

Mapping the practical knowledge of traditional
handicraft: How to cut a throat with an axe as
pedagogical presentation and avoid interference

Author:
Kurt Nyberg

CIDOC06
GOTHENBURG
S W E D E N

In the last decades research related to the *tacit* or *practical knowledge* of traditional craftsmanship has produced thesis, conferences, anthologies and projects all over Scandinavia. All kinds of practical skills who were not made explicit in the academic tradition of knowledge were understood as tacit. In Scandinavia practical knowledge was interpreted as *silent* partly of necessity, but also for reasons originating in social patterns of dominance. Currently a new institutional infrastructure is emerging for education and research concerning these matters. The topic is growing in complexity along with the work to analyse and make explicit a manifold of its dimensions.

Mapping this domain seems like a promising enterprise. It might provide an overview where the movement between conflicting perspectives is explained in terms of a travel from one position to another. The use of *ontologies* may be a way to make this travel between different cultures of knowledge accessible through the museum systems. Applying an ontology in the AI-sense of the term on the practical knowledge used in specific situations partly means expressing it in self explanatory sentences. We may create models to express the relations between key concepts in various situations. If these models harmonise with the ontology developed for cultural heritage material in main (CIDOC CRM) museum systems could be adapted to embrace, for example, the specific sector of traditional handicrafts.

An event mapped into the CIDOC CRM is analysed into its basic parts according to the following pattern: an Entity – relates to – Entity (E – r – E). For example a phrase might go like this: A Man Made Object – is used in (employs) – a Production Event. The phrase covering the title case then, could be specified: An axe – is employed in – cutting the throat. The actual event of production could eventually be elaborated in all its aspects and details, in a set of propositions following the same pattern.



Here the CIDOC CRM is here tried organising the description of Picture 1 (the CRM class number are enclosed by brackets) . An information carrier (E84) the photo (E24) shows visual items (E36). The Image (E38) depicts (P162) in a photographic(E55) mode (P62.1). Picture 1 (E73) refers to (P67) a modification event (E11) the cutting of a throat. The photo (E73) depicts (P62) a person (E21) Jon Bojer Godal, the site (E27) at Maihaugen, and man made stuff (E24) the axes and the wooden piece etc.. The photo (E24) depicts (P62) the Actor (E39) who performed (P14) the Procedure (E29) which has modified (P31) that is, cut the Material (E57) watered wood, using the man made stuff (E24) the tools (which is not a separate class in the CRM) axes. So far the CRM test. Perhaps it is not very informative. But the study of the text above may have an impact on the reading of the ordinary language description below. - Godal, is he an (E21) or an (E39) or both?

Here Godal is half way through the process of forming the first part of the wooden throat to encompass the desired sailing properties of the ordered boat.

The matter is far from straight forward. Expert knowledge is not always expressed in basic propositions, neither are the ways to frame knowledge in handicrafts established in a single dominating theory. There are a lot of theoretical approaches available, making the matter only more complicated. However, with all its complexity the field is growing, with practical models for reconstruction, documentation and research. A host of technical solutions provide us with documentary material associated to handicraft production events and objects. Mapping this matter already at hand into the CRM might open for research into the further analysis of the tacit body of the subject.

According to the definition of UNESCO the kind of knowledge discussed here can be understood as *Intangible heritage* which includes:

The practices, representations, expressions, knowledge, skills - as well as the instruments, objects, artifacts and cultural spaces associated therewith - that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (Article 2.1)¹

¹ Unesco, *Guidelines for the Establishment of National "Living Human Treasures" Systems*, s. 3
http://portal.unesco.org/culture/en/file_download.php/1422690320114549c199903cf8ba93f9Guidelines_lht.pdf

It seems like a paradox that the expression *intangible heritage* is used to denote also skills we would not hesitate to call *practical knowledge*. I think it is worth while to reflect on this linguistic phenomenon. It is not the lexical definitions of the terms *intangible* and *practical* in the expressions that makes them understandable, but the context of their use. Although they seem to be, they are not expressions in standard English. Still, they are not metaphorical in a poetical sense either. They are constructed for use in specific contexts, which means that you have to consider the context to understand the expression. Lack of context eventually makes language meaningless leaving the matter in silence, veiled in the dark.

According to the UNESCO guidelines, further, safeguarding of intangible cultural heritage means:

measures aimed at ensuring the viability of the intangible cultural heritage, including the identification, documentation, research, preservation, protection, promotion, enhancement, transmission through formal and non-formal education, as well as the revitalization of the various aspects of such heritage. (Article 2.3)²

Words are not understandable without a context of use, I wanted to state in my reflection above. Practical knowledge is often mistaken for knowledge without word, contrasted to explicit knowledge formulated in statements. This is not a very good solution. Intangible heritage, as well as practical knowledge is accompanied by a body of vernacular language covering almost every aspect and detail of it. But this language is not understandable without recognition, familiarity and awareness of the context of its production. That is one of the reasons why we are requested to:

Adopt appropriate legal, technical, administrative and financial measures aimed at establishing documentation institutions for the intangible cultural heritage and facilitating access to them. (article 13d)³

We need models to coop with logical confusion. Using the CIDOC CRM as a guideline for a mapping of the field is one way to deal with the matter. I will not consider this path any further, but I want to put forward some phenomenological considerations about language and worlds. I

² Ibid., s. 3.

³ Ibid., s. 10

use the word *world* in plural as it is my intention to propose that vernacular language belongs to different local life worlds who are the expressions of cultural heritage. The philosopher Ivan Illich in the nineteen eighties introduced a concept designed to highlight a conflict between the quest for common well defined international, or national languages and the vernacular local languages, which are used and evolves in every day life situations.⁴ Illich coined the expression *vernacular spime* to describe the intimate relation between local language and the situation and tradition they are used in. The phrase has not yet proven very successful in standard English. It is not recognised by *Google*. But the concept is a challenge for me. Spelled out in full, the expression seems to aim at establishing a unity of three different dimensions: Space, time and language. I will use this triune concept and talk about practical knowledge as situated in a *vernacular spacetime*, where the vernacular is a part language as well as of the situation.

Terje Planke is a Norwegian ethnologist who has addressed boat building and the practical knowledge in learning situations. He has published several titles on his research, also online: “Learning from examples is totally central because language is too poor. Language is only relational; it refers, and helps focusing, but doesn’t itself contain meaning. All knowledge refers to situations of learning, or usage”⁵, Planke states. He is concerned with the new possibilities of crossover learning and the use of expert systems to assess quality aspects of boats built outside tradition. Modern ships are often constructed through compilation of the desired properties from different sources. The systems have difficulties when parts from these sources are to be evaluated in new combinations. In the end the knowledge in the systems boils down to what is known by skilled workers in the crafts, and is sufficient to the extent it is reported and recognised in the system. The negative effects of crossover compilation of boat properties was foreseen by traditional ship builders, and this is the reason for the hard constraints on experiments held by tradition. Thus, knowledge concerning blending between different types tends to be suppressed

⁴ Ivan Illich (1926-2002) was the founder of an International Culture Documentation Centre (Cidoc) operating between 1966-76 in Mexico. His writing is well represented online, in Spanish (www.ivanillich.org) and English (www.preservenet.com). The concept *vernacular spacetime* was introduced in the book *Gender* (London 1982), ss 68f and 107ff., *spime* was coined by Einstein s 107.

⁵ My translation from a PDF available online: Terje Planke, “Direkte kontakt, underkastelse og hemmeligheter i tradisjonell h ntverksoppl ering” s. 3

by tradition. In modern knowledge systems the compilation of information from a wide range of fields is more than a tempting alternative; it's a trait of the Modern per se. Building boats in dialogue with tradition, on the contrary, means entering a specific relation and a situation based on long term commitments to accept and use the advices and patterns provided by the master of the art. This is the perspective held by Planke. In addition I will give examples of views held by two other Norwegian actors in the field. Jon Bojer Godal and Harald Høgseth

Four different areas of documentary interest in the field between tradition and the Modern might be sketched, departing from the observations made by Planke.

1. Reconstruction of industrial processes with help from skilled workers in the corresponding handicraft opens a spectrum of research questions concerning historical change in knowledge storing, power and competence economy.
2. Reconstruction of handicraft knowledge through skilled and engaged work with traditional techniques, tools and materials is an endeavour involving critical assessment of qualities in traditional products and efforts to reproduce these qualities through learning by doing.

The first points represents museological enterprises, where mapping of skills can interact with material cultural heritage in the process of perfection without apparent conflict.

3. Adapting knowledge and skills from traditional handicrafts, to fit Knowledge Management systems for industrial or pedagogical reasons is problematic. Reflection on historical change will provide examples

In this quest there is a risk that knowledge is distorted, or lost in the process, which in many cases has resulted in damage on cultural heritage values. In this case the knowledge management process might involve breaking rules of secrecy, and a rethinking which may change the perspective and value system in the mapped area.

4. Processes for documentation are elaborated through research and practical projects for advanced trading of crafts in master apprentice relations. The centre for Norwegian development of handicrafts Norsk handverksutvikling at Maihaugen museum in Lillehammer has developed methods in this field. Experiences from tests has generated a

5. model for documentation based on master apprentice learning situations observed by a third person, who is also skilled in the craft, and therefore accepted as participant.

Focus on legitimate participation in master apprentice learning situations has proven a reasonable way of documenting knowledge, because of the minimal distortion involved in the situation. Further, dialogue and interaction is flowing naturally and the documenter has the critical perception to observe the subtle details when they occur naturally in the process.

Picture 2 The photo depicts the the throat of a boat as it was represented in printed copies of photographs at the Godal demonstration.



It is possible to learn practical skills from a master without a word. Indeed, there are examples in literature and ordinary life experiences, but language still plays a vital role in tradition, and in craftsmanship. Jon Bojer Godal showed how practical knowledge goes hand in hand with vernacular language at the Nordic Conference on Practical Knowledge in 2006. Godal demonstrated how the throat of a traditional sailing boat is measured out and hewn. In addition, the presentation included his discussion with a customer, the user of the boat in the local waters. Making the measures on a stick Godal asked questions about the intended use of the boat. In this dialogue the vital properties of the boat were decided, and it included choices of highest intricacy concerning for example the design of the *throat*. Throat, or *hals* in nautical Norwegian, is the name for the board closest to the keel which has to “swallow water” in different ways for different purposes.⁶ The dialogue played an important role in the demonstration. The words were used to demonstrate a shared practical knowledge in negotiation on mutual agreements, and in making distribution of work efficient.

⁶ Compare discussion in Planke on the term *hals*. The term *throat* is also used for several different purposes in English nautical terminology.

A third position among researchers in handicraft might be represented by the carpenter and archaeologist Harald Høgseth. He addresses the question whether it is possible to bridge the gap between situated embodied knowledge and academic verbalised knowledge. Focusing the traces of tool usage he has elaborated on methods for discrimination of tool marks on timber. From these traces the individual signatures of a tool, as well as the tool marks belonging to an individual artisan might be extracted. Further, traces might provide clues to how the tools were handled and Høgseth consequently tries to map the bodily movements behind the tool marks.⁷ This quest will eventually create an intimate knowledge of carpenters tools and techniques useful for artisans as well as in academic research. Høgseth makes a characteristic archaeological approach to the matter involving reconstruction of an elaborated model from slight traces. Seemingly his project has traits from the first and second area mentioned in the list above, as it involves craftsmanship in reconstruction of techniques, and critical assessment through the use of movement notation. But it introduces some problems characteristic of the third area, as the theoretical apparatus might tend to be complicated to the extent that it changes the self understanding in the craft.

These three perspectives on practical knowledge acquisition are not opposed to each other. They are used here as examples to show the wide scope of the research domain. They share characteristics with each other but also with different fields of expertise to the extent that they belong to different vernacular space time. This in turn means to highlight the fact that not only handicrafts are parts of traditions, so are the different schools who are dealing with the matter from pedagogical or academic perspectives. To apply extensions of the CIDOC CRM ontology on the practical knowledge of handicraft, we have to deal with not only museum practices, but academic, pedagogical, and handicraft practices as well. It seems like a good idea to find a gentle approach to the field.

In our research pilot for the Swedish project on Knowledge Management in Systems for Museums, *the KMM-project*, a group of Swedish handicraft consultants, students in informatics,

⁷ See www.ntnu.no The Tree of Knowledge for a popular presentation of a recent project involving Høgseth and his method.

and an aesthetician focus on the most promising areas for modelling practical knowledge about tools, materials, and work processes related to products of traditional carpentry. Some of the branches will be worked out in detail to provide a framework for representing paths through the wilderness of information. The project is named *the Virtual Wood and Material Path* and addresses research as well as educational needs. The pilot establishes an intermediate network for knowledge sharing through the engagement of people from different areas deeply involved in pedagogical as well as research issues. Skills from different crafts are invited to a truly interdisciplinary conversation.

Through the discussion of these matters a platform of competence created in the KMM-project. Around the Virtual Wood and Material Path practical knowledge from museums, knowledge engineering, pedagogy, and handicrafts is merged. The aim is to form common strategies for the understanding, orientation, and mapping of knowledge from the vernacular space time of local traditions into a common setting useful for museums worldwide. We hope that virtual accessibility shall strengthen the global acceptance of handicraft skills as cultural heritage in the future. But we are still at the threshold of our endeavour with a wide perspective on the field slowly emerging around us.