

# CODED ORNAMENT: CONTEMPORARY PLASTERWORK AND THE USE OF DIGITAL TECHNOLOGIES

DR JUSTIN MARSHALL

University College Falmouth, Falmouth, UK.

**KEYWORDS:** craft, digital technology, ornamental plasterwork, architecture, collaboration, industry

## **Abstract**

The ornamental plaster industry is predominantly driven by the reproduction of traditional designs and by restoration work. The manufacturing technologies used in this industry have developed little since the 19<sup>th</sup> century.

The current resurgence in the use of decoration within interior and exterior architectural design along with the author's interest in digital technologies prompted him to undertake a practice based research project which sought to investigate the role of digital technologies in the design and production of contemporary ornamental plasterwork.

The research took the form of a collaborative project involving the author (a maker and researcher) and an ornamental plasterwork company (Hayles & Howe). The author was interested in not only the productive potential of digital technologies, but also their role in creating new forms of sustainable practice for independent makers. The specific questions addressed by this project were:

1. By working in collaboration with an established manufacturer of decorative plasterwork, can an independent designer-maker be instrumental in developing an innovative new range of products or create the potential for new markets/contexts for architectural plasterwork.
2. Can the integration of CAD/CAM technologies with the traditional skills and processes used in this industry help promote innovation and create the potential for mass customisation.

This project involved the author working within the workshops of the plaster company in order to gain an understanding of their 'traditional' production processes and assess how digital technologies could potentially extend their current working procedures. He then went on to undertake four small projects employing a range of different digital technologies, (including laser cutting, 2D and 3D CNC milling and rapid prototyping), in order to develop new design and production procedures and a number of new

plasterwork prototypes. The project culminated in a large scale exhibition of the new work developed, a documentation of process and demonstrations of some of the technology employed.

This paper takes the form of a case study report on the project, It will describe the aims; providing an illustrated description of the processes used to develop the new work and reflecting on the author's experience of the collaboration. The conclusion will discuss to what degree the questions posed have been addressed, with a focus on issues relating to new product development, and highlight any generalizable outcomes which may be of relevance to independent makers undertaking collaborative projects with industry.

The full paper is published in The Design Journal, Volume 10, Issue 2, published by Ashgate Publishing Ltd, Aldershot, UK, [www.ashgate.com](http://www.ashgate.com).

If you would like a pdf version please contact :[justin.marshall@falmouth.ac.uk](mailto:justin.marshall@falmouth.ac.uk)