WORKSHOP 1. Thursday 19th May 2011, 18:00-20:00

Supervised by Klaus Hentschel and Daniela Bleichmar

Meghan Doherty (Mellon/ACLS Recent Doctoral Recipient Fellow). "Resolving the Night Sky: Visual Astronomy and the *Philosophical Transactions of the Royal Society*".

This paper takes Saturn's shape as its object of the study by examining this specific debate in the larger context of the more than 40 illustrated articles related to astronomy published in the *Philosophical Transactions of the Royal Society* during Henry Oldenburg's tenure as editor, 1665-1677. An overview of the range of astronomical debates that are illustrated with engravings and woodcuts provides the necessary background for the close study of this particularly contested object. The question of Saturn's shape was not settled in the middle of the seventeenth century, even after Christiaan Huygens' publication of his understanding of Saturn's rings in his *Systema Saturnium* in 1659. The seven illustrated articles in the *Philosophical Transactions* attest to the fact that this was still an open question. Albert van Helden, among others, has written a great deal about the problem of Saturn for early modern observers, and this paper builds on his work by bringing an art historical concern for the production of printed images to the debate about the nature of Saturn.

I argue that at its core this topic hinges on perception by asking how observers discerned what was actually being seen, and further, by examining how they communicated their careful observations effectively. Viewers of the night sky had to first resolve for themselves what they were seeing and then clearly convey their observations to Oldenburg who then included them in the *Philosophical Transactions*. This paper is part of a larger project that investigates what accuracy meant in the middle of the seventeenth century and finds that it is not something you can necessarily see, but something that is tied to processes of production and the care taken in making observations, records, and images. This paper, then, looks at how Oldenburg and his correspondents negotiated vexed questions about the nature of the night sky through their drawings and writings.

6th European Spring School on History of Science and Popularization VISUAL REPRESENTATIONS IN SCIENCE http://schct.iec.cat/school_11/spring11_index.htm

Sophie Brockmann (University of Cambridge). "Maps and Text in Central America, c.1770-1840"

This paper provides new perspectives on visual representations of space, using the example of the Spanish colony of Central America and its independent successor state, the Federal Republic of Central America. Driven by Spanish administrative reforms, the formation of a 'patriotic society' in Guatemala City, and later the need to define new independent states, interest in geographical information in this period was great. Strategies for visualising geographical space varied wildly depending on the context and on the person carrying out reconnaissance. In a 'peripheral' colony like Central America, the availability of professionally trained mapmakers was often limited. I compare maps created for use by local administrators with those destined for Madrid, noting the different standards of 'exactitude' and 'scientific measurement' that were required in each context. I take this as a starting point to illustrate the relationship between map and text.

I argue that, both for lack of resources and in answer to the Madrid government's strict policies on creation of maps, the practice defined as 'prose cartography' by Ricardo Padrón for the sixteenth century persisted alongside Spanish efforts to create new, scientifically accurate maps of their overseas possessions. Older forms of representations of space continued to remain relevant well into the independence period, reflecting local ways of imagining landscapes and the importance of local narratives and information in creating geographical documents. This topic relates to the rich historiography of cartography and of Spanish scientific expeditions, as well as the information-gathering tradition known as *relaciones geográficas*, the visual component of which has been subjected to little thorough analysis beyond the sixteenth century. It is also relevant to broader discussions of the role of science in forming Latin American national identities, visible for instance in discussions about the value of scientifically accurate geographical knowledge by Guatemala's 'patriotic society'.

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Frances Robertson (Glasgow School of Art). "David Kirkaldy (1820-1897) and his Museum of Destruction: the Visual Dilemmas of an Engineer as Man of Science".

Many commentators agree that artistic and scientific approaches to visual knowledge suffered a split in the latter half of the nineteenth century along an axis that has been loosely characterised as subjective—objective (Daston and Galison 2007: Kemp 1990: Crary 1991). But other practices of non-observational drawing for design for example in engineering also sought to produce knowledge through visual means. At the same time, however, engineering was often promoted as a rational public enterprise through techniques of spectacular display, and although engineers had been recruited as allies of the BAAS in order to proclaim an attachment to the 'idea of progress' (Morrell and Thackray 1981: 266) they were often kept in a subordinate position. In the intellectual hierarchy of science, elite engineers had to negotiate the danger that they were possibly too visible. These dilemmas can be examined in the two separate visual practices that mark the career of the engineer David Kirkaldy.

Kirkaldy began his career as a bravura naval draughtsman in the firm of Robert Napier & Sons, but later negotiated his status as a serious experimenter in material testing science by making a stylistic break in his practice whereby he rejected the impressive drawing skills he had developed earlier in his life. Instead he contrived methods by which nature could be made to represent herself graphically in his laboratory of material testing. Although the notion of nature representing herself was most often applied to the adoption of photographic data in science in the last decades of the nineteenth century, Kirkaldy used the same concept in the medium of massive real-world materials such as rolled steel plate. My interest in engineers such as Kirkaldy is in his ability to select from and use a range of visual styles to communicate with different audiences, and in his rhetorical use of technologies of inscription, from hand drawing, to the use of mechanical drawing aids, print techniques, and photography.

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Mirjam Brusius (University of Cambridge). "Objects without Status - Pictures without Purpose: the Organisation and Visualisation of Middle Eastern Archaeological Findings in 19th-century Europe".

This paper is based on my new post-doctoral project I am soon beginning, entitled "Objects without status – pictures without purpose. The organisation and visualisation of Middle Eastern archaeological findings in 19th century Europe". The paper investigates the relationship between Antique objects and their visual depiction in European archaeological expeditions in the Middle East in the mid 19th century. It will focus on the exploration of Ancient Mesopotamia started by Austen Henry Layard (1817-94) around 1850. Research on the excavations and their reception in Europe in the history of archaeology and art in the Middle East has mostly drawn a picture of a well-organised, purposive and logical enterprise in which finding objects and depicting them have a clear purpose. Little attention has been paid to the fact, that the excavated items were initially objects without a clear status, even once they arrived in Europe.

The goal of this paper is to show how archaeological objects from the Middle East came to gain both scientific and public meaning at European institutions such as museums. In doing so, I will examine how the application of visual media in the field and the museum – whether for scholarship or publicity – was both a reflection of and a means of this enterprise. This paper aims to shed light on a shady and undefined time period between two apparently stable components in the historiography of these expeditions in order to challenge narratives which retrospectively deny the uncertainty involved in these events.