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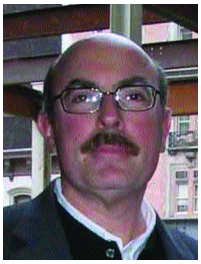
FORENSIC ARCHITECTURE: THE ART OF UNDERSTANDING A BUILDING'S UNWRITTEN HISTORY



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Understanding the layered history of a building is similar to understanding the medical history of a human being. Visible symptoms and changes in behavior as well as prior attempts to cure a specific problem are all important information, critical to ensuring that a building's structural health, as well as its internal building systems health, are operating at maximum efficiency.

Understanding Forensic Architecture. While architecture as a discipline is associated in most people's minds with building design, there is a growing field within architecture that involves itself not with the "aesthetics" of a new building, but with the completed existing structure and its ongoing operations,—or forensic architecture—to ensure longevity and preservation of the asset. This area of building study allows the Architect to focus on the ways in which a building can best maintain itself and prolong its life in a cost-efficient manner. It is a science that addresses the built environment's well being in much the same way that medical diagnostics addresses the well being of the human body.

On the surface, forensic architecture may appear quite simple; however, it involves the complex study and investigation of a variety of areas:

- Review of Site Conditions, Damage Evaluation
- Materials Testing
- Systems Evaluation
- Lead Analysis
- Building Code Analysis and Interpretation
- Compliance Review and Audit
- Comprehensive Repair Scope Analysis and Reconstruction Costing
- Preservation of Technical Evidence and Expert Witness Testimony

In summary, what a system looks like or how it currently operates provides only a small piece of the puzzle about its health and viability for future use.

Consider This Case Study. An excellent example of this type of "forensic" analysis can be detailed in a simple case study. In one luxury high-rise building in New York, residents threatened to sue the Board of Directors because the building's windows were not functioning properly.

A Residential Case Study. According to the residents, the building's 400 windows had been "poorly designed and installed" and required replacements. The repair project would cost over $500,000. Upon inspection of the windows, our firm determined that they were in fact top quality window, custom designed by the building's architect as an integral part of the building's design. Installation was also found to have been properly executed. However, we discovered a few problems that lay at the root of the resident's complaints.

First, we determined that there had been little maintenance work to keep the windows in optimum working condition. Second, because of their unique design and size, these windows were difficult to open and close, particularly for the building's older residents.

Cost-Effective Maintenance Can Go a Long Way. In addition, our firm designed a comprehensive, cost-effective maintenance program that included a series of positive measures that was implemented by the building's maintenance staff on a periodic basis. Once this was put in place, complaints about the windows significantly decreased.

This case study serves to illustrate the benefits of maintaining all building systems on an ongoing basis to keep them in working order. It is also an object lesson in the importance of seeking the advice of a Building Diagnostician before leaping to costly, and not always necessary conclusions.

Howard L. Zimmerman Architects, P.C. (HLZA) is a full-service architectural firm with over a quarter of a century of experience in serving residential, commercial and industrial properties in all aspects of exterior and interior building design, renovation and forensic investigation. In addition, the firm offers complete interior design services for apartments, lobbies and common areas.

For additional information on the firm or forensic architecture, please contact Howard L. Zimmerman, AIA at (212) 564-9393 or visit the firm's website at www.hlzimmerman.com.