



Interior Design as an Academic Discipline in Germany

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“Interior designers and interior architects determine the relationship of people to spaces based on psychological and physical parameters, to improve the quality of life.”

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The Profession Within Germany and International Design Community

In Germany, Interior Design or Interior Architecture is offered by 16 institutions of higher education; most of them Universities of Applied Sciences, one art academy and two universities.¹ Traditionally the Diploma degree was granted to the students after seven, eight, or ten semesters—depending on the type of university. With the implementation of the Bologna Process² during the last 5 years all of them have introduced the Bachelor’s and Master’s degrees—in general with a 3-year Bachelor’s and a 2-year Master’s, only some are practising a 4-year Bachelor’s with a 1-year Master’s degree. Most programs require high school graduation, in combination with an internship or practical training that has to be completed before starting to study. Often an aptitude or screening test is applied. The tests are developed and applied by the single universities themselves; often they are based on a portfolio presentation in combination with a personal interview. Since 2010 qualified professionals, who already have a degree, are allowed to access universities based on the results of a specific entry test.

Traditionally many students in Germany had finished a generally 3-year apprenticeship as a carpenter; cabinetmaker, technical draftsman, or *Raumaustatter*.³ But this practical preparation is declining sharply. A new development is the integration of internship semesters into the curriculum to increase the professional aspect of the course program and to allow students to gain more practical experience. According to the regulations a 4-year course of study is needed to join one of the 16 state-related professional organizations, the Chamber of Architects. Only then and after two additional years of practice the professional title “Interior Architect”—that is protected by law—can be used. The chambers are organized in the Federal Chamber of German Architects (BAK).⁴

Although the majority of the Bachelor’s programs are titled as “Interior Architecture,” only several are called “Interior Design” due to the fact that the official professional title, in Germany, is that of an Interior Architect. The Master’s programs are defined by specializations, such as lighting, furniture, event or exhibition design or other focus areas such as *Raumstrategien* or *Bau- und Raumkunst*.⁵ Depending on the university’s profile, most of the programs are either linked with architecture or with other design programs. The development of Master’s programs has a body of knowledge that has grown beyond its traditional crafts-based traditions and is showing a new understanding of the profession. The influence in Interior Architecture from fields such as scenography and performance-based education and of psychosocial knowledge and research reflects the

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growing scientific complexity in the discipline. This tendency is comparable to the evolution of interior design education in many countries in Europe.

It is not easy to verify with exact numbers the development of programs and students within Europe. In Germany's long academic tradition, the number of Bachelor's programs has remained constant over the last several decades, whereas the number of Master's programs has been increasing since 2000. Several countries have introduced or are preparing to launch new Bachelor's programs such as Spain, the Netherlands, or Switzerland; others are also beginning to develop research-related programs such as Hochschule Lucerne, or Plymouth University.

Unique Characteristics Defining at HS OWL Program

The Bachelor's programs offered by Detmolder Schule für Architektur und Innenarchitektur at Hochschule Ostwestfalen-Lippe (HS OWL)⁶ are Interior Architecture, Architecture, and, since 2010, Urban Planning. The Bachelor's program of Interior Architecture starts with about 150 students each year and is one of the largest in Europe with 450 enrolled undergraduate students. Currently, the Interior Architecture program is the largest in Germany. The Master's programs are established for architecture and Interior Architecture-Raumkunst; typically enroll 15 students in Architecture and 25 students in Interior Architecture. The Master's in interiors track is divided into two fields of study: *Scenography* involves the study of temporary event and exhibition design and *Human Factors* focuses on more long-term aspects of space and demographics in the context of universal design found primarily in residential and healthcare contexts.

In 1971, we established a formal academic program of Interior Architecture when institutional restructuring resulted in a University of Applied Sciences.⁷ Nevertheless, the first title in Interior Architecture in Detmold was already granted in 1922. At that time, the institution housed furniture design and Raumkunst with a degree program having a more specific orientation toward drawing and carpentry—in the tradition of arts and crafts schools. From the 1950s, the program of study in Interior Architecture was strongly connected with the furniture industry and allied design manufacturers. For example, the region of Ostwestfalen-Lippe (OWL) is home to more than 30 kitchen producers—among Poggenpohl, the internationally known kitchen cabinet manufacturer that is based in Herford close to Detmold. Generally, the region is a leading source of timber and wood production and also of mechanical engineering products such as fittings and other building supply that provides the furniture industry. Later in 1954, after WWII, the Association of German Interior Architects was founded in Detmold making the program also one of the oldest in Europe. At that point, the curriculum expanded to include new offerings such as design and color theory, building materials and construction, and building services. This brought the program closer to what we know as architect's responsibility today which is far removed from furniture making.⁸

Given the increasing demand for design professionals in Germany, Detmold's design faculty has increased to 33 professors—about 20 in Interior Architecture. Besides design and construction, their expertise ranges from human sciences to art history to medicine. These different qualifications support interdisciplinary cooperation and exchange within the department and with external partners. For example, HS OWL has an excellent lightlab and a model building workshop in combination with access to digital fabrication such as CNCmill, 3D-printer, and lasercutter, enabling the students to realize their ideas not only in small-scale models but also in prototypes and full-scale mock-ups. Regularly pavilions and temporary constructions experiment with new materials, shapes, and load-bearing structures and connections. Especially for the undergraduate students,

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it is an intention to raise the awareness of how ideas can be visualized and transferred into reality. Good knowledge of design strategies, materials, and presentation techniques is necessary to qualify the students for the profession. The above-mentioned environment ensures an excellent and varied range of opportunities for students and faculty alike.

In the Master's program, it is critical to have students acquire a deeper understanding of ideas, emotions, associations, and projections in spatial forms and to express them "atmospherically." This means to apply theoretical and technical knowledge in a more elaborated conceptual context that analyzes specific relations between human beings, multisensual perception and space. In this multifactorial context, Interior Architects are seen as "spatial artists" who are implementing ideas and taste, giving advice and supervise tasks in all areas of society—which means great responsibility in a global market with diverse even contradictory challenges. Interior Architecture should not only be seen as an answer to developed countries requirements but also take into account the very relevant basic human needs for living that are not fulfilled in large parts of the world. The Detmold Master's program in Interior Architecture provides the foundation for this mission in the form of specialized approaches to the phenomena, functions, and interpretations of space, living and human well-being through artistic, technical, and scientific courses.

Beside the Master's in Architecture and Interior Architecture, two other Master's programs have been recently created:

1. International Façade Design and Construction (IFDC) offered since 2008.
2. Computational Design and Construction (MCDC) starting in 2011.⁹

Both programs directly relate to interdisciplinary professional needs in the building sector that require expert knowledge in combination with communication skills.

The Role of Research in Education

"Research in a design practice has a singular objective—to improve architectural practice within real-world constraints."

Bosch & Nanda (2011)

At Detmolder Schule für Architektur und Innenarchitektur, two research platforms have been established within the last years since 2005: the ConstructionLab and the PerceptionLab. The ConstructionLab was organized by five professors with architecture and civil engineering backgrounds. Within the PerceptionLab, nine faculty members are working together with very different backgrounds: Interior Architecture, Architecture, Design, Medicine, and Human Sciences. Both platforms cooperate with external partners and other faculties within and from other universities. The idea of interdisciplinary research is not new but addresses comparable challenges in the professional practice—as applied science. In the beginning of 2000, the state supported the labs with the expectation that they would ultimately become self-funded. At the moment the idea of interdisciplinarity and innovation is being strongly promoted by European research policy.¹⁰

This research is also affiliated with construction, furniture, equipment, and machine tool industries, all of which are well established in the region OWL. But the same is also true for the health services and tourism

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industries that are based in the region: here, products and spaces designed to promote health, well-being, and quality of life can be designed, evaluated, and improved. An ongoing internal research project is the IMPACT-Study, which is empirically investigating the impact of different environmental factors on the human being. The first part of the study explored perceptions of colored light, followed by research on the combination of acoustic and visual impacts.

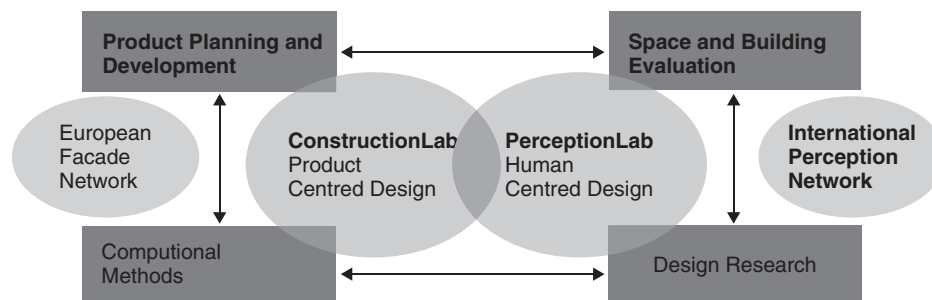
Although the PerceptionLab makes the user the focal point of its research—as Human Centered Design, the ConstructionLab complements this with a product-oriented approach—as Product Centered Design. The combination and interaction of both platforms, which enables the university to accompany and support the entire development chain of innovative materials, products, and spaces by research, started with the idea and continuing through model making and testing, the production of prototypes and spatial environments and their later evaluation. Both research platforms function on an interdisciplinary and interspecialty basis with overlapping areas of investigation as indicated in Figure 1.

The PerceptionLab is closely linked to Interior Architecture, based on the concept of the existing Raumlabor (spatial labs). These are 1:1 real spaces that can be designed and transformed by the students to see the impact of their concepts in full scale. As further development, this concept became a full-fledged research and teaching instrument, a location, a methodology, and an institution (Poltgiesser & Hemmerling, 2010). It has brought together lecturers from the Departments of Architecture, Interior Architecture, and Media Production with the goal of better understanding the perception of objects, space, and the medial environment by people in general (see Figures 2, 3). Through the participation of various fields of study from design, planning, and visualization, and through the additional integration of external experts, the complexity of issues is examined from a holistic perspective. This cooperative effort serves to develop scientific and empirically ascertained knowledge about perception, in connection with experience from planning practice, to an application-oriented tool-kit for planning and design in the academic and practical realms. How we perceive is important for our condition and for the development and use of our abilities.

The following specific goals guide research projects in the PerceptionLab (see Figure 4):

- Execution of usability testing and studies, application tests and reports.
- Development of user profiles, utility, and application scenarios.

Figure 1. Interdisciplinary and thematic structure in the Research Labs at HS OWL.



This research is also affiliated with construction, furniture, equipment, and machine tool industries, all of which are well established in the Region of Ostwestfalen-Lippe (OWL). But the same is also true for the health services and tourism industries that are based in the region: here, products and spaces designed to promote health, well-being and quality of life can be designed, evaluated and improved.

Figure 2. The seminar building at the campus in Detmold has an open space concept with different working areas.



Figure 3. The central foyer regularly serves for exhibitions from students, projects and external parties.



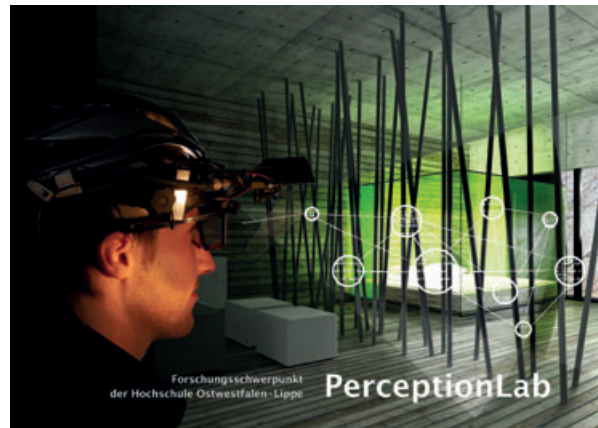
- Construction of virtual space scenarios for examination and testing.
- Examination and juxtaposition of the qualities of real and virtual spaces.
- Development of demand analyses for materials, products, spaces, and medial environments.
- Development of suggestions for product optimization.

The ConstructionLab aims to investigate existing and new materials with reference to their use in products and in construction, comprehensively and in a practice-oriented manner. The following specific goals direct work conducted at the ConstructionLab:

- Identification of areas of transfer of material use in design, Interior Architecture, and architecture.
- Experimental implementation of product-ideas and proof-testing based on samples (prototypes).
- Integration of functional components into facades and building elements with the goal to solve problems of interface, of modularity of components, and of future applications of the principle.

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Figure 4. The PerceptionLab investigates impact of space in real and virtual environments to the human being.



- Improvement of bearing and deformation behavior of components and products.
- Development of resource-saving components and products for healthy and sustainable use.

The assumption is that this work supports not only the research aspect per se, but also to a considerable degree supports teaching, and thus directly influences the education of the students. The creativity and potential of the students are involved in research tasks, and at the same time interaction occurs between industry and the university. In this way, companies and institutions can participate in research together, or by raising their own questions and tasks, contributing to product, spatial, or environmental optimization in cooperation with the university.

However, the increasingly complex issue of intellectual property rights for the university is one that also needs careful negotiation and consideration when collaborating with industry partners. Each collaboration must be reviewed on a case-by-case basis. Nevertheless the state, is strongly interested in fostering the academic's position in this context with the aim to generate more patents and trademark rights.

In the academy, we face challenges to enlarge the public and private funding in regional, national, and international contexts. In total, any research collaboration helps to ensure highly qualified graduates and leadership staff for the regional and national even international construction, real estate, furniture, and design industries and in general for the professional practice. Especially, the Master's programs are seen as both instruments of research and teaching. Thus in both platforms spaces, objects and the medial environment are placed into a systemic context to become a holistic system. To ask questions and to learn methodologies to find answers within all phases of the study is seen as a primary competence to be achieved so that complex relationships become understandable in a form which is verifiable and comprehensible for the students.

We see international experience and language skills as a key qualification for our students not only as a professional competence but overall as an intellectual and intercultural necessity.

Characteristics of an Ideal Graduate

“In a global world, interior design and interior architecture must play a role in facilitating the retention of cultural diversity.”

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In general, graduates should be able to lead by design in an increasing complex cultural and global context. Facing this complexity, graduates ought to recognize, analyze, and describe individual requirements and needs of their users in understanding human-centered design. Compared to the American system where a Master's program offers a specialization for students to enter practice or education, we have somewhat different distinctions between Bachelor's and Master's graduates in Germany depending on the duration and the thematic orientation of the program. The Federal Chamber of Architects defines three major areas of expertise for Interior Architects:

- to design and plan the interior of existing and new buildings,
- to organize and optimize the inner function, esthetics and atmosphere of objects in space, and
- to create an environment that supports the physical, psychological and social well-being of the human.

Bachelor graduates are expected to know general principles of design and construction to generate formal and functional concepts according to the defined requirements. With a qualification of 3 years or 4 years, the graduates are allowed to work in interior-related workplaces such as design studios, industries, and enterprises to gain first professional experience. Only with a 4-year qualification, are they able to apply for a membership at the Chamber. Or they may choose to continue their education in a Master's program. The Master's programs are only accessible with a selective admissions process that is defined by the universities themselves. All Master's graduates and all 4-year Bachelor's Graduates are allowed to apply for the title Interior Architect after two additional years of professional practice. Owing to these specific professional requirements, the Detmolder Schule für Architektur und Innenarchitektur is establishing two 5-year Bachelor programs in architecture and Interior Architecture starting in 2011. The curriculum of 4 years will be supplemented with integrated internships in collaboration with appropriate offices and companies that are organized with one internship semester and four part-time semesters with 3 days of practice each week. This continued commitment to practical experience stands beside the theoretical foundation at the university.

Both Bachelor's and Master's programs are enriched with specific collaborative projects based on international exchange and cooperation in the form of summer programs and academies in English language with partner universities. We see international experience and language skills as a key qualification for our students not only as a professional competence but overall as an intellectual and intercultural necessity.

Graduates from the Master's programs are able to work independently on complex projects to develop solution strategies. At the same time, the increase of the theoretical background in the context of research-orientated topics becomes a more important part of the curriculum. This means more indepth analyses of the social, environmental, and psychological context of a project and its users in ways that contributes to the quality of life.

From Interior Architecture's beginning origins in furniture design and residential decoration, the field started to change in the 1920s with the new understanding of space and an emerging emphasis on user behavior and social concerns.

The Evolution of the Discipline

"As design professionals, our knowledge enables us to form spaces that respond to human needs. These human spaces are the domain of our competence, our passion and our work."

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Within the last several decades, the professional profile of the Interior Architect shows increasing professionalization compared to the traditional job profile from the last century. From Interior Architecture's beginning origins in furniture design and residential decoration, the field started to change in the 1920s with the new understanding of space and an emerging emphasis on user behavior and social concerns. After the final establishment of Interior Architecture as academic discipline in the 1970s, a number of new areas appeared and broadened the practical design work and the education in Germany. Globalization has made corporate design strategies an important part of business and everyday life. The representation of companies through buildings, facades, interiors, events and branding of products and organizations require more developed design strategy and thinking. At the same time, the planning of virtual spaces and new technologies requires greater specialization and knowledge in architecture and interior architecture. File-to-factory production of buildings and environments has become a new necessity for design education in the market. These are not specific German or European developments but represent global phenomena.

But—taking into account demographic change—the traditional and essential task has to remain a central part of the design education: an individual person's immediate environment. This refers to the last listed point of expertise that an interior architect has to fulfill: the knowledge about the physical, psychological, and social well-being of the human. The Master's program in Detmold is paying special attention to this aspect of "human factors." This will be increasingly important as we modify existing private residences and develop new models of co-habitation and co-housing—especially in Europe in the context of the aging society. This will include the designing of pieces of furniture focusing on the flexibility of spaces and equipment.

Summary

As a professional educator and scholar in planning and design, I am convinced that the discipline of Interior Architecture has assumed a new importance and relevance from its roots in furnishing and decoration. The psychological and social dimensions of the profession more than justify a new academic anchoring in a range of social sciences and humanities-based disciplines. The profession is directly dealing with human well-being in the interior spatial context.

Globally the challenges appear diverse even contradictory. Although one part of the world is confronted with rapidly aging societies, the other part has to contest with rapidly expanding populations and megacities that threaten the basic conditions of life. If quality of life should be guaranteed in all parts of the world, the design and engineering disciplines that find formal and technical solutions have to be combined with human sciences within the planning disciplines to develop the best answers in each part of the world.

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Research plays a critical role by allowing those in the academy to partner with those in industry and practice. Together, we can ask questions and learn methodologies, to give answers addressing societies and world's challenges in building and living.

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Notes

- ¹The 16 German institutions are listed in alphabetic order, for better understanding the University of Applied Sciences (Fachhochschule or Hochschule according to German state laws) are labeled with the abbreviation UAP: Akademie der Bildenden Künste München; Burg Giebichenstein Kunsthochschule Halle; Detmolder Schule für Architektur und Innenarchitektur, Dept. of Hochschule Ostwestfalen-Lippe (UAP); Fachhochschule Hannover (UAP); Fachhochschule Mainz (UAP); Fachhochschule Kaiserslautern (UAP); Fachhochschule Stuttgart (UAP); Fachhochschule Trier (UAP); HAWK Hochschule für angewandte Wissenschaft und Kunst Hildesheim/Holzminde/Göttingen (UAP); Hochschule Coburg (UAP); Hochschule Darmstadt (UAP); Hochschule Rhein-Main in Wiesbaden (UAP); Hochschule Rosenheim (UAP); Hochschule Wismar (UAP); Muthesius Kunsthochschule, Kiel; Peter Behrens School of Architecture, Dept. of Fachhochschule Düsseldorf (UAP).
- ²The Bologna Process is a European initiative to make the standards of academic degree and quality more comparable within Europe—in this case the European Higher Education Area. It is named after the Bologna declaration that has been signed in 1999 of the by Education Ministers from 29 European countries. Actually there are 47 participating states, 27 of them member states of the European Union (EU). The main goal is to facilitate student, teaching and research mobility, and acknowledgement of degrees between the states and systems (www.ehea.info).
- ³Next to cabinetmaker "Raumausstattung" is the most related to what the origin of the profession was as interior decoration. This means that the space or building was modified only in relation to the surface, equipment, and furniture based on styles but not as a construction itself.
- ⁴Bundesarchitektenkammer (BAK): "The Federal Chamber of German Architects in Berlin is the umbrella organization of the Architects Chambers of the 16 German States (Länder)—bodies of public law." . . . "The designations 'architect,' 'interior architect,' 'garden and landscape architect' and 'urban planner' are protected by the rules and regulations of the Architects Chambers of the Länder. Only those who are registered in the relevant Architects' Chamber are allowed to be entitled." (www.bak.de).
- ⁵Raumstrategien and Bau- und Raumkunst are German expressions that refer to the space as central element of the design process. While Baukunst is usually understood as architecture, Raumkunst and Raumstrategien might be translated as spatial art. The focus here is the interpretation of spatial situations and relations within complex real and virtual concepts such as spatial scenarios, arrangements, installations, and productions.
- ⁶The Detmolder Schule für Architektur und Innenarchitektur is a department of Hochschule Ostwestfalen-Lippe (www.hs-owl.de/fb1) and one of the few universities in Germany that offer this combination of planning and design disciplines which allows many interdisciplinary activities. It has a close cooperation with the Department of Media Production (www.hs-owl.de/fb2) and the Academy of Music in Detmold (www.hfm.de).
- ⁷Most of the universities of Applied Sciences were founded in Germany in between 1971 and 1981 depending on the state's laws. With the foundations in 1971, the state of North-Rhine-Westphalia was among the first ones in Germany.
- ⁸The history of the institution in Detmold and its programmatic development is described in the "Chronik 1893–1971," which has been edited for the occasion of 90 years of education in the field of wood technology and interarchitecture.
- ⁹The programs are open to students with a qualifying study. As an international program, the "facademaster" is in English language (www.fassadenmaster.de), the other program on computational design and construction is offered in German language (www.m-cdc.de).

¹⁰As for Universities of Applied Sciences, research is a quite new topic that has been introduced into higher education laws only recently; in North-Rhine-Westphalia already in 1995, in Bavaria only in 2005. Further information about the research platforms and the specific projects at Detmolder Schule für Architektur und Innenarchitektur can be found at www.constructionlab.de and www.perceptionlab.de.

Professor Dr.-Ing. Uta Pottgiesser is Chair of Building Construction and Materials at Detmolder Schule für Architektur und Innenarchitektur at Hochschule Ostwestfalen-Lippe, University of Applied Sciences (HS OWL) in Germany. Here, she is co-founder and spokesperson of the research platform ConstructionLab and member of the research platform PerceptionLab where she is responsible for several research projects in cooperation with industry partners and small- and medium-sized enterprises (SME) including BayerMaterial Science AG. Her work on building construction, interior, and facade design has also led her to deal with research in the field of creative problem solving and product innovation. In her function as Vice-President for Research, Development, and Internationalization of the university from 2006 to 2011 she established strategies for research (2008) and internationalization (2010) and fostered the international cooperation in teaching and research with different countries and universities. She is personally responsible for cooperations with the United States, Brazil, and India. In 2010 Hochschule Ostwestfalen-Lippe (HS OWL) became a full member of the European University Association (EUA). Prof. Pottgiesser has a multidisciplinary background in architecture, civil engineering, and interior design. As a member of docomomo Germany and docomomo International she is also involved in the discussion about the understanding and protection of the heritage of Modern Movement—in particular concerning aspects of technology. Having earned her Ph.D. on multilayered glass constructions in 2002 from the Department of Civil Engineering at Technische Universität Dresden, she also holds a Diploma in Architecture from the Technische Universität Berlin. Her scientific work has a focus to material innovation, building, and facade construction. Before her academic career, she worked several years as a practicing architect—especially for office and administration buildings.