



URBANOMIC
FALMOUTH



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UF10 SECRETS OF CREATION

‘Through dramatisation, the Idea is incarnated or actualised, *it differentiates itself*.’ – Gilles Deleuze

This exhibition displays the results of a collaborative residency project crossing the borders of art, science and philosophy.

Artist **Conrad Shawcross**’s work presents interrogations of scientific and philosophical concepts, often through kinetic sculpture. Mathematician **Dr Matthew Watkins**, curator of the **Number Theory and Physics Archive** and Honorary Research Fellow in Mathematics at Exeter University, is working on a trilogy entitled **Secrets of Creation**, which explains to non-experts the perplexing nature of prime numbers, and explores the wider cultural ramifications of the ways in which they alter our understanding of number.

The residency focused on the question: How can artists and artworks stage a ‘dramatisation’ of abstract concepts that allows them to be grasped by non-experts? The exhibition presents working sketches and diagrams, prototypes, and extracts from the video archive of the week’s discussions.

‘Secrets of Creation’ refers to the intuition, which Watkins shares with other mathematicians, that the mysterious characteristics of the prime numbers harbour some fundamental truth about the deep structure of reality. At the same time, it invites a reflection on the way in which an artist like Shawcross extracts from scientific or philosophical concepts the resources to create a work that exceeds them.

This double-meaning can be understood in terms of a logic of ‘dramatisation’ – describing both the way in which the abstract structures of mathematics are incarnated in reality, and the process through which ideas are materialised in an artwork.

In collaboration with the **Urbanomic Studio** team, the residents examined the similarities and differences between the aims and processes of their respective projects. After an initial period of discussion, explorations as to how the project might evolve brought them closer to the underlying tensions and commonalities between scientific and artistic ways of seeing and describing the world, suggesting various ramifications and reformulations of the original question, such as:

- When artists appropriate rigorously-defined concepts from other disciplines, do they expand them, twist them, or betray them?

- Is it possible to draw down highly systematised and interdependent technical terminologies back into (spoken or visual) natural language?

- What are the sociopolitical implications of the increasing gap between specialised knowledge and common understanding?

- Can art help to re-integrate the insights of scientific thought into culture and society?

These discussions culminated in the making of a prototype for a model designed to demonstrate one of the ideas presented by Watkins in *Secrets of Creation* – the notion that multiplication brings *temporality* into number, by introducing a sort of ‘feedback’. In multiplication a radical shift occurs, as numbers are applied to themselves rather than to things in the world; and it is at this ‘reflexive’ moment that the prime numbers emerge.

Expanding on these ideas and discovering thematic links with previous works, Shawcross developed a set of novel imaginative responses to this model, dramatising the transition between addition and multiplication by employing collective nouns for animals – a simple form of numbering tied to concrete entities in the world – as multipliers.

The complex and impassioned negotiation between the two residents expressed itself in the evolution from idea to diagram, to prototype, to a set of possibilities for a future artwork. The residency itself became a ‘dramatisation’ of the dialectic between concept and imagination, between scientific model and work of art.

Robin Mackay

‘Prime Evolution’, an interview with Dr Matthew Watkins, appears in **Collapse Volume I: Numerical Materialism** (2006).

‘Shadows of Copernicanism’, by Robin Mackay and Conrad Shawcross, appears in **Collapse Volume V: The Copernican Imperative** (2009).

Secrets of Creation Volume I: The Mystery of the Prime Numbers is published by The Inamorata Press – see <http://www.secretsofcreation.com>.

In late 2010, Urbanomic will publish a book documenting the Secrets of Creation residency in full.