



University
of Basel

UNINOVA

University of Basel Research Magazine — N°133 / May 2019



Near and Middle East

A region in flux.

In conversation
Communication
in medicine.

Debate
Research into
rare diseases.

Album
Tracing tsunamis.

Essay
On the need for
narration.



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... ein Ort, an dem es
viele zu entdecken gibt!

Team
Contributors to
this issue



1 Maurus Reinkowski is Professor of Islamic Studies and Head of Near & Middle Eastern Studies at the University of Basel, which was founded exactly 100 years ago as the “Orientalisches Seminar”. His specialist subject areas are modern history of the Middle East and the eastern Mediterranean, focusing on Turkey. **Pages 16–17**

2 Basil Gelpke travels the world as a TV journalist and film producer reporting on economic and technology issues, especially in the Asia-Pacific region. His home bases are in Zürich and Kuala Lumpur. In this issue, he remembers his father Rudolf Gelpke, who was an exceptional figure in Islamic research at Basel. **Pages 26–27**

3 Nicole Canegata is an advertising, travel and lifestyle photographer who lives on St. Croix, one of the US Virgin Islands. Just 70 miles by plane from there lies the Caribbean island of Anegada, where geologists from Basel are investigating the traces of tsunamis and hurricanes. Nicole joined them on assignment for UNI NOVA with her camera in hand. **Pages 40–49**

Culture and crises.

Civil war in Syria, battles in Iraq, the ongoing conflict in Israel and Palestine, violent demonstrations in North Africa – no other region in the world currently sees as much bloodshed as the Near East. The entire region is marked by violence and war. It would also appear to be extremely well armed: Today, countries of the Near East import more combat equipment than anywhere else in the world. Almost nothing remains of the exotic magic that once surrounded the mythical Orient. It has morphed into a crisis region and war zone. Major world powers, from the USA to Russia and China, are attempting to gain influence here. The Near East has become a hot spot that dominates the international headlines. No lasting political solutions are yet in sight. One reason for this is that the disputes and conflicts there very seldom stay within boundaries of any kind.

Researchers are examining the developments and current situation in the nations between Libya and Afghanistan. One question they are trying to answer is how it came to this. In this issue, we present a selection of University of Basel research projects from the fields of Near East studies, political science, history, and religious studies. The work provides scholarly insights into what lies behind the headlines – as do the photographs that illustrate our focus topic with images of the everyday lives of people in modern-day Cairo. Perhaps this also shows that lasting peace in the Near East can only be achieved with the involvement of the civilian population. We hope you gain a wealth of new insights from this edition of UNI NOVA.

Christoph Dieffenbacher
Editorial team, UNI NOVA



Better communication in medicine:
Sabina Hunziker in conversation, page 8



At the center of a great culture: With over 22 million inhabitants,
Cairo is the largest city in the Arab world.

Near and Middle East

A region in flux.

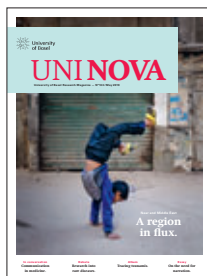
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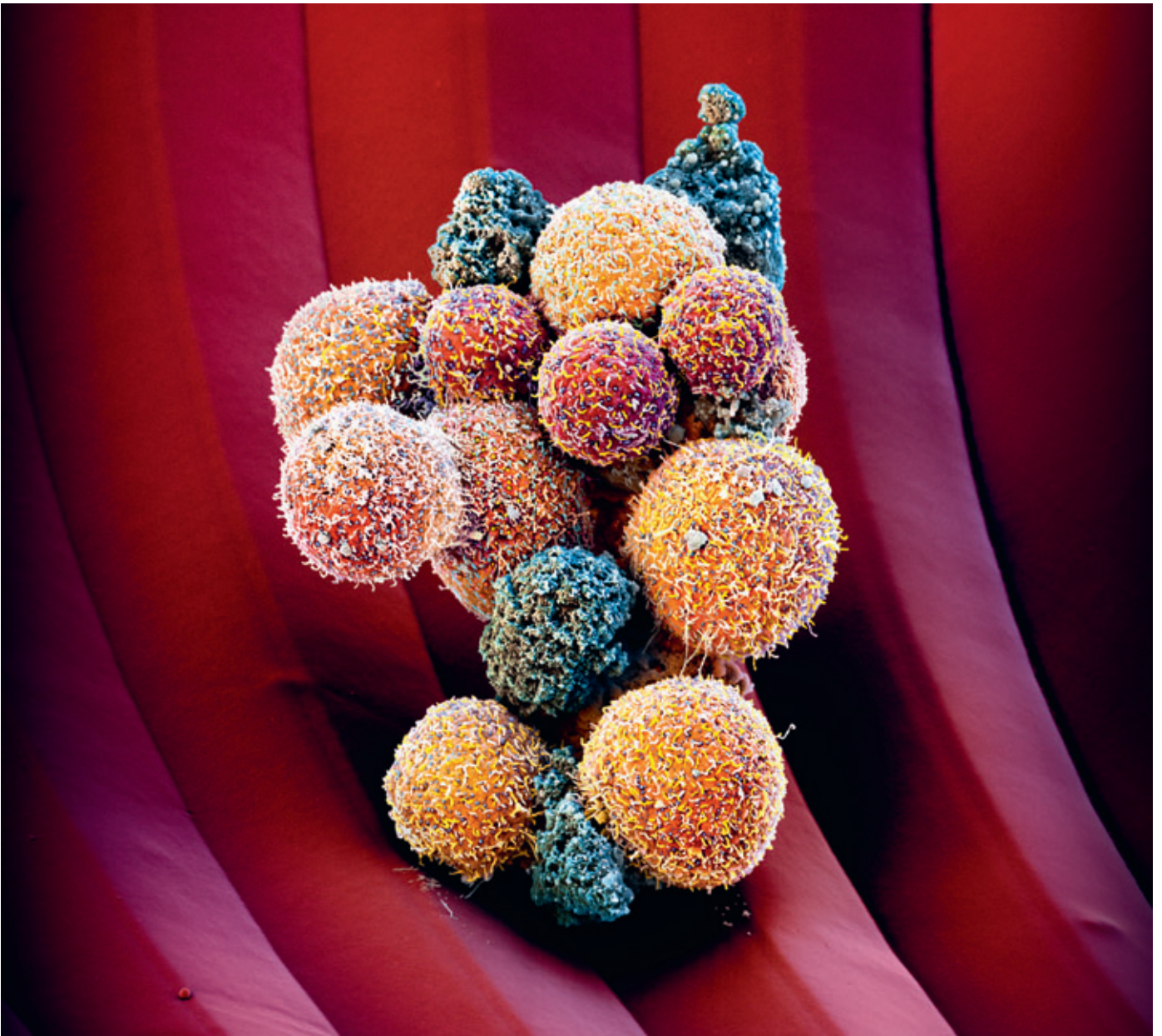
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Preventing Metastases

A dangerous alliance.

Fascinating and fearsome in equal measure: The image shows a group of cancer cells that have been isolated from the blood of a patient with breast cancer. These clusters are much more efficient than individual wandering cancer cells when it comes to breaking away from the primary tumor and producing deadly metastases elsewhere in the body.

Basel researchers report on recent laboratory tests in which a drug separated the cells in the cluster and prevented the development of metastases. Preparations are now under way for a clinical trial that will test the drug's metastases-inhibiting mechanism in patients. ■

bit.ly/uninova-tumorzellen

Microplastics**Waste in Antarctica.**

Antarctica was long considered a largely untouched ecosystem. Recently, however, it has become clear that even this remote region can no longer escape the burden of plastic waste. On board the icebreaker *Polarstern*, environmental scientist Professor Patricia Holm collects ice and water samples during an expedition lasting several weeks. The aim is to demonstrate the extent of microplastic pollution in the Antarctic Weddell Sea and establish where these tiny plastic particles might be coming from. ■

bit.ly/uninova-antarktis

**Protective Mechanism****Rapid response to injury.**

Plants react just as quickly as animals and humans when injured. This finding was reported by a research team from the University of Basel and Ghent University in the journal *Science*. For their study, individual root cells in a mouse-ear cress plant (*Arabidopsis thaliana*) were wounded with a laser beam. Within seconds, this triggered a sharp increase in calcium ions within the affected cells. In turn, this initiated a biochemical process, which causes the plant cells to release a specific wound hormone just 30 seconds after the plant is injured. The hormone alerts neighboring cells and acts as a catalyst for immune response and tissue regeneration processes. In this way, plants protect themselves against infection, which is something they are particularly susceptible to following injury. ■

bit.ly/uninova-pflanzenschaeden





**“I’m looking for answers that are as precise
as possible, because these are just
as important as listening to the patient
completely openly.”**

**Sabina Hunziker, Professor of Psychosomatics and
Medical Communication**

“Technical progress is useless without better communication.”

Sabina Hunziker teaches prospective physicians how to communicate with their patients effectively. As the professor of medicine explains, if someone talks a lot, the most important thing often goes unsaid.

Interview: Urs Hafner Photo: Basile Bornand

UNI NOVA: Professor Hunziker, imagine that a patient is sitting in front of you and endlessly pouring out their sorrows. Do you find it irritating when patients ramble on in this way?

SABINA HUNZIKER: My students ask me the same thing ... It's important for patients to be able to express their problems to us in their own words. This has the advantage that we learn a lot about them and they get things off their chest. It allows us to form an initial impression of what's causing their troubles. The disadvantage is that patients sometimes talk about things we don't need to know for our diagnosis, thereby wasting a great deal of precious time.

UNI NOVA: In other words, you have to interrupt them?

HUNZIKER: Yes, we structure the conversation. As well as waiting to hear what they have to say, we probe specific points and also provide concrete information. Ideally, the physician begins the conversation by focusing on the patient – in other words, by actively listening to them. They should allow the patient to talk and pause for thought, as well as reassuring them that they have their full attention by giving short verbal responses such as “I see,” “right,” “good,” and so on. It's also important for the physician to lead the

conversation, especially once it's clear where the problem lies. At this point, the expert takes over and homes in on the problem. Depending on the situation, we alternate between these two types of conversation – patient-centered and physician-centered.

UNI NOVA: Isn't listening just part of normal, non-pathological communication? If you're talking and I sit in rigid silence, it'll put you off and eventually reduce you to silence as well.

HUNZIKER: Of course, but that's something you have to realize for yourself, especially if you're studying medicine. For example, we practice situations such as this using video footage of simulated patients. The patient who talks a lot and is going around in circles may have concerns they are unaware of or unable to articulate. Something is on their mind – but what? The physician needs to get to the bottom of what the patient is saying, as it might just be the tip of the iceberg.

UNI NOVA: When exactly do you interrupt the patient?

HUNZIKER: When I have the impression that I need to know more about the medical history in order to make a diagnosis, I ask targeted questions to test the hypothesis I've formed based on the data available to me and while listening to the

patient – how long have they been aware of the pain, does it radiate outward, what symptoms accompany it, and so on. I'm looking for answers that are as precise as possible, because these are just as important as listening to the patient completely openly. At first, many students think that listening is all that matters, but really a conversation is between two partners, who should take turns to speak.

UNI NOVA: Physicians often seem rushed and don't listen to patients properly during consultations in the office or at the bedside.

HUNZIKER: Studies show that, on average, a physician waits just 90 seconds before interrupting their patient for the first time. This means we miss out on valuable information that could help us form a hypothesis as to the causes and rationale behind their complaints. But this isn't simply a question of impatience on our part. Mounting financial pressure and time constraints leave us with less time to talk to the patient. For example, we know that medical residents spend most of their working hours on admin and reports. On the other hand, it's also true that if a patient talks a lot, the most important thing often goes unsaid, and that you can have a useful conversation in a short time. Our students learn how best

to structure a conversational situation – that is, how to communicate professionally. Appropriate techniques exist for doing this. You just have to know how and when to use them.

UNI NOVA: You are a professor and Deputy Head of Psychosomatic Medicine and Communication. How does a surgeon respond when you tell them what you do – do they take it seriously? Do they even listen to you?

HUNZIKER: Naturally, I sometimes encounter a degree of skepticism, but I've witnessed a growing acceptance of the significance of communication in medicine over the last few years. In the 1970s, the topic was still seen as something exotic. Today, the medical profession is more receptive to and interested in the idea of structuring conversations professionally, and there's growing awareness that a good physician should not only have sound medical knowledge but also good communication skills. Our patients have come to expect this. That's why I don't like to see communication described as a "soft skill."

UNI NOVA: Skills have to be strengthened based on empirical evidence.

HUNZIKER: We're striving for what is known as evidence-based communication. In other words, our research is based on randomized studies. We demonstrate causalities: If the physician uses technique X, this results in Y for the patient. For example, research is currently underway into whether it's better for patients if we first discuss the case outside the room and then give a patient-friendly version inside – or if the medical rounds are conducted entirely at patients' bedsides. The rationale for this is that we devote a lot of time to the patient that they aren't actually aware of. On the other hand, they might find the academic discussion intimidating or unnerving, or they might notice mistakes on the part of the medical resident and wrongly conclude that they're incompetent. This is a key question that still needs to be answered.

UNI NOVA: Which option do you prefer?

HUNZIKER: Our patients are confronted with a huge amount of new and unfamiliar information. This may be exacerbated by academic discussions at the bedside if

Sabina Hunziker

has been Professor and Deputy Head of Psychosomatics and Medical Communication at the University of Basel since 2016. She is active in teaching, research and clinical practice. Hunziker studied medicine in Basel and earned her doctorate in 2005. After completing her residency, she worked as an attending physician in internal medicine and intensive care, completed a two-year master's degree in public health at Harvard Medical School in Boston (USA), and received further training in psychosomatic and psychosocial medicine. She qualified as a university lecturer in 2012. Established around 30 years ago, the Department of Medical Communication is considered a role model in the Swiss health-care sector.

they don't understand all of the terminology, leading to potential misunderstandings. That's why I prefer to have a discussion outside the room and then give a patient-friendly version. I'll know more once we've finished the study.

UNI NOVA: We often hear that physicians don't explain findings to patients in a way they can understand – that the wording is too dense and littered with technical jargon.

HUNZIKER: When it comes to professional communication, explaining our knowledge to patients calmly and clearly is just as important as being able to deal with strong emotional responses, such as anger, disappointment, and sadness. Studies show that many physicians rely on providing information as a way to distract attention away from emotions – including their own – or to prevent them from rising to the surface. We're trained to communicate using facts. But if the patient cannot express themselves and the physician overloads them with information, communication breaks down. The problem – the disease or illness – is not addressed. Research has shown that it's virtually impossible to make amends for serious communication errors over the course of the physician-patient relationship, and that these errors have a major impact on patients' health and well-being.

UNI NOVA: If the patient breaks down in tears after receiving a cancer diagnosis, for example, do you use physical contact to comfort them?

HUNZIKER: There's no hard and fast rule in this situation. Some physicians place their hand on the patient's arm, but others find that too intimate. The key thing is that the response should be authentic. When delivering bad news, physicians are addressing serious and often life-changing issues. As well as providing the medical information, it's vital that they have a capacity for empathy. Being diagnosed with an incurable cancer, for example, has an enormous impact on the patient's quality of life. Their outlook on life and future prospects change from one moment to the next, and so what we communicate – and how we communicate it – is particularly important. In a recent study, we

found that the family's communication with the treatment team was a key factor in determining how often the patients who had suffered a cardiac arrest and required resuscitation developed post-traumatic stress disorder, depression or anxiety disorders.

UNI NOVA: What do you teach your students to do in cases such as this?

HUNZIKER: You have to prepare for the conversation thoroughly so that you're aware of all the findings and have an idea of how much the relatives and patients know. You should communicate the information briefly and clearly, and it's essential that you address any emotions and give patients space to deal with them.

UNI NOVA: Studying medicine involves a lot of cramming – if you don't learn enough of the material off by heart, you won't even be accepted onto a degree course. But there's no test of patience or social skills. Does the selection process miss the mark?

HUNZIKER: It's not easy to identify good candidates. In Switzerland, the numerus clau-

sus tests above all intellectual abilities as part of the admission criteria but ignores social and communication skills, unlike in the USA. I can see communication skills being tested as well in the future. On the other hand, a medical degree – and indeed the medical profession – is very challenging from an intellectual perspective. It takes considerable hard work and ambition to pass. Later, as physicians, the students will need to cope with stress factors – and so it's important that they learn to do so from an early stage. At the University of Basel, we have a course of studies that teaches communication and social skills for the duration of the degree and is therefore unique throughout Switzerland.

UNI NOVA: The "End of Life" National Research Programme discovered that communication between physicians from different departments in hospitals is often ineffective – for example, when it comes to deciding where dying patients should be cared for.

HUNZIKER: That's another key point: Professional communication in medicine

also means communication between physicians. Studies of emergency responses show that correct conduct by physicians significantly improves the performance of their teams. Good leadership communication allows the response to proceed with fewer interruptions and the resuscitation of the patient to begin sooner, for example.

UNI NOVA: Modern medicine is heavily influenced by technology – by computer-controlled instruments and large volumes of data relating to diseases or patients. During consultations, some physicians therefore spend more time looking at their screen than at the patient's face. Is technology the enemy of communication?

HUNZIKER: No, on the contrary. The technical advances that help us treat many diseases also require us to become better communicators, otherwise it's useless. Technology creates greater communication challenges for physicians than ever before – and we're working on rising to those challenges. ■

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New Building in Baselland

Construction starts on new sports building.

Construction work has begun on the new premises for the Department of Sport, Exercise and Health. The new department building, which is expected to open its doors in 2021, will be located beside the St. Jakobshalle venue. The new building will not only meet the space requirements resulting from the increased popularity of studies in sports science, sports medicine and training science. In fact, it will also bring the different department rooms and facilities – currently located in and around the St. Jakobshalle – under one roof.

The new building will have enough capacity for around 600 students and 100 members of staff and will include teaching and study rooms, labs and offices, fitness and weight rooms as well as a multi-use partitionable sports hall. The new building will be situated in the area of Münchenstein, taking yet another of the university's buildings beyond the city limits to the Canton of Baselland, which provides institutional funding to the university. ■



Exhibition

Medicine in the fourth dimension.

State-of-the-art imaging provides previously unimagined insights into movement inside living human beings.

For a long time, the processes inside our bodies remained as foreign as the surface of Mars. Five hundred years ago, a number of intrepid anatomists set about changing that, but they were unable to look inside the living body. The advent of X-rays made it possible to view the skeleton inside a moving person, although the technique also exposed the body to harmful radiation.

The exhibition "Inside Motion" at the Pharmacy Museum of the University of Basel showcases the capabilities of modern medical technology: For example, Basel-based researchers have now developed a method that allows movements inside the body to be recorded in three-dimensional videos without harming the subject. Running until June 2, 2019, the exhibition invites visitors to take the place of a surgeon and learn about organ motion, real-time tracking and innovative medical procedures. ■

bewegte-einblicke.ch

Strategy 2030

Consultation process begins.

In the past few months, the University Council and the management of the university have been developing the Strategy 2022–2030 in collaboration with various stakeholder groups. Four strategic guidelines provide the framework for individual target setting and planned measures. The aim is to promote greater agility, widen access to the university, strengthen identification with the university, and take full advantage of the various campus locations. In April, the University Council submitted a draft proposal for consultation. The final version is set to be passed in fall 2019. This Strategy will provide the basis for the application to the supporting cantons for the 2022–2025 performance period. ■

unibas.ch/strategy

European Campus

Unified into the quantum realm.

The European Commission has approved EUR 4.2 million in funding to set up a trinational doctoral training program in the quantum sciences. In the “Quantum Science and Technologies at the European Campus” project, participating institutions include the Universities of Basel, Freiburg and Strasbourg, as well as the Karlsruhe Institute of Technology and the Zurich research department of the IT group IBM. In total, they are providing 39 young scientists with the chance to earn a doctorate in quantum research and therefore in the technology of the future. With total funding of EUR 9.1 million, the project will run for five years and is supported by the European Union in addition to the participating partner organizations and Santander Universities. ■

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Near and Middle East.

A region in flux.

Photos: Dana Smillie

For centuries, Western cultures have romanticized the Near and Middle East as the mystical, exotic Orient. Yet it has always shown itself to be a dynamic place and subsequently extremely susceptible to crises – apparent today in the numerous conflicts that affect the region.

Page 20

Thanks to new media, topics such as participation, diversity and democracy are entering public discourse.

Page 28

Over 500,000 people have so far lost their lives in the Syrian conflict. And there is still no political solution in sight.

Page 34

With its project to develop a new Silk Road, China hopes to incorporate the Near East into a vast economic area.



“So far, yet so near”: The Middle East.

The current power vacuum in the region between Libya and Afghanistan has left large areas, and whole countries, in a state of permanent crisis. At the same time, the conflicts in the Middle East are encroaching on Europe.

Text: Maurus Reinkowski

The survival of the Middle East as we knew it is now in doubt. The future of Iraq, plagued by violence and war since 2003, is unclear. Even greater uncertainty surrounds the continued existence of Syria, which has been a war zone since 2011. Libya and Yemen have ceased to be functioning states, now serving merely as cauldrons for confused conflicts. Generally, that is about as much as we can say, as working out how a different, reconfigured region might emerge is no easy task. Still, before I offer some preliminary thoughts on what the Middle East is today and could be in the future, it is important to address the question of what it has been previously.

There are many different understandings of what constitutes the Middle East. You can set very broad parameters for the region and say that it extends

from Morocco to Pakistan and from Turkey to Sudan. Narrower definitions are also possible; it would be easy enough to exclude the Maghreb and countries like Pakistan and Sudan. Given that the boundaries of the Middle East are so hard to pin down, you would be forgiven for thinking that the concept itself must be very vague. That is not the case, however: The core meaning of the term “Middle East” is quite clear.

Changing dominant powers

First, the hard regional core of the Middle East is largely coextensive with the former subject territories of the Ottoman Empire – from Libya, through Israel/Palestine, to Iraq, including Yemen and western Saudi Arabia. As the Ottoman Empire was on the losing side at the end of World War I, it had to surrender its territories in the eastern part of the Arab world. Most of them ended up in the hands of France and Britain, which held them as what were known as “mandates” of the League of Nations. Of these two great powers, Britain was clearly the one with strategic control of the region after World War I.

This brings us to the second core meaning. Domination of the region by a hegemonic imperial power has always been a defining feature of the Middle East as it developed after World War I. Up to the end of World War II, that power was Britain. The role then passed to the United States of America, occasionally challenged (mostly with little success) by the Soviet Union. This interplay of imperial hegemony, coupled with a relative lack of clarity as to what constituted the region, served to define the core meaning of the Middle East.

**“For decades,
Europeans saw the
Middle East as reliably
unpredictable.”**

Maurus Reinkowski

More specifically, the vagueness of the term has the benefit of allowing political action relating to the region to appear both appropriate and open. The Eisenhower doctrine of 1957, which was the first American foreign policy doctrine directly related to the Middle East, had the objective of protecting the region from Soviet influence. The fuzziness of the term “Middle East” was particularly helpful in this regard, as it meant that the USA reserved the right to intervene anywhere in a poorly defined region where it felt that its interests were threatened or there were new opportunities for it to exploit. The boundaries of the Middle East fluctuated, therefore, in line with the strategic interests of the great powers engaged in the region. In other words, the very haziness of the term explains its durability.

Controlled distance

For decades, Europeans saw the Middle East as reliably unpredictable. One of its fundamental characteristics was that it was a region prone to crises, but that these conflicts had little direct impact on the outside world. The Middle East may not have been a long way away, but it was not right on “our” doorstep, either. Thus, the Middle East was always characterized by a *controllable susceptibility to conflict* and a sense of *controlled distance*.

If you had to single out one key event that changed things fundamentally, it would be the occupation of Iraq by the USA and its “coalition of the willing” in 2003. Up to that point, US policy toward the Middle East had always been cautious, aimed not at bringing about regime change but at maintaining existing political structures – a cynical approach, but one seen as necessary from this policy perspective. The American invasion of Iraq in 2003 represented a break with this policy of exercising hegemony in a cautious and coldly calculating way.

The consequences of this bad decision – which are clear to see in the disintegration of first Iraq and then Syria, the strengthening of Iran as a regional power, and the rise of organizations like the Islamic State – have shaped American Middle East policy up to the present day, speeding up the historic retreat of the US from its role as the dominant global power. The “Arabellion” that broke out in Tunisia in December 2010, only to be subsequently derailed in Libya, Syria and Yemen, is a reflection of these fundamental changes, rather than their primary cause.

New migration routes

For the first time since World War I, there is no longer anyone willing or able to assume a clear

hegemonic leadership role in the Middle East. In this power vacuum, an unstable system structured around “partial hegemons” such as Iran, Russia, Saudi Arabia and Turkey has started to emerge, the consequences of which are apparent in the almost endless war in Syria.

For Europe and Switzerland, this means that the Middle East has been brought closer and that “its” conflicts have become, indirectly, Europe’s own. New spheres of communication and migration routes to Europe have appeared. In the 1980s, the Balkan route would still have been just a series of impenetrable borders for refugees and migrants.

Disciplines dealing with the history and politics of the region, such as the Middle Eastern Studies program at the University of Basel, which will celebrate its 100th anniversary this year, are no longer exotic niche subjects. Today, they are concerned almost exclusively with thorny issues and are helping to tackle questions relating to the stability and future of Europe.

Outdated conceptions of space

The United States will be able – albeit at the price of a loss of influence on the world stage – to insulate itself from most of the consequences of the reordering of the Middle East that is clearly under way. But for European states this is not an option. The Middle East with which they were once so familiar – a region permanently engulfed in crises that seemed, by their very nature, to have no direct repercussions for European societies – has gone, never to return.

In future, there will be a greater emphasis on realpolitik in European policy. It is notable that the last few years have seen a blurring of boundaries and the collapse of pre-existing conceptions of space that informed the West’s approach to conducting policy in the Middle East over many decades – without any real understanding of the issues at times, perhaps, but with a fair degree of success. The traditional view of the Middle East as a region clearly differentiated and distant from Europe is no longer tenable, in any case. ■



Maurus Reinkowski

is Professor of Islamic Studies at the University of Basel. After reading Islamic Studies, Turkish Studies and Arabic Studies in Munich, Istanbul and Vienna, he worked at the Universities of Bamberg and Freiburg. The main focus of his teaching and research is the modern history of the Middle East and the eastern Mediterranean. He is regarded as a leading expert on Turkey.



Dana Smillie

has worked in Cairo for over 20 years as a still and video photographer, including assignments for international print media and TV stations. One of her street photography projects is entitled "Friday in the city". Her series of photographs in this issue's dossier depicts scenes from everyday life in the Egyptian metropolis.





Everyday life in Cairo

Poised to enter the modern age.

Text: Astrid Frefel

Cairo – Egypt’s noisy, polluted and chaotic metropolis of 22 million inhabitants – is to be catapulted into the modern age with a makeover intended to give it a “civilized” appearance. The bleak rust-brown bare brick façades responsible for the city’s “uncivilized” look must go, according to president Abdel Fattah al-Sisi, who has decreed that all the city’s buildings must be uniformly painted. The chosen color is to be a dark beige.

The measure is little more than a cosmetic fix, however. Al-Sisi’s vision of modernity is currently being realized at a vast construction site some 40 kilometers southeast of the city center. The development will house the country’s new administrative capital, or NAC, as it is widely known, designed as an antithesis to Cairo’s historical jumble of streets. The NAC is intended to be everything that present-day Cairo is not: clean, green, smart and uncongested, cashless, and monitored by surveillance cameras. Every civil servant in this brave new world must be proficient in English and familiar with modern technology. According to the president, the NAC will showcase Egypt’s status as a civilized nation, and represents a quantum leap in the transition to the modern, urban society of a new generation. Anyone can dream. In reality, the first thing a visitor to the construction site is likely to encounter is one of the fire-red tuktuks that have plagued the city’s streets in their hundreds of thousands in recent years. The garbage problem is also far from being resolved. In other words, it will take more than a lick of paint to turn Cairo into a Dubai on the Nile any time soon. ■

Social movements and the media.

Political scientist and Middle East expert Ali Sonay from the University of Basel researches current events in Egypt, Morocco, Turkey and Tunisia – and the role played in them by the media.

Text: David Hermann

From Casablanca to Ankara, from Twitter to the airwaves: A conversation with Ali Sonay is like taking a trip across North Africa and the entire Arab world all the way to Turkey, spanning the full breadth of contemporary and media history. The research associate on the Program of Middle Eastern Studies investigates patterns of social movements and the role of the media in the Middle East and North Africa.

For Sonay, it all started with the Arab Spring in Egypt in 2011, which followed the protests in Tunisia. At that time, he was immersed in the topic with his doctoral thesis: His interests lay primarily in the significance of networks in mobilizing and organizing the protests. According to Sonay, the April 6 Youth Movement was of crucial importance to the developments in Egypt. The movement's origins can be traced back to a Facebook group created to support a workers' strike back in 2008. After a short time, the group had the support of more than 70,000 people.

Digital mobilization

The Facebook group used the internet to mobilize parts of the population to take part in the protests against the regime of Hosni Mubarak. Sonay also highlights the role of cafes and streets as venues for people to meet and exchange views: "This is where the relationships and ideas that would later be disseminated via Facebook and Twitter were formed."

Today, Sonay's research receives a great deal of attention, as his focus on social movements repre-



Ali Sonay

is a research associate in Middle Eastern Studies at the University of Basel. In his doctoral research, he investigated social movements in the Middle East following the uprisings in 2011 based on the April 6 Youth Movement in Egypt. His research also focuses on contemporary media dynamics in Turkey, Tunisia and Morocco.

sents a shift in traditional Middle East research. For years, security and the terrorist threat, extremism, fundamentalism and authoritarianism had been the dominant issues in the field, but after the events of the Arab Spring they receded into the background. This has led to a change in public perception: Today, even though much of the news coverage remains negative, the region is also associated with topics such as participation, diversity and democracy in public discourse, highlighting the ability of media coverage to create new realities.

Missing structures

Eight years on from the Arab Spring, not much appears to have changed on the surface: Poverty and unemployment remain high. "The al-Sisi regime in Egypt currently in power suppresses independent media, especially online, and has enacted legislation mandating surveillance of large Facebook groups, for instance," Sonay reports. Nevertheless, democratic awareness is on the rise, something the researcher views as cause for hope in the country: "Pluralism and participation were key values in the Arab Spring. It's only a matter of time before the revolution is revived again."

At the time, however, the movement did not have the necessary stability, Sonay says: "When a protest has such a broad range of goals as the April 6 Youth Movement, it often lacks the structures needed to become institutionalized. We see the same phenomenon in other social movements, too." In Sonay's

view, the revolution in Egypt ultimately failed because the participants did not have a strategy for formal participation in the political process.

Different circumstances

As a postdoc at the University of Cambridge, Sonay studied contemporary media dynamics in Tunisia, Turkey and Morocco. He is keen to emphasize the value of a nuanced view of the Arab world. For example, it would be a mistake to draw conclusions about the entire region from events in Egypt, he warns. "Each country has its own economic, social and media environment, and social movements reflect this."

In Morocco, he explains, the royal family is adept at anticipating social changes and reacting by appointing a new prime minister, for example. This allows the king to remain in the background, leaving politicians to deal with all the criticism. Despite its repressive system and severe limitations on press freedom, the country is considered stable, and enjoys a positive image. "Nevertheless, it hired an Italian surveillance company to weaken independent online media in the country with targeted attacks, for instance," Sonay says.

The situation in Tunisia is slightly different: After the Jasmine Revolution of 2010 and 2011, numerous private media organizations were formed. Today, some of them are owned by leading economic figures with close ties to governing politicians. In spite of these connections, the media is considered relatively free. Public debate in the country is – as in the entire Arab world – heavily influenced by newspapers as well as radio and television broadcasters. A key element in this debate is the fear that the situation in Syria or Yemen could be replicated in Tunisia. The specter of these catastrophic alternatives is used to effectively silence critics of the state or government. These conflicts are also a recurring theme taken up by the transnational broadcasters Al Arabiya and Al Jazeera.

"Despite the turbulence of the region along with persistent unemployment and poverty, the country remains stable. This is the greatest success story to emerge from the events of 2011," Sonay observes, adding that it is "a product of the broad-based democratic movement": Unlike in Egypt, the overthrow of president Ben Ali was followed by the establishment of democratic structures involving large parts of civil society.



Graffiti sprayed on a wall in Cairo from October 2012 shows the Joker presenting a Queen of Clubs card with the face of the then Egyptian president Mohamed Morsi, a representative of the fundamentalist group, the Muslim Brotherhood.

Media freedom under threat

As regards the fast-changing media landscape in Turkey, Sonay notes that "many independent media organizations have recently been bought up and taken over by government-friendly business leaders. As a result, reporting has become increasingly one-sided and limited to arguments tailored to their political base." Even with the powerful corrective influence of the internet in the form of an active Twitter scene and a critical blogosphere, "anyone crossing certain red lines can expect to be the target of intimidation tactics."

The Middle East expert has observed a decline in the value attached to truth, diversity and openness in the public sphere in Turkey, and draws a parallel between this trend in the Middle Eastern region and a global phenomenon: "Leaders who play fast and loose with the truth can also be seen in the US, Russia and China. This obviously gives governments in the region an additional sense of validation for their own authoritarian behavior." ■



Is there such a thing as “fair” borders?

There are many who would blame the wretched state of certain countries today on borders that were arbitrarily and carelessly drawn up by their former colonial powers. Some scholars, however, remain skeptical about this claim.

Text: Irène Dietschi

It is a bit reminiscent of a sandbox game. The idea is that, to reduce the number of conflicts in the Middle East, all one needs to do is rethink the borders so that they better reflect the identities of the populations concerned. For Alexander Balistreri, this is a typical chicken-and-egg problem. Balistreri is a research associate in Middle Eastern Studies at the University of Basel. He is currently researching the history of the multiethnic border region between the Caucasus and Anatolia. He says that very few conflicts in the Middle East have been sparked by borders themselves. Most of them are about state power, with the borders serving merely as a pretext.

“Take Syria as an example,” Balistreri explains. “In the Syrian war, borders played only a secondary role at first. The trigger for the conflict was the Arab Spring of 2011 and the protests against President Assad’s regime.” Only later did actors who made the borders an issue become involved. Thus, the so-called Islamic State abolished the border between Iraq and Syria. This terrorist militia also wants to break down the other state borders in the Middle East, in order to replace them with a jihadist “state-building project”.

Parceled up between Britain and France

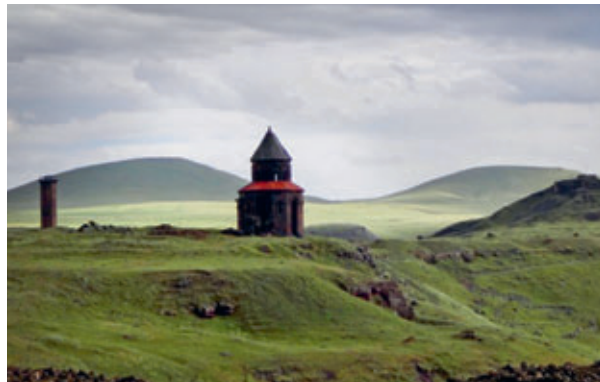
Let us turn the clock back 100 years. The end of World War I also marked the demise of the Ottoman dynasty, which had held power since 1299. A new Middle East

came into being – with roughly the same borders as today. In the Sykes-Picot agreement of May 1916, Britain and France divided up the region into colonial spheres of interest. Britain gained control over what is now Jordan, Iraq and some areas around Haifa. The French asserted control over south-eastern Turkey, northern Iraq, Lebanon and Syria. Under the agreement, the French and British Governments were free to decide for themselves where the state boundaries within their respective spheres of influence should run.

For Balistreri, however, this narrative is too simplistic. “None of the countries in the region was created from nothing.” The French and the British were the main players when it came to drawing the borders, of course. “Still, it is wrong to think

that the new dividing lines in the Middle East were created with a ruler and drawing board, as it were, at the end of the Ottoman Empire. Every one of these borders was negotiated. There was a great deal of dispute, but also subsequent changes.”

For example, Turkey in 1920 accepted the ceasefire lines as new national frontiers – a historical coincidence – but these borders were to change several times. As a gesture of friendship, Turkey ceded to the Soviet Union parts of the Caucasus that had belonged to the Ottoman Empire from time immemorial and were not occupied. At the southern frontier, on the other hand, France handed over the district then known as Alexandretta (today’s Iskenderun, in Hatay province) to Turkey



The historical ruins of Ani on the Turkish-Armenian border: The area in the foreground is Turkish, whereas the hills in the background belong to Armenia.



Alexander Balistreri is a research associate in Middle Eastern Studies at the University of Basel. In his dissertation project, he is investigating the history of the multiethnic border region between the Caucasus and Anatolia. His research also focuses on the relations between states and populations.

in 1938. “The French did it for diplomatic reasons,” Balistreri explains, “as a way of trying to get Turkey to enter World War II on their side.” In a similar way, practically all the region’s borders have been used as political footballs by different local interests and actors over the years. As a result, every border has its own origin story.

American plans to reshape the region

After the wars in the Gulf, a range of plans and proposals for rescuing the Middle East by redrawing its borders appeared in the US media. How some circles imagined a reshaped Middle East might look was set out in the *Armed Forces Journal*, a publication by leading figures in government and industry, in 2006. “The most glaring injustice in the notoriously unjust lands between the Balkan Mountains and the Himalayas is the absence of an independent Kurdish state,” the piece stated, arguing that, after the fall of Baghdad, the USA and its coalition partners had “missed a glorious chance to begin to correct this injustice”.

According to this US publication, the map of the Middle East ought to look like this:

- Turkey, Syria, Iran and Iraq all lose territory to a “free Kurdistan”.
- Lebanon, likewise, gains territory at Syria’s expense, to be reborn as “Phoenicia”.
- Iraq is partitioned along communal lines into a “Sunni Iraq” and an “Arab Shia State”, incorporating parts of Iran.
- The Baluch people are united in a “Free Baluchistan” carved out of Pakistan and Iran.

“Some Americans had a real sense that they had been chosen to reshape the Middle East,” says Balistreri, who himself grew up in the USA, “even though the British and French had already learned that you can’t really solve anything with borders.” “Plans” of this kind were debated in the USA at the time, but they were never articulated as a program at the government level. Maps showing the proposed new boundaries also circulated in the Middle East, where they caused a bit of a stir, but the notion of an American “master plan for the Middle East” was more of a conspiracy theory. “To date,

none of it has been put into effect,” Balistreri says.

Redefining the meaning of “borders”

Yet, the question remains: Does it make sense to rethink the borders of the Middle East? For example, would ethnic and/or religious borders be not only fairer, but “more natural” than political dividing lines? Balistreri sees this as an illusion. The idea of what constitutes a “good” border has changed many times in the course of history. Moreover: “The origin of a border tells us very little about its potential as a source of conflict.”

Balistreri cites the example of Jordan. This state, which borders on Israel, the autonomous Palestinian territories, Syria, Iraq, Saudi Arabia and the Red Sea is “the quintessential artificial country” in the Middle East. Yet Jordan is stable, “if not the most stable country in the whole region”. The opposite is true of Lebanon: Although its frontiers are based on 19th-century administrative borders, it has repeatedly experienced civil wars. The fact that Lebanon’s borders are “rooted in history” has not prevented these wars, Balistreri says.

He concludes, “‘Natural’ borders are no guarantee of peaceful co-existence. Borders are drawn according to a wide range of criteria, not just one.” Furthermore, people are not simply “Kurds” or “Sunnis” or “Alawites”, but have many different facets to their identity. Borders are a human institution that needs to be continually reinterpreted.

Balistreri is very skeptical of the suggestion that having different borders could solve the conflicts in the Middle East. He comes to a different conclusion: “Instead of redrawing the borders, we could redefine what they mean.” As in Europe, borders should be permeable and encourage mobility. Ideally, therefore, they would not be symbols of conflict and division, but would have an organizing, ordering function – a function that brings people together. ■



My father's love of the Orient.

Basel Islamic scholar and drug researcher Rudolf Gelpke (1928–1972) had a lifelong fascination with the Oriental world. Reminiscences collected by his son.

Text: Basil Gelpke



Basil Gelpke is a television journalist, director, and film producer. This text is an abridged and edited version of a talk given at the University of Basel.

My father died when I was nine years old. When he wasn't in Tehran, he was usually traveling. I would receive postcards from him and see him perhaps three or four times a year. "If we ever find ourselves with a whole lot of time on our hands, we'll go ride camels in the desert," he wrote to me once. He loved surprises and would occasionally appear in Basel unexpected and unannounced.

His short life was entirely informed by his love of the Orient, which he certainly romanticized to a degree. He was no stranger to its harsh realities, but perhaps his idealized view sprang not so much from the Orient itself as from the fact that it was the antithesis to the sobriety of his native Switzerland. While ever conscious of his Western roots, he loved the Orient to the point of becoming almost assimilated. He kept his diaries mostly in Farsi, for instance. Linguistically, too, Persia became his second, adopted homeland.

A man of words

My father was born and raised in Waldenburg in the eastern part of the Swiss canton of Basel-Landschaft, the son of National Council member and Rhine shipping pioneer Rudolf Arnold Gelpke. After graduating from high school, he attended lectures on literature and philosophy and traveled extensively. Subsequently, he pursued Islamic Studies at the University of Basel under Professor Fritz Meier, a leading expert on Sufi mysticism and Oriental manuscripts. My father had discovered his passion in life. After he had completed his doctoral degree and obtained a quali-

fication to teach at university level from the University of Bern, he embarked on a full-blooded research career that involved travels and expeditions, publications and translations of contemporary as well as classical texts.

A man of words, he left behind unpublished manuscripts, lectures, essays, and hugely prolific diaries. One of his greatest achievements was to promote understanding by not only pinpointing cultural differences but also explaining the reasons behind them. One of his major themes was the clash of cultures inevitably brought about by globalization, which was becoming apparent at the time. This he referred to as "the spreading of a uniform civilization."

In his 1966 book *Vom Rausch im Orient und Okzident* ("On Intoxication in the Eastern and Western Worlds") he writes: "Even if a person from the East adopts outward manifestations of Western civilization, its intrapersonal premises will nonetheless remain alien to him. This is what creates all the tensions, conflicts, contradictions, and chaotic conditions that are so characteristic of the Orient today." He predicted that the "outward Westernization of the world" would be followed by an "inward Easternization of the West."

Islam and nationalism

In 1962, my father became Professor of Persian Language and Literature at the University of California in Los Angeles, a position he would abandon less than a year later, however. In the early 1960s, California represented the polar opposite of life in the Orient. He felt deeply uncomfortable in an environment

of optimistic modernity and academic career paths, preferring to devote his time to studying what he was really interested in. Above all, he once again felt drawn to Iran.

Back then, the West did not yet perceive Islamism as an issue, but was instead concerned about the Pan-Arab nationalism promoted by Egyptian president Gamal Abdel Nasser, under whose leadership Syria and Egypt joined in 1958 to form the United Arab Republic. Nasser maneuvered skillfully between Moscow and the West, over which he achieved a moral victory in the Suez crisis despite military defeat. His concept of “Islamic Socialism,” however, was flatly rejected by Egypt’s Muslim brothers, who were already influential at that time.

In an unpublished essay on the incompatibility of Islam with nationalism, my father describes developments that are affecting us once again: “Only followers of nationalist religions could even conceive of their own nation as ‘the chosen one.’ Islam knows no such concept; it discriminates not between nations or tribes but exclusively between believers and unbelievers, with all believers being brothers. In their community, nationality, race, and social background are no longer meant to be determinants.” However, he also says that Islam “might one day bear out the dictum that it has a momentous spiritual mission to fulfill.”

Mystical experiences

The recurring theme throughout my father’s life was his spiritual quest, not so much for the meaning as for the essence of Creation, of time, and of that which lies “behind the curtain” of our everyday perceptions, as he was fond of saying. His was a desire to overcome dualist, divisive world views, but also to attain a mystical experience of life. In this connection, too, he was a translator – a translator of texts, materials, insights, and creeds from various periods and cultural regions.

Essentially, my father saw himself as a mystic who drew his inspiration from Western and Eastern sources alike. In Iran, he was drawn particularly to Sufism, the mystical branch of Islam, and in 1967, on his second marriage, this time to an Iranian, he converted to Shia Islam and adopted the name Mostafa Eslami. He took an interest in the mystical orders, whose members were often craftsmen, merchants, civil servants, poets or scholars, who privately and secretly dedicated their existence to an exclusively inward-looking form of religiousness without any sense of mission. Allied to this was his fundamental

criticism of the West, particularly of its unfettered belief in progress, which he felt left no room for contemplation and spirituality.

Finally, my father’s interest in drugs as a key to mystical experiences stemmed both from experiences he had had early on with hashish and opium and from his later friendship with Albert Hofmann, the Basel-based discoverer of LSD. The two carried out self-experiments together, which my father referred to as “travels in the universe of the soul.” For him, psychoactive drugs were inseparable from his fascination with the Orient. It was through this fascination and by looking “behind the curtain” that he felt he could follow his calling to find some deeper meaning to our limited span of life on this planet. ■



Spiritual quest for that which lies “behind the curtain” of our everyday perceptions: Rudolf Gelpke on an overseas trip, 1964.

Syria: Not without the population.

For peace to be sustainable, peace talks need to include civil society, says University of Basel political scientist Sara Hellmüller. She was directly involved in an effort to help settle the conflict in Syria.

Text: Samanta Siegfried

How much more suffering will have to be endured before a settlement in the Syrian conflict is reached? The question is becoming more urgent the longer the war persists – and it has already lasted for eight years. More than 5.6 million people have fled the country and 6.7 million have been internally displaced. A total of 500,000 people or more have lost their lives. And no political solution is in sight. This is partly due to the complexity of the conflict: With superpowers like Russia and the USA, regional players like Saudi Arabia and Iran, extremist forces and numerous national actors all trying to advance their interests, more is needed than an agreement just between the Syrian government and op-

position. In the midst of it all, the local population is often overlooked.

Civil society actors in Geneva

“Civil society actors are vital to any peace process, but are often given too little attention,” says Sara Hellmüller, a researcher at the University of Basel and the Swiss peace research institute, Swisspeace. Recent years have seen a change in thinking, however. As scholars put it, a “local turn” emerged in peacebuilding in the early years of the 21st century, based on the recognition that a peace agreement negotiated exclusively by elites cannot be sustainable.

In 2012, the United Nations accordingly made inclusivity one of its eight

guiding principles for effective mediation. Reality tends to differ. Some critics argue that involving local actors will only delay a settlement. “Faced with the difficult choice of putting an end to violence or building sustainable peace, a mediator will often choose the former option,” says Hellmüller. This is a strategy employed, for instance, by Kofi Annan and Lakhdar Brahimi, the UN’s first two Special Envoys for Syria.

That the two goals are not necessarily mutually exclusive is evidenced by the strategy chosen by the third UN Special Envoy, Staffan de Mistura. In January 2016, he launched the Civil Society Support Room (CSSR). This involved inviting Syrian civil society actors to come to Geneva’s Palais des Nations and share their views with the mediation team in parallel with the formal negotiations.

While some of these actors were present during several rounds of negotiations, there were also new actors every time. This combination of continuity and rotation is intended to allow for the widest possible range of participants and thereby for the mediation team to hear as many voices as possible. To date, nine CSSR meetings have taken place in Geneva implemented by the Norwegian Centre for Conflict Resolution (NOREF) and Swisspeace, co-led by Sara Hellmüller.

“We were able to give a voice to people who wouldn’t otherwise be heard.”

Sara Hellmüller

Hellmüller stresses that the advantages of the project are manifold: The CSSR helps relate developments in Geneva to those in Syria. Moreover, civil society actors contribute specific background knowledge and provide the mediation team with valuable insight into the local situation, especially regarding humanitarian conditions. For instance, there were several occasions when, between CSSR rounds, participants would relay important information to the mediation team that a situation in a particular place had become dire. “We were able to give a voice to people who wouldn’t otherwise be heard,” says Hellmüller.

Staffan de Mistura was the first UN Special Envoy for Syria to opt for this inclusive approach. Unlike his predecessors, he believed that, rather than delaying the process, civil society presence could exert pressure on the conflict parties to strive for a political settlement. “With the formal negotiations in deadlock, the various civil society actors have a chance to demonstrate that an agreement across conflict lines is achievable,” Hellmüller explains.

The dilemma of legitimacy

In the current context, however, the CSSR leaves many questions unanswered. Civil society participants became increasingly impatient as the negotiations dragged on. “While I’m in Geneva talking about peace, my colleagues at home are dying,” some said. There were complaints that participants were being inadequately informed about the negotiations and that their own concerns were not included in any serious manner. Some people considered withdrawing from the process. “This presented us with a dilemma,” Hellmüller recounts. “If we continued the process with civil society representatives without the negotiations producing any significant results, then its legitimacy would be diminished. If we terminated the process, we would end up partially delegitimizing the negotiations, because a number of key actors would be excluded.”

To overcome this problem, the organizers began meeting civil society actors outside the context of the formal negotia-

tions to discuss developments in Geneva. They also held video conferences with people on the ground. The fundamental problem remained, however: “We were working to include people in a process that did not see any progress,” says Hellmüller.

Much as before

Conflict research has produced various theories on the prerequisites for successful mediation. Applied to Syria, however, all these theories run into the same problem: In reality, the conflict is not ripe for mediation because it fails to meet a fundamental requirement, namely that the conflict parties be willing to negotiate. This has been the case especially since the fall of Aleppo, when signs of a government military victory became apparent. “Against this background, there’s a risk that the Geneva negotiations become a fig leaf by the UN for the conflict parties,” Hellmüller notes, adding that, nonetheless, the UN cannot stand idly by. Since Staffan de Mistura’s resignation in October 2018, Geir Pederson, the UN’s fourth Special Envoy, has been trying to broker a solution for Syria. Hellmüller is convinced that Pederson, too, will encourage civil society inclusion, for which she feels the CSSR project has created a point of no return for future negotiations.

As for the big picture, this peace researcher remains skeptical: “I’m hopeful that things will soon improve for the local population. Yet, I fear that, under cover of an ostensible peace agreement, much will continue as before.” She says that she does not foresee comprehensive peace for the near future and that what she finds most encouraging is Syrian civil society: “I was deeply impressed by the resilience of the local population,” she remarks. “Their strength and solidarity will definitely persist.” ■



Sara Hellmüller

completed her doctorate in Political Science at the University of Basel. She is a senior researcher at Swisspeace and a lecturer at the University of Basel. Her research topics include the role of norms in international mediation and the inclusion of civil society in peace processes. She has also published work on peacebuilding and armed conflicts. Her book “Partners for Peace” was published in 2018 by Palgrave Macmillan.



Israeli Arabs as bridge builders.

From segregation to participation: Israel's Arab citizens could have a key role to play as mediators.

Text: Alfred Bodenheimer

When, in late 2018, a story made the media rounds that Liverpool FC was considering enlisting the services of Israel international Moanes Dabour, at first only those who follow soccer took any notice. A few days later, however, the story gained a political dimension: Egyptian world star and Liverpool striker Mohamed Salah was rumored to have announced that he would leave the club if Dabour was signed. Almost 40 years on from the Egypt-Israel Peace Treaty, Salah apparently refused to play on the same team as an Israeli because of a fundamental aversion to Israel, despite the fact that Dabour is a fellow Arab Muslim.

Contempt for "collaboration"

A few days later, an open letter to Salah from Jerusalem-based lawyer Jawad Boulos, who is also Arab, appeared in a London Arabic newspaper. An abridged version was published in Hebrew and English by Israeli newspaper *Haaretz*. In it, Boulos, who fights for the rights of Palestinians both in Israeli courts and in the public arena, expresses his belief that Salah would have reacted differently if he had been more aware of the fate and role of those Arabs who remained in Israel when that state was founded in 1948. According to Boulos, their presence in the country thwarted an Israeli plan "to empty the homeland completely of its native Arab residents." The fact that their "collaboration" with the Zionist government is widely disdained in Arab countries, he says, is therefore even harder to bear than the "siege" imposed by Israel.

Besides, Boulos adds, Egypt has always been a special haven of stability for Israeli Arabs. He cites Cairo-based radio station *Voice of the Arabs* as having

provided support in times of need and shored up faith in eventual victory, claiming that his generation used to melt listening to the voice of Egyptian president Gamal Abdel Nasser (who in 1967 declared that he would drive the Jews into the sea).

"Everybody's equal"

Presumably, Dabour, who is from Nazareth, would hardly have agreed with this open letter any more than with Salah's discriminatory reaction. In an interview given to Israeli news website Ynet in August 2018, he explicitly distanced himself from attempts to draw a dividing line between ethnic groups. Asked about Israel's recently-passed "nation-state law", which among other things demoted Arabic from one of Israel's official languages to a special-status language, he said: "I don't pay attention to politics. As far as I'm concerned, everybody's equal, but unfortunately certain people have now decided to discriminate among people in Israel. We should all be united, but unfortunately that isn't how things are in our country. I'm sure the nation-state law hasn't affected the national team and isn't going to, either. The nation-state law doesn't exist for us; we're all equal and everybody likes each other."

For Israel's Arabs, who make up 21 percent of its more than 8 million inhabitants, the reality lies somewhere between Boulos' militant discourse of victimization and Dabour's harmonizing portrayal of the national team. Clearly, Arabs continue to be economically underprivileged, accounting for only 8 percent of the country's gross domestic product. A number of recent news stories and statistics on the education system paint a surprisingly different picture, however. One example comes from schools,



Alfred Bodenheimer

is Professor of Jewish Religious History and Literature at the University of Basel. In addition to his academic publications, he has authored several detective novels.

which with few exceptions continue to be segregated based on religious affiliation and observance.

Economic potential of Arabs

In 2018, of the ten high schools with the best grade-point averages, four were Arab, including two of the top four. (Admittedly, there were seven Arab or Beduin schools among the bottom ten.) In the professions, especially in medicine and pharmaceuticals, the prevalence of highly skilled Arabs has increased dramatically over the past few years (as a visit to an Israeli hospital or pharmacy will only confirm). By contrast, Arabs are seriously underrepresented among highly skilled workers in the particularly thriving high-tech sector, where in 2018 they made up only 1.4 percent of the workforce. Of this proportion, a mere 7 percent were women.

Both domestic investors and the government are interested in changing this, a fact that Israeli media has long since focused on. It is often remarked that the potential of the Arab intelligentsia should be better harnessed to benefit Israel's economy and help reduce the economic imbalance between sectors. However, a recent article in Israeli financial newspaper *Globes* speculated that there is a mostly secret hope among the Jewish public that increased cooperation between Jewish and Arab experts in the globalized high-tech sector will help westernize this still very conservative part of the population.

Mixed signals

Indeed, a certain amount of internal inhibiting influence seems to be having an effect. This would appear to contradict the findings of an academic study on the entrance of Arab Israelis into the high-tech sector conducted by accountant Abdallah Zoabi. His conclusion cited in *Globes* was that working in a global environment alongside people from highly diverse cultural areas may challenge personal religious beliefs and observances, but not necessarily weaken them.

The Arab population, however, receives mixed messages from the policies of the Israeli government. Scholarship programs for Arab students are in sharp contrast to low points such as Benjamin Netanyahu's

warning that "Arab voters are heading to the polling stations in droves," which was part of a 17 March, 2015, election day video message aimed at counter-mobilizing his right-wing voters and is now the subject of an extensive dedicated article in Hebrew Wikipedia. While the above-mentioned 2018 nation-state law can justifiably be read as an indication of a Jewish identity crisis, it caused a great deal of resentment among left-liberal Jews as well as among Arabs.

Still, there are signs that both Jews and Arabs in Israel have now grasped that full participation of Arab citizens in Israeli society will ultimately benefit all. Rather than being misunderstood fighters for the Arab cause, as Boulos views them, Israel's Arab citizens could be instrumental in building bridges between the peoples of the Middle East. ■





Re-centering the Middle East.

Time and again, the Middle East has been subjected to external definitions: Europe sees the region as a gateway to Asia, while for present-day China it is part of a vast economic area.

Text: Ralph Weber and Madeleine Herren

On June 2, 1877, the geographer Ferdinand von Richthofen gave a lecture on the “Central Asian Silk Roads up to the 2nd century A.D.” in Berlin. In it, he described the desirable characteristics of trade routes, which he said should be short and fast. A center of power should control the transit of the most precious of commodities – Chinese silk, according to the geographer. “Silk Road”, the term coined by von Richthofen, has since gained widespread currency, even though the transcontinental silk road dominated by China was, even then, a thing of the distant past.

Did the silk roads ever exist?

According to von Richthofen, China’s weakness had allowed the silk trade network to shift to Persia. With the spread of silk worms smuggled out of the Middle Kingdom to Lebanon, Italy and even Basel, Asian-European networks in the Middle East had found a new center. Whether the silk roads first “invented” in 1877 ever existed – something that some researchers vigorously deny – is less relevant.

Today, we are faced with a conspicuous contradiction: Global networks have become so significant that they have been adopted by Chinese foreign and economic policy under the Belt and Road Initiative (BRI). This project, launched in 2013 and framed as a modern Silk Road, consolidates Chinese interests in the creation and expansion of intercontinental trade routes and infrastructure networks. The core focus of this global project lies in a

region plagued by chronic political instability: The Middle East, also known as the ‘Orient’, MENA (Middle East & North Africa) or MENAT (Middle East & North Africa and Turkey).

Authors such as Cyrus Schayegh claim that the asymmetrical tensions in the Middle East region can contribute decisively to our understanding of globalization processes. At the University of Basel’s Institute for European Global Studies we share this view. To illustrate the issue, let us consider two opposing but interdependent and interrelated concepts: On the one hand, the scientific “monopoly of interpretation” developed in the late 19th century in the Western world that determined what holds this culturally, politically and economically fragmented region together, versus China’s reinterpretation of the region, on the other. Both perspectives portray the Middle East as a platform for global exchange and as a center shifting along conflicting needs.

From European appropriation ...

Richthofen’s Silk Road represented a research field marked by a real gold rush atmosphere: It was no accident that the first International Congress of Orientalists was held in Paris in 1873. The primary focus of the conference was on Japan, which had just opened up to Western trade, with special attention given to the production and trading of silk. Switzerland, an active participant in the silk industry, formed a national committee, achieving a remarkable po-

sition in a rapidly developing field with its early involvement.

Whereas the field of *Etudes Orientales* was initially devoted to East Asia, by 1873 the research focus had shifted to the Middle East with Egyptology, Semitic Studies and Assyriology. The fifth Congress of Orientalists, held in Berlin in 1881, was attended by the German Society for the Exploration of Palestine, and included an African section. The Prussian minister who delivered the opening speech observed that professorships in Oriental Studies had been established at 34 universities in Prussia alone, while museums were filled with exhibits collected on research expeditions.

The International Congresses of Orientalists point to the unmistakable political relevance of the Middle East region and its Eurocentric appropriation, which was not relativized until after World War I. On the other hand, the congresses also show that even for major empires, a new geopolitical strategy was emerging. This strategy, based on securing connections and networks, was pertinently expressed by the metaphor of the Silk Road.

... to the Chinese reinterpretation

Today, a defining aspect of the Chinese vision of the new Silk Road is the transition away from the conquest of new territory toward a greater emphasis on interconnectedness. The BRI, launched in 2013 by the newly appointed President and party leader Xi Jinping, is said to encompass an estimated 68 countries,



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65 percent of the world's population and almost 40 percent of the global economy. It includes large-scale projects which, alongside Eurasian connections, extend from Latin America to the Arctic. Behind all the rhetoric about win-win outcomes lies a bid to cement a new world order oriented towards the East and China as a new center, and establish the Renminbi as the new global currency.

The effects of the Belt and Road Initiative in the Middle East are already clearly discernible. During a visit to Egypt, Saudi Arabia and Iran in 2016, President Xi announced investments and loans amounting to 55 billion US dollars. Countless infrastructure projects, including railways, oil refineries and ports have either been completed or are currently in the construction or planning stages, often in parallel with new free trade zones. From 2005 to 2016, Chinese investment in the region totaled almost 140 billion US dollars. Currency swap agreements have been signed with the United Arab Emirates, Qatar and Egypt.

How is this gigantic infrastructure project reordering the world? And above all: What does "Middle East" mean from a Chinese perspective? A strategy paper published in 2016 describes a "1+2+3" formula, in which cooperation in the established energy industry represents the one core, infrastructure projects and trade/investment are the two wings, and nuclear power, space technology and renewable energy the three breakthroughs. Rather than referring to the Middle East, the document speaks of "Arab nations". When it comes to peace-keeping and stability, however, the Western coined term "Middle East" takes on a much more prominent role. It is only in these contexts that the term "Middle East" (*Zhōngdōng* 中东) is explicitly mentioned – a geographical absurdity from the Chinese perspective, which only highlights the borrowed term's Western origins.

Powder keg metaphor

The use of the label "Middle East" is rather peculiar. It seems that the tradi-

tional metaphor of the "powder keg", along with the religious and political tensions it represents, is simply projected on the "old" Middle East, i.e. the Eurocentrically defined old center. In China's proposal for the future of international relations, the words "Islam" and "Muslim" do not appear. Exchange between cultures and religions is claimed to be based on religious tolerance, but the focus is on the fight against terrorism.

The Chinese interpretation of the Silk Road suggests a separation of the problem into economy and politics. Whereas the economic component is primarily anchored in bilateral agreements, the Western-modeled metaphor "Middle East" is used in reference to failing multilateral conflict mechanisms. This separation is especially evident in the case of Israel: The country is a member of the Asian Infrastructure Investment Bank, and China is its second-largest trade partner. Nevertheless, this does not prevent China from favoring a two-state solution with an independent Palestine.

In the Middle East, China seems intent on using economic connections to sideline the region's political and religious problems. Saudi Arabia and Iran are courted, and if necessary played off against each other; Israel is economically adjusted, and even in Syria China is seeking to play a mediating role. Analytically, this reveals a confrontation of conflicting monopolies of interpretation. What is missing, however, are multilateral peace-keeping efforts that take into account the self-perception of local actors and how they relate to their externally imposed "centering". ■



Layer by layer.

Ultra-thin elastomer films that change shape in response to an applied voltage have numerous potential applications in medicine: as pressure sensors in dentistry, as artificial muscles to treat incontinence, or as implants to treat Alzheimer's or Parkinson's disease. Researchers in Basel are developing new methods that allow them to create innovative silicone-sandwich systems.

Photo: Basile Bornand

8

Tino Töpfer and Bekim Osmani are postdocs in Professor Bert Müller's group at the Biomaterials Science Center of the Department of Biomedical Engineering. They have already taken out two patents and published over 20 articles in relation to their method for producing soft and conductive polymer films.

- 1 The sandwich structures are grown in a vacuum chamber, which allows layers to be produced under precisely controlled conditions.
- 2 The vacuum pump is used to generate a high vacuum.
- 3 Silicone is heated in evaporation cells, causing individual polymer chains to break away from the surface and fly toward the substrate. This allows very thin layers to be grown molecule by molecule. The growth rate can be adjusted by varying the temperature in the evaporation cell.
- 4 The silicone, which is still in liquid form, can be cured on the substrate using the deuterium light source. This allows the mechanical properties of the polymer to be adjusted as required.
- 5 Using the manipulator, researchers can adjust the position and orientation of the samples with a high degree of accuracy.
- 6 The ellipsometer allows the layer thickness and its material properties to be determined in situ.
- 7 The sputter coater can be used to prepare the electrical contacts in advance.
- 8 The spin coater can apply thin coatings to substrates: By rotating the sample, it ensures that the solution is evenly distributed.

Is it worth researching rare diseases?

Does it make sense to promote research into diseases that only affect a very small number of people? A health economist and a medical ethicist offer contrasting views.

A rare disease is defined as one that affects fewer than five in 10,000 people. This definition applies to approximately 7,000 different diseases, some of them with severe clinical, social and economic consequences for those who suffer from them. In Switzerland, around half a million people suffer from a rare disease – as many as have been diagnosed with diabetes (40,000 cases for type 1, and 460,000 for type 2). Each rare disease affects 70 people on average. This presents research in the field of rare diseases with a major challenge: Whereas a given investment in diabetes research benefits half a million patients, research into a rare disease benefits only 70. From this perspective, research into rare diseases is not actually worthwhile. Yet, this “cold” economic rationale is not politically popular. In the fall of 2014, the Swiss Federal Council adopted the “National Strategy for Rare Diseases” as part of the “Health 2020” policy framework, and instructed the Federal Department of Home Affairs to formulate a plan of action. In doing so, Switzerland joined many other countries committed to promoting research into rare diseases.

Is it reasonable to weigh up the fate of 70 patients suffering from a rare disease against that of half a million diabetics? According to the principles of utilitarianism, this is in fact imperative. Under this philosophy, all patients should be treated equally, while taking into consideration the sometimes considerable differences in severity among the various diseases. This is because the money spent on a disease affecting 70 people entails

opportunity costs: Half a million patients with diabetes are deprived of the potential benefits of research into their disease.

Utilitarianism has a long tradition in countries such as the UK, where it is applied relatively consistently in healthcare. A recently published representative survey reveals support for this

policy. According to the survey, the British public does not consider rarity to be a sufficient argument for certain diseases to be given preferential treatment. The same phenomenon was observed in Norway when the population was consulted on the prioritization of “orphan drugs”, as medication for rare diseases is known. When asked to consider the trade-offs, respondents did not attach any special importance to rare diseases.

A similar position was reflected in the ruling of the Swiss Federal Supreme Court in the highly publicized “Myozyme case” of 2010. This case involved a patient with Pompe disease – a lung disorder whose treatment with Myozyme at that time cost half a million Swiss francs a year. In its verdict, the court noted that 2.8 percent of the country’s inhabitants suffered from a comparable impairment of lung function. If half a million francs were spent annually on treating each of these patients, Switzerland’s entire health budget of 90 billion francs would be exhausted. Accordingly, the court ruled against the reimbursement of Myozyme on grounds of fairness. And this is the surprising thing about utilitarianism: It brings considerations of efficiency and fairness into harmony. ■

Stefan Felder

is Professor of Health Economics at the University of Basel. He is President of the Swiss Society of Health Economics and Executive Secretary of the European Association of Health Economics. His interests include regulation of health insurance and healthcare markets. He has also published on medical decision-making and prioritization of healthcare services.

Is it worth it?" can be a tricky question. This is something most of us have probably realized, for instance when deciding whether to go to university or not. My 12-year-old son recently attended a school event in which the various types of schools and qualifications were presented. After the event, he was left wondering whether it made sense to take the school-leaving exams and pursue a traditional university degree, as dual vocational training would allow him to start earning money much sooner. Whether a particular course of action is "worthwhile" depends, among other factors, on whom we intend it to benefit, the kind of benefit expected (quality of life, financial gain, etc.) and whether this benefit will make itself felt in the short or long term.

The question of whether researching rare diseases is a worthwhile endeavor demands a nuanced approach to each of these aspects. "Rare diseases are a mass phenomenon," a headline in the German weekly *Die Zeit* rightly declared several years ago. If we consider the various rare diseases as a whole, they become common, affecting 6 to 8 percent of the population of the US and Europe – or 30 million people in the US and even more in the EU, which has overtaken the US in terms of population.

It is plain to see that research into rare diseases is worthwhile from the point of view of the many millions of patients directly affected by them and their families. In the past, research has helped us to better understand disease mechanisms and find therapeutic or preventive measures. For patients, the progress achieved through research does not merely bring a higher quality of life – in many cases it is a matter of life and death, or at least a substantial difference in life expectancy. It also brings short- and long-term financial consequences – for those affected, as it enables them to work longer and earn their livelihood, but also for society in general, as patients whose condition is cured or at least stabilized can pay their own way and contribute as taxpayers.

Within the scientific community, researching rare diseases is generally considered to be worthwhile in the long term, as in many cases research findings do not just apply to a single rare disease, but rather enable critical insights into many other conditions and their genetic or pathophysiological mechanisms. Critics often reject this position, arguing that for the majority – the 90 percent of people not affected by rare diseases – the research is not financially warranted. Calculations of this sort are short-sighted, however, as they do not take into

account all of the potential benefits the research can bring.

Critics typically fail to consider aspects such as the economic contribution of cured or stabilized patients, or the long-term benefits of research findings for our understanding of other diseases, rare or otherwise. What is more, they almost invariably forget the concrete ethical benefits to our society, the importance of which to our collective well-being should not be underestimated. Respect for ethical values is crucial to our coexistence – including satisfaction, happiness and collective

well-being. In Switzerland, as in most European countries, values such as respect for the autonomy of each individual and solidarity in the healthcare system are deeply rooted in our understanding of ourselves – besides being enshrined in law. In his groundbreaking work *A Theory of Justice*, the philosopher John Rawls convincingly showed how society as a whole stands to gain from decisions that improve the lot of those "worst off". Solidarity with sufferers of health problems is a fundamental pillar of a humane society, and preserving these precious values is beneficial to the entire community. To summarize, any calculation or analysis that takes into account the full social ramifications of research into rare diseases can only lead to one conclusion: It's worthwhile for us all. ■

Bernice Elger

has been a professor at the University of Geneva since 2007, and was appointed full professor and Head of the Institute for Biomedical Ethics at the University of Basel in 2011. After studying medicine and theology in Germany, France, the US and Switzerland, she obtained a degree in theology and an FMH in internal medicine. She has published primarily in the fields of medical ethics in genetics, clinical ethics and research on biobanks and human tissue, as well as human rights issues.

Album

On the trail of tsunamis.

Photos: Nicole Canegata
Text: Reto Caluori

The Caribbean island of Anegada may look like a tropical paradise, but tsunamis are capable of wreaking havoc on this northernmost of the British Virgin Islands. Rising just 8.5 meters above sea level, the coral island is threatened with devastation by strong winds and huge waves during the annual hurricane season.

Besides leaving a trail of destruction, flooding events also leave sediment deposits on the ground. Researchers can use this geological testimony to deduce the intensity and frequency of hurricanes and tsunamis that struck even many hundreds to thousands of years ago.

In September 2017, the Caribbean island experienced the highest category of hurricane, category 5, when it found itself in the path of Hurricane Irma. Yet, the island's sediments preserved signs of far greater events than Irma. When a team of researchers led by geologist Dr. Michaela Spiske from the University of Basel conducted field work on Anegada, they uncovered evidence of two major tsunamis that struck the island within the last 800 years. One of these tsunami events was triggered by the 1755 Lisbon earthquake.

In the field, the geoscientists measure and map flood parameters, such as water levels and inundation distances, as well as documenting morphological changes on the surface and collecting samples of deposited sediments. In combination with laboratory analyses, this data helps to improve existing tsunami models, allowing researchers to estimate the long-term risk of a region and to adapt the early warning systems accordingly.



Almost two years after Irma, washed-up flotsam serves as a reminder of the hurricane that swept through the British Virgin Islands. The angle of the palms indicates that they were bent over by a storm surge rather than high winds.

Dr. Michaela Spiske samples sandy hurricane deposits in the remains of a beach bar. As this sand undoubtedly originates from Irma's storm surge, its chemical profile and the contained marine microorganisms can be compared with the deposits from a tsunami (right).







Some 800 years ago, a tsunami tore a huge piece of coral from the reef and washed it 500 meters onto the land. Measuring points are used to create a 3D model that allows researchers to determine its volume and weight. In turn, this helps them calculate the wave height and flow velocity needed to transport the coral boulder, which weighs about eight metric tons, such a large distance inland.





Along the coast, historical hurricanes have created coast-parallel ridges composed of coral fragments. A trench uncovers the inner structure of the coral ridge. The orientation of the flat clasts tells researchers that this material was transported onto the beach by thousands of individual storm waves – rather than by the turbulent waters of a tsunami wave (left).

The green line marks the ridge crest and would disappear if the material was moved by a storm. Irma was too weak to wash new material onto the land – and was therefore not even close to the worst-case scenario on Anegada.

**Michaela Spiske**

is a private lecturer of exogenous geology and sedimentology at the Department of Environmental Sciences of the University of Basel. Her research focuses on erosion, transport and deposition processes during natural hazards such as tsunamis and storm surges, which can significantly alter or even destroy a coastal region within a few hours.



A shovel slice of sediments from a salt pond in the island's interior contains hundreds of years of geological history: Between typical salt-pond deposits, the researchers find two layers containing shell fragments and limestone chunks from the open ocean and the shore platform. These bear evidence to the several-meter high tsunamis that washed over the island some 800 years ago and in 1755.



Temperature taking – on a tiny scale.

Minute changes in temperature can be used to analyze the growth of bacteria.

This technique, known as microcalorimetry, is being applied in various innovative ways by Basel University researchers to aid the development of medical implants, infection diagnostics and food safety testing.

Text: Yvonne Vahlensieck

Almost all organisms produce heat – a truth that scientists have long used to investigate metabolic processes. More than 200 years ago, for instance, French chemist Antoine de Lavoisier placed a container holding a guinea pig inside a bucket filled with ice. Based on the amount of ice melted by the animal's body heat, he was able to show that breathing is a slow form of combustion.

A similar technique is being used at the University of Basel's Department of Biomedical Engineering, albeit in a rather

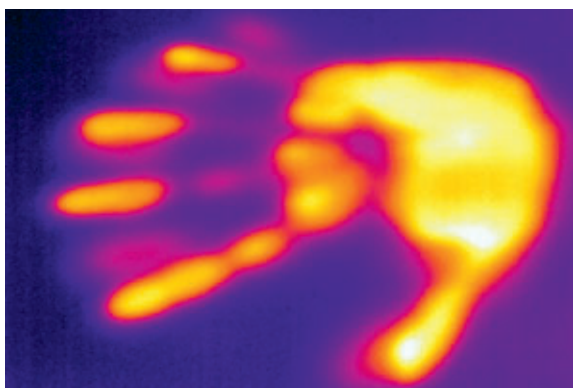
more sophisticated form. Instead of guinea pigs, the researchers' subjects now tend to be bacteria and other microorganisms. What is more, the ice bucket has been replaced with a microcalorimeter – a device able to detect temperature changes in the order of a few thousandths of a degree Centigrade.

The heat produced by the organisms is then used as a measure of bacteria growth. "This method is especially suited to applications where microscopy, conventional microbiology and molecular biology have reached their limits," explains Dr. Olivier Braissant, who heads the microcalorimetry laboratory.

Preventing bacterial biofilms

One of his main research interests is the characterization of a type of bacterial growth known as biofilms. These biofilms occur under certain conditions and are considered to be particularly resistant to antibiotic treatment. If, following an operation, a hip, knee or dental implant develops such a biofilm, the result is intractable infection, often with severe complications. "Our main aim is to identify new materials and coatings for implants and to test whether they can prevent biofilm formation," says Braissant.

In his microcalorimetry lab, he is testing a number of innovative products for use in medical implants in collaboration



Living organisms radiate heat: image of a human hand taken with a thermal imaging camera.

with industry partners and hospitals. This involves placing small samples of material in glass ampoules along with bacteria capable of forming a biofilm. For this purpose, Olivier Braissant selects bacteria species that account for a large proportion of hospital-acquired infections, such as *Staphylococcus aureus* and *Staphylococcus epidermidis*.

Based on the amount of heat generated inside the microcalorimeter over a period of days, weeks or months, he then gauges how successfully the biofilm is colonizing the material being tested. “The great thing about microcalorimetry is that these tests are simple and easy to run without a lot of preparation,” says Braissant. “The only constraint is that specimens have to be small enough to fit inside an ampoule.”

Tuberculosis treatment

Another advantage of this method is that small amounts of microbes are enough to enable measurements. This is particularly useful when working with slow-growing bacteria such as *Mycobacterium tuberculosis*, the causative agent of tuberculosis, which causes more than a million deaths worldwide each year. The disease can only be reliably diagnosed by detecting the pathogen in a patient’s sputum – but since the bacterium grows extremely slowly under laboratory conditions, diagnosis by conventional methods takes at least a week. Another month passes before the appropriate antibiotic can be identified. “Using microcalorimetry, we were able to reduce the waiting time from over a month to one week, as we require only a small amount of the bacterium,” Braissant says, referring to a recently completed project in South Africa.

One problem that has yet to be overcome is the very low capacity of current microcalorimeters compared to conventional diagnostic systems, which can ana-

lyze up to 1000 specimens at once. To tackle this issue, several former staff members of the Department of Biomedical Engineering have founded a start-up company and are now working to develop a novel, affordable microcalorimeter that could one day provide enough space for several hundred specimens.

Quality control for cheese

The applications of microcalorimetry are by no means limited to medicine, as evidenced by a study that Braissant conducted in collaboration with Swiss agricultural research institute Agroscope. The institute stores and cultivates bacterial strains traditionally used in cheesemaking that are responsible for the right taste, rind formation and – not least – the holes in cheese. The European Food Safety Authority requires proof that the bacteria in these cultures do not harbor any transferable genes for antibiotic resistance.

Yet, these types of analysis tend to be costly and labor-intensive. “One major complication is that some of these cultures will only grow in milk rather than the usual culture media. It’s almost impossible to isolate the bacteria without inhibiting them, especially once fermentation sets in and the milk starts to thicken,” Braissant explains. This problem does not affect microcalorimeter measurements, however, because the bacterial cultures do not need to be isolated. His analyses confirmed that nearly all starter cultures were free of antibiotic-resistant bacteria.

Researchers from other disciplines are increasingly reaching out to Braissant when their own methods no longer produce results. Accordingly, Braissant has no shortage of projects for his microcalorimetry laboratory: “The history of temperature measurement certainly goes back a long way, but it feels as if it has only just begun in earnest.” ■



Olivier Braissant

is a researcher at the Department of Biomedical Engineering at the University of Basel and heads the microcalorimetry laboratory there.

A rediscovered opponent of the Reformation.

The Basel poet and humanist Atrocianus wrote a number of polemical works attacking the Reformation – to no avail. He was then forgotten. A research team has now published the first critical edition of his printed works, with a German translation and commentary.

Text: Christoph Dieffenbacher

It was a time of great turmoil, which left a deep impression on those who lived through it. Priests refused to preach; images of the saints were secretly stolen from churches and monasteries; meetings and private Masses degenerated into brawls. Finally, in February 1529, church ornaments were smashed and crucifixes and altars were removed from the cathedral by militant evangelicals in Basel, who burned the wood on great carnival bonfires. This outburst of iconoclasm marked the triumph of the Reformation and its leader, Johannes Oecolampadius, in Basel. The bishop was forced out.

A poorly documented life

This religious and social revolution had been preceded by years of debates, involving the active participation of large numbers of humanists through their writings, polemics, and sermons. The church came under fierce attack. One of the opponents of the new teachings – later to find himself on the losing side – was Johannes Atrocianus, who defended the church in his literary and political writings and repeatedly attacked the Reformation.

After several years of work, a team at the University of Basel has now published the first complete edition of Atrocianus's works, with a German translation and commentary. "Up until now, this writer has been largely forgotten – as we know, history is written by the winners," says Professor Henriette Harich-Schwarzbauer, a Latinist at the University of Basel and one of the work's co-editors, along with Dr. Christian Guerra and Dr. Judith Hindermann.

Combative personality

Even assembling the few pieces of biographical information that we have for Atrocianus was no easy task. As the researchers show, Atrocianus is to be identified with Johann Grimm, who, like other humanists, translated his name into a Classical language. "Atrocianus" is derived from the Latin "atrox" (harsh, stern, fierce) – and it was a name that suited Grimm's combative personality. The issue was complicated by the fact that, for a long time, the author had been wrongly identified with two other people bearing the same name.

The facts of Atrocianus's life have now been pieced together, more or less. Born in Ravensburg in the mid-1490s, he studied in Vienna and, in 1513–14, at the University of Basel. He then worked as a schoolmaster and private tutor in Basel and St Gallen. From 1528, he was based at the Augustinian collegiate chapter of St Leonhard in Basel. Following the triumph of the reformers, Atrocianus left Basel in the spring of 1529, along with others – including his printer, Johannes Faber. With his wife and two sons, he settled first in Colmar – probably until 1535 – and then in Catholic Lucerne, where he was head of the Latin school at the city's Discalced Franciscan monastery from 1543.

A time of change

Atrocianus's career reflects the contact networks that existed between scholars at the time. This is evident from his collection of epigrams, a poetically ambitious work. The main things that attracted him to

Basel were the city's university and its famous printers. Here, he was also in contact with leading humanists such as Erasmus of Rotterdam, Johannes Froben, Beatus Rhenanus, and Bonifacius Amerbach. As the revolutionary changes unleashed by the Reformation intensified in Basel during the 1520s, these humanists came into conflict with one another more and more. Atrocianus concentrated his fire on one person in particular: Johannes Oecolampadius, later the city's successful reformer.

Atrocianus recognized that the clergy were guilty of abuses such as debauchery, gambling, and the sale of indulgences – and criticized them for it. However, he argued that these problems could be solved only within the institutional church itself. What his works called for was internal change, rather than schism and the establishment of a new confession.

As an opponent of the new faith, Atrocianus became increasingly disillusioned in his later writings, until finally he left Basel. From library catalogs, the Basel Latinists were able to confirm that his works probably had a limited circulation – mainly in southern Germany – and disappeared into the archives fairly quickly. However, the fact that the successors of the reformer John Calvin in Geneva, such as Theodore Beza, were familiar with Atrocianus shows that there was some awareness of the author and his works.

The complaint of the Mass

The works that have now been edited, with a German translation and commentary, all date from the critical months prior to the Reformation. As a result, they provide insights into this feverish period, even though many of the connections need to be explained to a modern readership. Thus, in a lengthy elegy entitled “Querela Missae”, Atrocianus presents the Mass as a woman, who bewails her fate from the grave. The traditional Mass was, in fact, abolished in Basel a few weeks after the work's publication. The Reformation had prevailed.

Atrocianus believed that the ideas of the Reformation were also to blame for the peasant uprisings of 1525, which are described from a moralistic point of view in his work “Elegia de bello rustico”. Here Atrocianus praises peace and mourns for the many fallen peasants whom he sees as having been led astray by a false teacher (meaning Luther). In other texts, he attacked the general anti-intellectualism that he saw all around him. The humanist canon was being forgotten, he complained, and pupils were being led astray by their teachers.

Early modern Latin: An under-researched field

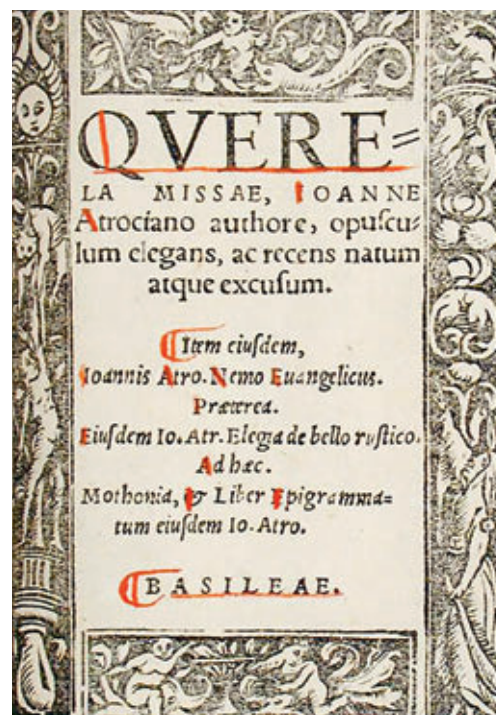
As Christian Guerra, one of the project's co-editors, explains, again and again Atrocianus used short

scenes from everyday life to provide a vivid illustration of how the Reformation had corrupted people. “Yet this is often done in a highly defamiliarized, poeticized way, as was typical for the period,” adds his colleague Judith Hindermann. Atrocianus's style, while simple, was often repetitive, to “hammer home” his message. When it came to translation, the main challenge was to find ways of reflecting adequately the complex theological and intellectual connections in the texts.

“The Reformation period on the upper Rhine is well researched, on the whole, but Atrocianus's voice has been ignored up until now,” Harich-Schwarzbauer says. This edition, which also draws on the expertise of theologians and historians, is intended as a stimulus for further research. According to Harich-Schwarzbauer, there are still “a good number of discoveries to be made” in Basel – mostly texts from this period that were written and published in Renaissance Latin. This makes the language “the most extensive of Europe's literatures still to be explored”. ■

Christian Guerra, Henriette Harich-Schwarzbauer and Judith Hindermann (eds), *Johannes Atrocianus.*

Text, Übersetzung, Kommentar (Noctes Neolatinae, 30), Olms-Verlag, Hildesheim, Zürich and New York 2018, 364 pp., paperback.



The traditional Mass had served its purpose:
Title page of the edition of Atrocianus' elegy entitled
“Querela Missae” from 1529.

Age-related unemployment.

Older workers are at a disadvantage, especially when faced with the threat of redundancies or when applying for a new job. According to Kurt Pärli, a Basel-based professor of law, Switzerland performs worse than other countries when it comes to discrimination against older people.

Text: Christoph Dieffenbacher

Hiring: border guard aged between 20 and 35” or “Coach/truck driver (m/f) between the ages of 20 and 50”: Newspapers and job boards in Switzerland feature advertisements like these on a daily basis. By specifying a target age, the offers discriminate directly against older job seekers. Indeed, studies show that three out of four workers face an age-related disadvantage when changing jobs. In Europe, almost two thirds of the population fear they will fall victim to this kind of discrimination at some point in their life.

Unequal treatment as “standard”

Fears of this kind are well-founded: After losing a job, older workers typically have little chance of regaining a foothold in the world of work – despite their best efforts. Although Switzerland has a high proportion of over-55s in gainful employment, those who find their employment terminated at this age are faced with a dire situation.

Age discrimination is “standard” here, so to speak, says Kurt Pärli, Professor of Social Private Law at the University of Basel. The situation is different abroad: In the European Union, for example, age is embodied as one of several grounds for discrimination in directives, which member states are required to implement. Al-

though discrimination is prohibited by the Swiss constitution, there is a lack of appropriate implementing legislation.

In practice, the Federal Supreme Court nevertheless recognizes a heightened duty of care on the part of employers in special cases, such as when employees have reached a certain age and achieved a certain number of years of service. According to Pärli, however, this is “more of a moral categorization” and actually no longer reflects the realities of today’s labor market.

Younger people also disadvantaged

Younger people can also be at an indirect disadvantage when it comes to recruitment – for example, if job advertisements and pay grades place particular value on professional experience or years of service. In that case, older people actually have an advantage over younger candidates. Furthermore, age is not the only basis for workplace discrimination, with other grounds including characteristics such as gender, nationality or skin color.

Pärli says that the general preference for younger people in the labor market relies heavily on preconceptions: “Generalizing assumptions about mental and physical capabilities diminishing in old age are not borne out by the findings of recent aging research.” Aging processes

differ from one individual to another – and, he says, many older people harbor untapped potential to mobilize and develop their own professional skills.

State and private sector are converging

According to the professor of law, there are – broadly speaking – two sectors of the labor market. Recruitment under public law in Switzerland is typically the work of the state and is bound by the fundamental rights enshrined in the Federal Constitution – and particularly by the prohibition on discrimination, which also specifically mentions age. In practice, however, it is possible to define legal age limits for certain occupations, such as border officials or police officers.

By contrast, employment relationships under private law, which are customary in the private sector, enjoy what is known as freedom of contract. This is considered an extremely important principle here in Switzerland. Although employment contracts under private law do impose a number of obligations on employers, older people are still disproportionately affected by redundancies, for example. Nevertheless, it may transpire that dismissals are only deemed improper if the employer specifically mentions age, as the Federal Supreme Court has ruled in several cases.

Research

Pärli is keen to highlight that, nowadays, there is growing convergence between public and private employment law. On the one hand, the official status of civil servants has been abolished, for example – and, on the other hand, courts have imposed a heightened duty of care on private sector employers.

Redundancies have a particularly profound effect on older people. For them, losing a job is associated with serious consequences such as a reduction of social security benefits in old age. The same is true of mandatory retirement in the event that the affected individuals would have liked to continue working beyond retirement age. In principle, Pärli believes that terminating contracts in this way is permissible under current law.

Legislation needed

Pärli explains that age discrimination is difficult to challenge legally in Switzerland because the country lacks appropriate legislation, and that there have been

scarcely any court cases due to ageism in hiring. Swiss workers lack effective legal protection if their application is rejected because of age: “Unlike in other countries, we have no clear legal safeguards against age discrimination in recruitment,” says Pärli.

So, what solution does he suggest? Whatever happens, he believes the goal should be to introduce statutory regulation, which must be designed to be “age-neutral,” as the expert in employment law puts it. In his view, the answer is to move toward stronger protection against dismissal and a prohibition on discrimination during recruitment. A prospective law could incorporate discrimination as a general violation of basic personal rights rather than confining itself to age. Another possibility would be to introduce a right of appeal for associations, as well as effective sanctions for offending employers according to their size – such as penalties amounting to a certain percentage of annual turnover. ■



Kurt Pärli

is Professor of Social Private Law at the University of Basel. As well as anti-discrimination legislation, his research topics include law relating to occupational reintegration, employment and social security, as well as health and data protection.



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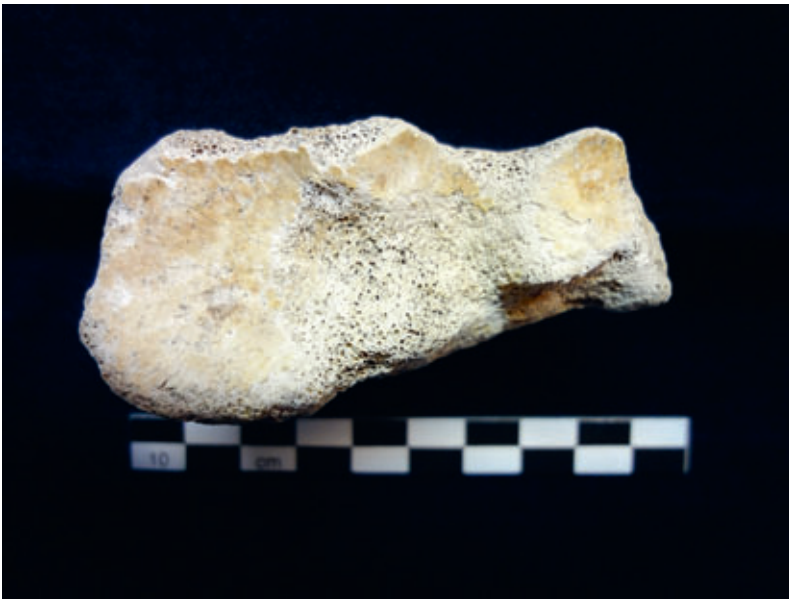
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Archaeology

Smaller cattle in the Bronze Age.

During the Bronze Age (2200–800 BC), cattle were the most important species of domestic animal in Switzerland. They are believed to have been used both as a source of meat and milk, and as draft animals. We know from excavations that cattle living in this period were smaller than in the preceding Late Neolithic and in the Roman era that followed. The reasons for this are still largely unclear. After measuring cattle bones from 32 excavation sites in Switzerland, a team led by Miki Bopp-Ito of the University of Basel's Integrative Prehistory and Archaeological Science (IPAS) research group has concluded that Alpine cattle were significantly smaller than their Central Plateau counterparts. The researchers believe this difference could be due to the Plateau cattle's more varied diet.

Metric comparisons between cattle bones from various regions revealed that the smallest animals in the Alpine region – those in the Alpine settlement of Savognin-Padnal GR – were probably brought to the area by migrants from the southern part of the Alps. Accordingly, the animals were smaller than those in the northern part, where settlements had contact with the Central Plateau and southern Germany via the Rhine Valley. The immigrant population appears to have used cattle primarily for meat, besides putting them to work in copper mining for bronze production and in agriculture. In general, the archaeologists believe that the size differences in cattle came about as a result of economic and cultural relations between Alpine regions and nearby communities, which in turn were influenced by particular travel routes (the Rhine Valley and the Septimer and Julier passes). ■

Psychology

Larger car cockpits, more parking violations.

When designing car cockpits, ergonomists focus on optimizing human-machine interfaces to improve traffic safety and human performance. Ideally, good design should compensate for the limitations in human capacity by distributing task requirements between the human and the interface. Now, a study by psychologists at the University of Basel and Technische Universität (TU) Berlin has shown that the size of a car's interior influences driving behavior and traffic safety: As the space around the driver increases, so too does the probability of parking violations.

In past studies of cognitive activity and a person's physical environment, it was speculated that expansive body posture may trigger a sense of power, which could in turn lead to a greater willingness to take risks. For the study by the University of Basel and TU Berlin into the influence of cockpit design on driving behavior, data was collected on cars whose drivers committed a parking violation. Comparing this data with that for correctly parked vehicles revealed that the size of a vehicle's interior predicts the likelihood of illegal parking. This effect was observed even when researchers controlled for other factors such as the length, price and brand prestige of the vehicle. ■



Africa and Europe

Science as a shaping factor.

Scientific investigation has both molded and been molded by European exploration and travel in Africa. This book examines the changing role of European scientific and anthropological research in Africa from the earliest colonial incursions to modern times. From exploratory travel to proselytizing religious missions, scholars have investigated the flora and fauna, culture and society of Africa, with their findings and reports often propelling Europeans to believe that they were fortunate representatives of educated and advanced societies.

Advanced scientific and technological capacities helped assure this sense of dominance and

establish the power structures required to enforce and manage power relations to further the goals of the colonial homeland. By extracting new information from Africa, academics and intellectuals accrued reputational benefits that allowed the development of their respective scientific fields further, unequivocally changing both Europe and Africa.

Martin Lengwiler is Professor in the Department of History. His co-author and former colleague Patrick Harries sadly passed away in 2016. He was Professor of African History at the University of Basel from 2001 until 2015. ■



Martin Lengwiler, Nigel Penn, Patrick Harries (Eds.): *Science, Africa and Europe: Processing Information and Creating Knowledge*. Routledge, 2019, 260 pages, GBP 115

Ancient History

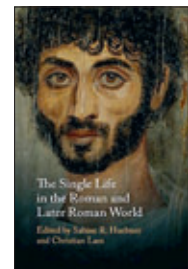
Single Life in Antiquity.

From the Roman Republic to Late Antiquity as well as nearly all periods of the ancient Mediterranean, this book uses historical sources and methodologies to delve into the definitions and causes of singleness in the Roman household. With the emergence of Christianity, unmarried life left the realm of satire and comedy and assumed the respectability of marriage, previously the condition favored by legislators and philosophers.

Engaging in a wholly unique analysis of demographic, archaeological and socioeconomic factors of singleness in antiquity, this international team of contributors provides a variety of methodological approaches and uses all available

source material (literary, archaeological, epigraphic and papyrological) to peel back the centuries and create a comprehensive view of single life in that era. The book culminates in a consideration of multiple comparative perspectives, from early Islamic life to life in other parts of Europe, paganism to Judaism, even into the 19th century, bringing the most complete expose possible.

Joint editor of this volume, Sabine Huebner is Professor of Ancient History at the University of Basel. Her research focuses on the lives of the common people in antiquity. She is currently leading two large-scale projects on Roman Egypt funded by the Swiss National Science Foundation (SNSF). ■



Sabine R. Huebner and Christian Laes (Eds.): *The Single Life in the Roman and Later Roman World*. Cambridge University Press, 2019, 434 pages, GBP 95

Military History

Defining fitness through data.

In the decades preceding World War I, a host of statistics was gathered in Germany, Switzerland and France about military conscripts. This data was then used to determine the fitness of soldiers, but was also applied outside the military arena. Conscription examinations provided more than just a battery of factual data, but led to standardization of masculinity for each nation. This book explores the historical circumstances that shaped the European understanding of fitness before WWI and links it to the notions of masculinity, fears of degeneration, and rise of eugenic thinking which gained momentum in Europe in that era.

Data gathered from these periods of national conscription influenced the understanding of

population fitness and redefined society as a collective body. More than merely providing a scientific history of military statistics, Hartmann's analysis of the historical specificity and contingency of data-gathering techniques delineates the uses and abuses of these datasets and explains how they ultimately contributed to the establishment of Big Data.

Heinrich Hartmann has been Assistant Professor of History at the University of Basel since 2010. He is currently spending a year at the Historische Kolleg in Munich to complete a book project on rural development in Turkey in historical perspective. ■



Heinrich Hartmann (translated by Ellen Yutzky Glebe): *The Body Populace. Military Statistics and Demography in Europe before the First World War*. The MIT Press, 2019, 280 pages, USD 40

Controlled loss of control.

Storytelling remains an important part of social discourse – even in an age of fake news, conspiracy theories and fabricated feature stories.

Text:
Alexander Fischer

For it is clear enough that under certain conditions men respond as powerfully to fictions as they do to realities,” wrote the US journalist Walter Lippmann in his 1920s work *Public Opinion*. With these neutral words, he expressed something that was not exactly new, but had always been feared. Bluntly put, what he meant was that fictions – provided they are told skillfully enough – can be used to lead people by the nose, as they will sometimes simply be accepted as fact. Against the backdrop of the totalitarian regimes of the 20th century, this fear justifiably became more concrete. Accordingly, the need to keep at least sociopolitical discourse (in contrast to the advertising industry, for example) factual, rational and as fiction-free as possible was widely emphasized. We were once again painfully reminded of the validity of Lippmann’s premise when the scandal surrounding *Der Spiegel* reporter Claas Relotius broke, sending shockwaves through the world of journalism.

What was it all about? Relotius enchanted readers and jury panels with his artfully told feature stories. However, a great deal of the material used in his writing, which centered around social issues, was fabricated – deceiving readers, colleagues and award bodies alike. With his use of fake content, this journalist was not simply being deceptive, but manipulative as well: He played on his readership’s susceptibilities, serving up emotional scenarios, black and white contours and simple solutions – worrying

strategies, not least in light of the shift in social discourse that can be observed in Western countries. The case goes right to the core of public communication: In an age in which it is fashionable to denounce the “lying press”, in which Trump & Co. brand criticism by the media as “fake news”, in which the concept of truth is regularly undermined and conspiracy theories are seen as the world religion of the third millennium, the Relotius affair has profound ramifications. For one thing, it plays into the hands of those with an interest in pushing social discourse into the realm of the irrational, in renouncing rationality and constantly fabricating “truths” that fit the needs of the moment to promote themselves and/or the group they represent – and who therefore want to see the downfall of the established media, which plays a key role in our construction of reality.

The medium chosen by Relotius for his deceit and manipulation was the feature story, that much-discussed genre enigmatically residing at the border between journalism and literature. Or, more accurately, storytelling – in this instance of a rather more fictional than factual nature. Although the Relotius affair was discussed with remarkable fervor, very little attention was devoted to the role played in it by storytelling – even though this perspective can be a fruitful one. The journalist made use of storytelling to fashion convincing realities that never actually existed, but nevertheless found their way into his readers’ minds. Stories create worlds, and their effect

on us often transcends rationality. This carries the risk of a loss of control. Sometimes we simply want to believe the stories we are told, and skillfully crafted stories encourage us to do just that. Should we therefore banish stories from social discourse, of which journalism is a crucial element? I would like to propose a thesis in this regard, which may at first appear counterintuitive in view of the current situation: Even though advocates of rationality have long sought to banish nonrational elements from social discourse, we need storytelling – here and now more than ever.

It has become something of a truism that humans are storytelling beings. The environment in which these beings orient themselves is filled with stories. To purge it of these stories, to create a rational “bare space of individual sentences or even norms,” in the words of the German political scientist Rainer Forst, would be to deny reality and our fundamental human condition. The importance of storytelling as an elementary aspect of what it means to be human has often been discussed. Against this backdrop and given our present situation, understanding how storytelling works and differentiating how and where it can flourish remains an urgent matter. First and foremost, storytelling is a defense against sensory overload: The human brain does not simply store all the raw data with which it is bombarded, but compresses and combines it – into stories. We assign events and persons a place in a narrative structure that proceeds from A to B, we omit or rearrange things in such a way as to suggest that it all makes sense. In other words, the act of storytelling creates meaning. In this process of creating meaning, stories are notably distinct from rational arguments. Essentially, rather than being impartial, they allow particularity; rather than making precise statements, they succinctly show us something, relying on the appropriateness of the representation of an object (such as an emotion); in short, rather than being entirely rational, they play on our feelings.

Journalism at least purportedly considers itself on the side of rationality, with rationality as the basis for its work. Yet, in feature journalism in particular, this role is taken over by narrative character, with its emphasis on the subject and their perception, feelings and thoughts. Relotius exploited this to the full. What makes his actions problematic is not his story-



Alexander Fischer is a postdoctoral research associate at the chair of practical philosophy at the University of Basel. His research centers on the topics of manipulation, storytelling, ethics and social philosophy. He is also currently training to be a psychotherapist. His doctoral dissertation *Manipulation. Zur Theorie und Ethik einer Form der Beeinflussung* (“Manipulation. On the theory and ethics of a form of influence”) has been published in book form by Suhrkamp-Verlag.

telling, but his deceit – the untruths he told. It would be somewhat rash, however, to call for the complete elimination of storytelling. It is only through storytelling that we can holistically envision what it might be like to experience the civil war in Syria, to be a refugee crossing the Mediterranean, or to be homeless in Berlin. That said, storytelling in journalism – and in feature stories in particular – must be practiced with greater awareness: The journalist must constantly reflect on the role of the “I” in the story; their position as narrator, their subjective view and personal perception must be proportionate to the story. The same is true of social discourse, which should be about conveying what is wrong in the here and now, about what our future should look like, and why we should support certain people. Storytelling has the power to move us and to affect us beyond our rationality, and this is something we must consider and make use of – while remaining firmly in the domain of what can be verified. ■

**“Stories create worlds,
and their effect on us often
transcends rationality.”**

Alexander Fischer

An explorer of chemical space.

Text: Christoph Dieffenbacher Photo: Andreas Zimmermann

The old facades of Klingelbergstrasse can be deceiving – this is actually the scene of cutting-edge scientific research. In the almost century-old building of the “Physico-Chemical Institute,” you won’t see laboratories full of flasks, Bunsen burners or measuring instruments. Here, the work is performed almost entirely on computers – except these computers are many times more powerful than their everyday cousins. Researchers use the formidable machines to develop and test new methods for seeking out hitherto unknown substances.

Chalkboards full of formulas

Anatole von Lilienfeld, Professor of Physical Chemistry, welcomes us into his office after he has finished speaking to two of his doctoral students. With a warm face and soft features, he speaks in a deep voice and is wearing jeans with a plain shirt. In addition to a large computer monitor, there is a comfortable sofa, as well as armchairs and laboratory chairs. On the floor, a cozy rug. The shelves contain just a few books along with a couple of photos of his children. Next to them, an object made of sculpted glass – an award he received in the USA.

Perhaps the most striking feature are the chalkboards mounted on two of the walls. Teeming with numbers, symbols and formulas scribbled in chalk, these boards are used to discuss theories and plow through statistics. The professor glances over at them from time to time. “Our aim is to gain a better understanding of chemical space,” he says. “By that, we mean the huge virtual expanse within which all possible compounds exist.” Only a tiny part of this is known to scientists.

To illustrate the point, von Lilienfeld makes a comparison with human DNA: Although it contains sequences from just four bases, these are sufficient to account for the full breadth of biological diversity. By analogy, the hundred or so chemical elements can theoretically be combined in space – in every possible geometric variation – to produce “an incredibly large number” of potential compounds. This has been estimated at 10^{60} – more than the number of atoms in the entire solar system – and that is just for organic and medium-sized substances.

What things are made of

Raised in Germany as the son of a physician and a theologian, von Lilienfeld says that, even as a child, he was fascinated by what things are made of. Not satisfied with the usual answer, “atoms”, he wanted to know more. Later, he found himself drawn to chemistry because of its widespread applications. Von Lilienfeld is convinced that “even today, we are a long way from realizing its full potential.”

He became a convert to physical chemistry at ETH Zurich, where the supervisor of his dissertation was engaged in a theoretical and experimental study of the quantum mechanical behavior of molecules. After completing his doctoral thesis at ETH Lausanne, von Lilienfeld spent eight years in the USA, where he conducted research into chemical space at UCLA (California), New York University and the National Laboratories in Albuquerque (New Mexico) and Argonne (Illinois).

Today, he lives with his family in the heart of central Basel and finds the small-scale, urban environment very agreeable: “In the USA, I spent hours and hours in the car every week. Here, I can simply

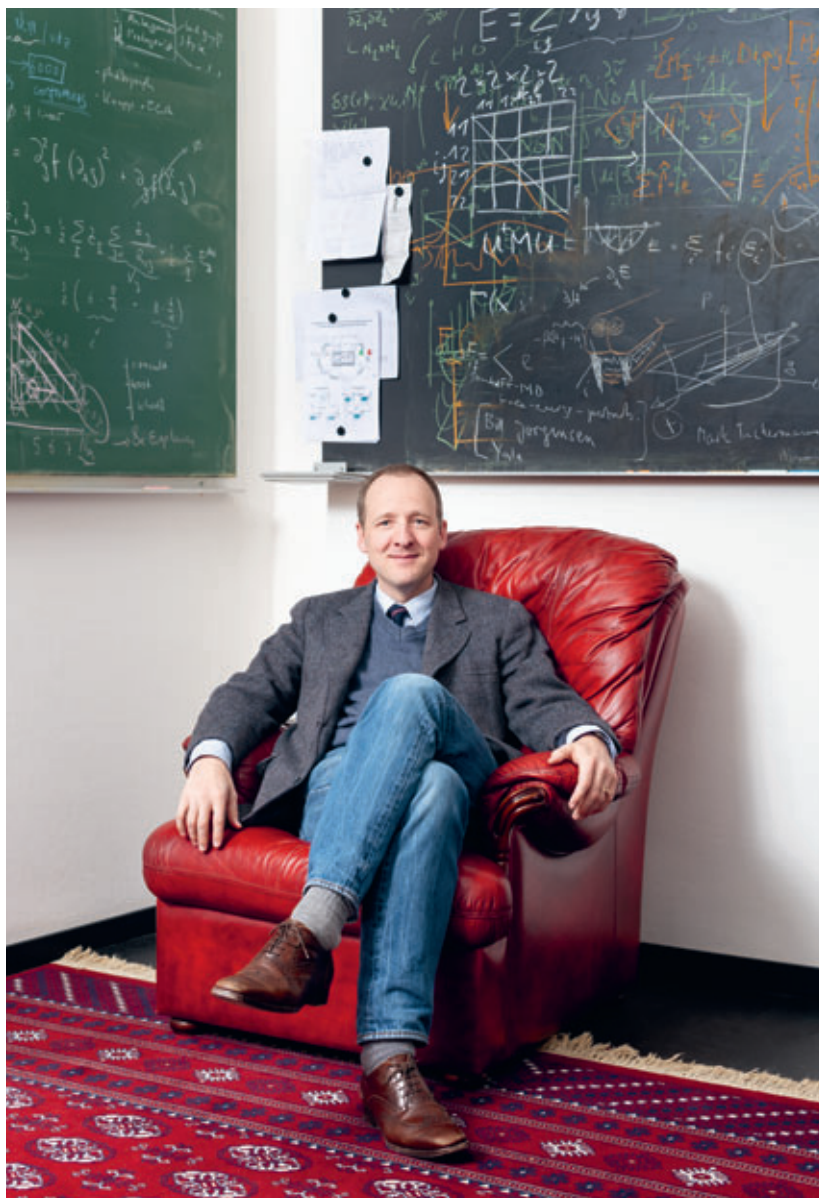
walk to work.” He also has a high regard for the working conditions in Switzerland, which he believes are superior to those in other countries. Although he works exclusively on basic research, he is also in regular contact with industry.

Exponential growth

So, what does a scientist get up to in chemical space? Von Lilienfeld and his team investigate the concept using quantum mechanical methods. Their innovative and promising approach is even drawing international acclaim and involves researching aspects such as the properties, distribution and behavior of electrons in molecules. Embedding in chemical space then allows the researchers to more rapidly track down interesting relationships and laws – like the periodic table but with more dimensions.

Of course, the calculations involved require very powerful computers indeed. According to the professor, computing power has undergone a period of enormous, exponential acceleration. He illustrates this with another comparison: Processing time has fallen so much in the last 30 years that an experiment that used to take a year can now be performed in just a second.

Nowadays, you can create a quantum mechanical description of millions of molecules on a computer and then summarize them statistically. Accordingly, this area is becoming increasingly relevant to the machine learning and artificial intelligence techniques that von Lilienfeld also uses. For example, these computer programs can recognize patterns in chemical space using statistics and make accurate quantitative predictions of the chemical behavior of new “candidate molecules.”



Scientists are exploring the almost endless world of possible molecules and compounds in their search for useful substances. Anatole von Lilienfeld, Professor of Physical Chemistry, is developing new and faster methods in this quest based on quantum mechanics and machine learning.

Anatole von Lilienfeld

was born in the USA in 1976 and grew up in Germany. He is Associate Professor of Physical Chemistry in Basel. After completing his studies in Leipzig, Strasbourg and at ETH Zurich, he completed his doctorate at ETH Lausanne in 2005. Following research stays in the USA, he was an SNSF professor in Basel from 2013 to 2015, then an associate professor in Brussels, before returning to the University of Basel to accept a tenure track assistant professorship. Von Lilienfeld's ancestors came from noble Russian and Baltic families that fled to Germany to escape the Russian Revolution of 1917. A father of two, he is married to a structural engineer.

Understanding means predicting

"In concrete terms, we're systematically scouring chemical space for compounds with specific properties, for example." Other working groups then perform the corresponding experiments. "One day, our methods might actually allow people to find new medicines or valuable materials – for example, in the energy sector," he says. Energy materials being an active field of research, the properties and a simple way to synthesize graphene, a much researched and ultrathin yet highly tear-resistant and conductive form of carbon, were discovered just a few years ago.

The professor also shows a great deal of commitment to his students: "Although not all of them will go on to become theoretical scientists, I want to stimulate their understanding of the basic principles of quantum chemistry. After all, electrons determine the behavior of molecules and can only be understood as quantum objects." He describes what he sees as one of the fundamentals of imparting knowledge: "In chemistry, you can measure your understanding by how well you can predict molecular behavior." That probably holds true in other disciplines as well: Those who have understood a concept correctly are able to make better predictions. ■

Alumna at work: Gabriela Brahier Stark

A theologian in recruitment.

Interview: Bettina Volz-Tobler

Gabriela Brahier Stark studied Reformed theology in Basel while she was still a Catholic. After training as a curate in a parish in Graubünden, she converted, serving as a Reformed pastor in Reinach, Basel-Landschaft. At the same time, she obtained her doctorate, with a thesis on ethics, and was awarded a post-doctoral grant. She then moved into the private sector, where she joined a recruitment company.



Gabriela Brahier Stark

UNI NOVA: Ms Brahier, what made you choose to study theology?

BRAHIER: Right from the start, I thought that theology would be a fascinating subject to study. It deals, as they say, with “God and the world”, so it offers insights into many different areas of human life. That is reflected in the wide range of disciplines that it covers: ancient languages, philosophy, ethics and history, as well as the stories from the Bible, Christian tradition and the different forms of religious expression. The main motivation for me was an interest in these diverse human-related issues, rather than religion in the narrower sense. Theological ethics, in particular, offers answers to central questions of human existence that are important both to our society and to businesses and their development, and that can provide us with tangible benefits in our everyday lives. Although theology is often described as “dusty”, that isn’t true at all. On the contrary – it is very relevant to today.

UNI NOVA: Why did you become a recruitment specialist?

BRAHIER: For the same reason that I studied theology. The main focus for me is human beings – today, in their working environment. By filling different positions in businesses of many different kinds, I am able to work on a wide variety of issues. Filling key positions in business with the right people is challenging and fascinating in equal measure. Ideally, it also produces sustainable business structures. Through recruitment, you can actively help to shape a society.

UNI NOVA: Are there parallels with theology, then?

BRAHIER: In the first place, working as a pastor taught me at a very basic level how to approach and listen to people. In a management consultancy that operates internationally, I support firms at management level in developing their business culture. I have also run coaching sessions on leadership and personal development and conducted assessments. That showed me that, increasingly, people want their job – which takes up a lot of their time – not just to benefit them financially, but to be meaningful in some way. Theology and working as a pastor have equipped me with a valuable set of skills for the job that I am now doing: an understanding of human nature, a feeling for people and situations, a holistic way of thinking and an appreciation of social as well as business connections. I also still enjoy organizing christenings and weddings from time to time, which helps me stay true to my calling as a minister.

UNI NOVA: What are your main memories of your time as a student in Basel?

BRAHIER: The professors were extraordinarily committed. I really appreciated how they were able to communicate their subject in a thoughtful and exciting way, while at the same time contributing actively to social discourse from their perspective, through contributions in the media, interdisciplinary conferences and so on. I also remember some fascinating and educational study trips – and the extremely supportive attitude that was shown toward us as students, which opened doors for us in our subsequent careers. ■



AlumniAnthropology

Ethnology establishes alumni group.

Photo: Bettina Huber

Ethnology has existed as a discipline in Basel for over 100 years. An alumni organization for the subject has now been established.

Ethnology can boast a long history at the University of Basel, dating back to 1914/15. However, the first full professorship in the subject, which has proved a rich field of interdisciplinary work and inspired all kinds of research, was not created until 1963. A com-

parative perspective and a methodology based on participation and observation are particular hallmarks of ethnology.

Dialog and partnerships

In the University of Basel's ethnology program, there is a regional focus on Africa (especially west, central and east Africa), followed by Oceania (especially Melanesia), Latin America and Southeast Asia, although the thematic research focuses of visual culture, political anthropology and medical anthropology also play an important role. In these and other areas, the ethnology program cultivates intensive interdisciplinary and international dialog, including a wide range of partnerships.

Dr. René Egloff, Professor Brigit Obrist, Assistant Professor Piet van Eeuwijk and Sandra Burri lic. phil. have taken the initiative with regard to former students by setting up the AlumniAnthropology subject group. Together, they also make up the group's current executive. Its aims are to facilitate networking between current and former students and with other subjects, to promote and support ethnology (anthropology) as a subject and to organize events.

Annual drinks reception

In particular, there are plans to host an annual drinks reception for new graduates and former students, to give young and old a chance to get acquainted and to talk about possible career opportunities. The group also intends to organize events and lectures to inform the public about what the subject is all about – for instance, through presentations on applied ethnology or theory.

The new AlumniAnthropology subject group was launched at a successful event on November 28, 2018, which was attended by many former students. In a lecture that both current and former students found fascinating, Maya Brändli, an alumna who now works as a broadcasting editor at SRF 2 Kultur, spoke about ethnology and the job opportunities that it can open up in journalism. Former students were welcomed at the event by Dr. Roland Bühlmann, the president of AlumniBasel. Afterwards, the alumni took full advantage of the opportunity to exchange ideas at the drinks reception. Another meeting of AlumniAnthropology is scheduled for spring 2019. In short – it is worth becoming a member. To sign up, go to alumnibasel.ch. ■

New format

Get together.

The new “Get together” event format piloted at the end of 2018 for younger professional alumnae and alumni has received a very positive response. The first event proved a great success, and featured Sidonie Repond, a psychologist, mental trainer, and former Swiss figure skating champion. The format aims to examine the topics and challenges that arise in the initial years of professional life and give attendees the opportunity to talk with people of a similar age and make professional contacts. The next event will be held on Thursday, November 14, 2019, in the VERSO bar in the Kollegienhaus. ■

Fall excursion

Hiking with a writer.

In addition to the Alpine hiking weekend, this year’s program for alumni and alumnae will include an excursion in the region with Daniel Zahno, an alumnus of the University of Basel and a successful writer. Zahno is a keen hiker who has explored the Basel region and published details of his tours in a book. On September 21, 2019, he will join alumni to hike one of his routes. For details, see alumni-basel.ch. ■

Alumni travels

New offer.

An important function of AlumniBasel is to help members make contact with other alumni – for example on study trips. AlumniBasel has been working with the “rhz reisen” travel company in Zurich since 2018. The first alumni trip took place in October 2018, when participants traveled to Iran under the guidance of Basel Egyptologist Boris Schibler. Three further trips are planned for 2019. Dr. Sigrid Hodel Hoenes will guide participants through the famous desert city of Petra as well as lesser-known Nubia. ■



Projects

Funding for orchid research.

For his Master’s thesis, botanist Rafael Pulfer is tracing the evolutionary tree of orchids in the genus *Dracula* to gain insights into how their flowers have evolved. This innovative research project has attracted funding of 15,000 Swiss francs from a member of AlumniBasel.

UNI NOVA: What exactly is the subject of your Master’s thesis?

RAFAEL PULFER: In short, I’m working to reconstruct the evolutionary tree of the orchid genus *Dracula*. The method I’m using is known as next-generation sequencing, which I’m probably the first to do in this context. This involves sequencing the DNA both in leaf samples from living orchids in the Botanical Garden and in plants from the Jany Renz Orchid Herbarium at the Department of Environmental Sciences. The genetic differences between the 120 species are an indicator of how closely or distantly they are re-

lated. This method makes it possible to trace the evolutionary tree of *Dracula* orchids.

UNI NOVA: What is the aim of the project?

PULFER: My supervisor Dr. Jurriaan de Vos, who is the curator of Herbaria Basel, and I hope that the results will help answer two questions: First, to what degree the flower characteristics of *Dracula* plants are evolutionarily adaptive, and second, how quickly flowering plants are able to adapt to changing environmental conditions.

UNI NOVA: As a Master’s student, what is your perception of the University of Basel and its alumni and alumnae?

PULFER: Our Institute of Botany holds events once or twice a week, which draw large numbers of current and former students. Afterwards, participants often go to a bar together to continue their discussions. That kind of exchange between today’s students and alumni is something you don’t take for granted. I think it’s amazing and inspiring! ■

Life as a nanoscience researcher in southern Sweden.

Heidi Potts

is currently a post-doc at Lund University in Sweden.

Brought up in the town of Staufen in southern Baden, she studied nanosciences in Basel and Toronto before earning a doctorate at the Institute of Materials Science at the École Polytechnique Fédérale de Lausanne (EPFL). She has received awards for her master's thesis as well as for her doctoral dissertation on the growth and characterization of semiconducting nanowires.

After completing my degree at the University of Basel and my doctoral dissertation at the École Polytechnique Fédérale de Lausanne (EPFL), I moved to Lund with my husband and daughter in January 2018. This took me from the shores of Lake Geneva, where the mountains were heavy with snow and yet spring was just around the corner, to Sweden, where it was already dark at three thirty in the afternoon. The locals combat this by filling every room with about 15 lamps – now I finally understand why IKEA has such a big lighting department.

At the university here in Lund, southern Sweden, I study the interaction of electrons and their spins on quantum dots in nanowires. Our project forms part of NanoLund, the Center for Nanoscience at Lund University – where, as a nanoscience researcher, I naturally feel very much at home. I not only find the topic fascinating, but also really like the working atmosphere here. Excellent links between the research groups allow us to collaborate extensively on projects. This collaboration is undoubtedly helped by our daily coffee break (“fika”) with the obligatory cinnamon roll (“kanelbulle”).

As a young family, we benefit greatly from the way that Swedish society is set up: It's child-friendly and places considerable value on equal rights. Excellent state childcare, flexible parental leave – including for fathers – and very understanding colleagues make it easy to achieve a balance between family and working life.

But not everything in Sweden is exactly as I imagined it. For example, I've never used cross-country skis to get to work – partly because we only live two minutes away from the university, but also because there's simply no snow here in the south of the country. That being said, the seaside is easily accessible by bike and is a great place to enjoy local seafood. Cheese is also abundant here, although it's not quite the same as a fine Gruyère, so we always like to bring one or two – or maybe five – blocks of mountain cheese back from our holidays in Switzerland. ■



A summer excursion: nanoscientist Heidi Potts visiting Ystad with her family.



Manuel Battegay has been Professor of Infectiology at the University of Basel and Head of the Department of Infectious Diseases & Hospital Epidemiology at Basel University Hospital since 2002. In their work, he and his team focus mainly on patients with severe and acute infections, as well as on hospital epidemiology. For over 30 years, he has been carrying out research on viruses, especially HIV/AIDS.

Photo: Andreas Zimmermann

Manuel Battegay

“Life and Fate”, by Vasily Grossman: Against totalitarianism.

“It is a powerful metaphor for hope and comfort in the worst of times”.

During my summer vacation, I was immersed in Vasily Grossman's (1905–1964) epic novel *Life and Fate*. After hours of feverish reading, I was left with a strange feeling. For a moment I thought I was reading this magnificent novel in the original language. But I don't know any Russian! Rarely – perhaps never before – have I been so captivated by a book. And it has been part of my life ever since.

The author paints a breathtaking and deeply humane picture of the Soviet Union in the years 1942 and 1943. The focal point of the novel is the Jewish family of Viktor Shtrum, a nuclear physicist. Central themes include the battle of Stalingrad, civilian life, and the Nazi death camps. The narrative perspective is always shifting – brilliantly, brutally, and realistically. For Grossman spent three years as a correspondent with the Red Army at the front. When he describes the conversations between Russian generals, the house-to-house fighting around Stalingrad or the atmosphere in the Physics Institute – where intrigues against Shtrum cease the moment Stalin starts inquiring about him – it triggers an almost physical response in the reader. Take his account of events in the famous House 6/1 in

Stalingrad, which lay behind enemy lines – a deadly posting for the fighters holed up there. Its charismatic commanding officer reveals his true self when he shows kindness toward a young women soldier who is disregarding orders. Grossman gives a harrowing description, from an insider's perspective, of the Holocaust and the agonizing deaths of its Jewish victims in the Nazi gas chambers. At the same time, he provides a voice of hope for those murdered prior to their deaths.

To begin with, Grossman was a writer who followed the Soviet party line. In 1937, he signed a cowardly appeal for opponents of the regime to be sentenced to death. Scarred by his experiences during the war, afterward he himself became an enemy of totalitarianism. “For human beings, living means being free,” he wrote. *Life and Fate* was confiscated in 1961 and did not appear until 16 years after Grossman's death. Since then, it has come to be regarded as a masterpiece of Russian literature. The work is a powerful metaphor for hope and comfort in the worst of times – and thus for the inexplicable, which, for all our knowledge and experience, we can never fully comprehend. ■

A selection of events. May–July 2019



May 17, 6.15 pm

Aging in Prisons: Vulnerability and Respect for Patient Rights

Older prisoners are increasing in numbers worldwide. Their needs are different from that of younger prisoners. In this lecture, findings from a national study reveal important results on health, health-care utilization, social and end-of-life needs of this group. Factors that make older prisoners more vulnerable and their rights to age-appropriate care will be discussed.

Habilitation lecture by
PD Dr. Tenzin Wangmo, private
lecturer for Medical Ethics

Naturhistorisches Museum Basel,
Aula, Augustinergasse 2, Basel

May 23, 5–8 pm

Blockchain Symposium 2019

The University of Basel's Center for Innovative Finance organizes a symposium on decentralization and professionalization processes in the blockchain industry.

University of Basel, Kollegien-
haus, Aula, Petersplatz 1, Basel

May 25

SOLA Basel

At the 2nd SOLA Basel, several teams from the University of Basel will again be taking part. The relay race has a total of 80 kilometres. Start and finish area is located at "Park im Grünen" in Münchenstein.

solabasel.ch



June 6–7

States of Seeing

How do states see subjects? The workshop brings together a group of scholars to explore how states see subjects, historically and today, as well as the conditions of seeing through, in opposition to or despite the state. We investigate a wide range of "states of seeing" from colonial prisons in South Africa, Ottoman Armenian emigration, the Atlantic slave trade, 19th C. Bulgarian revolutionaries to remembrance of the Soviet period in contemporary Russia, drone warfare, family photography produced by incarcerated African Americans, the Israeli Defense Forces and Indonesian art as an intervention in historical erasures.

University of Basel, Eikones,
Rheinsprung 11, 4051 Basel

June 7, 6.15 pm

Protein Synthesis in Stemness and Cancer

Habilitation lecture by PD Dr.
Thorsten Schäfer, private lecturer
for Stem Cell Research

Naturhistorisches Museum Basel,
Aula, Augustinergasse 2, Basel

June 14–15

15th International Bernd Spiessl Symposium

The symposium is one of the leading conferences for Innovative and Visionary Technologies in Cranio-Maxillofacial Surgery.

University Hospital Basel,
Zentrum für Lehre und
Forschung, Hebelstrasse 20, Basel



June 21, 11–12 am

The first steps in vision: cell types, circuits and repair

Biozentrum Discovery Seminar with Prof. Botond Roska, Director of the Institute of Molecular and Clinical Ophthalmology Basel (IOB): For a long time, studies of neuronal circuits and of visual diseases have been pursued separately. In recent years, the concept of cell types (structurally, functionally and transcriptomically similar groups of cells) has brought the two fields together. Prof. Roska will discuss his efforts in understanding vision at the level of cell types and using the acquired knowledge to develop therapy for the loss of vision.

University of Basel, Pharma-
zentrum, Lecture Hall 1,
Klingelbergstrasse 50, Basel

June 23–25

Personalized Oncology 2019

The world's experts on translational oncology research will highlight the current developments and future perspectives of patient-centric, personalized prevention, diagnosis, treatment, and outcome of cancer patients.

University Hospital Basel,
Zentrum für Lehre und
Forschung, Hebelstrasse 20, Basel



July 4–5

ERNOP Conference

The 9th international conference of philanthropy researchers is hosted by the Center for Philanthropy Studies (CEPS). The theme will be "Philanthropy in the spotlight? Resources, Reputation and Achievements." While philanthropy is not a new phenomenon, its heightened visibility has raised questions about the background and motives of philanthropic organizations and donors.

University of Basel, Kollegien-
haus, Petersplatz 1, Basel

July 31, 11.15 am

Predatory journals: Shedding light on the deceptive publish- ing industry

This lecture will introduce the phenomenon of so-called predatory journals. Predatory journals are publishing outlets that offer to publish articles in return for a fee, but do not offer services one would expect from legitimate scientific journals. The presentation will focus on the characteristics of predatory publishing, the risks associated with it, and how scholars can spot and avoid respective journals.

Lecture by Anna Severin, Swiss
National Science Foundation

Swiss Tropical and Public
Health Institute, room Lhotse,
Socinstrasse 55, Basel

Biographien
français

Chinas globale Ambitionen

Das Herz

Queen of Crime

Handlettering

Berühmte Reden

Sonnenfinsternis

Skulpturen-Rundgang

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