



UNIVERSITÄT BONN

forsch

University of Bonn Magazine

Winter 2021



Sustainable & connected

Digital cooperation and teaching
After the flood came the helpfulness
Current construction projects

Forschungsförderlich

„Die Universität Bonn zeichnet sich durch exzellente Forschung und herausragende Wissenschaftler aus. Ich weiß aus persönlicher Erfahrung, wie wichtig die Förderung und Unterstützung der Spitzenforschung ist, damit innovative Ideen eine Zukunftsperspektive haben.“

Professor Dr. Dominik L. Michels,
Universitätsprofessor für Informatik und Mathematik, Stanford University, USA und KAUST, KSA,
Alumnus der Universität Bonn

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Editorial



Photo: Volker Lannert

Dear Readers,

We are coming to the end of another year dominated by the coronavirus – with nobody knowing how it will play out. The pandemic was already featured in our University magazine this time last year. Back then, a photograph on our cover encapsulated how the pandemic had also intruded into University life, just as it had into virtually all other areas of our lives. This image has now scooped first place at the Germany-wide PR Bild Award 2021 (in the “Lifestyle” category, which is telling). Explaining their choice, the jury said: “The picture captures the life of students during COVID-19 measures extremely authentically. It’s easy to feel empathy for their situation – in the literal sense of the word.” This is a fantastic accolade for photographer Volker Lannert, who took the photo for us, and our picture editor Gregor Hübl. Many congratulations to both of them!



2021 was not just about the coronavirus. While we at the University were required to keep our physical distance due to the pandemic, we also grew closer together: the flooding in July affected many of the University’s staff, students and members and cost a fair few of them all their worldly possessions. The University community stood up to be counted on when it mattered, with helping hands on the ground, with material and equipment donations, with special leave and around €60,000 in funds raised. You can read more about these dramatic days and the help that followed in their wake from page 4 of this issue.

Networking was not just confined to flood relief. However, cooperation has been right at the top of the agenda in research, teaching and healthcare. We have put together a few examples: digital field trips, collaboration on the Maya language project and an encounter between students and star journalist Dunja Hayali. Networking also plays a role in sustainability at the University of Bonn, where the new “Team N” (N stands for Nachhaltigkeit - the German word for sustainability) has brought together all active campaigners from across the University in recent months. Finally, we congratulate Mieke Kröger, the University of Bonn student who rounded off a fantastic season with a gold medal at the Tokyo Olympics.

*This issue marks the start of a new, more digital and more sustainable era for *forsch*. you will be receiving the issue as a newsletter and can find additional content at uni-bonn.de/forsch, where staff can also subscribe to the printed version if they would still like it delivered to their office. In addition, you will continue to find hard copies at the many stands in and around the University.*

We hope you very much enjoy reading this issue and wish you a peaceful Christmas and a healthy and happy New Year 2022.

*Your *forsch* editorial team*



Photo: Dieter Knieps



Photo: Barbara Frommann



Photo: Volker Lannert



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After the Flood, the Army of Helpers

The University of Bonn supports flood victims from its own ranks



Heavy rain triggered catastrophic flooding in large swathes of Rhineland-Palatinate and North Rhine-Westphalia in mid-July, claiming lives and causing massive damage to property. At the University of Bonn, it soon became clear that members of the University were also in mortal danger and had lost their homes and possessions. Through the “WIR helfen” (“WE help”) campaign, the University management collected donations and provided relief with a minimal red tape.



▲ Massive damage occurred throughout the Ahr Valley.

◀ We visited Dieter Knieps in September. He guided us through Ahrweiler.

Photo: Volker Lammert



Photo: Wolfgang Bialek

▲ After the water drained away, destroyed household goods piled up in the streets.

▶ The next morning, the water is still meters high in the streets, like here in Bad Neuenahr.

▶ Thick mud had spread over all the floors spread. With a bucket The helpers use a bucket chain to transport the mud into the open.

One Wednesday in July, everything changed for University employee Dieter Knieps and his neighbors in Ahrweiler: a wave of floodwater on an unprecedented scale flushed all sense of normality out of what was usually such a tranquil place. The water came at night, killing many people and animals, flooding houses and sweeping away belongings. It destroyed power lines, railways and roads.



Photo: Dieter Knieps

Dieter Knieps is in charge of general building services and renovation in the Technical Services department, helping to meet the University's growing need for space and maintain its existing premises. Back on July 14, he had no idea that he would soon have to refurbish his own home. An exceptional amount of rain had been forecast for that Wednesday, and it was "bucketing down." The River Ahr began to swell quickly, and flooding was imminent.

Dieter Knieps says: "We see this kind of thing quite a lot. In the evening, I went down to the riverbank with my

wife, my daughter and my dog to take a look. The Ahr was indeed very high, so we thought: we should probably put the laundry on top of the washing machine in the basement so that it doesn't get wet." On their way home, the trio are met by a fire engine. A loudspeaker issues a flood warning and tells people to stay away from underground garages. The Knieps family go to bed unperturbed – after all, they don't have an underground garage.

During the night, they are woken up again. The neighbors are shouting: "The water's coming! Get your cars out



Photo: Wolfgang Bialek



the way!” People in Ahrweiler have seen this before – back in 2016, the water level rose especially high. Dieter Knieps and his wife Simona think about how their neighbors will get their cars safe. A small, brown rivulet is flowing along the curb. Just a short time later, it has grown into a raging torrent. Then the power goes out.

Knieps parks his car at the other end of town – high enough up, as it later turns out. On the way back, his wife finds herself trapped by water along a parallel street. Knieps says: “The father of a Kurdish family rescued my wife from the floods and brought her to safety on the third floor.” He himself seeks refuge at a friend’s house, because his route home is blocked by the sheer volume of water.

They use their cell phones to stay in touch with his 17-year-old daughter Ida, who has stayed at home with their dog Lotta. She tells a dramatic tale: the basement of their small house in front of Ahrweiler’s town walls is already full of water, which is now surging through the first floor. The water is still rising. “Those were a terrible few hours,” Knieps says. He has to force himself to relive the events of that night.



Photo: Volker Lannert

◀ We visited Dieter Knieps in September. He guided us through Ahrweiler. With us was his dog Lotta.



Photo: Volker Lannert



Photo: Dieter Knieps

▲ This is what it looked like upon arrival: „Helpers from the University come by. First there were two helpers, then four, and in the end almost 40 volunteers who lent a hand,” says Knieps. Among them were colleagues from the University and his daughter’s school friends. With a bucket brigade, the helpers transport the tough mud from the cellar to the outside. Then the destroyed household goods are carried to the street.

At 2:30 am, his daughter sends him a photo she took from the stairwell. Just below the second floor, a wide brown strip can be seen on the wall. The water is receding! In the early hours of the morning, Knieps attempts to get back to his daughter. Twice he has to turn back and find a different way through because the water is simply too deep. Via a circuitous route, he finally gets home – where the water is up to his navel. And, at long last, he is able to hug his daughter. The two cry tears of joy, ignoring the destruction in the house and the mountain of rubble in the garden.

Over the next few days, people in Bonn have a hard time finding out anything precise about the situation. In a broad swathe from the Eifel mountains to the River Erft, power lines are down and cell towers cut off. In the media, an

increasing number of pictures of destroyed towns and villages are running on a loop.

Back at the University, meanwhile, Facility Management sounds the “all clear” that the University’s buildings had emerged unscathed from the storm. However, the University management is concerned about the members of the University whose homes had been damaged by the flooding. The Rectorate building in Argelanderstraße is receiving a growing stream of updates about the people who have been affected. The Rector, Prof. Michael Hoch, and the Provost, Holger Gottschalk, decide to convene a special task force to prepare emergency assistance.

First, a mass email is sent out, asking all members of the University who had

been affected by the flooding to report to the Rectorate. The University management is keen to get an idea of what help is required. At the same time, work begins on putting together an aid package of unprecedented proportions. Those affected and the people helping them are to be given special leave – specifically, more than the five days specified in law. Loans are to be provided in the form of a salary advance.

The Rectorate also mobilizes all the forms of support at its disposal, such as lending out equipment like dehumidifiers and pressure washers to repair flood damage. An online platform is set up to match helpers with people in need. An emergency childcare service is also organized, as is psychological counseling, while University apartments are put into service as temporary emergency accommodation. In addition, the University launches an appeal for donations at the initiative of Professor Hoch. Christened “WIR helfen” (“WE help”), it allows University staff to have donations deducted straight from their salary.

The Rector’s call does not fall on deaf ears: nearly €60,000 is raised in just a few days. The sum is to be distributed as quickly and fairly as possible to those affected to give them immediate assistance following guidelines approved by the Rectorate. Rector Hoch says: “I’m delighted by the solidarity and willingness to help that this is demonstrating. We’re incredibly grateful to everyone who’s donated. Their generosity and the huge personal commitment of the many helpers are truly impressive.”

A total of 180 University members who had suffered damage as a result of the flood – 79 students and 101 members of staff – answer the appeal to make themselves known. The Central Study Advisory and Counseling Service and the Human Resources division draw up spreadsheets in an attempt to put the unfathomable down in black and white.

Each line represents one person’s fate. “Basement apartment destroyed,” says one; “Home uninhabitable,” says another. One person has lost a close relative. Many students say they won’t be able to sit their exams, need financial support or want to take up the offer of psychosocial counseling. A team of administrators look into every report, note down what people need and put them in touch with contacts who can help them further.



Photo: Dieter Knieps

Dieter Knieps is among those who respond to the Rectorate's call. "Dear Mr. Gottschalk," he writes to the Provost a few days after the disaster. "Unfortunately, I'm at my wits' end. Here at my house in Ahrweiler, everything is destroyed." First of all, he needs some time to repair the worst of the flood damage. Eventually, administrators tell him (as they do all staff hit hard by the flood) that he will receive 20 days' special leave – on full pay, of course. And Knieps has not been left on his own: more and more helping hands find their way to his half-destroyed house. "First there were two helpers, then four, and in the end I had nearly 40 volunteers lending a hand," Knieps recalls. They included University colleagues and some of his daughter's schoolmates. The helpers form a chain of buckets to clear the basement of thick mud and then carry the Knieps's ruined belongings outside onto the street.

And suddenly some more familiar faces appear in the doorframe. Staff from central administration have come to assist, carrying fresh water and cleaning equipment. Among them is Thomas Bongart, who is in charge of removals in Section 4.1. "For me, it was immediately clear that I had to help. With the blessing of our managers, we then got right to it," he says. Their first stop was the mud-encrusted yard of an elementary school in Sinzig. "Armed with a street sweeper and pressure washers, we made the schoolyard usable again." A day later, Bongart and his colleagues are outside Dieter Knieps's house in Ahrweiler bearing nearly 800 gallons (3,000 liters) of water for cleaning. Bongart explains: "We simply worked our way up the River Ahr, from colleague to colleague." At the same time, more teams of University



Photo: Dieter Knieps

staff have been released from their duties and are on their way to help other colleagues.

Some weeks have passed since these days of intense drama. Dieter Knieps is back at work, dividing his days between Bonn and working from home in Ahrweiler. The most visible traces of the flood are gradually being removed. The mountain of rubble has disappeared from the garden, and the street is now passable once again. And yet Knieps still sees a lot of destruction on his walks round the block with Lotta the poodle. The pair stomp through ruined houses to the near riverbank, where the impact of the flood is still unmistakable. The Technisches Hilfswerk (THW) civil protection organization has built a makeshift pedestrian bridge over the river, which Knieps's daughter uses every day to get to school.

The steel remains of the old bridge still lie on the opposite bank, bent like blades of straw. At the Ahrtor gate, mounds of debris are still being removed,



while the THW is building a temporary car bridge next door. Every few minutes, Knieps bumps into people he knows. They say hello and exchange a few words. "The community has grown even closer since the flood," Knieps says. "We look out for each other and help one another wherever we can." And, without question: "People's readiness to help and their compassion, especially among those from the University, have been completely overwhelming!"

A slice of the "new normal" has also returned to the Knieps household: the family have now made themselves comfortable on their undamaged second floor. The power and water are back on ("Hot showers again – fantastic!"). Although the first floor is still very much sporting a bare brickwork look, it already has a makeshift floor for storing things on. And there is even a heater, which can be powered by gas cylinders on a temporary basis. The father, his wife and his daughter gather on their balcony every evening to eat together, Knieps says. "Then we listen to music – sometimes ours, sometimes my daughter's." And, just for a moment, they forget about the challenges that the catastrophe has left behind all around them.

▲ "We" is written on the orange University of Bonn bus. Suddenly, more familiar faces appear in the doorway: Employees of the University administration have set out with fresh water and cleaning equipment to help. (left)
The steel remains of the previous bridge still lie bent like straws on the shore (right).

◆ The mud has to go: In the afternoon also pathways are cleaned.

ANDREAS ARCHUT



Photo: Volker Lannert

“You can’t really compare river levels just like that.”

Thomas Roggenkamp investigates historical floods, including in the Ahrtal valley.

It must have been an unbelievable mass of water that came rolling through the Ahrtal, bringing destruction in its wake. Normally so placid, the River Ahr reached a height of nearly 23 feet (7 meters) near Ahrweiler on July 15, 2021. But how can you place this figure in any kind of historical comparison? To do so, Bonn-based geographer Thomas Roggenkamp has taken a method developed at the professorship led by Prof. Jürgen Herget and applied it to the Ahrtal. The technique makes use of historical photos and old maps, but also in-depth topographical analyses.



Photo: Theresa Sterdl

▲ Thomas Roggenkamp measures the water level in Altenahr following the summer’s flooding

◀ Flooding came to Neuenahr over 100 years ago



Innocuous little streams that become raging torrents have been part of people’s lives since time immemorial, as shown not least by the various high-water marks that you can find in nearly every town or village. They are a good clue to what years saw severe flooding. “Of course, high-water marks are one sign,” Roggenkamp says. “You can see from them how high the river came up.” But the markers on house walls are of little use when it comes to making a comparison. “In many places, the topography changed significantly over the centuries,” Roggenkamp points out. “Rivers were straightened, deepened or narrowed; bridges and houses were built. The road level is also changing. All of this is influencing the space and also how fast the river flows.” The vegetation, surface area and gradient of the water table also play a role.

The peak discharge, i.e. the volume of water that is discharged when the water level is at its highest, is therefore more meaningful when comparing floods, he says. But calculating it requires detective work: Roggenkamp visited town and city archives, analyzed historical maps, scrutinized photos that can be compared with modern-day pictures and also con-

sulted old drawings of bridges and tunnels that had been made when the land was surveyed. These he used to model transverse profiles of sections of the landscape.

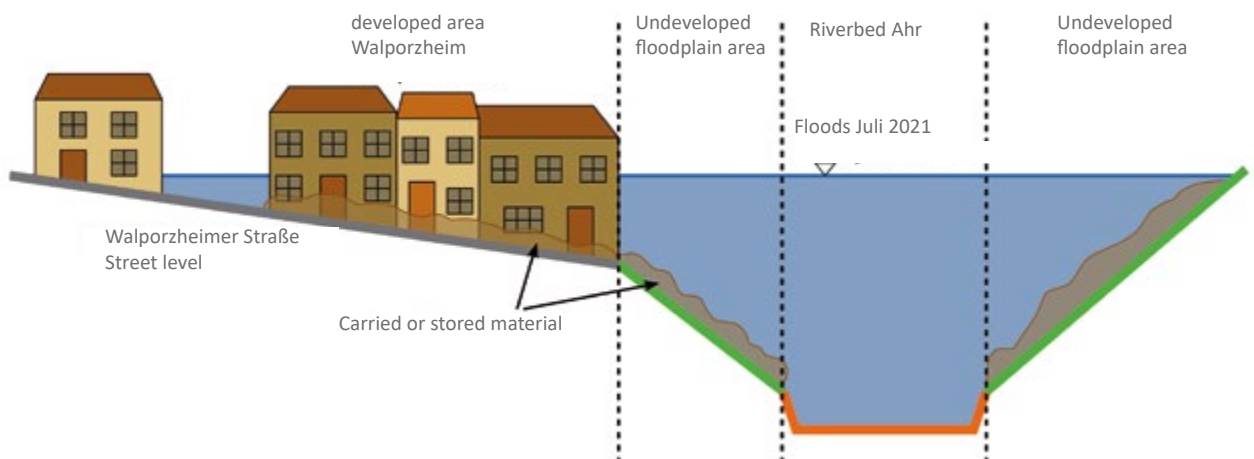
Initial calculations show that, at their peak, the floods of 1804 and 2021 both discharged a similar amount of water. In 1804, the rate was just over 42,300 cubic feet (around 1,200 cubic meters) per second. For the 1910 floods, it was even possible to make an accurate reconstruction of how events developed hour by hour. “The level was much higher recently because the Ahrtal is more densely built-up now than it was back then. The water wasn’t able to drain away so quickly.”

All three of the exceptional floods happened in summer. “Looking back through history, we’ve been able to find floods of a similar size. Time and again, written sources mention summer flooding in June and July after long periods of rainfall,” Roggenkamp reveals.

The size of the recent flood along the Ahr is not necessarily a consequence of climate change. “You can’t use one flood to predict future events,” he says. Nevertheless, he believes that climatologists’ predictions of more frequent heavy rainfall events affecting certain locations are indeed accurate.

Although the flooding on the Ahr only pushed the level of the Rhine up slightly, Roggenkamp was also struck by how powerfully the river flowed: following the Ahr, he is now reconstructing discharge values from historic floods along the Rhine – from Roman times to the present day.

SEBASTIAN ECKERT



Provost Holger Gottschalk elected for another six years



Photo: Barbara Frommann

The Electoral Assembly of the University of Bonn has re-elected Provost Holger Gottschalk for a further six-year term. "Holger Gottschalk was and still is a lucky find for our University," said Rector Prof. Dr. Dr. h.c. Michael Hoch. "Both in my capacity as Rector and on a very personal level, I'm delighted with his re-election, as we'll have continuity on the Rectorate team for the next few years and will be able to guide the University into the future together."

Among many others, the major projects that Gottschalk has taken on for his new term include leading the University administration's contribution to defending its "title" in the 2025/2026 Excellence contest.

One of his aims is to press on with digitalization across all administrative processes and services: "I want a strong administration that's on a very firm footing in terms of its personnel and its structures and that, proactively and in the spirit of partnership, provides the best possible support to the University of Bonn's bodies and members as they tackle their considerable tasks going forward." What has been achieved to date has been very much a team effort, he says: "What we've managed to do over the past five years is in itself extraordinary. I'd like to thank my colleagues for their support and the University bodies for the trust they continue to place in me."

Holger Gottschalk took up his post at the University of Bonn at the start of 2017. His second term starts on

January 1, 2023. He was born in

Kelheim/Taunus in 1970 and studied economics in Frankfurt. Gottschalk held various senior roles at Goethe University Frankfurt from 2004 onward, including serving as its Provost from July 2012 to December 2016.

During the summer, Gottschalk had been invited to stand again by the University's Electoral Assembly, which is made up of an equal number of members of the Senate and the University Council. Prof. Hüttemann, who chairs the University's Electoral Assembly,

congratulated him on his re-election: "As head of the central administration with its almost 700 staff and the person responsible for the University's nearly €700 million budget, he has had a big hand in his alma mater's success." Prof. Dr. Dieter Engels, chair of the University Council, added: "Holger Gottschalk has a clear vision for the next few years. His administration has already been reorganized in many areas and is thus laying the groundwork for delivering the Excellence Strategy successfully."

▲ The chairman of the University electoral assembly, Prof. Dr. Rainer Hüttemann, Provost Holger Gottschalk, Prof. Dr. Dr. h.c. Michael Hoch, the Rector of the University, and the Chairman of the University Council, Prof. Dr. Dieter Engels in the auditorium (left to right)



Photo: Gregor Hübl

◀ All board members together (from left to right): Provost Holger Gottschalk, new chairman Prof. Dr. Rainer Hüttemann, former chairman Prof. Dr. Wolfgang Löwer, new board member Prof. Dr. Dagmar Wachten, Rector Prof. Dr. Dr. h. c. Michael Hoch.

UNIVERSITY OF BONN FOUNDATION PASSES THE BATON TO THE NEXT GENERATION

After 12 years of hard work and dedication in his role as founding Chair of the Executive Committee of the University of Bonn Foundation, Prof. Dr. Wolfgang Löwer handed over the reins to his successor, Prof. Dr. Rainer Hüttemann, in June. Prof. Dr. Dagmar Wachten has also joined as a new member of the committee. The University of Bonn Foundation serves as an umbrella organization for various endowment funds, foundation

trusts and collections and, in this capacity, funds academic research and teaching at the University of Bonn. Prof. Dr. Wolfgang Löwer was involved in setting up the Foundation right from the start. Marking the handover to the next generation, the new Chair of the Board Prof. Dr. Rainer Hüttemann reaffirmed the Foundation's basic philosophy: "I'd like to invite anyone who is interested to get involved with the University of Bonn via the Foundation, such as through scholarships for students or a donation to support early-career researchers."

Not Just a Spring Clean

The University of Bonn is home to 6,500 members of staff plus 42,000 students and doctoral students spread across some 370 buildings, many of which are in urgent need of renovation. The current investment backlog is estimated to run to some €2 billion, with up to €800 million needed for the next five to eight years of refurbishments alone. Most of the work will be done by the North Rhine-Westphalia state construction and real estate agency (Bau- und Liegenschaftsbetrieb NRW, or BLB) in its capacity as the University's landlord, while some construction is also carried out by the University itself. Today, we would like to introduce you to seven key properties on the three campuses of Poppelsdorf, Endenich and City.

E1 Replacement chemistry building



Photo: Volker Lannert

Start, completion: already started, 2023
Estimated total costs (in € million): 37.2
Purpose: replacement five-story building for the chemical institutes. Approx. 17,750 square feet (approx. 1,650 square meters) for laboratories and approx. 6,500 square feet (approx. 600 square meters) of office space. Repairs are also being carried out to the Chemical Institutes, including enhancing fire protection and removing pollutants.
Who will be working here: chemistry researchers and teachers. The building will also be used to alleviate the pressure on the existing building at a later stage.

Endenich Campus

The Endenich Campus hosts the Faculty of Mathematics and Natural Sciences and provides space for technology units and startups. There is a great need for improvement, especially in the older chemistry and biology buildings.

P1 Teaching and Research Forum I+II



Photo: Gregor Hübl

Start, completion: already started, by 2024
Estimated total costs (in € million): 55.0
Purpose: combines the idea of a central research hub with that of a science and communication center, complete with plenary and lecture halls, a library and seminar rooms. Builder: University.
Who will be working here: Economics and Clusters of Excellence (including ECONtribute, Beyond Slavery and Freedom, the Hausdorff Center for Mathematics (HCM), ImmunoSensation2), HPCA and DiCe.

P2 New research building for the Zoological Research Museum Alexander Koenig (ZFMK) – Leibniz Institute for the Analysis of Biodiversity Change



Photo: Volker Lannert

Start, completion: already started, by mid-2023
Estimated total costs (in € million): approx. 45.0
Purpose: Museum Koenig, which enjoys close ties with the Department of Biology and is affiliated with the University as a private research institution, intends to undertake research here in the future. Among other things, the new building will have a data center, wet laboratories, a biobank, a cryogenic storage facility, spaces for collections and an extensive library.
Who will be working here: Museum Koenig plans to use the extension on the Poppelsdorf Campus to bring together several disparate institutions that are currently inadequately housed and strengthen the city as a center for research into biodiversity change through its cooperation with the University of Bonn. The construction of a public library will also provide a new space for learning on the Poppelsdorf Campus.

P

Poppelsdorf Campus

Rotating cranes, the constant sound of pounding and rumbling of construction workers have been a part of life for many students at the Poppelsdorf Campus for the past ten years. A large number of new structures and renovations are planned on the former experimental fields of the Faculty of Agriculture. Today we present two new buildings.

C1 Main building

Photo: Volker Lannert



Start, completion:

unknown, 2030

Estimated total costs

(in € million): over €1 billion

Purpose:

the main building will be out of service for several years. The work will focus mainly on fire protection, wiring and water pipes, some of which date back to the 1950s. Lecture halls, communication areas and offices will be brought up to date. Before the renovation can start, some of the framework conditions still need to be clarified and alternative space found for 10,000 students and 1,000 members of staff. **Who will be working here:** after BLB has finished the renovation work, the Electoral Palace will once again be used as the University's central building—this time with modernized rooms.

Central Bonn Campus

The central University campus plays host to the main building with the Faculty of the Arts and the Department of Law located at the Juridicum. The renovation of the main building in particular poses major challenges for the university.



C2 Interim main building: Rabinstraße 8 (the former Zurich Insurance building) and Deutscher Herold, Poppelsdorfer Allee/Bonner Talweg

Photo: Volker Lannert



Start, completion, costs:

both buildings have now been leased.

Purpose:

to provide replacement bases while the main building is being renovated.

Who will be working here:

The Humanities departments, which will need alternative premises during the main-building renovation, will be accommodated in Rabinstraße. The administrative staff from the main building are set to be housed in the former Deutscher Herold headquarters in Poppelsdorfer Allee. The move will also take account of the impact of people's experiences of remote working on the need for space. Both buildings have library areas, seminar rooms and meeting rooms.

Photo: Volker Lannert



C4 Academic Museum of Art

Start, completion:

2022–2025

Estimated total costs

(in € million): 48.0

Purpose:

the building houses the oldest museum in the city of Bonn and contains the world-famous collection of plaster casts, featuring 2,700 castings and 25,000 original finds.

Who will be working here:

when BLB has finished its work, the famous collection will move back into the building designed by Karl Friedrich Schinkel. It will also be able to accommodate the library, the offices and the lecture hall for Classical Archaeology, including providing access for teaching purposes to as many of the items in the collection as possible.

C3 Viktoriakarree/ "Forum des Wissens"

Photo: Volker Lannert



Start, completion:

unknown, 2031

Estimated total costs

(in € million): 128.0

Purpose:

extending the main building following refurbishment.

Who will be working here:

besides new library space, a place for people to come together and communicate will be created on a site spanning several tens of thousands of square feet, which will be open to members of the University and city residents. The University is also planning spaces for students to learn and work, smaller areas for shops and catering and ample bike parking.



Ambitious Targets for the Next Year as a University of Excellence

▲ Masks on: wearing his robes, Rector Prof. Dr. Dr. h.c. Michael Hoch entered the main auditorium together with his Rectorate colleagues.

This year, at long last, it was possible to celebrate the start of the new academic year in front of a large audience once again. Over 450 people took up their invitation and gathered in the main auditorium in the main building, with many others following the event via livestream. The focus was on the key issues of excellence and sustainability.

In his emphatic keynote address, Prof. Dr. Martin Stratmann, president of the Max Planck Society, explored the common thread linking the successful partnerships with Bonn's University of Excellence, the importance of basic research for Germany as a research hub and the challenges facing German academia in securing its future capacity for innovation. "I'm thinking here about the Max Planck Institute for Radio Astronomy, for instance, which emerged from the University's Institute for Astronomy, or the Hausdorff Center for Mathematics. Both really are perfect examples of cooperation." Four Nobel Prizes in the last two years and the Fields Medal for Bonn mathematician Peter Scholze were proof of just how prominent German academia is internationally, he said.

► Prof. Dr. Martin Stratmann, president of the Max Planck Society (center), in discussions with Prof. Hoch (left) and University of Bonn mathematician and Fields Medal winner Prof. Peter Scholze (right).

Basic research on firm foundations

Stratmann put this down primarily to the very well-positioned basic research for which the universities and institutions like the Max Planck Society had laid the necessary foundations. "We're beginning the Anthropocene epoch with a whole new

set of challenges and potential solutions, so there's still a lot of basic research that needs to be done, including in the humanities." Policymakers and the general public will be expecting a lot of academia in this regard, he continued, stressing the need to keep on communicating and explaining one's own assumptions.

In the subsequent panel discussion entitled "Excellence in Research," where Stratmann was joined by University Rector Prof. Dr. Dr. h.c. Michael Hoch, he suggested that the innovative capacity of German academia had to be strengthened above all else. "Don't we need something

like an innovation agency that promotes innovation with a high degree of professionalism and free from policy constraints, like the German Research Foundation does for basic research?"

Armed with paper, pen and a blackboard

Also on the panel were Prof. Peter Scholze, a mathematician at the University of Bonn and recipient of the Fields Medal, and Prof. Dr. Catharina Stroppel from the Hausdorff Center for Mathematics. They reported on the research being done in mathematics, with Stroppel pointing out how unique it was for the cluster to cover the whole field. "We're now trying to compete with top US universities," she said, adding that the appointment of female researchers was



Photos: Barbara Frommann



Photos: Barbara Frommann

also playing a key part in these efforts. Peter Scholze highlighted the new possibilities that digitalization offers for testing mathematical proofs, even though he himself still mainly works with paper, pen and a blackboard.

The second panel looked at climate change and disaster management. During the discussion, Prof. Dr. Xiaomeng Shen, the United Nations University's vice-rector in Europe, reported on the research being done into climate change and explained: "Every country and every individual counts in a climate crisis such as this." As well as technologies, she said, we also need a new way of thinking. Gerd Friedmann, president of the Technisches Hilfswerk civil protection organization, spoke about the destruction caused by the flooding along the River Ahr and emphasized that Germany was in a strong position even if the number of call-outs increases in the future.

Responsibility for sustainability

On the subject of sustainability, Prof. Dr. Annette Scheersoi, vice rector for sustainability, explained that the University's status as a University of Excellence gave it particular responsibility for driving forward sustainable thinking. In her view, it is about using resources responsibly and making society future-proof. "We want to fulfill our responsibilities by embedding sustainability really systematically in all areas of the University." This was not only true for research and teaching, she said, but also for general operations.

The students' view was presented by Jonathan Andrzejek, president of the General Students' Committee (AStA) of the University of Bonn, who summed up the current situation thus: "With more and more events being held in person once again, students are

finally getting the opportunity to return to normal university life." He added that the legal situation during the pandemic, which had been constantly changing and sometimes unclear, had also made studying much more difficult and that the pandemic had highlighted social inequalities. In his opinion, therefore, the BAföG needs to be reformed and digital infrastructure has to remain a priority.

Keeping a close eye on the Excellence Strategy

Looking ahead to the future, Rector Michael Hoch thanked the students, teachers, deans and faculties for all the incredible things that they had achieved during the pandemic. It was now a question of keeping a close eye on the Excellence Strategy too, he said. "Our goal of retaining all six Clusters of Excellence is, of course, highly ambitious." The Clusters and TRAs had all been making very good progress and there was an incredible sense of dynamism, he added. "By recruiting the best thinkers at all stages of their careers, including students, we want to help talented individuals to develop and make our own contribution toward the changes under way in the world in our role as a University of Excellence," Hoch said.

NILS SÖNKSEN

◀ Homing in on climate change and disaster management. From left to right: Rector Prof. Dr. Dr. h.c. Michael Hoch, UNU Vice-Rector Prof. Dr. Xiaomeng Shen, Technisches Hilfswerk President Gerd Friedmann, moderator Maike Kriebler, Vice Rector Prof. Dr. Annette Scheersoi and moderator Florian Barnikel.

▶ Around 450 people took part in person, with roughly the same number watching events unfold on their screens via livestream.



Exploring Ancient Crypts and Tombs Through a VR headset

A project for archaeologists at the University of Bonn is using the latest technology to improve the digital teaching experience



▲ Detailed digital model of the crypt of St. Mark's Basilica in Venice. Using a computer or VR headset users can go on a digital visit and explore this historical site.

As if spellbound, a group of students from the University of Bonn let their eyes wander around the dimly lit Etruscan necropolis in Cerveteri. In the background a lecturer explains the structure and function of the tomb complex. But this is not a study trip to Italy. The students are moving around a virtual environment, all the while discussing their thoughts and sharing ideas. Physically the students are sitting in a lecture theater in Bonn wearing virtual reality (VR) headsets.

Creating immersive explorable spaces

“Most of our students have never experienced something like this before,” says the head of the project Dr. Matthias Lang. “If you're studying archaeology or Egyptology it's often just not possible to travel to Egypt or Italy to visit monuments or buildings on location, let alone explore, experience and compare tombs.” It's a problem that Lang would like to solve. He recently returned to Bonn after a period at the University of Tübingen.

While at Tübingen, he used laser scanning techniques, photography and computers to make parts of the Saqqara necropolis digitally accessible. The project was influenced by his own experience of studying ancient civilizations: “I studied classical archaeology in Bonn. As someone new to the field I could never really imagine what a temple or burial ground looked like just from studying plans and photos,” says Lang.

He's convinced of the value of digital documentation. “The advantage is that

digital technology provides beginning students with access to places that would otherwise be inaccessible or hard to reach, making these locations more vivid and more tangible, which in turn helps students to improve their spatial perception skills.” The project at the Bonn Center for Digital Humanities (BCDH) aims to use virtual reality to take digital collaborative teaching to the next level. Sarcophaguses and tombs, excavation sites, Roman ruins and early Christian churches can thus be accessed virtually from any desk or lecture theatre. The project is a sub-cluster of the virtual collaboration project ViCO and links the subjects of Egyptology, Christian archaeology, classical archaeology, ancient American studies / ethnology and art history.

First projects with VR processing

Working with the teams led by Prof. Dr. Martin Bentz and Prof. Dr. Sabine Feist, Matthias Lang is currently planning the first projects in Bonn to use virtual processing. These include the crypt

of St. Mark's Basilica in Venice and the Etruscan necropolis of Cerveteri, north of Rome. In the fall of 2021, a team from BCDH began the on-site digital documentation of the study sites. Projects involving other archaeological objects are planned for the future.

Creating virtual facsimiles of these historical spaces and objects that can later be explored and experienced is a complex process involving many steps. Laser beams are used to scan the spaces to create a three-dimensional model whose dimensions are accurate to a few millimeters. At the same time high-resolution photographs are taken so that the 3D models can be colored correctly.

To enable the resulting models to be explored at the right scale and in high definition using a VR headset, a software framework known as a game engine is used to create the virtual worlds. In this particular case, the Unreal Engine was used, which is the game engine behind such well-known games as Fortnite.

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Immersion – Diving into a virtual world

One of the key concepts in this field is that of immersion. How can one make experiencing archaeological excavations and ruins as vivid as possible? And how can one integrate personal feelings and impressions into the simulation – or should one even try? According to Lang, ques-



tions like “What does a necropolis in Egypt smell like?” or “What would I hear if I was at an excavation site?” are typical of this type of approach. “This is why it is so important that the impact of the virtual world is carefully correlated with the impressions gained at the original site. This means that the person responsible for modeling the virtual world must know the real location being modeled so that his or her own personal, subjective impressions can be incorporated into the model, thus making it as vivid and realistic as possible.”

Digital teaching

The project has a strong didactic component. Questions of interest in this regard are: What form of presentation works well in a simulation? Which elements and methods can be used to communicate key curricular content? “Experience has shown us that the spoken language is particularly well suited to explaining relationships within the model, while written texts are often found to be difficult to read and are often perceived as foreign elements that disrupt the users sense of immersion in the vir-

▲ In addition to creating virtual interior spaces, virtual copies of archaeological findings can be generated and placed in context.



◀ The models allow users to adopt wholly new perspectives when viewing a site, which can make it easier to grasp certain spatial relationships.

► The data can be transformed not only into 3D models that can be explored, they also enable the creation of highly precise floor plans.

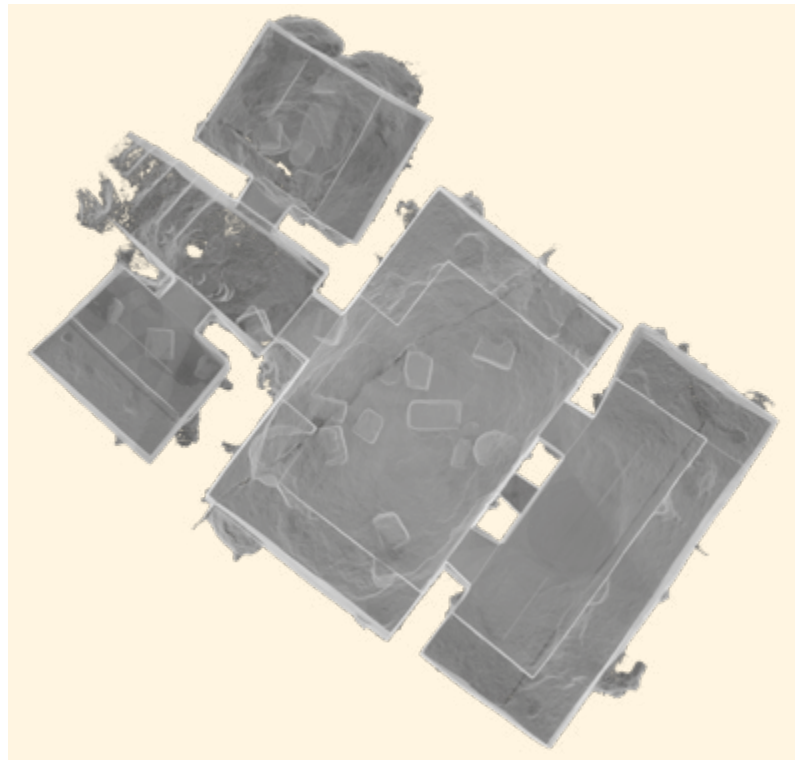
tual world,” explains Lang.

A prototype is planned for the beginning of 2022 that students will be able to explore wearing VR headsets. “While our teaching objectives and the curriculum have not changed, the methods and tools we use have,” says Lang in summary. Many archaeological institutes still hold collections – some very extensive – of plaster casts of antique sculptures or they have sets of architectural models that still find significant use for teaching purposes. Virtual reality is simply one further step along this path.

The ViCO project

The University of Bonn has been awarded a grant of more than €2.15 million from the foundation “Innovation in der Hochschullehre” [Innovation in higher education teaching] for the project “Virtual Collaboration (ViCO) – Learning together for the future”.

Over the next three years, the University will be using this funding to create several digital platforms that will host new collaborative teaching and learning options.



► The technology enables students to visit and experience spaces that would otherwise be difficult to access.



Learning German Over Coffee and Cookies

Improving their German skills so they can study in Bonn: refugees, international program participants and students all come to chat at the Lerncafé.

Mehmet Boz spends an hour and a half traveling from Düren to Poppelsdorfer Allee. Nearly every Wednesday. He's happy to sacrifice the time, because he has a clear goal in sight: he wants to study nutrition science and then go on to work in sport. To obtain a language certificate at the level he needs, he's taking part in the "Academic Integration for Refugees" (FdIS) program – and is also visiting the voluntary weekly Lerncafé organized by the International Office at the same time.

Unless he passes the "German Language Proficiency Test for Admission to Higher Education" (DSH2), however, he won't be allowed to study in Bonn.

Next to him on the bench sits Yasmin Moslem from Aleppo, who crossed the Mediterranean with her daughter in 2015. Turkey, Greece, Munich, then Bonn. "Bonn is a nice, pretty city, not as big as Munich," she says. Back in Syria, she had begun to study agricultural sciences, and the subject had gripped her from the start. The 36-year-old can't always make it to the Lerncafé as her family takes up a lot of her time. Her wish, however, is to get a good job and maybe become a lecturer at the University of Bonn. The language course is her first step toward getting a degree.

Marina Kohl from the International Office knows why the DSH exam is so important. She is in charge of the project that prepares refugees for embarking on a degree program. "Most University events are held in German, and most students are native speakers," she observes. "Plus people tend to speak fast and use highly academic language, without really thinking about it. Getting students ready for that is what makes our language course different from gen-

eral language courses or those that gear you up for a particular job."

Around 40 to 50 people take part in the German courses every year, with between 12 and 18 on the FdIS program. Many of them also spend time in the Lerncafé, which is open to all international program participants. "The Lerncafé gives the participants the opportunity to talk with one another in an informal setting and get an idea of what studying at the University of Bonn is like," Marina Kohl explains. "And they can also expand their vocabulary at the same time." In addition, they can get advice on social questions and matters of residency law, finding accommodation, opportunities for getting involved, sports clubs, from the four mentors, a full-time member of staff and the German teachers. The German Academic Exchange Service (DAAD) has been supporting language teaching since 2016 with its "Integra" and "NRWege ins Studium" ("NRWays into Studying") projects.

There was a time during the pandemic when the all-important face-to-face dialogue was difficult at best. "The current course members had a harder

time of it last year, when the coronavirus was at its worst," Kohl notes. For a long time, meet-ups and language courses were only held online. It was not until the summer that the Lerncafé was able to resume in person, organizing picnics on Poppelsdorfer Allee.

Making the transition to the German academic system is not always easy. "We also get them ready to enter the German university system," says Kohl. "Studying in other countries often involves different requirements and environments. Although many participants will have started a degree program or completed subjects in their home countries and can build on this in some cases, it won't always be compatible – such as a law degree in Iran."

To mark the end of the semester, some people have brought along local dishes, such as a Persian rice pudding known as Sholeh Zard. Participants talk attentively and animatedly about their daily routines and the exams they have just done. And they ask the students present about their own day-to-day lives.

Mehmet is a fan of the concept: "The language course by itself isn't a whole lot of fun, but, combined with the Lerncafé, it's fantastic. I think it's a very good opportunity. It's really helped me, such as with colloquial language. You often hear the word 'Alter,' or 'mate,' when you're among friends. Here at the Lerncafé I found out that you shouldn't use it in more formal discourse."

SEBASTIAN ECKERT

▼ Visitors to the language café chat with the organizers. From left to right: Palina Arlova, Marina Kohl (coordinator), Franziska Scharle, Sima Beheshti, Yasmin Moslem, Leo Brandt, Mehmet Boz.

Photo: G. Hübel



Using Data Processing to Crack Maya Hieroglyphs

Bonn-based academy project is recording and
deciphering Maya inscriptions

Mysterious pyramids and highly advanced calendars: a great many myths surround the Mesoamerican Maya peoples. It was not until about 200 years ago that researchers began to clear the overgrown ruins of the Maya's cities and attempted to decode their mysteries. But one thing had many of them stumped: the texts written in Maya hieroglyphs. The Bonn-based Maya Dictionary Project is setting out to change that: since 2014, it has recorded and cataloged thousands of characters, developed digital tools for analyzing texts and built a global network of experts from all areas of Maya research.



With a script that has two dozen pictures for a single pronoun, it is no surprise that generations of academics have tried and failed to crack the Maya's writing system. For Maya script is highly complex: besides logograms, which are more or less a pictorial representation of the word they stand for, there are also syllabograms, which are put together to form the spoken word.

And all of this comes in many different variations, because "the 'artists,' as the Maya scribes called themselves, were afraid of repetition," as Dr. Christian Prager explains. He is the coordinator of the "Text Database and Dictionary of Classic Maya" project, which is led by Professor Nikolai Grube from Bonn. "If they'd already used a particular syllabogram or logogram in a text, they'd make the same word in a new way using different elements." This fear of repetition means that there are now at least 20 known variants of the personal pronoun "u." "With such a wide scope, nobody noticed – quite understandably – when the same word was being used," Prager says.

A fascination born in childhood

Prager has been fascinated by ancient scripts, particularly that of the Maya, ever since he was 11. Focusing first on Ancient Greek writing systems, he then moved on to Egyptian hieroglyphics. "I then came across a book that talked about the Maya script and the fact that nobody had deciphered it yet. And the fascination has never left me since." Prager, who is German but was born in Switzerland, would visit the University of Basel's library while at school, borrow books on the subject and get in touch with researchers at an early age.

What began as a hobby now had him in its grip forever: he packed in his

office job, retook his Abitur and moved to Bonn to study. "This was the only place that taught Maya script. I'm fascinated by the thoughts of the past that people have written down."

Digital decoding tools

It is a fascination shared by many in the eight-strong team led by Prof. Nikolai Grube from the Department for the Anthropology of the Americas at the University of Bonn. To make it easier to crack the code behind the hieroglyphics, they have been working on their online Maya dictionary since 2014. "Back then, we began by re-inventing the wheel so we could document, analyze and publish inscriptions," Prager explains. The project is being funded by the North Rhine-Westphalian Academy of Sciences, Humanities and the Arts and the Union of the German Academies of Sciences and Humanities. At its inception, it was one of the first Digital Humanities projects in Bonn.

Working with the University of Göttingen, the researchers from Bonn created the digital infrastructure for a virtual research platform. They completed their task last year and, since then, have been using it to record the characters they found, together with historical record data from older catalogs. The number of characters in the catalog currently stands at some 832, around half of which have been confidently deciphered. "At the end, it'll be around 1,400 characters," Prager estimates.

The project is being supplemented by an open-access image database containing 40,000 photos of archaeological sites, digs, buildings, stelae and other monuments as well as vases and small finds. Many of them feature hieroglyphs. The photos show over half of the known Maya inscriptions.



◀ Top down:
 „PAKAL“ = shield,
 „CHOK“ = spread,
 „IXIK“ = woman,
 „XIB“ = man,
 „SIH“ = be born.



Photo: Volker Lannert

▶ Christian Prager deciphering Maya inscriptions



Photo: Volker Lannert

▶ The Bonn Collection of the Americas contains various objects from Maya culture.

Using automation to make texts readable

As well as cataloging and documenting hieroglyphs, the Maya Dictionary Project also intends to enable texts to be read from a central location and ultimately compile a dictionary of Classic Maya from the vocabulary used in

these texts. To this end, a digital tool has been integrated into the research platform that allows writings to be automatically transcribed and transliterated, makes texts easier to work with thanks to an annotation function and checks that translations make sense.

Another element is a tool for calculating calendar dates and astronomical information, because many inscriptions on pillars, stelae or vases also mention astronomical events alongside precise dates. “The Classic Maya celebrated zero positions in their calendar with rituals, like we do New Year, and erected stelae and other monuments to mark the occasion. On these they put collections of historical events, all accurate down to the exact day,” says Prager, who – like many of his team – can now read Maya script fluently.

Lost scripts

Between 10,000 and 15,000 pieces of hieroglyphics in and on buildings, on stone monuments and on jars and jewelry have been preserved to this day. “Around 60 percent of all known Maya texts can currently be read with a good degree of plausibility,” Prager states. The fact that we have been able to decipher

the Maya script at all, unlike that used by the Indus Valley Civilization, for instance, is thanks to historical happenstance. Modern Maya languages have preserved some of the words and pronunciation, while we also have notes made by Spanish monks from the 17th century.

Also, it is believed that broad swathes of Maya society could read, but only few knew how to write. “We know that the Maya scribes were often members of the royal family,” Prager says. Specifically, they signed their works as “itz’at” – artists, as “tz’ib” – scribes, and as “uxul” – sculptors, which indicates a high level of self-awareness. The job of scribe was not without its dangers: “In wartime, scribes were captured and kidnapped, and some were even killed,” Prager reveals. “Stone monuments of other kings were smashed to smithereens, faces of rulers were knocked off.”

Damnatio memoriae – being erased from history – was clearly standard practice among the Maya too.

SEBASTIAN ECKERT

mayawoerterbuch.de

Seeing better by looking away

When we fixate an object, its image does not appear at the place where our photoreceptors are packed most densely. Instead, its position is shifted slightly toward the nose and upwards from the cellular peak. This is shown in a recent study by Dr. Wolf Harmening and his team in the Department of Ophthalmology at the University Hospital Bonn which was conducted at the University of Bonn and is published in the journal *Current Biology*. The researchers observed such offsets in both eyes of 20 healthy subjects, and speculate that the underlying fixation behavior improves overall vision. “When we look at horizontal surfaces, such as the floor, objects above fixation are farther away,” Reiniger explains. “This is true for most parts of our natural surroundings. Objects located higher appear a little smaller. Shifting our gaze in that way might enlarge the area of the visual field that is seen sharply.” The researchers speculate that this behavior is an adaptation to seeing with two eyes.

Photo: Volker Lammert

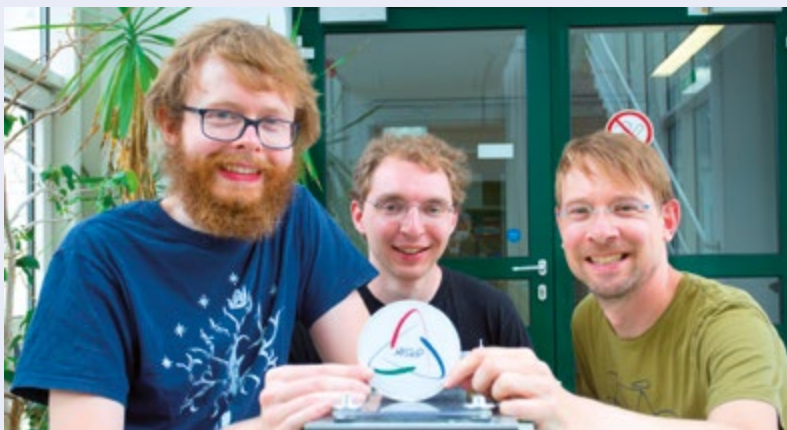
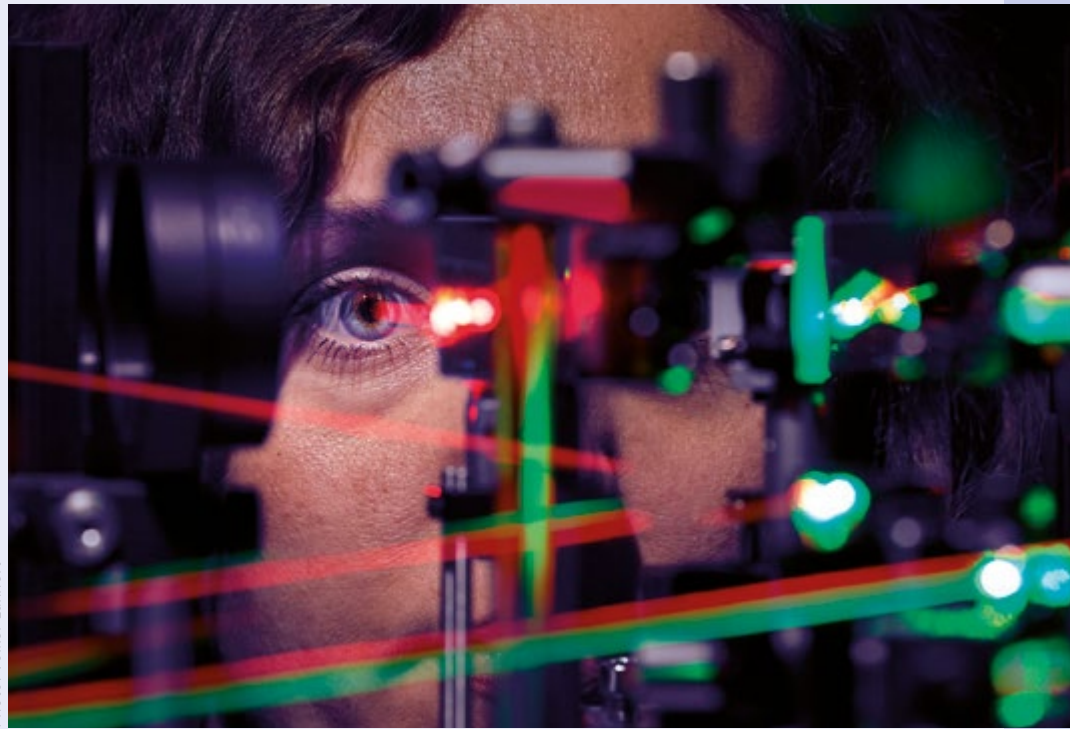


Photo: Gunnar Peters

WHY BEER MATS DO NOT FLY IN A STRAIGHT LINE

Anyone who has ever failed to throw a beer mat into a hat should take note: physicists at the University of Bonn have discovered why this task is so difficult. Physicists at the Helmholtz Institute of Radiation and Nuclear Physics and the Argelander Institute for Astronomy at the University of Bonn have now investigated this question. According to them, the behavior of the beer mat is inevitable, at least when employing the usual throwing technique: it unavoidably begins to drift off after 0.45 seconds at most. Playing cards go awry after just 0.24 seconds, CDs after 0.8 seconds.

The reason for this is the interaction between gravity, lift, and the conservation of angular momentum: the mat tips backwards shortly after being thrown

due to gravity. This gives it an angle of attack, similar to a landing aircraft. This angle creates lift in the airflow. “However, the lifting force is not applied in the center of the mat, but rather in the front third,” explains PhD student Johann Ostmeyer, who came up with the idea for the study.

This would normally soon make the round cardboard flip over. And it actually does – but only if it is thrown in a rather unconventional manner. “A beer mat is usually rotated when thrown, similar to a frisbee,” says Ostmeyer’s colleague Christoph Schürmann from the Argelander Institute for Astronomy at the University of Bonn. “This turns it into a kind of spinning top.” This rotation stabilizes the flight and prevents flipping over. Instead, the lifting force causes the mat to drift off to the side – to the right, if it is rotated counterclock-

wise; otherwise to the left.

At the same time, it straightens up – so it is no longer parallel with the ground but instead stands upright in the air like a rotating wheel. In this position, the mat has a backspin – if it were to actually stand up like a wheel on the ground, it would thus travel back to its starting point. While in flight, it quickly loses height and falls to the ground.

This process is characteristic of all flat, round objects.

Video: <https://www.youtube.com/watch?v=a2iCosVA8AU>

▲ Jenny L. Reiniger during the measurement at a laser ophthalmoscope.

◀ Tracking the trajectory of beer coasters: the physics team Christoph Schürmann, Johann Ostmeyer and Prof. Dr. Carsten Urbach (from left)

LACK OF TRUST EXACERBATES THE LONELINESS SPIRAL

Loneliness is a painful feeling. If it lasts, it can lead to mental illnesses such as depression or anxiety disorders. Researchers from the Universities of Bonn, Haifa (Israel) and Oldenburg have now discovered how loneliness is associated with reduced trust. This is reflected in changes in the activity and cooperation of various brain structures, especially the insular cortex. „An important function of the insular cortex is to perceive and interpret one’s own bodily signals, such as the heartbeat,” says Jana Lieberz from the team of Dr. Dirk Scheele of Medical Psychology at the University Hospital Bonn. “It also helps to correctly interpret other people’s reactions, such as facial expressions or mood - or trustworthiness.”

Fish gills as a model for bionic microplastic filters



Photo: Jan Hagemeyer

In the washing machine, not only the laundry gets clean, but due to the abrasion of synthetic fibers, tiny plastic particles also enter the environment with the wastewater. Biologists at the University of Bonn, together with Fraunhofer UMSICHT and the company Hengst, want to develop an efficient, sustainable and durable washing machine filter based on the model of fish gills. The project "Fish-Flow" is funded by the Federal Ministry of Education and Research (BMBF) over a period of one year with around 500,000 euros, of which around 300,000 euros will go to the University of Bonn.

The focus is on filter technologies that prevent the spread of plastic particles smaller than five millimeters. "There are many filter-feeding animals, but the apparatus of fish, from the gill arches to the transfer of food to the digestive tract,

bears the highest resemblance to the conditions in a washing machine," says Prof. Dr. Alexander Blanke of the Institute of Evolutionary Biology and Ecology.

"We measured various fish with regard to their gill geometry," reports Leandra Hamann, who is doing her doctorate in Prof. Blanke's team. From these values, the researchers create computer models of the gills, run simulations and recreate them on the 3D printer. From this, the team obtains data on which filter geometries are most efficient. The bionic models of the gill structures are then tested in the flow channel and finally in the washing machine.

Video:

https://www.youtube.com/watch?v=1FAHhBlyECw&ab_channel=LeandraHamann

▲ Leandra Hamann films mackerel at SeaLife Oberhausen.

THAWING PERMAFROST RELEASES GREENHOUSE GAS FROM DEPTH

Which effects did the heat wave of summer 2020 have in Siberia? In a study led by the University of Bonn, geologists compared the spatial and temporal distribution of methane concentrations in the air of northern Siberia with geological maps. The result: the methane concentrations in the air after last year's heat wave indicate that increased gas emissions came from limestone formations beneath the thawing permafrost.

„The soil formations in the observed areas are very thin to nonexistent, making methane emission from the decay of or-

ganic soil matter unlikely," says Niko Froitzheim from the Institute of Geosciences. He and his colleagues therefore suggest that fracture and cave systems in the limestone, which had been clogged by a mixture of ice and gas hydrate, became permeable upon warming. "As a result, natural gas being mainly methane from reservoirs within and below the permafrost can reach the Earth's surface," he says.

The scientists now plan to investigate this hypothesis by measurements and model calculations to find out how much and how fast natural gas may be released. "The estimated amounts of natural gas in

the subsurface of North Siberia are huge. When parts of this will be added to the atmosphere upon thawing of the permafrost, this could have dramatic impacts on the already overheated global climate," emphasizes Niko Froitzheim.

DFG FUNDING ATLAS 2021: UNIVERSITY OF BONN IN THE LEAD

The University of Bonn continues to succeed in the competition for research funding. This is confirmed by the "Funding Atlas 2021" of the German Research Foundation (DFG, Deutsche Forschungsgemeinschaft), which has just been published. It provides a detailed and clear documentation of the funding flows of public funding institutions to universities and research institutions in the period 2017-2019. In a Germany-wide comparison of DFG funding amounts, Bonn improves to 15th place. Researchers at the University of Bonn have received 208.5 million euros from the DFG's funds from 2017 to 2019, which is significantly more than in the 2014-2016 period (181.7 million euros). The ranking, which is differentiated by subject group, also reflects the University of Bonn's research profile: In the natural sciences, it ranks fifth in comparison with a funding volume of 61.6 million euros in the period 2017-2019, and in the life sciences, it ranks 12th with a funding volume of 88.5 million euros. In the humanities and social sciences, Bonn maintains 15th place in this ranking.

More Information: dfg.de/foerderatlas

▶ Limestone outcrop on the Taymyr Peninsula in North Siberia is in one of the areas where increased methane concentrations appeared in summer 2020.



Photo: Mikhail Alekseev (VSEGEI)

“Stick at it”

Visiting lecturer Dunja Hayali has been connecting students and media makers

Thirty-four fascinated students, a wealth of media expertise and Wilma the dog on board too: at the four-day block seminar entitled “Mächte, Medien, Mythen” (“Powers, Media, Myths”), Dunja Hayali talked about agenda-setting, honed participants’ media literacy and got them excited about journalism in all its flavors.

The face of Stefan Niggemeier, a critic of the Bild newspaper, has not quite finished flickering on the wall of lecture hall XVII. Niggemeier is a media journalist who runs the “Übermedien” watchblog about failings in the media. Shortly after that, Hayali welcomes Paul Ronzheimer, deputy editor-in-chief of Bild, who has only just got back from Afghanistan. He reports on the handling of experiences in a crisis zone and on freedom of the press. During the seminar, he parries allegations made against him and chats openly with the participants.

The block seminar is a platform for confidential discussions with well-known journalists of all persuasions, covering the ethos of the profession, rules of conduct, the treatment of sources, the difference between opinion and stance, and much more besides. Four days, six hours a day: a packed program. “It was a rollicking ride,” says Hayali, looking back.

Her aim: “I wanted to share my own personal perspective on the media and media literacy. So I talked about my experience, my beliefs and my craft,” Hayali explains – specifically, through dialogue and exercises. She is being aided in her endeavors by federal politicians and media figures such as Jochen Wegener (ZEIT ONLINE) and Katharina Hamberger from Deutschlandradio, who join via video link.



Wilma the dog is a constant companion. “Wilma did brilliantly. She wasn’t as much of a distraction as I’d feared, either – for a brief time, I was worried that everyone would be jumping around the dog.”



Photo: Sebastian Eckert

▲ After the block seminar, there was the opportunity for a group photo for Dunja Hayali's Instagram channel. The students presented her with a lecturer's certificate and a University of Bonn sweater.

Dedicated students

Hayali was impressed by her students. Prior to the event, she'd feared she'd be staring into the blank faces of a silent audience. Far from it, however: "I found them to be incredibly energetic," says Hayali enthusiastically – and she also knows why: "They must all really want to be there, because we're still in the semester break. And anyone who puts themselves through a block seminar must be sitting here out of a total sense of conviction, mustn't they? Not just because it's the first event to be held in person for 18 months, not just because it's Dunja Hayali who's jumping around here. I think that the content was a big draw." She is happy: "I signed up to the experiment to try it out. I found it really rewarding."



▲ Emely Hofmann

Among those taking part is Emely Hofmann: "We learned what makes

good journalism, what the difference is between opinion and stance, and how the ZDF-Morgenmagazin TV program works. We also gained insights into the different areas of journalism." Politics student Lioba Einhoff found it a welcome change: "My degree program hadn't had any modules geared toward real-life journalism, so I was pleased that there was now at least one going in that direction."

Improving media literacy and facilitating debate

Among other things, the seminar focused on teaching media literacy, something very close to Hayali's heart: "I've long been convinced that we need more media literacy among the general public – and not just since the rise of fake news." Media literacy should be on the curriculum as part of the promotion of democra-

cy, she believes. "It's vital in order to properly assess news items from public bodies, private-sector providers, YouTubers and influencers." The idea of a Center for Media Literacy at the University is therefore to be welcomed, she adds. "I'm looking forward to seeing it happen or becoming part of it."

Being open in debate, not having any preconceived opinions about other speakers, letting them actually speak: for Hayali, this is fundamental. Otherwise, says the 47-year-old journalist, you cannot be receptive to other people's opinions. "If your suitcase is full, you won't be able to fit anything new in – no new ideas, approaches or arguments. I don't think that's how debate works, particularly not in a democracy." Of course, she admits, everyone is hindered by prejudices and set ways of thinking. "As a journalist, it's my job to break these down," she observes.

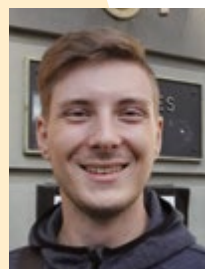
"Have fun in your work"

At the end, the moderator gave participants some useful tips on starting out in the world of media. "Expect to make coffee, photocopies and do the most tedious tasks or conduct daft surveys at subway stations for a radio program. Stick at it, be patient. Network, with women, with men, with people. And, when doors do open up, walk through them – especially if you're female." However, she believes, there's one thing that's important: "Have fun in your work. If your work is your passion, that's worth its weight in gold."

SEBASTIAN ECKERT

I'd expected to take a lot away from meeting her in terms of experiences. It was more than just a pleasant surprise how much added value and personal experience was packed into the sessions. And, above all, how many guests she'd invited, all of whom lifted the lid on their lives. I'm also a bit awestruck. Of course, you always have something of a detached view of journalists and the media, but you never really look beyond that. You never fully see the person who's actually hiding behind. So it made a lot of sense to meet the people in the flesh and ask questions. Overall, I think that the media and media literacy are paid far too little attention in general at university and school.

Yannik Scholl, student of German Language and Literature and English Studies, currently in his eighth semester



Center for Media Literacy

The Faculty of Arts at the University of Bonn is setting up a Center for Media Literacy with a dedicated interdisciplinary focus, which will serve to create a network spanning faculty and university boundaries. Ethics, sustainability, internationality and critical journalism are just a few of the areas on which it intends to focus right from the start. The new center will open its doors in 2022.

A Safe Anchor in Tempestuous Seas

Patient support workers help cancer sufferers on their harrowing journey through cancer therapy

Shock, desperation, grief or even anger: a cancer diagnosis turns someone's life upside down in a heartbeat. The flood of information that follows throws up some urgent questions about the illness and its treatment. There is often a lot of uncertainty about what exactly will happen over the course of therapy. At the Center for Integrated Oncology (CIO) at the University Hospital Bonn, experienced patient support workers are on hand to help cancer sufferers cope with all the challenges that "hospital" can throw at them. They ensure tailored management of patients' treatment and follow-up care and are there to hear their worries and needs.

Today, six years after her cancer diagnosis, she has now been given the "all clear." Before she can begin to feel happy about the news, Petra G. had to let it sink in in peace and quiet. "I felt like I was living in a bell jar, and cancer leaves its mark," says the now 60-year-old, who wanted to stay at the University Hospital Bonn for her entire course of treatment: "Because everything's very well organized on the Venusberg Campus despite it being so big."

Welcomed with open arms in exceptional circumstances

For Petra G., the fact that her story has a happy ending is thanks in no small part to the hard work done by the patient support workers at the Center for Integrated Oncology (CIO) Bonn, which is based on the campus. "We support and look after patients throughout their

treatment, adapting what we do to their individual needs," says Christine Luppus. Although her job title in German contains the word "Lotse," or "pilot," she doesn't feel that it really reflects what she does. "We're more than just a guide through the hospital. We take some of the burden off the patients, who also feel that they get emotional support from us. In this way, we do our bit to make their therapy a success." The 56-year-old and her 46-year-old colleague Geraldine Leven are both qualified nurses. The pair are there to help cancer sufferers facing an existential crisis, and the tools of their trade are an inkling of human nature and a whole lot of empathy.

Swollen lymph nodes following a heavy cold: time and again, Petra G. would be given the same, rather innocuous diagnosis, right up until she under-

went surgery at the ENT clinic at the University Hospital Bonn. The biopsy revealed cancer with an unknown primary tumor, or CUP syndrome for short. Immediately after being referred to Medical Clinic III for Oncology and Hematology, which was now six years ago, the new cancer patient met the patient support worker Christine Luppus. "The diagnosis hit me like a sledgehammer, because I wasn't prepared for it," Petra G. recounts. "But I wanted to fight." "However, I was still all shaken up from the talk I had with the physi-

▲ Patient support workers at the CIO provide reassurance in exceptional circumstances: Geraldine Leven (left) and Christine Luppus (right) have been supporting cancer patient Petra G. through her therapy and follow-up care for six years.



◀ The patient support workers' "nerve center" in the foyer of the CIO building: Right from their very first meeting, Geraldine Leven (left) and Christine Luppus (center) have been looking after cancer patient Petra G. (right) during her treatment at the University Hospital Bonn. (from left to right)



▲ The CIO's patient support workers focus on an individual's specific needs: By taking the time to talk to their patients, Christine Luppus and Geraldine Leven find out things that aren't written down on their records.

▶ The CIO's patient support workers are the link between the medical team, the outpatient clinic and the cancer patient: Petra G. is grateful for the help and support she received from Christine Luppus (right) during and after the talk with the doctors that turned her life upside down in an instant.



cians at the clinic who were treating me, and there were loads of other things that I had to deal with as well. Then Christine Luppus welcomed me with open arms. Meeting her gave me reassurance."

Link between the medical team, the outpatient clinic and the patients

This is where the patient support workers at the CIO Bonn come in: they take patients under their wing, comfort them and organize their appointments

as part of the treatment plan that will have been agreed by a tumor board and then put together by the team of treating physicians. For instance, a safe course of chemotherapy will require a number of preliminary examinations such as ultrasound and lung function tests but also the placement of a "port," which allows medications to be administered over the long term. "It's important to group these appointments together in advance so that our patients don't have to come into hospital too often," Luppus says. "To avoid tiring them out, we have

to coordinate it all very well so that no time is lost." This is done in close consultation with the physicians and the medical staff in the oncology outpatient clinic.

Sensing what their charges need

As treatment progresses, the patient support workers are on hand at all times, looking after their charges and accompanying them to appointments on the Venusberg Campus if necessary. Besides giving their patients help and advice or getting their hands on a wheelchair with the minimum of fuss, they also put them in touch with a psycho-oncologist, dietitian or social worker, for example, if they have been referred by the physicians treating them. The patient support workers make sure that everything connected with a course of cancer treatment runs as smoothly as possible. "By talking with the patients as individuals, we establish a relationship built on trust and are engaged in constant dialogue," Leven says. She and her colleagues know the person behind the patient record and can respond ad hoc to the changing needs of the individual, liaising closely with the team of treating physicians.



Imparting a feeling of security

“Everyone’s got our phone number and can talk to us at any time,” says Luppus. This was what Petra G. did when she experienced drastic weight loss while at home. Luppus told her: “You need to come in right away.” The cancer patient was then admitted to hospital for parenteral nutrition (PN) via intravenous infusion and was looked after until she had regained a few pounds: “Without the patient support workers, I’d have felt very lonely over the past six years. They know what they’re talking about and what they’re doing. They’re irreplaceable.” The patient support workers make use of the supervision that they are offered in order to reflect on what they have experienced in their day-to-day work. They also try and strike a healthy work/life balance by getting out into the countryside, but their job still leaves its mark on them. The fate of their patients often accompanies them back home. “We see day in, day out how people handle a cancer diagnosis,” Leven says. “It’s often a matter of life or death. We can’t simply peel off what we’ve experienced and leave it at the hospital, because we’re committed. But if we weren’t, then it wouldn’t be the right job for us, would it?”

INKA VÄTH



Photos: Johann Saba / UKB

▲ The CIO’s patient support workers are more than just a guide through the hospital: Geraldine Leven (left) and Christine Luppus (right) accompanied Petra G. to her first chemotherapy session and packed some hints and tips in her bag before handing her over to the team at the day patients clinic.

▲ A safe anchor all the way through cancer treatment: Even after her cancer treatment had finished, the two patient support workers Geraldine Leven (left) and Christine Luppus (center) will be there if needed for Petra G. (right), who has now been given the “all clear” from cancer.

The Center for Integrated Oncology – CIO Bonn

The CIO Bonn is the interdisciplinary cancer center of the University Hospital Bonn. It brings together all the clinics and institutes on the Venusberg Campus that deal with diagnosing, treating and researching all malignant diseases. The CIO Bonn is a member of German Cancer Aid’s nationwide network of selected oncology centers of excellence. In 2018, the “Center for Integrated Oncology – CIO Aachen Bonn Cologne Düsseldorf” was created out of the CIO Cologne Bonn, which had been in existence since 2007, plus the university cancer centers in Aachen, Cologne and Düsseldorf. Together, this group manages cancer medicine for some 11 million people. It aims to enable cancer sufferers to receive the best possible therapy by giving them access to first-class diagnostic methods and cancer treatments.



A cornfield on the Klein-Altendorf Campus. The shiny box beside doctoral student Marcel Moll is a key helper in the research being done here. It flies over the field and helps to log systematically what condition the plants are in and what they need.



Digital assistants in the field

PhenoRob Cluster of Excellence using robots to grow crops sustainably

Food, feed, fibers and fuel: with demand growing, agriculture has a key role to play in the future of humanity and our planet. At the same time, the increasing scarcity of arable land and the impact of climate change are bringing problems such as drought, heat and other extreme weather events. In the PhenoRob Cluster of Excellence, therefore, researchers from different disciplines are working toward a common goal: unlocking more sustainable crop production with limited resources and thus shrinking the environmental footprint caused by cultivating plants. To this end, they are harnessing innovative digital technologies, including some from the world of robotics and artificial intelligence. We visited some of the early-career researchers from the Cluster of Excellence out in the field.



The big watchdog on the field: the robot and other technologies enable plants to be observed, analyzed, better understood and given targeted treatment. The device helps researchers to record key parameters such as plant growth, soil conditions, biodiversity and the atmosphere.



The researchers are studying their plants from both the ground and the air in order to gain key insights into more sustainable production. Doctoral student Ansgar Dreier from the Institute of Geodesy and Geoinformation flies a drone on the Klein-Altendorf Campus.

What impact can changes have on plant growth? This is one of the questions that the researchers at Germany's only cluster of excellence for agricultural science want to answer. From left to right: Marcel Moll, Martin Greve, Charlotte Hubert and Felix Esser, all early-career researchers who have also been gripped with enthusiasm for the research field.



The importance of digitalization in agricultural science will continue to increase rapidly in the future, and drones are a key tool for supplying information on the state and condition of plants and of their environment. How to make best use of them is one of the questions being explored by the research groups in the Cluster of Excellence.



Man and machine working as a team: doctoral student Alireza Ahmadi from the "Agricultural Robotics & Engineering" working group flies his favorite piece of equipment.

War and Violence in the Ancient World

Dr. Lennart Gilhaus takes a look at social norms

Waging war was a perfectly normal activity in ancient times. In certain war situations, however, some particular dynamics of violence were occasionally unleashed: massacres, rapes, enslavement. Dr. Lennart Gilhaus from the Department of History firmly believes that, from a modern perspective, the relationship between war and violence in particular gives us new insights into ancient societies and enhances our awareness of the social norms of the time. The researcher is a member of the “Present Pasts” Transdisciplinary Research Area at the University of Bonn.

Do you see violence and war as being among the fundamental phenomena of human history?

Although there are likely to have been isolated armed scuffles between groups of hunter-gatherers of old, it wasn't until human beings became sedentary and founded settlements and cities that we see an increase in the archaeological evidence for organized conflicts, some of which even resulted in the complete obliteration of enemy groups. In other words, war is a cultural phenomenon that occurs with the emergence of more complex societies in particular.

Why do you concentrate on wartime violence in Ancient Greece?

Although extensive research has now been done on violence in the ancient world, the focus has mainly been on how that violence was depicted and viewed within societies. Paradoxically, it is precisely in the area of warfare that the issue of violence is ignored – maybe because war and violence are seen as self-evident and belonging together. I want to consider the cultural conditions and consequences of violence in the context of war and understand what the societies of the time thought of their own wartime violence.

You take violence in war and use it to extrapolate social norms. Could you provide an example to explain that?

Between 800 and 300 BC, the Greek city-states waged war ferociously among themselves. Greeks fought against Greeks. The confrontations were small in scale and evolved unbelievably fast: which city-states were allies and which were enemies could change in the blink of an eye. Besides this external aspect, there is also a particular internal facet of the city-states to consider: Ancient Greece, and Athens in particular, were the first places in the world that regarded all male citizens as being equal. Human relationships were put on a legal foundation. Trials were held to enforce the law. The idea of revenge, which is typical of Greek culture, was also harnessed and channeled by the state, for example: relations between citizens were to be kept largely free of violence. In turn, the norms thus established had an impact on people's

▼ The sculpture comes from a plaster cast in the Academic Art Museum from the Pergamon Altar and shows the giant Alkyoneus. The original is in Berlin in the Pergamon Museum.



behavior in war. Although executions in Athens could be extremely cruel and degrading, they didn't involve any bloodshed. One such method was the bloodless crucifixion, where offenders were tied to a board and left to wait out their demise – a punishment that was also meted out in war.

What's the major difference between pre-modern and modern violence in a war context?

The main difference is that, in Ancient Greece, wartime violence was literally manual labor practiced by the individual soldiers. War and violence were part and parcel of everyday life back then. There was a consistently strong sense of mobilization: men were readied for it from childhood with the aid of rituals and symbolism. Everyone had to expect to sooner or later go to war, kill their enemies and be killed themselves. This all changed with the invention and continuous improvement of automatic weapons in the modern age. You could say that the First World War changed people's attitude to warfare in the Western world.

Violence has shifted again since the First World War. Nowadays, drones fire rockets by having someone sit miles away press a button and watch events unfold on a screen. What social norms are behind this?

The onward march of technology is making "killing" a more and more distant concept in people's minds. Drone warfare is transforming the ethos of what it means to be a soldier and rendering traditional notions of courage and bravery obsolete. Automation is also throwing up new, as-yet unanswered questions about the legitimacy of killing in wartime.

Your funding from the Daimler and Benz Foundation's scholarship program is enabling you to expand your research to cover other eras and cultures.

While we're staying in the pre-modern period, we are looking at more societies: the Roman Republic, Feudal Japan, Central Asia in the Late Middle Ages, the Inca Empire and medieval Central Europe. The aim is to understand the

interactions between wartime violence and society in these cultures too and then compare our findings: How did people view lawful and unlawful violence? What violence was permitted in war, what was allowed within society? We want to delve more deeply into these questions at an international conference, which we're planning for September 2022.

In other words, violence and culture go hand in hand in human society?

Definitely. That's why it's important to explore the emotional and psychological mechanisms of escalating violence and violent excesses and to understand the phenomena in their respective cultural context. Today's Western societies see themselves as being free of violence, leading them to turn their attention chiefly toward violence in interpersonal relationships and institutions, such as physical domestic violence during the COVID-19 pandemic. But we also see images from the civil wars in Syria, Libya and other countries. Unlike in antiquity, however, the focus in modern Europe is not on the political victors but primarily on the victims of violence in war. Yet we see wartime violence as something "foreign" that doesn't have any bearing on our lives. At the same time, the fact that the media are always full of pictures of suffering people from far-off countries causes a certain desensitization in us.

FORSCH



▲ A vessel, known as Nestor's, depicting the murder of an ancient king, 380–370 BC, currently in Bonn.

Dr. Lennart Gilhaus is a non-tenured lecturer in the Department of Ancient History at the University of Bonn and is working on his postdoctoral qualification (Habilitation) entitled "Die Brutalität des Krieges und die Grenzen der Gewalt im archaischen und klassischen Griechenland" ("The Brutality of War and the Boundaries of Violence in Ancient and Classical Greece"). He became a member of the Junges Kolleg at the North Rhine-Westphalian Academy of Sciences, Humanities and the Arts in 2018. He has been funded by the Daimler and Benz Foundation's scholarship program for postdoctoral researchers and assistant professors since the beginning of the year. His project sets out to explore these dynamics of violence and compare them across various pre-modern cultures. Dr. Lennart Gilhaus's research project is receiving €40,000 in funding over two years.

Further Information: <http://www.daimler-benz-stiftung.de>



Photos: Daimler und Benz Stiftung/Oestergaard

▲ Dr. Lennart Gilhaus between books in an Ancient History seminar



▲ Depiction of Alfonso X of Castile after an illustration from the *Libro de los juegos*. The book documents the rules of various board games and was commissioned by the king. It is considered the first and most important collection of chess problems of the Middle Ages.

A Shining Light of Culture With a Shady Side

He wrote laws and wanted to become Emperor:

King Alfonso X of Castile would have turned 800 in November 2021

King Alfonso X of Castile, known as the Wise, is regarded as one of the most fascinating figures in the history of the Iberian Peninsula. He ordered the translation and compilation of literature and tracts from Arabic on subjects such as chess and board games. As king, he published codes of laws and works of history and was a lover of astronomy. However, Alfonso also plunged the monarchy into crisis when he desired to become Holy Roman Emperor and failed to plan properly for his succession. Prof. Dr. Mechthild Albert and her team have been researching the man, his times and his impact in Collaborative Research Center (CRC) 1167.

What must it have been like having different religions and cultures living side by side in medieval Spain?

What's fascinating is the multicultural aspect: the Muslim culture of Al-Andalus was constantly exchanging ideas and discoveries with the Christian kingdoms in northern Spain, including Asturias, Castile, León and Aragón. The time between 711 and the fall of Granada in 1492 saw alternating phases of war and peace. This nearly 800-year period was shaped by two concepts: Reconquista – the reconquest of the Iberian Peninsula by the Christians – and Convivencia – Christians, Jews and Muslims living together in peace. However, “tolerance”

here could also mean levying special taxes on the respective minorities.

How does Alfonso X of Castile fit into this period?

Alfonso X was born in Toledo on November 23, 1221 and played the role of a cultural go-between. Many people will already have come across him in historical novels, where he's often portrayed as a precursor of the modern age, such as at the official celebrations being held in Toledo to mark the 800th anniversary of his birth. Just how important Alfonso X was for cultural transfer from the Arabic to the Latin world can be seen in how art, culture and science were

promoted at his court. He had essays on chess and hunting and treatises on mathematics, agriculture, astronomy and astrology translated from Arabic and commissioned the so-called Alfonsine tables. Right up until the modern period, these were used to compute the positions of the Sun, Moon and planets and the timings of the equinoxes and solstices, something that was especially relevant for fixing liturgical feast days. He also wrote or commissioned almost 400 songs in honor of the Virgin Mary, who was particularly important for lending legitimacy to his rule.

This sounds very much like the Hohenstaufen Emperor Frederick II, who was also interested in laws and the arts. Are there any parallels?

Yes, I think it's a very fitting comparison, not just because of their dynastic ties – Beatrice of Swabia and Frederick II were both grandchildren of Frederick Barbarossa, another Hohenstaufen – even though there was half a century's gap between the two rulers. Especially given the

laws they introduced and the multicultural, Christo-Muslim context, you can definitely compare Alfonso X with Frederick II and his rule on Sicily.

Even while Alfonso X was still crown prince, for instance, he commissioned the translation of an anthology of Arabic fables that has just as intricate a structure as the tales from One Thousand and One Nights: this is *Kalila and Dimna*, a work that is still popular as a children's book in the Islamic world, featuring parables about the lion king, the scheming jackal and the earnest ox. It served as a "mirror for princes," a work that, through its didactic elements, set out to describe the ideal ruler and school heirs to the throne – a role that it fulfilled until well into the early modern period. And then, of course, there's his *Siete Partidas*, his code of laws, which broke new ground in how it approached the ideas of ruling and exercising power.

How significant was the *Siete Partidas* for Castile and Europe?

Throughout Europe, the 13th century saw numerous attempts to standardize laws, such as with the Magna Carta, the *Sachsenspiegel* or the Constitutions of Melfi promulgated by Emperor Frederick II. In Castile, meanwhile, King Alfonso X ordered the compilation of the *Siete Partidas*, which are based on Visigothic traditions, Iberian common law and –

thanks to the early legal scholars from the University of Bologna – academically codified Roman law. As the name suggests, this code of laws was made up of seven parts. It played a critical role in modeling and codifying the rule of a monarch and is regarded as one of the most important contributions ever made to legal history. It continued to leave its mark even right up to the constitutions of the countries of Latin America following their independence from Spain in the early 19th century. The compilation governs the basic foundations of the Castilian monarchy, from the king's divine right to rule all the way through to how society should live together day to day. This was also one of the areas we focused on in our research, which is reflected in our latest volume *Alfonso the Wise and the Juridical Conceptualization of Monarchy* in the 'Siete Partidas'. Here, we provide detailed analysis of legal, socio-political, transcultural and art history aspects of the concept of power and rule in the Castilian monarchy at the time of Alfonso the Wise.

Light usually goes hand in hand with shade: Has Alfonso X also come in for criticism?

Yes, absolutely, mainly because of his imperial ambitions. Alfonso X was the son of Beatrice of Swabia and the grandson of the German king Philip of Swabia. In 1256, he claimed the imperial crown

of the Holy Roman Empire and became the anti-king to Richard of Cornwall in the interregnum that lasted from 1257 to 1273. His scheme ultimately came to naught, however, with fatal consequences for both himself and Castile.

This was because he invested a lot of time and money in his plan in order to get influential players on his side. To this end, he increased taxes in his kingdom, debased its coinage and neglected various social problems and power struggles, which triggered uprisings among the nobility and the cities. He also failed to make a binding decision on his succession following the sudden death of his first-born son Fernando de la Cerda (1255–1275). This sparked a conflict that was won by his younger son Sancho (1258–1295). King Alfonso died in Seville in 1284.

On the one hand, Alfonso X was a shining light of culture. On the other, he forfeited what power he did possess as a result of his illusory political plotting to become Holy Roman Emperor and make Castile a great power in Europe.

INTERVIEW: SEBASTIAN ECKERT

Info about the celebration of the 800th anniversary in Toledo:

<https://toledoguiaturisticaycultural.com/programacion-viii-centenario-de-alfonso-x-el-sabio/>

▼ (From left) Lena Ringen M.A., Dr. Ulrike Becker and Prof. Dr. Mechthild Albert have been looking closely at Alfonso X of Castile and the novella-style wisdom literature from his kingdom.

Further information

Alfonso el Sabio y la conceptualización jurídica de la monarquía en las 'Siete Partidas'/Alfonso the Wise and the Juridical Conceptualization of Monarchy in the 'Siete Partidas,' Mechthild Albert, Ulrike Becker, Elmar Schmidt (eds.). With texts written largely in Spanish and English plus detailed English summaries. *Studien zu Macht und Herrschaft*, Volume 10. V&R unipress. €37.99

Power and rule: CRC and new center

The book of the Hispanic Studies sub-project "*Macht und Herrschaft* in the Novelistic Wisdom Literature of Castile (1250–1350)," part of CRC 1167 "*Macht und Herrschaft* – Premodern Configurations in a Transcultural Perspective," appeared in a CRC 1167 publication series, *Macht und Herrschaft* (Power and Rule) and *Studien zu Macht und Herrschaft* (Studies on Power and Rule), published by Bonn University Press/Vandenhoeck & Ruprecht. Research into power and rule was resumed recently at the "Bonner Zentrum für vormoderne Ordnungen und ihre Kommunikationsformen" ("Bonn Center for Pre-Modern Regimes and their Forms of Communication").



Photo: Barbara Frommann



New Stimuli for the University of Excellence

High-ranking researchers strengthen faculties and Transdisciplinary Research Areas

Five outstanding researchers have accepted the call to Bonn to hold new professorships of excellence. Ethicist Prof. Dr. Christiane Woopen took up a Hertz Professorship in the Transdisciplinary Research Area "Individuals and Societies" on October 1. Agricultural economist Prof. Dr. Matin Qaim and Catholic theologian Prof. Dr. Klaus von Stosch have occupied Schlegel Professorships since October. In addition, the Transdisciplinary Research Area "Matter" is pleased to announce its new Argelander Professors - biophysicist Jun.-Prof. Dr. Alena Khmelinskaia and biophysicochemist Jun.-Prof. Dr. Patrycja Kielb.

“For the international competitiveness of the University of Bonn, it is essential to fill top positions in science“, states Rector Prof. Dr. Dr. h.c. Michael Hoch.

“That is why we are very happy that we have been able to recruit outstanding, internationally recognized

scientists to Bonn for the first ,high profile‘ professorships of excellence. Beyond their research groups, they will make a valuable contribution to the excellent further development of our faculties and Transdisciplinary Research Areas.“



Photo: Gregor Hübl

Interdisciplinary Research Into Life - Ethicist Christiane Woopen

*At the heart of the cross-faculty concept are the **Hertz Professorships** named after Bonn physicist Heinrich Hertz (1857-1894). They are filled with renowned researchers who are leaders in their respective fields and sharpen the profile of the Transdisciplinary Research Areas. The professors will receive 4.2 million euros for seven years, giving them considerable scope to establish new fields of research, combine disciplines and provide important impetus.*

The ethicist Christiane Woopen is the first Hertz Professorship - located in the Transdisciplinary Research Area "Individuals, Institutions and Societies". Woopen will focus her research, teaching and consulting on life and the conditions for its development and flourishing. "Technologization, economization, ecologization and globalization put individual and social life under great pressure to transform and shape," she says. At the Center for Life Ethics, she wants to conduct transdisciplinary research into these four dynamics and the ethical aspects associated with them.

The Hertz Professorship is designed for close cooperation with researchers from other disciplines - including economics, ecology, medicine, information and communication technologies, cultural studies, philosophy, sociology, theology and law. Ethics

serves as a unifying cross-cutting perspective. Together with various social stakeholders, Woopen and her research group also want to develop solution perspectives for currently pressing challenges.



Photo: Volker Lannert

HERTZ

World Food and Sustainable Agriculture - Agricultural Economist Matin Qaim

With the Schlegel Professorships, named after Bonn philologist August Wilhelm Schlegel (1767-1845), the University of Bonn also establishes high-profile chairs in the course of promoting excellence. The "Schlegel Chairs" are filled by the faculties in subjects that belong to strong research focus areas or the development areas.

With Matin Qaim as Schlegel Professor of Economic and Technological

Change, the Faculty of Agriculture gains a globally renowned agricultural economist. At the same time, he became the new director of the Center for Development Research (ZEF) at the University of Bonn, succeeding Prof. Dr. Joachim von Braun on October 1st.

Matin Qaim's interdisciplinary work addresses issues of world food and sustainable agriculture in the context of scarce natural resources, climate change and pressing environmen-

tal problems. Among other topics, he and his research group analyze issues of poverty and food insecurity and their underlying socioeconomic causes. In addition, Qaim assesses the impact of agricultural policies and other national and international megatrends on human welfare and equity. He has conducted research in many countries of Africa, Asia and Latin America and has a global network of collaborators. Through his research, he aims to help generate knowledge useful for promoting sustainable development.

"Bonn offers an excellent environment for global sustainability research and international development policy," Qaim says of the new appointment. "I am very much looking forward to working at the University of Excellence in the future." The appointment also helps build the profile of the Transdisciplinary Research Area "Innovation and Technology for Sustainable Futures."



Photo: Volker Lannert

Comparative Theology with a Focus on Islam - Theologian Klaus von Stosch

Another Schlegel professorship is held by Klaus von Stosch, a world-renowned expert in comparative theology with a focus on Islam. He is considered one of the authoritative voices in international Catholic systematic theology. In a global perspective, religions play a major role in addressing major social, cultural, political, and ecological challenges. As a scholarly "bridge builder," Klaus von Stosch addresses major ethical, social, and political issues in interreligious and intercultural conversation.

Klaus von Stosch is very well connected in the European, Anglo-American and Islamic worlds. "I am looking forward to the new task in Bonn and would like to make a contribution to linking the University even more closely with top international research in the field of theology," says von Stosch. "My comparative research in the conversation of religions in particular can help make the social relevance of theology more visible." The new professorship is closely linked to the Transdisciplinary Research Area "Individuals, Institutions and Societies".



Photo: Marco Urban

Between Nature and Technology - Two Recently Appointed Argelander Professors Initiate Exciting Biohybrid Research at the University of Bonn

*The goal of the **Argelander Professors-hips** (named after Bonn astronomer Friedrich Wilhelm August Argelander, 1799-1875) is to systematically expand the research profile of the Transdisciplinary Research Areas established at the interfaces between the classical disciplines with funding from the Excellence Strategy. This gives junior researchers the opportunity to build their independent academic careers.*

Combining artificially created building blocks with natural ones - that is the goal of biophysicist Dr. Alena Khmelinskaia and biophysical chemist Dr. Patrycja Kielb, the two new Argelander professors in the Transdisciplinary Research Area "Matter". Both work on so-called biohybrids, bridging chemistry, physics and the life sciences. Their work is relevant for the development of sustainable technologies in modern societies - for example in medicine or energy research.

Alena Khmelinskaia is researching at the LIMES Institute on how proteins organize themselves - a ubiquitous phenomenon in all areas of life, including viruses.

Protein building blocks are programmed to connect with each other through numerous molecular interactions and to adopt many different architectures, ranging from a myriad of crystals, filaments, and other three-dimensional assemblies.

Alena Khmelinskaia and her research group want to decipher the physical interactions behind the self-assembly of proteins. She does this by combining modern theoretical computational methods, experiments in the test tube, and biophysical methods. Novel protein nanoparticles are created that do not yet exist in nature.

Patrycja Kielb, whose professorship is located at the Institute for Physical and Theoretical Chemistry of the

Chemistry Department, is interested in how nature carries out complicated redox processes.

These are chemical reactions, in which electrons are transferred from one reactant to another. Such transformations are necessary for key processes in environment and life, for instance biomass decomposition or cellular respiration, and they can be used to provide environmentally-friendly solutions in energy conversion technologies.

At the heart of these processes in nature are so-called metalloenzymes, which are capable of executing biochemical reactions in a highly optimal manner. With her research group, she would like to explore how to exploit and advance the efficiency of such natural biological systems to develop artificial biohybrid systems for bioelectronic devices.

SVENJA RONGE



► The two new Argelander Professors - Jun.-Prof. Dr. Alena Khmelinskaia (l.) and Jun.-Prof. Dr. Patrycja Kielb

Photo: Volker Lannert

New professorships for dependency studies

The **Bonn Center for Dependency and Slavery Studies (BCDSS)** has been strengthened by three outstanding scholars: The historians Julia Hillner and Claudia Jarzebowski as well as the Americanist Pia Wiegink will take up professorships at the Cluster, completing the team of professorships established there as part of the Excellence Strategy. Christoph Witzenrath, also a historian, already researches and teaches at the BCDSS. Prof. Dr. Claudia Jarzebowski focuses on global and gender history of the early modern period, including the history of dependence and enslavement, as well as the genesis of bourgeois

society. Prof. Dr. Pia Wiegink is interested in cultural practices and narratives of nineteenth-century American slavery and dependency and their transatlantic entanglements.

Prof. Dr. Julia Hillner works predominantly on the transformations of the family and the household in the period 300–750 and how these are reflected in legal norms and practices.

Prof. Dr. Christoph Witzenrath's research focuses on the Eurasian steppe and its neighbors, and on the influence of nomadic-settled relations and the slave trade on social dependency and political representation.



Photo: Barbara Frommann

#EDUCATION: THE CERTIFICATE HUNT

What motivates young people to study? Why do students drop out? And are they only interested in the final degree certificate for later success on the job market, or do they actually care about the content taught? Laura Ehrmantraut, a doctoral student at the Cluster of Excellence ECONtribute, analyzed in a study with her colleagues what drives students. The result: the vast majority assume that, in the end, it is the degree certificate alone that determines career success and the wages that go with it. In the ECONtribute business podcast, Ehrmantraut talks about why the signal effect of the degree is so strong and what students hope to achieve with their degree. econtribute.de/de/newsroom/#podcast

SPREAD OF SARS-COV-2 IN ETHIOPIA IS UNDERESTIMATED

In an Ethiopian-German research collaboration, researchers of the Division of Infectious Diseases and Tropical Medicine at the LMU University Hospital with participation of the University of Bonn investigated blood samples of frontline healthcare workers and residents from urban and rural communities for antibodies. The results suggest that the true COVID-19 prevalence is much higher than previously reported official figures. Therefore, the research team recommends a realignment of the vaccination strategy for Africa. The aim of the cohort study was to obtain epidemiological data on seroprevalence (frequency of specific antibodies in blood serum) and seroincidence (increase in the proportion of antibody-positive individuals over time) in Africa for the first time. The research

group led by Prof. Dr. Jan Hasenauer of the LIMES Institute at the University of Bonn performed a model-based analysis to predict possible levels at which SARS-CoV-2 herd immunity is reached. The research approach of combining mathematics and life sciences is part of a common thematic focus of the Cluster of Excellence ImmunoSensation2 and the Hausdorff Center for Mathematics (HCM) as well as the Transdisciplinary Research Areas "Modelling" and "Life and Health" *Lancet Global Health*, DOI: [10.1016/S2214-109X\(21\)00386-7](https://doi.org/10.1016/S2214-109X(21)00386-7)

QUANTUM PHYSICS FOR THE EARS

An English-language podcast of the **Clus-**

ter of Excellence ML4Q (Matter and Light for Quantum Computing)

takes listeners into the fascinating world of quantum physics. Listeners are immersed in the lives of ML4Q scientists and learn about the complexity of their research topics. In the current episode, PhD student Kathrin Dorn talks to Prof. Dr. Dagmar Bruss, theoretical physicist at HHU Düsseldorf. The two chat about Dagmar Bruss' passion for quantum information theory, how a coffee break at Oxford shifted her research focus to quantum key distribution, her experience with the impostor phenomenon, and how she got involved in a supercosm project in astronomy engineering.

<https://ml4q.de/ml4qa/>

▲ At a reception in the Rector's Office - Rector Prof. Dr. hc. Michael Hoch officially presented appointment certificates to Prof. Dr. Julia Hillner, Prof. Dr. Pia Wiegink, Prof. Dr. Claudia Jarzebowski and Prof. Dr. Christoph Witzenrath (from left).



Photo: Alex Jahn

Tougher than the Olympics

Olympic champion Mieke Kröger talks about her studies, cycling in the Siebengebirge mountains and what's been happening since Tokyo



Gold for Mieke Kröger! The 28-year-old from Bielefeld raced to the gold medal in the team pursuit in the velodrome at the Tokyo Olympics. And you will also see her in Bonn from time to time, shooting through the Siebengebirge on her black bike, because Mieke Kröger is studying nutrition sciences at the Poppelsdorf Campus. In an interview, she discusses Tokyo, moving house and her studies.

Ms. Kröger, many congratulations on your medal. How have things been since your victory?

I feel fairly normal, but the win gives me more self-confidence. It also means that I can break an unwritten rule of cycling style in public with a clear conscience: cycling in short socks, which is technically frowned upon. I'm still getting a few requests for interviews and invitations to ceremonies, such as to the "Ball des Sports," the Deutsche Sporthilfe foundation's closing gala.

What was the time like before you went to Japan and while you were there?

In early July, we had a training camp in Frankfurt an der Oder to make our final preparations. After a three-day break at home, we flew to Tokyo for about ten days. It's a chance to take a breather. And any training you do just before your races isn't going to make you any better either. We were restricted in what we could do anyway due to the pandemic, and we weren't living in the Olympic Village but in the Cycling Village, about three hours' drive outside Tokyo, on a mountain, right in the middle of a forest. That was quieter and nicer. As we know, something that the media picked up on was the beds made from cardboard.

Kröger (laughs): They were so comfy! I've no idea what other people experienced, but I slept very well in mine!

Have you had more time to do things since you got back?

First up right after the games was moving from Bonn to Hürth, to share a house with some cycling friends. That was tougher than the whole Olympics put together, it really brought me back to Earth with a bump (laughs). After all, I hadn't expected to win..

How do you combine top-level sport with studying nutrition and food sciences?

The University has helped me do that with its Studies and High-Level Sport program. Of course, I don't get given grades "for free" and have to put in the hours of learning just like everyone else. But, for instance, I was allowed to take my written maths exam on the day of the mock exam because I was going to be at a World Championship on the day itself. And I got to take my anatomy exam orally. If you go up and speak to your lecturers, they'll understand and accommodate your needs. If I was naturally more communicative, I'd undoubtedly have been able to get more support, but for a long time I was

a really stubborn person who wanted to achieve success in the same way as everyone else. Now, in the winter semester, I've registered for some modules once again so that my brain can get a bit of exercise too.

What do you find interesting about your subject?

I'm interested in scientific things. And of course, that's very relevant to cycling. The topic of nutrition has attracted a lot of attention in recent years. It's fascinating to learn how the body works and what a banana does to it. And when your coach tells you what you have to eat, you learn it all over again from a biochemistry perspective, that's a lot of fun. I picked the degree program because it interests me, not because I had a set plan for my future career. In terms of a job further down the line, I can see myself moving into rehabilitation more so than elite sport.

Where do you like to practice your cycling in and around Bonn?

I've always enjoyed cycling up the Schmelztal valley as part of my interval training in the Siebengebirge. It's an even climb that isn't too steep, enough for eight- to ten-minute intervals each time. The Siebengebirge isn't far away. For

longer stints, I go to the Eifel region; if I need some recovery laps, then maybe along the Sieg river. But only if the weather's bad, else there are too many people out and about.

Do your fellow students know about your medal win or your sport?

Having stretched out my degree program a bit, I don't have any fellow students who've been with me since the start. But when we've had study groups or tutorials, which now take place via Zoom in the coronavirus era, then it's cropped up in conversation once or twice. Then everyone's congratulated me, even though we haven't seen each other for ages.

What do you love about track cycling?

Back when I was 15, I thought to myself, "Oh, a racing bike would be fantastic." I probably saw someone riding one on the way to school and thought: "I can do that too." Or it could just have been my imagination. When I told people what I wanted, my mum sent me to have a trial at the club first, because racing bikes don't come cheap. I did my trial, stuck with it, bought my first second-hand bike for €120. After that I was really bitten by the bug, and I won my first race. Then the regional association spotted me, and things took off from there.

This year has been a huge success for you, as we know. What other competitions did you have lined up after the Olympics?

The season ran until the end of October. First up were the Road World Championships, where I won a gold in the team relay, then I did the Paris-Roubaix. This was a dramatic race with a lot of mud and cycling on cobbles. It was the first time they'd had a women's race as well. Finally, there were the European Road Championships in Switzerland, where I picked up another gold, and straight after that the Track Cycling World Championships, back in Roubaix again. We in the women's four won gold there too.

Where's your medal right now?

Rather unspectacularly, the gold medal is currently on my desk—though it's no longer in the freezer bag it came home in.

INTERVIEW: SEBASTIAN ECKERT



Photo: Volker Lannert

Working Together for Sustainability

The University is home to a great many key players, all coming together in the service of sustainability

How is it possible to embed sustainability systematically right across the University? This is a question that the University of Bonn started tackling long before setting up the Vice Rectorate for Sustainability and the Sustainability Unit in May 2021. Students have been working to progress sustainability issues for many years. The new Green Office serves as the first port of call for anything sustainability-related and is helping to foster dialogue between students, teachers and staff at the University. We introduce some of the key players tackling sustainability at the University of Bonn.

“Team N” – the Vice Rectorate for Sustainability and the Sustainability Unit

▼ “Team N” during the apple harvest in “Sustainable September.” Advisor to the Vice Rector Sina Mosen, Vice Rector Annette Scheersoï and Head of the Sustainability Unit Jennifer Sobotta had invited University members to take part in an initiative combating food waste.

The Vice Rectorate for Sustainability began its work in the first half of 2021. This means that the necessary personnel and organizational foundations are now in place to coordinate the University’s transition to sustainability and support it from a variety of angles. “Team N”, made up of Vice Rector Prof. Dr. Annette Scheersoï, Head of the Sustainability Unit Jennifer Sobotta and Advisor to the Vice Rector Sina Mosen, aims to make sustainability

an integral part of all research, teaching and operational activities and foster a sustainability culture at the University. “We’re working together for sustainability, so getting all members of the University involved is key,” Prof. Dr. Scheersoï says.

She continues: “I think it’s fantastic how many people care about sustainability at our University. The commitment being shown in all manner of different areas—in institutes, in administration and

particularly among students too—is truly magnificent! Together with members of all status groups, we’ve devised a mission statement that can now be published at the end of the year and that’ll serve as a guideline for developing our strategy.”

Many students and staff can see sustainability in action on a daily basis, as the “Sustainable September” and “Nachhaltiger November” (“Sustainable November”) campaign months have already made clear. During the Rhine Clean Up, researchers, teachers, students and staff at the University helped to clean the banks of the Rhine in Beuel, while upcycling workshops in the Bundeskunsthalle fashioned new, highly creative designs out of worn-out clothes, among other things. Meanwhile, University Sports and Healthy Campus offered healthy options and organized activities for people to join in with at the CAMPO-Mensa. Rounding off the sustainability program will be “Fairer Februar” (“Fair-Trade February”) and “Mighty May.” It is hoped that these campaign months will play a key role as a firm fixture in the University’s events calendar in the future.

Contact:
uni-bonn.de/nachhaltigkeit



Green Office opens its doors

The University of Bonn opened its “Green Office” in early October 2021. The new sustainability office serves as the first port of call for anything to do with sustainable development. This is designed to foster dialogue between students, teachers and other University staff and embed the issue of sustainability into the very fabric of the University.

“We’re sharing information with all University members, bringing them together and helping them to get involved in making it a more sustainable place,” says geography student David Schwarz, one of three student assistants in the Green Office. Together with trainee teacher Liza Nemes and law student Sarah Marenbach, he works closely with the Vice Rectorate for Sustainability and the Sustainability Unit at the University.

Photo: Gregor Hübl



◀ Sarah Marenbach, Liza Nemes and David Schwarz are now points of contact in the Green Office

Among other things, the Green Office, which is based at Genscherallee 2 (53113 Bonn), plans to set up sustainability working groups across the University where people from all walks of university life can come together to address the sustainable development of their respective area. This will be able to build on initial examples of the concept being implemented successfully, such as the sustainability working group at the Department of Geography, the Fairtrade University steering group and the Biocamp project, where students and lecturers have joined

forces to promote a more sustainable approach to managing the University’s green spaces. Via a “sustainability reader” that will be updated regularly, the Green Office will also be sharing a wealth of information on sustainable development at the University of Bonn, particularly on targets, measures, areas for improvement and projects. A University-wide sustainability conference is in the pipeline too.

**Kontakt: Greenoffice@uni-bonn.de
Facebook / IG: [@greenofficeunibonn](https://www.facebook.com/greenofficeunibonn)
Tel: 228/180599-33**

One year as a Fairtrade University: the students’ fair-trade initiative

The University of Bonn has been entitled to call itself a Fairtrade University since November 23, 2020. This means that it makes a concerted effort to incorporate fair-trade principles in its administration, procurement and events and use more fair-trade products. It took two years of work before the University of Bonn was awarded the accolade by Fairtrade Germany. A group of highly dedicated students had been responsible for instigating and progressing the University’s application, organizing and supporting the two-year-long preparation and application process. One of them is Leonie Bach, who knows full well that the University of Bonn still has a lot of work ahead of it. “We’re not yet at the stage where all large-scale University events consider fair-trade aspects right from the word ‘go.’” However, some fair-trade products such as tea, coffee and chocolate have been a firm fixture at the Studierendenwerk for years. Last year, students worked closely with the Studierendenwerk to buy in fair-trade bananas, which are now going to be available in the canteens from November onward.

The student initiative is also engaged in discussions with other key players and has encouraged University Sports to trial fair-trade soccer balls, which they are doing at the moment. “We hope that this is just the beginning and that University Sports will factor fair-trade criteria into all

Photo: Barbara Frommann



its new purchases in the future, allowing us to play with fair-trade soccer balls and volleyballs,” says Judith Meder, who has been part of the team since March 2021. Students have already had a chance to test out the fair-trade balls—in the goal wall challenge during “Sustainable September,” where they were also able to find out about the working conditions endured by the soccer ball makers.

But what exactly does “fair trade” mean? Fair trade is based on methods of production and commerce that put people and the environment before financial gain. It prioritizes the fundamentals: paying workers fairly, strengthening the rights of women and children, and protecting the environment. Luise Tegeler, an active

member of the student initiative since January 2021, underlines: “By launching more campaigns in the next few semesters, we want to foster and raise awareness of fair trade both within the University of Bonn and further afield.” Anyone keen to put their own fair-trade ideas into practice is welcome to join the student initiative and thus play an active role in helping to make the University a fairer and more sustainable place.

Get in touch!
**Mail: Fairtrade@uni-bonn.de
Instagram: [@fairtrade_bonn](https://www.instagram.com/fairtrade_bonn)
Website: uni-bonn.de/de/universitaet/ueber-die-uni/nachhaltige-uni/fairtradeuniversity-bonn**

◀ Representatives of the students’ Fair Trade Group:
Meera Klußmann
Judith Meder,
Leonie Bach,
Luise Tegeler.

Successful in Two Languages

Annette Poetsch and Maximilian Boßeler are translating for the University

How do you say “examination regulations” in German? How do you translate “certificate of enrollment”? Nobody at the University of Bonn can answer these questions as precisely as Annette Poetsch and Maximilian Boßeler from the Central Translation Service. Much of the non-academic communication that takes place in English at the University of Bonn passes through their hands in the International Office.



Photo: Volker Lannert

The University of Bonn’s Central Translation Service is available to all members of staff. How long a job will take depends on many factors: “If lots of specialist terminology are used, we’ll need more time for our research,” points out Boßeler, who studied translation in Heidelberg, Düsseldorf and Edinburgh. “And, of course, there are many more things that need doing besides the actual translation.” For this reason, external native-speaker translators are on hand to support the two-strong team as and when required in different subject areas.

The Central Translation Service forms part of the Internationalization Strategy 2025 and was set up in 2019 to ensure that the University of Bonn presented itself in a consistent way in English, both internally and externally. “One aspect of our application for the status of a University of Excellence was actively promoting multilingualism at the University of Bonn,” explains Poetsch. The fact that universities are looking closely at this issue is a relatively new development, she reveals. “When I began my career, the job of ‘university translator’ didn’t yet exist,” says Poetsch, who spent many years working for language service providers in London after obtaining her translation degree.

And the venture has proven a success: the high demand for the service, which was initially set up as a time-limited project, persuaded the University to make it a permanent fixture in summer 2021. **SEBASTIAN ECKERT**

The demand is huge: they have received 1,500 requests for translations since August 2019. By summer 2021, they had put a total of 1.4 million words into English. Besides flyers and circulars, the pair will also often have brochures several hundred pages thick on their desks.

From descriptions of degree programs to master’s certificates, everything at the University of Bonn has to be available in several languages in line with its language policy. “As well as circulars, this also includes administrative processes and forms, so that staff who don’t speak German don’t get left out at the University,” says Poetsch. Texts about civil service law were a challenge at the start, she reveals. “Structures in the civil service and official language can be fairly specific,” Poetsch says. “Fortunately, our colleagues are always happy to help if we have any questions.”

And then there is also the University’s external communications, including its new central website, virtually all of which is bilingual. Says Boßeler: “The biggest challenge to date has been translating degree program information for the Central Study Advisory and Counseling Service’s brochures and websites. As there are over 200 subjects to choose

from, we had to tackle a huge number of individual texts and a wide variety of topics. Projects like this also teach you a lot about the University. That’s something I really appreciate about our work.”

Special software helps them to use translated terms consistently across the University and recycle existing translations, thus saving resources. The Central Translation Service also maintains a German/English glossary on the intranet, which provides staff with a useful reference tool.

New: English-language editing service for early-career researchers

A new pilot project at the University is supporting young researchers, who can now have their English-language academic texts edited externally via the Central Translation Service. “During the pilot phase, we’re gauging the current demand for academic editing work in English so that we can put together a good offer for our researchers in the long term,” Poetsch says. <https://www.intranet.uni-bonn.de/themen/zentraler-uebersetzungsservice>

Further Informationen:

Glossary and form:
[uni-bonn.de/de/universitaet/organisation/universitaetsverwaltung/dezernat-6-internationales/zentraler-uebersetzungsservice](https://www.uni-bonn.de/de/universitaet/organisation/universitaetsverwaltung/dezernat-6-internationales/zentraler-uebersetzungsservice)

Internationalization Strategy:
https://www.uni-bonn.de/en/internationalization/international-profile/2025-internationalization-strategy/internationalization-strategy?set_language=en

Exhibitions

The Forgotten Coast

Until February 4, 2022, the Museum of the Bonn Collection of the Americas (BASA Museum) in Oxfordstraße will be showing an exhibition on the “Gua-delupe” archaeology project, which is researching pre-Columbian Honduras.

Venue: Department for the Anthropology of the Americas, Department of Archaeology and Cultural Anthropology, Oxfordstraße 15, 53111 Bonn, Germany, Tuesday to Friday, 10:00 a.m. to 6:00 p.m.

More information basa.uni-bonn.de/ausstellungen/aktuell



Photo: Markus Reindel / DAI

Glittering Pieces of History

The “Geschichtsstücke” (“Pieces of History”) exhibition will take visitors back to the very early days of the Mineralogical Museum through selected items from its collection; until spring 2022, the exhibition in Poppelsdorf Palace will give you an opportunity to explore the museum’s 200-year history.

Venue: Mineralogical Museum of the University of Bonn in Poppelsdorf Palace, Meckenheimer Allee 169, 53115 Bonn, Germany. Wednesday and Friday, 3:00 to 6:00 p.m.

More information: ifgeo.uni-bonn.de/museen/mineralogisches-museum



Photo: Anne Zaecke

Regional Studies: a Shared Responsibility

Running until the end of February 2022, an exhibition in the Museum of the University of Bonn is marking the foundation of the Institut für geschichtliche Landeskunde der Rheinlande, the institute for historical and cultural studies of the Rhineland, 100 years ago. “Region als gemeinsame Aufgabe” (“Regional Studies: a Shared Responsibility”) tells the story of the institute, from its founding and dissolution through to its modern-day successors, and pays tribute to local and regional history associations. Drawings by Anna Thinius provide a visual illustration of key aspects.

Venue: Museum of the University of Bonn, Wednesday to Saturday, 12 noon to 4:30 pm. Free admission.

More information: antikensammlung.uni-bonn.de/



Photo: Philipp Gatzert

Complete Refurbishment of the Academic Museum of Art

While the Academic Museum of Art is undergoing complete refurbishment, the original collection featuring antique ceramic vases, stone and clay sculptures, and artworks made from metal, glass and organic materials can be viewed in the building at Römerstraße 164. A cross-section from the collection of plaster casts will be on show.

Venue: Römerstraße 164, 53117 Bonn., Germany



Photo: Jutta Schubert

Your Best Summer Photos

Send us your best summer photos - that's what we asked you in our last issue. You can marvel at the results in the picture gallery at uni-bonn.de/forsch. Here is a little preview for you.

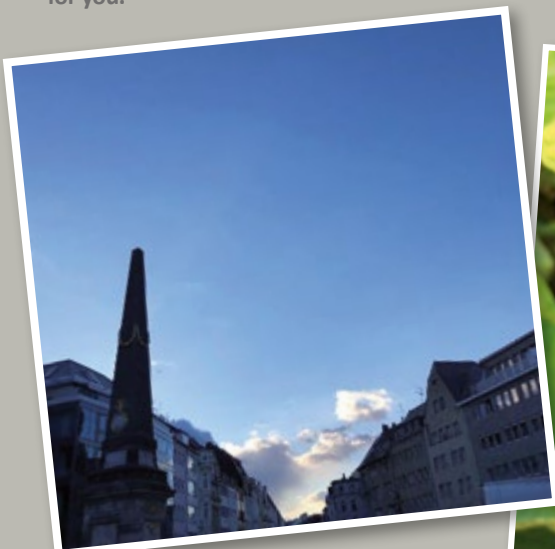


Photo: Lara Wyen



Photo: Lara Wyen



Photo: Aghigh Roshan Ghasemabadi



Photo: Aghigh Roshan Ghasemabadi



Photo: Lena Wicker



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Would you like to display *forsch* for your students, guest or at conferences?

Get in touch with the University Communications team.

“Master’s or no Master’s“

Workshop offered by the the Central Study Advisory and Counseling Service and the Career Center for Bachelor Students

What happens after a bachelor’s degree? A workshop offers students an overview of the various options available to them after completing a bachelor’s degree. The aim of the workshop is to enable them to finally make a conscious decision for or against a master’s degree program. Since the winter semester 2020/21, the offer has been provided jointly by the two advising center - the Central Study Advisory and Counseling Service and the Career Center. The Central Study Advisory and Counseling Service of the University of Bonn inform and advise prospective students and

students on concerns related to choosing, taking up, and mastering a degree program. The Career Center supports students in the transition from university to work and thus in all questions regarding career orientation and career planning.

More Information:
www.uni-bonn.de/zsb
Workshops and Coachings
► **Contact: Britta Förster**
(Central Study Advisory and Counseling Service) and **Dr. Anke Bohne**
(Career Center)



Photo: Barbara Frommann

Ersti-Welcome in the courtyard

Finally on site again: Around 1000 students were present at this year’s Ersti-Welcome in the University’s arcade courtyard on October 4th to get to know each other and exchange ideas. Beforehand, there was an official welcome including a stage talk with Michael Hoch and guests from the Rectorate, AStA, student councils and other institutions in the auditorium of the University’s main building. The program was flanked by online offers and livestreams.

Video:
UniBonnTV



Photo: Volker Lannert

Last but not least:

Studying in Bonn Without Setting Foot There

Pierre-Carl Link used the coronavirus pandemic as a chance to take a digital master's degree program in Bonn. Now he is a professor of special needs teacher education in Zurich

32-year-old Pierre-Carl Link can look back on a life full of twists and turns. Since August, he has been a professor of education at the University of Teacher Education in Special Needs in Zurich, specializing in social and emotional development disorders. Prior to that, he lived in a monastery for three years, worked at various universities and is also studying theology in Bonn. How does that all fit together?

Mr. Link, you're now a professor in Zurich. Why are you studying in Bonn?

I've been studying Old Catholic theology and ecumenical theology with a supplementary qualification in moral psychology in Bonn since the 2020/21 winter semester. This master's should be my last one. It's left over from the time before I took up my professorship.

with fewer and fewer opportunities for personal growth in my academic career. I no longer felt emotionally at home there. It was during this time that I also began studying surreptitiously in Bonn. When it became clear to me that I wouldn't be allowed to take up a professorship in Zurich as Brother Damian, I decided to find an alternative.

So the coronavirus opened a door for you?

Yes. The availability of online learning meant I could fulfill my long-held desire to hone my knowledge of theology with Prof. Krebs and moral psychology with Prof. Sautermeister, both of whom are in Bonn. It was the intimate atmosphere of the small master's degree program in particular that made it a good opportunity to keep in touch with students and lecturers on a social level, despite the pandemic, and even make new friends.

Studying in Bonn without getting to know the place—what does that feel like?

Bonn isn't as familiar to me as the other places I've studied in, as I've only really been able to explore it digitally. I do get the feeling that something's missing when I hear the other students talk about the city and the seminars being held there in person. I'm looking forward to getting to know the city all over again after the pandemic and, in particular, keeping in fraternal contact with the Department of Old Catholic Studies.

What is it about special needs teacher education and theology that you find fascinating?

Special needs teacher education has its roots in multi-professional learning and the interdisciplinarity of medicine and theology. Ethical and social questions are especially important, and you've

also got the shadow of National Socialism hanging over these disciplines. Both special needs teacher education and Christian theology take the vulnerable people who are on the fringes, such as disabled people, those with mental illness, criminals, and put them at the center of society. The fact that both—depending on the concept and the historical and cultural facets—come down more on one or the other side of the conflict between integrating and ostracizing those vulnerable people. Jesus' question to blind Bartimäus, "What do you want me to do for you?," is still relevant and is one that is posed in both special needs teacher education and theology.

You applied for a professorship without having completed your doctorate. Is there anything you can say to help other students?

My advice to students who can see themselves embarking on an academic career would be this: get your doctorate done first. And: sometimes you need to grab things by the scruff of the neck and just take the plunge. I hope everyone has the courage to do so.

Is Switzerland now becoming a fixed point of reference for you and your partner?

Yes, definitely. It was a leap into the unknown for both of us. We already feel really at home in Switzerland and hope to put down roots here, professionally speaking. Coming from Baden-Württemberg, I've got a certain affinity with Switzerland, and the Swiss can get along well with a professor from southern Germany. I was getting increasingly tired out by my many posts in academia and the Church, and they made me long for permanence and stability—which I'm now finding in work and love. I'd be delighted to have the opportunity to continue my spiritual journey with the Old Catholics in Zurich on a voluntary basis—but that's still up in the air.

We wish you every continued success along the way!



Photo: Fabian Eggert

I did want to work as a priest in my Old Catholic parish in Regensburg later in life and would have liked to have stayed at the university there at the same time, where I helped to design a teacher education program on pedagogy for behavioral disorders, including inclusive pedagogy.

Theology plays an important part in your life. You almost chose to enter the monastery as "Brother Damian." What changed your mind?

Developments in the Augustinians' Bavarian-German province left me

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