

The _____torium

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Architecture in the media used to be different. Before works of design would be included in the pages of a magazine or journal, the editorial review board juried the work for the same issues many architects and academy faculty members may recognize: success relevant to site, program, technology, design fundamentals, and theory. Architecture presented in the pages of publications were in turn poured over by readers, studied, evaluated again, and considered. Publications received well-written letters in support, or critical of, the works presented, and this was the foundation of architectural history and precedent.

Well documented, the internet changed all consumption of history and precedent. In 1998 there were 3.5 million internet web searches; now there are 4.7 trillion search queries every day. But very little literature exists discussing the benefits – and perils – of the use of the internet in architecture education. Most academic articles focus on on-line classrooms, guides for continuing education on the web, and massive open on-line courses (MOOC).

The common supposition is that promotion of architecture through imagery alone is damaging the education process of architecture students as they now think of design analysis and research as the process of a quick internet image search, rather than an in-depth investigation. (This could be a by-product of non-physical reading, i.e. digital blogs, web-pages versus texts). One reason so many students fail to achieve complex learning goals may be that they rely too heavily on others' opinions about what to believe, and what they have been provided in search term queries as examples. The meaning-making capacity of self-authorship provides a basis from which to understand and learn from one's experiences; without this, students are at a loss to know how to make intentional choices about what to believe, use, or learn from (Baxter Magolda and King, 2012).

Similarly, without a means to access and assess students' meaning making, faculty are at a disadvantage in deciding how to interpret students' academic performance and other behaviors. Those who understand the role of meaning-making will be better able to document its effects on educational outcomes and provide better feedback to students, (Baxter Magolda and King, 2012) including both student to student within the time-honored studio culture of architecture studios, as well as within the faculty body who teach in those studios.

Additionally, we must also understand how the brain has been retrained in the internet age of research. Design analysis and research as the process of a quick internet search, rather than an in-depth investigation permits the information to be stored in our pre-frontal cortex, that area of the brain for short term memory and quick decision making. Studies of brain activity of individuals conducting an internet search witness twice as much activity in this area of the brain – essentially telling us that our brains 'know' that we don't need to remember what we're about to find, because our brain 'understands' that its always available later. We have trained our brains to prepare for skimming, instead of learning. What used to be an act of meaning memorization has transitioned into image memorization. Current pedagogical trends are concentrating less on fact memorization and have migrated toward teaching students to make connections between the facts and the curriculum. By doing so, it's less about the knowledge you have, but instead how you use the information at hand (Academic Earth, 2018). Therefore, the process of using the internet for research becomes less

derivative and challenges the student to become the full author of the outcome. By providing the students with the correct tools, (or maybe the usage of the tools), they can overpower the algorithm.

But they are challenged by still another issue of the internet age: the issue of the ego that desires their product to be seen among the images supplied by the internet image search. In this manner, they succumb to the desire to design 'icons' to satisfy contemporary media which has three demands: easy to recognize; consumable; and something that can be identified as new (Eisenman, 2006). Icon buildings do not necessarily have to have content, such as good function or meaningfulness; they need only be recognized as a brand and therefore can become "corrosive traps" (Eisenman, 2006) for architects and the subsequent work they produce.

The architecture examples now returned through search terms are not curated; every search term returns only that for which you went searching; it is the serendipity of discovery research that is the benefit of the library. When you go looking in the library, you search through association, whereas when you search on the internet, you search specific authors and collaborations. The book to either side of the call numbers you went looking for is as likely to be influential and inspiring – if not more so – and google hasn't yet functioned in this capacity.

And so, the problem simply stated, when you assign type, you get type back. When buildings look like something, they are easy to understand, they produce familiar metaphors, so a duck looks like its function, and decorated shed is more of a stage set, "all front and no rear" as Eisenman would say. Metaphors have a one-to-one stable relationship with sign and signified, but as buildings become more complex, these distinctions begin to blur.

Rather than opposing or prohibiting the student's instincts to gravitate to the internet, a jiu-jitsu methodology is employed as only non-Google-able project typologies are assigned, prohibiting internet results from which they copy/paste concepts, material strategies, and site relationships. Because the project begins with terms that have no search results, they must rely on individual self-authored design agendas, which in class we discuss as design goals, and design themes, (themes contain design concept(s) to explore and transform aspects of the design, but concepts do not supersede theme).

'The _torium' is a provocative project that attempts to uncover a representational language of architecture that allows both the programmatic and typological expectations of architectural space to coexist with equal significance. For the last three years the studio has been purposefully designed in the pursuit of this agenda through _torium styled projects, e.g. Narratorium, Chronorium, Spectorium. To a large extent, the building type does not align with traditional programmatic elements, and therefore is not discoverable on the internet. Additionally, since a _torium is not Googleable no mental models will impede the student's personal development throughout the term and rather than attempt to summarize meanings of type, students explore what is the purpose of type for which the concept is used? This way the onus is on the student to identify the design goal for the project, which begins to build the outline of the research to conduct rather than image dumping of typologies through Pinterest

This necessitates a further understanding of Charles Sanders Peirce's three-part typology of signs. Peirce identifies the three parts as the icon, the symbol, and the index. The icon is distinguished by a similitude; it looks like its object. Since it 'looks like' then the iconic relies on the optical and visual understanding. Optical recognition is a condition of sight that relies on direct sensory perception. Whereas the visual requires not only physical evidence but also the possibility in that physical evidence of something unseen, something that must be read into, i.e. a cubist painting is optical. Open work is a term used by (Umberto Eco) and suggests an object with no fixed meaning, therefore the reading is only a means of seeing? Or is the reading more easily understood in Peirce's idea of the symbolic or

indexical? In _torium projects we demolish the desire to design icons and instead refocus on events spaces and experience

The symbol is understood by convention or rule, like words in a sentence, or a classical facade symbolizing a public building. However, in a process of social transformation, a symbol in architecture is really a degraded icon, an icon that has become cliché through repetition over time.

The Index is understood as a record of a process or event, like footprints in the sand indicating human presence. Now since architecture need not look like something else or represent something else it can be merely an index of itself, of its moment in time, of its process of becoming. The role of modern architecture is as a record of the moment in time, or as a reflection of the society.

Since the building type does not align with traditional programmatic elements, it is also important to understand the history and role of type in architecture. In the mid eighteenth century, the French architectural writer and teacher JF Blondel in his *Cours d'Architecture* compiled a list of varieties of building (sixty-four altogether), and this form the basis for his architectural system. Additionally, "Blondel did not call them types but 'genres', which indicates the literary basis to his scheme; and secondly, his main purpose in listing all these varieties of building was to identify for each the appropriate 'character' (Forty, 2004). Using the original definition put forth by Blondel, the _torium projects assigned are more focused on genre and character.

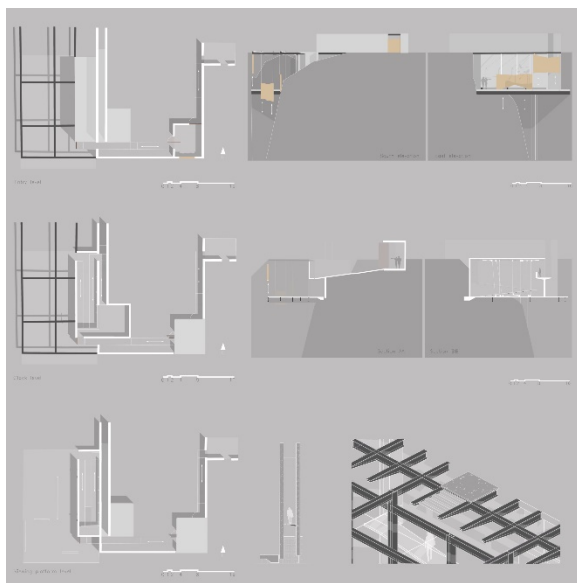


Figure 1: Spectorium. Nicolas Barrera.

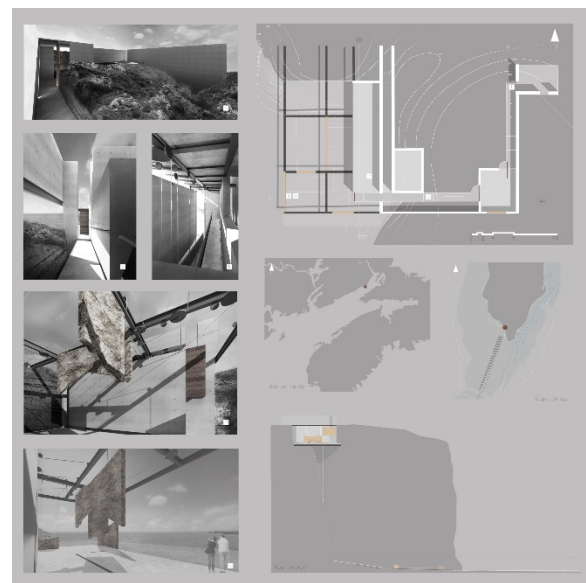


Figure 2: Spectorium. Nicolas Barrera.

Since a _torium is not Googleable no mental models impede the student's personal development throughout the term, so it is important for them to understand semiotics and meaning-making, which in turn helps the student focus on the development of a personal design process and set of principles – a design language. A semantic network is used when one has knowledge that is best understood as a set of concepts that are related to one another. Most semantic networks are cognitively based. In general, semiotic theories take signs or sign systems as their object of study: the communication of information. Semiotics is the study of meaning-making: the process of how persons construe, understand, or make sense of life events, relationships, and the self (Ignelzi, 2000). As Ignelzi goes on to say, through meaning-making, persons are "retaining, reaffirming, revising, or replacing elements of their orienting system to develop more nuanced, complex and useful systems".

The term meaning-making has been used in constructivist educational psychology to refer to the personal epistemology that persons create to help them to make sense of the influences, relationships and sources of knowledge in their world (Postman and Weingartner, 1969). According to the transformative learning theory of sociologist and educator Jack Mezirow, adults interpret the meaning of their experiences through a lens of deeply held assumptions (Mezirow, 2009). When they experience something that contradicts or challenges their way of negotiating the world they have to go through the transformative process of evaluating their assumptions and processes of making meaning. Mezirow called these experiences that force individuals to engage in this critical self-reflection "disorienting dilemmas".

The disorienting dilemma that each of the students' face is the assigned architectural design studio project by a title that is not familiar. These project titles use the word ending '_torium', (a place for), combined with a descriptive characteristic that implies what the architecture should do or perform. For example, a Narratorium is a building that tells stories, holds stories, narrates history, etc., (other project examples have included a Chronatorium (building that tells or records time); a Spectorium (building that you use to see, or permits seeing); and a Memento-moritorium (a building that reminds you of your mortality)). Each of the projects challenge the student's assumptions and their individual process of making meaning.

One means by which the students begin to come to terms with the architecture is through narrative, the understanding and retelling of the story of the architecture itself. This narrative varies from student to student, determined by the self-authorship design philosophy the student utilizes for the genre and character of the form and space.

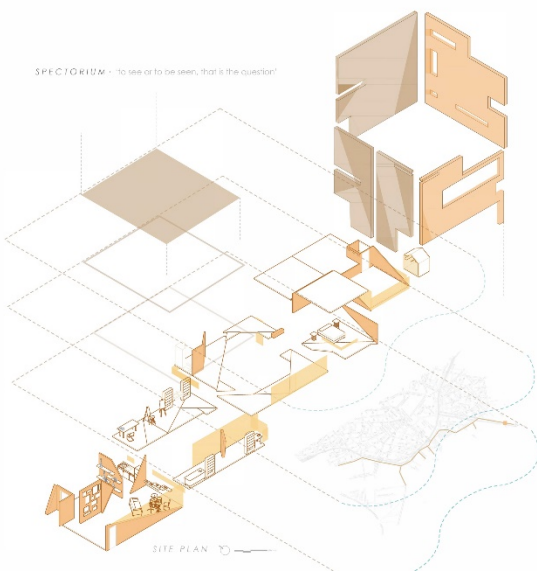


Figure 3: Spectorium. Fabia Sainz.

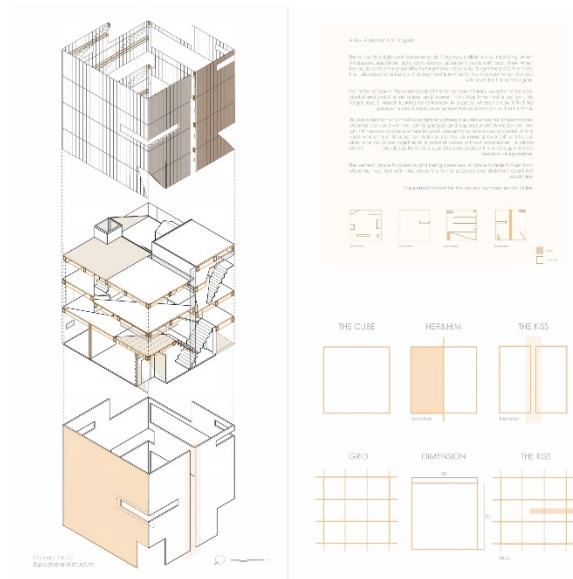


Figure 4: Spectorium. Fabia Sainz.

A self-authorship design philosophy means that the students must rely on individual design agendas. I initiate these agendas by asking students to self-identify their own interests and passions through five analogous elements for both the constructive critique of architecture, as well as the design of architecture in the multiple phases of development. The five analogous elements are: Site/ Environment; Client/ Program; Material/ Construction/ Structure; History/ Theory/ Criticism; and Design Fundamentals. Each of the five elements can be visualized as a slider on a sound mixing board, with each slider capable of being placed between zero and ten. While some examples of architecture may have very high marks on Client/Program (Wal-Mart for example), they have very low marks on site and environmental responsiveness and their relationship to the history of architecture. On the other hand, a very good example of architecture (Farnsworth House by Mies van der Rohe) will have consistently high marks across all five elements.

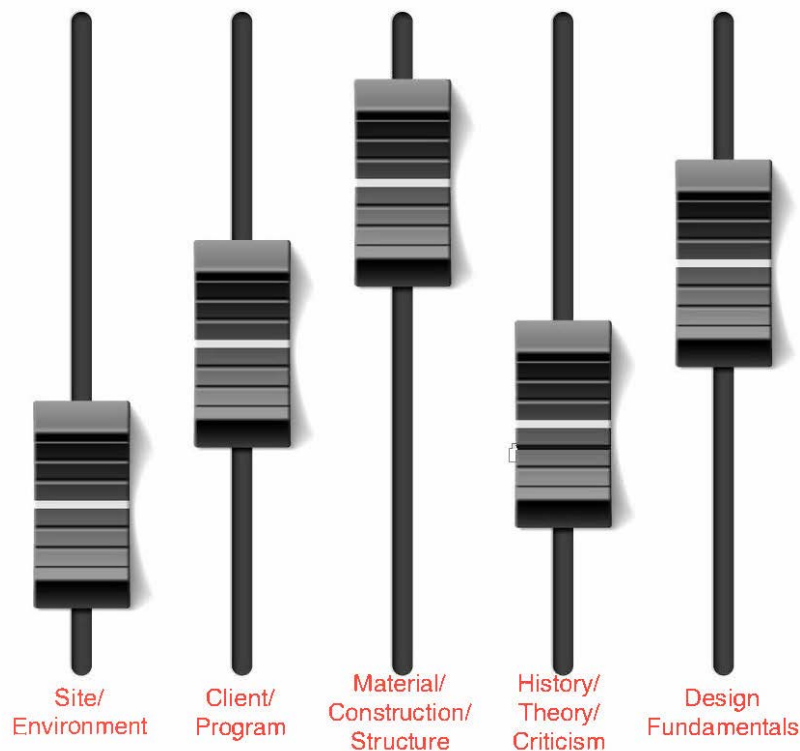


Figure 5: Five Analogous Elements. Image by author.

The visualization of the resultant designs utilizes two forms of depiction, plus the physical model. A polysemic document is designed to stimulate a multiplicity of meanings simultaneously. When viewers examine a polysemic image they each project upon it a meaning that has not been predetermined by the creator of the image. Additionally, multiple viewers will have multiple interpretations of connotation. The polysemic richness of a document is evident in the variety and originality of meaning as it is interpreted from one viewer to the next. While the message and symbolism rests within the image itself, its meaning is sited outside of itself, varied and contextually modified from viewer to

viewer. It is a method of expressing the unknown, inviting as many possible resolutions as there are participants. On the contrary, monosemy is the property of having only one meaning. Representational imagery – as compared to abstract imagery – is read by the viewer for its intended face value as it represents the object or idea fully and without a need for interpretation. A traditional floor plan or elevation as drawn by a design practitioner is typically monosemic since the meaning is contained within the document itself. Similar to collage making as a means of documentation connecting phenomenological and physical issues of a designed space, polysemic representation evaluates design solutions for each of the elements of a design within an analogous composition, disallowing parallel narratives – the image is the structure/scaffold and the viewer’s interpretation operates on that framework.



Figure 6: Narratorium polysemic image. Aya Tomida.

Now as a student peruses the internet, the student is looking at photographs as a result of their search term, but instead of stopping there, they are considering the more nuanced aspects of the architectural design.

Upon studio project assignment of known building types students gather precedent examples that are the results of search terms. If nonexistent building types are assigned students gather precedent examples that are the results of self-authored design agendas.

No one would argue or dispute how necessary the internet has become for architecture and design education; it is now essential for architectural research and teaching. But by providing the students the tools to better utilize the internet in their on-going project research – and their research to further their own design ideas - they are working with the example, and they are able to find the procedural learning in the creation of the design.

By teaching students to look for that which the search engine will not provide, we teach better manners of critical investigation into history and precedent.

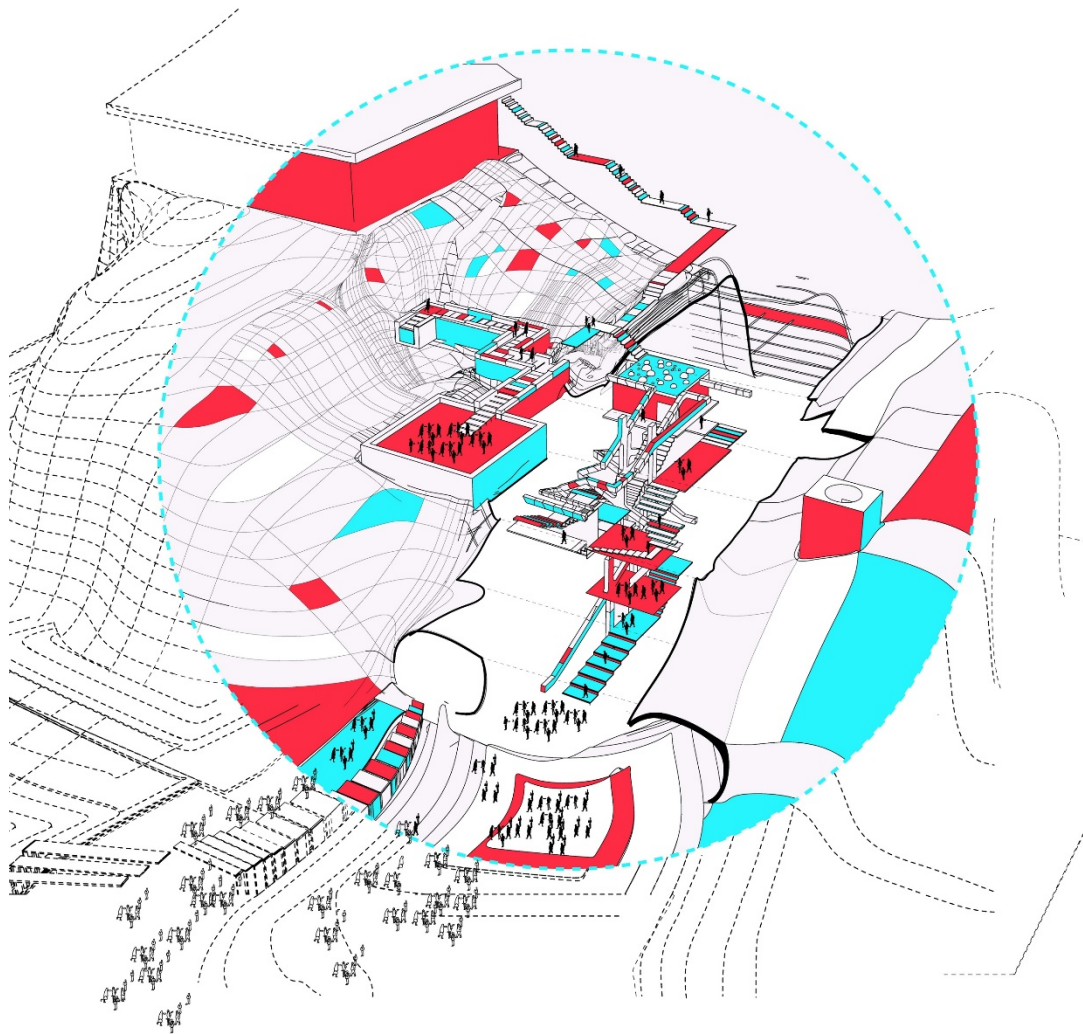


Figure 7: Chronotorium. Mateo Fernandez.

Through the study of ____toriums students are taught that debilitating dilemmas are to be celebrated. These projects challenge the consistent pendulum swing that is “modern architecture’s lack of meaning” (Forty, 2014). Alan Colquhoun wrote that, “it is precisely through the persistence of earlier forms that the systems can convey meaning. These forms, or types, interact with the tasks presented to architecture, in any moment in history, to form the entire system. (1989, pp.247-48) However, as we’ve outlined here, the earlier forms are only icons that have become symbols of meaning.

The continuation of typological architectural assignments as a procedural practice is a pedagogical problem passed down through generations of faculty, furthering a lineage within the academy based on pre-internet approaches to research. Potentially of most value, the _____ torium teaches the student how to kill icons, convert them to symbols, and therefore makes room for icons of their own desire and determination, whether those icons be faculty or architecture.

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