

PhD Proposal

MAP-i

Title: **Time, the Fourth Dimension**

Abstract:

3D models of buildings, or constructions, commonly represent a snapshot in a particular moment of time. Therefore, to show the evolution of a model in time, several snapshots are required, each portraying a particular moment.

There are many situations where two consecutive snapshots in time contain many elements in common. Finding these common elements, or the differences between two snapshots, may not be a trivial task, if for instance the two instances in time were modelled separately.

In this project we seek to explore time as the fourth dimension of graphic models, adding temporal primitives to the specification of graphic models, thereby allowing the temporal component to be included in the 3D graphical model. Hence a single time extended model definition may contain all the information of the object through time.

The specification must be simple to incorporate in already built models, yet powerful enough to deal with common situations that arise for instance in archaeology, or historical buildings that have been altered during their existence.

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