



Learning From Artifacts: A Review of the “Reading Artifacts: Summer Institute in the Material Culture of Science,” Presented by The Canada Science and Technology Museum and Situating Science Cluster

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## REVIEWS

# Learning From Artifacts

A Review of the “Reading Artifacts: Summer Institute in the Material Culture of Science,” Presented by The Canada Science and Technology Museum and Situating Science Cluster\*

Jaipreet Virdi<sup>†</sup>

Describing how the study of artifacts is greatly enhanced by an understanding of the history of museums, Ken Arnold remarks that there is “an implicit faith in the power of objects to tell, or at least ask, historians things that the written word alone cannot” (1999, 145). Rather than remaining mute objects or passive accessories to textual descriptions, artifacts (and the museums that house them) are tangible incarnations of the culture from which they emerged, providing unique information on the attitudes and behaviors of the past. In practice, studying and learning from artifacts can sometimes pose methodological problems, as a text-oriented historian may have no idea of how to “read” an object in order to reveal its secrets of the past. Historians and philosophers are trained almost exclusively to work with written and oral documents, limiting their analysis by neglecting such a valuable group of sources. However, as outlined in a special issue of *Studies in the History and Philosophy of Science* (2007, vol. 38, no. 2), it is apparent that a new historiographical tide has swept over scholars, encouraging new studies and methodologies for working with artifacts, objects, and images.

In August 2009, I had the pleasure of participating in the inaugural launch of “Reading Artifacts: Summer Institute in Material Culture Research,” hosted by the Canada Science and Technology Museum (CSTM) and the Situating Science Cluster. Located in the CSTM in Ottawa, the Institute aimed to break new ground on approaching

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historical analysis through a direct study of artifacts. Organized and led by David Pantalony and Randall Brooks, curators at CSTM, the Institute also included a strong faculty of experts, including Rich Kremer (Dartmouth College), Roland Wittje (Regensburg University), Jean-François Gauvin (Harvard/McGill), Annmarie Adams (McGill), Anna Adamek (CSTM), and Sue Warren (CSTM). The twenty-five participants included graduate students from various Canadian universities, post-docs, artists, faculty members interested in new methods for teaching artifacts and professionals seeking to integrate artifacts into their research. A modest tuition fee was required to cover lunches and coffee breaks, a dinner at the National Gallery of Canada, and a bus trip and tour of the Diefenbunker Cold War Museum; travel subsidies were also available for participating graduate students.

Over the course of five days, artifacts were the center of discussion. Presentations on various artifacts, including the Zeep nuclear reactor (Gauvin), the Quebec Tokamak fusion reactor (Adamek), Hertz's experiments on the propagation of electric force (Wittje), historic polymers (Warren), the Koenig Sound Analyser (Pantalony) and a 1920 Ottawa Street Sweeper (Adamek) demonstrated how research and teaching methodologies could benefit from a close study of artifacts. From the first hour of the Institute, participants were taught to immerse themselves in material culture, feeling, holding, smelling, inspecting, and listening to a multitude of artifacts from the technological past. A tour of the immense collection at the CSTM, both in storage and on the museum floor, allowed participants to share their artifact and exhibit critiques, while at the same time training their visual eye for historical detail in artifacts. For instance, after a visit to David Pantalony's Green Artifact Spotlight, "The Color of Medicine," several participants began to recognize the how color in 1950s domestic objects revealed key ideas about science and pop culture, as well as "color therapy" (Pantalony 2009). By no means was analysis limited to objects: as outlined by Graham Larkin's (National Gallery of Canada) presentation of the Nazi provenance project, art displays can themselves be considered artifacts. Likewise, a tour of the Diefenbunker, Canada's Cold War Museum, led by director Alexandra Badzak, demonstrated that the bunker—and institutions in general—can reveal an abundance of historical evidence about social, cultural, and political values of the past.

Learning about artifacts was only one of the Institute's central themes; developing a new teaching methodology, or at least setting the groundwork for one, was another. Prior to the meeting, participants were given a list of relevant literature and signed up on the Reading Artifacts GoogleGroup to discuss some of the themes, issues, and questions that arose from their reading. Some of the classic works on learning

through objects and teaching were discussed, including Hamilton and McKellar's overview of the University of Western Ontario medical artifact collection as a teaching/research resource (2006); Schaffer's "Object Lessons" (2000); and Daston's *Things that Talk* (2005). Additionally, E. McClung Fleming's 1974 paper, "Artifact Study: A Proposed Model", presented a comprehensive and humanistic methodology on how to "read" and interpret an artifact, remaining a staple for material culture seminars. The Fleming framework is two-fold: classification, which can be broken down further to include the artifact's properties (history, material, construction, design, and function), and analysis, which consists of a cultural understanding of the artifact, identification, evaluation, and interpretation. What remained clear from the discussions and the presentations that followed, however, was that common protocols for analyzing and teaching artifacts are old-fashioned and badly in need of a modern update. Rich Kremer, for instance, gave a presentation on how he applied a modified model of the Fleming/Winterthur protocol in his artifact seminars at Dartmouth, and the various successes he had in enriching student participation. New methodologies have allowed scholars to interpret artifacts and the meanings they convey, taking into consideration that meaning itself can be a matter of interpretation and dispute.

In attempting to devise new teaching and learning methods, as well as experiment with "reading" artifacts, participants spent part of the week on group projects, focusing on a particular artifact, including an anatomy model, a 1950s Hoover vacuum cleaner, a radiosonde, a spectrometer, and a John McLatchie compass. Participants presented their findings during the last day of the Institute, eventually posting their presentations on CSTM's YouTube and Flickr channels. At first, some of the artifacts were resembled mysterious black boxes, providing little or no clue as to their function. A trip to the trade literature library helped to clarify some of these mysteries, so one has to wonder if it's even possible to "read" an artifact on its own without any additional textual literature. Methodologically, a close examination of an artifact, combined with a study of textual and visual representations, can provide a more enriched three-dimensional model of an abstract historical idea.

The take-away message of the Institute was that objects reveal complex contents of change, sometimes more than textual analysis itself. Thus, being an integral part of the history of science and technology, artifacts must be integrated into teaching and research. The CSTM was the ideal setting for the Institute, as participants also learned the basics of conservation, cataloging and developing collections in a local environment, skills necessary to juxtapose with artifact study. Instead of remaining mere

illustrations of history or accessories to textual descriptions, artifacts need to be “read” as objects of history itself. The Institute is a great initiative for those interested in learning new teaching methods or for those seeking to enhance their skills in artifact study.

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