Tacit Knowing: Manual Knowledge in Art, Science and Technology

IKKM, Weimar, Dec 15–16, 2010

Barbara Wittmann

Tacit Knowing: Manual Knowledge in Art, Science and Technology

A Workshop at the IKKM – Internationales Kolleg für Kulturtechnikforschung und Medienphilosophie, Bauhaus-Universität Weimar (December 15-16, 2010)

In modernity, science and art have come to designate two opposing ways of appropriating the world, each governed by different logics and aiming at different goals. Whereas the intentions and content of artistic and scientific projects have diverged in distinct directions, the practices and media applied in the respective fields remain akin. Practices of referencing, (re)arranging and recording, techniques of representation and imagination still stretch across disciplinary and institutional boundaries. The common foundation of the arts and sciences has already been given expression by historians and philosophers of science with the introduction of terms like "style" (Ludwik Fleck), "virtuosity" (Hans-Jörg Rheinberger) and "representation" (Ian Hacking) into the epistemological discourse; and by contemporary artists, designers and architects, who have begun to describe drafting processes in terms of "artistic research," "practice-based research" or "designerly ways of knowing."

The workshop will focus on an especially crucial concept at the threshold between art and science, namely that of "tacit knowing." First described by the Hungarian physical chemist and philosopher of science Michael Polanyi in a series of lectures given in 1951-52, this form of soft knowledge – in opposition to explicit ways of knowing – is closely bound to (manual or more generally bodily) experience and is difficult or nearly impossible to verbalize or formalize. Polanyi reconsidered human knowledge by "starting from the fact that we can know more than we can tell." Based on a psychophysiological theory of attention, he compared all kinds of quotidian, craftsmanly and scientific knowledge whose structure and functioning cannot be made explicit by the actor. Riding a bike, the art of the experienced diagnostician, the skill of the athlete and the artist: all of these demand a sort of practical 'assimilated' knowing that defies any differentiation between knowledge and ability (or in German "Wissen" and "Können").

Polanyi posits that this implicit dimension is operative in all meaningful uses of knowledge. However, the two forms of knowing are not equally available as two options in research: Polanyi assumes the primacy of implicit knowledge. Everything that we can know or are able to do has a latent aspect in the sense of tacit knowing or is founded in it. Thus the "implicit dimension" has a crucial role in the formation of new experiences: it functions as a clue enabling the practitioner to form a consistent perceptual or conceptual image of the object being considered.

In the last twenty years the concept of tacit knowing has been imported into the field of economics and work study. Not less significantly, architects and designers began to describe their work as a kind of practice-based research, which stood in contradiction to the widely held opinion that processes of developing new forms could be explained in the manner of rational, fully comprehensible protocols. In recent years, the references made by the lobbyists of "artistic research" to Polanyi's concept have become rather inflationary, whereby the specific potentialities and the limits of this transfer have never been explored in depth. The workshop wants to reconsider Polanyi's concept and its application in the study of drafting processes in architecture, science and technology. If the generation of new forms, spaces and scientific objects is indeed closely bound to implicit, practical competences and skills, then: in what way and in which (epistemological) situations does it come into play? How is it acquired and transmitted? What is the relation between media, tools and implicit ways of knowing? Against a normative understanding of knowledge, the workshop aims to outline an amorphous field of practical competences and generative skills that always come into play when the trained body of an architect, engineer or scientist interacts manually with objects, instruments and media.

The workshop is organized jointly by the research initiative 'Knowledge in the Making. Drawing and Writing as Research Techniques' (based at the the Max Planck Institute for the History of Science in Berlin) and the research fellow program 'Tools of Drafting' (based at the IKKM – Internationales Kolleg für Kulturtechnikforschung und Medienphilosophie, Bauhaus-Universität Weimar).

Program

December 15, 2010

7:00 p.m.
Welcome Address
Barbara Wittmann (IKKM Weimar)

Evening Lecture
Hans-Jörg Rheinberger (Max Planck Institute for the History of Science, Berlin)
Penser avec ses mains. On the Creativity of Experience

December 16, 2010

10:00 a.m.
Franziska Uhlig (Bauhaus-Universität Weimar)
Some Observations Concerning Tools in Arthur D. Mitchells Rhind Lectures

11:00 a.m.
Monika Dommann (Universität Basel)
Hands and Handling

12:00 noon
Break

12:30 p.m.
Gloria Meynen (eikones Basel)

Malen nach Zahlen – das stumme Handwissen der Fläche

1:00 p.m.
Lunch break

3:00 p.m.
Omar Nasim (eikones Basel, ETH Zurich)
Astronomical Drawings and Tacit Knowledge

4:00 p.m.
Break

4:30 p.m.
Tim Ingold (University of Aberdeen)
Telling by Hand: Drawing Making Writing

5:30 p.m.
Break

6:00 p.m.
Wrap-up session: Implicit and Explicit Knowledge
Presentation by Harry Collins (Cardiff University), and concluding panel discussion with Bernhard Siegert (IKKM Weimar) and Barbara Wittmann (IKKM Weimar)

Venue: IKKM, Palais Dürckheim, Cranachstraße 47, 99423 Weimar, Germany.

Contacts: Katharina Schmidt: katharina.schmidt@uni-weimar.de.

Further information:
http://www.ikkm-weimar.de/
www.knowledge-in-the-making.de