

4-2011

# Interrogating Perspective

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## Recommended Citation

Spiller, James M., "Interrogating Perspective" (2011). *Architecture Conference Proceedings and Presentations*. 19.  
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# Interrogating Perspective

## **Abstract**

The guides which built much of the last five centuries of architecture will never be seen. The construction lines projected from one drawing type to the next dissipated as the forms they buttressed emerged. Projections, which have been quietly guiding the geometry of architecture for centuries, have remained an untapped design resource for too long. Lines scaffold the architect's design process; ideas emerge through action and reaction. The construction lines frame potential represented space, which are projected from one drawing type to the next in order to clarify a proposed spatial construct. Projection, a method of dimensional drawing translation, facilitates visualization and revision of design intent. The confrontation of intention and actualization is perhaps no more provocative in architectural drawing practice than in the projected architectural perspective.

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## Interrogating Perspective

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### Action, Reaction, Recalibration

The guides which built much of the last five centuries of architecture will never be seen. The construction lines projected from one drawing type to the next dissipated as the forms they buttressed emerged. Projections, which have been quietly guiding the geometry of architecture for centuries, have remained an untapped design resource for too long. Lines scaffold the architect's design process; ideas emerge through action and reaction. The construction lines frame potential represented space, which are projected from one drawing type to the next in order to clarify a proposed spatial construct. Projection, a method of dimensional drawing translation, facilitates visualization and revision of design intent. The confrontation of intention and actualization is perhaps no more provocative in architectural drawing practice than in the projected architectural perspective.

#### *A Drawn Trinity*

Architectural drawing types give language to the object of the architect's thought, and none might be more multifaceted than the projected architectural perspective. The projected perspective is a visual translation of the orthogonal as seen. It is a projection of the quantified as qualified, maintaining a direct relationship between the measured and perceived. Impressively, the projected construction lines both translate and express the proposed. It is a unique condition in architectural representation, and its implementation evidences, in one process, scaled construction (the orthogonal), dimensional conversion (the

projection), and temporal spatial perception (the perspective). The projected perspective maintains the three processes as one, dependent and inseparable, a demiurge of architecture's representational translation. It is a drawn trinity, simultaneously objective (orthogonal), subjective (perspectival) and projective (projection).



Fig. 1. Spatial Projection, Drawing by Author, Detail of 18" x 24", Lead and Collage on Vellum

#### *Materializing Process*

Projection is physical ideation, "literally the hyphen between idea and experience that is the place of culture, the Platonic *chora*."<sup>1</sup> It is an interval between being and nonbeing, a receptacle of the other. Projection is the embodiment of translation, the moment between one medium and another, between spoken and heard, written and read, and imagined and seen (Fig. 1). The projected architectural perspective is literal and abstract, a process that enables invention, yet sustains

intent. It engages a delicate balance of control and experimentation. While the projection process remains a complex set of choreographed actions, it elicits a visual field requiring the designer to think through precise spatial conditions such as assembly, composition, and occupation. "During the design process, the architect occupies the very structure that the lines of the drawing represent...the images which the designer advances are not mere visual renderings; they constitute a fully haptic and multi-sensory reality of the image."<sup>2</sup> The dance of drawn movements engages body and mind, focused solely on visualizing thought. As each line builds the next, from the projection slowly emerges three dimensional form.

### Drawing, Revelation

"Movement translates into spatial configurations, landing delicately the formal representation, the journey evolving through thought, through the subjectivity of the authors involvement."<sup>3</sup> The projected perspective is first an act, aimed to initiate the design dialogue between mind-hand-eye, operating as a visual repository. The movement of the lead, projecting lines of translation from one drawing to the next, summons memory and fantasy of the intended projection. The resulting representation, then, operates as visual evidence to interrogate, enabling drawing as revelation. "Sometimes the power of drawing is not found so much in its faithfulness to the subject but in its revelation of something you *did not know or understand before*."<sup>4</sup>

### Projection As Site

Perspectival projection is a complex mechanical process, and as such, mishaps are inevitable. The accident reveals the unforeseen, which can either be engaged or disregarded. If engaged, potential changes and distortions enable a re-visioning of the intended designed space. As the number of projections increase, the potential for accidents and alterations also increase. Because

the process of projection depends upon a multitude of previous actions, the effect of design revision is sensitized. What was previously a linear process of translation is now understood as multidirectional dialogue between the orthogonal, the projected, and the seen. The projected perspective is a process to be manipulated, revised, and recalibrated. "Projection is not a thing in itself, but a relationship between things. As such, its internal relations are not fixed, and can always be reconfigured."<sup>5</sup> The projected architectural perspective, then, is a laboratory, a site of two dimensional and three dimensional interrogation and experimentation.

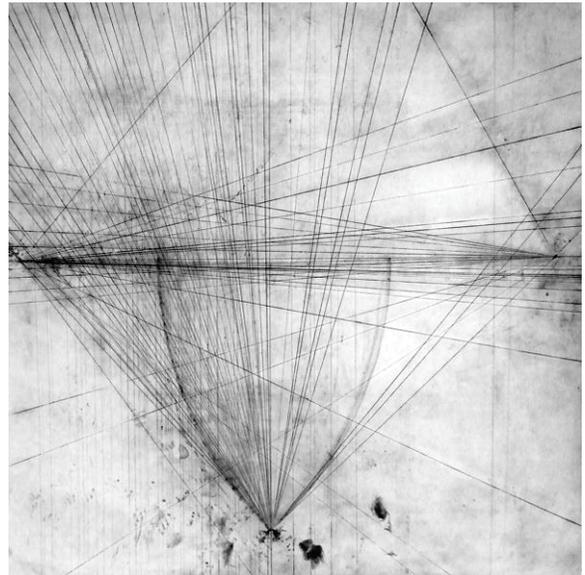


Fig. 2 Construction Line Projection, Drawing by Author, 8' x 8', Chalk Line on Rag Paper

### Re-visioning Form

If the projected perspective is a visual field to be read, its potential as a design tool is no longer tied simply to the intended view of the perspective. Instead the drawing process allows open experimentation and revision of visual thoughts as either abstraction or construct. The projection process, as a proposed site, can also be compounded by compression. Collapsing the horizon line onto the projection plane, the

orthogonal, the projected, and the perspective engage each other in the resultant spatial field (Fig. 2). "Projection involves not only the physical but also the mental and psychological realms. Hence contradiction and overlay are important principles in creating."<sup>6</sup> By compiling overlays from one process in the same visual field, new potentials are evoked and the design is necessarily reconsidered. Although the image is still a translation of a two dimensional orthogonal to a three dimensional representation, it is also a field of collision, to be interpreted and read as a site of active interrogation.

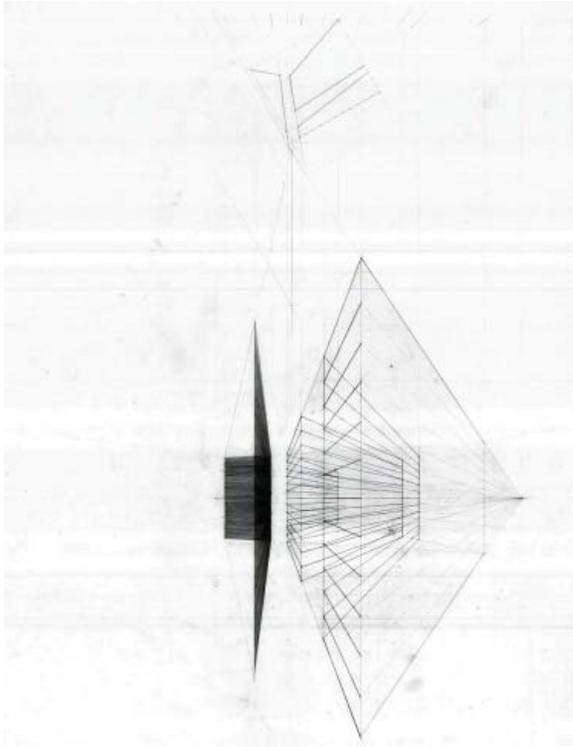


Fig. 3 Hallway Projection, Drawing by Author, 18" x 24", Lead on Vellum

### Interrogated Potentials

The projective process offers many potential opportunities as a tool for design thinking. Its primary status in design education has been and continues to be a method for translating two dimensional measured drawings to three dimensional representations (Fig. 3). Engaging

the projected perspective as a study of a previous design project still serves as an excellent instructor of visual descriptive geometry. However, after perspectival projection is executed, the potential to appropriate the image as another drawing type still remains. As Preston Scott Cohen has shown in his Taylorian Perspective Apparatus, and subsequent application in Stereotomic Permutations and other projects, the potential manipulations are numerous. While his usage of perspective projection techniques is primarily through appropriation, it is also possible to use the resultant image as a source of collage, montage, or assemblage. Perspectival projection as site frees the drawing from a necessary outcome, allowing the drawing to investigate problems beyond the scope of its original intention (Fig. 4).

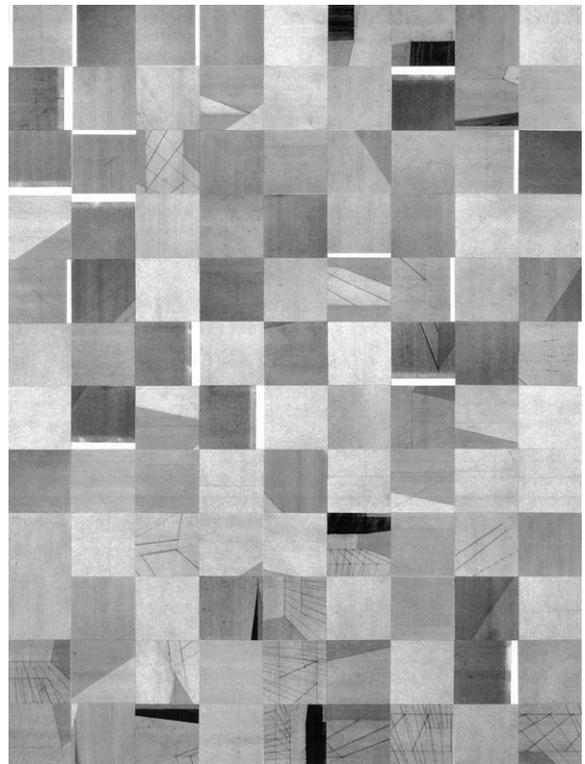


Fig. 4 Recomposed Hallway Projection Study, Drawing by Author, 18" x 24", Lead on Vellum

### *Techniques, Types*

As Peter Eisenman interrogated the axonometric projection, perspectival projection remains ripe as a mode of formal design investigation. As a reductive visualizing tool, it is a critical step in developing dimensional thinking, introducing the beginning design student to representational descriptive geometry. Utilizing it as a method to introduce the beginning design student to architectonic thinking asks that the student simultaneously learn the rigors of drawing, test design ideation, and interrogate the process of two dimensional and three dimensional translation. Exposure to architectural techniques of ideation and expression remains vital to the beginning design student. In addition to establishing general principles of geometric operation, the student must confront the abilities and inabilities of representation convention with regard to design vision.

### *Perspective Re-taught*

Paul Hogarth, the great architectural drawing educator, felt the perspective too limiting as means of spatial expression. In his terms of spatial expression, Hogarth is right, but for the beginning design student, demystifying the complicated relative geometries within architectural representation is a critical moment in the student's education. As a drawing type, it controls space because of its underlying descriptive geometry and vanishing point(s), imposing a quantitative sensibility to the representation. This imposed geometry is restrictive, but in order to successfully distort and express viewed space, as Hogarth argues, the basic operation of spatial geometry must first be understood.

The potential manipulations within the process of a projected perspective are numerous. Its importance as a tool for design education remains relevant as a fundamental method for elucidating hidden spatial and representational geometries. Yet, the process maintains potential

as a site for formal investigation, spatial reconsideration, and dimensional translation. Exposing the beginning design student to the rigor needed as a designer, both as a thinker and a creator, is a vital fundamental lesson. The projected perspective visualizes the inventive process of creation and translation, yet demands revision, exploration, and formal expression.

### **Notes**

- <sup>1</sup> Perez-Gomez, Alberto and Louis Pelletier. *Architectural Representation and The Perspective Hinge* The MIT Press: Cambridge, MA. 1997. p 6.
- <sup>2</sup> Pallasma, Juhani. *The Thinking Hand: Existential and Embodied Wisdom in Architecture* Wiley: West Sussex, United Kingdom. 2009. p 59.
- <sup>3</sup> Krasso-Krasojevic, Margot. "Positions" In *Projective Chronometry* Kim, Sung Ho. Kim, Sung Ho/Yuan, Tina: United States of America. 1999. p. 41.
- <sup>4</sup> Hogarth, Paul. *Drawing Architecture* Watson-Guptill Publications: New York, NY. 1973. p 11.
- <sup>5</sup> Allen, Stan. *Practice: Architecture Technique + Representation* Routledge: New York, NY. 2009. p. 12.
- <sup>6</sup> Schon, Pascal. *Manifesto For A Cinematic Architecture* AA Publications: London. 2006. p 27.