

NEWSLETTER

Comet 12/22 VOL.3



Imprint

University of Siegen
Chair for Technical Vocational Didactics (TVD)

Contact

Breite Strasse 11
D-57076 Siegen (Germany)
Phone: + 49-271-740-4010
Mail: nl.comet@uni-siegen.de
www.tvd-edu.com

TABLE OF CONTENTS

LETTER OF THE EDITOR

**NEWS ABOUT COMET: „REPORT - NETWORKMEETING
2022“**

**REPORT: FELIX RAUNER „SHAPING - A TIMELESS FEAT-
TURE OF THE CRAFT“**

BOOK RECOMMENDATION FOR THE HOLIDAYS

EDITORIAL BOARD

LETTER OF THE EDITOR

Dear Readers,

another COMET newsletter just in time for the end of the year - and we hope to have made this one exciting enough to be seen in all the mail and all the preparations that are now rushing at us. And perhaps it will even be seen as a good reason to pick up that warming cup of tea or the aromatic cup of coffee and take a break from stress while leafing through it.

We as the COMET team were able to rejoice in this feeling after the stressful weeks in October, because we succeeded in organizing a very successful first web-based network conference, mainly thanks to the participants, for which we would like to sincerely thank all those who took part!

We were able to welcome guests from China, South Africa, Moldova, the Russian Federation and Austria, a short summary of the contributions has been prepared for you in this issue by Tiana Hoogstraten.

BUT: Detailed contributions on the ideas of the colleagues, what COMET means for them as teachers, but also for the development of their respective institutions, will characterize the first newsletter of the year 2023, here we give the authors the usual time to really be able to publish their substantial contributions appropriately.

In any case, the extension of COMET to academic engineering education will be interesting. This is because universities and universities of applied sciences are also increasingly recognizing that project-based learning with the aim of a holistic reflection of project results is increasingly gaining the status of a “must have”, particularly in view of the EQF’s requirement that BA training be designed to

provide professional qualifications.

To support this idea, we have focused in this newsletter on a contribution by Felix Rauner, who once again clearly emphasizes what vocational knowledge and skills mean in their entirety and how COMET also succeeds in capturing this entirety.

What we would like to stress with this: In addition to the undoubtedly demanding curriculum work for the integration of projects, COMET is a valuable basis for relieving the colleges’ fears of “non-gradeability”. This ultimately promotes the acceptance of teachers to open themselves up to the learning processes designed by the learners themselves in the project phases.

“To open up” is also the key word to wish for you and your families. That the approaching holidays open up the opportunity to find inner peace for once and to ask ourselves what really needs to be achieved and what actually slows us down in the process. I wish you good luck here and all of us that an open heart and open mind will also be found among those who, blinded by ideology and delusions of power, have instigated an inner-European war and are now taking revenge on people in need of help.

This great Christmas wish is expressed by



(Ralph Dreher)



NEWS ABOUT COMET: „REPORT - NETWORK- MEETING 2022“

On October 4 and 5, 2022, the time had finally come: After a long break, the COMET network was able to meet for the first time again. Since it was an international meeting during Corona, the meeting took place hybrid.

Thanks to the excellent technical equipment of the University of Siegen and especially the successful preparation of the host Ralph Dreher and the technical organizer Jens Jüngst, a lively joint discussion between the participants on both sides of the screen around the world was possible without any restrictions.

The main topic of the event was „Development and Visions for COMET“.

Our guests from China, Moldova, South Africa, Austria, Russia and, of course, Germany not only provided extremely exciting insights into their work as well as projects and project plans with COMET, but also discussed opportunities and possibilities and developed joint concepts for cooperation.

The synergy and enthusiasm for a joint work was demonstrated during the workshops on the topics of COMET in vocational education and teacher training, science and industry and were used to draw up in-

itial plans, plan book projects, and develop project proposals.

Research projects and cooperations were also presented from our own ranks and openly discussed with regard to the claim of design competence, feasibility as well as scientific development potential and much more.

The presentations dealt with the highly exciting development of COMET in China by Mr. Zhiqun Zhao, with a very mature rater structure as well as large cooperations with industry and the associated requirements.

Likewise a successful contribution of Mr. Jürgen Lehberger about the university education of teachers was cause for new ideas of the development regarding an overlapping COMET concept for further universities at the example of the established structure of the University of Siegen.

Mr. Felix Rauner reported about the origin and necessity of COMET as well as the successful projects and developments and cooperations in the past decades to stress the basic concept in its importance and the growth due to the comprehensive research.

Ms. Lusana Dodo was able to inspire with her experience report from the scientific work with COMET in South Africa.

In addition, the first foundations were laid for a network anthology, which will now be published annually as part of the forthcoming series on COMET to be published by Springer Verlag.

There you will of course find all contributions in full!

The team of the University of Siegen would like to take this opportunity to thank all contributors and participants and is pleased to have received groundbreaking goals and visions for the future with COMET and a network of strong partners.

We look forward to meeting again in 2023

The new COMET website is online!

<https://comet-vet.com/home.html>

SHAPING - A TIMELESS FEATURE OF THE CRAFT

Felix Rauner, University of Siegen

Designing - a timeless characteristic of craftsmanship

Craftsmanship and mastery are timeless forms of social work. For this reason alone, crafts have always enjoyed the esteem of all cultures. A surprising exception (!) is the controversial evaluation of handicraft in ancient Greece, which is a matter of European intellectual history. In his work „*Politeia*“, Plato justified the slave-like status of craftsmen, since they merely carried out what they were told to do by their customers. Aristotle surpassed Plato in his evaluation of craftsmanship: a polis could only be happy if none of its creditors had to practice a craft, for it was clear „that in the best-governed city, its citizens [...] should lead neither the life of craftsmen nor of merchants. For such a life is ignoble and contrary to virtue“ (Aristotle, *Politics*, VII, 9, 1328 b-1329 a 2). These are the reasons why crafts in ancient Greece were also called „*technai banau-sikai*“ (philistines).

The situation is quite different in archaic Greece. In its writings, craftsmanship was held in the highest esteem. One of the earliest songs of praise for craftsmanship is found in a Homeric hymn to the patron god of craftsmen, Hephaistos: „The archaic craftsmen had a position in society similar to that of today’s middle class. In addition to people who performed more demanding manual work, such as potters, craftsmen also included physicians and low-level civil servants, professional singers and criers, who were responsible for disseminating news in antiquity“ (Sennett 2008, p. 34 f.).

The craft in the early modern period

In the early modern period, a structure was formed in the crafts, with which it has found its way into the technical literature in many ways. The training of apprentices was regulated. This included, above all, the apprenticeship period, the appren-

ticeship fee and the journeyman’s piece as proof of a successfully completed apprenticeship. The introduction of wandering (wandering journeymen) established the craft as a European tradition, which contributed decisively to the emergence of an innovative development climate. Numerous new trades emerged, such as organ builders, engravers and printers.

This period also saw the broader establishment of arts and crafts. The activity of artisans has a much longer tradition, since there have always been artistically active craftsmen whose works were particularly distinguished by their creative quality. This applies not only to book and glass painters, engravers, goldsmiths and silversmiths, but to a wide range of craftsmen.

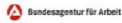
Furthermore, Jürgen Kocka reports: „Of the 150 employees at Siemens around 1860, only nine were so-called laborers, who performed cleaning and transport work and had to turn the hand cranks of the simple machine tools“ (Kocka 1975, p. 272). At that time, the manual workers were the basis of the work process. In the opinion of Carl von Siemens, the implementation of industrial production required a work organization that made skilled manual workers superfluous. In a letter to his brother Werner von Siemens, he complained about the „artistic slovenliness of German workers, which made Siemens products considerably more expensive than those of the British competition. This could only be remedied by consistent division of labor, standardization of products and thus greater interchangeability of labor: Once the master mechanics have been replaced by house servants, at least for the most part, things will be different“ (ibid., p. 271).

Otfried Mickler sums up his analysis of the appropriation of the crafts by the factories as follows: „Particularly in the case of professions such as locksmiths, mechanics and carpenters, where craft training was regarded as suitable preparation for the later transition to skilled factory work, the extreme ‚breeding of apprentices‘ was an expression

of their role as training authorities for the growing industry. The factories themselves started their own apprenticeship training quite late“ (Mickler 1981, p. 37).

„Designer in the craftsmanship“ - further training in the age of digitalization

It is not surprising that under the conditions of digitalization and the increasing implementation of AI-controlled work processes, skilled craftsmanship is being weakened. How the craft with its tradition of designing handicraft products reacted to this is shown by an initiative for the revaluation of further education. The Cultural Committee of the Central Association of German Crafts initiated a project to establish further training as a „designer in the crafts“. After testing a specialized room concept, the new form of further training was introduced at „design academies“ (or also at the academy) in 1989 (Fig. 1).

BERUFENET Steckbrief  Bundesagentur für Arbeit

Designer in the craft

Occupation type Further training occupation - Designer
Type of further training Further training examination according to the regulations of the chambers of handicrafts. Participation in a course is not obligatory for admission to the examination.
Duration of further training Varies, 1-2 years - depending on training provider and form of instruction (full-time or part-time)

▪ **Tasks and activities**
Designers in the skilled trades design products according to customers' wishes or their own ideas. When they develop new products or further develop existing products, they use their technical skills, e.g., as glaziers, goldsmiths, wickerwork designers, carpenters, stonemasons and stone sculptors or engravers. When designing objects, they also combine different materials such as stone, wood, metal, glass, ceramics, plastic, textiles, or paint. They produce design sketches, convert them into production templates using CAD production programs, plan the work processes and direct employees to implement the templates in the production process. They monitor the timely and professional execution of orders and check the quality of input materials and finished products. They can also participate in the development of software that is customary in the industry. Designers in the skilled trades train junior staff and support employee training. They also negotiate with suppliers, advise customers, calculate quotations and prices, sell their products, and conduct company-related correspondence.

▪ **Work areas and work locations**
Employment Establishments:
Designers in the skilled trades find employment in almost all economic sectors of the skilled trades, e.g.:

- In craft or industrial enterprises
- In jewellery design studios
- In engraving companies

▪ **Workplaces:**
Designers in the crafts work primarily

- In studios and workshops
- In offices
- In addition, they may also work
- In showrooms and salesrooms
- On site with customers
- On construction sites

▪ **Requirements**
The admission requirement for the chamber-regulated examination is the master craftsman's or journeyman's or final examination in a recognized training occupation in the design trade or in a comparable occupation.
Prerequisite for admission to a technical college is usually a degree in a relevant recognized profession as well as professional experience.
Contents of the further education

Contents of the further training can vary depending upon education provider

- Drawing
- Basics of design
- Drafting and design
- Creativity training
- 3D modeling on the computer
- Color theory and color design
- Typeface and typography
- Art history
- Materials technology
- Building construction
- Model-Making
- Photography

Fig. 1: Profile of designers in the skilled trades from the German Federal Employment Agency, source: BERUFENET (<https://berufenet.arbeitsagentur.de/berufenet/bkb/13981.pdf>), as of 01.06.2020

The introduction of further training to become a „designer in the skilled trades“ is a very big step towards modernization for the skilled trades, but so far there has been no development of the guiding idea of design competence in the practice of apprenticeship training, for example following the KMK initiative of 1996 for the introduction of new framework curricula and the method of competence diagnostics COMET.

Contemporary Philosophers evaluate the Handicraft

Researchers in the social sciences and those involved in the discourse on social change have had to note with great astonishment that three of the most prominent philosophers of our time have spoken out in the last decade from different perspectives with remarkable works on craft.

Richard Sennett, probably the best-known sociologist and cultural philosopher of our time, published a book entitled „Handwerk“ (Craftsmanship) in the fall of 2008, at a time when science and politics were trying to outdo each other in imagining the causes and consequences of digitization.

„Craft“ is an impressive plea, based on cultural history, for getting involved in the world of things again: „Expressions such as ‚craft skills‘ or ‚craft orientation‘ might make us think of a way of life that disappeared with the emergence of industrial society. But that would be wrong. They refer to an enduring basic human aspiration: the desire to do a job well for its own sake. And they are by no means limited to the realm of skilled manual labor. Skills and orientations of this kind can also be found among programmers, doctors and artists. Even as older citizens we can improve ourselves if we perform these activities with manual dexterity“ (Sennett 2008, p. 19).

In the third part of his book, he deals with the exchange relationship of humans with nature and

Fig. 1: Profile of designers in the skilled trades from the German Federal Employment Agency, source: BERUFENET (<https://berufenet.arbeitsagentur.de/berufenet/bkb/13981.pdf>), as of 01.06.2020

The introduction of further training to become a „designer in the skilled trades“ is a very big step towards modernization for the skilled trades, but so far there has been no development of the guiding idea of design competence in the practice of apprenticeship training, for example following the KMK initiative of 1996 for the introduction of new framework curricula and the method of competence diagnostics COMET.

Contemporary Philosophers evaluate the Handicraft

Researchers in the social sciences and those involved in the discourse on social change have had to note with great astonishment that three of the most prominent philosophers of our time have spoken out in the last decade from different perspectives with remarkable works on craft.

Richard Sennett, probably the best-known sociologist and cultural philosopher of our time, published a book entitled „Handwerk“ (Craftsmanship) in the fall of 2008, at a time when science and politics were trying to outdo each other in imagining the causes and consequences of digitization.

„Craft“ is an impressive plea, based on cultural history, for getting involved in the world of things again: „Expressions such as ‚craft skills‘ or ‚craft orientation‘ might make us think of a way of life that disappeared with the emergence of industrial society. But that would be wrong. They refer to an enduring basic human aspiration: the desire to do a job well for its own sake. And they are by no means limited to the realm of skilled manual labor. Skills and orientations of this kind can also be found among programmers, doctors and artists. Even as older citizens we can improve ourselves if we perform these activities with manual dexterity“ (Sennett 2008, p. 19).

In the third part of his book, he deals with the exchange relationship of humans with nature and

The third in the group of modern philosophers who describes a very authentic view of craftsmanship based on his own experiences in his motorcycle workshop is **Matthew Crawford** (2011 and 2016).

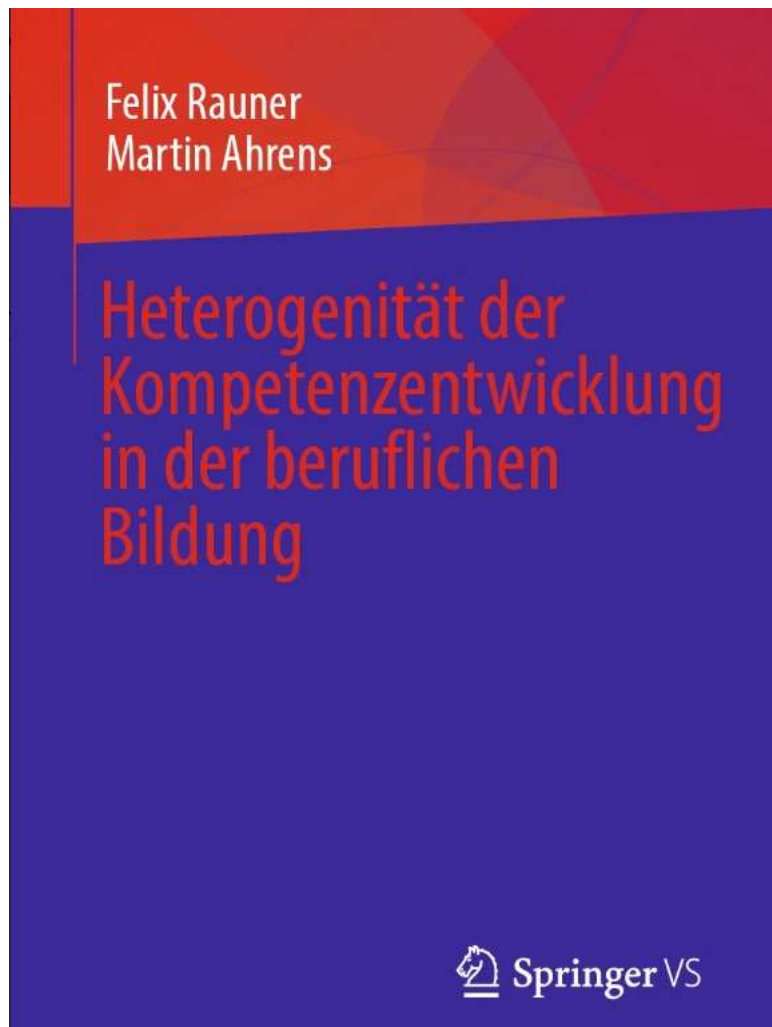
The title of his book „I screw, therefore I am“ (with the subtitle: „On the happiness of creating something with your own hands“, 2011) already contains an understanding of human existence. And this differs fundamentally from that of the great Enlightenment philosopher René Descartes with his sentence that shaped the thinking of the Enlightened world: „I think, therefore I am.“ In the introduction to his book, which quickly became a best-seller, Crawford adds: „In this book I would like to promote an ideal that is timeless, but today hardly finds any advocates: for craftsmanship and the attitude it expresses towards the material world created by human hands“ (ibid., p. 11). „I will always draw on my own experiences in manual labor-most recently as a motorcycle mechanic.“ And what the book should in no way be: „a mystical fixation of craftsmanship“ (ibid., p. 15).

Crawford is concerned with the explanation of real knowledge, a knowledge that arises out of the confrontation with real things, and with the specifics of individual agency: professional competence. Real agency, he argues, is not simply based on free choices and autonomy, as the eminent philosophers of the Enlightenment (Immanuel Kant and René Descartes) saw it, „but paradoxically on subordination to things that have their own inscrutable nature, whether that thing is a musical instrument, a garden, or a bridge to be repaired“ (ibid., p. 45). With his two works, Matthew Crawford - as well as Richard Sennett and Peter Janich - contributed to the philosophical foundation of the new guiding idea of vocational education: the ability to participate in shaping the world of work and society in social, ecological and economic responsibility (cf. Rauner 1988).

FOR FURTHER INFORMATION ALSO SEE : F. R. (2021): GESTALTUNGSKOMPETENZ. DIE LEITIDEE DER MODERNEN BERUFSBILDUNG. WIESBADEN: SPRINGER VS.



BOOK RECOMMENDATION FOR THE HOLIDAYS



Softcover ISBN

978-3-658-38294-0

Published: 07 October 2022

eBook ISBN

978-3-658-38295-7

Published: 06 October 2022

Merry Christmas and Happy New Year

Dear readers,

We from the Comet team at the university of Siegen wish you and your beloved ones a Merry Christmas and a Happy New Year.

We are looking forward to new exciting projects around Comet and will keep you informed.

Please do not hesitate to contact us with ideas and suggestions, we would be happy if the network continues to grow in 2023.



EDITORIAL BOARD

Published by: COMET – Researchgroup University of Siegen

Editor: Ralph Dreher - dreher.tvd@uni-siegen.de



Editorial Board:

Felix Rauner - felix.rauner@gmail.com



Jürgen Lehberger - lehberger.tvd@uni-siegen.de



FOR FURTHER INFORMATION:

[HTTPS://WWW.TVD-EDU.COM/START.HTML](https://www.tvd-edu.com/start.html)

Team Newsletter COMET

Manuela Bubenzer - bubenzer.tvd@uni-siegen.de

Tiana Hoogstraten- weiss.tvd@uni-siegen.de

