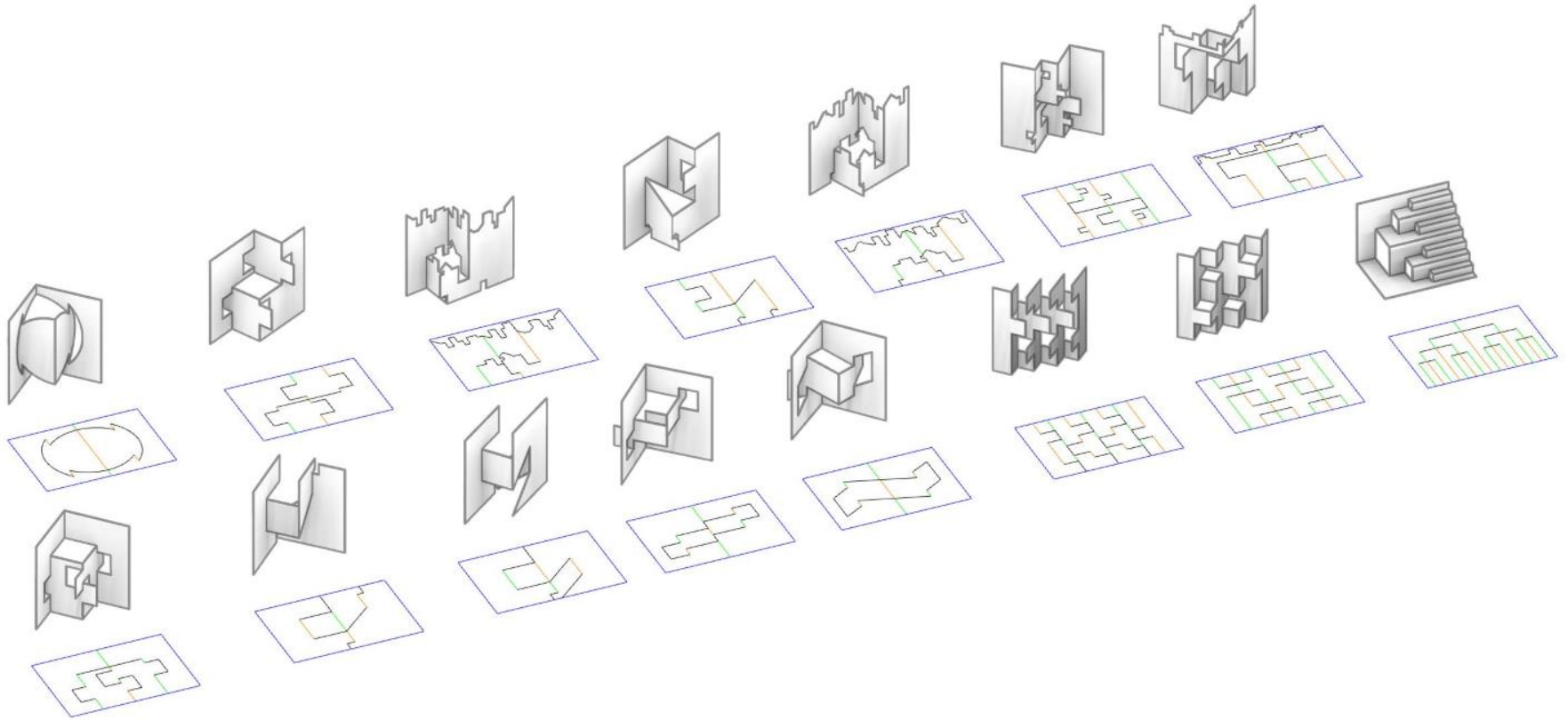
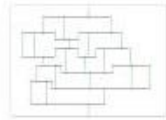


# PAPER POP UP PROJECTION MAPPING



*Amir + Judith Soltani*  
[transnova@yahoo.com](mailto:transnova@yahoo.com)  
[metrowave.co.uk](http://metrowave.co.uk)  
[cinecensory.org](http://cinecensory.org)

# 1.



Pop up template



A4 precut paper



Paper folding



Assemble a scene



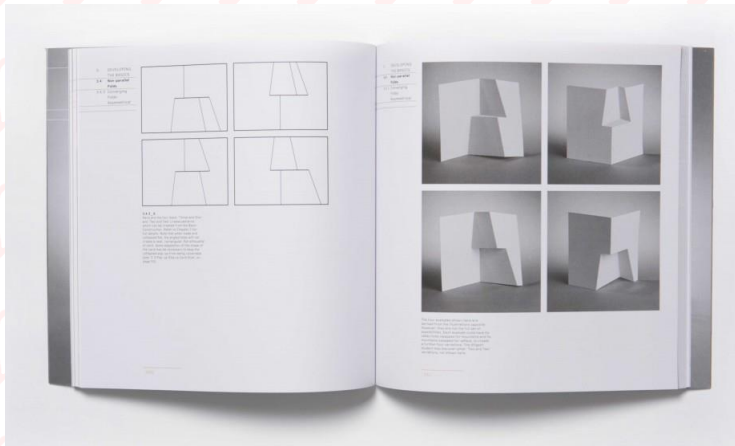
# 2.



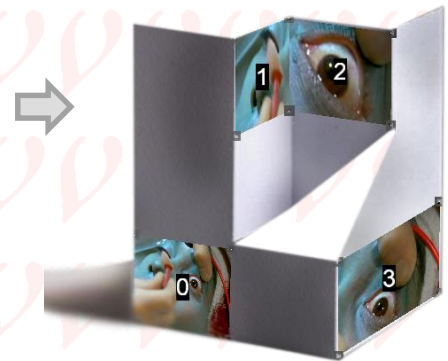
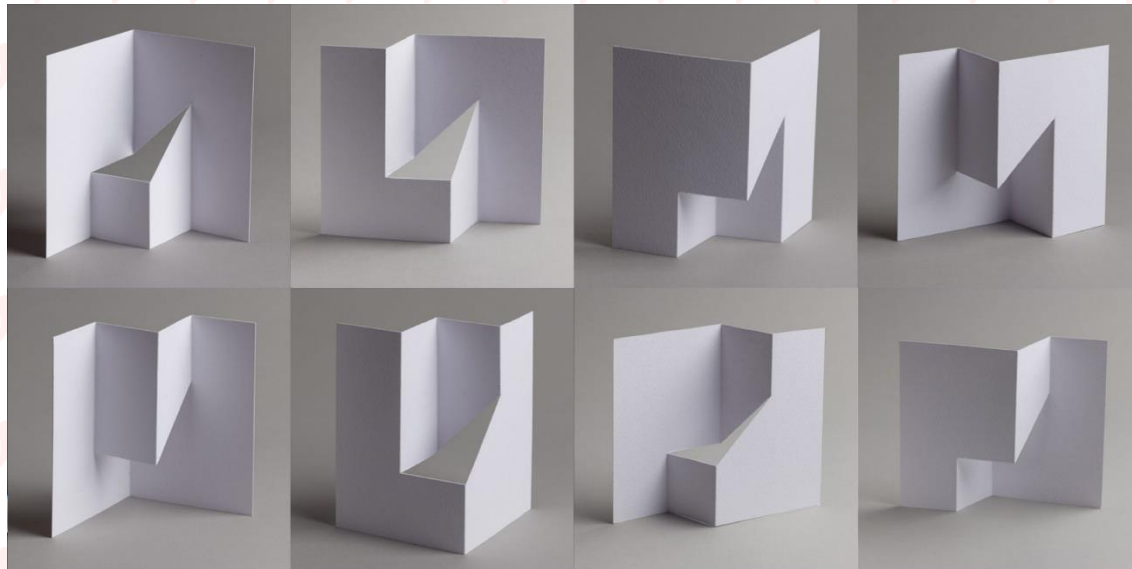
# 3.

The core of this workshop engages participants in a physical/digital experience of creating scenes resembling architectural and urban setting, using a prepared pool of image and video clips projected on generic A4 paper pop ups. The aim is layering content to create and modify intriguing scenes using simple projection mapping techniques and vvvv popular nodes such as 'Bad Mapper'. Additionally we'll demo some possibilities for architectural data visualisation using projection mapping as presentation tool.





## Paul Jackson Pop-up book



1

Intro  
Demo  
Folding  
Cutting shapes  
Pop ups  
vvvv basics

2

Make scenes  
Scanning scene  
Photo scene  
Edit scan scene  
Recap 360  
vvvv patching

3

Projection mapping  
Content creation  
Green screen  
Final projection

## What is projection mapping?

*A brief history*

*And why vvvv is good for projection mapping*

# What is Projection Mapping

Augmenting reality

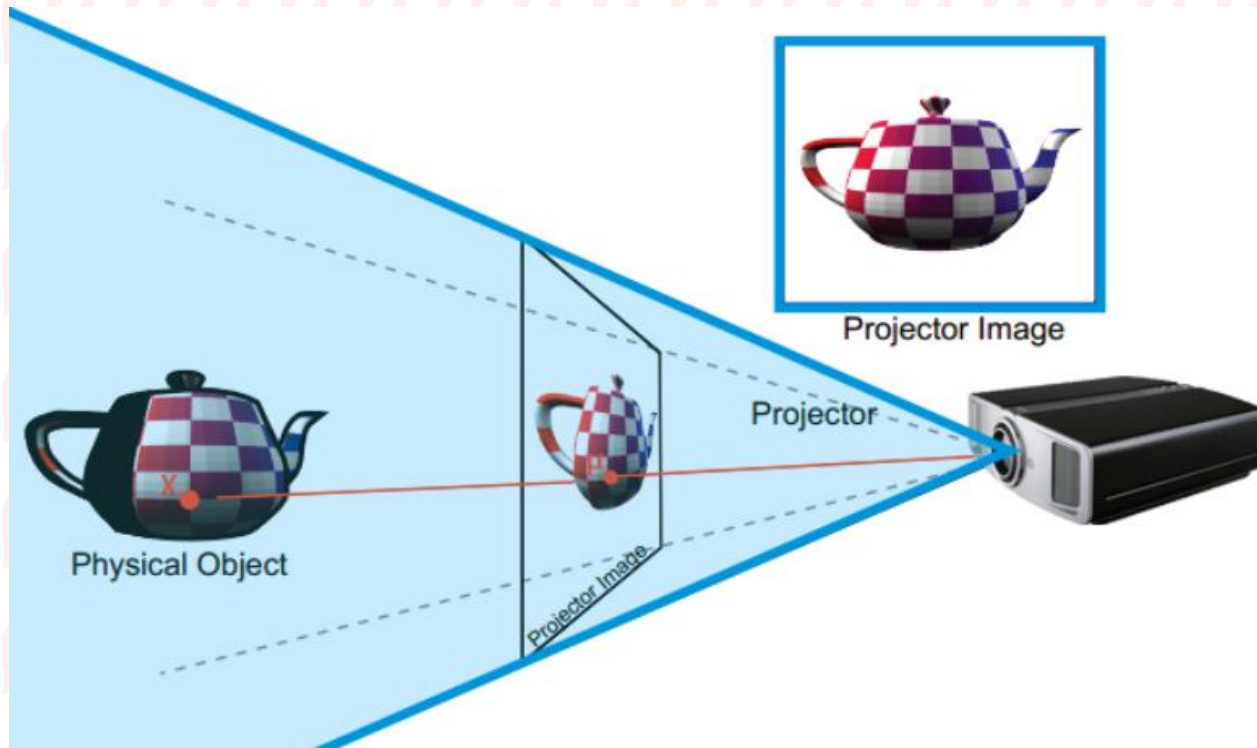


Common use of  
projectors onto  
2D screen

Projection mapping  
onto 2D/3D objects

- Video Mapping
- Spatial Augmented Reality
- Real-time Projection of content onto spatial (2D and 3D) objects where its formal properties are mapped as accurately as possible to eliminate/minimize distortion

# Projection mapping application



light show, vj, stage design  
Audiovisual performance  
Art Installation  
Scenography  
Architectural projection  
Window display  
Data visualisation

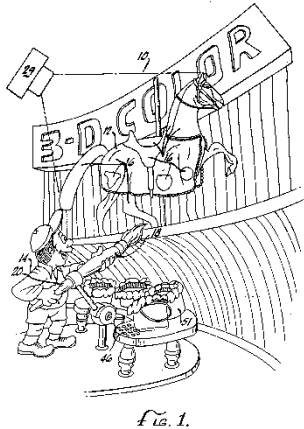
**James Turrell**  
Afrum White 1943



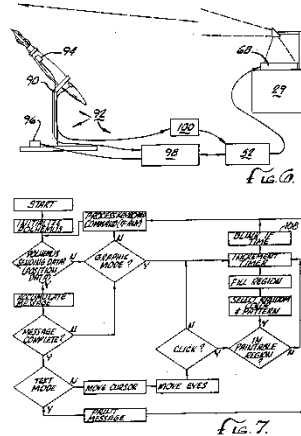


# Walt Disney 1969 early projections

U.S. Patent June 28, 1994 Sheet 1 of 5 5,325,473



U.S. Patent June 28, 1994 Sheet 3 of 5 5,325,473

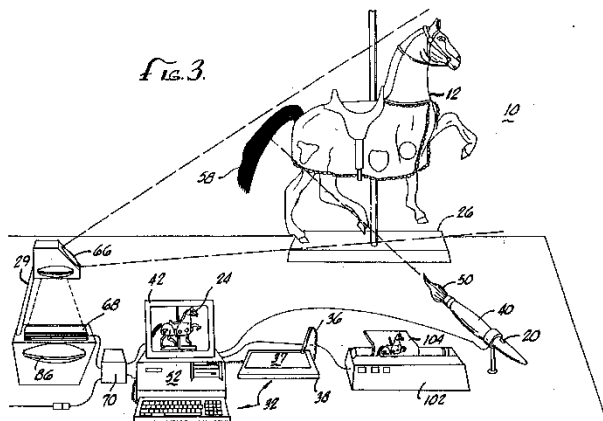


U.S. Patent

June 28, 1994

Sheet 3 of 5

5,325,473





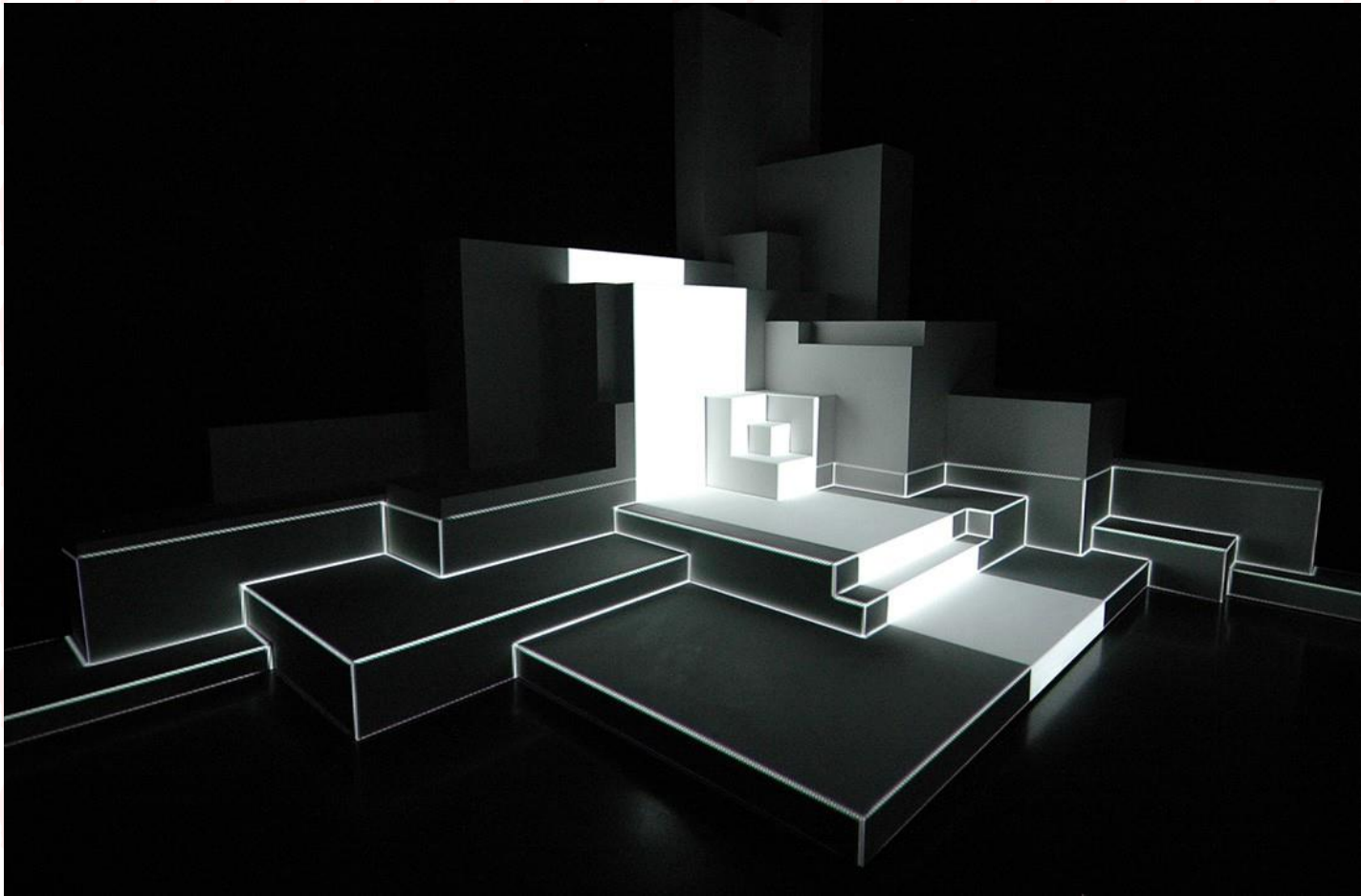
**Michael Naimark**  
**Displacement 1980**



<http://www.naimark.net/projects/displacements.html>

<http://www.naimark.net/projects/displacements/displ2005.mov>

**Pablo Valbuena**  
Augmented Sculpture Series 2007



- <https://player.vimeo.com/video/34623832>

Projection Mapping become popular only in the last decade



- <https://player.vimeo.com/video/189192769>
- <https://www.youtube.com/watch?v=PKMCB5v8pt0>

*555 Kubik* (2009)

projection on Gallery of Contemporary Art for the client Kunsthalle in Hamburg.

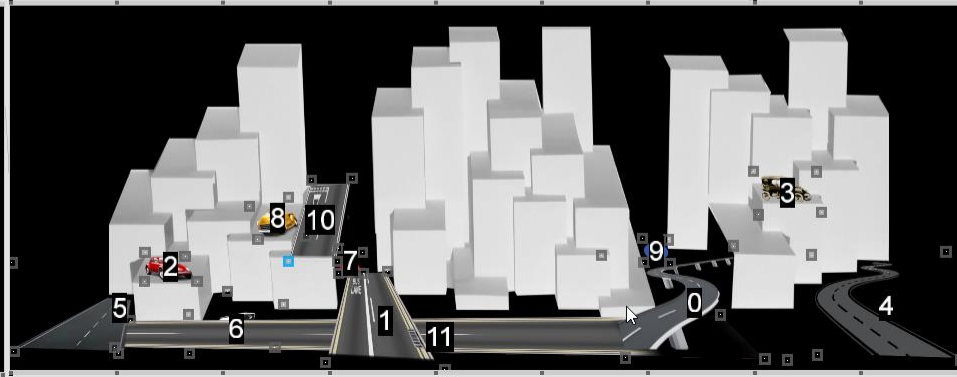
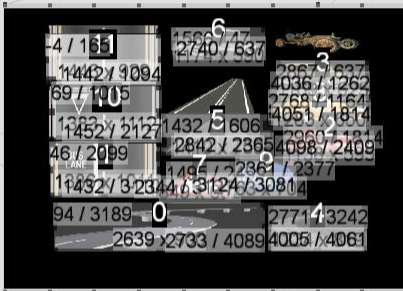
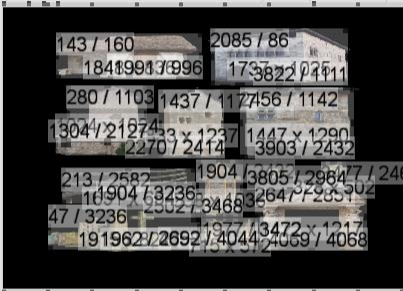
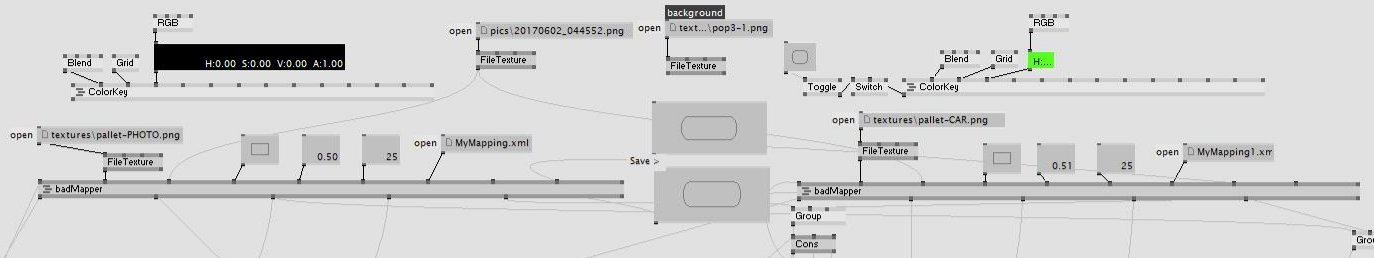


vvvv in a nutshell?

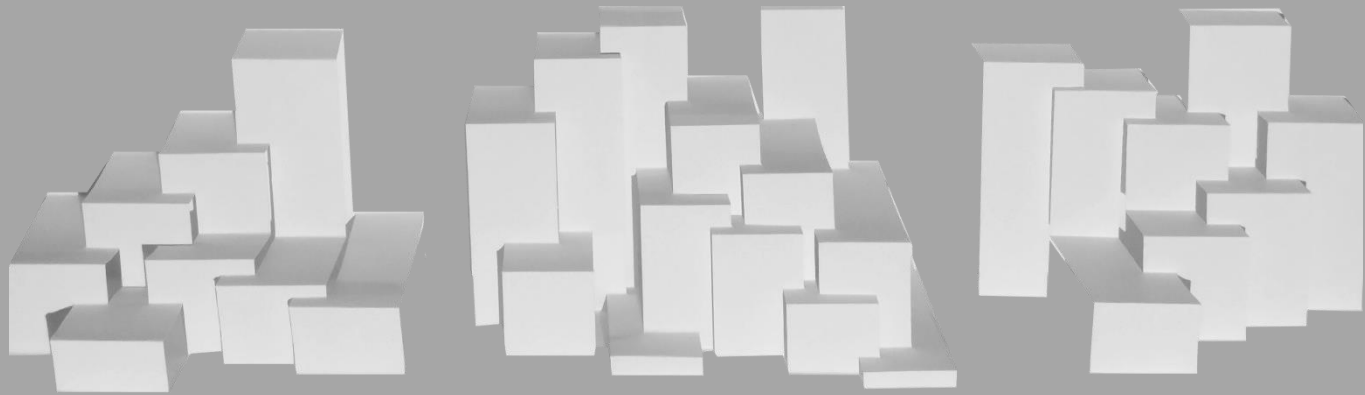
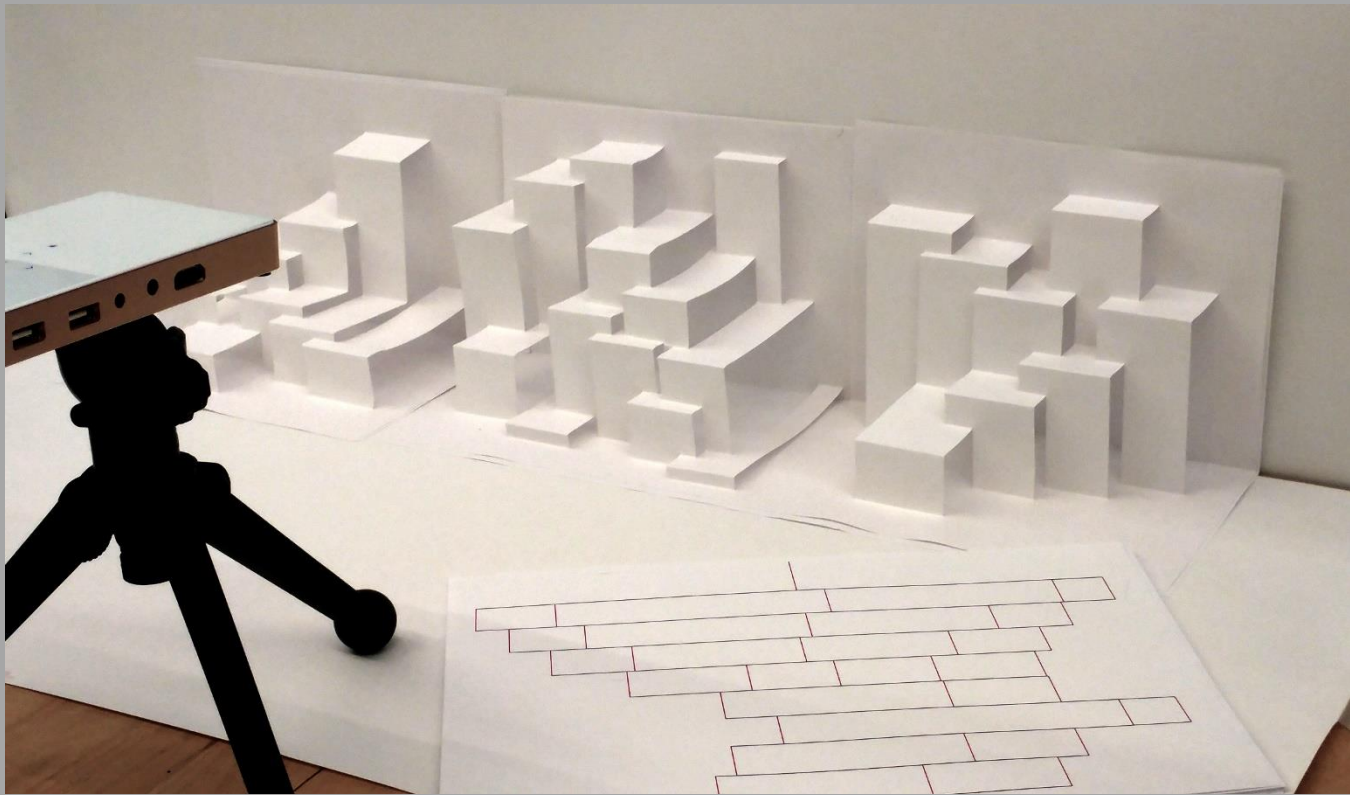


**A MULTIPURPOSE TOOLKIT**

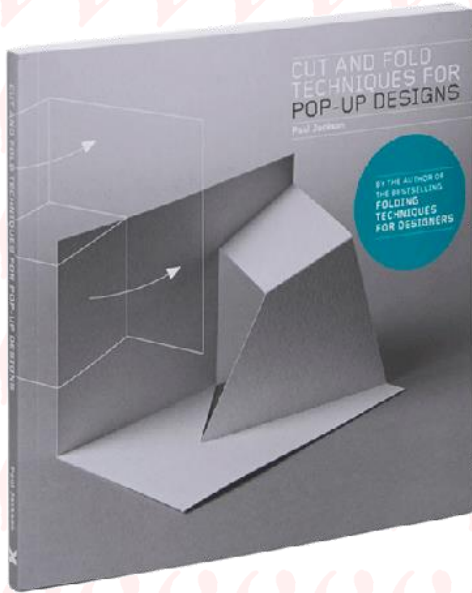
# paper pop up projection





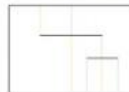


# Paper pop up models

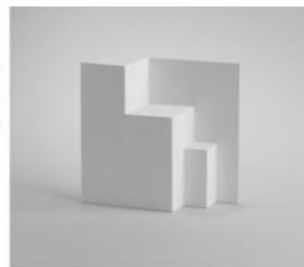
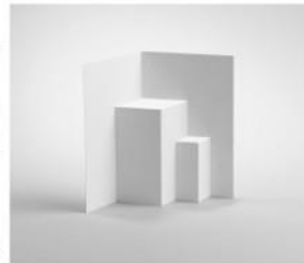


## Paul Jackson's book: **Cut and Fold Techniques for Pop-Up Designs**

5. MULTIPLE CUTTERS AND GENERATIONS
5.1 Generations
5.2 Two Generations



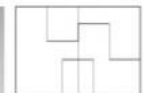
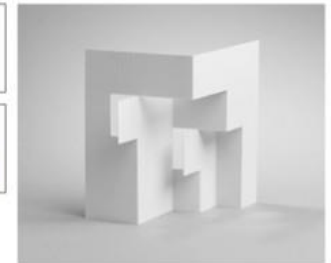
**5.2.1** The illustration shows a drawing for a first-generation pop-up and a second-generation pop-up. The first-generation pop-up is a simple box. The second-generation pop-up is a more complex structure with multiple flaps and a more complex internal structure.



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