

Marwan Aldabagh  
 Oday Alchalabi  
 Ali Haider saad

## A Mechanism for creating new shape and syntaxes In old Mosul city



### Abstract:

The architectural spaces and shapes are considered as the basis of components formation and grouping of formal architecture in general, including those of old city of Mosul, which display identity elements of traditional architectures. These key elements are useful after proper transfer to data and information symbols of their shapes and combinations. Employment of certain constraints lead to final result belong to architecture identity of the selected shape as a specimen of study. Through such information, it is possible to rehabilitate and design any part in new shape while conserve its belonging to the original identity of the shape in the area. In this respect, Matlab7 program were employed in the input of data of dimension (length, width, height), shape patterns (square, rectangle, parallel, U shape ) in addition to their distribution in space. Pixels were used as measurement unit. The result contain system of composites similar to the mechanisms of engineering patterns formation. After finding he mechanisms of shapes formation in certain architecture, it is possible to use the salve program in the formation of alternative and new shapes belonging or bonded to the same architecture. Finally, present study aimed at achievement of shape and composites formation mechanisms and arrive to several designs and selection of design which is intimate to the architecture identity.

### Topic: Architecture

#### Authors:

**Name1:** Oday qussay alchalabi  
 University of Mosul Collage of  
 engineering Architectural dept.  
[www.engineering-coll-mosul.com](http://www.engineering-coll-mosul.com)

**Name2:** Marwan salim aldabag  
 University of Mosul Collage of  
 computer and mathmatic  
 science **Name1:** Oday qussay  
 alchalabi

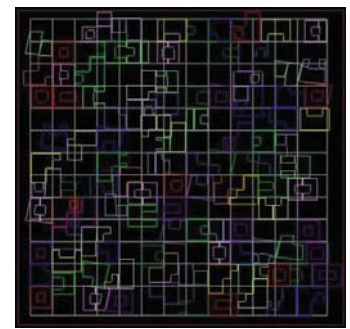
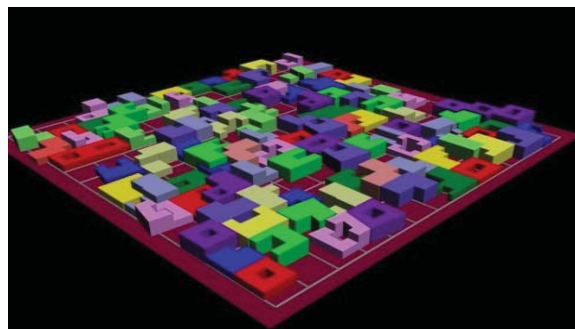
**Name3:** Ali Haider saad -  
 University of Mosul Collage of  
 engineering Architectural dept.

#### References:

- [1] Nikos Salingaros, " A Scientific Basis for Creating Architecture Forms, Journal of Architectural and Planning Research , Vol(15) , Locke Science publish , 1998
- [2] Ahamad , S . and Scott , ( Design generation of Central Asia CARAVANSERAI), 2004.
- [3] Danby , M.,( Grammar of Architecture Design ), Oxford university press , London , England , 1963 .
- [4] Hillenbrand , R. ,( Islamic Architecture , Form , function , and meaning ) , EDINBURGH university , 1994.
- [5] oday alchalabi, " generation shape rule in Islamic Palace "University of Mosul publish , Iraq, 2006

#### Contact:

[odaychalabi@gmail.com](mailto:odaychalabi@gmail.com)  
[www.generativeshape.com](http://www.generativeshape.com)



Sample of automatic generation shape and group of shape to generate a type of hidden order in mine sector in Old Mosul City

#### Keywords:

Automatic generate , shape , digital shape , formal arch. Matlab