



UPSTATE NEW YORK MCAA CHAPTER

The Art and Science of Masonry Arches

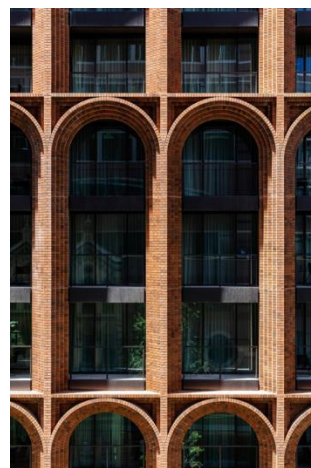
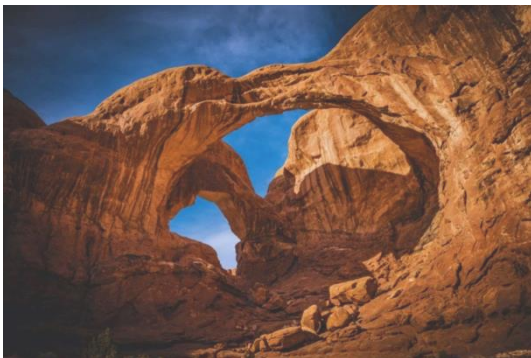
1 LU|HSW Course Number: Arch 2024

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Upstate NY MCAA's programs are meant to be an overview on various aspects of masonry construction. They aren't intended to be a complete discussion of the topic.

Presentation:

Was the arch discovered or copied from nature? The earliest recorded use of man-made masonry arches dates to Mesopotamia and India between 1000 and 2000 BCE. The Greeks and Chinese were early adopters of the technology, and the Romans expanded their use throughout Europe. Eventually, all cultures reinvented the arch or learned from others. This presentation will include the theory of arches and offer historical and modern examples. Various repair concerns will be addressed.



Learning Objectives

- 1: Identify various arch configurations.
- 2: Recognize how an arch performs structurally.

- 3: Discuss how domes and vaults compare to arches.
- 4: Compare several repair and strengthening techniques.

Keywords

masonry, structural, historic, repair, strengthen, arches