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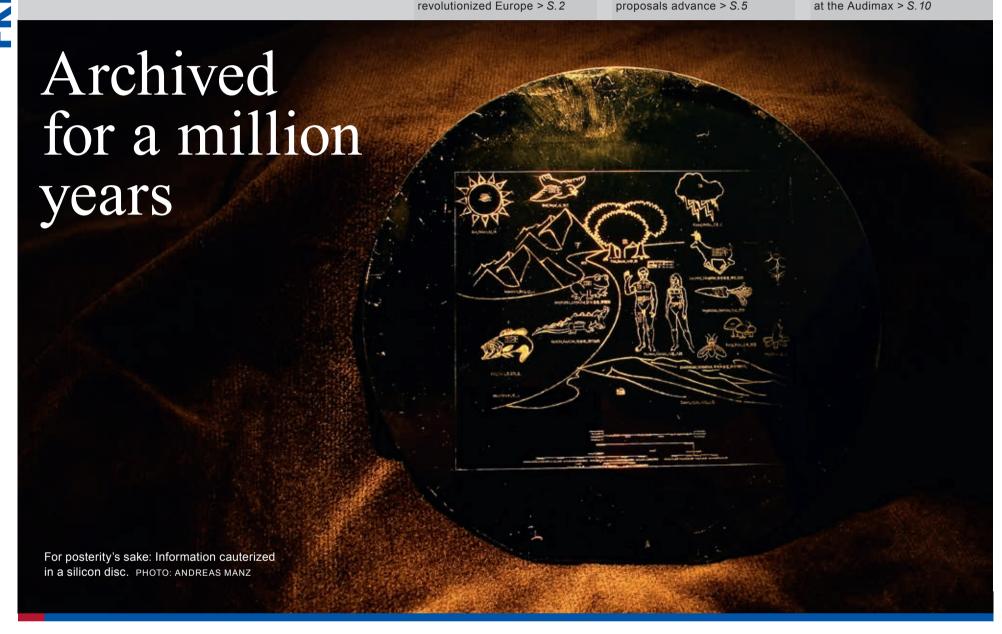
Reformation: Martin Luther





Competition: Two cluster proposals advance > S.5

Oration: A night of lectures at the Audimax > S. 10



The "Human Document Project" seeks to store information indefinitely

by Alexander Ochs

 $H^{
m ow}$ long can you store documents? And on which type of storage unit - paper, CD, hard drive, USB stick? Everyone knows the problem and some certainly remember the days of floppy discs, cassettes, super-8 or VHS video tapes and audiotapes. These storage methods have more or less disappeared from the market and are no longer considered appropriate storage media for indefinite. future-proof data backup. But how can we know which medium or technology will still work and will be able to be decoded in the year 2525 - and with which types of devices? 500 years is considered a long time because digital data have a much shorter shelf life than books or cuneiforms.

Freiburg scientists and their colleagues from the "Human Document Project" have ambitious plans: They have set out to determine how we can archive information for a million years. In order to get clear about the unimaginable dimensions for such an undertaking: it is a timeframe of 10,000 centuries

Engineers and archivists

The "Human Document Project" manages all relevant aspects of data storage: content, storage systems, technology, data backup materials, data storage protection, coding. The physicist and engineer Gerald Urban, who has been professor for sensors at the Department of Microsystems Engineering IMTEK since 1996, has organized this year's conference as senior fellow at the Freiburg Institute for Advanced Studies (FRIAS). "It was really important to me that we take an interdisciplinary approach. That means presenting humanities scholars with the latest technological and software developments as well as showing natural scientists and technologists the challenges facing librarians and archivists at the same time."

Besides the question of materials and technical issues: What exactly do we wish to pass down to the next umpteenth generations? "Important aspects of contemporary culture" is the somewhat nebulous response. But what should that be? Among others, the ancient historian

Freiburg and worked as Director of Outreach for the University College Freiburg. "For historians evolution is of interest, especially dramatic changes such as cultural schisms." But even if a dictator had multiple documents destroyed, US researchers would start storing their climate data outside the country once Donald Trump became presidency, an enormous ecological catastrophe would hit us or a meteorite would slam against the Earth - "Something is always left over. There is never ground zero," says Gehrke.

Made for eternity

A future-proof document would have to be able to survive such events too. By way of example for the level of durability we are talking about, the ancient historian mentions the burned clay tablets from the Babylonians or the ancient Egyptians' pyramids: "They were made for eternity, even when rulers knowingly steered the information about their effect such as in the Gilgamesch epic or the Codex Hammurabi." But oftentimes knowledge gets lost: The US space agency NASA no longer has access to the data of the first moon landing. And that was dated July

or 1,000 millennia. Other than Prof. Dr. Hans-Joachim Gehrke is 20, 1969, which was not even 50 According to current research, it is perhaps nuclear waste there isn't in charge of answering that ques- years ago. Measured against the a ten-centimete large round disc much produced by mankind that tion. From 1987 to 2008, he held a temporal dimensions of the "Hucould last that long, according to professorship at the University of man Document Project" it is even several grams, a monocrystal,

> In the Egyptian delta of the Nile, a French officer found a stone tablet with an inscription in three languages in 1799 that was dated 196 B.C., which significantly led to the decoding of the Egyptian hieroglyphics. The famous Rosetta stone, which by the way weighs 762 kilograms, was found by accident. The chemist, engineer and former FRIAS fellow Prof. Dr. Andreas Manz from the Korea Institute of Science and Technology Europe, who is also involved in the project, put it in simple sounding terms: "We want to leave something behind." He wants a "Rosetta stone for digital information". Examples for successful long-term transfer come to him spontaneously: "The DNA code of hemoglobin is certainly billions of years old. And the amber found in the North Sea is 50 million years

Something hard in something soft

The researchers prefer an old recipe, those of fossils: "You have to place a hard object in something soft, but not too soft," says Manz.

made of silicon and weighing inorganic and non-corrodible so it is resistant to decay. Manz' student Park Jukyu cauterized information in an analogue fashion into this socalled wafer. With the naked eye you can see several signs: a man, a woman, a tree, carrots, the sun, mountains, a flower, fire, birds, fish. In four languages and three writings. You can discover additional content with a magnifying glass or a microscope. Scientists at Stanford and Harvard Universities in the US take the approach of infiltrating information into human DNA.

While ancient history, at least according to current records, did well without images or written observations, the age of images flooding our world has arrived. How can you select what is relevant and what is not - for the people who will inhabit the Earth thousands from generations from now? Or those who will visit planet Earth? In essence it is about one thing only: What's left over? And perhaps those involved are asking themselves if they are working on an emerging new discipline. It is too early to answer that question. Perhaps it would make sense to ask that question in a million years.

2 uni news 04 2017

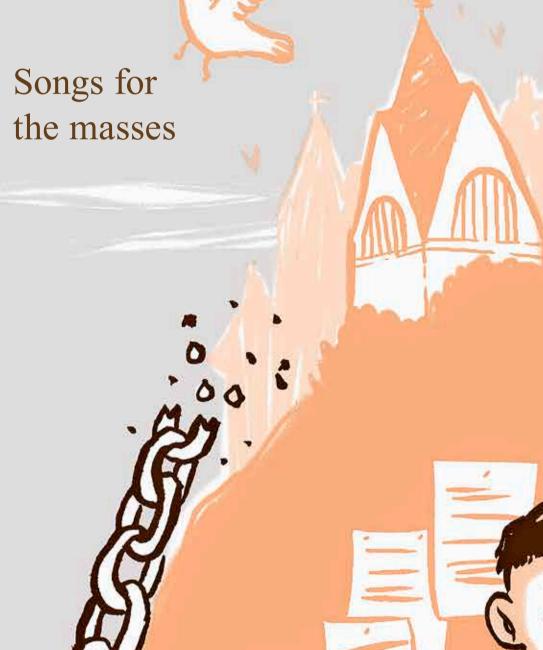
The Reformer

To this day it is contested as to whether Martin Luther really nailed his 95 theses on the door of the Wittenberg Castle Church on October 31, 1517. What we do know is that his protest rocked the world in the late Middle Ages. His ideas resonate even today – both within and beyond Europe. Freiburg researchers at the University of Freiburg have approached the person and reformer Martin Luther. A mosaic of ideas gathered by Stephanie Streif.

German "Schlager" or pop music didn't just appear at the beginning of the 20th century with the rise of stars such as Marlene Dietrich or Hans Albers throughout the clubs in Germany. It already started 500 years ago as Martin Luther's reformation hymns spread like pop music. Henrike Lähnemann, professor for German Medieval Studies in Oxford, England and fellow at the Freiburg Institute for Advanced Studies (FRIAS) at the University of Freiburg explains how that worked: "Catchy melodies, vernacular song lyrics and an emotional message: Printing, translating and singing were Luther's main methods of distribution that he cleverly combined to pass along his reformative ideas." Before Luther came along, theological context was conveyed in Latin. Prayers, hymns, the Bible often inaccessible, at least to the larger masses. With Luther everything changed.

Pamphlets, song sheets and devotional texts were distributed in places where people could read: in privileged circles, but also in schools because Luther had a pedagogical mission as well: The youth should spend their time on godly matters. So-called 'bürger' or citizens as well as students were multipliers that merrily passed along Luther's ideas to society. Lähnemann explains how a little song turned into a protest song for instance, when a Catholic priest entered the pulpit and the congregation just started singing because they didn't want to listen to him. Singing was also a subversive moment: The prince of a Catholic territory forbad all of Luther's texts for fear of a revolt. His subjects were allowed to sing because, after all, songs transport Biblical meaning. "The songs were like a submarine. Years later the prince joined the Reformation," says Lähnemann.

The Reformation isn't a historical event, but rather a continuous process. In order to illustrate that fact, Lähnemann, together with a group of students, started a blog in which they list lectures, workshops and live events happening in the year of the Reformation. Readers can also find transcripts and transitions of the Reformation pamphlets there. "The blog is an attempt to illustrate online the liveliness of the media debate at the time of the Reformation."



Hymns during the church service

From a contemporary perspective, Martin Luther seems to be a revolutionary who quickly turned one church into two. But that kind of clean cut didn't actually happen, not even in the form of the church service. Ask the person who should know: Freiburg musicologist Prof. Dr. Konrad Küster. The notion that Luther gave the congregation a voice during worship is wrong, he says. "That is a belated project from theologians in the 18th century who, through the course of the Enlightenment, wanted to rid themselves of the Baroque bombast that was the great church music." What's interesting: The 18th century Lutherans reacted to the strict Calvinism in whose church services only songs were sung: Adaptions of the Biblical psalms. It seemed plausible to the Lutheran theologians and they accused Luther that even he preferred such simple music. "Luther planned to translate Latin hymns into German, but not with the intention of letting commoners sing during worship," explains Küster. Even Luther prefers to leave the singing up to the pros during mass.

Unlike today, the entire mass was sung back then – with the exception of the sermon itself, which was spoken. Typically the priest would alternate singing with the local schoolmaster and his students. And the congregation was there to listen. Luther didn't see the need to do anything regarding church music. On the contrary: The old church service hymns were integrated into the modern mass. Why change it? The Gregorian choral chock full of Biblical references from the early Middle Ages, for example, fit right into Luther's image. And the compositions by Josquin des Préz, a Catholic himself, sounded to Luther like God's word. It wasn't until the end of the 17th century about 150 years after Luther's death that a true congregational hymn during worship developed. "The transition happened over a long time span," says Küster. And the many songs that Luther translated, composed and wrote? "They were for school, for the home and even for the street, but not really for church." Personal faith meant much more to Luther than a church service anyway.



ILLUSTRATION: SVENJA KIRSCH

tion of Protestantism. Apart from Catholic France in which the Enlightenment led to a break between religion and the bourgeoise political commonwealth, the religious and political landscapes in Switzerland, the Netherlands. Great Britain and the United State melded together: "Liberal freedoms that characterize the West emerged for the most part within the Latin church -- and primarily in those areas that were Protestant at first." It was different in France, however: The enlightened religiously neutral state tried to draw religious boundaries.

Luther came from the monasticism of the late Middle Ages and studied under Wilhelm von Ockham who emphasized man's freedom of will. What was equally formative for him was mysticism that locates the godly principle within man himself and not in external acts such as a liturgy. Modern self-assurance of man finds its origins with Luther. But this kind of freedom did not last forever, but rather became institutionally contained within Protestantism over the centuries. Not much is left over of the great freedoms of 19th century Lutheran Germany. Why? Because the state took over. The nation state and Protestantism melded into one entity, which, nationally charged, also mobilized against the Weimar Republic's brand of democracy in the 20th cen-

Facets of freedom

tury. A development that, during the Third Reich, led to a portion of Lutherans serving the national socialists and even regurgitated Luther's hatred for the Jews. During this era, "Luther" lost his innocence, says Ruhstorfer. Luther was a child of the times and isn't easily modernized to match today's thinking. "He had great ideas. And these ideas also had a dark side."

An early commitment to Brexit?

What does Martin Luther have to do with Brexit? At first and second glance, nothing at all. But it's worth taking a third look. Because without the person Luther and the enormous effect that the Reformation had in the Holy Roman Empire of the German Nation, the reformative movements could not have infiltrated neighboring countries. Even in England although King Henry VIII rejected Luther's teachings his entire life, the historian

Prof. Dr. Ronald G. Asch explains: "The Reformation in England harks back to a royal decision by Henry VIII. Theologically speaking, England's king was no Protestant - it was much more about royal church rule." In order to complete the separation with Rome, Henry VIII

enforced a series of Reformation laws in the 1530s, one of which was the "Act in Restraint of Appeals' in 1533. It claimed "This realm of England is an empire ..." Or, to put it another way: We are subject to no one. No worldly or spiritual rulers and most certainly not the Pope.

The conservative British parliamentarian John Redwood, an avid European Union (EU) critic, made this quote the title of a blog post he published in June 2012. According to Asch, Redwood and other Brexiteers believed the subjugation to Brussels would be a betrayal against English constitutional tradition as justified by the Reformation: "It was the break with Rome that established the thinking of the King-in-Parliament's absolute sovereignty that remained the

foundation of England's unwritten constitution up to the second half of the 20th century." This absolute sovereignty should be reestablished with Brexit. The pride in specifically English traditions played an important role during the anti-EU membership campaign. Those against Brexit had nothing with which to go up against such a historical argument. But Henry VIII is now being drawn in once again, this time by those opposing the current Prime Minister Theresa May – in the debate around the Brexit law. They claim May seeks absolute rule as Henry VIII did back then. "It is meant polemically, of course," says Asch. "But it makes it clear that history has an impact even today."

Sexuality without sin

Martin Luther has long been accused for their salvation because it is the sexuality. After all, he was a monk first, left the Augustinian order and later married Katharina von Bora with whom he had six children. "During Luther's time, sexuality was connected with the notion of disorder in intellectual circles," explains theologian Prof. Dr. Magnus Striet. And everything that was disorderly was considered sinful. For young Luther his reorientation wasn't easy either. Should he switch to the status of a married man? Should he not? In the end he decided to do so and – as letters prove – he was surprised how much joy it brought him to be together with a woman, including sexually. It poses the question as to how Luther managed to suddenly redefine physicality in a positive fashion. And that publicly.

"Piety in the Middle Ages was associated with people's fear. Fear of God. Fear of eternal damnation," explains Striet. Luther managed to break away from this dark notion of the world. "Or rather: He came to the conclusion that people themselves can do nothing

that he didn't have a grip on his own work of God, including man and his

Striet found it interesting that already during Luther's lifetime there was a struggle around sexuality that was embedded in the overall Reformation movement. As background: Not only monks such as Luther but also a multitude of nuns left their orders at that time. It was a real political issue, according to Striet. And while the anti-Reformation movement propagated chastity, Luther valued sexuality as something deeply human. He did not, however, question the gender roles that were current at the time. In theory, he equalized gender relations in which he announced joint priesthood for all believers, including women, and replaced the clerical system with the family as the main institution within society, but the structures remained patriarchal nonetheless. Luther got into trouble with his Biblical literalism, says Striet: "Sticking strictly to the text usually means that you don't rattle that which is - because of the hermeneutic glasses you are wearing while reading."

"We hold ourselves accountable"

Important results in elucidating Freiburg's doping past in sports medicine have been made available

In 2007 the University of Freiburg introduced the "Evaluation Commission for Freiburg's Sports Medicine". Ten years later assessments from former commission members have been published on the Internet, thereby making important results in elucidating Freiburg's doping past in sports medicine available. Rector Prof. Dr. Hans-Jochen Schiewer takes stock during a conversation with Nicolas Scherger.

uni'leben: Mr. Schiewer, what was the objective that the University of Freiburg had in creating the "Evaluation Commission for Freiburg's Sports Medicine"?

Hans-Jochen Schiewer: The University of Freiburg immediately recognized its responsibility in elucidating its doping history. That is why we have made it our goal to reveal what happened in Freiburg's sports medicine, to conduct scientific evaluations and to place it in the doping context in Germany and Europe.

What has the University achieved from today's perspective?

We have published six assessments, in particular about Joseph Keul and Armin Klümper, the leading personalities in Freiburg's sports medicine. We are the only academic institution in Germany to have processed our doping history as much as possible based on sources we had. The assessments have been made available to science and the public and have created the basis for further elucidation.

What has changed at the University Medical Center?

The Medical Center addressed the necessary consequences early on. Together with the state government, it created a mandatory anti-doping regulation for all hospitals in Baden-Württemberg. The Medical Center has done some restructuring: There is no more sports medicine in Freiburg. Instead, it is called occupational therapy



The University did everything in its power to support to evaluation commission's work, says Rector Hans-Jochen Schiewer. PHOTO: SANDRA MEYNDT

and social medicine. We have rejected all collaboration with other medical institutions for athlete car. And finally, we have created the highly recognized "Freiburg Sports Concept".

A lot of accusations were circulating in the media that the University was hindering the commission's work.

We gave the commission full access. It was independent and was accountable only to its own conscience. It was

able to gather facts freely and interview contemporary witnesses without letting the University know first. We gave the commission all the time it needed to complete its work along with all the financial and staff resources it needed: the entire effort cost well over one million euros. The University did everything in its power to support the commission's work - albeit within the parameters of what is legally possible.

What does that mean?

There are files that are not legally available. Patient files, for instance, are closed for decades. University, the public prosecutor's office and the state government went to great lengths to make a lot of material available to the commission. Given these facts, I deeply regret the fact that people constantly had the impression that the University did not do all it could to elucidate the issue of sports medicine and doping.

As rector, you had to suffer a lot of personal attacks - including two criminal charges for one person that the public prosecutor's office clearly claimed were unfounded, thereby dropping them. What's your impression of that?

For me it was critical what we achieved in the end: We have clearly shown what happened in Freiburg and that we have taken responsibility for it. For me that meant taking on personal challenges, such as criminal charges.

What's next in terms of researching the doping issue?

We will continue as a research university to examine the topic from the ground up how people have optimized their lives and whether those methods are sanctioned or not. We hope to achieve general insights: in a competitive, performance-driven society that demands the utmost of people. Besides the offer remains for the former commission members: Should further results be presented to the University, we will publish them as well after conducting a legal assessment of them.

For further reading:

Individual assessments of former members of the "Evaluation Commission for Freiburg's Sports Medicine": > www.uni-freiburg.de/universitaet/ einzelgutachten

- ""Freiburg's Sports Concept" at the University Medical Center:
- > www.uniklinik-freiburg.de/uploads/ tx_aspresse/UKF_Leitlinien_Sport.pdf

The University presents the Instructional Development Award

The Instructional Development Award (IDA), an instructional development award from the University of Freiburg that comes with 70,000 euros in prize money, is being presented to three projects this year: Dr. Julia Asbrand and Prof. Dr. Brunna Tuschen-Caffier, Institute of Psychology "Online learning - Practical usage: Taking an interactive approach to teaching clinical psychological interventions"; Prof. Dr. Klaus Baumann and Karin Jors, concentration Caritas Science and Christian Social Work, and Prof. Dr. Jörg Lindenmeier, Professorship for Public and Non-Profit Management, " 'Transformative Leadership' as a Sustainable Leadership Concept: An Interdisciplinary, Trinational Blended Learning Seminar"; Prof. Dr. Dieter Ebert, private lecturer Dr. Swantje Matthies and Dr. Peter Goll, Department of Medical Illnesses/Department of Psychiatry and Psychotherapy, "Podcasts for Beginner Students – Psychiatric Health Education." The initiatives are designed to run up to 18 months, starting October 1, 2017.

Russian Culture Days in Freiburg

"Russian Culture Days 2017" is taking place in Freiburg to celebrate the 100th anniversary of the Russian Revolution. The Zwetajewa Center for Russian Culture, a joint institution from both the University and the city of Freiburg, will be offering a program with contributions from science, music, art, film, literature and theater into 2018. More than 20 scientific and artistic institutions in Freiburg are involved – an entire city will connect to reflect upon the Russian Revolution in its cultural, political and historical facets. The unique nationwide cultural program is offering an event nearly every day, including a lecture series, a film series, premiere theater and musical performances, an academic conference and exhibits that have never been seen before. The culture days will officially open on October 16, 2017.

> www.zwetajewa-zentrum.de

Twelve new tenure track professorships

Successful application for the "Federal and State Program for the Advancement of Young Scientists"

by Nicolas Scherger

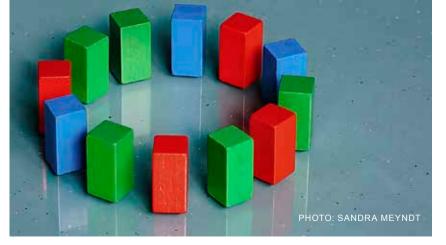
welve are on their way, another seven will follow: The University of Freiburg has received new tenure track professorships in the first funding round of the "Federal and State Program for the Advancement of Young Scientists" - and will start the second round as well. Tenure track professorships are directed toward post-doctoral scientists and earmark a direct transition toward
The second round of financing a life-long professorship after completing a successful probation period. "Our successful application for the Federal and State program has opened up opportunities for us as a university to further advance the cultural shift in filling professorships," says Rector Prof. Dr. Hans-Jochen Schiewer.

The result has strengthened the University's course: In 2009 it introduced the tenure track professorship, thereby hedge its bets on this career model early on. It offers promising talent a reliable, if not performance-dependent, path toward a professorship.

"It makes the tenure track an attractive career option for both young scientists as well as for universities to distinguish themselves from the international competition by bringing in the best new scientific talent available," says Schiewer.

continues

The goal of the program is to establish the tenure track professorship as its own career path alongside the more traditional appointment procedure. For this reason, 468 tenure track professorships were distributed nationwide



amongst 34 universities. The annual lump sum for each tenure track professorship is 118,045 euros. In addition, the universities had to show with an overall concept how they wish to further develop their staff structure and the career paths for young scientists. In-

cluded within that sum is a so-called strategy surcharge of 15 percent with which the University can develop additional measures to promote young scientists. Representatives from various status groups and disciplines at the University will discuss which ones

they will be in a working group "Academic Pathways" led by the rector.

The first round of financing begins on December 1, 2017 and runs at the latest until 2030. Under the program's guidelines, the universities are required to occupy every tenure-track professorship by 2020. Their time period runs up to six years. In the event of a birth or adoption up to eight years. After a successful evaluation, the scientists will be promoted to an indefinite professorship position. Because the University of Freiburg applied for 19 new tenure track professorships but has only received 12 of them, it can reapply for the remaining seven. In 2018 it will apply during the competition's second financing round that is planned for a funding period between 2019 and 2032.

> www.uni-freiburg.de/karriere

Newspaper of the University of Freiburg www.leben.uni-freiburg.de

Wolfgang Kehr starts a new foundation

Prof. Dr. Wolfgang Kehr, former director for the University library (UB) has started a new foundation with 150,000 euros in capital. The goal of the Wolfgang Kehr Foundation is to promote science and research at the University of Freiburg, whereby the annual revenue should be spent on maintaining and caring for the historic collections in the UB. The Department of Endowment and Estate/Taxes will take on the foundation's administrative duties. Kehr ran the UB from 1967 to 1994 and has a strong connection with the historic collections. "When I began the position, the collections of manuscripts and incunables were in poor condition. We opened them up, restored them and augmented them with prints from the 16th century from the cultural area on the Upper Rhine. It is of particular importance for me to lend further support to these collections with a foundation."



Wolfgang Kehr is supporting the maintenance and care of the historic collections at the University library Freiburg with his foundation. PHOTO: THOMAS KUNZ





The University of Freiburg is eligible to submit two full applications in the funding line "Cluster of Excellence"

by Nicolas Scherger

A n important partial victory for the University of Freiburg: Two application outlines in the funding line "Cluster of Excellence" were successful. The initiatives "CIBSS - Centre for Integrative Biological Signalling Studies" and "Living, Adaptive and **Energy-autonomous Materials Systems** (livMatS)" (see infoboxes) can now submit a full application. With this success the University is still in the running in the funding line "Universities of Excellence" - two approved clusters are required for eligibility. "Our extraordinary scientists have scored points with their successful cluster outlines. The excellence funding from the past ten years along with our expansive collaborative research have paid off. We

will do everything we can to ensure our cluster applications are successful in the competition," says Rector Prof. Dr. Hans-Jochen Schiewer.

88 out of 195 in the final round

195 total applications were submitted nationwide fort he funding line "Cluster of Excellence". 88 initiatives have qualified fort he final round. About half of them is expected to be funded. For the funding line "Universities of Excellence", in which up to eleven applications should be approved, it means overall that 29 universities are still in the running nationwide.

In Baden-Württemberg 18 cluster initiatives will submit a full application and seven universities will have the chance to qualify as a "University of Excellence". The Ministry of Science, Research and Art is backing the program. The State will make seed money for full applications available.

The University of Freiburg had sub-

mitted five cluster outlines. Three are no longer in the running, including the renewed proposal for BrainLinks-Brain-Tools, which has been financed in the

BrainTools has conducted excellent research work in the past and we regret that this cluster will no longer be in the competition," says Rector Schiewer. "BrainLinksBrainTools will remain a cluster of excellence at the University. The research regarding the interface between the brain and the machine is one of our flagship topics. The Freiburg Institute for Machine-Brain Interfacing Technology is being built on the grounds of the Faculty of Engineering and will open in 2019. The cluster's financing will run for another two years from excellence funds. Thereafter, it will be sustained through the State and the University."

second round since 2012. "BrainLinks-

Strict schedule

Both successful cluster initiatives are now entering a hot phase. They have to submit their full applications by February 21, 2018. At the same time the University has to submit its statement of intent in apply for the funding line "Universities of Excellence". The final decision as to which cluster applications will be successful will be made on September 27, 2018. The funding period for the newly approved clusters of excellence is January 1, 2019.

CIBSS – Centre for Integrative Biological Signalling Studies

CIBBS is building on the scientific work that the funded cluster of excellence BIOSS Centre for Biological Signalling Studies has conducted since 2007. The cluster initiative will develop strategies to control signal processing with precision in order to translate insights from basic research into innovative ideas

Living, Adaptive and Energyautonomous Materials Systems (livMatS)

The cluster initiative has the goal of developing bioinspired material systems that can adapt to diverse environments and produce its own clean energy. It is supported by the Freiburg Center for Interactive Materials and Bioinspired (FIT) and the Freiburg Materials Research Center (FMF) at the University along with Sustainability Center Freiburg founded by Freiburg's five Fraunhofer

Exzellenzportal

More information about the excellence competition as well as current events can be found in the excellence portal at the University of Freiburg.

> www.exzellenz.uni-freiburg.de

A Wrinkle in Time

PHOTOS: PATRICK SEEGER

During the Day of Diversity on November 23, 2017 the topic of "age" will be the focus. Jannis Behnke took a look around the University of Freiburg and asked people of various generations what role age plays in their lives.



Sebastian Beiter, 19 years old, chemical lab trainee

"The moment you feel old is not measured in numbers because everyone experiences it differently. Maybe people start to feel old when the kids move out of the house or you slowly retire. It has more to do with a phase of life. In general, I think it's a good thing that I am getting older. I can travel alone and learn new, fun things. I can also do things that I couldn't do as a child or young person. I think it's great that I am at the age where I am no longer limited."



Karin Schmidt, 79 years old, auditor in the Department of History

"It is actually nice to get older. After I had finished raising my children and my career was over, I am able to pursue my hobbies such as tennis or a university class. I have absolutely no restrictions. I think it is great that the University provides even people at retirement age with an opportunity to occupy their minds and continue their education. Besides I really enjoy being around younger people. I notice my age, but it is still wonderful."



Daniel Spingies, 32 years old, **Central University Administration**

"You gather more experience with age and can handle situations more readily. It is also easier to know your own limits and to note what is most important. If I think about what my favorite age was, I think about my mandatory civilian service. I had a lot of fun and could do a lot of things. But I also look positively toward the future and look forward to everything that getting older brings with it: starting a family, building a house and one day becoming a grandpa."



Magnus Striet, 52 years old, Professor for Fundamental Theology

"Up to now I have rarely experienced situations in which I have noticed my age, but if it does happen, it could very well be that I will have some restrictions. But I'm not worried about that: I have always lived in the present and would like to continue to do so. That includes accepting different situations in life and engaging in new and creative ways of living. I see generational diversity as an opportunity. I noticed during my lectures that the issues have more depth when people of different ages engage in the discussion."



Laura Becker, 25 years old, master's student in sociology

"Age doesn't play much of a role in my every day life just yet. It is only when my friends are in a far different life phase than I am. There is a lot of generational diversity at universities. I find it to be very positive and it shows me that every age is perfect as it comes. Dealing with different generations hast he potential for conflict, but also opportunity to learn from one an-

Day of Diversity

The Day of Diversity organized by the Office for Gender and Diversity is focusing on the topic of "age" this year. The event is being held on November 23, 2017 starting at 3pm in the archaeological collection. All members of the University of Freiburg are warmly welcome to attend and engage in conversation with people of all ages. Registration is possible at www.uni-freiburg.de/go/anmeldung-tag-der-vielfalt. > www.diversity.uni-freiburg.de/TagderVielfalt/TdV2017

The brain and its conditions

Researchers develop and test training approaches for rehabilitating stroke patients

by Claudia Füßler

To be able to read the brain like a ■ book is the dream for many a scientist. Dr. Michael Tangermann and his colleagues are one step closer to doing so. The computer scientist has been conducting research at the Brain State Decoding Lab in the Cluster of Excellence BrainLinks-BrainTools at the University of Freiburg since 2013. "We have developed algorithms that help us analyze and decode brain signals," says Tangermann. In this way the computer should learn how to differentiate between brain condition A and brain condition B in order to recognize, for instance, when someone is being attentive or not. The idea: If you can recognize the brain's condition, you can control apps with it. If doctors know, for instance, what the brain's condition looks like when a patient with a paralyzed right arm wishes to move it, they can observe the brain's conditions and control an artificial limb accordingly.

Lots of static, weak signal

The number of conditions the brain can handle is enormous. Tangermann and his team have limited themselves to just a few conditions. "That alone is challenging enough," says the scientist. "Imagine searching for a single, tiny signal from the right motor cortex that provides us information about the movement of your left hand. Unfortunately, we cannot directly measure this signal with non-invasive electrodes; instead, we receive a combination of signals from the person's entire brain activity. Therefore, we have to find a very weak signal in a sea of static – it is like standing on the moon and looking for a radio station that is playing on Earth."

In order to recognize the desired brain condition, the computer has to learn through which signals in the measured electroencephalogram (EEG) this type of condition is characterized. That happens through exemneurology at the Freiburg University

Spin-offs



learning. The computer is fed about 50 exemplary measurements in which the desired signal was most likely active and with 50 additional ones in which that wasn't the case. "In this way our algorithms learn to recognize hidden regularities in the raw signals." Theoretically, you could conduct these measurements on healthy subjects and then transfer the results to others. But because brain signals in people without neurological issues also occur individually, the approach has its limitations. You can get much better results if the machine can learn through several test runs on the test person about how the person's brain condition looks.

Knowledge about the current brain condition

Together with project partners from

team in the Cluster of Excellence are working on putting their decoding algorithms into practice. They are jointly developing and testing training approaches for rehabilitating stroke patients. Aphasia – a speech disorder that can arise from a cerebral infarction – is one of the symptoms for which knowledge about the brain's current condition would be helpful. If a patient can't find the word of an object the therapist puts before him or her. the therapist never knows if it was a close decision or not: Does the patient recognize the object and knows the word, but can't pronounce it? Or does the patient lack complete access to the word and its meaning?

"Through our methods of data analysis we can estimate how words and tones that the test person is played are processed in that person's brain," says Tangermann. The test person hears Medical Center, Tangermann and his the sentence "The captain's jacket has which type of training would work best young researchers

golden..." Thereafter, six words are named that could fill the blank. Tangermann and his colleagues check if the right word - buttons - achieves a different cerebral response in the EEG as the wrong answers. "If that is the case, we can give the test person the respective feedback. Long-term we hope to succeed in using the linguistic processing areas of the brain to its fullest potential." The initial tests with aphasia patients have run well, but more still need to be conducted.

Individual therapy

Rehabilitating motor skills is another area in which decoding the brain's conditions can come in handy. The idea is similar: With the help of a computer, the therapist can recognize whether the patient's brain condition is currently suited for completing a movement or ERC funding for not or he or she receives hints as to

One of the best universities in

at the moment. "In order to be able to decode relevant brain conditions, we have to do several measurements with the patient first. Based on that information, we can see which brain condition is informative for this patient so that we can control and improve the training process," says Tangermann. A highly individualized therapy in that case.

Research on the brain's condition and its influence through man and machine is still in an embryonic state. Tangermann is also conducting basic research. Routine treatments in rehab clinics are still far off in the distant future. "But I think we are well on our way."

Dr. Maria Asplund, junior professor Dr. Lena Henningsen, and Prof. Dr. Lars Pastewka of the University of Freiburg have been chosen to receive funding from one of the most significant European sources of support for junior researchers. The ERC distinguishes these researchers by presenting them with ERC Starting Grants of up to a total of almost 4.5 million euros for new projects. Together with her team, the electrical engineer Maria Asplund at the Department of Microsystems Engineering has developed a so-called super capacitive polymer in the project SPEEDER. This material can store and release a particularly high amount of energy, enabling electrical fields to be maintained over an extended period of time. The researchers are planning to incorporate the material as active components in an electronic dressing. In her project, Lena Henningsen is using the perspective of reading practices to investigate the intellectual, literary and societal transformation that has taken place in China since the 1940s. Pastewka's research will be able to optimize the coarseness and thereby the properties such as wettability and adhesion of surfaces in the manufacturing process.

Research and Oliver Müller is the Heisenberg Professor

Since 2013 Müller has The Federal Ministry for Economic run two sub-projects along with a junior research Affairs and Energy is funding two start-ups at the University of Freiburg. group since 2014 in the Cluster of Excellence BrainLinks-BrainTools, which develops advanced machine-brain interfacing technology. PHOTO: MATHILDE BESSERT-

1.4 million euros will go to the project ANTIBUG, in which the microsystems engineer Dr. Karen Lienkamp will test the effectiveness of one of the surface layers she developed in bladder catheters and bandages. The coating should prevent bacteria from settling onto such medical products. Thereafter, Lienkamp is planning a spin-off company or a cooperation with industry partners. The start-up OptoFlow, a project from Freiburg researchers from the Faculty of Biology and the Fraunhofer Institute for Applied Solid State Physics, has received an EXIST start-up scholarship of about 140,000 euros to develop a process with whose help communication between body cells can be more precisely

measured and analyzed.

The University of Freiburg senate has agreed to establish a Heisenberg professorship that had been approved for the private lecturer Dr. Oliver Müller by the German Research Foundation

The DFG funding is limited to five years with a potential extension to a tenured professorship in the Department of Philosophy in the event of a

positive interim evaluation. Müller will further develop the department's profile in research and teaching with two new emphases: the philosophy of technology and philosophical anthropology. Based on this aim, Müller will give particular attention to the question of how the rise and progress of modern technology have impacted individuals and societies as well as their understanding of reality and nature.

Freiburg at the top of the list

Germany: The University of Freiburg has been ranked internationally as number 82 in the "Times Higher Education Ranking 2017-18" (THE-Ranking). Last year it landed 95th place. Nationally, the university is number 6. This ranking evaluates more than 1,000 universities worldwide, 44 of which are in Germany. It assesses the universities' performance in teaching, research, publications, technology transfer and internationalization. Noted in the "Academic Ranking of World Universities 2017", also known as "Shanghai-Ranking", the University of Freiburg ranks 4th to 7th amongst the German full universities and follows Heidelberg as the most highly ranked university in Baden-Württemberg. Among the 500 evaluated universities worldwide, Freiburg ranked between 101 and 150. A further breakdown in the Shanghai-Ranking is not per-

Freiburg's Wild Times

The new exhibit on student demonstrations before 1968 in the Uniseum is the direct result of a teaching project

Bildung in Deutschland

Ziele der Aktion 1. Juli

informationen

by Mariella Hutt

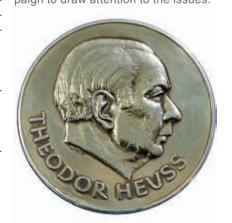
tudents didn't start fighting for a Stronger voice in 1968. They already started taking to the streets to fight for their rights in the early 1950s and 60s. A new exhibit, "Mild, wild Freiburg. Student initiatives before 1968" in the Uniseum at the University of Freiburg illustrates this fact. It is the result of a student project that had its origins in a seminar that historian Prof. Dr. Sylvia Paletschek and private lecturer Dr. Karin Orth led in the 2016 summer semester. After the participants acquired basic knowledge about the time before 1968, they conducted interviews with eyeduring the 1950s and 60s.

During the 2016/2017 winter semester, the students then worked on the exhibit's content in a museum-focused tutorial, led by Sylvia Paletschek and Uniseum curator Angela Witt-Meral: They designed a concept, searched through the University archives for photos and texts, gathers newspaper articles, analyzed radio and TV segments and asked eyewitnesses for exhibits. The newly opened area of the Uniseum is the first result of the project "research-related learning" through which select topics were revised in the Uniseum together with the students.



knowledge about the time before 1968, they conducted interviews with eyewitnesses who reported about their university days and their initiatives during the 1950s and 60s.

During the 2016/2017 winter semester, the students then worked on the exhib-



For more educational justice: The students at the University of Freiburg and the "Association of German Students" organized a nation-wide demonstration in which hundreds of thousands of students participated.

FOTOS: KLAUS POLKOWSKI

The campaign "Student in the country" was taken on and continued in other parts of Germany. In 1967 the campaign was awarded the Theodor Heuss Medal, thereby honoring the Freiburg students' involvement and their trailblazing role. The medal is on loan indefinitely by an eyewitness.



With the leaflet "Help for a stepchild," participants were sought who were involved in the campaign "Student in the country" and wanted to do something about the crisis in education. Those who registered for the campaign received the opportunity to be trained to clearly explain to the rural population about the current situation around education.



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www.uniseum.uni-freiburg.de

Closing the gap

The advanced training module surgical technology familiarizes participants with medically high-tech methods

by Jürgen Schickinger

echnology impacts clinical medicine: ■ Doctors receive a lot of support from devices that provide measurement values, images and other data. The importance of medical technology is growing, but it is often short-changed during medical training, says Sven Maier. "It is important to close this gap," says the cardiovascular technologist at the University Heart Center Freiburg – Bad Krozingen. He manages the internship during the advanced training module surgical technology that doctors and other clinic-related professionals have to familiarize them with medically hightech methods.

To know how the others work

"Medical technology is more than the intersection between doctor, patient and the patient's data," emphasizes Maier. Various specialists work together during a lot of the operations. If it becomes sketchy, for instance, during a heart operation, the heart surgeon, the anesthetist and the cardiovascular technology should all be able to understand each other blindfolded. "Each professional group in the operating room has to know how the others work." That includes knowing the basic functions of various devices.

"The use of the heart-lung machine during surgery" is on today's agenda.



Where and when do you use a heart-lung machine? The advanced training module "surgical technology" gets clinic-related professionals ready for the medical future. PHOTO: UNIVERSITÄTSKLINIKUM FREIBURG

The participants are observing surgeries live at the University Heart Center: Where and when do you use the heart-lung machine? The two days prior were spent in simulations and practical training at Furtwangen University. The participants learned about imaging techniques, computer-supported navigation and more. They learned a lot about various devices,

monitors, interfaces, data and their proliferation. In addition, they learned how to prepare a heart-lung machine for use.

Practicing with a dummy

Dr. Maria Sailer calls the lesson with the heart-lung machine a "dry run": a human-like dummy acts as a patient

that consists mainly of tubes and a kind of artificial heart. "Other than that, we did exactly the same things we would do in real-life surgery," says the assistant doctor for abdominal surgery from Göttingen. Along with practicing medicine, she studied computer science because Big Data is becoming more and more important in medicine. In order to be totally prepared for her professional future, she wanted more technical understanding. That is why she is learning about essential components in the newest systems in her master's degree program in technical medicine that the University of Freiburg offers in cooperation with Furtwangen University.

"I'd like to further develop my expertise," says Johannes Rauch. He completed his bachelor's degree in business informatics with an early concentration in health. Working at St. Joseph's Hospital in Freiburg, Rauch is now pursuing a master's degree in technical medicine. He will most likely never use the devices shown. "But I now know where and why data is emitted from them." He has learned a lot about how medicine and technology can be combined. He also has found the contact with the doctors to be most beneficial.

Good teaching materials save time

In summary, Rauch says: "I'd do it again. Anytime." Sailer calls the module "Very intense." Both had hoped to have more time for the subject of computer-supported navigation. But they are both full of praise. "The lecturers'

support is excellent," says Sailer. Rauch appreciates the experts' availability to ask questions and the quality of the teaching materials as well. "They save an enormous amount of time." The module is organized very broadly in terms of subject matter and at a very high level. Sailer agrees with him: "There aren't many comparable offerings like this one in Germany."

Course coordinator Jonathan Ahles is thrilled. But there's room for improvement, he says. There always is. "At the end of the course, we always ask for the participants' feedback. We want to do it even better the next time."

Individual course and master's degree program

The module surgical technology encompasses a lecture, seminar and practical training about cardiotechnology and surgical navigation. Those interested can take an individual course or as a part of a larger master's degree program in technological medicine. Both are advanced training that accompanies a related profession and is appropriate, for instance, for doctors, medical engineers, cardiovascular technologists, medical computer scientists and other clinic-related natural scientists.

www.technische-medizin.uni-freiburg.de

uni'life Newspaper of the University of Freiburg www.leben.uni-freiburg.de

Serious doubt

A new service advises students in their first few semesters – for example those who are considering quitting university

The project "Focus for the first year at university" run by the Central **Academic Advising Office is meant** to help students get a better start at the University of Freiburg. It offers brief workshops on frequently asked questions often posed by people starting to study. In groups of six to twelve people, students can reflect on their own experiences and exchange ideas with like-minded peers. In addition, the project promotes interdisciplinary exchange amongst those involved with firstyear students' issues. The goal is to improve the quality of counseling students receive. Emilie Häberle sat down for a chat with project director Dr. Friedrich Arndt about students' doubt.

uni'leben: Mr. Arndt, which frequently asked questions do students pose who are doubting their decision to study?

Friedrich Arndt: The people are often insecure and dissatisfied with their situation – they often can't identify why exactly. They ask if they are doing something wrong or whether the course of study is the wrong one for them. Add to it the fear of failure and not knowing how to get a clearer picture of their situation.

Do students or the people around them view leaving university to be a sign of failure?

People often talk about their fear of failure and their inability to share it with their circle. And when they actually do later, they often discover that their friends don't take it as negatively as they thought or are even supportive in their decisions. Viewing a departure from the university before completing a degree as failure isn't helpful to anyone. Instead, I should try to look at the



A phase of doubt can be important to find out what you really want, says Friedrich Arndt – he and his colleagues at the Central Academic Advising Office see themselves as guides to help those help themselves. PHOTO: PATRICK SEEGER

situation in a different way: What does it say about me as a person if I decide to stay at university or if I decide to start something altogether new? What can I learn about myself in this situation? What can I do now? The viewpoint shifts from one of failure to one of possibility and the ability to act.

When do students enter a normal phase of doubt and when is it time

to seriously consider reorienting themselves?

In general a phase of doubt can be very important to find out what you truly want. That is why it is important that I learn the skills to deal with such situations. If I have taken measures to change my situation and still feel an enormous psychological strain, then it is a clear sign that I am not in the right

place. Perhaps someone selected a field that doesn't match his or her talents and is therefore not suitable. Poor exam results despite a lot of hard work and trying out various learning methods could be a sign as well. But I still believe that if someone truly wants it and is really motivated, then a lot of things are possible even if he or she isn't optimally suited for it. How can you determine where students' doubts originate with the course of study, with external circumstances such as the place of study or the living arrangements or that pursuing an academic degree isn't the right choice in general?

If we were in a counseling situation, I would ask you how you noticed it. If I am going through a tough time and can't seem to manage my studies at the moment, I can think back to a time in my life in which I overcame a learning situation successfully. Then I can consider what the conditions were. Which criteria were critical for my success? And how does that look today for me? Perhaps I don't have enough work-life balance and should engage in more exercise to improve my current situation or I can't study alone and need to find a study group. To figure out what I need, I can talk with others who are stuck in a similar situation. A counseling session can also be helpful.

How do employers view a premature departure from university?

It's not about having a linear resume, but rather whether you can explain to human resources why you reached certain decisions. That can be extremely helpful feedback for a future employer as it reveals a lot about the applicant's character. Besides, a premature departure from university is of little interest once you have launched your career. Other criteria matter much more then.

When should someone go through with his or her degree program? Or

does the rule "better late than never" apply to leaving prematurely?

If I only have my thesis left to complete, it would make sense to complete the degree. Nevertheless, I can still ask myself at the same time what I want to do afterward. Is there perhaps an option to start a different course of study? From the universities' and policymakers' perspectives, a late premature departure from university or a late change in fields is not desirable. Subjectively, however, it can still be a sensible choice and in my view it is more important that someone makes a clear and conscious decision. Generally speaking, we prefer not to give recommendations or advice at the Central Academic Advising Office, but rather we like to help people help themselves. We view ourselves as guides in the process. We don't seek to solve the person's problem, but rather to help bring them in the position of solving it themselves through a conversation.

Why are the new counseling offerings directed specifically to firstyear students?

There are two reasons for that. The external reason is the desire from policymakers and universities to offer those in doubt with help early on. A second reason is to avoid increasing psychological strain by facing these issues early. Students have to opportunity to already notice in their second semester that their field of choice isn't the right one for them and don't then start doubting two or three years into it. Nevertheless, our offerings are open to all students because doubt can rear its ugly head at any time – no matter where you are in the course of pursuing your degree.

www.studium.uni-freiburg.de/service_und_ beratungsstellen/zsb/fokus-erstes-studienjal

Growth for the Institute of Archaeology



During a ceremonious event with Rector Hans-Jochen Schiewer, Fritz Ruf (right) handed over the cuneiform tablet to the Institute of Archaeological Sciences.

PHOTO: PATRICK SEEGER

The University of Freiburg has received a gift: The food chemist and alumnus Dr. Fritz Ruf and his wife Gerda Ruf have left the Institute of Archaeological Sciences an antique cuneiform tablet. The original tablet stems from the 13th century A.D. and was found in Boğazköy, Turkey in 1906. The tablet that describes the ingestion of forbidden and cursed dishes, and the necessary cleansing rituals thereafter, is considered a purity law in various standard reference books on food

legislation. It is also considered the "oldest food law". Its text is primarily in the Indo-Germanic Hittite language and contains sprinklings in Hurrian. Both cuneiform languages are taught at the University of Freiburg, which is why the tablet will serve as a practical learning resource for students of ancient Eastern philology.

Funds for teaching projects on start-ups

The University of Freiburg has established a fund for teaching projects on start-ups. The goal is to initiate classes and further projects and measures relevant to start-ups with a direct connection between a course of study and teaching at the beginning of the course of study. Instructors and students in all disciplines at the University are eligible to apply. Projects in the humanities and social sciences are especially encouraged to apply. The Ministry for Science, Research and Art Baden-Württemberg is responsible for the 600,000 euro funded project "AtS: Access to Start-ups - Acquiring, Experiencing, Developing a Start-up Culture." The head of the AtS project is responsible for selecting the projects to be funded. The contact person is Dr. Markus Strauch, Coordinator for Teaching and Continuing Education at the Freiburg Academy of Continuing Education (FRAUW).

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Newspaper of the University of Freiburg www.leben.uni-freiburg.de



The large city festival Aste Nagusia submerges Bilbao in the Basque country in a summery, celebratory mood. PHOTO: ANOUK STOBER

Shadow play: The Feria de Abril, the annual April mass, shows off a blaze of color in Sevilla, Spain. PHOTO: MICHAELA BÜHLER

The laundry mat at night

Erasmus students show mysterious, action-filled and dreamy moments during their stay abroad in a photo competition

Students have been able to complete study abroad through the ERASMUS+ program fort he past 30 years. To celebrate the program's anniversary, the EU office at the University of Freiburg has started a photo competition "I participate in ERASMUS - I see Europe". A small selection of displayed images shows mysterious, action-filled and dreamy moments - from green northern lights in the Norwegian sky and nocturnal visits to a laundry matt to colorful street festivals in Spain.



Reflection: A red sports car winds its way through the tiny street in Matera, Italy. PHOTO: JULIA ADAM





Northern lights a magical natural spectacle in the Norwegian sky of Kvaløya. PHOTO: PHILIPP EHRENMANN

First a muffin, then modal verbs

At the language café students and refugees help each other with their homework

by Petra Völzing

he conference room at the General ■ Students' Committee (AStA) on Belfortstrasse is rather austere for a café, but Paulina Steinhilber quickly arranges for a bit of coziness and orders fruits, coffee, cookies and a huge bowl of raspberry muffins for the table. "I now bake twice a week," says the student of Islamic studies, laughing.

Nour Salameh is sitting at the ready as well. "I only come for the muffins," he notes jokingly. He came to Germany a few months ago from Aleppo, Syria. He has a degree in engineering and wants to start training as a mechanic here. "The language café is really important to me," he says, admitting that he has to learn German quickly. It is also important for him to get to know new people and to do things with them. "Although it is called language café, it is about more than just languages. We want to get to know different cultures," explains Steinhilber about the underlying concept behind the project as she pours coffee from a thermos. The group has already visited several exhibits, language café. They embarked on a barbecued together and even did an excursion to Lake Constance together.

In the interim the room has started to fill. Mohammad Kaboul and Muthama Al-Darwish disappear behind Steinhilber's laptop – research for homework. "I never know how many people will show up and what will happen," she casually says. "I have learned that it is best to let things unfold by themselves. It works every time." The student is the link between the Department of Islamic Studies at the University of Freiburg and the initiative "Start with a friend" in the



The group meets Tuesdays and Thursdays to learn and discuss things - every now and again they do excursions too.

joint venture to start the language café.

Releasing frustration and remaining happy

Theresa Hoffmann has sat down with Mouath Isharboutly at the table. Together they are going through fill-in-the-blank texts in which the verbs are missing. Isharboutly starts to practice: "I take measures to study at the university," he says, laughing. He wants to study ethnology. "Who can explain past perfect here?" shouts Steinhilber into the room. Not so easy, the German students discover.

Kaboul and Al-Darwish are now trying to help Steinhilber. "I have to write a paper on transsexuality in Islam," she says. Both Syrians are looking in the Internet for texts by an Imam from Egypt who has addressed it. "There is nothing in the Koran that talks about gender reassignment," they explain, which is why such texts have been used in the Islamic world. Both of them go to a refugee class in Emmendingen. Hayyan Salman Kaboul whispers something in her ear. He laughs. "Hayyan just corrected me." It isn't "We meet friends," but rather "We meet with friends." Salman has overcome many language barriers and now

studies economics. He meets his countrymen and women at the language café. At the moment he is supporting Jana Hahn in translating an Arabic text about women's rights. But they also talk about a lot of other things too. There are a lot of things that the young Syrians have to get used to in their every day lives in Germany.

Hashem Atfeh, for instance, wants to start training as a physical therapist. But he needs an internship for that and he can't find one. Because he isn't enrolled as a student, employers have to pay him minimum wage. He has now

gotten an internship at the energy provider Badenova. "We have to have a lot of patience," he says, laughing and drumming his fingers on the table. The refugees also can't expect immediate assistance from the job center because the small staff is completely overworked. "We aren't used to this level of bureaucracy in Syria," explains Salman. He himself is happy to have found a room in an apartment with several others. "I tried to help other refugees to find an apartment," explains Hahn, but when the landlords found out that it wasn't her, but a refugee who wanted to move in, they always reneged. The young people have the chance at the language café to release their frustration, but the atmosphere is still relaxed and happy nonetheless. There are no female refugees here today. "Every once in a while, one will come, but women are much more involved in their families. Perhaps they also shy away because there are mostly men here."

The German Academic Exchange Service has been funding the language café since April 2017. It gives the team a chance to start a women's project a café for women only. "We are very happy for the funding because no one should have to pay here," emphasizes Steinhilber. Her fellow students Theresa Hoffmann and Anna-Lena Kranz will take over running the language café starting the 2017/2018 winter semester. Steinhilber will be doing an academic vear in Iran.

Links and contact information

sprachcafe@start-with-a-friend.de www.start-with-a-friend.de/ standorte/freiburg/sprache-lernen www.facebook.com/sprachcafeuni

The medical student Alexandra Haag has written a children's book about physical disabilities

by Anita Rüffer

B ecoming a writer was never her dream. "I'll never do it again," admits Alexandra Haag. "I have no talent for German spelling and grammar." But she wrote a children's book anyway: Paula and the Magic Shoe. A picture book about physical disabilities. Because the Freiburg medical student wants to assure full integration between people with and without a disability. And because in her earlier career as a trained physical therapist and special needs teacher for physical and motor development she has seen how books can give people strength when illness or a disability makes life difficult. Haag learned that, for instance, from Paul and his family whom she encountered in the children's cancer ward. She made a lasting tribute to her former patient with Paula, the protagonist in her book. Many other encounters and observations have flowed into the book as well.

The six-year-old Paula weighed "peanuts" when she was born. Due to a tiny cerebral hemorrhage at birth, spasticity "lives" in her muscles now and she has to wear orthoses. They help her to place her feet on the ground while walking, but they bother her while crawling. Sometimes she is sad that her legs get tired so quickly and that she can't keep up with the

other kids. Paula has a twin brother, Pavo, who is only ten minutes older than she is. He doesn't need walking assistance. Pavo has a skateboard; Paula has a walker. Sometimes they trade and she lets her sheep ride the skateboard. The walker acts as a soccer goal – and in pre-school it's great for building a block tower higher and higher. Her friend Annika climbs up on the walker and Paula holds it. They are a team and each does what she does best.

The book's foreword states that around 50,000 children in Germany are currently living with spasticity as a result of brain damage in early childhood. It is the leading cause of childhood physical disability. Haag noticed that there are a lot of books for children about cancer, but none about cerebral palsy – that's the medical term for the condition. A real-life explanation for children and adults could help reduce ignorance and insecurities about it. Haag has Paula explain with child-like creativity, about the origins of spasticity, what it is and why she walks the way she does.

Magically illustrated by the graphic designer Carolina Moreno, the two-page images provide insights into Paula's daily life and the therapies she experiences. The book can be used to relate to specific situations. To prepare their children for a physical therapy visit, parents can read the respective chapter. The parents can benefit from the book as well: Paula's parents are

smart not to offer their daughter false consolation when she is unhappy about her limitations. "I can really understand how you feel," says the mother without letting Paula get her way by using her disability as an excuse for not having to clean up.

Alexandra Haag received the special award for student involvement from the University of Freiburg this year for her book that, along with providing background information, also contains practical ideas for inclusive groups. The author emphasizes that a lot of people contributed to making the book possible. Friends and roommates were brought on board for illustrations, layout and editing. Psychologists, educators, doctors, patients and their relatives in the physical therapy ward at the Children's Hospital in Freiburg were interviewed and their ideas were integrated into the story. The Hans Böckler Foundation and the Department of Neuropediatrics at the University Medical Center helped fund the project. Alexandra Haag found people to help her with the parts that she herself could not do.

Alexandra Haag:
Paula und die Zauberschuhe
(Paula and the Magic Shoe).
Mabuse Verlag,
Frankfurt am Main, 2017.
61 pages, 16,95 Euro.



04 2017

The character Paula wears orthoses, needs a walker and is completely energized – she bolsters children struggling with the same condition.

ILLUSTRATION: CAROLINA MORENO

It's not just the man in the moon who's listening

You have good reason to spend the night in the lecture hall on November 23, 2017

In the night between November 23 and 24, 2017, the 'Long Night at the University' is being held for the third time in Freiburg. Researchers will hold entertaining thirty-minute presentations about their work and answer questions from the audience until dawn. The student-run event has the goal of granting the general public insights into various subjects. Rahel Stahmann und Kai Gallant from the organization team explain what awaits the guests during the nocturnal event.

uni'leben: Mr. Gallant, why exactly should people spend the night in the Audimax?

Kai Gallant: The Long Night at the University is characterized through its diversity. Who else has the possibility to listen to so many presentations from reputable scientists from so many fields in just a few hours? And then to be able to ask questions afterwards and enjoy a drink at the same time? Besides, there will be entertainment between the presentations. In addition to the Science Slam talks, we have arranged for a few surprises too.

Ms. Stahmann, You are responsible for speaker selection. What do you particularly look for?



Doors wide open: Kai Gallant and Rahel Stahmann look forward to welcoming their guests. Photo: KLAUS POLKOWSKI

Rahel Stahmann: Because the event should speak to the general public, whether student or non-student, it is important for us that all presentations are understandable to lay listeners as well. Everyone should feel welcome and be able to follow the lectures. That is why we ask those instructors whose lectures have made a particularly positive impression on us or have been recommended to us by fellow students or the departmental student committees. But how the instructors choose to design their talks is entirely up to them.

Is it hard to find lecturers willing to talk at 3 in the morning?

Stahmann: Surprisingly not. Before we even begin discussing the exact subject of the talk, we always ask first which timeframe they prefer. Amazingly there is always someone willing to get up in the middle of the night to talk in front of 500 tired, but happy listeners. Of course, we take into consideration the fact that some might have children or a long way to travel.

In the past years you had a throng of people. How many guests do you anticipate having this year?

Gallant: Last year the Audimax, which can hold up to 800 people, was completely full. Some visitors had to sit on the steps or in the aisles. We hope

Rahel Stahmann: Because the event should speak to the general public, whether student or non-student, it is important for us that all presentations are understandable to lay listeners as well. Everyone should feel wel-

How much coffee is required to keep so many people awake all night?

Gallant: Tons of liters. Luckily, we don't have to brew the coffee ourselves. The student government has agreed to take over that job.

Til Dawn

The Long Night at the University of Freiburg is under the umbrella of the Studium generale and is supported by the student council, the Booster Association Alumni Freiburg e.V. and the departmental student committees. Rahel Stahmann, Kai Gallant and Nicolas Zang are the core organization team. The event begins on November 23, 2017 at 7pm in the Audimax of the Collegiate Building II. The lecture hall is accessible from the ground floor. Induction loops are available in the front row. The general public is warmly invited to attend. The event is free of admission.

www.lange-nacht.uni-freiburg.de

"Quadropolis" could be the city of the future – what does it reveal about modern urban development?

by Rimma Gerenstein

In the "Abgezockt!" series editorial staff members from uni'leben meet with researchers at the University of Freiburg for game night. The goal is to illuminate board games from a scientific perspective - of course, with tongue in cheek.

The game

Do London, Paris and New York have to worry about their status as world cities? The urban pearl of the future could be called "Quadropolis". Every player acts like a mayor and develops a new city. And it should be able to handle the challenges of the 21st century: environmentally sound, sustainable planning and smart infrastructure are in demand. The players have to decide how they will arrange their houses, parks and factories because it affects the number of points they receive - they also need a dose of callousness to force the competition to its

The players

Prof. Dr. Tim Freytag, Human Geography; Prof. Dr. Annika Mattissek, Economic Geography and Sustainable Development Nicolas Scherger, Office of Public Relations



A city will emerge here: Every player receives a plan with 25 construction

The procedure

So I have to decide if I will be a sustainable, pro-citizen planer or an environment-polluting industrial pig." Mattissek asks the critical question. Together with Freytag and Scherger, she inspects the game board in the middle of the table: a square upon which 25 little cards are ordered in a row. Harbor, park, shopping mall, a local municipal office, a factory and a skyscraper: That is the structure. Now you have to "mix and match". The players have to obtain the desired cards and cleverly place them on their individual drawing boards. Mattissek grabs a house. It should be as tall as



Playful urban planning: For Tim Freytag, people and municipal administrative are his focal point, Annika Mattissek bets on eco-luxury buildings and shrines to consumerism. PHOTOS: JÜRGEN GOCKE

possible because that will get her the most points later. She has laid the cornerstone for a gigantic housing development. "This is going to be a gated community. Eco-luxury buildings," the geographer jokes.

Her colleague Freytag skulks up to the game board. He is thinking about a well-balanced mix of housing settlements and abundant green spaces, well-positioned shopping opportunities and an industrial complex. The researcher obtains a municipal office.

To get as many points as possible, he will have to have at least one of them in every block of houses. "But it's a good start: People and municipal administration are my focal point," he says joshingly. Scherger doesn't seem to be bothered much by ethical questions. "I am going to be a polluting pig," he announces and builds a factory. But the industrial magnate's first hesitations don't take long to arise. "God, I need a park," he murmurs as he earns three red energy markers. The little round figures are like environmental memorials: If there is surplus energy at the end, you get minus points. Parks, on the other hand, are green salve: They cost nothing and neutralize environmental sins.

The cities on the three Quadropolis boards are growing like crazy. But reality is starting to take hold: There isn't much left of Mattissek's ecological conviction. Her skyscrapers have reached mind-boggling heights. And what should the residents that Mattissek has piled

on top of one another in the form of tiny blue pawns do with their time? "Shopping" is the expert's solution, which is why she has now placed enough shrines to consumerism between the houses. That pushes her points upwards. "It's not like Vauban anymore. The development is more like Weingarten," comments Freytag.

The researcher can't blame himself: Through his good infrastructure he has balanced out his intermittent flirtation with construction along the harbor ("That would be a great place for the Elbphilharmonie") and energy-guzzling factory sites. And in theory people are still the focal point even at the assembly line. Scherger even changes from Saul to Paul. He has given up his industrial empire enshrouded with smog in favor of a sprawling harbor façade ("I am recreating Rotterdam") and green spaces. Whether it was a philanthropic change of heart or his eagle eye trained on the point card is open to

After four rounds, the winner is named: Industrial magnate Scherger takes third place with 46 points. Freytag and Mattissek are neck-inneck. The building speculator triumphs with 52 points. Her colleague lands second place with one point less.

The analysis

Time for an appraisal: Does Quadropolis truly illustrate modern urban planning and development? The experts explain that the idea of a "mod-

Another difference to current practice: "In the game all of the people are

museums - it's called "waterfront

development".

the same. A blue pawn is the same as the next. But in reality various factors make them different from one another," explains Mattissek. That is why questions of environmental justice are discussed with great intensity in contemporary approaches to urban planning:

"How will a factory that is placed directly in an urban setting impact the residents there? And to what extent do factors such as age or income determine how much access someone has to certain infrastructures, goods and services in a city?" Furthermore, the competitive idea behind the game points to actual problems in urban policy and planning, suggests Freytag: "Certainly, it is the competitive nature of the game that makes it fun. But if we had exchanged ideas about our respective objectives at the get go and had actually cooperated with one another, we would have all received a lot more points collectively."

Case analyses of both researchers show similar results. When multiple locations compete against one another regarding sustainability, for instance, the effect is often that the environment suffers – if not directly, then elsewhere when, for instance, Europe outsources a part of its production, including carbon dioxide emissions, to other continents, says Freytag. "Urban planning and policy-making are still very much caught up in competitive logic. You might win a game with it, but it won't save the planet."

> "Quadropolis", Asmodee Verlag. www.asmodee.de

ern city" is completely antiquated. "The game shows how cities were developed in the 1970s and 1980s," says Freytag. Various areas such as industrial and residential zones were represented on the drawing board, but they remained largely separate in their functions. "We wish to overcome that today and now rely on the notion of compact cities," he emphasizes.

"Today, city planners approach it more from the residents' perspective. They ask themselves how they can reinvent a city to meet current needs," explains Mattissek. In a city with little space for housing, for instance, it wouldn't take long until large harbor districts were redesigned. Apartments, cafés, parks and maybe even a few

Ein Konto für alles Mögliche. x-mal besser vorbereitet mit contowaxX. Dieses Giro- und Erlebniskonto hat in Ihrer Studien- und Azubizeit alles parat. Infos zu den Vorteilen – Banking und Service, Sicherheit und Preisvorteile in der Regio – gibt's bei der Sparkasse vor Ort oder per contomaxx-App. ... lebe dein Konto! Wenn's um Geld geht contomaxx.de

Exhibit for Bible translations

Martin Luther is considered the consummate Bible translator even though there were German translations well before him. The excellent exhibit "Handwritten and Printed German Bible translations in the Middle Ages before Luther" arising from a medieval studies course at the University of Freiburg introduces book and text types in which the Bible existed in German in handwritten form during the Middle Ages. It shows a printed transmission from 1466, along with the most important successful printed



The exhibit shows manuscripts and prints from the time of Martin Luther. PHOTO: THOMAS KUNZ

versions of the German Bible before Luther. Handwritten documents and prints from the University library's stock provide great visuals. The exhibit will run from October 15, 2017 to January 19, 2018 in the Volkshochschule (VHS) Nördlicher Breisgau in Emmendingen. Free admission. For opening hours, visit the VHS Website:

> www.vhs-em.de

www.vhs-em.de



The employee suggestions system uni'ideen has begun – and offers staff members the chance to design operations at the University in a new way

Employees at the University of Freiburg have a lot of detailed knowledge and a great deal of experience in their areas of expertise. Sometimes they discover new and improved procedures or structures. But whom can they address with their suggestions and ideas? In order for people's ideas to land in the right place, the employee suggestion system uni'ideen has been created. Using the online platform, staff members can make suggestions for improvements in administration, service and technology. They also have the possibility of discussing these changes and developing them together. Sonja Seidel spoke with Felix Eichhorn from

the Department of Personnel Development and Quality Managment and Christine Jägle from the staff council, both of whom developed the employee suggestion system.

uni leben: Mr. Eichhorn, Ms. Jägle, how did you come upon the idea to create an employee suggestion system?

Felix Eichhorn: Our starting point was a 2015 survey in which employees expressed an interest in further developing work processes. In your own area you can typically incorporate your ideas through official channels, but when it comes to other organizational units, you often run into obstacles. Besides, in addition to the selective surveys, we wanted to provide the opportunity for

people to continuously incorporate their ideas and to be able to convey them to the rectorate as well. We were able to find a way through the employee suggestions system uni'ideen; at the same time we hold our employees accountable. The idea alone isn't sufficient, but rather it should be submitted in the form of a suggestion with a description of the starting position, its improvement, its implementation and its potential benefit.

Christine Jägle: We are currently testing the employee suggestion system with a three-year pilot phase and hope, of course, that the ideas start to flow.

What happens when someone makes a suggestion?

Eichhorn: The worst thought during the conceptual phase was to install a kind of mailbox in which employees can throw out their suggestions only to be told six months later: "will be implemented" or "will not be implemented". We think it is important to create a process that is as transparent as possible and to support a mutual effort for improvement. Together with the Department of Knowledge Management, we developed a system that doesn't exist at any other university to my knowledge. The suggestion is published on the intranet where every employee can see it, leave comments and further develop the idea. The idea generator can decide for himself or herself as to whether his or her name appears alongside the suggestion or not. Lastly, the suggestion and all its comments are placed before a commission to decide whether it will

be recommended for implementation or not. The commission then publishes a statement online as well.

Jägle: We in the staff council find it important that the department impacted by the suggestion should be involved in considering it. Oftentimes structures are so rigid and inflexible that it is hard to be open to new ways of thinking. That is why the department has to take a position on the suggestion before the commission can consider it. Six months after its implementation, the department has to give feedback once again. A department can certainly decide not to implement a suggestion, but it has to give reasons why not.

Who sits on the commission?

Eichhorn: It consists of a representative pool across all staff: The chancellor and the staff council both have a permanent seat. In addition, other employees from all professional groups and all work areas impacted by the employee suggestion system participate. That means two people from the administration and one from technology, the university library and the computer center. We also made sure various rungs in the hierarchy are represented. A change is planned every two years. A portion of the employees remains in the commission and new people join as well. That way, we maintain a certain level of experience in the group, but also ensure that new ideas come in as well.

Why should employees submit their suggestions?

Jägle: We spend a great deal of our time at work. It is only natural that we would want to design it in the best possible way, working toward constant improvement of the way we do things. There's a little thank-you gift from the Unishop for every implemented suggestion, but the motivation should lie elsewhere.

> www.uni-freiburg.de/go/uni-ideen

A journey through the region

Strap on your shoes, pack your bag and off you go on a medieval exploration through the border triangle



Strasbourg Cathedral

The journey begins in Strasbourg, France: The cathedral located there is a Roman Catholic church and is one of the most significant cathedrals in European architectural history. With a height of 142 meters, the tower was the highest one built on the European mainland during the Middle Ages. The Strasbourg Cathedral has a long construction history. Beginning in the 12th century, it wasn't complete until the end of the 16th century. Due to the long construction period and ever-changing architects, the blueprint was changed multiple times and implemented differently, depending on who was in charge. As a result, individual structural elements emerged that were, in and of themselves, perfect, but in its entirety does not create a harmonious picture. Nevertheless, or perhaps because of it, the Strasbourg Cathedral, with its characteristically asymmetric form, has remained emblematic of Strasbourg and of the entire Alsatian region.



Hohenburg Abbey and Saint Odilia

After Strasbourg, the journey continues around 40 kilometers southwest to Hohenburg Abby and the Saint Odilia. According to legend, the patron saint of Alsace and evesight was born blind in the 7th century A.D. and was banished by her father. The mother secretly gave her away to an abbey to be raised there. At the age of 12, Odilia was baptized and, by some miracle, could suddenly see. Because she no longer harmed her own family's reputation, she asked her brother if she could come home again. When her father learned of Odilia's return, he angrily killed his own son with a rod. He regretted the act so much that he turned his castle into an abbey and named Odilia its first abbess. The abbey, which is fully open to the public, is known today as the saint's largest memorial site. An interior building houses the sarcophagus with some of Odilia's relics.

Cologne Cathedral, Notre Dame, Sistine Chapel: The Middle Ages broughtforthmany significant structures – also in our area. In a new release entitled Erinnerungsorte des Mittelalters am Oberrhein (Memorial Sites in the Middle Ages on the Upper Rhine), researchers show that the ornate cathedrals of Freiburg and Strasbourg are not the only impressive sights worth seeing from the Middle Ages in the border triangle. Several historically valuable architectonic gems are not far from our very doorstep – from picturesque castle ruins to unusual libraries and modern monuments in Freiburg's city center.

by Jannis Behnke

Memorial Sites during the Middle Ages in the Upper Rhine

The new release Erinnerungsorte des Mittelalters am Oberrhein (Memorial Sites in the Middle Ages on the Upper Rhine), stems from a Saturday university lecture with the same title that introduces several of the border triangle's most significant structures and history in order to celebrate the 75th anniversary of the Department of National History at the University of Freiburg. As editor, Jürgen Dendorfer, Professor for Medieval History collected the speakers' lectures into one volume.



Classics Library in Schlettstadt

25 kilometers south in a small town called Schlettstadt with yet another Alsatian emblem: The Classics Library is considered one of the most significant cultural treasures in the region and consists of two individual book collections. There is a library from the old Latin school in Schlettstadt. It was renovated during the 15th and 16th centuries through foundations and an endowment from former teachers and alumni, thereby receiving its humanistic image. There is also a building that stores the private library of the scholar Beautus Rhenanus that he granted his hometown. The Rhenanus book collection is the only larger classics library that has been nearly completely preserved. For this reason, UNESCO listed the library in its Memory of the World Register in 2011. Since 1889, both libraries' valuable stacks have been unified under one roof: in the former market hall near the Gothic church St. George, serving not only as library but also museum.

The House of Zähringen

We return to Germany on the trail of one of the largest medieval families in the former duchy of Swabia. The House of Zähringen or, put another way: The family of the Bertholds



who are considered the founders of the city of Freiburg as well as the erectors of the Freiburg Cathedral. Duke Bertold V., the last true member of the House of Zähringen, passed away at the beginning of the 13th century. To this day, many structures and symbols coming from or commemorating that time adorn Freiburg. In particular, the Castle of Zähringen in the urban quarter with the same name along with the equestrian statue at the Bertold fountain refer to the city's founders. The contemporary monument in the city center had a predecessor from the early 19th century that was erected for Freiburg's transition to Baden. After the British destroyed the so-called fish fountain during an airstrike in November 1944, the sculptor Nikolaus Röslmeir rebuilt it between 1956 and 1965 using a new blueprint. Visitors can read the inscription: "Den Herzogen von Zähringen, Gründern und Herren von Freiburg im Breisgau" ("Dedicated to the dukes of Zähringen, the founders and lords of Freiburg im Breisgau").

In search of the tribe

Six volumes of the German family name atlas help genealogical research

An unparalleled cultural treasure: Authors from the German family name atlas (DFA), a joint project by the Universities of Freiburg and Mainz, have analyzed 60,000 family names in great detail. The multipaged tome provides information, among other things, about where your own tribe originates, how and where they have spread today and which professions your ancestors practice centuries ago. In 2017, the sixth and final volume was finally published after twelve years of work. Rimma Gerenstein asked Dr. Kathrin Dräger what contemporary family names reveal about given names in the Middle Ages and what parents who wish to give their offspring a particularly unusual name, should know.

uni'leben: Ms. Dräger, how often are you asked by friends and family to do private name research?

Kathrin Dräger: That depends. If it is about selecting a child's first name, most of them are reluctant to ask. Most likely, parents don't want a researcher butting in with her research for such a private and emotional decision. But when it comes to last names, it's a different story. I am often involuntarily the center of attention at a dinner party, having to continue my professional life after hours. Sometimes I feel as if I am squished between two book covers with the word "name dictionary" on them.

We don't even have to consult you at parties anymore: with the most recent release with the sixth volume, the DFA project is now complete. What can I find out about my last name if I snoop around in the books?

The DFA is an atlas, not a dictionary. That means you won't find entries in which it is only about the meaning of a specific name. We certainly do explain which names, for instance, originate



When Kathrin Dräger tells people at parties that she is a name researcher, a line of curious listeners starts to form – as if she were squished between two book covers with the words "name dictionary" on them. PHOTO: PATRICK SEEGER

from a profession (Winzer, Reber), from given names (Jakob, Jäck) or origin and dwellings (Preuß, Wiese). For the most part, however, the books have maps that show the names' proliferation. You can learn, for instance, that people who are called "Mayer" and "Maier" tend to live in Southern German and that their namesakes "Meyer" and "Meier" have a different spelling and tend to live in the North. For those who conduct genealogical research, that is valuable information: You can see at a glance where further branches of your tribe reside and where it might be worth taking a look in the archives.

The DFA provides information on over 60,000 names ...

... and in Germany there are around 850,000 family names registered. As you can see, it is just a sliver of them all. But it is the sliver with the most common names that also show the most interesting proliferation. You can download an index on our homepage for free and discover if the volumes contain your own name.

The latest volume deals with family names that have emerged from first names centuries ago. Which ones are the most common?

The most common male name is Hartmann and that is an excellent example of the phenomenon that you see throughout the entire volume: A lot of first names in the Middle Ages serve as family names today, but they are no longer used as first names. No one is called Hartmann anymore, and no one would christen his or her child Nietzsche or Nickel, which are short for Nikolaus. That's what's great about this volume: We have created a reflection of first names during the Middle Ages and Early Modern Ages that has never existed before — including multiple varieties of any given name. It is a true cultural treasure.

During the Middle Ages the names Hartmann or Gertrud were popular. If I go to the playground and call out the names "Emilia" or "Theo", about ten kids would turn around and look. Why is it that certain names are trendy at certain times?

First, you have to know that that's a false impression. The concentration of names during the Middle Ages was a lot different: It could be that 25 percent of the men in the same city are called Johannes, another 15 percent Nikolaus and 20 percent of the women are called Elisabeth. Today, however, those first names that are represented at the top of the list in Germany only make us three percent of the entire birth year. That these names seem to be everywhere could be because fashionable names orient themselves in certain patterns. They build clusters, so to speak. If Leon is the number one name, we also have a Lea. That both of these names do not have the same etymological origin doesn't matter. The main thing is they sound the same: Emilia gravitates toward Sophia, Pia and Mia.

The actual naming has nothing to do with the one during the Middle Ages, then: The individual is celebrated. People go to great lengths to give their children the most unusual name possible. How would you advise expecting parents?

I would avoid trying to transmit a specific worldview with the child's name. If a couple who loves classical music calls their son Johann Sebastian, that incites a level of desire that can never be fulfilled. A child named Socrates is also rather problematic outside Greek-speaking areas. Besides, parents should make sure that their child's name is not so unusual that he or she has to constantly spell it or correct its pronunciation. That goes against the need for being as individual as possible, but it's more practical. What can also create undesirable outcomes is when the first and last names are combined in an odd way. My uncle was almost going to be named Bernhard Diener. Luckily, my grandparents noticed it in the nick of time.

> www.namenforschung.net/dfa/projekt

Workplace health

Lecturers from the master's degree program "Interdisciplinary Health Promotion" discuss ways in which people can address the body's needs in every day situations in a series of articles. This time it is about proper nutrition.

Eating a balanced diet, drinking enough liquids

by Emilie Häberle

Did you grab a quick sandwich for lunch yet again? In our every day lives as professionals and students, it is not always easy to pay attention to a balanced diet and sufficient liquids. But it is exactly these factors that are important to be able to get things done with concentration and to prevent fatigue.

A balanced and nutritious breakfast is key for a good start to the day. For those who prefer bread, they can fall back on high-fiber whole grain varieties. Instead of marmalade, they can use vegetables as a topping, nutrition expert Prof. Dr. Daniel König from the Department for Sports and Sport Science at the University of Freiburg advises. Pre-packaged cereals often contain a lot of sugar. König recommends: "If you want to be certain that



A balanced and nutritious breakfast is key to having a good start to the day.

PHOTO: AFRICA STUDIO/FOTOLIA

no unhealthy surprises are lurking in the package, put the cereal together yourself."

If your stomach is growling before lunch or you have to overcome that mid-afternoon slump, nuts are a good choice: "They have a lot of calories and fill you up quickly. At the same time, they have valuable vitamins and fatty acids," explains the nutrition expert. Vegetable sticks or fruit slices are also good options to stave off the munchies. "However, it is not advisable to have too many snacks between meals because they continuously stimulate the digestive process."

For lunch the rule is typically diversity: whether it is a cafeteria meal or preferably a light salad – it is ultimately about the variety of products that provides the body with optimal nutrients and energy. "You can use smartphone apps to easily check which dishes are balanced and recommended," says König.

In order to provide the body with enough liquids throughout the day, you should always have a carafe of water or a bottle of mineral water at your desk – put sweetened drinks aside. For coffee lovers, we have some good news for you: according to the latest research, three to five cups a day are harmless.

"Interdisciplinary Health Promotion"

Starting the 2017/18 winter semester, the University of Freiburg and Furtwangen University are offering a partnership master's program "Interdisciplinary Health Promotion". It is designed for everyone who already has basic training in health promotion, prevention or rehabilitation and seeks to pursue an advanced degree part-time.

www.igf-studium.de



Svetlana Berdyugina, new director for the Kiepenheuer Institute of Solar Physics, is searching for extraterrestrial life

by Jürgen Schickinger

Is something out there?" Prof. Dr. Svetlana Berdyugina asks space. She is the first female professor of physics in the more than 500-year history of the University of Freiburg. The astrophysicist has been heading the Kiepenheuer Institute of Solar Physics (KIS) since April 2017. At the institute, Berdyugina, who has had a turbulent scientific career, explores

magnetic solar activities and those of other stars. Her greatest scientific wish poses a huge challenge, however: "I want to find extraterrestrial life."

Berdyugina doesn't expect to run into bulbous-eyes Hollywood aliens with enlarged heads. It's more like space bacteria that are floating around out there. They may have even already been here: "Life on Earth could have come from the universe's seed," claims Berdyugina. However, it could have just as well emerged independent of external influences. Are humans the Earth's offspring or a derivative of some universal germ? "We don't know

where we come from," emphasizes the researcher. Finding extraterrestrial life would answer a lot of important questions. Candidates with close habitats would be the neighboring planet of Mars and the icy moons of Jupiter and Saturn. Outside the solar system are other promising exoplanets, those that orbit around stars other than the sun.

Exoplanets reflect portions of starlight off their surfaces and atmospheres. Berdyugina and her team have been able to make this weak shimmer visible for the first time. The reflections could reveal a lot: Each material that casts back starlight, changes the po-

Svetlana Berdyugina works on developing better performing telescopes with whose help the surfaces of planets from other solar systems can be charted.

PHOTO: PATRICK SEEGER

larization in a special way – a characteristic of the rays. A spectral analysis could expose what gets in their way, explains Berdyugina: "In this way, polarimetry allows us to discover traces of life in the atmosphere." All living beings give off typical gases. A high amount of oxygen, for instance, indicates life, says the astrophysicist. "In order to be certain, however, we have to use a variety of methods and check a ton of criteria first."

Berdyugina was born in 1964 in the southern part of the former Soviet Union. She completed her doctoral thesis in Leningrad. Thereafter, she conducted research at the Crimean Astrophysical Observatory on the Black Sea peninsula. Then the Eastern block collapsed. It became more difficult, including in academia. Berdyugina remembers both adventurous and difficult times: "I had to leave in order to remain in research." She found a position in Finland and was amazed about the opportunities available to her: "Wow, they had everything!" She pursued a professorship at the University of Oulu in Finland and at the ETH Zurich in Switzerland, fellowships in the United States and numerous, highlevel international awards.

Alien amongst physicists

Berdyugina fell in love with Freiburg during her first visit in 2002. When her position ended in Zurick, she looked around for a new position here. She first went to KIS in 2008, at first as deputy director. At KIS she particularly appreciated the excellent research and the staff's attitude there. "They love their work and feel connected to one another like a great big family." The KIS director is now planning her next big steps: "In order to find life on exoplanets, we need to develop new technologies for better telescopes." The forerunner is the world's largest solar telescope DKIST on Hawaii with his new-fangled four-meter parabolic mirror. KIS has contributed measuring devices for it and belongs to a consortium that plans even better performing telescopes: "ExoLife Finder (ELF)" and "The Colossus" should start working with groups of DKIST-like mirrors. With them they would be able to detect reflections of exoplanets so well that they would even be able to chart their surfaces

"The lack of women in physics is culture-based," says Berdyugina. "It would be important to change role models." She has often felt like an alien herself amongst her many male colleagues. Meanwhile she feels just as at home among them now as she does in Breisgau. Its landscape was motivation enough to fulfill an age-old dream. Berdyugina has always wanted to paint. In Freiburg she has finally gotten a jump on it by attending an art school. When she retires, she wants to continue with painting. She has crystal clear wishes there too: "I want to be able to master this art form."

From the center of the world to the heart of the Black Forest

As a fundraiser for the University of Freiburg, Peter Allmann maintains contact with donors

by Sonja Seidel

hen Peter Allmann talks about his hometown, his eyes become distant. "If I had never left, I would have started to think that the Cologne Cathedral was the center of the world," he says, laughing. He spent half his life amidst the shadows of Cologne's landmark. He completed his degree in art history at the university there and worked just two minutes by foot from the cathedral. At some point, it was time to break away. The fifty year old arrived at the University of Freiburg where he has been building relationships with donors as a fundraiser in the Department of Public Relations and Event Management since September 2017. His role is to convince them to invest in funding projects. "My job is to excite people about something that doesn't exist yet."

Achieving something together

To build relations with people and achieve something together: that's what motivates Allman. During university, he worked at a gallery in Cologne in which he flipped through portfolios of aspiring artists and evaluated them. The business was hard. He had to tell artists straight to their faces that their work wasn't good enough to be shown. "That kind of work was a dead end for me." After completing his degree, he

switched to the Museum Ludwig in Cologne that is considered one of the most important museums of modern art throughout all of Europe.

For seven years, he headed the booster club, organized membership administration, kept the books, maintained contact with the museum's board and came into contact with fundraising for the first time. During a business trip to the United States, he saw how his American colleagues initiated contact with donors and that during a time when fundraising in German cultural institutions was dying. Back in Cologne, he decided to continue his education in fundraising while working full-time. "A lot of people think fundraising is the equivalent of begging. But it is not primarily about pulling in money. It is about establishing a connection and campaigning for something you can't do by yourself."

At Museum Ludwig he introduced the notion of fundraising and developed, among other things, a donorfinanced project for students at the Universities of Cologne and Düsseldorf to develop a tool that guides their peers through the exhibits. Thereafter, it was time for something new. Allmann left his hometown with his wife and son. They first went to Münster, then Hanover, then finally Kassel. At the Hanover University of Music, Drama and Media he built a scholarship program. In Kassel Allmann worked as a fundraiser for the large art exhibit "documenta". His wife then received an



offer as director of the Museum für Neue Kunst in Freiburg.

Instructive change in location

Allmann sometimes thinks longingly back to his time in Cologne, missing the ability to stroll along the cathedral grounds. The many changes in location have taught him a lot, but it has also been exhausting to have to find new roots each time. "When you arrive to a new city, you bring a part of your personality with you and gain an additional part too." He has learned a totally new vocabulary in Freiburg. "For instance, the word 'nosh' ('Vesper')," he says with a wink.

At the University of Freiburg Allmann will first focus on the alumni. Together with the alumni office, he is developing an appropriate funding concept that will attract former students to their alma mater. Of all the tasks in his new position, he finds the freedom in it particularly appealing: "That the University can decide for itself who it would like to be – beyond its state-mandated role as educator – how it wants to develop and which function it wishes to take on for society."

Arrived: Peter Allmann is developing new funding concepts at the University of Freiburg.
PHOTO: PATRICK SEEGER

Achievements

The physicist Dr. Robert Bennett from the University of Leeds, England, has received a Humboldt research grant for post-docs from the Alexander von Humboldt Foundation. The foundation supports highly qualified scientists from foreign countries at the beginning of their careers with the scholarship. In his project at the University of Freiburg, Bennett will examine the Casimir forces between neutral metallic bodies that play a significant role in nanotechnology. Dr. Stefan Buhmann from the Institute of Physics will be the host.

Dr. Ivo Coca Vila at the Pompeu Fabra University in Barcelona, Spain, has received a Humboldt research grant for post-docs from the Alexander von Humboldt Foundation. The foundation supports highly qualified scientists from foreign countries at the beginning of their careers with the scholarship. At the University of Freiburg Coca Vila will tackle the boundary between criminal wrongdoing and other forms of wrongdoing, in particular with the socalled police misconduct. He will run the gamut from main historical, dogmatic positions in the late 18th century up to the modern discussion about the limitations of criminal law and its relationship to cases of misdemeanor. Prof. Dr. Michael Pawlik from the Institute of Criminal Law and Criminal Procedure Law will be the host.

The Carl Zeiss Foundation has selected two post-doc research projects at the University of Freiburg for its junior development program. For up to two years both post-doctoral students Dr. Constanze Lamprecht and Dr. Tessa Quax will receive an annual sum of 100,000 euros. The Carl Zeiss Foundation funds research work in the natural and engineering sciences age of the protein Hsp70-1A in the cell membrane that only occurs in cancer cells, Lamprecht will examine the interaction between proteins and lipids on the singular molecular and singular cell level. Quax is studying the molecular mechanisms of signal transference from the surrounding environment on motility structures in the model organisms H. volcanii and M. maripaludis. Both are related to archaea found in the human intestinal tract. Established genetic, biochemical and microscopic research methods exist for both. The findings are meant to contribute to better understanding archaea's ability to populate the human intestines and interact with their surroundings.

The biologist Prof. Dr. Tim Higham from the University of California in Riverside, USA, has received the Humboldt research grant for experienced scientists. The scholarship is directed toward highly qualified scientists from foreign countries. At the University of Freiburg Higham will examine how a day gecko species from Madagascar stick to plant surfaces. Geckos are known for their ability to stick to slick surfaces and have contributed to bionics as a result. Not much is known about their surface adhesion in natural settings. Higham will consult over 6,000 plant species in the botanical garden at the University of Freiburg. Prof. Dr. Thomas Speck, director of the botanical garden, will be the host.

Dr. Lena Illert, senior physician at the Department of Internal Medicine I at the University Medical Center Freiburg, has been awarded the Eleonore and Fritz Hodeige Foundation prize for her work in the area of signaling research. The 5,000 euros includ-

through this program. Using the stor- ed in the funding award will support her basic research on hematological

> The Institute for Literary Research, an independent initiative by Czech literary scientists, has received the Otokar Fischer Award for the first time ever. The award winner is the Freiburg literary and cultural scholar Dr. **Tilman** Kasten for his dissertation 'The critique of historicism versus the history of salvation – The Wallenstein novels by Alfred Döblin and Jaroslav Durych" presented in 2014. The award's objective is to make the most significant German-language research along with work published in Germany about Bohemian research more visible. That includes Czech literature, language, music, visual arts, theater, film, architecture, culture and cultural history. It also seeks to strengthen the dialogue between Czech and German Bohemian scholars.

> Dr. Ekkehard A. Köhler, executive research association for the Walter Eucken Institute, has received a Roman Herzog research award, the Social Market Economy Prize 2017. The foundation granted Köhler second place for his dissertation "Essays on Fiscal and Monetary Policy". The award is given every year for exception research work on relevant regulative issues and is accompanied by a lump sum totaling 35,000 euros. Köhler will share a portion of the award money with researchers who placed first and

> Prof. Dr. Anna Köttgen, Director of the Institute of Genetic Epidemiology at the Medical Center - University of Freiburg, will receive the Franz-Volhard Award of the German Society of

Nephrology (DGfN) this year. The prize that comes with 10,000 euros in prize money is awarded to support and decorate outstanding scientists in nephrology research. Köttgen explores the physiology and pathophysiology of complex human characteristics and diseases that arise from a combination of genetic predisposition and environmental factors. She identifies genetic and environmentally specific risk factors in particular for kidney diseases and metabolism disorders.

The German Diabetes Society has awarded Dr. Katharina Laubner, senior physician in the Department of Endocrinology and Diabetology at the University Medical Center Freiburg with a 7,500 euro project advancement prize. The research she supervises examines a new endoscopic method for treating Diabetes mellitus and achieving weight reduction.

Dr. Arthur Schmidt, director of interdisciplinary gastrointestinal endoscopy at the University Medical Center Freiburg, has been awarded the Adolf Kußmaul Prize by the South-West German Gastroenterology Association. Schmidt has received 5,000 in prize money for his study of endoscopic full wall secretions with which, for instance, tumors can be removed from the walls of the large intestines.

Dr. Ralf Welsch from the Institute of Biology II has received the "George Britton Award for Young Investigator" from the International Carotenoid Society. He has received the prize for his extraordinary contributions in research and international networking for the foundation and further development in the area of carotenoids, a class of fatsoluble pigments with a vitamin A function.

Dr. Constantinos Zamboglou, assistant physician at the Department of Radiation Oncology at the University Medical Center Freiburg was selected for the three-year Berta Ottenstein Advancement Program for Clinician Scientists. His planned project should deliver further insights into planning individualized and personalized radiation therapies for patients who are affected by primary prostate cancers.

Appointments

Faculty of Philology

The rector has named Prof. Dr. Robin Curtis, Heinrich Heine University Düsseldorf, effective as of September 1, 2017, as professor for cultural media studies at the Institute for Cultural Media Studies.

The rector has named Prof. Dr. Judith Frömmer, Ludwig Maximilian University of Munich, effective as of August 1, 2017, as professor for Roman Literary Science (Franco-Roman and Italian studies) with a concentration on older periods in the Department of Romance Languages and Literatures.

Faculty of Humanities

The rector has named junior professor Dr. Nadja Germann, Department of Philosophy, effective as of August 30, 2017, as professor of philosophy.

The rector has named Dr. Anna Meiser, Department of Ethnology, effective as of October 1, 2017 for the duration of two years as junior professor for ethnology.

Faculty of Mathematics and Physics

The vice-rector has named Dr. Katrin Dulitz, Institute of Physics, effective as of August 1, 2017, for the duration of three years, as academic councilor.

The rector has named Prof. Dr. Michael Thoss, Friedrich Alexander University of Erlangen-Nürnberg, effective October 1, 2017, as professor for theoretical physics at the Institute

Faculty of Biology

The rector has named Dr. Barbara Di Ventura, Ruprecht Karls University of Heidelberg, effective as of September 1, 2017, as professor for biological signalling research at the Institute of Biology II.

Faculty of Environment and Natural Resources

The rector has named Prof. Dr. Andreas Christen, University of British Columbia, Canada, effective as of September 1, 2017, as professor in environmental meteorology at the Institute of Earth and Environmental Sciences.

Faculty of Engineering

The rector has named Dr. Joschka Bödecker, Department of Computer Science, effective as of September 1, 2017, for the duration of four years as junior professor in neurorobotics.

The rector has named Prof. Dr. Hans-Martin Henning, Karlsruhe Institute of Technology, effective as of July 10, 2017, as professor for solar energy systems at the Institute of Sustainable Technical Systems.

The rector has named Dr. Phuong Ha Cu Nguyen, Department of Microsystems Engineering, effective as of August 4, 2017, for the duration of three years, as academic councilor.

The rector has given private lecturer Dr. Marco Ragni, Department of Computer Science, for the duration of his teaching authorization at the University of Freiburg, the designation 'unscheduled professor'.

The rector has named Prof. Dr. Anke Weidlich, University of Offenburg, effective as of July 10, 2017, as professor for energy distribution technology at the Institute Sustainable Technical Systems.



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Prof. Dr. Stefan Weber, Institute of Physical Chemistry

Ursula Wöske,

Central University Administration

40th ANNIVERSARIES

Walter Willaredt,

Central University Administration



Above the clouds: Researchers and start-ups showed how wind can produce electricity during flight at a conference in Freiburg. The stunt kites or drones use the particularly strong wind that constantly blows at an altitude between 200 and 1,000 meters. The experts assume that the first products with more than 600 kilowatts will be ready for market in three to seven years. That is the equivalent of a medium-sized windmill that can cover the energy needs of 1,500

Upon further consideration

Three points to success

A German business newspaper has published a ranking that shows which universities bring forth the most billionaires. Should the University of Freiburg strive for first place -Nicolas Scherger argues with himself.

Pro: Rich and richer

The insight has hit the academic cosmos like a pin prick to a balloon: All of those wonderful collegiate biotopes exist for the sole purpose of educating people who then go out there, make a profit and pay taxes. The more, the better for the universities. It is in their existential interest to support the accumulation of capital. Preferably for their own people. It is particularly clever to plant the idea in the heads of their students that they are eternally and singularly indebted to the university for their later careers and are bound to their university family for a lifetime. May the donations keep flowing with abundance.

It is understandable then that the University of Freiburg has to rank of the rest of the detritus. well in the list of billionaires who have studied here. That is possible with a three-point plan. First: Define criteria. It's not only the billionaires who have actually studied who count. It is sufficient if they were also only here for a visit to Freiburg once at a

student party. Second: optimize admissions. Money attracts money. We all know that. Those who can prove their parents have an annual net income of at least five million euros and can name another 20 high net worth friends are eligible to enroll.

They can't actually study here, but they are allowed to come to the parties. Third: Reduce the range of fields. The disciplines with the most potential to bring forth billionaires can be counted on one hand. Get rid

Originally, the plan had a fourth point too: Introduce collegiate plutocracy. But that one was scraped. The experiences of nations with billionaires at the top have been everything but good.

Contra: Poor, but likable

less attempt to measure PHOTO: SASHKINIFOTOLIA that which is immeasurable -

and to hide how arbitrary such university ranking lists are, no matter how they are determined. There is only one way to boost your reputation with one: that of refusal. How likable a university must be to occupy last place in the billionaire ranking list: social, idealistic, sustainable. For those who think differently, billions, we'll just ship him or her off they are about as welcome in Freiburg as an Orc in the shire.

The University of Freiburg must therefore ensure that it never brings

Oh right. Yet an- forth a billionaire. We can achieve it other ranking. by following the three-point plan: Another sense- Define criteria. The University whose core is made up of professors strives for academic insights, not profit. So they are out of the woods. All other members don't count. Second: Optimize the appointment guide. Money attracts money, as we know. So wealthy researchers have to stay outside. Third: Reduce the range of fields. The University of Freiburg luckily does not have a lot of disciplines with the potential to bring forth billionaires. It is best if they stay away, claim the detractors.

> By the way, the plan also had a fourth point, but that one is secret: In the event that a ranking-relevant person slides under the radar with to a partner university from Eucor – The European Campus.

Masthead

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Picked-up

A dwarf amongst giants

2,000 scientists from around the world discussed the future of the forest and the effects of climate change during the September 2017 congress put on by the International Union of Forest Research Organizations. A young linden tree is what is left of the spectacle whose branches are timidly reaching toward the sky above the Herder Building. Sonja Seidel asked how it was doing.

uni leben: Hi, linden tree. Have your roots gotten accustomed to the new soil?

Linden tree: Well, it doesn't happen that fast - you humans are

always in such a hurry, yet you talk about sustainability all the time. I need a few weeks before my roots can really take hold. If only I didn't have such neighbors.

What's up with them?

Totally arrogant types, those sycamore trees. So full of themselves because they can grow up to 50 meters and live a couple thousand years. They're hogging all my sunlight! I can't compete with them, what with my scraggly trunk and a handful of leaves. And then that congress president pulled off a few of them and claimed I had a fungus.



Oh, but it's not contagious, is it?

Okay, just between you and me. It's really just a beauty defect, but those students should keep thinking they'll get an itchy rash if they even think of picnicking beneath me or want to carve their initials into my bark as a sign of love to their beloveds. A fungus is almost as good as being a whipping willow.

You've read Harry Potter?

You've got to do something if you can't move an inch. But ever since I've been standing here, I haven't had a minute of peace. How can you educate yourself under such conditions?

But it's not about your intellect. The researchers planted you to set a signal about the effects of climate change.

Great. And for that I get to allow the pollution from Freiburg's traffic swirl around my bark? Who knows? Maybe I'll just move again. A couple of pines wanted to escape the Black Forest because it has gotten too dry and hot there. I bet there'll be a nice spot for me then.

by Sonja Seidel