashion world, the two returned to Lamy's native France in the early 2000s. Coincident with their marriage in 2006, Owens and Lamy produced their first piece of furniture, a solid stone marital bed weighing more than 4,000 pounds. Unlike the lightweight flowing clothes for which Rick Owens is now famous, the furniture is rigid, rugged, and excessively heavy. In fact, the sheer weight of many of the pieces has necessitated site-specific production facilities, currently in Paris, New York, and Los Angeles. However, unforgiving formality is mitigated with plush furs and leather-wrapped foam, the intended accessories. A decade in, the so-called “prong” has become one of the most prominent and representative pieces of the collection, registered variously in concrete, plywood, or foam, displayed raw, wrapped with leather, or adorned with fur, resembling a bunker, a chair, a support, a totem, a pillow, or a rock, and placed in a gallery, an atelier, the desert, or next to a fire, in cave.

The prong exhibits numerous aesthetic and material dichotomies – minimalism and décor, the manmade and the natural, the readymade and couture, the everyday and the institutional, the monumental and the primitive – framed as the negotiation of a marriage of distinct and divergent personalities, a process that Rick Owens describes as entailing a sketchpad, a kitchen knife, and two pairs of “loving hands”. Rather than ignore or suppress their romantic involvement, they cultivate a discourse that fuses it to their professional collaboration, positioning furniture as a public and discursive performance of their relationship.

Risk-taking, Risk-learning

Julia Jamrozik, University At Buffalo, SUNY

Early 20th century playgrounds were an answer to getting youth off the streets and out of associated trouble. They themselves became the focus of safety concerns, when the initial moral imperative was usurped but another in the middle of the last century. Some of the concerns raised were due to safety and some are very much justified, but the subsequent drive for safety has standardized playgrounds and stripped them of not only risk but also fun.

In the book “Science of Play” Susan G. Solomon presents a clear history of how risk has been designed out of playgrounds and why it needs to come back for the sake of children’s development and for the sake of playspaces as public spaces and amenities. Based on the work of many in the post-war period, such as Lady Allen of Hurtwood, Aldo van Eyck, Richard Dattner, Paul Friedberg and others, Solomon argues that designers have a major role to play in the shaping of these spaces and of these experiences.

Proportional answers must be sought to the issues of safety, rectifying the status quo to enable both creativity, independence and safety, since a lot is at stake developmentally, socially and urbanistically in the way we design for play.

Two projects we designed question the basic element of a playground, the swing, as they challenge familiar configurations, consciously playing with risk:

“Full Circle” inserts a circular swing-set into a residential block in Buffalo. The unusual yet simple act of rotation creates a space that lends itself to being not only a swing-set and not only a place for children but also, a general neighborhood meeting place. For the risks taken, the rewards are many.

“Hookup” is an installation that consists of seven swings tethered to one another to form one long inter-connected swing. Directly linking the experience of individuals to one-another, the project speaks of relationships, and demands communication, negotiation and trust from its users.

In a litigious climate, risk aversion has impacted not only playgrounds, but also broader attitudes and behaviors. As designers and as educators we must take a stand on risk, learning to embrace it in our own work and to promote it in the work of our students. Thus for a generation of students exposed only to the most banal and standardized of play structures in their childhoods, we may ask ourselves how can risk taking be taught and learned and consequently how can creativity and decision-making be taught and learned through an architectural education. Is play a mechanism that is necessary to allow for open-ended experimentation and what role does it have in the architectural curriculum?

Undoing the Demilitarized Zone (DMZ): The Agency of Architectural Intelligence

Dongsei Kim, New York Institute of Technology

Typically, architects work with client’s predetermined brief and site. However, Cedric Price critically reflected on this phenomenon by questioning the agency of architecture that often aspires to solve world’s problems. Price pointed out “if someone comes to you expecting a new house to transform their life, you should ask them if they’ve considered getting a divorce instead.”

This portmanteau contains raw ingredients that would help stakeholders to collectively reimagine alternative futures for the 160-mile-long Demilitarized Zone (DMZ) that bisect the Korean peninsula. A replica of the “Armistice Agreement Volume I- Text” and the “Armistice Agreement Volume II- Maps” are the main components of the portmanteau.

Volume I - Text, written in English, Korean and Chinese are all included in the portmanteau. Volume II - Maps contains nine maps at 1:50,000 scale. These large Armistice Agreement maps (28.5 x 21 inches / 730 x 530 mm) illustrate where the Military Demarcation line (MDL); Northern Limit Line (NLL); and Southern Limit Line (SLL) are located. This informs how the Koreans constructed the current DMZ.

Small 3D-printed DMZ landmarks such as the blue sheds located in Panmunjom’s Joint Security Area, similar to the board game Monopoly add towards the portmanteau containing ingredients for change. Architects can use this “DMZ kit” to be proactively involved in the earlier stages of the DMZ’s future transformations. “Undoing the DMZ” critiques the traditional role of architects. This kit enables architects to be involved in formulating important questions at the negotiation table rather than being limited to solving predetermined questions formulated by others.

(tongue) TWISTER V

Date: Saturday, October 13, 2018

Time: 4:30 PM - 6:00 PM

Disrupter: David Benjamin, Columbia University

A Twisted Mind - The New Concrete PLAYbook

Julie Larsen, Syracuse University

Roger Hubeli, Syracuse University

A Twisted Mind is the playful pursuit of popping up and twisting a concrete formwork that radically challenges the rules of the Concrete PLAYbook on how complex concrete geometries can be made. This method of making begins with formwork, not the form. Traditional rules of how one designs a concrete form and then generates a formwork later to 'make it work', no longer applies. Complex concrete forms, such as shells or folded roof plates, to simpler elements, such as columns and beams, can be produced with comparatively simple twistable, bendable, creasable, foldable elements; a new play on formwork for building elements.

"Folds" in concrete have long been a fundamental principle in construction to increase the strength and stability of structural elements. This principle has been applied as folded roof structures that allow for longer spans, rather than flat slabs, due to the increase in structural depth. And at a smaller scale, creases and folds are used to provide rigidity in wall panels, roofing, or decking, etc. Folding increases a material's structural capacity without having to increase the amount of material used. Although there are many folded structures made of concrete, there has always been a schism between the material and the technique. For example, contrary to sheet metal, concrete is not inherently a flat material. It is a liquid material that is poured to look and act as a "folded"-plate but in fact the form is derived from a complex formwork that is not actually folded. This was among the reasons why in the second half of the 20th century, due to an increase in labor costs, folded concrete or shell structures, such as Felix Candela's factory roofs or Miguel Fisac's roof structure for the Hydrology Lab in Madrid, were no longer able to compete with steel or wood framing construction.

The proposed paper will discuss how recent advancements in concrete technology, in combination with digital design tools, holds the potential for a new concrete PLAYbook that actually twists and folds concrete; resulting in infinite 'popped up' techniques for fabrication and assembly of concrete structures. The fabrication method creates the ability for concrete to just fold into position, using flat formwork (with hinged wood elements, fabric, silicon, etc.) that pops-up and twists into complex geometries, without the need for heavy, complex formwork.

The goal of this new Concrete PLAYbook is to develop a new syntax for concrete construction; one that is liberated from the preconceived notions of concrete as being heavy, massive and complicated to construct to one that is still formally complex but light and simple to build. The paper will elaborate on the Concrete Playbook that dissects various ways of rethinking building elements, such as columns, slabs, walls, roof, etc., through the lens of twisted and folded techniques for concrete formwork.

Cartesian Concrete Spiel: A Syntax of 3D Printing

Sasa Zivkovic, Cornell University

Leslie Lok, Cornell University

Don't write off Cartesian rules! Yet. The 3D printer, a Cartesian machine long understood as having little to no constraints, a device devoid of temperament that happily slices and spits out every geometry it is fed, a soul-less entity lacking any comprehensible rules or regulations is in fact quite the opposite: an apparatus with integrity, character, limitations, formal rigor, and perhaps even a pinch of humor when considering its rather cartoon-ish deposition of material sausages.

Scaling up from desktop-size 3D printers to full-scale concrete printing uncovers a highly idiosyncratic set of tectonic possibilities which are deeply ingrained in the fabrication process, but have yet to be consequentially explored spatially, formally, and functionally. Like an endless and repetitive pencil drawing, the printer relentlessly deposits material along a horizontal tool path, layer upon layer, again and again, until an object is built. Most printers operate with three axes, following a strict set of Cartesian coordinates to guide the printing nozzle to a point in space within the print bed. Spatially complex geometries are created through the act of corbelling, the incremental offset of stacked horizontal layers. When printing in concrete, the same rules apply as in small filament based desktop 3D printers but gravity takes on an altogether different role in the process. Cantilevers have to be carefully constructed, new support material strategies have to be developed, and tool-paths have to be carefully manipulated – concurrently reconciling new means of making with architectural requirements at full scale. The paper gives a general overview of the state of concrete 3D printing, pointing out missed opportunities in how discourse is currently framed around this technology.

We see the manipulation of 3D printing rule-sets as a tremendous opportunity: concrete printing requires the development of an entirely new architectural language which has to take into account the limitations of the process as well as its (per)formal advantages. Playing with the rules of the 3D printer reveals an inventory of new material possibilities, tectonic expressions, and formal strategies which are both familiar and novel. Complexity and shape emerge out of simple operations, and corbelling becomes a crucial strategy for design. The three projects presented in this paper – RRRolling Stones, Additive Architectural Elements, and Corbel Cabin – all manipulate the process of 3D printing to generate new design languages at the scale of furniture, building components, and entire structures. The designs bend, adapt, exploit, twist, and turn common practices on their head – for the benefit of spaces, construction, performance, form, and building. Through the presented projects the authors argue that following a rule-based approach to design and form-making is in fact liberating: while the printer constantly “pushes back” it is the moments in which we out-smart its limitations that produce the most intellectually satisfying and surprising architectural results. Discussing various strategies of play such as corbelling, filleting, striating, or smoothing reveals methodologies by which full-scale concrete 3D printing can develop an expressive novel architectural syntax which is functional, honest, and joyous.

Cloud Formations: Operations of Ambiguity

Johan Voordouw, Carleton University

This paper examines the architectural rules and operations for new cloud formations. Existing work by artists and architects will determine a base datum. Ashley Schafer’s distinction between representations versus representational will start no the theoretical lens to shift past literal translations of clouds to more complex, operative understandings. Additional text by Tim Ingold’s atmosphere, Elizabeth Grosz’s thing-ness, and Picon’s writing on complexity will weave a discursive understanding of the structure, operation and materialization of the cloud, and its possible architectural expressions.

This paper argues for clouds not simply as ambiguous form, but constructs where operations can seamlessly slip, merge, absorb, and discharge along porous margins, and through filled interiors. Many of these ideas are extensions of theories from before the topological fold. It questions how clouds are different from the networks and pliant surfaces of architecture’s recent past? And how these differences offer new opportunities for architecture?

Structure: By stitching together multiplicities, clouds exhibit similar non-Cartesian characteristics of both networks and topological structures without the corresponding dependence on lines and surfaces. While clouds take a similar position to relative distance and deformation, the lines (of networks) and surfaces (of topologies) evaporate into a volume of points. These points oscillate through attraction and repulsion as oppose to emplacement along a line, or plane.

Operation: The architectural operation of clouds continues to decouple program and form, fray its edge conditions, and exhibit continuity, gradient, and emergence.

What shifts is that the operations within the cloud do not occur in an empty void, but in a filled volume of consequential effects. Cloud volumes subvert space. How might architecture carve inhabitation in such an ambiguous mass?

Materialization: Networks and clouds are simultaneously two and three-dimensional. They do not require a medium for representation. In clouds, the lines of the network have become so enmeshed to make the density of connections both unnecessary and untenable. Clouds, therefore, undermine a simple analogue to the tectonics of conventional construction.

Conclusion

The network of the twentieth century was defined through paths and nodes. The cloud is an aggregate of indiscriminate points that can fall anywhere in space. This lack of lines prevents structural articulation, the lack of a medium, a surface.

How can architecture prevent articulating an emerging system as either a simplified fragment, or a literal translation? How might architecture materialize such an ambiguous, nonmaterial construct? It is imperative that as architecture considers systems of the immaterial, it must formulate methods by which to materialize its operational causes, not just representations of its visual effects.

