

## Spaces of photography: the digital translatability of old ways of seeing

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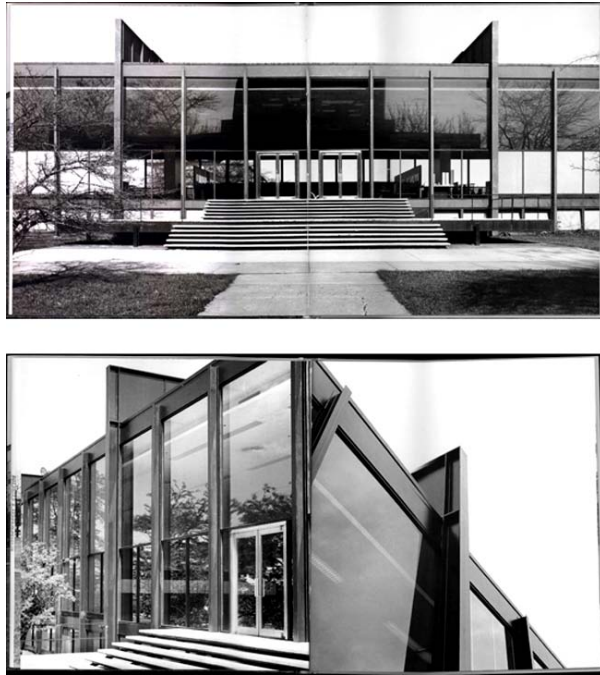
**Abstract.** *This paper describes a research exercise in which two sets of photographs of Mies van der Rohe's Crown Hall were documented in a digital model. The two "spaces of photography" reveal tourists' approach to photography against the purposeful visit of an individual photographer. Each space of photography is translated to a model of Le Corbusier's City Museum in Ahmedabad, India, resulting in a viewing of this model through the cameras of visitors to Crown Hall. The paper questions the degree to which simulated photography should be treated noncritically as a means of constructing architectural knowledge.*



This paper discusses an exercise concerning a specific *space of photography*, a term proposed here to refer to a digitally constructed framework encoding photographers' positions, fields of view, and directions of view derived from a specific set of photographs. The exercise explores the possibility of digitally constructing a space of photography as a structure of viewing and then transporting it from one digital model to another. Ultimately, the exercise reflects on the translatability of a specific way of seeing from one work of architecture to another, but more importantly, it questions the degree to which digitally simulated photography should be treated noncritically as a means of constructing architectural knowledge.

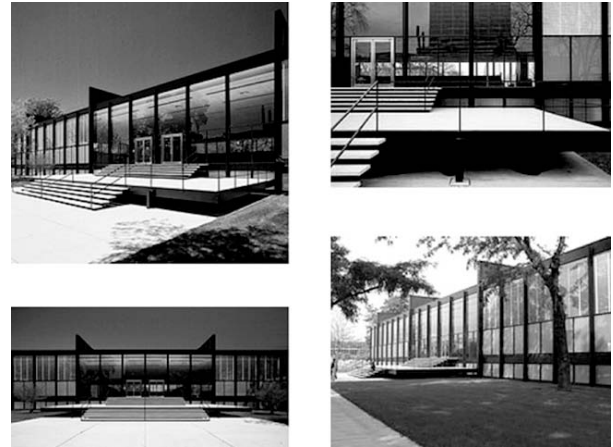
**Figure 1. Composite image of the City Museum, Ahmedabad, India (left), and Crown Hall, IIT, Chicago, Illinois (right).**

**Figure 2. Crown Hall as depicted in Werner Blaser's book.** Photographs of Crown Hall reproduced in Blaser's book on Crown Hall (Blaser, 2001) indicate the deliberate approach of a professional photographer engaged in the production of a scholarly work. That the images are professionally edited prior to publication emphasizes the degree to which they can be considered as part of a complete, integrated collection.



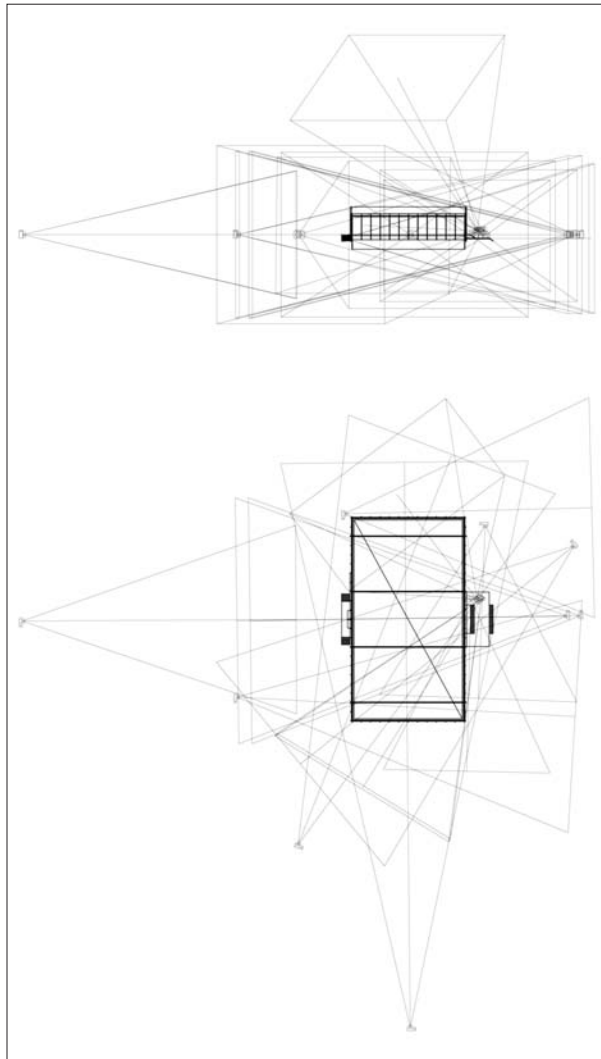
The initiating point of the exercise consists of two sets of photographs of Mies van der Rohe's Crown Hall in Chicago, Illinois. The first set of photographs is taken from Werner Blaser's book on Crown Hall (Blaser 2001) (Fig. 2), and the second set from an image search on Flickr.com (Fig. 3). For purposes of this exercise, the sets were further limited to *exterior* images of Crown Hall.

**Figure 3. Crown Hall as depicted on Flickr.** Flickr provides a venue for sharing digital images. Anyone with a computer and an Internet connection can upload images to Flickr. The images shown here are example results from an image search for "crown hall" (quotes included) conducted in April 2008. The search resulted in 628 images, most of which were exterior images of the building, and several of which were not related in any direct way to the building. The exterior images resulting from this search represent Flickr users' strong tendency to photograph the building from the front.



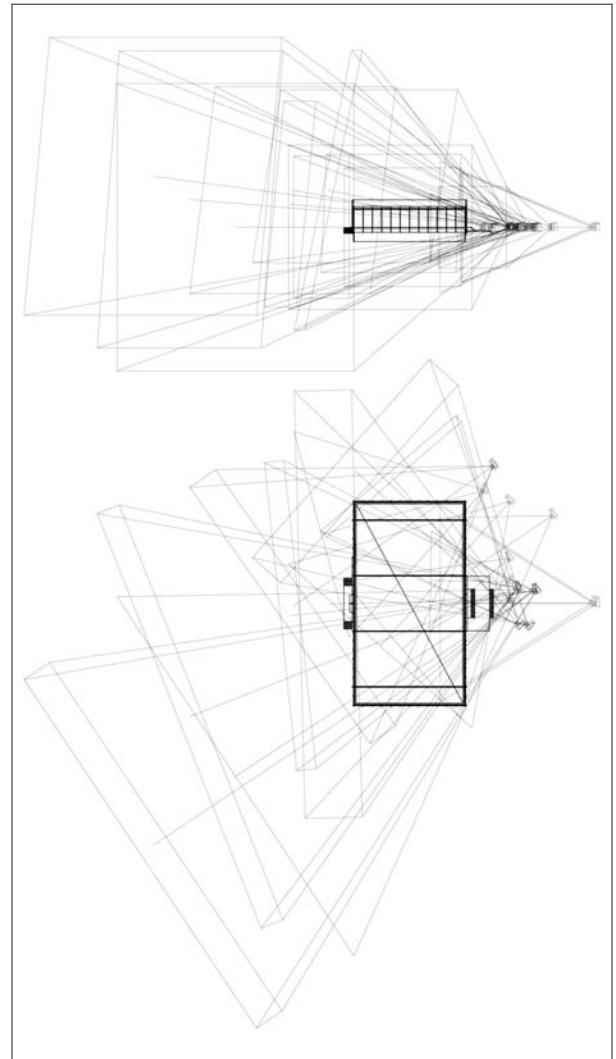
Each of the photographs in each of the two sets was individually recorded in a three-dimensional AutoCAD model of Crown Hall. More specifically, for each photograph, a point of view and a cone of vision were modeled in AutoCAD to correspond with the original image. The two sets of digitally-simulated photographs are shown in two diagrams produced from the AutoCAD model (Figs. 4, 5).

**Figure 4. Diagram of Blaser's photographs of Crown Hall.** Both the section (top) and the plan (bottom) show that the Blaser photographs are well-distributed around the building, with a tendency toward eye-level photographs.



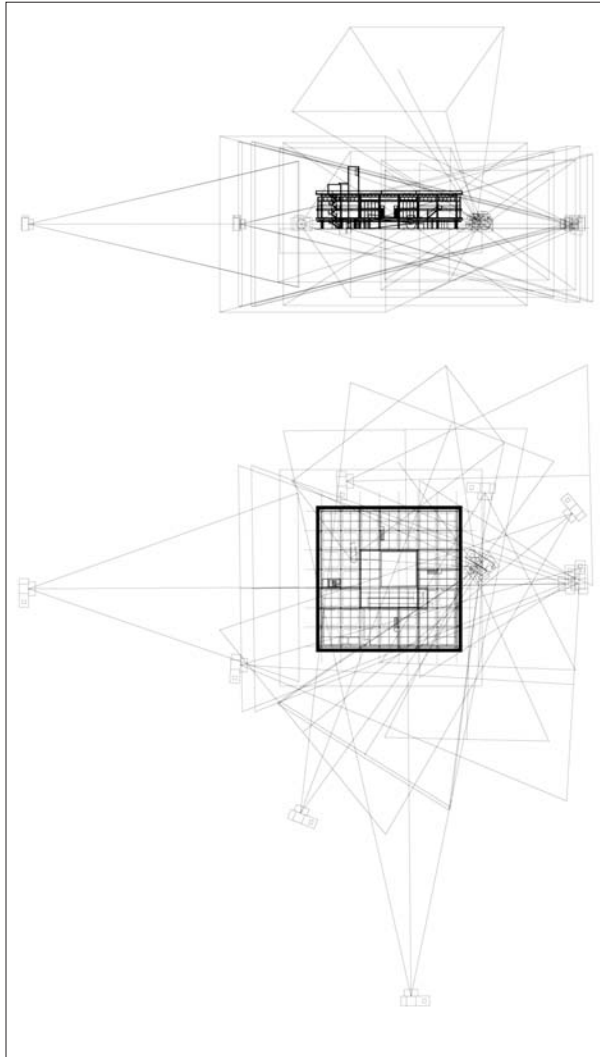
Each diagram shows Crown Hall in elevation (top) and plan (bottom), showing the photographers' points of view and outlines of their respective cones of vision. Each diagram therefore records the visits of one or more people by registering the superimposition of multiple cones of vision. These superimposed fields constitute two distinct "spaces of photography" reflecting the divergent but overlapping interests of tourists on one hand (the Flickr images) and a dedicated scholar on the other (the Blaser images).

**Figure 5. Diagram of Flickr images of Crown Hall.** The Flickr images are heavily concentrated to the front of the building, with slight biases to station points to the northeast of the building and directions of view which are looking upward.

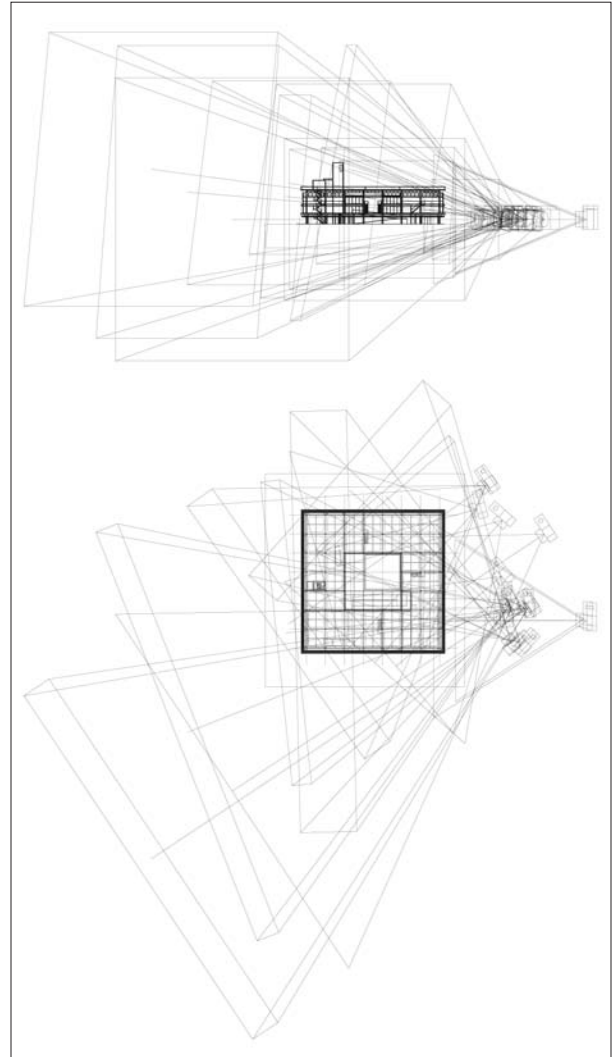


Comparing one space of photography to the other is to contrast tourists' tendency to photograph the building from one side, as seen in the Flickr images, against the purposeful visit of an individual photographer engaged in the production of a scholarly work, attempting to document the building in an academically useful manner. By revealing the difference between the production of a scholarly work and the *ad hoc* assembly characteristic of Flickr, the space-of-photography diagrams reflect genuinely different views on how architecture *should* be seen, *should* be remembered, *should* be understood and *should* be learned about (Christenson 2008a).

**Figure 6. Diagram of the Blaser space of photography translated to the City Museum.** The photographers' points of view and cones of vision shown in Fig. 4 are here shown superimposed upon a digital model of the City Museum in Ahmedabad, India.



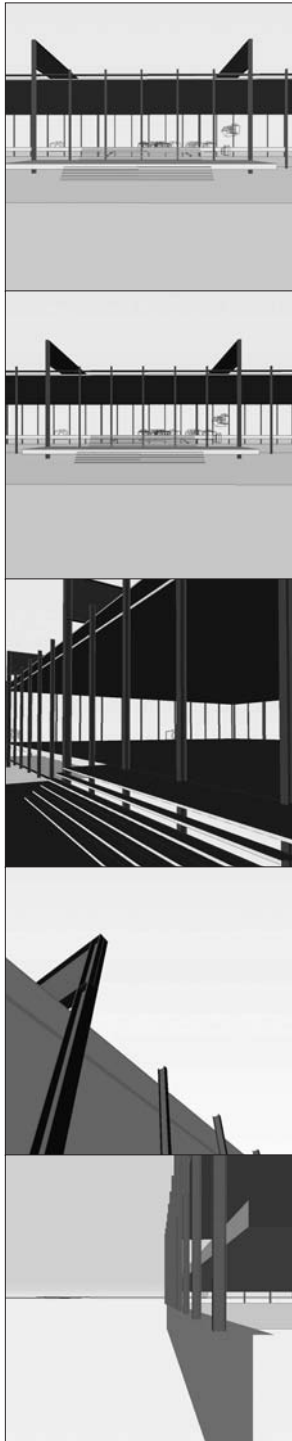
**Figure 7. Diagram of the Flickr space of photography translated to the City Museum.**



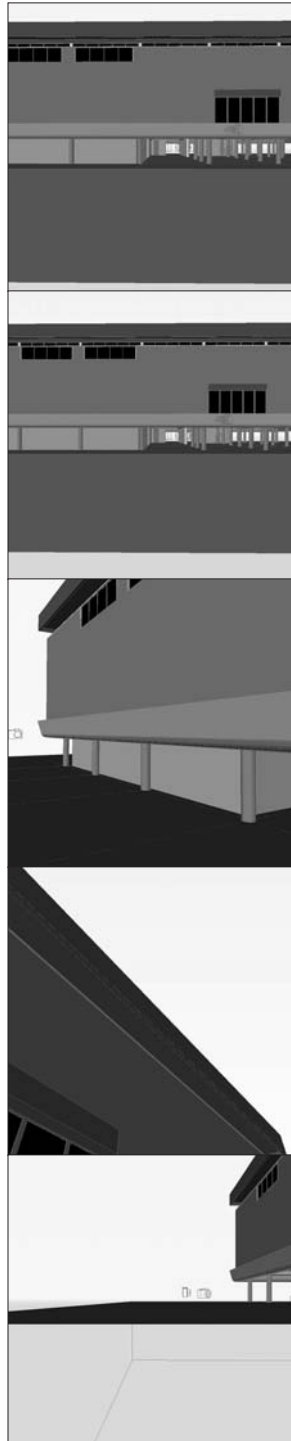
Because the information about the photographers' points of view and cones of vision is digitally stored as AutoCAD objects (i. e., "cameras"), it is possible to copy a space of photography from the model of Crown Hall to an unrelated model. Figures 6 and 7 are diagrams of the two spaces of photography shown in Figures 4 and 5 *digitally translated from the Crown Hall model to a model of Le Corbusier's City Museum in Ahmedabad, India.*

Two sets of simulated photographs of the City Museum resulted from this translation (Figs. 9, 11). Each set depicts the City Museum through simulated photographs as if the photographers were transported from Chicago to Ahmedabad, maintaining their cameras in the initial orientation set at Crown Hall. In other words, the simulated photographs constitute a viewing of the Ahmedabad building through the cameras of visitors to Crown Hall. (Christenson 2008b.)

**Figure 8. Crown Hall.** Digital simulations of original photographs from Werner Blaser's book on Crown Hall.



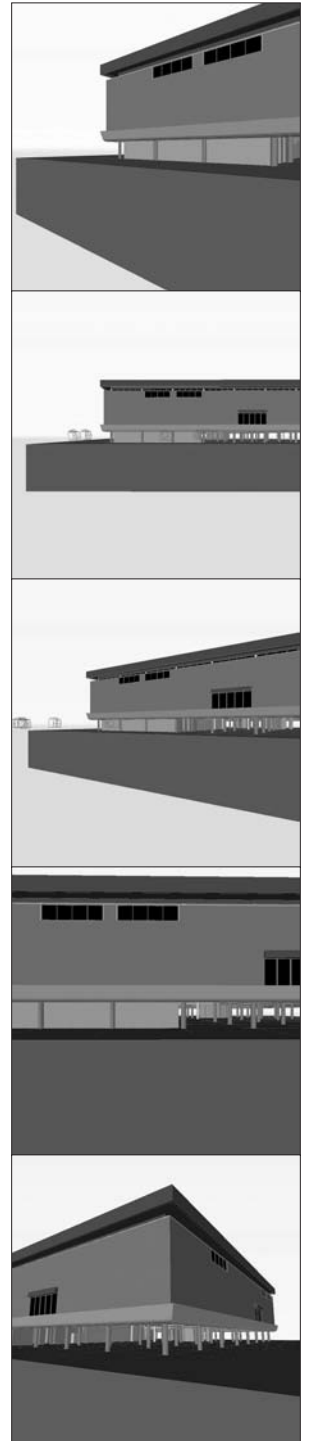
**Figure 9. City Museum.** Digital simulations of photographs of the City Museum, generated by superimposing the space of photography from Blaser's book on Crown Hall. The images preserve the points of view and cones of vision shown in Fig. 8.



**Figure 10. Crown Hall.** Digital simulations of original photographs resulting from a Flickr search for "crown hall."



**Figure 11. City Museum.** Digital simulations of photographs of the City Museum, generated by superimposing the space of photography from the Flickr search for "crown hall." The images preserve the points of view and cones of vision shown in Fig. 10.



**Discussion.** The problem of *making Crown Hall visible to a remote audience* is faced by both Werner Blaser and the users of Flickr. Blaser approaches the problem as a scholar; Flickr users may be scholars but are also tourists, perhaps casually interested in a specific work of architecture, and certainly interested in “sharing” their observations. Moreover, the two spaces of photography reflect divergent approaches to the issue of editorial control (i. e., an edited book as compared to a website without overt or obvious editorial control). The Crown Hall example simply points out that a given work of architecture is capable of generating at least two distinct spaces of photography, each in turn corresponding to a different way of making the work visible. Several questions arise from the act of constructing the space of photography:

*Is it generally true that given a specific work of architecture, spaces of photography resulting from academic publications will differ from those in trade publications will differ again from those resulting from websites such as Flickr? If we know what a specific space of photography looks like, can we make predictions about the work of architecture to which it corresponds?*

*Can we draw conclusions about the appropriateness of a space of photography as it relates to a specific work of architecture? What can it tell us about the architecture and about the agenda and motivations of people constructing it? How do we measure the value (pedagogical, conceptual) of a specific space of photography?*

When a space of photography is translated from one model to another (i. e., from the model for which the space of photography originated, to an unrelated subject model), the act raises the question of appropriateness of a specifically constructed space of photography to the knowing or the making-visible of another work. Clearly, the space of photography can function technically as an independent tool – once created, its translation to any other model is technically trivial. But in making the new model visible in a way which was generated by another work, a host of new questions emerge:

*How can a point of registration, or alignment, between two different models be determined? What are the implications for shifting the point of registration, or the orientation, of a translated space of photography?*

*Is there such a thing as an ideal space of photography? Can we define such an ideal space of photography in advance? What might it look like? Can we generalize about the distribution of points of view, directions of view, and angles of view which it must contain? Is an evenly distributed structure better than one which is directionally focused? Do principles of some kind exist for the structuring of an ideal space of photography?*

To begin to develop responses to these questions, I propose that whenever digitally simulated photographs are provided to make a proposed building visible (i. e., in a student presentation of work completed in studio), a diagram of the corresponding space of photography should be presented along with the images so that its structure can be queried in relation to the architectural proposal.

## References

Blaser, Werner. 2001. *Mies van der Rohe: Crown Hall*. Basel: Birkhauser.

Christenson, Mike. 2008a. "On dependencies between architecture and media: Considering the remote work." *Architectural Research Centers Consortium Journal* 5 (1), pending publication.

Christenson, Mike. 2008b. "Questioning the primacy of visual simulation in an epistemology of digital models." In *Proceedings, 2008 Conference for Education and Research in Computer Aided Architectural Design in Europe*, pending publication.

## Notes on Images

Fig. 1. Original photographs by the author.

Fig. 2. Scanned from Blaser 2001.

Fig. 3. Selections from an image search on Flickr.com, conducted in April 2008, using the term "crown hall" (quotes included).

Figs. 4-7. Diagrams generated from the author's AutoCAD models of Crown Hall and the City Museum.

Figs 8-11. Images generated from the author's AutoCAD models.