

AMONG THE FEAR OF THE VIRTUAL AND RADICAL TYPOLOGICS

EDGARDO PEREZ MALDONADO
Polytechnic University of Puerto Rico
Intrope01@gmail.com

Abstract. It might seem that architecture has been forced to choose, once again, between two worlds of existence. One of them might be the construction of the tangible, the other, a “formal fantasy” that will never reach a legitimate status among the “tectonic” or the “structural”. This vague spectrum has confirmed the fear of losing typology as a proof, of losing a foremost validation for architecture. But one could see the virtual as a possibility to generate a structure of discourses and interactive tactics to reformulate the typological. This meaning that the virtual could transcend the so called “graphic” stigma and actually produce the discourses and spatial strategies to radicalize typologies.

1. Introduction

The developments in the digital design process, in the last twenty years, reveal a marked tendency in the invention of form. These directions had been widened by the relocation of technology (e.g. Bilbao Museum) into the design process as a major tool for conception and resolution of the architectural object. In many ways, the traces of digital invention had transgressed many of the prevalent discourses in the discipline, and become a prevalent discourse in its own right. In the other hand, a claim has grown within sectors of the architectural practice that such is an intangible or non-material condition of the digital design product and manifested in its insolvency within constructed reality.

A possible way to understand this stance is perhaps to look upon the effects of digital design in our current practices or discourses. What are those effects? What opportunities had the digital brought to the design process or construction? What limitations?

One of the effects that the following observations seek to identify is the “loss” of the typological referent in the design process. What this observation suggests is that digital design broke typological continuance as a paradigm for architectural design. The digital device has positioned the virtual process as a conceptual space for the construction of discourses of possible architectures and their technologies. In other words, if the typological is no longer our referent, then both the image and its physical construction might be defined as well.

The absence of the typological referent opens the tasks of identifying and establishing the discourses that will structure space. In other words the virtual space created by the digital technology has opened a very interesting creative intersection. If typological recurrence has been contested, typological re-invention might be triggered within the virtual.

There is a possibility to transform pre-existent typologies. In this context we might identify such possible contract as **typologies: to articulate an economy of plural experiences that focus in the intersection of space and technology in order to have a strategic effect in the pre-existing typological content.**

There are two possible directions for such:

1. The radicalization of the content of such typologies (or a re-articulation of their image and content). This is a process that recognizes the capacity of technology to re-signify our physical context. The digital device suggests alternate processes, rituals or executions in space.
2. The strategic allocation of the digital as an experiential device; to utilize as a way to enhance our perception in space.

As a first step to galvanize these hypotheses and in a critical stance to confront our own ideas, a series of case studies are presented to develop notions such as “digital abstractions” and “meta-tectonics” and the possible impacts in the experience and interpretation of space.

2. The Stigma of the Virtual or the Fear of the Other

There is a common perception that suggests that the principles behind the digital architectural process had expanded outside the material or the typological. The suspicious digital “virtuality” of the architectural, had allegedly contested the verifiable position of the architect’s knowledge and execution of its own discipline. For one moment we could argue that it has been true in its entirety. But how far different are the sketches envisioning a flying machine by Da Vinci from the digitally scanned models of the Bilbao Museum? (Figure 1 and Figure2)



Figure 1: Flying machine. L. DaVinci *Figure 2:* Digital model. Gehry Partners.

Not that far different we might say. That what distinguishes architecture's stance from antecedent traditions, with respect to the virtual today is: the intersection created by the digital device and the potential outcomes of this confluence. In both cases architecture has found itself in the necessity to re-name and re-imagine itself and the technology that will permit its materialization. We might say that both architects are indeed articulating "contingent" images and languages in order to en flesh these possible architectures.

If this is the case, we could argue that the virtual is a conceptual space where the discourse of a spatial experience is articulated. It might be said that the virtual is and has been a discourse (the imagery and language) that structures a potential reality. In this recognition, the virtual is not devoid of a tradition, this we have seen from Boullée to Archigram. The suggestion here is that the virtual might not be technology's subordinate after all. The virtual is perhaps the space in which both architecture and its technology are conceived.

There is still a persistent notion to regard the developments of digital architectures as detached from constructive reality. The same misconception might suggest the notion of typological insolvency, as ascribed occasionally to digital design. The ascription of "intuitive process" is perhaps referring to the contained nature in the homeomorphic processes of digital design. For many, the digital provides for a "genesis" without the "exegesis"; a design process independent of a historical or technological referent. Hence, the digital processes are regarded as insubstantial. Digital architectures had been reprieved to exist as

a “graphic fantasy”, incapable of acquiring a constructive self perhaps because a typological referent is not recognized (Figure 3).



Figure 3: Computer generated model.

A notion like this is common grounds for those who persist that a typological framework is the only veritable mean to validate architecture. An argument like that might seem accurate except for the fact that, many recurrent typologies today are defined by sectors like: consumption, politics, infrastructure and other realms that evade the typological and the experiential (Perez-Maldonado, 2005). In order to substantiate itself, architecture had escaped to “fantasize” its graphic selves via contingent images from its unknown digital possibilities. Nonetheless, the digital is presenting architecture with its own a-temporal ontogeny (Figure4).

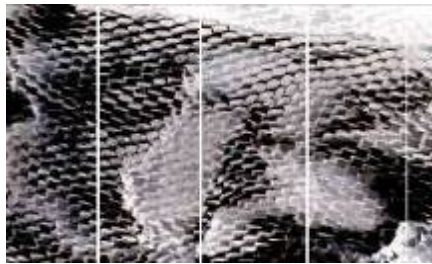


Figure 4: Surface Model.

This is made more evident as we see many practices today engaging in digital design processes that reiterate that there are potential formative grounds besides the typological. From many this seems to be an illegitimate ideological territory. In certain ways, the virtual has provided architecture with its own crystal ball in where to look upon without understanding completely that what is foreseen.

3. The Escape from Typology or the Multiple Selves of Architecture

Typological recurrence is understood as a pre-defined codification of the image and its constructive configurations. In many aspects, the typological today might be considered a contingent discourse as well. These “typological codes” achieve their signification by a convention on the images and terms that structure their constructive and spatial configuration. It is imperative as well to recognize that recurrence in the typological established the continuity of the meanings of the architectural object (Figure 5).



Figure 5: Delaware House. R. Venturi. 1983.

The very same meanings that D. Veseley (2004, p.356) reiterates, in our contemporary condition might seem more fragmented than continuous. And it is the very condition of “recurrence” that the digital escapes. This condition implies is an elusion from the referent. This “evasion” of the referent” has been revealed in other cultural and social dimensions as well. In such emancipation is where the “fear of the other”, that is the digital self of architecture, might reside. There is a resistance to the supposed loss of typological continuance. Which in fact, historiographic proof has shown that such continuance is not as linear as one might think.

Moreover, another causal for such a resistance appears to be an intellectual clash within our own discipline to control the maxims that authenticate one architectural current over the other. Such resistance might reveal a phobia of simultaneity of paradigms. There is also recurring response in such differences, and it is stigmatization. The same stigmatization is laid, not in few occasions, over digital architectures. The claim perhaps comes from the notion of an insubstantial paradigm. But what paradigms are defined in these architectures? (Figure 6)



Figure 6: Computer Rendering. M. Novak 2000

The digital processes in many of our current practices suffer the fate of being labeled as morphological determinisms or “unbuildable experiments in form”. This is perhaps because many of our systematic descriptions of form are transcribed from modeling programs themselves. These architectures are articulated in languages proper of parametric commands that are intended to create form, and transform it, for that matter. In many instances that what has been “radicalized” within digital architecture, is the image of form. In the radicalization of the image of form we might be able to locate a progression in discursive construction. However, in many occasions the discourses of the image are self referential. In such discourses, the homeomorphic (transformations by bending and stretching) lexicon is in many occasions, devoid of an experiential substance. In many ways, form, again, becomes its own substance, its own “ragione” (rationale). This is perhaps one irony of digital experiments: in their freedom from the typological, their tendency is to be enfolded as a meta-form, which in itself connotes a typology. Nonetheless, these meta-forms imply a latent creative space to reformulate the constructive and experiential as well.

4. Radicalization of Content or Typologies

The space provided by the digital opens the realm to achieve a “radicalization of content” along with that of the image of form. **To articulate an economy of plural experiences that focus in the intersection of space and technology in order to have a strategic effect in the pre-existing typological content.** The implication in this premise is that the recurrence of the typological code might

be reformulated in content along with its image. What these experiential reformulations might suggest is spatial experiences triggered by the strategic allocation of technology, not only as means of materialization, but also as experiential devices within architecture. In this context, this merging might well be informed by the enhancement of the experiential capacity of space.

Both architecture and the digital are superimposed into an experiential assembly that might generate more than a visual perception, but a spatial experience that proposes an alternate interpretation of a specific typological referent. The typological composition is rephrased in a meta-tectonic logic. The wall becomes a screen, the screen becomes a room and the enclosure becomes a multivalent experience that integrates the subjects.

This same shift of value of the element might also be transcribed in the scale of pre-existing experiential contracts (or predefined spatial uses and experiences). If the walls of a classroom are individually wired with impact sensors, a student can easily throw a ball to a wall and create music. Each sensor can trigger a particular musical note. Then the classroom becomes a musical device where the experience of music could be integrated to physical dynamics (Figure 7).

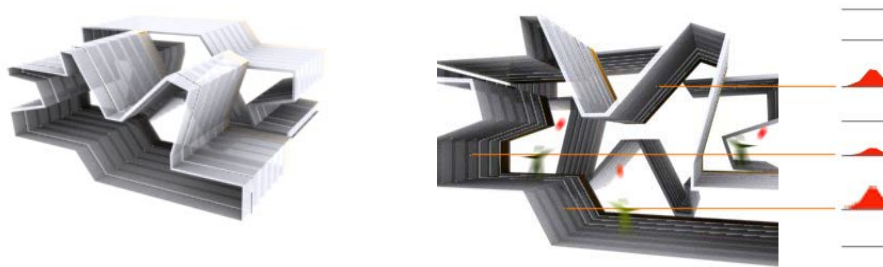


Figure 7: Musical space project. Intrope 2000

The notion of “classroom” is then dismantled and reconfigured into a new interpretation. If the experiential content of a “school” can be reconfigured, it might be possible to reconstitute its typological content. A reconfiguration like such could reverberate as a regeneration of the typological in reference to our current public experiences in the urban and the suburban.

A proposal targeting multinational retailers observed the effects produced by their typological insertions. The research was directed to identify possible typological transformations by means of digital strategies, in order to achieve a

multi-layered space and to limit the “infra-structuralization” of space. The “big box” typology for example, offered an interesting field. Not only for the well known implications of its form and scale, but for the socio-cultural transactions inherent to them. Beyond the problematic of indiscriminate spatial qualities of this typology, there are also ecologic implications as well. The logic that structures this kind of typology is based in consumption and transportation as the singular public spatial experience. In other words, the public experience is limited to these two dimensions (Figure 8).

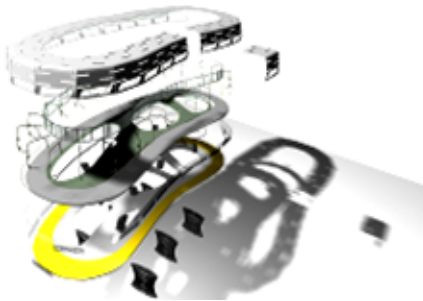


Figure 8: Typological reconfiguration proposal. Intrope. 2005.

As an alternative to this condition, an abstraction of consumption by means of the digital was proposed in order to enhance the public experiential content. All consumption transactions are channeled by a “digital station” accessed in the parking level that will manage all purchases related to the store goods. The merchandise is dispatched directly through a conveyor stemming from a storage level. The rest of the spaces are collaged as plural public experiences with: shops, cafes, cinema, gymnasium and connecting them all, natural space.

In this case, the interactive process of the digital station widens the spectrum of the experiential possibilities and the image of form as well. By means of a hybridization of form and content, virtual interactions might displace consumption as an omni-experience and opened the way for multidimensional public interactions and the “spatialization” of infrastructure (Figure 9).

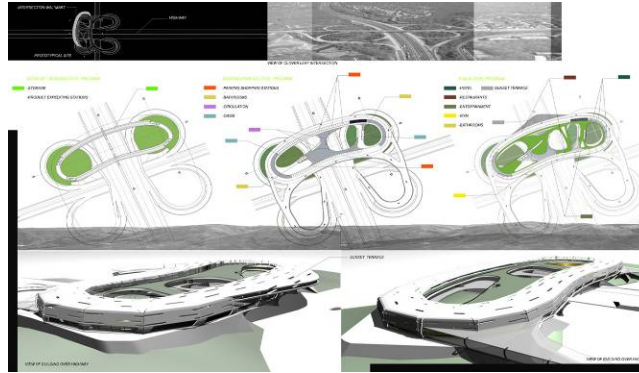


Figure 9: Typological reconfiguration proposal. Intrope. 2005.

In a competition for a Mediatheque in Japan, our work was organized around the idea of a corporeal perception of the virtual in both an individual or collective episode. The architecture image began to get organized into full scale interfaces and the expression of cyber-tectonics.

The diagram for the organization of the space was arranged as multiple room interfaces or “digital encyclopedic volumes” contained within a “responsive skin”. The scale of the rooms will vary to accommodate from a single visitor to multiple visitors at the same space. Each room is triggered by an occupancy sensor that activates a full scale audiovisual simulation of the selected topic. The interruption of the simulation occurs when the entire occupation abandons the chamber (Figure 10).



Figure 10: “Responsive skin” unit window. Intrope. 2006.

The concept of cyber-tectonics is explored in the idea of a “responsive skin”. As the virtual room is activated in the interior, the building’s facade responds to

the input by activating the windows of the corresponding room. The windows are pliable aluminum sheets that, once opened, reveal a secondary glass opening that introduces light to the virtual chamber. As soon as the sensors of the skin scan the activation of the simulation of the virtual room inside, the panels close giving the room the necessary environment for the experience. When deactivated, the secondary glass skin is revealed. (Figure 11).

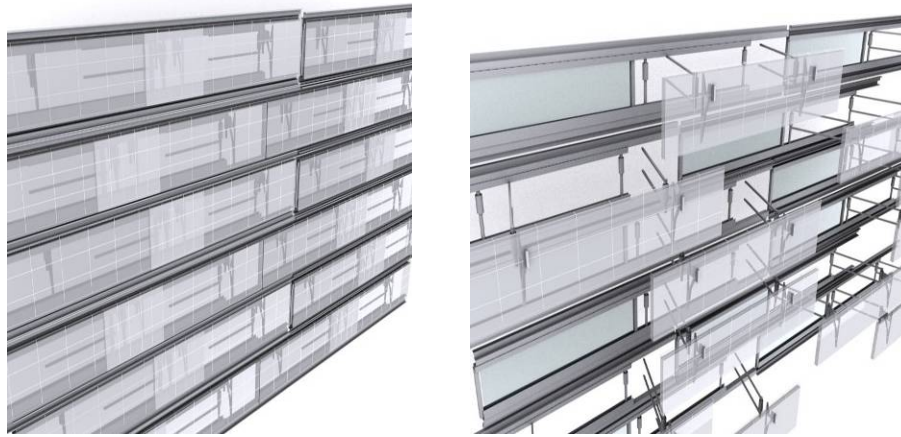


Figure 11: Studies for “responsive skin”. Mediatheque, Japan. Intrope. 2006

In a way we could argue that the architect’s trade has been to articulate the image, the names and the technology to make them manifest altogether. In fact, this might be a critical recognition in reference to the subject.

Once again, a persistent notion comes forth, that is the notion that the architect, above all, is a constructor of images of reality. What this makes us think is that the fear of the virtual is perhaps misleading. What this notion accentuates is that the virtual has widened the space for creative reconfiguration of the typological once again and that it is particularly central for us involved in the possibilities of digital architectures.

What defines virtual architecture? Maybe it is a definition that has not come to be conventionalized yet. But that is I believe, what infuse current explorations of digital architecture with a great creative potential. . A potential like such could reverberate as a regeneration of the typological in reference to our current public experiences in the urban and the suburban.

This might lead us to have spaces that could make us oscillate between our own virtual and physical selves, all in the same experience and offer sanctuary

from the recurrent literalness of many of our contexts. This coming to terms with our discipline and its technologies is perhaps better explained by Martin Heidegger: “Because the essence of technology is nothing technological, essential reflection on technology and decisive coming to terms with it must happen in a realm that is ,on the one hand, akin to the essence of technology, on the other, fundamentally different from it. Such a realm is art” (Heidegger, 1959)(Figure 11 Figure 11a).



Fig. 12: Vaulted Hall. Viollet-Le-Duc

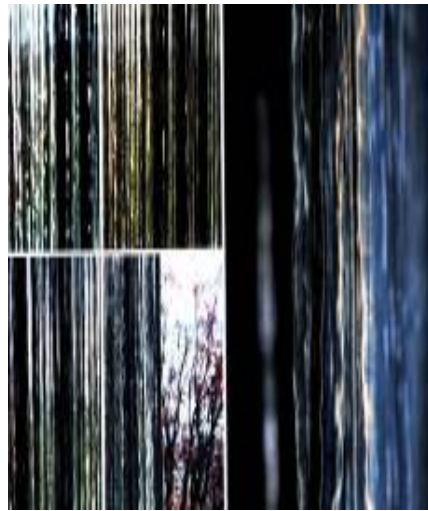


Fig. 12a: Metal curtain. AGPS Architects2004.

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