

Drawing as Encounter. On Freehand Drawing in Architectural Education and the Beginning of a German–Polish Teaching Cooperation

Gerd Sedelies

sedelies@bht-berlin.de |  <https://orcid.org/0009-0000-2605-5331>

Department of Architecture and Building Technologie,
Berliner Hochschule für Technik (BHT)

Scientific Editor: Mateusz Gyurkovich,
Cracow University of Technology
Technical Editor: Aleksandra Urzędowska,
Cracow University of Technology Press
Typesetting: Anna Pawlik,
Cracow University of Technology Press

Received: September 25, 2025

Accepted: December 3, 2025

Copyright: © 2025 Sedelies. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Data Availability Statement: All relevant data are within the paper and its Supporting Information files.

Competing interests: The authors have declared that no competing interests exist.

Citation: Sedelies, G. (2025). Drawing as Encounter. On Freehand Drawing in Architectural Education and the Beginning of a German–Polish Teaching Cooperation. *Technical Transactions*, e2025024. <https://doi.org/10.37705/TechTrans/e2025024>

Abstract

In an era of digitalized architectural education, freehand drawing is often seen as obsolete, yet its relevance is resurging due to technological progress. This paper examines freehand drawing as a creative, epistemological, and intercultural practice in contemporary teaching. Based on a German–Polish collaboration between Cracow University of Technology and Berliner Hochschule für Technik, it shows how drawing fosters spatial awareness, sensory perception, and reflective thinking, complementing rather than competing with digital tools. The exchange highlights drawing as a universal language bridging pedagogical and cultural differences. Freehand drawing thus emerges not as an anachronism but as a forward-looking approach, offering valuable insights for design education in the digital age.

Keywords: Freehand drawing, architectural education, intercultural exchange, German–Polish cooperation, spatial perception, analog and digital design, epistemology of drawing

1. Introduction

In an increasingly digitalized architecture education, freehand drawing is often seen as an anachronistic practice—supplanted by CAD, 3D modeling, and AI-supported design processes. Yet, it is precisely amid these technological advances that a counter-movement has emerged: freehand drawing is consciously experiencing a renaissance—not in spite of, but because of digitalization. It is being (re)discovered as a tool for concentration, spatial insight, and sensual engagement with architectural phenomena.

In this context, the study examines how freehand drawing contributes to creative thinking and spatial understanding in architectural education. Drawing on the cooperation between Cracow University of Technology (PK) and Berliner Hochschule für Technik (BHT), it considers its influence on teaching and learning practices. Reflections on student work and teaching experiences further highlight the epistemological and didactic value of drawing.

This contribution is grounded in a tangible cooperation between PK and BHT. It reflects on the role of freehand drawing as a creative, cognitive and intercultural medium within architectural teaching. Through a bilateral exchange, it highlights the potential and perspectives of drawing-based teaching in today's academic landscape.

2. An Unexpected Encounter – The Beginning of the Collaboration

The origin of the Polish–German cooperation between the Cracow University of Technology (CUT) and my university lies in a special moment of cultural encounter. In June 2023, I attended the tenth-anniversary celebration of the Tchoban Foundation—the Museum for Architectural Drawing in Berlin—a place dedicated since its founding in 2013 to architectural drawing in all its facets (see Tchoban Foundation, 2023). Founded by Sergei Tchoban, the foundation serves as an international forum for architects, artists, and teachers interested in advancing drawing practice in architecture.

The anniversary event featured high-profile lectures—from Peter Cook to Mikkel Frost—but also allowed space for informal exchange. In this setting, I had my first personal conversation with representatives of the Cracow University of Technology's Department of Drawing, Painting, and Sculpture: Prof. Maria Jolanta Żychowska, Prof. Marcin Barański, MSc. Anna Barańska—alongside myself, representing the Freehand Drawing program at BHT.

It quickly became evident that we not only shared similar curricular content—such as freehand drawing—such as freehand drawing—but we also shared a desire to develop intercultural teaching formats. That very evening, Prof. Żychowska proposed and invited me for a future guest-professorship at CUT. The invitation felt spontaneous and warm—and whether it would materialize into a concrete project remained uncertain at first.

Months later, a call from Poland confirmed the feasibility. In early 2024, I had the privilege of conducting my first course at the Department of Drawing, Painting, and Sculpture at PK's Architecture Faculty. The collaboration quickly evolved into a vibrant dialogue between different pedagogical and cultural approaches—driven by openness, curiosity, and professional mutual respect. The exchange has since grown, and I have had the opportunity to teach in Krakow a second time, bringing my Berlin perspective into the classroom.

This example illustrates how personal encounters in cultural settings can lay the foundation for institutional cooperation—an aspect increasingly emphasized in literature on international academic collaboration (cf. Wächter, 2020: 45; de Wit, 2011: 23).

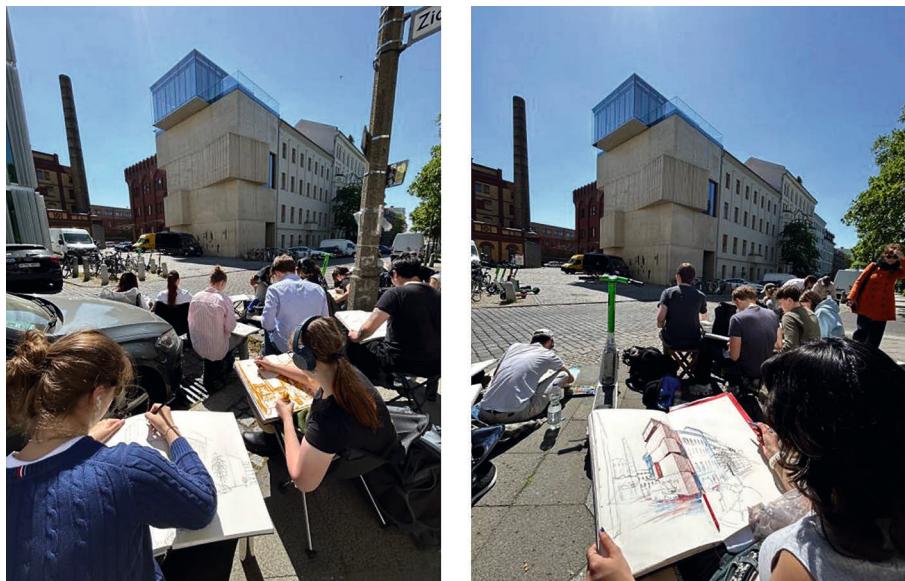


Fig. 1. a), b) Bachelor students in their second semester at BHT are sketching the Tchoban Foundation – Museum for Architectural Drawing (photo by author)

3. Freehand Drawing in the Context of Contemporary Teaching

Amid the Bologna reforms, architectural education has faced increasing compression of curriculum content. Digital competencies—like CAD, BIM, and AI-supported design—are often prioritized for understandable reasons (cf. Mühling, 2021). As a result, analog drawing courses are frequently trimmed, marginalized, or even left unfilled.

At the same time, a counter-trend is emerging: freehand drawing is being consciously rediscovered at various architecture schools. It is valued not only as a craft but as an epistemological and research-oriented medium—a form of thinking with different tools.

Henri Matisse once said: “Drawing is thinking with your hand” (quoted in de Zegher, 2001). This dictum seems more relevant than ever in today’s teaching practice. In a digital-shaped design environment, many students describe manual drawing as a sensual, focused, and at the same time decelerating activity—a deliberate counterpoint to screen work.

Movements such as “Urban Sketchers,” which have attracted widespread interest beyond academic circles, underscore the societal relevance of drawing in public space. My own teaching experience confirms this trend: students draw by hand with visible joy and deep concentration. They do not perceive analog drawing merely as a meditative relief but recognize it as an opportunity to learn and deepen foundational design skills—perspective, spatial perception, composition—in a precise, intuitive manner.

4. Drawing as a Method of Knowledge – Teaching Concept at BHT

At the Berliner Hochschule für Technik (BHT), Faculty of Architecture and Building Technology, freehand drawing is taught within the “Freie Darstellung (FreD)” – Chair of Freehand Drawing – as a central method of spatial understanding and perception in the architecture curriculum. The focus is on observational drawing of the three-dimensional environment—especially spatial perception with perspective rules, atmospheric experience, and pictorial abstraction. The goal is to foster an individual design stance in students—binding eye, hand, and thought closely together.

Peter Zumthor aptly summarized this approach: “You can only build what you can imagine. And you can only imagine what you have understood—with the hand, the eye, the body” (Zumthor, 2006: 37).

Students begin by training their eye: observing perspective, proportion, spatial atmosphere, and the built environment—not only in the studio, but also through site visits in the summer and museum explorations in the winter, inspired by Berlin’s rich architectural landscape. This intensive, on-site drawing cultivates deep, sensual understanding of the built environment and strengthens the ability to grasp spatial relationships and design principles.

Through systematic engagement with perspective, composition, and abstraction, students develop not just technical skill but a distinctive graphic hand. They learn not merely to reproduce but to understand and reflect actively through drawing. Experiments with diverse analog media—from sketchbooks, pencils, markers, ink, color pencils, to watercolor—play a significant role.

Digital tools are not excluded; instead they complement and expand the analog repertoire, creating a rich spectrum of expressive possibilities.



Fig. 2. a), b), c) Bachelor students engage with Berlin’s architecture through on-site drawing (photo by author)

In the master’s program, foundational skills are expanded: multimedia collages, immersive installations, sculptures, and integration of hand drawing with AI-supported imaging processes become part of the extended curriculum. The interplay between analog handwriting and digital transformation becomes especially evident here: freehand sketches are incorporated into AI-driven algorithmic processes, with each student’s unique handwriting influencing the final outcome.

Lima (2011) aptly describes this shift: “The future of drawing lies not in competing with the machine, but in collaborating with it”.



Fig. 3. A Collective Multimedia Collage as part of the Master’s Course (photo by author)

5. Intercultural Exchange: Drawing as a Language

Teaching at the Cracow University of Technology offered a chance to encounter a different drawing culture within architectural education. Notably, many first-year students already possess high technical precision and drawing skill due to an entrance exam that heavily emphasizes drawing.

By contrast, architecture studies at German universities—such as in Berlin—typically begin without a design-oriented selection process. This creates a different dynamic, with a greater focus on fundamentals, more practical exercises, and sometimes an initial uncertainty that students need to overcome.

Nonetheless, both systems share a fundamental interest in drawing as a medium for architectural understanding. In Krakow, there is a strong emphasis on analytical thinking, formal precision, and constructive methods; in Berlin, the focus tends towards spatial perception, atmosphere, and interpretative drawing. These differences were not divisive but inspiring—they complemented and evolved together during my visit to Krakow.

At the Department of Drawing, Painting, and Sculpture, I was warmly welcomed and experienced intense academic exchange—even beyond linguistic barriers. Drawing itself became the shared language, the immediate form of communication. John Berger aptly expressed this:

“Drawing knows no language barriers—only lines that meet” (Berger, 1972, p. 35).

This “encounter” occurred not only between myself and the students, but also between pedagogical approaches and cultures. Working with local colleagues, it became clear that drawing is far more than a technique—it is a cultural form of expression, taught, understood, and appreciated in varied ways.

The potential for later student exchange became tangible. Further joint workshops, bilateral drawing projects, or an exhibition could form the next phase of this fruitful cooperation. With the signing of an Erasmus agreement between PK's and BHT's architecture faculties, an institutional framework for sustainable collaboration has been established.



Fig. 4. Lessons with polish students at CUT
(photo by Jan Zych)

6. Conclusion

Freehand drawing is by no means outdated—in fact, quite the opposite: in a world of increasing speed, digital perfection, and algorithmic design, it is regaining relevance. Not as a nostalgic technique, but as a forward-looking attitude.

To draw is to pause. To observe, think with the hand, question what is seen—and derive a profound spatial and design understanding.

In teaching, this means: less rushed output, more conscious insight. Drawing becomes a method of understanding, an exercise in perception, patience, and sensuality. As analog counterpart to digital design practice, it offers not only aesthetic but also epistemological added value.

The German–Polish collaboration further demonstrates how drawing can function interculturally—as a language beyond words. As a bridge between different teaching traditions, design understandings, and educational biographies. Here, drawing is not seen as a mere style, but as an attitude: open, curious, nuanced—and thus highly contemporary.

To draw means to learn to see.

To draw means to learn to understand.

To draw means to encounter.

My heartfelt thanks go to Prof. Maria Jolanta Żychowska and the wonderful team of the Department of Drawing, Painting, and Sculpture at the renowned CUT's Architecture Faculty—for their warm reception, hospitality, and the many impressive encounters in the spirit of drawing.

References

Berger, J. (1972). *Ways of seeing*. London: BBC & Penguin Books.

de Wit, H. (2011). *Trends, issues and challenges in internationalisation of higher education*. Amsterdam: Centre for Applied Research on Economics and Management.

de Zegher, C. (Ed.). (2001). *The stage of drawing: Gesture and act*. London, UK: Tate Publishing.

Lima, M. (2011). *Visual complexity: Mapping patterns of information*. New York: Princeton Architectural Press.

Mühling, M. (2021). Künstlerische Fächer im Bologna-Prozess: Entwicklungen und Rückschritte. *Zeitschrift für Hochschuldidaktik* 45(3), 66–74.

Tchoban Foundation (n.d.). *10 Jahre Tchoban Foundation – Museum für Architekturzeichnung*. Retrieved from <https://www.tchoban-foundation.de> (September 25, 2025).

Wächter, B. (2020). Internationalisierung der Hochschulbildung in Deutschland: Entwicklungen und Herausforderungen. In DAAD (Ed.), *Jahrbuch Internationales Hochschulmarketing* (pp. 42–49). Bonn: DAAD.

Zumthor, P. (2006). *Atmosphären: Architektonische Umgebungen – die Dinge um uns herum*. Basel: Birkhäuser.