

Hochparterre Special Issue, June 2014

# The Zurich Model

The Department of Design at the Zurich University of the Arts is making its presence felt in the international arena, and at the same time rediscovering its own culture.



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## Editorial

# From Object to Relationship

The students of Design in Zurich are designing for a networked society – and while the Department of Design at the Zurich University of the Arts is a well established presence on the international design stage, it is also in the process of rediscovering its own culture.

This special issue provides insights into the “Zurich Model”. Köbi Gantenbein, Hochparterre's Editor-in-Chief and former Head of the Interior and Product Design Department, discusses the Zurich Model with Hansuli Matter, Gerhard Buurman and Michael Krohn. The design programme focuses on new media: graphic art and industrial design traditions are linked with today's economic and social situation. At the same time, there is a shift away from “auteur design” towards authorship – it is not the big design stars who are important, but collaborative networks.

We have come to see the Zurich Department of Design as a garden for experimentations: materials, processes and markets are developed playfully, students and staff think outside the box. One report leads us through the noise and dust of the Wood and Metal Workshop to the 3D printer, we accompany Zurich students designing games in collaboration with their Chinese and Indian colleagues, and we have a look at the “Incubator” sponsorship programme, an incubator promoting Zurich University of the Arts undergraduates' business acumen and powering them up for business life.

The images in this special issue are also powerful: Jonas Voegeli, Head of the specialisation “Visual Communication”, has transposed the current theme of the Department of Design into visuals. His investigative task has developed from images of each of the specialisations. With the map on pages 6 and 7, he has created a Department overview and signalises a universe that has evolved parallel to this book. As not all of the projects can be shown on 24 pages, the website [design.zhdk.ch/map](http://design.zhdk.ch/map) provides further digital information about the projects and activities. Finally, we cannot forget the people who learn and teach in Zurich – they are portrayed by Cortis & Sonderegger photographers. Lilia Glanzmann

## Masthead

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# Bridging the Gap

**Design education in the “Zurich Model” of ZHdK focuses on media formats and merges tradition with current economic and societal relevance.**

**Text:**  
Köbi Gantenbein

This issue's table of contents reveals at a glance that the classes for Interior and Product Design, Graphics and Textile Design, which were the mainstays of the Department of Design in the past, no longer exist. Instead you find “Interaction Design”, “Game Design”, “Cast / Audiovisual Media”, “Style & Design” and so on.

**Why has everything changed?**

**Hansuli Matter:** You can still study tried and tested subject areas such as “Visual Communication”, “Scientific Visualization” or “Industrial Design” as specialisations in the Bachelor's degree programme. For many years, we broached technical developments without being able to predict exactly where they would lead. Today, we know that by concentrating on media formats, we are dealing with topics relevant to modern society, economics and culture.

**What has been the reaction to this change from educational policy, and in the university's professional environment?**

**Michael Krohn:** Educational policy decreed the change, because at the time when the Swiss University of Applied Sciences and Arts was being set up, some of the subjects which had constituted a part of the self-conception of the Zurich School of Art and Design - Textile and Fashion Design, for example, or Interior Design - were transferred to other locations. Change also demands vocational reality: designers who design a table, a scarf or garden shears lose social and economic importance.

**A skill or talent that I really love in designers: they are aware of the power aesthetics can have, and they are able to produce sensual beauty on posters, using lighting or in interiors.**

**Is that still of interest to you?**

**Gerhard Buurman:** Classical aesthetic experience is also alive and well in the “Zurich Model”, but in contrast to others, we dare go into the breach to bridge the gap. I will give

you an example. Highly complex therapeutic equipment is invented by engineers to treat disabled children. The children are then subjected to therapeutic constraints by their therapists, with the result that the children rebel. We have designed a fun-based approach to the equipment and therapy. The children have told us how they would like to use the equipment, and we have created motivators for the therapy.

**Your predecessors, for example, Willy Guhl, Georg Schneider, Peter Eberhard, Urs Fanger, Bärbel Birkelbach and I, we were all extremely concerned with relevance and societal effectiveness. What is the central theme for all your models?**

**Hansuli Matter:** Our values and stance are closely linked to the department's history. However, the certainties of Modernism play a much less important role nowadays. Searching, experimenting without any calculable outcome and failing are all important factors. Design is no longer a canon of forms and procedures.

**How do you deal with students who come to the Department of Design expecting to learn a profession?**

**Gerhard Buurman:** We can claim to have opened up new professional sectors for design. Ten years ago, no one would have believed that "Game Design" had any future. Now we can point to any number of successful graduates specialising in this field. They not only design computer games for the entertainment business, but also for schools, education, or indeed for therapeutic purposes.

**Hansuli Matter:** The University's professional environment was more critical of the changes than the students. Students are much less reserved when it comes to trying out something new than established designers whose access to new developments is limited. The seven Bachelor degree specialisations are aligned to professional skills and career development – most of the professions are, however, new.

**Are these new topic fields taught in the same manner as Interior Design or Jewellery and Industrial Design used to be?**

**Students in those courses progressed step by step, honing their skills.**

**Michael Krohn:** Students learn to define their subject area during the Bachelor's degree programme. What is my topic, my discipline? What sorts of technological expertise, design skills and social knowledge are required from me? Project work allows students to link successful and unsuccessful learning, and they learn interdisciplinary discourse and gain an overview of transdisciplinary lectures with students from other departments. Students are far more independent than in the days when I was a student.

**Gerhard Buurman:** Students learn how to cope with uncertainty and to apply a continuous flow of new information to their activities. They are open to experiments without a defined outcome. We teach, for example, how important contingency or chance can be in a development. It is crucial to be able to recognise and classify contingencies.

**Where do students come from and what are the requirements?**

**Hansuli Matter:** 800 are interested in the courses, 350 apply and we accept 105 every year. We make sure that we bring together a variety of talents and experience. In the past, an apprenticeship was a requirement, but now it is either the Swiss academic or vocational baccalaureate. From time to time, we accept re-entry students with unconventional educational backgrounds. Teaching is based on the fact that people learn from each other, and so the people should not all be the same. Nowadays, some students know more than their teachers – for instance in computer programming.

The teacher is more of a mediator and facilitator for all the talents and skills assembled in the class than an omniscient master who tells people how things work. The teacher is, of course, well ahead of his students in terms of practical knowledge and experience.

**Where do the teachers and professors come from?**

**Michael Krohn:** They are also a broad and varied group. Experienced designers as well as theoreticians and experts from outside the design field. They are all people involved in other activities, for example working in a design studio. Few intend to stay until they retire. The "Zurich Model" promotes mobility.

**Gerhard Buurman:** There are an increasing number of colleagues who also studied here. We have really noticed the consequences of turning the college into a university. The challenge of participating in public life has increased. Teachers are more involved in social networking, must negotiate with financial backers for project funding, and must be able to work with engineering colleagues at the ETH (Swiss Federal Institute of Technology, Zurich) with which we have institutionalised collaborative agreement.

**If you take a look at this special issue, you notice from the reports that projects extend way beyond the borders of Zurich or Switzerland. What lies behind this?**

**Hansuli Matter:** Internationality is of great significance, not only for the department but for the whole University. This applies equally for our subject matter and teaching staff and for our students, especially those in our Master's degree programme. We established partnerships with Chinese universities very early on. Our graduates want to enjoy global mobility and should be able to prove their abilities at Swiss-based international companies. This influences teaching and research: "Design Cultures", for instance, maintains student exchanges with Chinese and Indian design institutions.

**Founding the University also meant research was added to the teaching duties. What is the department's current status?**

**Gerhard Buurman:** We have a long period of seeking and testing behind us. And we know that design processes are very similar to research procedures. Searching, producing, testing, measuring, evaluating, discussing and saving the findings. And we also know that our research priority is not the creation of better design but participating in individual or societal learning processes. The research question is: what can design contribute? We need to be able to work with every possible discipline and every single actor, and be able to present our way of seeing factual connections and drive change with our vision.

**Where will the "Zurich Model" be in five years' time?**

**Michael Krohn:** We are actors on the international stage. The old image of the design profession plays a much less important role. English will be used more and more for communication in teaching and research, and our voice will be important in speaking out against growing banality in design.

**Gerhard Buurman:** We are a garden for experiments, a place for important, emergent developments. Relevant questions arise at every point at which new technologies intersect with and impact societal norms. As a consequence, we are obliged to think about robots and other forms of autonomous technologies, and examine how to design such a world.

**Hansuli Matter:** Our playful curiosity allows us to dare to conduct open-ended experiments. We provide unexpected contributions and apply lateral thinking to important issues. We remain anchored locally: the fundamentally protestant ethic always leads us to ask, "Is what I am doing relevant?" ●

#### **The Roundtable**

Hansuli Matter is an Architect (ETH). He is interim Head of the Department of Design. He teaches and researches in the fields of Media, Urban Design and Interculturality.

Gerhard Buurman is a Designer. He studied Industrial Design in Essen, and currently teaches in the specialisations "Interaction Design" and "Game Design", both of which he established at the ZHdK. He is Head of the Institute for Design Research.

Michael Krohn is an Industrial Designer. He studied in Zurich, is co-owner of Formpol design studio and is responsible for the Master's degree programme of the Department of Design. In conjunction with Hansuli Matter he established the department's contacts with China and India.

Köbi Gantenbein is Editor-in-Chief of Hochparterre. Between 1986 and 2001 he was a member, and from 1995, Head of the Industrial Design specialisation at the HGKZ, which later became the Department of Design.

# Products & Spaces

## Style & Design

- Trends
- Event
- Visual Forecasting
- Social Intervention
- Fashion Theory
- Popular Cultures

## Industrial Design

- Social Design
- Maker Cultures
- Design with the other 90%
- Sports & Mobility
- Innovation

## Media

## Interaction Design

- Embodied Interaction
- Interactive Experience
- Interface Design
- Health Interaction

## Cast/Audiovisual Media

- Social Media & Digital Storytelling
- Transmedia

## Game Design

- Serious Games
- Game Cultures
- Game Production
- Game Mechanics

## Visual Communication

- Information Design
- Editorial Design
- Corporate Design
- Typography
- Drawing

## Communication

- Drawing
- Knowledge Visualization
- Scientific Visualization

## Scientific Visualization

## Basics & Theory

- Design Basics
- Design Theory
- Design Cultures
- Design Methods
- Entrepreneurship
- Economical Cultures

## Labs

- Wood and Metal Workshop
- Physical Computing Lab
- Game Lab
- Color Lab
- Tec Lab
- Virtual Worlds Lab

[design.zhdk.ch/map](http://design.zhdk.ch/map): virtual exploration of further dimensions of the Department of Design.

# Digital Competence

**Digital culture owes its great influence on professional training in Zurich to three courses: “Interactive Design”, “Game Design” and “Cast / Audiovisual Media”.**

Text: Urs Honegger

## Interaction Design: Focusing on humans, making changes

Karmen Franinović, Head of the “Interaction Design” course is convinced that “design has the power to change things”. She believes that it is more important to communicate this to her students than to teach them how to solve a particular problem. This way of thinking forms the basis for three essential competencies: it allows students to identify what role a particular technology plays in people’s lives, it enables them to find alternative ways of solving problems, and it gives them the opportunity to describe their projects and justify their decisions. In total, more than sixty students and almost twenty lecturers and assistants are involved in “Interaction Design” at ZHdK. Together they develop interfaces, systems and services, gain basic knowledge in graphic, sound, and product design and deal with haptic and mobile technologies. Take Dinis Meier’s and Samuel Bauer’s “Arm Coach” project, for example. It investigates the use of interactive systems to help patients who have suffered stroke during rehabilitation. As a result of their research, the two students developed →





→ a bracelet with a tactile interface, which tells patients how much training they have done – as a means of motivating them to work harder at their rehabilitation. The two developers tested their prototype on volunteers from among their friends. Neurologist and ETH professor Andreas Luft expressed his enthusiasm for the product. Karmen Franinović explains: “His reaction shows that our methods work.” As the Head of this specialisation, she believes that the process during which the students consolidated their field research results in order to develop a concept is a perfect example for “Interaction Design”: “The design process has led the students to new solutions which are then turned into a finished product”, Franinović says.

Not all projects deal directly with the user of a device. As part of the “Enactive Environments” research project, Luke Franzke tested intelligent materials for his Master’s thesis. His field is the phenomenon of electroluminescence: electric current can make solid objects glow. Franzke tested which biodegradable materials could be printed on with electroluminescent materials. He noticed by chance that the coated material not only started to glow when he put pressure on it but also delivered a sound. “Franzke’s research results could lead to concrete applications in future, for example new interior lighting for cars”, explains Karmen Franinović. His Master’s thesis also deals with the aesthetics of such dynamic materials: “How must we design materials for the use in a device which is not thrown away as soon as a new model is developed?”

#### **The Institute for Design Research**

Anchored in the Department of Design, the Institute for Design Research (IDE) brings together activities in three core research areas: “Products & Spaces” deals with issues relating to architecture and urban areas, “Infrastructure and Services” searches for new solutions for products, systems and services, and “Theory and Methods” investigates design methods and approaches. The institute aims to develop new design research fields. In the research field “Applied & Serious Games”, for instance, functions and impact of games and game dimensions are analysed and taken to a higher level; the research field “Interaction”, to give another example, deals with issues concerning human-machine interaction and possible applications in various real-life contexts. More on the Internet: [ide.zhdk.ch](http://ide.zhdk.ch)

# Game Design: Extremely wide with sharp edges

The “Game Design” course also deals with social questions. The “Gabarello” therapy game, for example see Hochparterre 6-7/10 was a showpiece project in 2010. Developed by the university in co-operation with Zurich Paediatric Clinic, ETH, and robot manufacturer Hocoma, it helps children with brain damage to learn how to walk again. “Gabarello” challenged received wisdom: computer games are much more than futile shooting games.

Research is taken a step further with “iMiC – Innovative Movement Therapies in Childhood”. “While ‘Gabarello’ consisted of a game for a therapy robot, we have developed a software node for ‘iMiC’ to which different games and therapy devices can be connected”, explains René Bauer who teaches “Game Programming”. Patients can do several exercises simultaneously, for example training their arms and their torsos. Ulrich Götz, Head of specialisation, describes “iMiC” as an “ideal link between research and theory”. The project means questions regarding research can be asked whilst developing new games for particular applications. “The research results are then used as specific tasks in seminars”, Götz explains. “And the different project partners have been successfully involved in the project for more than four years.”

“Gamification” is on everyone’s lips: games can be found more and more often in all areas of everyday life. “Our discipline is extremely wide and sharp at the edges”, explains Ulrich Götz. At all times, students are aware of what their studies are about: computer games. “The clear delimitation is certainly due to the fact that this discipline is not very old”, says Götz. He mentions the “Big Bang” of the 1980s when the first video games became socially relevant.

Today, 45 Bachelor students (women are well represented, and make up 36 percent of undergraduates), 10 Master students and around 15 lecturers are involved in “Game Design” at ZHdK. In the three-year course, the Bachelor students learn to understand how games function. They obtain the skills necessary for the production of games and use their knowledge to create their own

games. “All our graduates should be able to master complex projects from A to Z, either in a team or by themselves”, explains the Head of specialisation. He mentions the “Kobold” (goblin) game as an example of a success story: five graduates founded a company based on the idea they had developed for a game in their fourth semester. During a study trip they were able to present their project to the German developer Daedalic, and they returned home with a contract. Last year they received funds from Pro Helvetia’s “Game Culture” incentive programme, and today the resulting game, “Journey of a Roach” is commercially available.

There are other examples for ZHdK’s international success: Daniel Lutz works for the game giant EA, Thomas Frey and Renzo Thönen have produced a bestseller with their “Agriculture Simulator”, and Flurin Jenal’s Master thesis contributes to new developments in the field of visualisation technologies at the Zurich Disney Research Lab.

## Cast / Audiovisual Media: Short stories for small screens

What holds true for computer games also applies for screens: they can be found everywhere – at home, in the car, at the station, in the tram, in our bags and pockets, in the office. Independent of its size, anything that is a screen wants to be used for games. To this end, approx. 10 young students graduate in “Cast / Audiovisual Design” at ZHdK every year. “Cast” is derived from “broadcast” or “podcast” and describes everything that can be shown on a screen. “Here, our students learn to produce audiovisual products for different platforms”, explains Martin Zimmer, Head of specialisation. “They obtain the skills to work in the convergent production of media companies.” “Cast” graduates work as motion graphic designers, social media managers or art directors in large companies such as Swiss TV, in the Digital Department of “Publicis” or for the “Joiz” TV channel for youngsters.

The curriculum requires constant changes to keep up with the constant and rapid changes the digital media world is subject to. To this end, modules are adapted – in recent years modules such as “Tablet Content”, “Audio

Slide Show” or “Flashmobs” were provided, with the participation of visiting faculty from the relevant industries. “Today there are still not enough audio-visual training facilities in Switzerland”, says Zimmer. He hopes that this area will be professionalised in the years to come.

The greatest challenge of a “Cast” project often awaits students in the initial phase. “The students underestimate the time required to do research on a specific topic and to develop stories”, Zimmer states. They are often too keen to dive into the technical implementation, and find themselves confronted at the end with weak content. Eight female and one male student have learnt to overcome this challenge: last year, they developed the “Night Shifts” app during a three-month semester course. “Night Shifts” tells seven stories about the Zurich nightlife and was presented with the “Best of Swiss Apps 2013” Gold Award in the News category. “We took a risk when we decided to run videos in an app”, explains Zimmer. The Berlin-based digital agency “Astronaut” found a technical solution to the problem, but it had to adapt it to the project. “Night Shifts” is on various platforms: on the project website, on Facebook, on YouTube and in App Store. An appropriate presence needed to be created for each channel. “Today, a designer is not simply a designer and producer but also a publisher”, Martin Zimmer says, pointing to a fundamental premise for the “Cast / Audiovisual Media” course with respect to the new media world. ●

**More on the Internet**  
[cast.zhdk.ch](http://cast.zhdk.ch)  
[gamedesign.zhdk.ch](http://gamedesign.zhdk.ch)  
[iad.zhdk.ch](http://iad.zhdk.ch)





# Handmade

**A visit to the Wood and Metal Workshop shows how disciplines mix and offer mutual inspiration on an every day basis. Highbrow ideas meet eyebrow models from the 3D printer.**

**Text:**  
Rebekka Kiesewetter

The very word "workshop" is haptic. Workshop implies noise and dust, and in this regard, the one at Zurich University of the Arts is no exception. The workshop's resolute worldliness might just be the reason why its Head, Thomas Tobler, is so important – he knows how to operate the machines, knows which materials to use when, and is on hand to help when solutions remain out of reach. It is hard to imagine the workshop functioning without him. But it should function, because just as in shared accommodation the rules and cleaning rotas are pinned to the wall. Organisation is essential, even if each workshop user must ultimately assume personal responsibility. At peak times, fifty people use the rooms, workplaces and machines distributed over two floors. "We are very well equipped, but prefer equipment which means you also have to do some manual work", says Tobler.

Tobler has worked for fourteen years at Sihlquai. "An increasing number of students have never set foot in a workshop before coming here", he says. They all know him and he knows them all too. Generations of "Industrial Design" undergraduates, as well as students who usually work in the "Labs", are allowed almost unlimited use of machinery and rooms, after an induction at the beginning of their degree programme.

## Encounters

Most of the rooms where students test and apply what they have learnt are called "Labs". The word workshop may be synonymous with physical work, whereas there is something cerebral about the cutting-edge technology in the training rooms in the main building on Ausstellungsstrasse: intangible processes and results, measurements of the invisible. The workshop and simple tools are also open for use by "Lab" workers, e.g., the future Game Designers and Interaction Designers. Thomas Tobler believes this is ideal. "Students from all different specialisations meet here, exchange knowledge, help each other. I know what everyone is working on." Students who are at a total loss as how to proceed, can turn to him or his colleague Armando Wehrli, a trained carpenter. Thomas Tobler trained as a polymechanic and manual arts teacher, he learned to use such equipment as the 3D printer.

A cutting laser stands next to the 3D printer in the workshop. Much to the joy of students specialising in "Visual Communication", it can produce complex printing plates; the posters they have printed using this technol-

ogy hang next to the machine. The work of a Scientific Illustrator, an intricate three-dimensional print model of a Neanderthal head, stands on the bench between the grinding machines. Everywhere you look, you see trial pieces from the "Tec Lab": 3D technology is further developed in terms of different materials and everyday usability. This is where students work on design engineering using home made printers, putting potential innovations to the test on the higher-performance machines in the workshop. Tobler comments: "It would be great to have a printer to print industrial clay models."

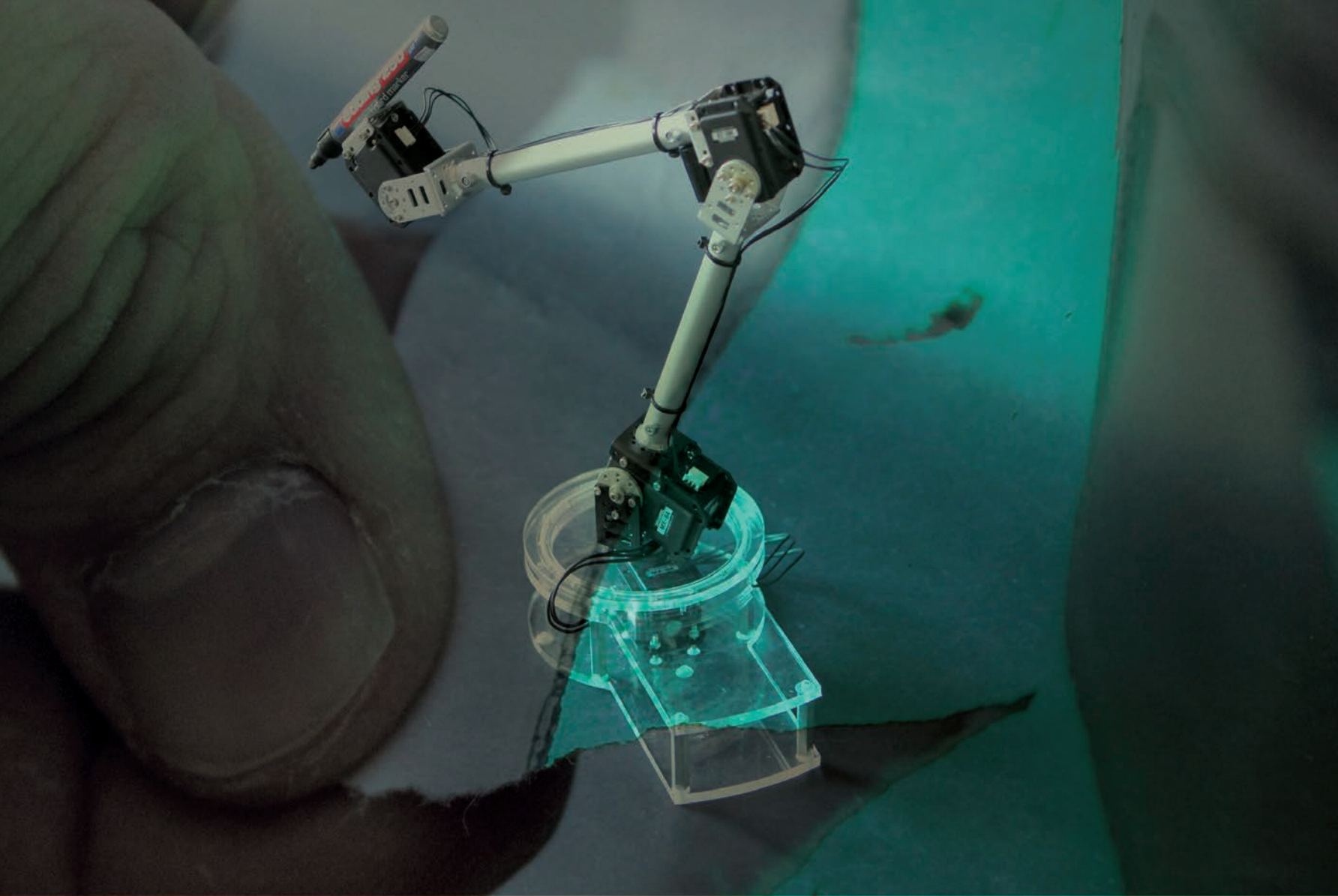
## Testing models

In the workshop's basement, where the computerised material database is located, students work using this modelling clay. Teaching and learning also takes place here. A hybrid model, a cross between a Volkswagen Beetle and the Imperial Stormtroopers' helmet from Star Wars, lies on a table. It is the design for a robotic tortoise for a Disney theme park, developed by Zurich University of the Arts' Bachelor's degree programme students in collaboration with the Swiss Federal Institute of Technology. In the room opposite, Gyro Gearloose appears to be holding sway. A wooden vehicle with flat-screens mounted onto bent bars is parked in one corner, and the rough framework is covered in a black tarpaulin. One of the students is pushed through the streets in this vehicle to substantiate his Master's thesis proposition: that being driven very slowly through town in an autonomous vehicle and, for example, able to deal with office tasks at the same time is a pleasant experience.

An Interaction Designer sits at a computer working on a project supported by the Institute for Design Research, and Thomas Tobler works collaboratively as an expert for the actual implementation. A bird flight simulator is being developed for an exhibition. How much sensory input is required for a human to become a bird in terms of perception? To what extent can interfaces influence perception? Where is the dividing line separating the systems? The programme for the simulator was developed in the "Digital Lab", and is now being implemented in the workshop. Complex electronics controlling the flight movements are tested on a full-sized model, everything must be just right in terms of tactile perception and ergonomics. This is applied fundamental research and the findings are relevant and valuable for a variety of areas. Experimenting and trying out, envisaging and testing, "Labs" and workshop. When these facilities are spatially adjacent, as they will be in the new Toni-Areal university complex, communication will intensify even more. ●

**Even more workshops**  
Design should not merely be seen as creating forms but also as an investigative practice, as an instrument for acquiring scientific knowledge. The principal research method at the Institute for Design Research of the Zurich University of the Arts is creative experimentation, and it is carried out in the laboratories of various disciplines. Students, teachers, experts and practitioners have access not only to the Wood and Metal Workshop, but to other laboratories for their own or contract research: The "Tec Lab", currently involved mainly in the field of 3D printing, the "Virtual Worlds Lab", where options and horizons for the 3D internet are being developed, the "Farb-Licht-Zentrum" for colour and light, the "Game Lab" and the "Physical Computing Lab", which is a research laboratory for the specialisation "Interaction Design".

**More on the Internet**  
[design.zhdk.ch/labs](http://design.zhdk.ch/labs)



# The Ethnological Viewpoint

**Observing things, deciphering and redesigning them – students examine "Design Cultures" in intercultural teams using ethnographic research.**

Text:  
Francis Müller

Most of our everyday behaviour is automatic. We know how to open a can of beer and how a smartphone functions. And we do not behave the same way at a salsa concert as we do at the theatre. Only when this behaviour is in some way disrupted, do we consciously reflect on this knowledge. When confronted with different greeting rituals in a foreign culture, we notice the blind spot of which we are generally unaware in our everyday life. At this point, learned behavioural patterns are now understood as contingencies. Contingency awareness is an important requirement for designers. They have to see the day-to-day world through ethnological eyes. They often deal with realities in societies unfamiliar to them. If you design something for Korean tourists, dementia sufferers, couch surfers or prospective insect eaters, you have to be able to stand in their shoes. When the environment is familiar, you have to take a step back; when it is foreign, you have to move closer and develop empathy.

## Summer school and "Style & Design"

These kinds of considerations – and, of course, because cultural and economic globalisation is a reality – led to a proposal of the Department of Design at Zurich University of the Arts to set up the International Design Summer School (IDSS) in 2013, a project in collaboration with universities from India (National Institute of Design, Srishti School of Art, Design and Technology and JJ Art School) and from China (Tongji University and Jiangnan University). The IDSS takes place in China in summer 2014, and will, as in the previous year, include ten students from Zurich University of the Arts. The Indian partner universities will host the summer school in 2015. In the medium-term, there are plans to include a Latin-American university.

Thirty students and a number of teaching staff from China, India and Switzerland took part in the first IDSS in Zurich. The theme was "Transferring our Traditions: The Future of Design! From Block Print to 3D Print". Traditional or modern printing techniques were not specified as a

topic but acted as a metaphor for tradition and innovation. Ten groups, each comprising one student from China, India and Switzerland, focused on a problem for a two-week period, carried out small-scale experiments and developed a design solution. One group, for instance, observed human behaviour on public transport or waiting at bus stops or stations.

Another group concentrated on time spent waiting at airports, places where people of different origins cross paths but rarely communicate. A game was used to bridge the anonymity gap. The point in question is that in any given society the rules of a game usually go unchallenged and are also a cultural construct. "Initially, we looked at board games from several cultures and presented the most interesting versions from India, China and Switzerland", says Nils Loos, a student of Industrial Design at the University of the Arts in Zurich. People got to know each other this way before starting the group work. "This exchange is teaching me how we should be open-minded in regard to other cultures and should break down the barriers of reserve, and despite differences, there are also a lot of similarities."

The specialisation course "Style & Design", where analyses of the everyday world and consumer culture form the basis for design, also focuses on the ethnological viewpoint. The module "Ethnographic Field Research" has existed since the Bachelor's degree programme was set up ten years ago. Students examine the small worlds of different groups of people: such as body builders, taxi drivers, gaming communities, Jewish women in the third district of Zurich, rabbit breeders, models, or the social behaviour in a café, a sex shop or a Buddhist temple. In most of these urban micro-cultures, behaviour, language, symbols and signs act as means of differentiation from the external environment, thereby generating an internal common identity.

Experiencing alienation towards familiar culture by immersion in nearby social environments, as happens in the "Style & Design" specialisation, or by working in a cross-cultural group in IDSS – in both cases the distance leads to new, inspirational and surprising perspectives. Francis Müller is lecturer in the Department of Design at the Zurich University of the Arts. ●





# Intense Affairs

**The specialisation "Industrial Design" is committed to transdisciplinary collaboration in the development of new materials and technological designs.**

Text:  
Armin Scharf

"Can't live with them, can't live without them" may well be the classic dilemma for designers and technicians, but it is an outmoded attitude. What can be done to form a partnership of equals between designers and technicians? Practice, and if possible, collaboration during their undergraduate years. This is exactly what the specialisation "Industrial Design" at Zurich University of the Arts does, and with great success. Reason enough to develop this strategy even further.

Collaboration has been practised systematically since the beginning of this year: in the "Design & Technology Lab", set up jointly by the University of the Arts (ZHdK) and the Federal Institute of Technology (ETH), and located in the Zurich Technopark. Students from the specialisation "Industrial Design" work alongside their engineering colleagues from the ETH. "We want to undo old hostile attitudes by fostering the culture of cooperation and by promoting a common language and mutual understanding", says Sandra Kaufmann. She and Nicole Kind are in charge of the "Industrial Design" specialisation at ZHdK.

Mirko Meboldt, professor for Product Development and Design at the ETH is their counterpart. Meboldt is one of a new generation of engineers who see design as an intrinsic part of the development process. "Our partners at the ETH are really keen on the exchange with ZHdK", says Nicole Kind, "and have been, right from the outset of the project."

## Special category space

Constructive cooperation has proved its worth: students from the ETH and ZHdK have been working together in collaborative projects, so-called Focus Projects, for about seven years. The teams work to find implementable solutions for a range of challenges, usually set by companies. The "Ship Inspection Robot", a small monitoring vehicle, which examines the hulls of double-hull ships for any dangerous changes in the material, is a recent innovation. Six engineering and two electro-technology students from the ETH worked alongside two future Industrial Designers from the ZHdK. An exciting combination, bringing together the empirical approach of some participants with the more scientific approach of others. This becomes particularly evident, according to Sandra Kaufmann, in dealings with models. "Our students are used to working with mod-

els from the very initial phases, whereas engineers only do this when a lot of the design work has been completed." Such projects, fully-funded, incidentally, by partners from industry, not only facilitate know-how transfer between the students but also establish a culture of open collaboration. The fruits of these labours are obvious already, and Nicole Kind is happy to say: "Engineering graduates now make sure that their companies also recruit designers."

The "Design & Technology Lab" lends more prominence to the transdisciplinary work in the training programme. In the future, all prospective Industrial Designers should be involved in one, or even better, more than one project in the "Lab" during their six-semester Bachelor's degree programme. As the "Lab" is located neither at the ETH nor at the ZHdK it creates a special category area where new ideas can flourish – and ideally the Technopark environment can act as inspiration. At this point, at the very latest, the big question is raised: who pays for all of this? Sandra Kaufmann answers: "We have received start-up financing from the Gebert Rütli Foundation." The foundation supports, amongst other things, projects at Swiss universities combining science, technology and design. In other words, exactly what is envisaged for the new "Lab". The foundation provides the financial basis for two years – then the "Design & Technology Lab" has to pay for the room, material and staff costs itself, by means of external funding, for example through external projects.

## Design and Material

The Swiss Federal Laboratories for Materials Science and Technology (EMPA) is also involved, since successful designs often grow out of new, innovative materials. EMPA sets the pace in this field – and, as such, is an ideal partner for the ZHdK. "This means we are at the cutting-edge when it comes to material development, and we can showcase concrete applications for the new developments." A win-win situation, because the research work visualisation also benefits EMPA.

Ultimately, the two teachers' primary objective is: "We want to get back to the core of industrial design, we do not care about "Auteur Design" but about conceptually new approaches which link technological innovation with ecology and societal relevance." The "Design & Technology Lab" is a logical element, a place for lateral and innovative thinking. The "Lab" stands for the start of an intense affair: Sandra Kaufmann and Nicole Kind are already planning joint teaching events with engineering students and want to include other disciplines, too. ●

**Fascinating Treasure:  
The Materials Archive**  
Long lists of specifications and diagrams – that is the usual abstract appearance of the world of materials. The Materials Archive has taken a different approach with its seven decentralised collections: materials lie in drawers, shelves and cupboards – original samples just waiting to be selected by designers from many fields. The ZHdK collection is represented on the Net. You can carry out research from your own computer. Nearly all the materials – plastic, for example, but also natural materials, building materials or pigments – are stored in a substantial, and yet readily accessible database.

**More on the Internet**  
vid.zhdk.ch  
www.materialarchiv.ch



# Saying it with Pictures

**Information Designers process complex facts, turning them into comprehensible representations for practical applications and research.**

Text:  
Lilia Glanzmann

"We make the invisible visible", says Cybu Richli. The Visual Designer teaches Information Design in Zurich and has been in charge of the specialisation "Communication" in the Master's degree programme for two years. Information Design plays a major role alongside Identity and Brand, Editorial Design and Scientific Visualization in the programme. The task is to illustrate complex information in a comprehensible, and at the same time, aesthetic manner. The Environment Ministry website, for example, visualises phenomena such as glacial retreat, crude oil shortage or air pollution. The aim is to show people why global water shortage also affects Switzerland although it is said to be Europe's water reservoir. Specialisations such as "Scientific Visualization" and "Visual Communication" courses teach students how to communicate abstract knowledge by means of pictures and visualisations, i. e. "Visual Knowledge".

## From photo to scheme

Cybu Richli's design studio, C2F, has already converted large amounts of data into an expressive and legible form for the "New York Times". He shares his knowledge with students in Zurich. "Information Design is a new area which has become very important in our digital age", he explains.

The Information Design course begins with the iconicity scale, i. e. the degree of abstraction to be used in an illustration: "The students must decide on how realistic or schematic their depiction of the information will be", says Richli. They practice by creating different abstract visualisations of a football. At first they take a photo of the object, then they make a realistic drawing, they illustrate it and design an abstracted icon of which they make a schematic drawing. The students' work is still analogue: "During the first two weeks of the module I do not allow students to use a computer", says Richli. He focuses on experimenting, drawing, cutting and model construction, for instance for the "Information Design systems for daily papers" project last November. First, the fifth-semester Bachelor's degree programme undergraduates investigated infographics used by contemporary print media. Even though the demand for infographics is currently growing, editorial departments lack the systems required to generate such graphics efficiently; they also lack the resources to develop new design approaches. "As they are always under time pressure, bar charts and tables are normally used", says Richli.

In the second half of the module, the students were given the task of responding to this situation by coming up with new forms and concepts for Information Design systems. What are the appropriate pieces of information

for the representation? How can visualization and text be combined in a newspaper layout? And how can these types of image be efficiently generated in the course of day-to-day business? The lecturer's open briefing gave his students a great deal of scope, allowing them the freedom to conduct multiple experiments and develop their own ideas. "New images can only be developed by means of visual experiments", explains Cybu Richli. It is essential not to deal with Information Design on a purely intellectual level. What is needed are aesthetic, emotional and high-quality representations suitable for practical application.

"You must never forget that, in addition to an attractive image, the information stands in the foreground, and that colour, for example, has a function", Richli explains. He perceives Information Design as three-dimensional: "While the conventional depiction of information used to be on an x-axis and a y-axis, we have another axis today: the z-axis. We can make use of interaction and movement."

In the final phase, the students used their newly developed systems to process topical information and reports, and visualised them in their own newspapers. They portrayed the key moments of a football match in colour, and created a schematic presentation of the weather using levels of precipitation, humidity and wind direction. In so doing, they generated new design strategies and established their own visual repertoire. However, they failed to solve the problem of how infographics can be generated so efficiently that they remain competitive for money-saving newspapers. "We must deal with this problem in another project", the lecturer says. He believes the project is a good example of research and practice-oriented tuition. "Projects with an ideal combination of research and practical application can take a subject area forwards."

## Taking on responsibility

The integration of research and practical application is the aim of the Research Focus "Product & Space" of the Institute for Design Research see margin column. With Tanja Herdt at the helm, the Department of Design is currently working on the "Atlas" mapping project. "Taking the Zurich agglomeration as an example, our intention is to illustrate the relationship between social functions and the spatial qualities of city life", she says. They are working together with "Interaction Design" and "Visual Communication" to create electronic maps allowing us to make new statements about the use of space. Initial results are to be presented at the end of the year. Cybu Richli's aim is to convey to his students their responsibility in this respect. "Someone who illustrates information for political purposes, for example, can distort the facts by presenting exaggerated images - this can turn out to be dangerous."

Cybu Richli believes that Information Design is an important course for design students. "Even designers who work for agencies will sooner or later be confronted with Information Design." ●

## Specialisation

### "Scientific Visualization"

Images are a central tool for creating understanding and awareness. Scientific illustrators make important, independent contributions to the comprehension and communication of complex scientific data by means of their illustrations. Students specialising in "Scientific Visualization" work closely with specialists and institutions from varying areas of expertise to develop visual solutions facilitating knowledge transfer for both experts and general public audiences. Scientific illustrations are closely linked to the use of digital media and increasingly exploit a wide range of interaction and animation tools.

## More on the Internet

ide.zhdk.ch  
vsv.zhdk.ch  
vkv.zhdk.ch



# Incubating Design

**More than half of ZHdK graduates become self-employed after their studies. The “Incubator” offers them a chance to make their ideas ready for the market.**

Text:  
Meret Ernst

The address on the invitation suited the occasion: Pfingstweidstrasse 31A, an office building in the middle of Zurich West. A crowd of guests filled the former Executive Room. The autumnal evening sun shone down on the green rooftop and through the floor-to-ceiling windows, casting warm shadows on the walls. An official was humming; there was a scraping noise of chairs being moved. The “Incubator” was about to be launched. The incubator? A perfect description for the concept about to be presented: an incubator for ideas and projects to be developed and made market-ready, a passage between professional training and self-employment.

The seven happy candidates who had been accepted into the subsidised programme introduced themselves in quick succession. Evidently, they had all long since internalised the concept that “the first impression counts”, and that any new idea should be presented in three sentences or fewer. This was true no matter whether they were presenting an idea for an internet-based video channel for cultural events, a consultant’s office for visual artists, or a collection of embroidered scarves. They had different hopes, but they shared the same goal: they wanted to bring their ideas to the market. The aim of the start-up project “Pour les Alpes” by Product Designers Annina Gähwiler and Tina Stieger? “To develop exclusive design objects for corporate clients in cooperation with traditional artisans”, explains Tina Stieger. They want to make use of regional resources and traditional craft in their work.

They re-define “Swissness”, and want, in so doing, to create a new value-added chain. Annina Gähwiler adds: “We offer a service that combines tradition with innovation. Thus we make use of a company’s special features, combine them with design criteria and re-interpret them by creating a new product.” In 2007, they received the Pro Helvetia “Echo Award” for their first collection. In 2012, Tina Stieger did her Master’s degree in Design at ZHdK. In the “Incubator”, the two ladies are now working on making their label economically viable.

## **Making ideas commercially viable**

The two prospective entrepreneurs certainly do not lack ideas. But they do lack the tools and the experience to transform a creative idea into a business idea. An answer to this question is not only required in practice; it is also a research topic at a university which trains its graduates for creative industries. It is a question of paramount importance for a discipline such as design which always combines its own ideas with service.

Pietro Morandi wants to improve the graduates’ innate skills. He believes that this is much better for them than dependency on subsidies. What does a university need to do in this respect? And what reasons can be pro-

vided? The economic and social historian has been at the helm of the “Cultural Entrepreneurship at artistic design universities” research and development project in co-operation with the Basel Design and Art University since 2012. The project is supported by the Gebert Rüt and Avina Foundations. The purpose is to gain a better understanding of entrepreneurial action in cultural industries. “The aim of the project is to establish interdisciplinary options for professional and further education on a solid scientific basis”, Morandi explained. The “Incubator”, as an idea partly developed by the Department of Design is a prime example.

As a pilot scheme, the “Incubator” offers selected students and alumni jobs. They benefit from the ZHdK infrastructure and its mentors and experts, who supervise the projects. This supervision is required as the project is tested every semester: each time, the candidates have twenty minutes to present their idea and their progress to experts. Making such pitches for their projects gives participants a chance to practise a cultural technique crucial to almost all creative industries. It is essential to define the idea, the business plan, potential sponsors, and the target in a convincing manner, because the board of experts use these criteria to decide whether or not a candidate can stay in the “Incubator”. “We thus create an interface with the market which is of great importance to our discipline. It is the key for designers, who are closest to the market”, says designer Michael Krohn, Head of the Master’s degree programme and Lead of the Field of Excellence “Product”. For quite some time he has been thinking about how the university can offer a Master’s course for entrepreneurially-oriented designers in addition to the classic research-based Master’s programme. “We take the knowledge and experience from research around projects conducted in the Master programme and feed it back into education and design activities”.

## **Making progress together**

In the “Incubator” there are few participants with a background in liberal arts. This could, however, change since students from all areas are entitled to apply. The majority of projects have their origin in design, movies and photography. Yet, at present, one music project and one project from the Zurich University of Applied Science are in the race. The success of the “Incubator” is based on such a discipline mix and the distance to the university. On entering the “Incubator”, the participants leave the sheltered environment provided by professional education institutions. Participants in the “Incubator” are no longer treated as students but as prospective entrepreneurs. They pay 400 Swiss francs per month for their participation, a workplace and the use of the “Incubator” infrastructure. The “Incubator” was deliberately set up near the Toni-Areal where ZHdK is moving this summer – as such, it is now located precisely where creative businesses can be found in numerous studios and offices. ●

**Interdisciplinary work**  
With its “Incubator” concept, ZHdK strengthens its interdisciplinary competence among students and lecturers. Alumni and university students who wish to apply for the course, which prepares them for entering the market, have to submit a project or a business idea which “in addition to making a cultural, artistic and social impact, strives for sustainable success in the market”. Projects aimed merely at the classic tools for promoting culture and sponsoring are excluded.

**More on the Internet**  
[master.design.zhdk.ch](http://master.design.zhdk.ch)  
[www.zhdk.ch/inkubator](http://www.zhdk.ch/inkubator)



## The Zurich Model

The Department of Design at the Zurich University of the Arts is making its presence felt in the international arena, and at the same time rediscovering its own culture. This special issue provides an insight into the "Zurich Model": The Design programme focuses on the linkages between new media, traditions of graphic art and industrial design and contemporary economic and social realities. At the same time, it embodies the shift away from "Auteur Design" towards authorship – it is not the big design star who is important, but collaborative networks.

[design.zhdk.ch](http://design.zhdk.ch)

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