

Preserving the Past as Society Evolves

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1 Abstract

In urban environments, historic and significant structures are often altered or adapted multiple times for new uses to meet the needs of society. These modifications may occur years apart over the life of the structure, resulting in a combination of different materials and structural systems. Modern-day designers need to fully understand not only the original archaic construction but also the changes imposed during the prior modifications. Drawings for the original building, and subsequent modifications, oftentimes are lacking or incomplete and an investigation is needed to identify the configuration of the existing structure and the various material properties. When considering restoration and strengthening, the information obtained from a well-planned investigation and evaluation can maximize retention of the historic fabric of the structure.

In this paper/presentation we discuss the importance of performing an investigation prior to modifying the existing structure, the components of an investigation for historic or significant structures, and the challenges that can arise during the investigation process.

Keywords: Restoration, Repair, Historic Structure, Strengthening, Investigation.

2 Introduction

According to a 2018 report prepared by the United Nations Population Division, 55% of the world's population lives in urban areas, and this

number is projected to rise to 68 % by 2050 [1]. In densely populated urban areas, buildings are often modified to accommodate new occupancy or use of the space, to repair deterioration and damage, and to add additional space to meet the