Chapter 16

Figuring Out the Interiors through the Geometric Tools of Representation: The Illusory Cast of Design

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ABSTRACT

Interior design is taught to be an essential tool for envisioning and modeling the environments we live in. Representing interior spaces through drawings and physical models requires a continuous process of imagination. The chapter exploits the projective tools for illusory design describing the processes of representation to design and build interiors but also their perception as a space. Crucial is the role of perspective in designing and building interiors; techniques of perspective, distancing itself from the mathematical problems, become a projective tool to add illusory qualities and creating the perfect tuning among spaces that remind us that designing methods aim to add dimensions to the human sphere, not only in the physical one but also in the creation of material images and allegories. The research highlights the principles of projective-geometric design of illusory spaces. Descriptive geometry and disciplines of representation provide, in the many phases of design, scientific and artistic tools for practical resolutions of geometric and constructive problems.

INTRODUCTION

Interior design is taught to be an essential tool for envisioning and modeling the environments we live in. Representing interior spaces through drawing requires a continuous process of imagination.

These concepts create a very challenging framework in terms of representation because designers are not merely drawing forms but also enlightening space and embodying all the intangible related issues.

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The interaction of geometry, light and materials allows designers to address the experiential-phe
nomenological issues where experience shapes spaces and creates visual interfaces. Design of interiors
is also based on space-related “landscapes,” less entrenched but also linked to the rapid transformation
of emotional pictures.

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BACKGROUND

Geometry is a fundamental tool for designers since its reputation grew according to philosophers and
religion; a permanent subject in design and architecture and a constitutive part that, according to Evans,
is not produced but consumed by architects.

Robin Evans, before his death, completed The Projective Cast: Architecture and Its Three Geometries
(the MIT Press, 1995). Evans investigates about the relationship between geometry and architecture,
drawing on mathematics, engineering, art history, and aesthetics to unveil processes in the imagining
and design of architectural form. Geometry does not always play a stolid and dormant role but It is used
as a strong tool between thinking and imagination, imagination and drawing, drawing and building. A
theory of architecture, according to Evans, that is based on the multiple and possible interactions between
architecture and geometry. The Projective Cast shortlists the geometry of designers, asking whether they
are in fact the stable underpinnings of the creative, intuitive, or rhetorical aspects of architecture. History
of architectural projection, intended as the geometry of vision, is granted for the fundamental role in the
development of the “pervasive pictorial method of construction and that, until now, has played only a
small part in the development of architectural theory”.

Evans describes the ambivalent role that pictures play in architecture and urges resistance to the
idea that pictures provide all that architects need, suggesting that there is much more within the scope
of the architect’s vision of a project than what can be drawn. Defining the different fields of projective
transmission that concern architecture, he investigates the ambiguities of projection and the interaction
of imagination with projection and its metaphors.

Geometry gives architecture a reasonable ground but it allows to go out of its rationality leaving
space for intuitive judgment. Evans speaks on “dead geometry” as an inoculation against uncertainty
and according with this subject, design becomes a creative art supported on the dead certain truth of
geometry (Evans, 1995).

Design of illusory space lends itself to some reflections, as well as from the practical point of view,
also from a theoretical one. The research represents the principles of projective-geometric design of
illusory spaces and proposes a detailed study on the architectural perspectives, “quadratura” and relief-
perspective, which featured the applications of science and art to interior decoration and architectural
spaces from the sixteenth to the seventeenth century. The fundamental content of each application is
the three-dimensional ideation and the extension of architectural surfaces, a veritable figurative spatial
palimpsest. The aim of the research is to promote a deeper understanding on the tools for the illusory