



University  
of Basel

# UNINOVA

University of Basel Research Magazine – N°126 / October 2015



Eastern Europe  
On costumes, conflicts, and  
cultural spaces.

**In conversation**

**A revolution  
in cancer therapy.**

**Debate**

**Opportunities and  
risks of big data.**

**Album**

**In the footsteps of  
Darwin with cichlids.**

**Research**

**Surgeons and engineers  
pull together.**

FONDATION **BEYELER**

4. 10. 2015–10. 1. 2016

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**In Search of 0,10**  
**Kazimir Malevich and**  
**the russian avantgarde**

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**About this edition**  
**Excellent design –**  
**excellent research**

We set to work on this edition with particular vigor, as we are permitted not only to present excellent research but also to do so in an excellent format: the corporate design of the University of Basel, developed and implemented in the past few months by the Basel agency NEW ID, has been given the “Red Dot Communication Design Award 2015” and been nominated for the “German Design Award 2016” (page 64).

Of course, we have to admit that without the quality of the work done at the university there cannot be an excellent communication design. The photograph of the flea under the scanning electron microscope that is shown on page 6, for instance, was colored by the scientific photographer Martin Oeggerli using a complex procedure on the computer. His work inspired National Geographic to create the IMAX film “Unseen World”, to which a team from the University of Basel made a major contribution. During the conception and production of this edition we had the privilege of being allowed to observe the researchers at close quarters. We hope that we can pass our enthusiasm for their research on to you with this magazine. ■



## From Eastern Europe to Lake Tanganyika.

In the Fall Semester 2005/06, almost twenty students enrolled in the new Bachelor’s degree program in Eastern European Studies. Initiators of this new course believe that a converging Europe requires Eastern Europe experts, and the University of Basel is the very place to educate these specialists. The creation of this degree course is a pioneering move by the University of Basel, and the results of the past months and years prove that this was a smart decision at the time: During the crisis in Ukraine especially, the views of our experts were widely sought after by the media and politicians in interviews. On the 10-year anniversary of the founding of the Eastern European Studies program, the focus of this UNI NOVA issue will reveal just how broad the scope of research into Eastern Europe is at the University of Basel.

This magazine also offers an ideal reflection of the wide range of expertise available at our full university: The oncologist Alfred Zippelius describes the enormous progress made in immunotherapy; from art historian Mechtild Widrich we learn more about urban research within the framework of the eikones focal area, and economist Heinz Zimmermann explains the uses of futures transactions. Finally, we immerse ourselves together with Walter Salzburger in the depths of the East African Lake Tanganyika, where, in the footsteps of Darwin, the evolutionary biologist catches cichlids for his research.

These experts – together with their fellow professors and outstanding colleagues – contribute decisively to the success of the University of Basel as one of the top 100 universities in the world. And UNI NOVA offers us the opportunity to take a look over the shoulders of our researchers as they work. I hope that you enjoy this rich and informative read.

Professor Andrea Schenker-Wicki  
Rector of the University of Basel

### **Andrea Schenker-Wicki**

became Rector of the University of Basel on August 1, 2015. From 2001 to 2015, she was a full professor of business administration at the University of Zurich and director of the Executive MBA and the CAS program “Fundamentals of Business Management.” Between 2012 and 2014, she also held the office of Vice President for Law and Economics at the University of Zurich.



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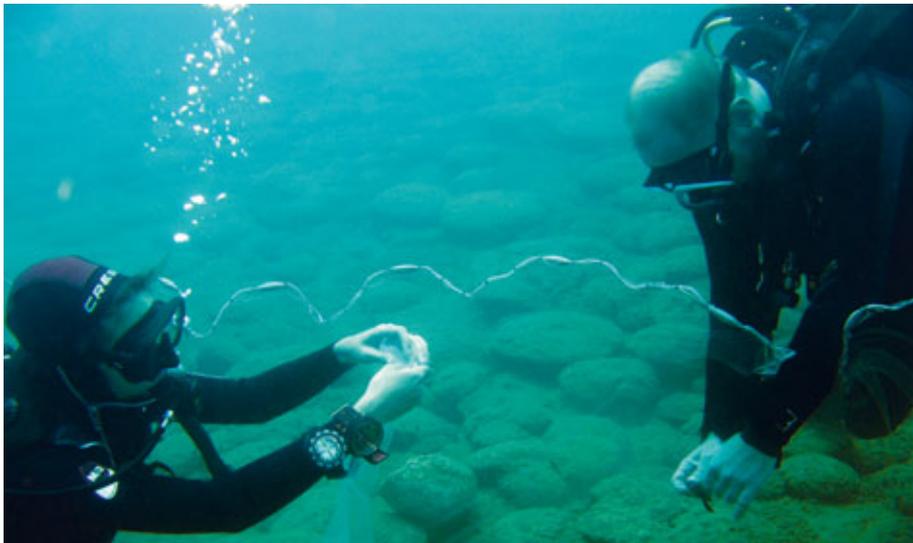
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UNI NOVA,  
University of Basel Research Magazine.  
Published by the University of Basel, Communications & Marketing, Matthias Geering.  
UNI NOVA is published twice a year; the next edition will be published in May 2016.  
Subscriptions are available for CHF/EUR 18 per year and can be ordered by email via uni-nova@unibas.ch or via the editorial office. Free copies are available at several locations throughout the University of Basel and at other institutions in the Basel region.

**CONCEPT:** Matthias Geering, Reto Caluori, Urs Hafner  
**EDITORS:** Matthias Geering, Reto Caluori  
**POSTAL ADDRESS:** UNI NOVA, University of Basel, Communications & Marketing, Postfach, 4001 Basel.  
Tel. + 41 (0)61 267 30 17  
Email: uni-nova@unibas.ch  
UNI NOVA online: unibas.ch/uninova, issuu.com/unibas  
**DESIGN CONCEPT AND LAYOUT:** New Identity Ltd., Basel

UNI NOVA is also available in German.  
**TRANSLATION:** Sheila Regan and team, UNIFORMS (www.uni-works.org)  
**PHOTOGRAPHY:** Basile Bornand, Basel; Dominik Plüss, Basel  
**PICTURES:** Page 13: Keystone/Imagno/Franz Hubmann; Page 19: Central State Archive, Sofia, Hristo Jonkov collection, reference no. 2126K.; Pages 20, 21: Ss. Cyril and Methodius National Library, Sofia, photographic collection; Page 28: Photo Archive Municipality Wald; Page 50: Former Supreme Court Rooftop Terrace, © Darren Soh

**ILLUSTRATION:** Studio Nippoldt, Berlin  
**PROOFREADING:** Lesley Paganetti, Basel (German edition), Supertext AG, Zürich (English edition).  
**PRINT:** Werner Druck & Medien AG, Basel  
**ADVERTISING:** University of Basel, Head of Communications & Marketing, Email: matthias.geering@unibas.ch

UNI NOVA is a member of the Swiss Science Pools (www.swiss-science-pool.com)  
**PRINT RUN:** 15,000 copies (German), 2,000 copies (English)  
All rights reserved. Copies and reproduction of any kind require the permission of the editor.

ISSN 1661-3147 (German print edition)  
ISSN 1661-3155 (German online edition)  
ISSN 1664-5669 (English print edition)  
ISSN 1664-5677 (English online edition)  
twitter.com/unibas\_en  
facebook.com/unibas



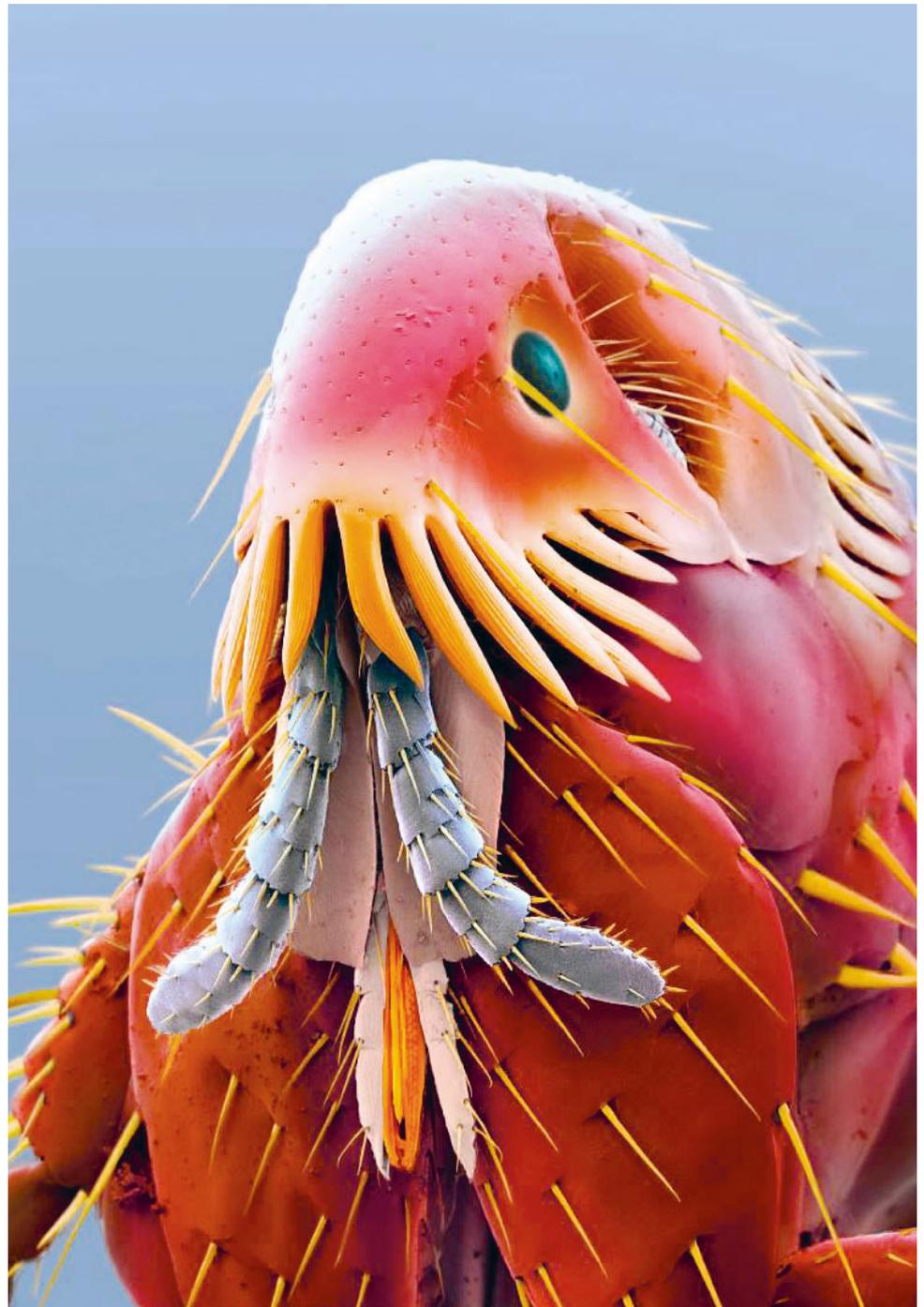
printed in  
switzerland



National Geographic

# Unseen world: Team effort on IMAX film.

Researchers at the University of Basel joined forces with National Geographic to collaborate on a unique project: the shooting the IMAX film "Mysteries of the Unseen World." Professor Henning Stahlberg modified a state-of-the-art electron microscope to function as a film camera, i. e. capture sequences of images rather than individual frames. Science photographer Martin Oeggerli, who is world-famous under the pseudonym Micronaut for his color reconstructions of electron microscope images, colored every 400th frame manually on a computer. This amounted to several dozen frames – and each one takes him 30 to 40 hours to complete. Given that the film contains several thousand frames which all had to be in color, Professor of Computer Science Thomas Vetter developed a piece of software that allowed the remaining frames to be colored automatically. The results are impressive. The film is now available on Blu-ray Disc™ in both 2D and 3D, along with a "Making Of" DVD which features the Basel scientists talking about their project.





555th Jubilee

## Long night of science.

The University of Basel celebrated its 555-year jubilee with a long night of science. Past midnight and into the early hours of Uni-Nacht, around 13,000 visitors were able to gain insights into current research and teaching at the University of Basel, and talk directly to our researchers. In over 250 presentations, workshops, lectures, and experiments, Basel University showcased science in live, hands-on events.

Speciation

## Maternal experience as evolutionary advantage.

The butterfly species known as the small cabbage white (*Pieris rapae*) conditions its young to determine forage plant quality based on the mother's own experience as a larva – even if this was not necessarily ideal.

The females of the next generation choose the site of their egg-laying even more precisely after their period as a larva, allowing offspring to adapt more quickly and successfully to changing environmental conditions. This therefore extends the range of host plants, reduces competition within the species, and thus eases and accelerates the creation of new species types.





**“Immunotherapy has huge potential. We want to understand exactly what these drugs do in the body so that we can target their use precisely.”**

**Alfred Zippelius**

# Immunotherapy – A revolution in cancer treatment.

Professor of Oncology Alfred Zippelius conducts research at the University Hospital of Basel in the field of immunotherapy as a means of treating cancer. As deputy director of medical oncology, Professor Zippelius applies this new therapy in treating patients. He is convinced that we are about to experience a revolution in dealing with certain types of cancer.

Interview: Matthias Geering    Photo: Dominik Plüss

**F**or many years, the question of whether the immune system had any effect on the development of cancer was a subject of intense debate. Only at the end of the 90s was it possible to prove, on the basis of numerous experiments, that the human body is able actively to fight off cancer cells. It was also discovered then, however, that tumors are able to block the body's defensive cells – the so-called T-cells or killer cells.

After long and intensive research, scientists established how tumors are able to block the human immune system and override it. In response to this blocking ability, scientists developed an effective treatment: With immunotherapy, the body's own 'killer cells' are reactivated using artificially manufactured protein structures, so-called 'monoclonal antibodies'. This ensures that a tumor can once

again be recognized by the immune system. The body's own killer cells can then attack the cancer cells and destroy them, or halt their growth. Research in this field is booming. At the University Hospital of Basel, too, several clinical trials are currently being conducted to examine the effectiveness of combinations of immunotherapy, radiation, and chemotherapy.

**UNI NOVA:** Alfred Zippelius, in 2013 the research journal *Science* declared immunotherapy the scientific discovery of the year. As a researcher and as a practicing oncologist using this therapy at the University Hospital of Basel, you are at the very forefront in this field. What is happening at the moment in your area of research?

**ALFRED ZIPPELIUS:** There are countless new developments. Not only are new immune-therapeutic approaches being developed, we are also working on combining immunotherapy with already existing forms of therapy. We are seeing that such combinations massively improve patient response rates. The task for research is to examine these combinations mechanistically, since conventional therapies such as chemotherapy can also compromise the body's immune defenses. This is, it must be said, an extremely competitive field. Almost all of the larger pharmaceutical companies are working on active substances whose efficacy can be proven in trials and which will very soon be approved for use.

**UNI NOVA:** Is this dynamism coming exclusively from the market place?

## “We are not involved in product development – we want to understand immunology.”

Alfred Zippelius

**ZIPPELIUS:** Not at all. There is also a sense of revolution in medical oncology. We have discovered an important approach to reactivating the immune response. This presents us with great challenges in research. The patients learn of these new therapeutic possibilities and hope that they too will respond well to the new drugs.

**UNI NOVA:** In Switzerland, only one drug has so far been approved. In co-operation with the pharmaceutical industry, you are using active substances that are about to be approved. What exactly do you do?

**ZIPPELIUS:** With regard to some tumors, we have already made great progress. In the future, we want to use the drugs more widely for a range of tumors and to improve the effectiveness of the drugs. In addition, we test these substances both in early clinical trials and also in larger studies against established standards in oncology, such as chemotherapy.

**UNI NOVA:** Conventional wisdom has been that the more quickly the cancer is discovered the better. How important is early diagnosis?

**ZIPPELIUS:** The assumption used to be that tumors should be as small as possible to respond to a therapy. That was probably not far wrong since earlier treatments worked like a vaccination, through which killer cells are activated. Immunotherapy as it is used today, however, is based on antibodies that essentially “release the brakes” on the killer cells and so make it possible for these killer cells to work again. Even with larger tumors there is a good chance of success: If we can manage to release these brakes, then the body’s own defense system can get to work again. If the killer cells are reactivated, then the size of the tumor is really not very important.

**UNI NOVA:** So in the case of larger tumors, too, you can stop their growth?

**ZIPPELIUS:** For a certain percentage of patients not only do we stop the growth, we even reduce the size of the tumor. In ideal circumstances the tumor disappears completely. Sadly, this is not the case for all patients! The response rate for lung cancer is currently around 20 percent, for malignant melanoma it is between 30 and 40 percent. When we combine the antibodies, the response rate is even better.

**UNI NOVA:** But then the number of side effects would also increase!

**ZIPPELIUS:** That’s true. Here the issue is inflammatory, autoimmune side effects. Every human being has defensive cells and these can also attack their own body. If we are healthy, then we can control these well. In the course of immunotherapy, activation of the defensive cells may occur, and the defensive cells may then also attack healthy organs.

**UNI NOVA:** You conduct translational research, from “bench to bedside” – as this kind of research has been described.

**ZIPPELIUS:** Yes, indeed. But in our case it goes in both directions; that is, from the hospital bed back to the laboratory bench. This is precisely our strength: The proximity of the lab to the hospital, the proximity, that is, of the medical oncology department to the tumor center at the University Hospital of Basel. We

can therefore develop the therapies very quickly and efficiently.

**UNI NOVA:** Is this a field in which it is almost impossible for the pharmaceutical industry to conduct research alone because the research is so dependent on the patients?

**ZIPPELIUS:** The pharmaceutical industry does, of course, need close contact to hospitals and to research because these drugs have to be tested on the patients.

And for us, this contact provides us with the opportunity to work with highly interesting active substances, allowing us to conduct innovative research. In addition to all this, conducting clinical trials has become so complex that without the support of industry such trials would no longer be possible in most cases.

**UNI NOVA:** You work very closely with the pharmaceutical industry and the companies ultimately wish to be successful on the market with their products. Who profits if, thanks to your research, there is a major breakthrough? How is the issue of intellectual property regulated?

**ZIPPELIUS:** A number of patents have been established within the framework of our immunotherapy research with the industry. In these cases, clear guidelines are determined in co-operation with the university’s technology transfer department “Unitectra”. The deciding factor

here, however, is that we are not developing any new active substances. We are more interested in researching new effect mechanisms in an academic setting. On the basis of this research, we then suggest certain combinations with existing forms of therapy such as radiation or chemotherapy. We are not involved in product development – we want to understand the immunology in terms of which tumors respond to an active substance and which patients we can treat with it.

**UNI NOVA:** The costs of immunotherapy are very high. What makes this therapy so expensive?

**ZIPPELIUS:** There is always an enormous amount of research behind such drugs. Money is invested in a large number of potentially useful substances that never actually reach the market. Those drugs that do become approved are the tip of the iceberg. The price of a drug is, however, also a function of the added value that it creates. If you have a drug that extends life only briefly, then it is has relatively little value and the price is therefore lower. If, however, you have a substance with a high response rate even for patients for whom conventional drugs are no longer effective, then the value of this substance is accordingly higher. This is especially true if the new therapy makes it possible to make the tumor disappear permanently.

**UNI NOVA:** If this therapy is so expensive, then this form of treatment will surely benefit only a small group of people!

**ZIPPELIUS:** Actually, no. Immunotherapy is in fact already in widespread use. Currently, the treatment is organized so that the therapy is made available to the patient on a permanent basis rather than for only a few months.

**UNI NOVA:** Why can treatment not be discontinued once the tumor has vanished?

**ZIPPELIUS:** This is currently under research. We do not yet know the answer. We'll have to find it through conducting trials. Early studies, however, indicate that the reoccurrence of the tumor is relatively stable. That is to say that among the few patients in whose cases the medication was discontinued during trials, the remission persists. This gives us reason for optimism.

**UNI NOVA:** Who currently decides who will receive this therapy and who not? Is it the doctor? The patients?

**ZIPPELIUS:** Treatment is offered in keeping with international guidelines, which are decisive for our medical procedures. In addition to this, medical trials have clearly defined criteria for inclusion and exclusion, and these prescribe which patients we may treat.

**UNI NOVA:** Costs are already high because you use the drugs widely and also continue to treat patients who have already been healed.

**ZIPPELIUS:** In many tumor cases, the pharmaceutical industry currently makes the drugs available to us free of cost for research purposes. These active substances are still waiting to be approved for the market. Once these drugs have been approved, however, we shall no longer receive them free of charge. Then we will have to pay for them. In the case of lung cancer, we expect this to happen very soon.

**UNI NOVA:** Then the health system can expect high costs – and subsequently difficult decisions: Who will then decide who is to receive these new, expensive drugs and who not?

**ZIPPELIUS:** Ultimately, we as a society must decide how much we are prepared to pay for this medication. Oncologists, naturally, wish to do as much as possible for their patients. The task for research is, however, to optimize the therapy. If

we can determine right at the start of treatment which patients will respond to therapy, then we can target this treatment more accurately and thus save money.

**UNI NOVA:** Where is research currently heading – where do you hope to make the next breakthrough?

**ZIPPELIUS:** Immunotherapy has huge potential. We want to understand exactly what these drugs do in the body so that we can target their use precisely. It is also crucial to define the combination of radiation, chemotherapy, and immunotherapy not only on the basis of empirical data but also on the basis of factors that can be calculated exactly. If we can do that, then we can further substantially increase response rates.

**UNI NOVA:** Dare to make a prognosis – where will we be in five years?

**ZIPPELIUS:** I think we shall see gigantic steps forward in fighting many kinds of tumors. In the case of malignant melanoma, survival times have already increased greatly. This will also be the case for other tumors. There will, of course, also be some disappointments in relation to some tumor types. This is because there are complex constellations in which it is not that easy to reactivate the immune system using this therapy. Here, we'll have to combine immunotherapy with other therapies in order finally to achieve success. ■

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**Alfred Zippelius**

As deputy director of medical oncology at the University Hospital of Basel, Professor Alfred Zippelius' research focuses on tumors of the lungs, skin, head and neck. He also heads the Laboratory for Cancer Immunology.

# Celebration in Liestal – Research award for Allschwil.

## Celebration in Liestal

### Basel professor appointed Dean of Medicine.

Thomas Gasser, professor at the cantonal hospital of Baselland and the new Dean of the Faculty of Medicine, received a huge welcome in Liestal at the end of August. At the celebration, Mayor Lukas Ott emphasized that this is “more than just an honorable appointment” for Liestal, which is ready to contribute to this partnership as a university location. University Council President Ueli Vischer described Thomas Gasser as providing a bridge between medical services and research, and between the hospitals of Baselland and Basel-Stadt. Liestal is already a site for university medical treatments in the cantonal hospital of Baselland and has long housed the “Basel-Liestal University Department of Urology”, run by Thomas Gasser. The “University Center for Family Medicine” for both Basel cantons is also being set up in Liestal under the leadership of Professor Andreas Zeller. ■



University Council president Ueli Vischer, Rector Andrea Schenker-Wicki, Dean Thomas Gasser with Lukas Ott, Mayor of Liestal (from left).  
Photo by Martin Töngi



## CTI Swiss Medtech Award 2015

### Accolade for Carlo the robot.

**Much more precise than by hand:**  
The laser beam cuts through the skull non-invasively.  
Image: KTI

Advanced Osteotomy Tools AOT AG, a spin-off company developed from research at the University of Basel and the University Hospital of Basel, has been awarded the CTI Swiss Medtech Award with prize money of CHF 15,000. The spin-off company won the prize for its innovative system that enables precise and non-invasive bone-cutting using a robotic laser beam.

A well-programmed robot combined with navigation and laser technology can work much more precisely than even the best surgeon. Maxillofacial surgeon Professor Hans-Florian Zeilhofer and Dr. Philipp Jürgens from the University of Basel and the University Hospital of Basel, together with laser physicist and entrepreneur Alfredo E. Bruno and Philippe Cattin, Professor of Image-Guided Therapy at the University of Basel, jointly developed the robotic system, known as Carlo (short for computer-assisted, robot-guided laser osteotome). At present, this robot is able to process several hundred megabytes of data per second and can make decisions autonomously based on sensory data. ■

**Karl Barth**

A new center aims to raise awareness of the life and work of the Swiss theologian (shown here in Basel in 1956).

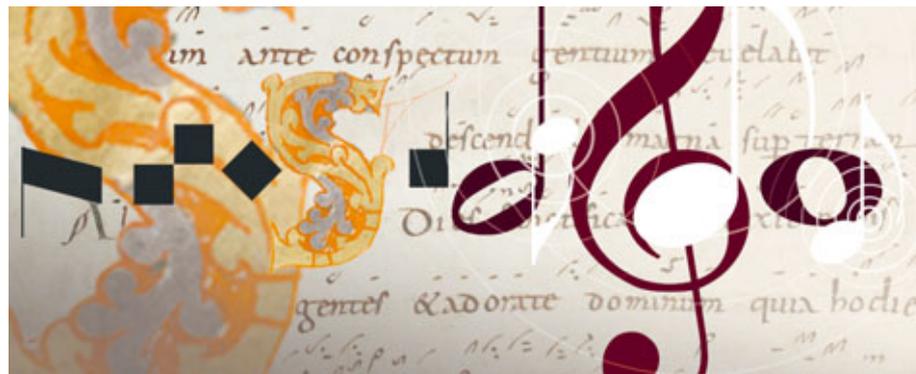


News

## Launch of first online courses.

Beginning in Fall Semester 2015, the University of Basel is offering new online courses that can be registered for via the FutureLearn platform. Kicking-off the new offerings is the course entitled “Exploring Possible Futures”, which provides an introduction to economic modeling using issues in environmental economics. The course “From Ink to Sound” gives insights into the development of musical notation over time. Four further courses are currently being prepared and will be available from spring 2016. With over two million registered users, FutureLearn enables the University of Basel to present its learning opportunities to a worldwide audience and to promote global exchange between students. ■

[www.futurelearn.com](http://www.futurelearn.com)



**Launch in November**

An online course “From Ink to Sound” reveals the development of musical notation over time.

News

## Karl Barth Center.

Karl Barth is one of the most important Protestant theologians of the 20th century and among the most distinguished professors to have taught at the University of Basel. To ensure that Barth’s works and his understanding of Reformed Evangelical theology remain in the public eye and return to the focus of teaching and research, the Faculty of Theology and the Karl Barth Archive, which is funded by a foundation, have opened a new “Karl Barth Center for Reformed Theology”.

Through publications, classes, and symposiums, the center aims to strengthen the analysis and study of Barth’s work and to stimulate theology, the Church and society as a whole. Born in Basel in 1886, Karl Barth was a professor of theology from 1921 to 1935 in Göttingen, Münster, and Bonn. After the National Socialist party came to power, he returned to his birthplace in 1935 and took up a professorship in Systematic Theology in Basel, a position he retained until his retirement in 1962. ■

[www.karlbarth.unibas.ch](http://www.karlbarth.unibas.ch)



Dossier

Undated map from the 18th century  
This map, printed in Amsterdam, shows the setting for the Russo-Turkish wars, during which Russia conquered the Crimean peninsula and gained access to the Black Sea.

# Eastern Europe

## On costumes, conflicts, and cultural spaces.

For a long time, it seemed as if Eastern Europe, with its diverse languages and cultures, remained an alien place to the West. Yet at the same time the region – often seen only through the prism of political conflicts – has moved very close to us in many ways. This special feature to mark the tenth anniversary of Eastern European Studies at Basel University highlights the close connections between East and West.

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**“For Berliners the East starts at the Polish border, for western Poles in Warsaw, for eastern Poles in Belarus.”**

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**Facebook of the 19th century: Portraits of heroic rebel fighters transpire to be effective stagings.**

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**Thousands of East European women work in Switzerland as private carers – mostly under precarious conditions.**

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**A hundred years since the Zimmerwald Conference: For socialists a myth, for the Bernese village a burden.**

# The concept of “Eastern Europe” in past and present.

It may be a convenient term, but its meaning is fuzzy: “Eastern Europe” is an idea that is continually being redefined.

Text:  
Prof. Thomas Grob

Is there such a thing as “Eastern Europe”? And if so, where does it begin and end? Why do we mainly think of Prague, Ljubljana, and Zagreb as “eastern”, even though they are further west than Vienna – never mind Athens – just as Serbia is further west than Finland? And why does “Eastern Europe” not sound like the neutral, symmetrical complement to “Western Europe”? These questions touch on core elements of European identity, as our “mental maps” – the geographies we carry in our heads – have a huge influence in a wide range of areas, from culture, the economy, and scholarship, through to practical politics.

Our current understanding of “Eastern Europe” is shaped by the Cold War and the “Iron Curtain”, the term applied by Churchill in 1945 to the Soviet-dependent “bloc”. Seen from within, however, this “Eastern bloc” was always a more diverse space than it appeared to westerners, who recognized only Tito’s non-aligned Yugoslavia as something of an exception. Just how plural these spaces were beneath the patina of “real socialism” was revealed following the collapse of the Soviet Union in 1991. However, as the West shed its fixation with “communism”, it also became clear that the image of an “Eastern Europe” had much older roots than the postwar order.

## A shift in the cultural axis

The term “Eastern Europe” suggests a self-contained world of kindred regions. This is a fiction, and to some extent we can reconstruct precisely how it originated. It may be founded on older images of Russia, but it goes back primarily to the French Enlightenment. For centuries before that, the only cultural and political axis of significance had been

the north-south divide. Following the Renaissance, the “barbaric” regions north of the Alps sought to appropriate the political and cultural legacy of the Roman Empire. This led to the development – in parallel with colonialism – of competing notions of what constituted the center of the “civilized” world. The impetus for a shift to a west-east cultural axis came from Paris around the middle of the 18th century, when French Enlightenment thinkers pronounced the orient – which combines the geographical “east” with proximity to the “orient” – to be that region that remained closed to the French or European Enlightenment. In Voltaire, for example, we find the term “Orient de l’Europe”. This refers to an in-between zone that is geographically part of Europe but has yet to benefit from the new philosophy.

This provided a vector for how the differences within Europe were perceived. In his book *Inventing Eastern Europe* (1994), the historian Larry Wolff showed the extent to which, after Peter the Great’s Europeanizing reforms, Russia became a space onto which fantasies of influence could be projected, as if onto a blank surface. The east-west axis marked out a descent from the center of enlightened civilization into less and less civilized zones. For travelers, the road to the East, from its supposed beginnings in Poland, Hungary, or Galicia, became a voyage into increasingly Asiatic zones. In the process, perceptions were adapted, sometimes in highly fanciful ways, to fit in with the preconceived expectation of encountering a lower level of civilization. Barbarism was now located in the East.

It was only with the emergence of this idea that outsiders started to view Eastern Europe as a single entity. The “West” asserted the right to define the pre-

vailing level of civilization in different regions, and increasingly Europe defined itself against the areas to its east. In this context, it was easy to ignore that even the more westerly regions did not consist solely of urban centers of modernization, characterized by refined behavior. The creation of this scale also led to a competition to establish where the “East” began. Even today we see a tendency for the border to shift miraculously. Putting it rather crudely, for Berliners the East starts at the Polish border, for western Poles in Warsaw, for eastern Poles and Slovaks in Belarus and Ukraine, for western Ukrainians east of Kiev, and for Croats in Serbia. The Czechs vigorously reject the suggestion that they are part of “Eastern Europe”, in any case; given that Prague University was founded in 1348, they have strong grounds for feeling that they are at the heart of Europe. The justification for drawing these boundaries is sometimes historical, sometimes confessional, cultural, or geographical. This mirrors precisely the uncertainties surrounding the concept of Europe itself.

#### **The other Europe and Europe’s “Other”**

After 1991, Eastern European specialists realized to their surprise that they had underestimated the importance of regional distinctions in their geography of “Eastern Europe”. This was a potentially explosive issue, as some participants in the debate refused to see themselves as part of Eastern Europe, while the collapse of Yugoslavia saw the re-emergence of an even more contaminated term: “the Balkans”. The “Eastern” question had implications for the legitimacy of Eastern European studies as a whole. Moreover, in the West the Cold War was a problem that seemed to have been dealt with, and it was not immediately obvious to everyone that in the new Europe universities could not afford to ignore the continent’s “Eastern” cultures.

The new geography forced the subjects concerned to re-examine how they worked. How should “Eastern European Studies” be structured in light of the new circumstances? Some universities – where their focus is not exclusively on Russia – have chosen to split up the discipline by language area, with Basel, for example, favoring a supraregional approach. A more important issue for researchers, however, was that the changes had thrown up a large number of highly topical questions that were new or needed to be formulated in new ways. These included links

within Europe, transnational traditions, the culture of memory, the Jewish legacy, nation building, relationships between culture and power, and many others. Just as envisaged by the cultural theorist Yuri Lotman, the realm of former peripheries, either real or supposed, had become zones of tumultuous change, of the new, of creativity. This offers a huge amount of scope for objective scholarly analysis.

“Eastern Europe” was always simultaneously both the other Europe and Europe’s “Other”, and in this sense dependent on images produced in the West. Even the new entrants to the EU struggled to shed the tag of “poor relation”. That being the case, there can be no Eastern Europe in an objective sense. The term makes sense only if we use it neutrally, recognizing the diversity that it subsumes.

Experience shows that it can be hard to come up with a suitable regional title for an academic volume on different “Eastern European” regions. However, it is not at all difficult to justify comparative research per se if it is understood within a pan-European context. As different as these regions are, there is much that unites them: the fact they were once part of large empires; a plural ethnic and cultural past; different paths to nation building; communist and post-communist influences; in the case of Slavic cultures, closely related languages and ancient, though contested, cultural ties; and finally, different paths to modernization, which serve also to relativize the exemplar per se, the “West”. Clearly, the field of Eastern European Studies has more problems with its name than with its subject matter.

Anyone who has visited Eastern Europe knows there is something like the European “East”. This East, with both its problems and its inner riches, is always different; yet sometimes also surprisingly the same. These regions – including Russia – are woven into the fabric of Europe and, in their own way, are European. Not only would Europe be a great deal poorer without this East, it can no longer be understood without it. It is no longer possible to be economically and politically active in Europe without having some knowledge of it. In this context, the issue of exactly what is termed “eastern”, “central” or “east-central” Europe, just like the competition between these countries to be as western as possible, is likely to become less important, once we move away from the idea that the “West” has a monopoly on European civilization. ■

**“Seen from within, the ‘Eastern bloc’ was always a more diverse space than it appeared to westerners.”**

**Prof. Thomas Grob**

**Vasil Levski**  
circa 1868 in  
Bucharest,  
photographed  
by Carol Popp  
de Szathmari,  
cabinet card.



# National heroes from the photo studio.

In her current research project, Martina Baleva is investigating historic carte-de-visite photography – “Facebook of the 19th century.” She has found that, much like today, the “users” were often misled.

Text: Till Hein



**T**hey certainly cut dashing figures: Bulgarian “national heroes” in their Hussar uniforms, armed with bayonets or scimitars, looking utterly determined to risk their own lives so that their country could break free from the shackles of foreign rule. Martina Baleva, FAG Assistant Professor of Cultural Topographies of Eastern Europe, knows these portraits from her childhood in Sofia. “Whenever a parade or rally was held, you would see them on huge posters,” the historian recalls, “they were almost like father figures to me.” To this day, portraits like these hang in schools and public buildings in Bulgaria and illustrate standard works on history. “They’re an integral part of the collective historical tradition,” Baleva explains, “and have been etched into the visual memory of several generations as pictorial testimony to the National Revolution.” Martina Baleva has now begun uncovering the real stories behind the photos.

She explains that the originals of the photos in the “heroes’ gallery” familiar to her since childhood are all carte-de-visite portraits. This kind of photography was once a mass phenomenon of popular culture. A new technique had made it possible to produce whole series of photos quickly and inexpensively. Invented in Paris in the mid 19th century, the new medium soon caught on in many countries.

## An instrument of self-presentation

At first, it was only the powerful who had their portraits taken, but their example was soon followed by people from all walks of life, from merchants in Paris to black slaves in the American South and rebel fighters in the Balkans. Calling cards featuring photographic portraits were used to introduce oneself and for networking purposes. They were mailed to influential people or left in their anterooms. They were used for courting and helped to make business contacts and attract sympathizers. “The carte de visite was an analog precursor of today’s social networks,” says Baleva, “Facebook of the 19th century.”

The historian has been studying heroes’ portraits for the past two years and has collected hundreds of them. Reproductions grace the walls of her research room. The pictures date back to the 1860s and 70s. In reality, the men they show were not only from Bulgaria, but from the entire Balkan region, which was part of the Ottoman Empire at the time. Baleva keeps spotting surprising details. For instance, she discovered that one of the men pictured was wearing gaiters over his shoes to give the impression of riding boots. “And look at this,” she says, pointing to one man’s legs, “that uniform looks way too big for him, doesn’t it?” Similarly, close scrutiny reveals that some “national heroes” jackets are suspiciously tight across the shoulders. “Every-

**Martina Baleva** is FAG Assistant Professor of Cultural Topographies of Eastern Europe in the 19th and 20th centuries at the University of Basel, a position funded by the Voluntary Academic Society of Basel (FAG).



Children also liked to pose dressed up as Hussars.

one in the portraits here to the right was wearing the same uniform in the studio,” Baleva explains. “So, what look like snapshots of heroes are really staged photos showing people dressed up.”

As she knows from other sources, the real rebels in the Balkans of the 1860s and 70s fought not in uniforms composed of richly laced jackets and tight-fitting pantaloons, but usually in threadbare clothes that were otherwise worn for work in the fields. She has also found out that most of the “national heroes” portrayed were not rebel fighters at all. “When having their picture taken for a *carte de visite*, law-abiding civilians were fond of posing as they imagined their rebel heroes would.” Baleva calls this a “national revolution in the dark room.”

**“This is the real world!”**

Baleva’s research on visual historiography, however, extends beyond the 19th century and the Balkan region. She warns that both historic and contemporary photos – whether found in newspapers, magazines or history books – should generally be treated with caution. “Those images have an enormous influence on our attitudes,” she stresses. “They would have us believe that ‘this is the real world,’” she says and smiles, “but most of the time that’s an illusion.” She says that pictures are often staged to arouse emotions and manipulate viewers. “We should be aware that an event and its pictorial representation are inevitably two different things.” In her

classes, she urges students to pose these questions as a matter of routine: How was the image created? Who created it, and for what purpose? What aspects of reality have been excluded?

With reference to her ongoing research, she explains that around 1870 the forerunner of Facebook was used by, among others, a few dozen men in the Ottoman Balkans who wanted a revolution: Vasil Levski, one of the main rebel leaders, wrote to local revolutionary committees explicitly demanding that his portrait be distributed, a picture that idealizes him as a courageous revolutionary, dressed as a Hussar officer.

In reality, Baleva says, Levski and his fellow rebels were not exactly glorious figures. “Their actions are better thought of as terror attacks than heroic mass uprisings against foreign rulers.” For instance, the rebels would lay ambush in the hope that the resulting skirmishes would provoke the Ottoman state into a disproportionate retaliation strike which in turn would prompt other superpowers to intervene. Their strategy was ultimately successful. In April 1877, Russia declared war on the Ottoman Empire – and following the Tsarist Empire’s victory, Bulgaria, Romania, Serbia, and Montenegro became politically independent in 1878.

In Bulgaria, however, many a patriotically minded historian felt that reality was not heroic enough. Pointing to the walls of her research room covered in photographs, Baleva says, “To them, the fact



After the 1876 uprising had been quelled, Georgi Izmirliev was sentenced to death, whereas Sava Penev was released from lifelong imprisonment in 1878. Prior to the insurrection, they had each had their pictures taken by an unknown photographer – apparently wearing the same uniform.

that these heroes' portraits were so homogeneous in style meant a welcome opportunity to create the revisionist fiction of a cohesive military unit fighting for national liberation." She adds that Bulgarian history textbooks still talk about "people rising up against foreign rule in their thousands," though in reality there were only a few hundred, as close examination of the historical sources has shown. "It would be wrong to think that photos only reproduce reality; they also create realities," says Baleva.

#### Images as a research focus

For this reason, Baleva considers that historical photos should no longer be seen as an "illustrated supplement to historiography – they should be a central component of both historical and contemporary research." To back up her point, she cites the so-called "iconic turn," which has been motivating many researchers in the humanities and social sciences since the 1990s. It is an approach that moves away from written sources, with images coming increasingly to the fore.

"It was about time," Baleva says, adding that it is easy to get lost in the flood of images that we are continually exposed to in the modern world. She says that she is often amazed by how many young people she sees obsessively taking photos with their smartphones. She never takes any herself. In dealing with images of any kind, she takes her time whenever possible, whether she is reading a newspaper, surf-

ing the Internet, studying history books or visiting a museum. "It seems absurd to me to stroll through an exhibition of images as you would through a park," she says. "Whenever I go to the Kunstmuseum, I only look at one picture each time."

Finally, Baleva returns once more to the historic *carte-de-visite* portraits that are the subject of her current research. It was not unusual for the "users" to be misled: The person portrayed would often turn out to be far less good-looking, well-read, brave or competent than their portrait had made them seem, much as on the Internet today. "If you were savvy about using the 19th century equivalent of Facebook," she says, pointing to the photos on the walls, "then you could conquer hearts, rise to fame or cause political upheaval."

Even today, a century and a half after they were taken, the "Bulgarian national heroes" portraits have an influence on life in her home country, says Baleva. Many of the men are shown posing in Hussar uniforms, which originated in Poland and Hungary. "Today, members of the Bulgarian National Guard are proud to wear their Hussar uniforms," she says, "they're considered traditional." In reality, at the time of the "National Revolution," the only context where these clothes would have been worn in what is now Bulgaria was not in battle, but in a photographic studio. ■

# “The war in Ukraine has deeply divided Switzerland, too.”

Frithjof Benjamin Schenk, Professor of East European History, on the roots of the conflict in Ukraine and how it is affecting Switzerland’s university landscape

Interview: Ivo Mijnsen Photo: Basile Bornard

**UNI NOVA:** Professor Schenk, the civil war in eastern Ukraine continues to simmer. Why is it so hard to put an end to this conflict?

**SCHENK:** I think that that’s a misleading characterization for two reasons. First, the term “civil war” disguises Russia’s massive intervention, namely the provision of weapons and fighters, without which a war of this scale would never have been possible. Second, the word “simmer” belies the fact that people are being killed in eastern Ukraine almost on a daily basis. It would actually be very easy to put an end to the war: All that is needed is for both sides to keep to the terms of the Minsk agreement.

**UNI NOVA:** But how did what started as a domestic political conflict escalate to such an extent?

**SCHENK:** The domestic political conflict between the protesters in Kiev’s Independence Square and Viktor Yanukovich’s regime was closely linked to the issue of Ukraine’s foreign policy orientation. What set off the protests was Mr. Yanukovich’s decision not to sign the association agreement that had been negotiated with the EU. The subsequent developments –

the escalation of violence, his ousting and the annexation of Crimea – are common knowledge.

**UNI NOVA:** What role would you say the West has played in this? Is the West partly to blame for the current situation?

**SCHENK:** All I would say is that Western politicians failed to realize in time that Ukraine’s integration with the West was Russia’s red line.

**UNI NOVA:** Why is Ukraine so important to Russia?

**SCHENK:** The historical perception of Kiev for Russians is as the “mother of Russian cities.” There are numerous mixed marriages; many Russians regard Ukrainian as a Russian dialect rather than a language in its own right. There are close economic ties between the two countries. Ukraine is also key to Putin’s goal of a Eurasian economic union. Besides, many Russians consider Ukraine to lie within their country’s “natural” sphere of interest. Any ties their neighbor forges with the West are seen as a threat.

**UNI NOVA:** It’s significant that the name Ukraine translates as “borderland”. Historically, repeated wars have been fought over what is now Ukraine. Given the

circumstances, how was it possible for a sense of Ukrainian identity to develop?

**SCHENK:** The history of Ukrainian national identity goes back to the 19th century, as do the national movements in almost all European countries, by the way. After World War I and the demise of both the Tsarist Empire and the Habsburg monarchy, an independent Ukrainian state was founded, which was quickly incorporated into the newly formed Soviet Empire, though. Surprisingly, the Soviet Union was instrumental in strengthening Ukrainian identity in that it promoted nation-state structures and cadres, which would form the backbone of the independence movement in 1991.

**UNI NOVA:** How have the events of the past 18 months changed this identity?

**SCHENK:** Many people are saying that the war in eastern Ukraine and the struggle against a common enemy in the east have only served to cement national identity. But the question that has yet to be answered is what will happen to those in the east of the country who hold a Ukrainian passport but feel even more alienated from the government now as a result of the war and propaganda.



**“Ukraine is also  
key to Putin’s goal  
of a Eurasian  
economic union.”**

**Frithjof Benjamin Schenk**

Reintegrating these people will be a Herculean task.

**UNI NOVA:** The country is divided, with one half traditionally looking to the West and the other to Russia. Can that rift still be mended?

**SCHENK:** I think that the idea of a single divide is an extreme simplification. Many areas do not fit into this West vs. East dichotomy, for instance Kiev or the port of Odessa, where large sections of the population, while speaking Russian, identify with the Ukrainian national state. However, I do think that Ukraine's nation-building project can be successful only if the fact that its citizens speak more than one language is embraced rather than viewed as a problem.

**UNI NOVA:** Given fundamental issues like these, people tend to seek a historical perspective. How do you feel about the growing interest in your work?

**SCHENK:** Public and media interest has definitely risen over the past year, which is a good thing, in one sense. On the other hand, I wish it hadn't taken a war with thousands of casualties for this to happen.

**UNI NOVA:** Should historians even concern themselves with current political issues?

**SCHENK:** As a matter of fact, I think that far too few political scientists in Switzerland take a professional interest in the region. As for the explanatory power of history, let's not forget that the current conflict is the result of decisions made by our contemporaries who could have acted differently. That said, there's a tendency in both Russia and Ukraine to use history as a means to legitimize their respective stances. In this context, it's our duty as historians to expose any clear attempt to rewrite or hijack history.

**UNI NOVA:** The Ukraine issue has certainly stirred intense controversy among historians of Eastern Europe. Where are the fault lines in this debate?

**SCHENK:** Some of my peers consider that we should show Russia some understanding, for instance by taking a sym-

thetic view of the annexation of Crimea. They accuse Putin's critics of having an idealized view of Ukraine. On the other side are those historians of Eastern Europe who stress that comprehending something is not synonymous with justifying it.

**UNI NOVA:** What's your position?

**SCHENK:** Obviously, it's important to understand Russia and its motives. At the same time, we need to tell it as it is: The annexation of Crimea was a breach of international law, and the so-called crisis in eastern Ukraine is really an undeclared war. The sovereignty and territorial integrity of states are vital prerequisites for peace in Europe. There can be no substitute, in my opinion.

**UNI NOVA:** Amid all this, how is Basel's Eastern European Studies department getting involved?

**SCHENK:** By organizing discussions and talks and through media coverage. Our events have always been well attended, with some really quite heated discussions at times. Our main responsibilities are, however, in research and teaching.

**UNI NOVA:** How much influence do you have?

**SCHENK:** That's hard to tell. I'm often saddened by the number of people who come to a discussion with a closed mind. You often find a reluctance to listen and acknowledge other people's opinions. That's how I became aware that the war in Ukraine has deeply divided Switzerland, too. Universities can and should provide a forum for soundly researched information and robust, but fair discussion.

**UNI NOVA:** Let's return to Ukraine itself. The country is still hampered by corruption and oligarchic structures. Is there a historical explanation for this?

**SCHENK:** There's no denying or glossing over the enormous problems and challenges. Some of them are rooted in history; for instance, local politics continues to be shaped by the fact that Ukraine's regions used to belong to different coun-

tries. However – and I want to emphasize this – history does not necessarily determine the future. It's up to each individual to decide whether to bribe somebody or make a stand against corruption.

**UNI NOVA:** Do you believe that these problems will be solved?

**SCHENK:** Historians like to point out that their remit is the past, not the future. We're having as hard a time as anyone predicting what's going to happen. It remains to be seen whether reforms are feasible in a country at war that is investing in its armed forces and refugee relief rather than in education, anti-corruption measures, and economic development.

**UNI NOVA:** What kind of outcome do you personally hope for?

**SCHENK:** I hope that we can remedy the lack of communication between the West and Russia, between Ukrainians and Russians, and between Putin sympathizers and Ukraine sympathizers. As Europeans, we won't be able to meet the major challenges of the 21st century (the current influx of refugees is only a taste of what's to come) unless we all pull together, and that includes Russia. So a speedy return to common sense and a climate of peace and cooperation would be in the best interest of the whole of Europe. ■

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**Frithjof Benjamin Schenk**

is Professor of Eastern European History at the University of Basel.

The photo shows him in front of the Lieb collection at University Library Basel. This collection dates back to the time of Basel theologian Fritz Lieb (1892–1970) and includes around 13,000 monographs, periodicals and manuscripts from Slavic humanities, church, and economic history. The interview was conducted at the end of August 2015.

# Care from the east for older people.

Text: Christoph Dieffenbacher



**Sarah Schilliger** works as a senior research associate at the Department of Sociology, University of Basel. Her research focuses on migration and social injustice.

**Thousands of women from Eastern Europe work with older people in Switzerland, caring for them in their own homes, often around the clock. They find their jobs via commercial agencies, generally under precarious conditions and for low wages.**

The 94-year-old resident of Basel, C. M.-S., is looked after by two Polish women, alternating every three months, who run his household, care for him, and accompany him to the park, to lectures, and to the theater. 55-year-old B.M. from Wrocław, a trained teacher and psychologist, has cared for older people in their homes in Germany and Switzerland for years now. Sarah Schilliger, a young sociologist at the University of Basel, has examined the phenomenon of so-called commuter migrants from Eastern Europe: For her dissertation on the living and working conditions of such migrants, she talked to care workers, traveled with them on the commuter bus, and met with employment agency staff.

## Older workers helping seniors

“It’s mainly women over the age of 45 who care for older people in their homes here,” says Sarah Schilliger, “and they come from Poland but also from countries such as Hungary, Bulgaria, and Romania.” She explains that the female commuter migrants have followed different paths to transnational mobility and have different motives for it, but what they have in common is that their earnings help to safeguard their own and their families’ incomes. They do not migrate in order to leave their country but to be able to stay there. These women, many of whom have vocational qualifications, work in Switzerland for low wages and often with no security or social insurance.

Here they are welcomed with open arms as the “kind people” from the east: People in need of nursing care who are looked after well and cheaply in their own homes reduce the burden on their relatives and on the state – even when the employment agency fees are taken into account. However,

Sarah Schilliger sees the risks in this type of female employment: “When a person lives and works in the same place, the boundary between work and leisure becomes blurred.” The women are often socially isolated as they are rarely able to leave the rooms of the private household. There is not even an official figure – she regards the 30,000 to 40,000 cited in the media as too high.

## New shortfalls in care

On the whole, however, there are “hundreds of thousands of people” from Eastern Europe who are “working temporarily in ‘the west’” according to Sarah Schilliger. And as the female commuters live apart from their own families at times, new shortfalls in care are emerging. In some cases, traditional forms of care are breaking up, with husbands participating more in housework and the care of children and aging parents. Or women from even poorer countries take over the role – such as the woman from Ukraine who cares for her older parents while her daughter looks after people in need of care in Switzerland. The sociologist says that such “globalized care chains” are leading to a shift in global inequalities and strengthening gender-specific hierarchies. She sees a trend towards further privatization and economization of nursing and care work.

In Switzerland, where care is regarded as a private matter, demand for female care workers from Eastern Europe has increased substantially – also because public care services have been rationalized considerably in recent years and private care services have experienced an upturn. Further growth can be expected, both as a result of the demographic trend and due to the need for as much independence as possible in old age. A move that Schilliger regards as necessary and supports personally is for care workers to form a network and fight for their rights in co-operation with the trade unions. She expects the state to improve their occupational health and safety and to expand public nursing care for older citizens instead of rationalizing it. ■

# Little quiet on the eastern front.

Text: Urs Hafner

In the West, we see Eastern Europe as a place mired in backwardness, where nationalism, corruption, and chauvinism are rife. Yet, the recent history of the East offers some pioneering models of co-existence between different cultures.

**T**he key word is “empire”. When Thomas Grob and Anna Hodel talk about their research, it crops up again and again. They use it in opposition to the term “nation”. The empires are the Soviet Union and Yugoslavia, 19th century Russia, the Habsburg Empire, and the Ottoman Empire. All have collapsed, all were located partly or wholly in Eastern Europe, and all have been replaced by nation states. However, they continue to exert a powerful cultural influence.

For Anna Hodel, a Slavist at Basel University, “empire” denotes a spatial construct that “is able to deal in a positive way with ambiguities” such as with multilingualism and the juxtaposition of different cultural and religious identities. This is not a virtue we normally associate with empires; we tend instead to think of them in terms of dictatorship and lack of rights. But this is only one of their features – and one that need not always be present. In Yugoslavia and the Austro-Hungarian monarchy, different ethnic and religious groups were able to live together, albeit not without some tensions and difficulties. The “Other” was not rejected per se or made to assimilate.

The modern nation state that emerged at the time of the French Revolution tends to do precisely that. On the one hand, the nation is an emancipatory project. All the citizens who live there are to be free, living from the fruits of their own hands, having the same rights, enjoying the same education, speaking the same language, so they can communicate with one another and form their own judgment on the world. To bring this about, however, the nation homogenizes and standardizes every area

of life, ironing out cultural and social differences. The nation emancipates and disciplines at the same time, shutting itself off and others out.

In an era when the nation reigns supreme, empire is an outworn notion with few admirers. Thomas Grob, Professor of Slavonic Studies at Basel University, and his research team would like to change that. With the support of the Swiss National Science Foundation, they are looking at how the Russian Empire presented itself to its “inner orient” – that is to say, central Asia and the Caucasus – how the rupture of 1917–18, marking the collapse of the “imperial and royal” dual monarchy and the Ottoman Empire, was remembered in Austria-Hungary, and how Balkan writers imagined their political future during the 19th century, when the nation state was in its infancy.

The scholars are concentrating mainly on literary texts, read in their original language: Russian, Polish, Serbian, Slovakian, Ukrainian, and Croatian. For the non-Slavic languages to which Eastern Europe is also home, such as Hungarian, Turkish, Georgian, and the Caucasian languages, they have to make do with translations. They are convinced that literature provides the key to understanding the cultural identities of the respective empires. As Anna Hodel emphasizes, literature is a means not just of perceiving reality, but of producing it.

Thomas Grob makes the point that in the Slavic world literature had – and still has, to some extent – an importance we can barely imagine. Some writers have been leading politicians, while many texts have been the subject of wide debate – and always within a political context. For example, if you talk



**Thomas Grob** is Professor of Slavonic Studies and Literature at the University of Basel. He is the editor, with Sabina Horber, of the volume *Moskau: Metropole zwischen Kultur und Macht*, published in 2015.

to a Pole today about his country, the name of Adam Mickiewicz, one of the great poets of Polish Romanticism, is bound to come up sooner or later. Literature is part of Poland's national identity.

### A complex view of nationhood

In these texts, the scholars find writers grappling with notions of empire and nationhood in complex ways. In the 19th century, the idea of the nation was not as exclusive as it is today, Anna Hodel says. That is why, out of consideration for the Serbian section of the population, which it wanted to integrate "into a transnational cultural area", the Croatian national movement chose as the basis for its new standard language not the Croatian dialect spoken at the time, but one that could also be regarded as Serbian. The national thought of this period is today misrepresented in nationalist terms. Hodel gives the example of the author and politician Ivan Mažuranić, who died in Zagreb in 1890 and is regarded as Croatia's national poet; his face even appears on the 100 kuna bill. Hodel sees the interpretation of his work that appears in most literary histories as one-sided. In her reinterpretation of Mažuranić's works, including his magnum opus "The Death of Smail-Aga Čengić", Hodel shows that he transcends the bounds of nationhood and Croatian identity. While he appears to be telling the anti-imperialist story of how the heroic South Slavs unite against the evil Ottoman Empire then controlling the Balkans, this is a superficial reading.

If we look at Mažuranić's poem more closely, we see that it is about Montenegrins, not Croats, and that the author envisages the creation not of a homogeneous Croatian nation but of an "Illyrian" zone, harking back to the Romans and Napoleon, who used that name for the area. For Mažuranić, this zone would have had room for Slovenes, Serbs, Croats, Bosnians – then called Turks – Bulgarians, and Macedonians. Mažuranić set the area apart not so much from the Ottoman Empire as from Austria-Hungary – in his poem the Turks can be read as sym-



**Anna Hodel** is a doctoral researcher in Slavic Studies at the University of Basel. She deals with spatial poetry beyond borders and translates southern Slavic contemporary prose into German.

bolizing the Habsburgs – and yet, Hodel notes, he also inserted it within a supranational Christian context where the South Slavs acted as martyrs protecting Christendom from Islam. His work is a "complex layering of different zones of identity and culture".

In her interpretation of this classic work, Anna Hodel reveals layers of meaning that were apparent to contemporaries but in the last century have been submerged by nationalism. Compared with early Slavic ideas of nationhood, modern territorial nationalism comes across as rather pathetic, Thomas Grob explains. It is defensive in its insistence on sealing off its borders and keeping its territory pure. For Grob, it is no coincidence that in Switzerland today the best literature is often written by migrants, who have had the experience of crossing national and cultural boundaries.

The scholars cite Ivo Andrić, the Yugoslav politician and winner of the Nobel Prize for literature, as another example of "plurinational identity". Today, Serbia and Croatia are at pains to claim this writer, who died in Belgrade in 1975, for their respective nations. Yet Andrić wrote his works in Serbo-Croat. Born a Catholic in Bosnia, where he grew up, his mother was a Croat. Vienna and Cracow were among the cities where he attended university. After the First World War, he helped establish the kingdom of Yugoslavia, while after World War II he became a member of the Communist Party. Ivo Andrić's life, like his literature, cannot be limited to one nation in the way we understand that today.

Empires are not just transnational and multicultural. Thomas Grob identifies another surprising similarity between the empires, for all their differences – the waves of nostalgia often set off by their collapse. Yugo-nostalgia is still around, Soviet nostalgia – exploited by Putin – has returned, and after the First World War there was nostalgia for the dual monarchy. Perhaps, Grob suggests, this nostalgia is one way in which the rich experience of empire lives on. ■

# A founding myth: the Soviet Union's Rütli.



### Unwanted fanmail

In Zimmerwald, communications from the East were filed away in a ring-binder.

In September 1915, Lenin, Trotsky, and around three dozen other left-wing politicians and activists from twelve European countries met at Zimmerwald near Bern. They dreamed of uniting the workers' movement internationally and stopping the First World War. A hundred years later, Eastern European historians in Basel are shedding light on this secret meeting – and its strange afterlife in the memory cultures of East and West.

It is September 5, 1915. The rolling hills of the Längenberg are bathed in warm light by the mid-day sun. Robins and skylarks are twittering. Horse-drawn carriages are wending their way through the pasturelands to the south of Bern, heralding the arrival of around three dozen foreigners. The men claim to be bird lovers who want to hold an ornithology conference in the “Beau Séjour” guesthouse in Zimmerwald.

The village is still barely geared up for tourists. There are only a few guest beds available, so some of the supposed bird fanciers are put up privately with the vet or the postman. In reality, the guests are prominent left-wing politicians and activists from twelve European countries, among them Vladimir Ilyich Lenin and Leon Trotsky. At the invitation of the Bernese Social Democrat Robert Grimm, they are meeting to hatch a plot. Their shared goal is to unite the workers' movement internationally and end the slaughter in the trenches of the First World War.

For four days, they will argue, debate, and concoct plans in Zimmerwald. Many of those taking part are regarded in Switzerland as leftist radicals and enemies of democracy. However, although a country policeman turns up at the “Beau Séjour” and fines the landlord for disturbance of the peace – the dancing, partying, and singing had carried on too late into the night – the activists are not recognized and the secret meeting is not broken up. Eventually, they will produce their “Zimmerwald Manifesto”, which includes the following call to arms: “Proletarians! Since the outbreak of war, you have devoted your energies to the service of the ruling classes. Now you need to stand up for your own cause, the sacred goals of socialism, the liberation [...] of the enslaved classes, by engaging in relentless class war. [...] Across borders, across the reeking battlefields, across the ruined towns and villages, we issue this summons: proletarians of all countries, unite!”

Two weeks later, long after the foreign guests had left, the organizer of the secret meeting, Robert Grimm, produced a report for the Berner Tagwacht newspaper and published the manifesto. The Swiss political class was outraged. They had let themselves be fooled. “That is probably why people around here went to such lengths to suppress the memory of this historical event,” says Frithjof Benjamin Schenk, Professor of Eastern European History and head of the history department at Basel University.

The manifesto says nothing about concrete action to stop the war. “It is the expression of a political compromise,” Schenk explains. A small faction around Lenin pursued more radical goals at the conference. For them, the language used in the manifesto was too general. They wanted to set out concrete ways of waging class war and, in the process, to spark a proletarian revolution – all over the world. In 1917, this radical strategy would prove successful in Russia, at least. “Lenin’s plan was not included in the Zimmerwald Manifesto,” Schenk says, “yet later the Bolsheviks transformed Zimmerwald into a mythical birthplace for their state” – a sort of Rütli for the Soviet Union.

#### A suppressed legacy

“Throughout the socialist world, every child learned about Zimmerwald at school,” Schenk explains. On many Soviet maps of the world, the village was the only Swiss place name shown. “In Switzerland, by contrast – especially in Zimmerwald itself – the legacy of 1915 was seen as very problematic for a long time.”

A hundred years after the conference, what interests Schenk and his colleagues is not just the event itself and its historical significance, but its strange afterlife in East and West. A few years ago, the history department at Basel University received a call from the council offices in Zimmerwald.

Text:  
Till Hein

**“Across borders, across  
the reeking battlefields, across  
the ruined towns and villages,  
we issue this summons:  
proletarians of all countries,  
unite!”**

**Zimmerwald Manifest**

The municipal secretary had come across a file of old papers and was unsure of what to do with it. He diligently made inquiries as to whether the documents might be of interest to scholars. The Eastern European historian Julia Richers, now a professor in Bern, went through the material. In it she found a wealth of fascinating letters and postcards written to Zimmerwald by people from the Soviet Union – addressed to the “Director of the Lenin Museum”, for example. Yet, the last thing the people of Zimmerwald wanted was to set up a museum. “After the general strike of 1918, in particular, the prevailing mood in Switzerland was firmly anti-communist,” Schenk says.

Most of the communications are about Lenin. Fans of Zimmerwald in what is now St Petersburg send greetings from the “Soviet to the Swiss Lenin-grad”. The workers’ collective at a salt mine in eastern Ukraine writes, “We would like to know how the memory of this great man lives on in your town.” The council office sends back letters to set the record straight, making clear that people in Switzerland want nothing to do with “communist agitation”. And pointedly, “socialist greetings” are countered with “democratic greetings”. In 1945, when a history enthusiast from Lausanne asks for information about the Zimmerwald Conference, the municipal secretary goes through the roof. “I am not inclined to furnish a political extremist

with material that could be of use to a subversive organization,” he barks at the man.

In the mid-1950s – after the death of Stalin – the cult of Lenin becomes increasingly important in the USSR. Because of Lenin’s involvement in the 1915 conference, Zimmerwald takes on “an almost mythical significance” in the Soviet Union, according to Schenk. And the municipality responds. In 1962, a ludicrous provision for the “protection of healthy living” is added to Zimmerwald’s building regulations, prohibiting the erection of any memorial stones or plaques. Reminders of the “communist conference” are to be banned for all time.

Three years later, on the 50th anniversary of the meeting, conservative forces organize the “Second Zimmerwald Conference” as an anti-communist commemoration. The next step comes in 1971, when the municipality has the building where Lenin stayed during the conference – long known locally as the “Lenin house” – torn down.

According to Schenk, “It was only in the 1990s, following the collapse of the Soviet Union, that the situation in Zimmerwald became less tense.” In 1996, festive parades are held in the village to mark its 700th anniversary. These feature not only celebrations of the Celtic past and present-day rural life, but a figure dressed up as a bald man with a striking goatee, in a parody of Lenin. The famous revolutionary is no longer a bogeyman but can now take his place – with a wink to the crowd – in the village’s history.

Benjamin Schenk is fascinated by such shifts and reassessments of historical events and characters. In early September 2015, he and Julia Richers organized an international conference to mark the 100th anniversary of the Zimmerwald Conference, which looked at communist and socialist sites of memory in Europe from a comparative perspective. One of its themes was the commercialization of memory, for example, in museums in Germany, which show a trivialized version of life in the GDR – and then sell souvenirs. Other speakers discussed the changing history of Lenin memorials in the Ukraine and Russia.

The conference ended with a trip to Zimmerwald, attended by scholars from 16 countries. There they were struck by another oddity. There is still no memorial in the village on the site where the “Lenin house” once stood. Instead, it is now home to a local bank. ■



**Lenin card, Lenin stamp.**

As part of the Lenin cult, Zimmerwald acquired an almost mythical significance in the Soviet Union (postcard from the Soviet Union, 1966).

# The Ukraine conflict and international law.

In March 2014, Moscow admitted Crimea to the Russian Federation, shortly after the peninsula had declared independence, having been occupied by Russian troops. Does this annexation contravene international law? In what ways can Crimea and eastern Ukraine exercise their right to self-determination? And what role did Russia play?

Text: Yannik Sprecher



**Denise Brühl-Moser**

is an associate professor in Public, International, and European Law at the University of Basel. She focused on the right of peoples to self-determination in her doctoral dissertation and has since held many seminars on the topic. During five years in Canada, she was able to make an in-depth study of the case of Québec. She has spent the last three years in Tashkent, Uzbekistan, where she has been able to see Russia's influence on this former Soviet republic at work first-hand.

“Yes, the annexation of Crimea constitutes a violation of international law.” That is the answer to the fundamental question, according to Denise Brühl-Moser, a specialist in international law at the University of Basel. Not only were democratic principles such as the prohibition on the use of force and freedom of expression and the media violated during the Crimean referendum, but Crimea's declaration of independence a week earlier had no legal validity. The government in Simferopol therefore lacked the authority under international law to join Russia. “The right to self-determination does not equate to a generalized right of secession,” Brühl-Moser explains. Except in cases of decolonization or liberation from a racist regime, there is no provision in international law for population groups to break away from the states of which they form part.

## Alleged analogy with Kosovo

The possibility of “remedial secession”, if a state is guilty of serious human rights abuses against a section of its population, is discussed and widely supported in international jurisprudence. However, this exception is subject to strict criteria. As an emergency measure, secession must be the last resort, in order to escape intolerable circumstances. In 2008, Kosovo was able to use this mechanism to

separate from Serbia, in response to the suppression and persecution of the Albanian minority by Slobodan Milošević's regime and the ensuing war. Kosovo's secession remains contested today, as it is not accepted by all UN member states and its legitimacy has been recognized only indirectly by the International Court of Justice.

“One of the interesting things about the Ukraine case is that both sides argued on the basis of international law,” Brühl-Moser observes. In 1999, Russia had voted against a UN resolution authorizing military intervention in Yugoslavia, in contravention of the international community's responsibility to protect under international law, yet in the case of Crimea the Kremlin deployed similar arguments. By systematically spreading misinformation about ethnically motivated violence against the Russian-speaking population, it now wanted itself to make the case for a remedial secession. Although a UN report noted isolated instances of violent attacks, the grossly exaggerated reports in the Russian media did not reflect the reality, which fell far short of justifying a “remedial secession”.

The Ukrainian government, for its part, appealed to its right of self-defense against invaders. The identity of the unbadged troops in Crimea, known as “green men” did not remain a secret for long –

they were Russian GRU special forces. This meant that Russia was contravening the UN prohibition on the use of force and violating the territorial integrity of Ukraine.

### Example of the Jura conflict

Calls for self-determination do not have to lead to a change in sovereignty. This is shown by the example of Jura's secession from the canton of Bern, which took place within the boundaries of a state. However, here the process took far longer. Back in the early 1950s, the separatist "Rassemblement jurassien" made the first legal moves to establish the canton of Jura. After initial resistance, the conflict was defused only by the adoption in 1970 of an amendment to the Bernese constitution, recognizing the right to self-determination of the French-speaking parts of the population. The seven districts of the canton making up the Jura were able to vote on their own status in a series of referendums. In 1978, the creation of a new canton of Jura was democratically approved by a majority of the Swiss people and all the cantons.

"By contrast with this democratic process, the referendum in Crimea was a farce," Denise Brühl-Moser says. Any measures to detach Crimea from Ukraine and annex it to Russia are contrary to both the Ukrainian and the Crimean constitutions. The plebiscite also contravened the rules set out in the European conventions on human rights stipulating a universal, free, equal, and secret ballot, held within a context of freedom of expression and the press, and subject to international monitoring. Questions remain as to the real views of the population. Although the results of the referendum were very clear, there are still considerable doubts about their reliability.

### No easy solution in sight

Denise Brühl-Moser sees Crimea's geopolitical importance as the reason behind these attempts to bring about its secession. Not only does the region have rich oil and gas reserves, it is the main base for Russia's Black Sea fleet, giving it access to the Black Sea and the eastern Mediterranean. "The Russian Federation has no interest in annexing eastern Ukraine, on

the other hand, if only because of the economic situation there."

What is the way forward for Ukraine? "The solution is probably to look at decentralizing power to some extent, having regard to the provisions for protection of minorities in international law," Brühl-Moser explains. "Ideally, self-determination should be exercised within existing states." As with Jura, the only legally tenable way for Crimea and eastern Ukraine to achieve self-determination would be via a lengthy political process, with no predetermined outcome. This is the case not least because the government in Kiev is vehemently opposed to federalization, as it fears that Russia might use its clandestine presence in eastern Ukraine to influence domestic Ukrainian politics. Brühl-Moser argues that ultimately the Ukraine conflict is about defending the values of an international order that was designed to keep the peace and agreed by the international community after World War II. ■

**"One of the interesting things about the Ukraine case is that both sides argue on the basis of international law."**

Denise Brühl-Moser

# Eastern Europe in Basel.

Eastern Europe provides the focus for a number of events taking place around Basel this November. Various cultural institutions will be inviting people to take a look at the history, cultures, and societies of Europe's East.



**Vladimir Sorokin** is one of Russia's most important living writers and dramatists.

**BuchBasel**  
**Vladimir Sorokin's**  
**Telluria.**

These are dark and turbulent times. It is the middle of the 21st century, and the states of Eurasia have fallen apart, to be replaced by independent kingdoms. Following wars of religion and rebellions, people are trying to rebuild their lives. At the heart of this chaotic new world order is the little republic of Telluria, which has what everyone wants: a way of producing happiness. In Telluria, the prizewinning novelist and Kremlin critic Vladimir Sorokin gives full rein to his creative imagination to distil our present into an absurdly comic satire about the future. Vladimir Sorokin will be a guest at the international literary festival Buch-Basel. The event is being held in collaboration with the Eastern Europe Forum Basel. Featuring Professor Thomas Grob (presenter), Maria Chevrekouko (translation), and Vincent Leittersdorf (reading in German). Saturday, November 7, 2015, 11 am; Volkshaus, main auditorium, Rebgasse 12–14, Basel. ■

[www.buchbasel.ch](http://www.buchbasel.ch)

**Café Scientifique, Basel University**  
**Where does Europe end?**  
**Looking for answers in the East.**

The question of Europe's identity is tied up with the issue of where its boundaries lie. While the continent is encompassed to the west, south, and north by sea, it lacks a clear "natural" border to the east. For many people, Europe's eastern border marks a political, social, and cultural dividing line. But where does it run? This is a much debated question, whose explosive re-emergence in Ukraine, Russia, and the countries of the southern Caucasus in recent times has implications for all of us. Professor Frithjof Benjamin Schenk (History) and Professor Thomas Grob (Slavonic Studies) of Basel University, along with Professor Jeronim Perović, a historian from Zurich University, will host a public discussion on the topic. Sunday, November 8, 2015, 3–5 pm, Pharmacy Museum, Totengässlein 3, Basel. ■

[www.cafe.unibas.ch](http://www.cafe.unibas.ch)

**Philosophicum**  
**Demons, by F. M. Dostoyevsky.**

The Philosophicum at the Ackermannshof is turning its attention to a classic of Russian literature: *Demons*, by Fyodor Mikhailovitch Dostoyevsky. Over the course of four evenings, Nadine Reinert and Stefan Brotbeck will lead course participants in a discussion of the novel. Set in a late 19th-century Russian town where the driving forces are greed, passion, nihilism, and lust for power, this is not just one of Dostoyevsky's darkest works, but a superb morality tale about power, freedom, and how they can be corrupted. Seminar dates: November 9, 16, 23, and 30, from 7 pm to 8.30 pm, St. Johannis-Vorstadt 19–21, Basel. ■

[www.philosophicum.ch](http://www.philosophicum.ch)

**Volkshochschule beider Basel**  
**(Basel Adult Education Center)**  
**Welten voller Veränderung –**  
**Osteuropa nach 1989/90.**

Following the end of the Cold War, a new spirit of optimism was abroad in the former Warsaw Pact countries. However, the challenges they faced were huge – national economies were being reconfigured, currencies were in a state of collapse, and corruption was rampant. People tried to make sense of their experiences through literature and film. Looking back, we are confronted with a picture of worlds in flux. This series of four lectures plunges into the recent history of Eastern Europe. The course will be run in collaboration with Basel University's Eastern Europe program and the Eastern Europe Forum Basel. Dates: November 10, 17, 24 and December 1, 6.30–7.45 pm, University of Basel, Kollegienhaus, Petersplatz 1, Basel. ■

[www.vhsbb.ch](http://www.vhsbb.ch)



Dossier

# NOGAIISCHE TATAREI

Map of the  
Taurian or Crimean peninsula, 1788

This map, printed in Vienna, was designed to illustrate the geography of the Russo-Turkish War (1787–1792), which followed the Russian occupation of Crimea.

# Bijou gem at Basel Heuberg.

The Frey-Grynaeus Institute's historic library holds several thousand volumes dating from the very earliest printed books and into the 19th century. The institute was founded in 1747 by Johann Ludwig Frey in memory of his colleague Johannes Grynaeus.

Photo: Basile Bornand

**Reinhold Bernhardt** has been Professor of Systematic Theology and Dogma at the University of Basel since 2001. He often likes to withdraw to this unique university library to discover time and again books unfamiliar to him with surprising contents.

- 1** Reinhold Bernhardt leafs through a "Cosmographia" by the humanist Sebastian Münsters. He worked on his life's masterpiece for almost 30 years. Cosmographia first appeared in 1544. This edition, which carries the title "Description of the entire world", was printed in Basel in 1628.
- 2** Let us search back over two hundred years: Handwritten index cards on all the books are stored in numerous boxes. They are organized alphabetically according to author's surname and mostly written with quill and ink.
- 3** These shelves display the classics of Greek literature, including an edition of Aristotle's Organon in Greek and Latin dating back to 1597.
- 4** A particular gem on the history of Switzerland: The Chronicon Helveticum or the "Gründliche Beschreibung der So wohl in dem Heil. Römischen Reich als besonders in Einer Lobl. Eydgnosschafft and angränzenden Orten vorgeloffenen Merckwürdigsten Begegnussen" is the title of the work written by Aegidi Tschudii and first published in 1415. This edition was printed in Basel in 1734.
- 5** "Institutio Christianae Religionis, Autore Ioanne Caluino": This details the seminal theological work by Johannes Calvin. One chapter is entitled "Machumetis Alcoran" or in other words "Mohammed's Koran". Theologian Reinhold Bernhardt finds this a particularly exciting edition as "this is one of the first ever printed copies of the Koran".





# “Big public data” – opportunities and dangers.

Big data and the state: On the future of the fundamental right to informational self-determination. An economist and a legal scholar take up positions.

The digitization of many areas of life, driven by the spread of the Internet and cell phones, has in recent years produced a veritable flood of data about various aspects of our social lives. This opens up new opportunities for conducting empirical research into economic and social relationships on a scale that would have been unthinkable a few years ago. In addition to new technical and methodological challenges, social science research that uses big data must, in some areas, also address important ethical issues regarding the privacy of the research subjects. However, fields of big data that are not especially problematic in this regard do exist – namely, data about public administration and politics.

“Big public data” is explicitly intended for the public, but has so far received little attention from social science researchers. One particular development is key to the increasing availability of big data: the emergence of NGOs and citizens’ organizations that are using the new possibilities provided by the Internet to make the political process more transparent. This “open government” movement has seen particularly strong growth in the U.S. over the past five years. Organizations such as Project Vote Smart and the Sunlight Foundation publish detailed information about various aspects of U.S. politics. In doing so, they are using new web technology standards that simplify networking and data transfer between different applications and users. This facilitates a decentralized approach to generating, processing and disseminating the data. The Project Vote Smart website ([votesmart.org](http://votesmart.org))

is a good example. The site tells U.S. citizens about every person who holds a public office (or candidates for a public office) in the country – from the president to the county sheriff. The site also gives candidates and politicians a platform for presenting themselves in public. This means they have an incentive to contribute to the comprehensive database themselves. In order to fulfil their missions as effectively as possible, organizations such as Project Vote Smart also share their data, via interfaces, with other web developers who can then easily embed the data in other applications and websites.

The same technology allows researchers to collect and analyze the data systematically using software they have programmed themselves. Gathering data in this way has a significant advantage for empirical political economy research, as the data are generated and disseminated independently of a specific research question. This is crucial for many politico-economic issues, as research often focuses on characteristics or aspects of behavior that politicians generally want to hide. The areas of political economy in which these new datasets can be applied include research that uses detailed micro-data about political financing to investigate how stakeholder groups influence economic policy, and the development of new methods for uncovering hidden collaboration in legislative assemblies.

Overall, big public data combined with new computer-aided analytical processes promises exciting times for empirical research at the interface of economics and politics. ■



**Ulrich Matter**

submitted his dissertation, Political Economics in the Age of Big Public Data, to the Faculty of Business and Economics at the University of Basel in June 2015.

He is currently undertaking research for a project entitled “Uncovering Vote Trading through Networks and Computation”.

**T**he fundamental right to informational self-determination guarantees each individual the right to decide what personal data she or he wishes to reveal and to whom. This holds especially in relation to the state. The state is permitted to gather, process or pass on people's personal information only under very restricted preconditions. The constitutional right thereby guarantees an individual the possibility to determine under which identity she or he wishes to be perceived in public dealings. My public persona should be an expression of my autonomy.

In its form up until now constitutional protection has, to a significant degree, been dependent on the kind of personal information in question: The deeper the insights the information in question gives into the personality of the affected person, the higher the hurdles for the state in seeking to gather, process or pass on that information. Against this background the fundamental right to informational self-determination seems primarily to be a right to data protection; thus its description in the Charter of Fundamental Rights of the European Union.

Big data calls into question the very basis of this concept. Primarily, big data changes the connection between the disclosure of personal details by individuals and the knowledge of personal attributes in the possession of third parties, in particular the state. In one concrete case it was demonstrated that anonymized gene sequences placed in research data banks that are accessible to the public could, with the help of just a little more data, be assigned to particular individuals. This makes it possible for third parties to have knowledge of personal details of which the individual may, in certain circumstances, be unaware.

Given this background, state knowledge of a personal characteristic is no longer necessarily based on the fact that the individual has disclosed the information in question. If the state has access to a large amount of different details about people, then big data makes it possible for the state to infer certain characteristics of groups in the population or indeed of particular individuals, and to do so with a certain degree of confidence. For example, with the help of big data police today can localize those areas in which there is an increased risk of burglary. This seems a less problematic issue. But what if the police, without any concrete suspicion, started stopping people in public spaces in the areas described as high risk?

When the state acts towards a group of people merely on the basis of a significantly elevated probability of a particular kind of behavior, then the state is acting on the basis of stereotypes. In the context of big data, these stereotypes are not the result of opinions formed within society but rather the result of algorithms used to make correlations transparent. This does not, however, fundamentally alter the fact that a state's actions towards individuals, if based on their fitting a stereotype, has the potential to be demeaning.

This is particularly clear, for example, when big data is used as the basis for decisions on releasing individuals from custody. Big data is already used for this purpose by certain parole boards in the United States. The problem is not that the likelihood of successful predictions is too low; in fact it may well be the case that the probability of such a prognosis being correct is greater than a judgment made by a court psychiatrist on the basis of an assessment of the person in question. The problem is, rather, that the affected person is not treated as an individual in his own right but simply as an arithmetical entity.

Against this background, the fundamental right to informational self-determination must be rethought and modified. In these circumstances, the self-determination of the individual in the shaping of his social identity can no longer be protected merely by guaranteeing him the authority to dispose over his personal details. Consent to the use of personal information in this respect is no longer a suitable instrument for protecting privacy. The focus must be shifted from the disclosure of private details toward the way in which data of any origin is to be handled. Here it is not just a question of highly personal data on a particular person, but also of how the state deals with data that may neither be especially personal nor give any indication of the individual's identity.

Linking, combining, and evaluating data of any kind has become central to issues on fundamental rights, regardless of whether the data in question is of a more or less personal nature. This is especially the case in relation to data that has been gathered and processed with the consent of the affected person. Here, there is not yet much clarity on the standards set by the fundamental right to informational self-determination. It is the responsibility of legal scholars in particular to drive this new orientation of fundamental rights. ■



**Markus Schefer** has been Professor of State and Administrative Law at the University of Basel since 2001. Following a degree in Bern and advanced studies at UC Berkeley and Georgetown University, Washington DC, he completed his doctorate at the University of Bern.

More than 150 years ago, the English naturalist Charles Darwin realized that living organisms change by adapting to their environment. As they adapt to different surroundings, whole new species can arise. Thus almost 2,000 new species of cichlids have evolved in the great lakes of east Africa alone – Lake Tanganyika, Lake Malawi, and Lake Victoria. These tropical freshwater fish, which can also be found swimming around our fish tanks, vary greatly in appearance. Their basic shape is oval, rather elongated, and flattened at the sides, but they have differently shaped mouths, depending on their diet. According to Professor Walter Salzburger, a zoologist and evolutionary biologist at Basel University, “Cichlids are fascinating model organisms for understanding how biological diversity arises.” The African lakes are probably the only place on earth where such a huge number and variety of species have developed through adaption to different ecological niches – and in a relatively explosive way. Salzburger, who is originally from the Tyrol region, flies to east Africa with his team at least twice a year. There, the zoologists spend a few weeks diving for cichlids, chasing them into nets, fishing for them, trapping them, or buying them from local fishermen, so that they can later study their morphology and genetics. And it isn't uncommon for a fish to end up in a frying pan as dinner for the visitors from Basel.



Photos: Robert Huber, Adrian Indermaur  
Text: Christoph Dieffenbacher

# In Darwin's footsteps.



**One among many**  
Scientists have described more than 200 different cichlid species from Lake Tanganyika. There are also dozens of un-described species, such as fish number LGC5 (*Petrochromis* sp. "rainbow") from the Basel collection. The European Research Council (ERC) has provided funding of two million euros for the project CICHLID-X, which aims to study the full range of cichlid species from Lake Tanganyika.



**Expedition to the  
great lake**

At more than 650 km long and nearly 1,500 m deep, Lake Tanganyika in east Africa is the largest body of fresh water on the African continent. The lake is renowned among biologists for its unusually diverse cichlid population. The Basel zoologists use a specially adapted fishing boat to survey the lake's many different species of cichlids. The researchers' travels take them to the remotest parts of Lake Tanganyika, such as the Mahale Mountains in Tanzania.







**Turning the beach into a laboratory**

The freshly caught cichlids are measured, weighed, and photographed. The researchers take DNA samples before preserving the fish for further examination.

The Basel scientists' strange activities are often a source of general amusement for a whole crowd of children.



**A little bit of Africa in Basel**

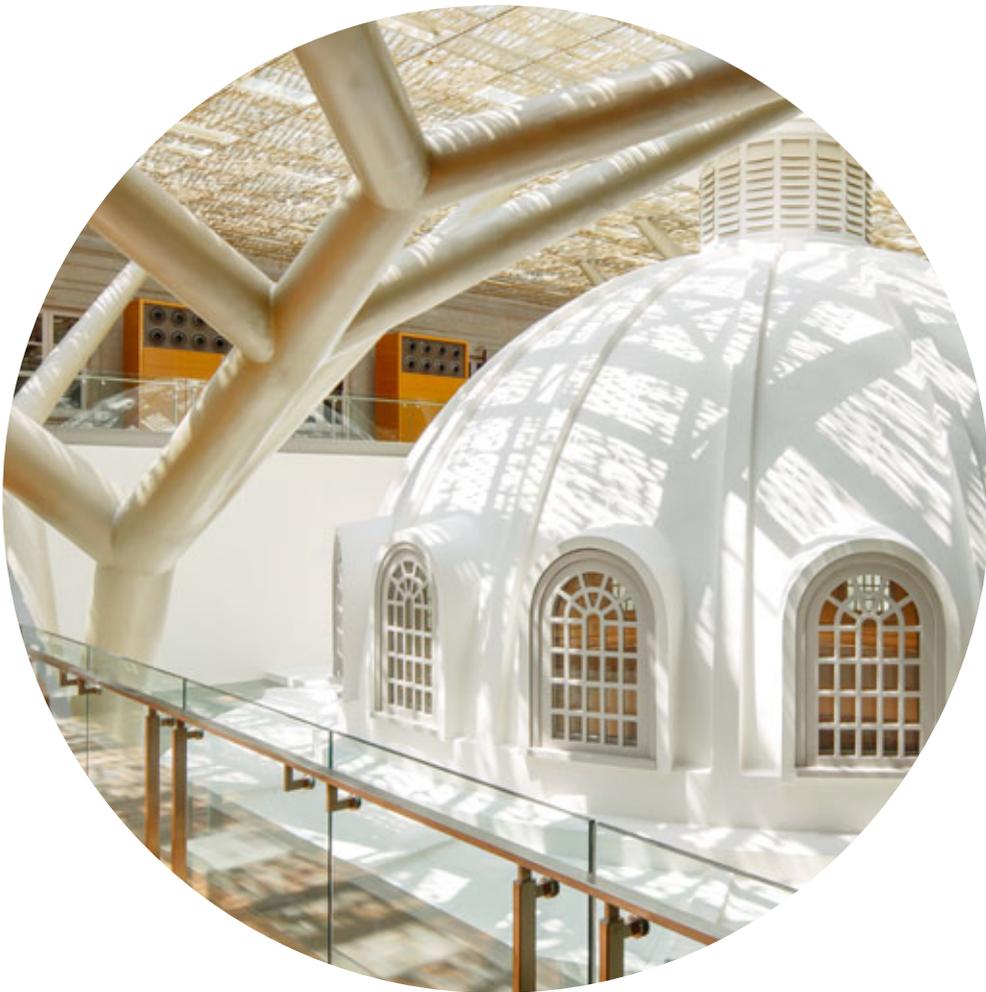
Back at the University of Basel's Zoological Institute, the cichlids are sorted and added to the ever-growing collection. Later the fish are put through a CT scan in the laboratory so that their specific environmental adaptations can be studied. Each species also has its genome sequenced.





**Walter Salzburger** joined the University of Basel in 2007 as assistant professor. In his research, the zoologist focuses on the evolution of cichlids. He also conducts research into vertebrates of the Alpine region.

# Tracing transformations in the city.



## **Singapore National Gallery**

A ceiling of glass and metal connects  
two colonial buildings with the new  
National Gallery.

Cities are constantly changing.  
 Mechtild Widrich studies these changes closely and understands  
 what they mean for the broader public.

Text: Olivia Poisson



**Mechtild Widrich** studied Art History at the University of Vienna, and Art and Architectural History at MIT, where she completed her PhD. After several years working as a freelance curator, she held a position as postdoctoral researcher and lecturer for Art and Architectural History at ETH Zurich between 2011 and 2013. In 2013, she joined the *eikones* project, the National Center of Competence in Research (NCCR) Iconic Criticism at the University of Basel. She has been working as Assistant Professor of Art History, Theory and Criticism at the School of the Art, Institute of Chicago, since May 2015.

It's difficult to categorize Mechtild Widrich. The art historian and visual studies scholar holds a PhD from MIT, and researches the interface between art, architecture, and history. Working across these disciplines, she addresses complex questions relating to images, buildings, and public space. She often speaks about the city and the image – two concepts that together form her central research topic: the image of the city.

Iconic criticism has been the focus of *eikones*, a National Center of Competence in Research (NCCR) project at the University of Basel since 2005. Mechtild Widrich joined the center in 2013 as a postdoctoral fellow to work on the “Cities on the Move” research project, which looks at the relationship between the image and the city in art, architecture, and urbanism – an ideal constellation for the young researcher.

### The disputed image of the city

Cities generate images. These images are not reserved exclusively for visitors to the city – as was the case for a long time – but are now mediated for the whole world to see. The kind of image and the message it sends are factors that are of political and national interest. It is therefore unsurprising that specific groups try to influence the image of a city through its architecture or art. The result? Numerous contradictory images of a city that are circulated in the media and which shape public perception. “The image is not static – it is highly contested,” says Widrich.

This is the focus of Widrich's research project entitled “Histories on the Move: The Nationalization of Global Art,” which looks at the relationship between national self-representation and the construction of national images through art.

One impressive example of a political image of the city is Singapore. Widrich's research includes a study of the new National Gallery of Contemporary

Art that is to be opened at the end of 2015. “By means of architectural projects such as the National Gallery and by exhibiting modern and contemporary art, Singapore is looking to actively shape its own image.” The museum is intended not only to make art accessible for local residents, but also to project a particular image on a global level.

### An artificial art scene

In an official and transparent manner, Singapore has issued a so-called renaissance of the city. Its stated strategic goal is to become the new creative center in Southeast Asia. To this end, initiatives such as the Singapore Biennale and the new National Gallery are being launched. “The art scene is being created using a top-down approach here, which is intended to lead to a different image of Singapore in our heads.” Economic interests lie behind these developments – Singapore is a rich country and wishes to stay that way.

This is just the theory. “When you're there, however, you realize that things are more complicated than that.” True, there is an abundance of talented artists, curators, and critics in Singapore, but this also means that they are highly critical and question the national interests, according to Widrich. “Many of them work subversively within the system, or call it into question, which results in counter-movements that push against the official strategic position.” Widrich is conscious not to analyze any kind of status quo in her research: “I find things become exciting precisely when conflicting dynamics become visible in the image of the city. I'm interested in how these are formed, and how different social groups seek to influence these, as well as the various levels of reception. I think that investigating these dynamics in a social and political context is key to understanding the interrelation between local, national, and global representation mechanisms.” ■

# Little appetite for study on an empty stomach.

Malnutrition and worm infections negatively affect the performance of schoolchildren in South Africa. The efficacy of simple countermeasures is now the subject of research.

Text: David Herrmann



**Uwe Pühse** is Professor of Sport Science at the Faculty of Medicine at the University of Basel. He also researches how dimensions of teaching quality are recorded in physical education.

“Please don’t do that!” Uwe Pühse vividly describes how the principal of a primary school in Port Elizabeth, South Africa, saved him from making a serious mistake. And all Pühse and his research team wanted to do was ask the pupils to bring their sports kit to the sport test the next day. “Most children do not possess such a thing. Due to a sense of shame, they would not have come to school at all and the test could not have taken place.” Pühse is Professor of Sport Science at the Department of Sport, Movement and Health (DSBG) at the University of Basel. Together with Professor Jürg Utzinger from the Swiss Tropical and Public Health Institute (Swiss TPH) he leads the DASH project (Disease, Activity and Schoolchildren’s Health) which is funded by the Swiss National Science Foundation (SNSF).

In Port Elizabeth, a research team from the DSBG and Swiss TPH is, along with a team from the Nelson Mandela Metropolitan University, studying the effect of parasitic worm infections and of malnutrition on the physical fitness, cognitive performance and psycho-social health of around 1,000 children at 8 schools. All the schools are located in extremely poor areas with high rates of unemployment. These are just the basic facts. The significance of the project only really becomes tangible, however, when Uwe Pühse recounts his experiences there. “When the children come to school on Monday, for many their last meal was a school meal on Friday.”

## Trust enables deep insights into health

And yet: Looking at the pictures of children at the schools, they seem to be thriving. Professor Rosa Du Randt, however, sweeps this impression aside. “It is difficult to see when the children are wearing their school uniforms, but most of them lag behind in their development compared with children of the same ages at better schools. Half of them are HIV-positive and many suffer from parasitic worm infections or other chronic diseases.” Du Randt is director of the School of Lifestyle Sciences at the Nelson Mandela Metropolitan University in Port Elizabeth and together with her colleague Professor Cheryl Walter she jointly leads the project. She and her team are building the bridges between the cultures. This is taken for granted in Switzerland but cannot be simply assumed in South Africa. Conversely, certain conditions prevail in South Africa that are unimaginable for the Swiss. There is constant fighting between heavily armed drug gangs, even very near to schools. Whoever wishes to work and conduct research successfully here needs people they can trust who are familiar with the local situation.

Bruce P. Damons was recently voted Principal of the Year in South Africa. He is head of the Sapphire Road Primary School and is part of the research team. His insights into the everyday life of the local people as well as his suggestions led to a complete overhaul of the research design that Pühse, Utzinger, and their team had developed back in Basel.



**Rosa Du Randt** is a Professor at the Nelson Mandela Metropolitan University in Port Elizabeth, South Africa. Her research focuses on biokinetics and talent identification.

Together with Damons, the team has now put together a plan designed to allow them to achieve their research goals while respecting the personal pride and the living conditions of the participants. For Uwe Pühse the situation is clear: “Without Bruce we would never have come so far. He is our man on the frontline who does the explaining, the one who can explain to the children’s parents in their own local language what we are trying to achieve and why the examinations, which are sometimes very personal, are so important.”

**Long-term examinations for sustainable changes**

In two stages lasting until 2016, a range of data regarding the health of the children will be collected. First, a cross-sectional study will analyze the extent to which the children are suffering from infectious diseases and parasites, the effect these have on their physical fitness and cognitive performance, and the effect nutrition has on their health. The children will be clinically examined and anthropometrically measured; they will be asked to provide stool and urine samples to be checked for certain pathogens and parasites.

Second, the research team will conduct a longitudinal study on how targeted school-related intervention measures affect the health and wellbeing of the children. Over the course of 18 months, the medical status, physical fitness, cognitive performance, and psycho-social health of the children will be monitored regularly. In parallel, targeted measures will be implemented in half of the schools: The teaching staff will be trained in giving sport lessons and in promoting exercise, the children will be de-wormed and given further medical care, the school meals menu will be overhauled, children and staff will be trained in personal hygiene, and the school grounds made more exercise-friendly. The project, however, also includes the aim of making sure that the schools in the control group will, after the project is completed, also see measures implemented. For Du Randt it is clear: “The success of the project requires that all participants benefit equally.” (Please also see the interview.)



This QR code links to a film about the research project described here, conducted jointly by the University of Basel and the Nelson Mandela Metropolitan University.

**Within the framework of the DASH project, Professor Rosa Du Randt visited her colleagues at the Department of Sport, Movement and Health at the University of Basel. Uni Nova met up with her.**

**UNI NOVA:** Professor Du Randt, how many other research projects with similar international involvement are in progress in your department at the moment?

**ROSA DU RANDT:** Currently just one – but in terms of size or significance it cannot really be compared to the DASH project. The exchange with the University of Basel is extremely valuable to us; not only scientifically but also for our colleagues and students. The opportunity to come here and work on this project is a huge benefit for all.

**UNI NOVA:** And how do the Swiss colleagues benefit in return?

**ROSA DU RANDT:** Their view of Africa changes. They see the extreme diversity of the continent – the good and the bad sides. And they realize that in spite of their extreme poverty the people have maintained their pride. It is therefore important to understand that we are doing things with them and not for them.

**UNI NOVA:** And this understanding that you are doing the project together is the secret of your success.

**ROSA DU RANDT:** Exactly. And, in addition, the colleagues from Basel would never have come so far alone. In order to approach the people in the townships, you have to keep to certain rules so as not to appear insulting. Some of our own colleagues and students grew up there themselves, so they know the local language and the conditions there. That helps us enormously.

**UNI NOVA:** The project design aims at improving the living conditions of the pupils there. Do you believe that this is another reason for the success of the project?

**ROSA DU RANDT:** Yes, absolutely. Whenever research is done within a community, then everyone must benefit. That is the key to participation in the project and so also to its success. ■



# Finding new solutions in medicine with the art of engineering.

At the Department of Biomedical Engineering in Allschwil, surgeons and engineers are developing new technologies for the life sciences.

Text: Martin Hicklin Photo: Basile Bornand



**Philippe Cattin** studied Computer Sciences at the University of Applied Sciences in Brugg/Windisch. He gained his Master's at ETH Zurich, where he completed a doctorate at the Institute for Robotics in 2002. In 2007, he founded the Medical Image Analysis Center at the Faculty of Medicine, University of Basel. Since 2014, he has been head of the newly created Department of Biomedical Engineering.

**The latest department to be established at the University of Basel is the first of its kind in the canton of Basel-Landschaft: In Allschwil, directly adjacent to the Swiss Innovation Park in Northwestern Switzerland, 60 researchers are creating innovative solutions to medical problems.**

Laid diagonally across the round table in the new Department of Biomedical Engineering (DBE) in Allschwil is an intricate model of a spine. Yellow stumps of nerves protrude from the spaces between the interconnected vertebrae. A delicate construction upon which so much depends, yet which can so easily be damaged – especially when a thick orthopedic screw has to be inserted for stabilization. The screw must be positioned at the right angle, at the right depth, and without damaging any of the fragile structures. Philippe Cattin uses the model to demonstrate how this is achieved: He turns it around, and applies a tool with a screw holder and a cross handle. At the base of its shaft is a small box

containing a gyroscope, a compass, and an accelerometer. These tools facilitate the exact positioning of a screw using simple methods and without X-rays. “With this device, we can give the surgeon a tool that enables him or her to navigate precisely, and which costs a fraction of what is usually spent on a guidance system. What’s more, we spare the patient from radiation,” Philippe Cattin says happily. The Professor of Medical Image Analysis is the first head of the university’s new Department of Biomedical Engineering. Everything they design is inexpensive thanks to the mass-produced but highly sophisticated components taken from the smartphone industry. The “NaviPen” is a typical product of the DBE: “Our goal is to assist medical professionals using the art of engineering,” says the 48-year-old. They use simple methods where possible – which is how a CHF 300 Android tablet was converted into a navigation instrument to be used during operations.

When he was 40, Philippe Cattin was appointed to his role as Professor of Medical Image Analysis at

**Department of Biomedical Engineering**

The Department of Biomedical Engineering is composed of the following institutes and research groups: Biomaterials Science Center, Biomechanics, Clinic of Radiology and Nuclear Medicine, Institute of Forensic Medicine, Medical Image Analysis Center, Medical Laser Physics, Medical Robotics, Musculoskeletal Research, Oral Health Technologies, Pneumology Research Group, Quantitative Biomedical Imaging, Radiological Physics and Tissue Engineering Technologies. The Department also works in close cooperation with Basel University Hospital and the University Children's Hospital.

the University of Basel, a position that was sponsored by Swiss entrepreneur and businessman Hans-Jörg Wyss. As soon as he arrived in 2007, Cattin founded a Medical Image Analysis Center, which he continues to oversee, and which then became part of the new DBE along with a number of other departments and research groups (see box). Cattin is highly qualified for his job: He completed his PhD in robotics at the ETH, and then continued his research in electrical technology and in the computer vision laboratory. "This was the perfect preparation for my current job," says Cattin. Indeed, his trajectory has been exemplary. After an apprenticeship as a lab assistant at the ABB in Baden, he found his way to the ETH Zürich – and excelled. From his apprenticeship and his Bachelor's, all the way through to his Master's at the ETH, he continued to win top accolades at every stage. He is still benefiting from his training and manual skills: "I'm happy to make a part we need every now and then."

In the various different projects, Cattin's team looks for ways of supporting therapies that require simultaneous imaging, and for ways of enabling better spatial orientation. Using models, they attempt to facilitate more precise interventions on organs that move as a result of breathing, and to reduce the collateral damage caused by radiation. They also have several ongoing collaborative projects with partners at hospitals. These involve sophisticated imaging methods for the spinal cord, for example, or address the problem of children's lungs or damaged nerve cells. This has resulted in close cooperation with the medical imaging analysis group, which has an international reputation for evaluating multiple sclerosis images using high-precision tools under the umbrella of the university hospital's own MIAC Corporation. This group is involved in numerous clinical trials of MS treatments.

A powerful partner and early proponent of the DBE is the oral surgeon Hans-Florian Zeilhofer. After arriving from Munich, he began experimenting with techniques for better orientation during interventions, and he promoted projects aimed at solving surgical problems. In 2004, Zeilhofer founded a pioneering high-tech research center (HFZ) at the university hospital, building on his good connections in the medtech sector. Researchers at the HFZ worked

on the development of robots, and attempted to use lasers as precision cutting instruments for bones. One robot called CARLO (computer assisted robot-guided laser osteotome), which can cut precise bone fragments to plan, is currently being developed for the market by the spin-off company AOT. Cattin and Zeilhofer are co-founders, together with laser physicist Alfredo Bruno and surgeon Philipp Jürgens. The robot-controlled laser bone-cutting system will now be "miniaturized" in the so-called "MIRACLE" research project, so that it can be used for minimally invasive "buttonhole" surgeries. This project – which is also led by Philippe Cattin and Hans-Florian Zeilhofer – has attracted funding of CHF 15.2 million over five years from the Werner Siemens Foundation. The project will also investigate how to rectify bone defects using metal structures manufactured by 3D printers.

With these developments in Allschwil, earlier initiatives are beginning to bear fruit. The Department of Biomedical Engineering can trace its origins to a shift of focus onto clinical morphology and biomedical engineering at the Faculty of Medicine in 2005. This was one year after Zeilhofer founded the HFZ. Following this, the medtech entrepreneur Hans-Jörg Wyss (then Synthes) and Thomas Straumann each funded a professorship. Working on image analysis, Cattin took the position of Wyss Professor, and Bert Müller became Straumann Chair of Materials Science and established the Biomaterials Science Center. Both are now members of the DBE. In 2014, the university management board decided to create the Department of Biomedical Engineering, and thereby placed a focus on medical technology with the potential for industrial spin-offs. The Swiss Innovation Park in Northwestern Switzerland in Allschwil is a logical site to establish the department.

The new laboratories are located right next to Actelion's creatively arranged company headquarters. Over 60 people will initially work here in research and development in the new infrastructure extending over 3,000 square meters. Additional professorships are being generated, and there are already three spin-off companies. These impressive beginnings will undoubtedly be seen as the start of great success in the history of the region. ■

Delayed gratification

# Social psychology promotes sustainable behavior.

One kilo of carrots cost CHF 2.40. The same weight of organic carrots costs CHF 4.40. Why willingly spend more money on something that will only be of benefit in the distant future? Students from the Department of Psychology are using methods from social and clinical psychology to investigate ways of promoting sustainable behavior.

## Innovative educational concept

This semester, the Department of Psychology will be holding the second seminar entitled “Psychology in the service of sustainability”. Over the course of two semesters, the seminars will help students acquire knowledge about the psychology of sustainability. They start out in the seminar room and then move into the field. Judith Tonner is a research assistant in the social psychology center and runs the seminar in collaboration with Professor Rainer Greifeneder and Professor Jens Gaab. Following the principles of problem oriented learning, the first semester asks students to solve fictional sustainability case studies that allow them to get to grips with important concepts and methods of behavioral change.

## Society already feels the benefit

In the second semester, students work on real-life practical cases in groups. This method is known as service learning. Social institutions profit from the students’ expert knowledge and the work they put in, and the students can see first-hand how their skills benefit people. For instance, a group is currently helping the administration of a former industrial site in Basel in the process of developing its own energy supply. The seminar receives financial support from the Swiss University Conference (SUC), Stiftung Mercator Schweiz, and the Department of Psychology. ■

LSD

# In Albert Hofmann’s Footsteps.



**Matthias Liechti** is Professor of Internal Medicine and Clinical Pharmacology at the University of Basel and head of the psychopharmacology research group at the University Hospital of Basel. His group focuses its research on the mechanisms and pharmacology of psychoactive substances.

After a hiatus of more than forty years, Basel is again seeing LSD (lysergic acid diethylamide) research involving human subjects. In a study conducted at the University Hospital of Basel, a group of scientists led by Professor Matthias Liechti administered 200 micrograms of LSD to participants. As well as pleasant perceptual alterations, the subjects reported feelings of happiness, trust, and closeness to others. By contrast, anxiety and stress responses were rare and mild. Experts hope that this psychoactive substance, used in combination with psychotherapy, will open up new options for patients who have been unsuccessfully treated with psychotherapy alone or medication. Pilot studies have shown that LSD allows severely traumatized patients with life-threatening illnesses to confront their fears without being overwhelmed by them, thus alleviating their mental distress while increasing their confidence.

LSD is extracted from the rye ergot fungus. In 1943, Swiss chemist Albert Hofmann first tested the substance on himself. He soon became aware of the potential of LSD for psychotherapy. In the 1950s and 60s, scientists the world over reported successful experimental treatments involving LSD. However, the UN’s 1971 Convention on Psychotropic Substances classified LSD as particularly dangerous, effectively halting LSD research.

New laboratory work is now made possible by modern neurophysiological and imaging methods that help investigate the effect of LSD on the human brain. Working in Basel just as Albert Hofmann before him, Matthias Liechti was able to show that LSD temporarily changes the way the brain processes information, giving rise to phenomena similar to those found in schizophrenic patients. This could make it easier to gain insight into schizophrenia and other mental disorders. ■

# Joseph and the speculators.

Text: Prof. Dr. Heinz Zimmermann

Commodity futures trading is often the subject of public debate: To what extent can it be called enterprising commercial trade, and when does it become speculation?



**Heinz Zimmermann** is Professor of Financial Market Theory at the University of Basel. His latest work focuses on topics such as the role of speculation and stocks on commodity futures markets.

**J**oseph's interpretation of the Pharaoh's dream saved Egypt from a famine: In the seven years of plenty, grain was stored in large quantities so that in the subsequent lean years it could be sold to the starving population – and not distributed freely as one is sometimes taught in religion classes. Since we learn nothing in the sources about the purchase price in the years of plenty or the selling price in the lean years, the economic dimensions of the biblical tale remain in the dark. In addition, Joseph was clearly in possession of a state monopoly both for the storage and trade of grain. Futures transactions are not mentioned, although these did already exist widely in the form of grain credits.

How would things have been different if a competitive market system had operated rather than Joseph's providence and monopoly? When expecting a shortage, the owners of storehouses would only have stored the grain over years if the eventual selling price was predicted to recompense them for the cost of storage and the cost of capital tie-up. In contrast to Joseph they are exposed to a price risk, just like the bakers who live with the uncertainty regarding how much they will have to pay for grain in the lean years. This uncertainty, at least with regard to the price risk, could be removed through futures transactions: those who run the warehouses undertake to sell the stored grain in one, two or three years' time at a fixed price agreed today (the

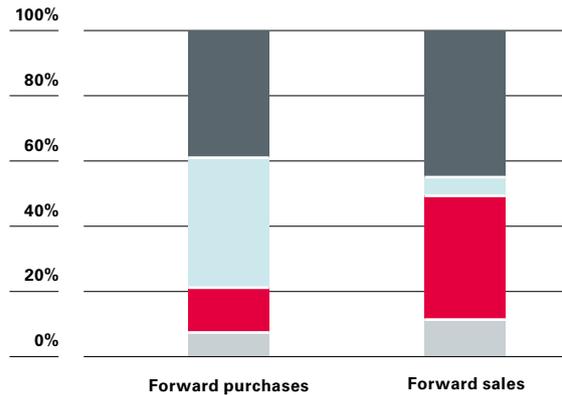
forward price). If poor harvests are expected, the forward price curve will rise and so create an incentive to store the cereal and to counteract the expected shortage. For the bakers and for consumers, this makes it possible to buy grain at a price that is indeed higher but which is also guaranteed and so can be planned for. If the shortage exists now and better times are expected, then the current price would be greater than the future forward price and the traders would have an incentive to empty their warehouses now.

The Bible story shows the following: With perfect foresight and a state monopoly, society needs no futures market to transfer goods from a period of plenty to a period of shortage. In a competitive system, however, with uncertain price expectations and decentralized decision-making, a futures market fulfills a role not only in safeguarding against false expectations but also has a role in co-ordination. The futures market creates prices for a range of future delivery dates, and the difference between them – the so-called forward curve – shows the actors how to change the conditions. It is not surprising then that with current development projects on the security of supply, investment in the building of storage capacity and organized future markets, as well as the infrastructure required for this are all given high priority. In addition to their relation to storage, futures markets also give important signals with regard to the planning of future production capacity.

So why is commodity futures trading so often the subject of public debate? For public opinion, three issues are of decisive importance. First: There is not merely “one” forward contract. Rather, there is a countless range of contracts traded on the stock exchange and outside the stock exchange, as well as investment products derived from these contracts. These are often difficult to understand. The most important are the futures contracts: These are standardized forward contracts that are traded on stock markets especially designed for this purpose. Usually, these contracts demand no direct physical relationship with the commodity traded but are, rather, focused on the balancing out of price fluctuations. Stock-exchange trading opens up contracts to a broad public with very different trading purposes and makes possible a liquid and transparent market.

Second: In the story of Joseph, only the commercial stakeholders are mentioned. Warehouse owners and bakers, to whose numbers the producers, processors, and traders may also be counted. A futures market with exclusively commercial actors may seem like an ideal case, but in fact it would have little chance of survival, or indeed, given the imbalance between forward purchases and forward sales, it may not even be capable existing in the first place. Let us consider winter wheat. Here, the ratio of buying and selling futures is approximately 1 to 3 (between 2006 and 2014). This means that the overwhelming number of commercial participants in the market are securing themselves through sales against falling wheat prices. However, actors are required to make up for the imbalance through forward purchases – actors with no commercial interest in wheat: speculators. Yet who exactly are these actors? Hedge fund managers with an enormous appetite for risk? Pension fund investors in commodity certificates? But is not an entrepreneur also speculating by storing his product in warehouses in expectation of a rise in prices? Or does something only become speculation when there is no commercial objective behind it? When Joseph stored the grain, was his objective commercial or speculative?

Unclear, imprecise or emotionally biased terms make up the third category of factors that influence the formation of opinion. The step to banning speculation with commodity futures from the familiar imperative “do not play with your food” is short,



**Supply of and demand for wheat futures contracts, USA.**  
 Outstanding contracts in percentages, 2006–2014 Winter wheat (SRW), Source CFTC.

- Non-commercial
- Index investors
- Commercial
- Small investors

**“If poor harvests are expected, the forward price curve will rise and so create an incentive to store the cereal.”**

Heinz Zimmermann

# “Trade limits are as old as the exchanges themselves and their purpose is indeed to restrict excessive speculation.”

Heinz Zimmermann

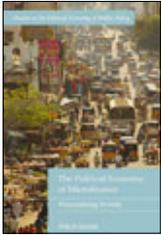
and one that is seldom challenged due to a lack of a clear understanding of the meaning of speculation. Is a trader speculating when he secures his stock by selling futures? Hardly. And if he does not secure it? In that case it would be logical to call him a speculator. Correct – and it becomes evident that, in some instances, it is precisely the refraining from the use of financial tools that constitutes speculation.

Without knowledge of the actor’s economic context, it is mostly impossible to determine whether his actions are speculation in the economic sense or not. This also explains the fact that the US regulating authorities distinguish only between commercial and non-commercial positions (and recently index positions) and avoid the term ‘speculation’. For US winter wheat, the non-commercial positions (institutional investors such as funds, banks, and pension funds) are quite well balanced in terms of value between forward purchases and forward sales, and so the commercial imbalance mentioned above will be balanced out by the remaining actors, particularly by the index investors group. What do they do? In contrast to classic speculation, they invest in the commodities segment for reasons of diversification, namely in diverse assets tied to a commodity index. This ensures that the commodity risks are more widely spread, which reduces the hedging costs. Indexed assets have enjoyed a boom with the emerging phase of low interest rates. Over the same time, there has been a massive rise

in the price of a range of foodstuffs on the world market, and this has rekindled the old debate – also in scientific research – on the damaging effects of commodity futures speculation. A new meta-study of one hundred newer works concludes, however, that a systematic damaging influence cannot be proven empirically.

The current debate is by no means new. In German-speaking countries, the prohibition of grain futures in 1896 was the culmination of years of debate, “the settling of which through legislation was always guided more by consideration of the prevailing contemporary ‘beliefs’ of the populace rather than by any insights provided by science”, as August Fröchtling explained in an essay in 1909. Former members of the exchange commission professors Max Weber and Gustav Cohn were even clearer, claiming that the limitations and prohibitions were the result of “an outflowing of herd instincts led astray”. What had happened? In the course of globalization, imports from overseas grew massively in spite of rises in customs duty. This led to lower prices and an increase in fluctuations in prices. The landowners made forward trading partially responsible for this and prevailed politically against the capitalists. The hoped-for price stabilization did not arrive. The lack of a risk transfer between producers and consumers destabilized the grain price to such an extent that by April 1900 the market opened again. The revival failed, however, and the once leading grain exchange lost its national significance.

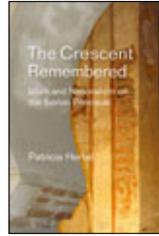
With a few exceptions, the discussion today is less about prohibitions than about introducing stricter limits on positions and on trading for non-commercial actors. Limits are as old as the exchanges themselves and their purpose is indeed to restrict excessive speculation. The aim was always to protect the market mechanism from criminal behavior by the actors in the market, above all from price manipulation. The aim was not to exclude certain actors on the basis of supposed unethical trading purposes. In this lies a decisive difference to the current debate. ■



**Political economy**  
**Microfinance dressed up as charity**

This book helps to understand the enigmatic microfinance sector by tracing its evolution and asking how it works as a financial system. Our present capitalism is a financialized capitalism, and microfinance is its response to poverty. Microfinance has broad-ranging effects, reaching hundreds of millions of people and generating substantial revenues. Although systemic flaws have become obvious, most strikingly with the 2010 Indian crisis, which was marked by indebtedness, suicide and violence, the industry's expansion continues unabated. As Philip Mader argues, microfinance heralds less the end of poverty than new, more financialized forms of poverty. Although microfinance promises to empower, it generates dependency and extracts substantial resources from the poor, producing new crises and new forms of dispossession. ■

Philip Mader:  
 The Political Economy of Microfinance, Financializing Poverty. Palgrave Macmillan, 2015. 304 pp, USD 100.00



**Cultural history**  
**Islam and nationalism in Spain**

Contemporary Spain and Portugal share a historical experience as Iberian states that emerged within the context of al-Andalus. The centuries of Muslim presence in the Middle Ages became a contested heritage during the process of modern nation-building, with its varied concepts and constructs of national identities. Politicians, historians and intellectuals debated vigorously the question of how the Muslim past could be reconciled with the idea of the Catholic nation. This book investigates the processes of exclusion and integration of the Islamic past within the national narratives. It analyzes discourses of historiography, Arabic studies, mythology, popular culture and colonial policies towards Muslim populations from the 19th century to the dictatorships of Franco and Salazar in the 20th century. ■

Patricia Hertel:  
 The Crescent Remembered: Islam and Nationalism on the Iberian Peninsula. Sussex Academic Press, 2014. 224 pp, USD 75.00



**International law**  
**Rules on transparency**

The topic of transparency in international investment arbitration is gaining increasing attention. This in-depth commentary analyses the UNCITRAL Rules on Transparency in Treaty-Based Investor-State Arbitration, one of the most recent and innovative developments in international law. Focusing on the application of these rules, contributors analyze the issue of transparency in investment law more broadly and provide in-depth guidance on how to apply the UNCITRAL transparency rules. Chapters encompass all treaty-based disputes between investors and state, examining the perspectives of disputing parties, third parties, non-disputing state parties and arbitral tribunals. Co-editor Dimitrij Euler is a PhD student in public international law at the University of Basel. ■

Transparency in International Investment Arbitration. Edited by Dimitrij Euler, Markus Gehring and Maxi Scherer, Cambridge University Press, 2015. 408 pp, USD 145.00



**Mercenary service**  
**Everyday life and its problems**

Mercenary service was an important economic and political factor in the early modern Swiss Confederation. However, up till now very little has been known about the soldiers engaged in this trade, who faced the hardships and dangers of life abroad. In *Kämpfen um Sold*, Benjamin Hitz, a lecturer in late medieval and Renaissance history at Basel University, goes on the trail of the mercenaries serving in companies from Lucerne during the 16th century. He describes their everyday life as soldiers and the financial problems they faced, both while out on campaign and afterwards, when many of them had to sue their commanders for outstanding debts. The book sheds light on mercenary service as a business with its own economic logic that, while uncontroversial in itself, could still give rise to fierce disputes. ■

Benjamin Hitz:  
 Kämpfen um Sold. Eine Alltags- und Sozialgeschichte schweizerischer Söldner in der neuen Frühzeit. Böhlau Verlag, Cologne 2015. 385 pages, CHF 68.00

# From Biozentrum to Silicon Valley.

Text und Photo: Matthias Geering

**P**oint San Bruno Park is an exposed location, buffeted by the strong winds blowing from San Francisco Bay onto the mainland. A few miles to the south, aircraft take off from the international airport, headed for all four corners of the world. A curved road leads to the park, a scenic outpost with walking trails and benches. The name of the road, DNA Way, is not a complete coincidence, as this part of South San Francisco is home to the headquarters of Genentech, a subsidiary of Hoffmann-La Roche. And Genentech Building #12 at 1 DNA Way is where Nico Ghilardi has his office.

It's a small space that contains a desk with a computer and various scientific dossiers. Books on immunology line the shelves, and a bicycle helmet and water bottle sit beside them. Pictures on the walls show Ghilardi doing sports in the mountains. The view over the high railing through the rather small window is not especially attractive: evergreen bushes, parking spaces, the driveway. On the other side of the corridor, the rooms with views of San Francisco Bay are home to the laboratories. That, as far as Ghilardi is concerned, is "totally fine". He has long since adopted the same mentality as most other people here in Silicon Valley: He is not employed to enjoy the view from the window, but rather to work hard and be focused on achieving a clear goal.

Ghilardi grew up in Leimental in the canton of Basel-Landschaft and attended high school in Oberwil. He went on to study molecular biology at the University of Basel's Biozentrum and, through his

professors Werner Arber, Walter Gehring and Gottfried Schatz, developed a passion for his discipline. In 1994, Ghilardi met the man who would have a defining impact on his career. "I wanted to do my PhD in molecular and cellular biology," he recalls, "and in Radek Skoda, I found a supervisor who was much more than just a doctoral advisor." Professor Radek Skoda, who today heads the Department of Biomedicine at the University of Basel, was doing research at the Biozentrum at the time. When Ghilardi looks back on those years, he becomes almost sentimental: "Radek gave me an incredible amount of support and encouragement. Whenever I got stuck, I could call him, even at night, and he would come to the laboratory and help me out." Before he had even finished his PhD, he and Skoda published five papers together in major journals.

It was Skoda who helped this smart, ambitious student to secure a post-doc position at Genentech in South San Francisco. In 1999, Ghilardi flew to California and began making his dream of a career in Silicon Valley a reality. Things weren't easy at first. "When you arrive here with two suitcases and no money in your pocket, then you have to start by proving everything: that you are a careful driver, and that you can pay your bills." Nevertheless, he soon felt at home here, as the "can-do" mentality fitted well with his disposition. He knew that it would not be an easy ride. "You don't get anything for free here, but if you're willing to start right at the bottom and work hard, you can achieve a good standard of living and earn the respect of your colleagues."

Outstanding researchers from all over the world want to carve out a career in Silicon Valley, and three local, world-renowned universities (Stanford, UCSF and UC Berkeley) increase the competition even further. This means you have to fight all the harder to make it here. For Ghilardi, things are working out. His temporary contract was exchanged for a permanent one in 2003, and today he is an associate director and senior scientist at the Department of Immunology.

In April 2015, Ghilardi shared the experiences he has gathered over 16 years at Genentech with a few dozen young post-docs from Switzerland who had traveled to San Francisco. He told them about his career pathway and let them in on the principles that guide him: "Only get into science if it is your passion – there's no easy money to be earned here." "Make sure you have a high enough tolerance for disappointment. The road to the top isn't easy, so you have to be able to stomach defeat." "Work as hard as you possibly can, go to the best laboratory, and work with the best people. You'll learn the most from them." When Ghilardi finishes talking, the Swiss post-docs are silent for a while, then they introduce themselves and swap business cards. They clearly admire him a great deal. "If you have 'scientist' on your business card here in Silicon Valley," says one of the young researchers reverently, "then you've really made it."

As a senior scientist at Genentech, Ghilardi has the privilege of being allowed to spend 20 percent of his working hours on basic research. He is current-



**“Work as hard as you possibly can, go to the best laboratory and work with the best people. You’ll learn the most from them.”**

**Nico Ghilardi**

**Nico Ghilardi**

attended school in Oberwil/BL, studied at the University of Basel’s Biozentrum, and then moved to Genentech in San Francisco.

Nico Ghilardi’s career has rocketed over the past 16 years, thanks to hard work and academic excellence.

ly focusing on microbiota, the some 100 billion bacteria that inhabit the human body, that together weigh more than a kilogram and, astonishingly, are ignored by our immune system. He has published 23 papers on this and other research fields in the past five years. “In this job, I get to work with the smartest and best people from all disciplines and make a contribution to basic research,” says Ghilardi. “I’m also involved in developing medicines that could massively improve patient health and quality of life.” This last endeavor is an enormous challenge because “the low-hanging fruit was picked long ago. Today, for a variety of reasons, it has become very difficult to develop radically new active substances. If, over the course of my entire career, I manage to get a single active substance out of my laboratory and ready for market, it would be a fantastic achievement.”

As evening approaches and the wind over San Francisco Bay slackens off, Ghilardi puts on his bike helmet, hops on his bike and rides out to the hills of Silicon Valley and home. The fact that Genentech pays him US\$12 per day for going without a car is incidental. The real motivation behind his pedaling is his next challenge. He and five colleagues are training for a swim relay in Lake Tahoe, so of course he wants to be in good shape for that. After all, the same thing applies to sport as to science: nothing is for free, and performance counts more than anything else. ■

Prize-winning

## International design prize goes to University of Basel.

The University of Basel's newly designed visual identity is to receive two of the most renowned international design prizes: the Red Dot Award: Communication Design 2015 for the best campaigns and creative solutions, and the German Design Award 2016, which only recognizes projects that break new ground in the German and international design landscape.

In 2014, the University of Basel decided to review its visual identity and to commission the development of a distinct profile – a brand. The decision was motivated by a desire to consolidate the university's high academic standing among the global competition, to ensure that it remains attractive and fit for the future, and to respond to its shifting self-image in the social context.

Basel design agency NEW ID has supported the process since the very beginning – by developing the corporate design and its applications in numerous formats including corporate communications, publications, e-communications, and social media. The umbrella brand is Universität Basel / University of Basel. It features a consistent, holistic, and above all eye-catching identity thanks to the new mint-green corporate color, the modernization of Karl Gerstner's logo, the use of a striking combination of fonts, and a clear, contemporary design system.

NEW ID, a ten-strong agency based in Basel's Rhine bank area, was founded in 2000. As well as the University of Basel's visual identity, it is also responsible for the new look of SBB (Switzerland's national railway network), the signage at the Olympic stadium in Beijing and – back to Basel – the branding for Archaeological Soil Research Basel. And now the University of Basel and NEW ID have been rewarded for their strategy and outstanding design with a Red Dot Award: Communication Design 2015 and the German Design Award 2016. ■



reddot award 2015  
winner



Network

## AlumniNANO launched.

Tobias Appenzeller on his motivation for uniting nanoscience alumni



**Tobias Appenzeller** studied nanosciences at the University of Basel and wishes to pass on his experience as part of the newly created nano network.

“I initially had two reasons for setting up AlumniNANO: On the one hand, I didn't want to lose contact with my fellow students as soon as we left the existing nano network and said goodbye to university life. On the other hand, it occurred to me that former students would have good tips on getting the most out of nanostudies. I wanted to pass on this knowledge to new students.

I took the initial steps toward setting up AlumniNANO at the end of my Bachelor's course, but then I took an interim semester and put the project on ice for a while. A year later, a colleague of mine returned from a stay at Princeton University brimming with alumni-related enthusiasm. This proved contagious and I resumed my project.

An alumni network can be invaluable when looking for work. It provides inspiration, ideas, tips, and help for entering the world of work after your studies. And because nano students take many different professional paths after completing their courses, a shared, connective platform is invaluable. AlumniNANO is such a platform. I'm curious to see the varied encounters that arise and look forward to hearing from anyone interested in joining AlumniNANO.” ■

Contact: [alumni-nano@unibas.ch](mailto:alumni-nano@unibas.ch)

Alumni Basel

## Key ambassadors.

Rector Andrea Schenker-Wicki on the importance of alumni for the University of Basel



Alumni Talk

## Are you still human or already a cyborg?

With this mysterious title, AlumniBasel invited visitors to the 2015 Uni-Nacht to exchange thoughts and ideas in the lecturers' common room. The first session attracted a number of people interested to hear what the illustrious panel – alumni Katharina Bochsler, Martin R. Dean, Javier Andrés Bargas-Avila, Avenue.jetzt publishers Corinna Virchow and Mario Kaiser, and Zurich-based literature professor Philipp Theisoehn – had to say about the cyborg phenomenon. The topic was suggested by Corinna Virchow and Mario Kaiser, who both studied at and obtained doctorates from the University of Basel and have now launched a new culture magazine, Avenue.jetzt, an audacious move that has already gained them international acclaim and major sponsors. The topic of the second session was “No lament for the humanities”. The highly controversial discussion was adeptly moderated by alumna Katharina Bochsler, two-time winner of the Prix Média. Communications specialist Richard Schütze, who was flown in from Berlin with support from Basel benefactors, presented some particularly challenging theories. Alumnus Benjamin von Wyl, scientific journalist Urs Hafner and (last but not least) Basel professor emerita Annemarie Pieper, the grande dame of philosophy, countered his arguments with great verve and ensured a thrilling head-to-head. The fascinating humanities-based AlumniTalk brought the Uni-Nacht to a successful close, with huge applause from the many guests who remained despite the late hour. ■

### Alumni in conversation

Moderator Katharina Bochsler, science editor at SRF; Avenue.jetzt publishers Corinna Virchow and Mario Kaiser at the AlumniTalks. Photo by Mario Metzler

**ALUMNIBASEL:** What significance do the University of Basel alumni hold for you?

**ANDREA SCHENKER-WICKI:** They are our key ambassadors within society and help ensure that our university is firmly integrated in the economy and society.

**ALUMNIBASEL:** Why should alumni stay in contact with their alma mater?

**SCHENKER-WICKI:** In Basel, we are researching the great challenges of the future. Alumni have direct access not only to new knowledge, our academics, and students, but also to a high-caliber network for both professional and personal use.

**ALUMNIBASEL:** How are you personally working to support alumni?

**SCHENKER-WICKI:** I will do everything I can to ensure that our students – future alumni – receive the best possible support during their studies and when making the transition to the working world. I am particularly keen to work closely with AlumniBasel.

**ALUMNIBASEL:** What would you like to see in the future?

**SCHENKER-WICKI:** I would like to see more graduates discovering what the University of Basel has to offer and taking advantage of AlumniBasel's services. And I look forward to meeting as many of them as possible. ■





**Ueli Mäder** is a sociologist specializing in social inequality. He currently lectures on the sociology of daily life. His book “Geld und Macht in der Schweiz” will be published on November 24, 2015.

**Ueli Mäder**

## Caterina is proud to be a cleaning lady and would like a Ferrari.

**“Together, we immerse ourselves in the world of her thoughts. And we learn from her what she wants to know, how she responds, and what she thinks.”**

I always have a book tucked into the pocket of my white coat. At the moment it’s just a slim volume – a social commentary by Erwin Koch entitled “Caterina”. It was published recently by Weissgrund-Verlag. It’s not actually a publishing house, but rather a company based in Zurich that launches communications projects. One of our sociology graduates works there. Presumably, that’s why I was sent a free copy of “Caterina”. Our eponymous hero was born in Italy and is 44 years young. Since her birth, she has lived in Uster and currently works for a social care provider as a specialist cleaner. “Cleaning is an art that not everyone can master,” she explains early on a Saturday morning on her way into work, a route that takes her via Dübendorf to Brüttsellen. Caterina has had to get used to the two changes that the journey involves. Today, she shows the author of the story, who is accompanying her, how it’s done is. A doctoral graduate in law, the author is now a well-known journalist. Caterina notices him reading the slogan on her t-shirt: “putzundglanz” (“spickand-span”). Together, we immerse ourselves in the world of her thoughts. And we learn from her what

he wants to know, how she responds, and what she thinks. This is the sociology of daily life. Here, much of society is documented in a variety of scenes. At first, Caterina was embarrassed to be wearing her blue uniform while travelling to work. Now, she is proud of being a “cleaning lady”. This is how she describes herself. For years, she has always arrived punctually at work. It’s important to her. Just as the praise is for her thorough cleaning, and the pay. Caterina has a 60 percent contract and earns 2,600 CHF per month. She and her colleague Sanije clean half the premises of a company. If she sees that someone is on the phone, she turns off the vacuum cleaner and instead polishes the door handle. Occasionally, she receives a grateful glance. But hardly anyone knows her name. This is the same at the university and in our sociology department. How many people usually know the names of the cleaning staff? So, what would Caterina wish for from her fairy godmother? “A Ferrari,” she offers spontaneously with a grin. “But if I’m honest, what I want above all is for everything to stay just the way it is.” ■

[unibas.ch/aktuell](http://unibas.ch/aktuell)

## A selection of events October 2015 – April 2016.



November 4, 6.15pm

### Der Berg ruft. Gibt es eine universale Empathie allen gegenüber?

52nd Aeneas Silvius lecture by Professor Hans-Dieter Mutschler, Zurich. Welcome address Professor Andrea Schenker-Wicki, Rector of the University of Basel. University Kollegienhaus, lecture hall 102, 1st floor, Petersplatz 1, Basel

November 13 and 14

### International Conference on IP and the Life Sciences

This conference is a two-day event taking place on November 13, 2015, 9.30am–5.30pm, November 14, 2015, 9am–12.40pm, Faculty of Law, Peter Merian-Weg 8, Basel

November 17, 6pm

### Aus der Praxis der Baurekurs- kommission

Lecture by Dr. Annatina Wirz, attorney, Head of the Law Secretariat and Dr. Eva Kornicker Uhlmann, legal secretary, planning permission committee for Basel-Stadt, Faculty of Law, Pro lure auditorium, Peter Merian-Weg 8, Basel



November 19, 7pm

### Zappelphilipp – Hans Guck in die Luft: Was brauchen wilde Kinder?

Lecture by Professor Christina Stadler, Head of Research in Child and Adolescent Psychiatry, Professor of Developmental Psychopathology, University of Basel, UPK Basel, economics building, Plenum 1, Wilhelm Klein-Strasse 27, Basel

November 23, 6–8pm

### Global/Third-World Go-Between Cities Revisiting Post-War Globalization from Beirut, Dakar and Sin- gapore, 1940s–1970s

Lecture by C. Schayegh, Institute for European Global Studies, Basel, Europainstitut, Gellertstrasse 27, Basel

November 26, 2015, 6pm

### SeminBar mit Dr. Philippe Marlière

French biologist, innovator, and entrepreneur Dr. Philippe Marlière is guest at the SeminBar of the NCCR Molecular Systems Engineering. Ackermannshof, St. JohannisVorstadt 21, 4056 Basel.



December 2, 8.15pm

### Bruno Manser und der Regenwald von Borneo

Lecture by Dr. Lukas Straumann, Vesalium, lecture hall 1, side entrance, Vesalgasse 1, Basel

December 3, 6.15pm

### Selbsterleben und Subjektivität. Eine Herausforderung der Psychiatrie

Public habilitation lecture given by Dr. Daniel Sollberger, Associate Professor of Psychiatry, Natural History Museum Basel, Aula, Augustinergasse 2, Basel

December 9, 6–7.15pm

### “Das tintenklecksende Säkulum”. Funktion und Praxis des Briefes im 18. Jahrhundert am Beispiel der Bernoulli- Briefwechsel

Dr. Fritz Nagel, Bernoulli-Euler Center at the University of Basel University Library, lecture hall, 1st floor, Schönbeinstrasse 18–20, Basel



December 10, 12–2pm

### Siedlungs- und Bevölkerungs- geschichte Islands

Lecture by Martin Schuler, EPFL Lausanne, University Kollegienhaus, lecture hall 120, 1st floor, Petersplatz 1, Basel

December 13, 3–5pm

### Café Scientifique: Sammeln. Urtrieb, Hobby, Obsession

Lectures by Professor Christian Meyer, Dr. Philippe Büttner, Dr. Flavio Häner. Moderation: Christoph Keller. Café Scientifique Basel, Totengässlein 3, Basel

December 17, 6.15pm

### Vom Winde verweht – Wenn sich Luft in Luft auflöst

Public habilitation lecture by Dr. Emanuel Burri, Associate Professor of Gastroenterology, Natural History Museum Basel, Aula, Augustinergasse 2, Basel

February 3 and 4, 2016, 7.30pm

### Weltenreise: Infiziert! Viren, Bakterien, Parasiten

February 3, at Museum BL in Liestal  
February 4, at Stadtcasino Basel  
Entry fee: 15 CHF / 10 CHF



## Innovation means better medicines

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