

## **Attracting Young People for Craftsmanship: Strategies and Activities to Promote Knowledge Transfer Created by the Austrian Crafts Association Werkraum Bregenzerwald**

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### **Abstract**

*This paper first examines the dimensions of crafts knowledge, explicit and implicit. It reports about specific strategies and measures to enhance its creative transmission and display, developed and practiced by the Austrian Crafts Cooperation Werkraum Bregenzerwald in recent years. Only then can we find answers how to attract and gain young people for craftsmanship. Succession is the mainstay for the trades and the region, a crucial goal for the 100 member companies of different trades and branches, united under the roof of the Werkraum House in Andelsbuch. The Werkraum House has been designed by the renowned Swiss Architect Peter Zumthor as a venue and a showcase of the crafts in the region. The building itself is a modern and attractive sign of its crafts knowledge.*

**Keywords:** Awareness raising, tacit knowing, knowledge transfer, cross-sectorial exchange, participatory settings, knowledge documentation

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## 1. The Crafts Cooperation Werkraum Bregenzerwald

The Werkraum Bregenzerwald is a regional crafts association in Austria, founded in 1999 by 100 craft businesses. Handicraft culture in the region of the Bregenzerwald (located in the very western State of Vorarlberg, Austria) enjoys a rich centuries-old tradition. To this day, human usage and behaviour has formed and changed its cultural landscape, shaped by agriculture, the crafts industry and tourism. Craft is an economic pillar of the region. The crafts association of the Werkraum Bregenzerwald is challenged to adapt to the emerging needs of its members, to develop, use and share technological possibilities, and to make it visible in its own house, the Werkraum House. The Werkraum House is situated in Andelbuch and has been opened since 2013, designed by the renowned Swiss Architect Peter Zumthor as a venue and a show case of the crafts. Here, the craftspeople come together, exhibit their work, organize competitions and talks, cultural events, and exchange ideas.

In order to lead the craft into a prosperous future, the cooperation has taken measures to attract young people to start a career in craft, and to find adequate ways to pass on the skills and knowledge. These measures have been crucial for all member companies, as they help the numerous



Werkraum House, designed by Peter Zumthor, Andelsbuch, Bregenzerwald, Austria. © Florian Holzherr

small businesses in recruiting apprentices, independent of branches and trades. Carpenters are concerned with securing their proven knowledge and succession, and the same goes for cabinet makers, metal workers, electrical engineers, constructors, upholsterers, shoemakers and tailors, goldsmiths and other sectors.

## **2. Raising Awareness**

The cooperation of the Werkraum Bregenzerwald is best placed to communicate the importance the crafts have for economy, culture, environment, and society. Particularly, various initiatives and projects have been created to raise awareness and interest by engaging young people. Early contacts with the subject increase the opportunities for young people to engage and to decide for a career in craft. They also open doors to the joy and proudness of doing things yourself. The project “Kinderbaustelle,” a children’s construction site, has been established to make kids become familiar with creative craft practices at a very early stage of childhood. It invites and inspires kids to put on hands in “real” work, to build little “huts” and “houses,” and to perform adults’ work. They are guided by skilled craftspeople and didactically trained persons. The supervising kindergarten teachers follow the Montessori principles, such as “help me do it myself” or “show me how it is done” or “be patient, let me do mistakes.”

As young people often have no ideas of what is going on, what is done or needed in the skills and training of contemporary crafts, different programs are set up to provide information and orientation. Information days are prepared for parents and teachers, and crafter days are held at elementary school by the craftspeople themselves. They give insight to their daily work, show and exhibit the tools and technologies being used, both analogue and digital. The running pilot project Werkraum School takes a step further in giving orientation and guidance. Within a five-year educational program, the students get insight into the wide range of professions in the trades. The curriculum in the early years guides students to get to know the materials, techniques and the tools. This is to get a sense of what young students are

really drawn to in their first propaedeutic step. Only after three years of orientation and learning labs can the decision for a more concrete branch be made. Website and social media profiles are also set up to present the projects to a broader public and make the analogue world of craft digitally accessible.

Disseminating information about crafts professions (skills) and vocational careers to a wider and new audience counteracts the decreasing status for executive roles in an education system, which favors academic training over vocational training. To map and name the fields of knowledge in craft is part of the actual *Werkraum* Exhibition on knowledge and collaboration in craft.

### **3. Fields of Knowledge in Craft: The Dimension of Tacit Knowing<sup>1</sup>**

Before we think about ways and methods of sharing and transferring knowledge, we need to talk about the dimension of tacit knowing, a knowledge which is hardly recognized by the educational systems. Knowledge in craft encompasses implicit and explicit knowledge. Implicit knowledge is a silent or invisible form of knowledge, also described as hidden knowledge or tacit knowing. It is acquired through repeated action and observation. The term explicit knowledge refers to a knowledge communicated through language. William Morris, the godfather of design, arts and crafts, spoke of traditional skills in crafts as “the art of unconscious intelligence” (Almevik 2016, 82). It is a kind of knowledge inherently tied to action, and—as opposed to explicit knowledge—very difficult to grasp. The philosopher and scientist Michael Polanyi pointed out in 1966: “We can know more than we can tell” (Polanyi [1966] 2009, 4). This is, simply put, a reference to the skill that is hard to verbalize. Indeed, the difficulty of grasping knowledge embedded in a person or action was already known from ancient times.

In an ancient Greek text on cooking, it is noted that written records were

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1. The following chapters refer to the exhibition catalog, co-authored and co-curated by Renate Breuss (2020): “On knowledge and collaboration in craft.” *passim*. English translation: Aurelia Batlogg-Windhager.

quite useless for cooking (Breusse 2019, 14). It was rather recommended to use one's own senses and body instruments when it comes to judging the quality and quantity of a material, and finding the right proportions, consistencies and shapes. Until the Industrial Revolution, cooking recipes were in fact full of sensual and body-related descriptions (Breusse 2019). Viennese philosopher, artist and filmmaker Peter Kubelka—who held his lecture “The Handmade Human” at the opening of the Werkraum House—is very skeptical of the written word: “We trust in language to do things that it is simply not capable of.” Kubelka suggests introducing a new component to the verbal, the word, the world of words we live in, and that is becoming aware of the importance of the **nonverbal**, the **unspoken**, such as procedural memory. This is meant to say that some things cannot be described with words but can indeed be done. Doing and speaking are two different things. Speaking is also an action, but not everything said is also done. Kubelka develops his own approach to the world through making music, filming, cooking, and observing processes in nature—just as craftspeople do. It is possible to know how to do something without knowing how to describe this knowledge. Precise observation and perception with all senses holds as much insight as thought (Kubelka 2013).

Besides crafts, there are also many other disciplines that have emerged much owing to the implicit knowledge, such as architecture, sports, medical diagnostics, and design—in fact, all creative practices, as well as all active and performative processes. The question to ask is how can we create awareness for this form of knowledge that is far less recognized than theoretical or academic knowledge? Kubelka pleads for a simple language, as the Pre-Socratics are said to have spoken. Polanyi, who made major contributions to the field of tacit knowing, suggests placing expanded perception alongside human knowledge. “To Polanyi knowledge is first and foremost personal, and we use tacit knowing when we make intelligent use of our bodies as instruments. We rely on our bodily judgments while attending to things of the world, and we undertake actions that respond to governing principles without attending to these principles” (Almevik 2016, 82).

In the process of learning certain actions, the knowledge in crafts, inherently tied to persons and actions, makes intelligent use of the body

and its tools. This includes sensory perception, limbs and gestures. Polanyi elaborates that knowledge embedded and embodied this way reacts to regulating principles without questioning them. This form of intelligence is not exclusively for crafts. It is just as important in science, as scientists also use tacit knowledge to tackle research problems, to pursue solutions and anticipate discoveries. As a chemist himself, Polanyi was speaking from personal experience (Almevik 2016, 82).

Like scientists in laboratories, craftspeople experiment, observe, react immediately to unforeseen circumstances or surprises, and make space for chance in their workshops. Craft workshops and construction sites are places of learning and knowledge, next to schools and universities.

Thinking about transferring this “hidden form” of tacit knowing, the US sociologist Richard Sennett suggests that craftsmanship is to be transmitted in accordance with the motto “Show, don’t tell” (Sennett 2008, 240). Sennett refers to the neurologist Frank Wilson, when he says, that body movements form the basics of language (Sennett 2008, 242). If we watch craftspeople at work, we can recognize a level of skill and knowledge in their movements and gestures. Mastering a gesture, whether playing the piano or planning wood or forging a door handle, leads to a point of perfection, where the body begins



Film stills showing a blacksmith and a violin player in action, at the exhibition *Handmade*, 2016. © Matthias Günter

to perform on its own. We can continue to cultivate new skills from this point. Craft researcher Richard Sennett describes achieving these qualities in collective and productive work as fundamental characteristic of craft. As soon as a new practice becomes a routine, this then becomes a fertile ground for cultivating more knowledge and innovation. Sennett considers these qualities as transferable and practicable in digital contexts as well (Sennett 2016, 48-50). In an interview, published in the catalogue of an exhibition at the MAK (Museum of Applied Arts, Vienna), he says: “The most striking thing to me since my book [*The Craftsman*] was published is how many people in the digital world have responded to it—computer programmers, people who build hardware and so on—who say: We too, are craftsmen, . . .” (Sennett 2016, 50). The nature of craftsmanship lays in its attitudes, and we need to keep and transfer such attitudes, not just skills and techniques.

Watching crafters at work is to feel joy for its refinements. A few years ago, the Werkraum authored a special film project, which was shown in 2016 at an exhibition titled Handmade. Peter Zumthor, the curator of the project says: “We do many things with our hands, touch people, play the piano, sewing clothes, lay rebar in formwork, grind flooring, clean dishes. Sometimes the prestige of handmade objects is great. Sometimes the result of work performed with the hands is hardly worth mentioning or is not even visible. Artists, who paint, draw and give shape to things speak of the intuition of the hand, while manual labourers on the production line tell other stories” (Werkraum Bregenzwald 2016). The young Swiss film maker Matthias Günter had produced 61 short films, an inventory of things covering all kind of manual activities, professionally executed. Crafts skills were made visible, original noises at work audible. Tacit knowing has not been hidden out, and sensory aspects of embodied skills had been taken care of. The sound of the environment connected the record with reality. The filmmaker documented working steps 1:1, not cutting off relevant information in a procedure.

In accompanied talks moderated by Peter Zumthor and Renate Breuss, craftspeople, farmers, artists, medical practitioner, a nun, and a midwife talked about their works, explicated what they are doing, in a metier-relevant descriptive language—a language that attends to the sensuous aspects as well.

#### 4. Sharing and Exchanging Knowledge

Sharing knowledge in craft is rooted in people and practices—an important condition in know-how transfer and knowledge exchange. The annual exhibition in the Werkraum Bregenzerwald creates an arena for this subject—that is, for a collaborative craft development and sharing knowledge. The transdisciplinary approach called for objects, developed and realized in newly formed collaborations between different crafts and trades. Making the processes of developing and implementing products, transparent along with their social, cultural and ecological context, created a juxtaposition between craft and knowledge in one space.

The presented objects explored various approaches, and the field of applied knowledge practices include exhibits with the focus on material knowledge, cultivated knowledge, knowledge transfer or knowledge documentation.

In the field of sharing and exchanging an expertise, the exhibition piece called *Vision in Black* compares and demonstrates the technique of blackening in three different craft businesses. A cabinet maker, a butcher and a steel blacksmith use all the same techniques in order to care for, to preserve, and to protect their products. The cabinet maker uses charring as a tool to give his table a new sensory quality. This requires a specific and



*From Display Window to Knowledge Display.* Exhibition on knowledge and collaboration in craft, 27 February–31 October 2021, Werkraum House, Andelsbuch. © Johannes Fink



complicated craft technique during which the material must be kept at a certain temperature to prevent it from burning. The result is a deep black, refined surface that brings out and emphasizes the wood's distinct features such as knots, cracks and swirls. The final surface is sealed with oils or lime to make it more resistant, and the same technique is used by the steel blacksmith as a finish for the frame as well. He contributed the steel frame of the table and the meat hooks for the charcuterie hanging over the table. The Master butcher treats his charcuterie with heat and smoke, resulting in a similar visual effect as in the wood and steel mentioned above. The three collaborating partners employed similar processes which use heat, smoke and fire to change properties of their respective base materials. All of them have a deep understanding of the qualities and reactions of wood, steel or meat. In the process of this work, they have reflected, employed and pushed boundaries of their long-standing expertise and know-how in their individual processes. Knowledge cultivation followed a work-based, sensory observation of a phenomena. The unconventional juxtaposition gives the act of blackening



*Vision in Black*, exhibition object of a cabinet maker, a butcher and a steel blacksmith, 2021. © Johannes Fink

a new dimension.

Sharing and exchanging the know-how among the trades connects people and creates new perspectives. Co-creative processes in workshops, in conversation, and in practice produce social and economic benefits—for individuals and for the craft of an entire region. The community-based values, skills, and techniques are embedded in the products they create, making them an essential part of the culture.

## **5. Knowledge Transfer**

When transferring skills and knowledge, it is important to know what you want to pass on first. What has proven worthy, and what has not? What are the priorities and who sets them? In traditional education system, institutions are responsible for the selection and preparation of a syllabus, while in the craft sector, the workplace is the site of learning and knowledge. Instructors in each trade analyze and focus on the work tasks that are most relevant and choose adequate digital and analogue materials and tools. Knowledge passed on with professionalism and engagement is difficult to capture in books. In order to preserve it for the crafts and the region for generations to come, work in craft needs to be communicated in new ways and media. This raises the question: how can we adequately supplement traditional strategies of knowledge transfer—from craftsperson to craftsperson, from face to face—with up-to-date formats that speak to future generations in crafts? Passing on knowledge and know-how is one of craft's fundamental characteristics. Handed down from generation to generation, from workshop to workshop, the preservation of knowledge is ensured in formal and informal training, and further training. Learning on site in the workshop is marked by dynamic and personal teaching. As the number of craftspeople is shrinking rather than growing, knowledge is also being lost. This calls for concrete countermeasures.

The establishment of the Werkraum School is one first step in this direction. As a joint platform of many small businesses, the Werkraum Bregenzerwald had to break new grounds in vocational placement. The dual

education system is a successful program in Austria, Germany, Switzerland and partly Italy (South Tirol), maximizing vocational and work-based learning (practical and in the workplace). The new format gives orientation and guidance to the crafts professions and speaks successfully to future generations. What started as a pilot project is still a work in progress after six years. The Werkraum School combines apprenticeship and a trade school, structured into five school grades. The early curriculum guides students to get to know the materials, techniques and the tools, in order to get a sense of what young students are really drawn to in their first propaedeutic step. The curriculum follows the idea to get to know all kinds of materials, techniques and tools, to get a sense of what a young person is really drawn to in a first propaedeutic step. The learning labs take place in the workshops once a week. The branches include cabinet makers, window-installers, carpenters, floor layers, upholsterers, organ builders, metal technicians, goldsmiths, electrical installation technician, plumbers, roofers, tinsmiths, bricklayers, painters, printers, bakers and butchers, IT technicians, stone sculptors, gardeners and stove builders.

Furthermore, students are designing and producing their own websites, documenting and communicating from peer to peer of what they are doing



Werkraum School students building a structure of wood, supported by design teachers, coaches and craftsmen. Learning Lab 2019. © Roswitha Schneider

and experiencing, using mixed media. Senior craftsmen act as personal instructors, and the digital learning equipment expands the concepts of telling. But as mentioned above, not everything can be learnt out of books. Experiencing the properties and qualities of a material with all senses only strengthens the ability to judge and become confident in one's own perception. This is a type of knowledge that books and theory cannot really convey. There is a gap that needs to be bridged on the level of education policy, and the value of know-how in craft needs to be repositioned in general. The Swedish Craft Laboratories at the University of Gothenburg, established in 2010 and situated in the city of Mariestad, started to make major contributions to new methods of transmitting crafts knowledge via mixed media, especially via film (Almevik 2016, 77-80).

Transferring knowledge can also be practiced on an object itself. In the Werkraum exhibition, this is exemplified with the redesign of a foldable table bench. The participating cabinet maker's many years of experience and the metalworker's know-how allow them to creatively expand knowledge while creating a new and improved incarnation of a classic piece of furniture. It also shows how traditional techniques can be combined and improved with new knowledge.

The object of a foldable set, called KLAPPER 200, is the visual and qualitative upgrade of a quintessential piece known as the "Bavarian beer table," a



Exhibition object bench and table set, foldable. Tischlerei Anton Mohr and Gerola Metalltechnik. © Johannes Fink

classic bench and table set. To come up with a modern, high-quality product, forms and materials had to be reconsidered. The partners went for materials that are of superior quality to those used for the mass-produced classic, making the set also attractive for both outdoor and interior use.

The prototypes show different woods and finishing. Table tops show soap finished maple, oil finished elm, oil finished ash and linoleum; and bench seats show soap finished maple, oil finished elm and oil finished ash.

Special attention was paid to the development of functional fittings that meet the high demands of handcrafted furniture without sacrificing the ease of an intuitively usable, durable solution. In the course of their collaboration, metal workshop Gerola Metalltechnik and cabinet maker Tischlerei Mohr, both familiar with the mechanics of the classic, designed new metal fittings that are easier to handle and more aesthetic. Extensive load tests with the prototypes that were created during the process helped the partners make the product fit for serial production. Simple and straightforward guidelines for the production workshop demonstrate how the project partners worked together with professionalism and mutual respect. As such, openly sharing and passing on know-how and experience form the basis for a successfully improved product.

## 6. Knowledge Documentation

Generally speaking, documenting a situation encompasses both an authenticating and a self-reflective power. Documentation in craft reproduces and explores the circumstances it describes. During the transferring process of documentation, shifts are created by the use of media and technology, the craft itself, and its presentation and didactic communication. Recent studies recommend supplementing traditional documentation methods with inputs from everyone involved in a participatory setting. They also suggest adding new media and using mixed methods to document situations relating to craft (Almevik 2016). Gunnar Almevik, who joined the EU project “On skills, training and know-how transfer” as the Swedish national expert, carried out a survey (together with the Swedish Craft Laboratories in Mariestad and the

National Property Board) on the state of traditional craftsmanship in Sweden. He states: “Documentation skills and participation were elicited as important means to empower craftspeople in the complex processes of making things, in fields where craftsmanship is reduced to a means of production” (Almevik 2016, 84).

The development and production processes presented in one of the exhibits guides our attention from raw material to finished product, thus making the complexity of craft work transparent. Using the physical object to retrace a work process from raw material to completed product is an alternative form of documentation, next to common techniques such as written and visual records, sketches, implementation plans and detailed plans. Here, the documentation and object become one. The experts themselves prioritize which parts of the process should or should not be emphasized according to the specific perspective of craft or recipient.

## 7. Conclusion

*1) What needs to be considered, when it comes to Know-How Transfer in craft:*

- There has to be an awareness of the world before it can be made explicit and communicable.
- Participation is needed, when experts pick up and extract the invariants of peoples’ implicit knowledge.
- Craftspeople need to be involved in the documentation of craft procedures and crafted objects within their scope of competence.
- Context-appropriate methods are provided by craft centers–e.g. The Craft Laboratory in Mariestad, Sweden (linked to the University of Gothenburg) and the Craft Association of the Werkraum Bregenzerwald.
- Different methods of documentation need to be developed, in order to expand the concept of telling and the face-to-face transfer by the means of new media.
- Tacit knowing should not be hidden, and we need to take care of the

sensory aspects of embodied skills or relevant information of a procedure—this concerns all forms of documents, written, visual or audio.

- Using new media for transferring and documenting knowledge in craft attracts young people for skills and innovative techniques, used in daily craft procedures.
- First experiences with the Werkraum School show that engagement of society has proved to be effective. The sixth-year group started in autumn of 2021 with 31 students, 7 females and 24 males. The crafts can gain more motivated learners than before, enforcing digital tools in presenting themselves to a broader public, and from peer to peer. Different learning contexts and learning communities have improved the learning aptitudes, as students learn to reflect and explicate what they are doing. As not all of the graduates accept employment in the workshops of the region or in the engaged member companies, the school contributes to the transfer of knowledge in craft in general. The education is considered to be a springboard for diverse professional careers. Especially large industries estimate this well-educated people. That is noticeable, when more and more interest comes from outside the region.

## *2) What society can learn from knowledge practices in craft*

There is a fundamental relationship between mental and physical work. Sensualists and philosophers have had the understanding that we need to animate the imaginary by material contacts, by doing something physical. This means participation in reality. What John Locke remarked in the seventeenth century, that nothing is in the intellect that was not first in the senses, is not forgotten today. Simply put, the mind would have nothing to think about without the use of haptic perceptions, without using our senses. In crafts, many decisions are made and felt this way—in the words of Rudolf zur Lippe, the human being is much more reliable in this process than machines. Being integrated or part of this process makes one stay awake and attentive. This motivational effect is, as Lippe says, a result of the direct dialogue with the materials (Lippe 2005, 6).

Following the crafts researcher Richard Sennett, innovation in the crafts

or new practices are based on routine work, on implicit or tacit knowing. These qualities can be transferred into other contexts and surroundings, and are practicable in digital contexts as well. In his definition, craftsmanship is an attitude, a teamwork in an open system, in contrast to industrial systems as being closed systems. The promotion of trusting relationships, the exchange and share of knowledge needs to be considered when it comes to a creative transmission of traditional crafts knowledge.

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