

POLYKUM



NATUR

MICROAGGRESSIONS

Where Are You REALLY from?

NATUR PUR?!?

Auf der Suche nach sich selbst

GRAVEYARD OF HOUSEPLANTS

But I just Watered Them, Right?

**Studienzeit vorbei,
aber im ASVZ
bleibst du dabei.**

Profitiere einmalig vom Spezialpreis für Studienabgänger:innen und löse deine ASVZ Card innerhalb von sechs Monaten nach Studienabschluss.

**NUR
CHF 365.-
ANSTATT
CHF 600.-**

asvz.ch/alumni

ASVZ

sanitas



Zürcher
Kantonalbank



Folge uns
auf Instagram
& Facebook
@polykum.
vseth

EDITORIAL

Here Comes the Sun

Dear readers

Spring is here, all of nature is blossoming and blooming, and animals and students alike come crawling out of their winter hiding places again. The perfect time to write about nature!

The topic sparked some interesting discussions among our authors, as we soon realised how hard it is to capture what we even mean by it. What is perceived as "natural" can be quite different from person to person and even more so from culture to culture. In the end, we have brought you a wide collection of stories, about the beauty, but also the danger of nature, and how much care is needed to protect it in its various forms.

As advertised in the last issue, we have also placed a focus on the topic of racism and discrimination at ETH, in science, in our personal lives. We hope you enjoy the various perspectives on the issue that our authors share with you!

With this being the last issue of the semester, we wish you all a beautiful summer and a successful exam season! My personal tip for the summer break: go out and experience the beautiful Swiss nature firsthand on one of the many hiking trails!

Anna & Anna

Anna Weber und Anna Heck,
Redaktionsleitung Polykum
redaktionsleitung@polykum.ethz.ch

Das Polykum ist ein Magazin des

vseth Verband der Studierenden an der ETH

VSETH

PRÄSIKOLUMNE	4
My Last Column	
HOPO-KOLUMNE	5
No Space to Learn	
PIN-UP BOARD	6
Noch nichts vor?	

ETH WELT

PEOPLE OF ETHZ	8
Diversity and Inclusion at ETH	
MICROAGGRESSIONS	10
Where Are You REALLY from?	
WHO CARES?	12
Dedicated to Sustainability	

NATUR

A NECESSARY TRANSFORMATION	14
Decolonising Environmental Sciences	
THE GRAVEYARD OF HOUSEPLANTS	16
But I just Watered Them, Right?	
POLYKONG IN HANOI	18
Dreaming 'bout Bananas	
DIE NATUR SCHLÄGT ZURÜCK	21
Von Allergien und Lawinen	
NATURE, SCIENCE AND PUBLISHING	22
Between Prestige and Peer Review	
WAS IST ÜBERHAUPT NATÜRLICH?	25
Menschgemachte Naturlandschaften	
ANTIMICROBIAL RESISTANCE	26
Nature and Young Minds against Bugs	
NATUR PUR?!?	27
Auf der Suche nach sich selbst	
BAUEN AUS HOLZ	29
Vom Wald ins Wohnzimmer	

KULTUR

IN THE FOREST. A CULTURAL HISTORY	30
A Journey through the Woods	

Zum Titelbild

Die Redwood National and State Parks in der Nähe von Felton, Kalifornien, USA beherbergen als internationales Biosphärenreservat Küstenmammutbäume. Diese gelten als die weltweit höchsten Bäume und sind mit Arten verwandt, die vor 160 Millionen Jahren existierten. Casey Horner, @mischievous_penguins on Instagram

WORD OF THE VSETH PRESIDENT

My Last Column



Dear students, dear readers

The past weeks have been extremely eventful inside VSETH. It is weird to see the whole community waking up after a far too long sleep. One must admit that a lot of know-how was lost in the past years. But I am overjoyed at seeing everything goes on.

On the side of university politics, we have also been active. For instance, I took part in the kickoff meeting of the ETH working group on student growth. The working group aims to tackle all the problems linked with the growth in student numbers.

Among these are problems with space and resources at ETH, as well as lacking financial resources from the Confederation. But also questions concerning the shortage of housing space in Zurich and new ways of shaping teaching and learning at ETH will be addressed.

We also had the chance to host a delegation of student representatives from the Technische Universität München (TUM). We hosted them for three days and discussed the structures and current challenges at our respective universities.

Moreover, we are currently preparing for the General Assembly of VSS (the Swiss Student Union), where VSETH sends some representatives. VSS has Swiss-wide projects such as trying to implement a better scholarship system or creating better study conditions for refugees. You can find out more at vss-unes.ch/.

Another highlight of the past weeks was the reopening of our music rooms! If you want to register, have a look at this page vseth.ethz.ch/offers/use-music-rooms/. I am really looking forward to hearing you play when I walk past.

This is my last column in the Polykum as I will not be running for reelection. I would like to conclude by looking back at the past year. I am grateful for the opportunity to represent students this past year. The job was very demanding, but I always had the trust of my board and the whole VSETH community. I am thankful to all the people who helped me, and hope that my successor will benefit from the same support. They will be elected next June and will take over our positions at the beginning of next semester. Already now, I would like to wish the next board a lot of success in their future position and thank you all for your support and for reading my columns!

I hope to see you around,

Best
Nils

UNIVERSITY POLITICS COLUMNE

No Space to Learn

Our job is to address problems that students face in their everyday study life. The problem that is brought to our attention most often is the critical workspace situation at ETH. So how do we tackle the workspace deficiency?

by Mara Bless & Leah Mönkemöller

Current Situation

If you have ever tried to study for an exam at ETH, you have probably experienced the lack of workspace firsthand. If you don't make it to the queue in front of the libraries when they open, you won't get a place. It then takes a long time to find a decent workspace elsewhere, and when those are full, often a compromise between sitting on the floor, plugs and a good learning atmosphere has to be made.

To make bigger changes regarding the workplace situation at ETH, data is needed to support this. Thankfully, the survey conducted during the learning phase this winter was filled out over 400 times, giving a wealth of information on how to improve conditions at both campuses. Since the workplace situation will again be evaluated during the semester, please continue to fill out the survey via the QR-codes at the workplaces. Every voice counts!

Below you can see some results from the winter learning phase regarding aspects of a learning space. Students could also add what they wished for in their workplace: more plugs, better lighting/table lamps, 24h-access and sofas/arm-chairs were listed most. 91 per cent remarked that ETH needs more workspaces in general.

In 2021, a demand calculation for ETH learning environments was undertaken by Academic Services, ETH Library and the VSETH. The

resulting documents show that many additional workspaces need to be built by 2030 to ensure that there are enough. Especially the low number of quiet workplaces and bookable group rooms indicated that an expansion of those spaces is necessary.

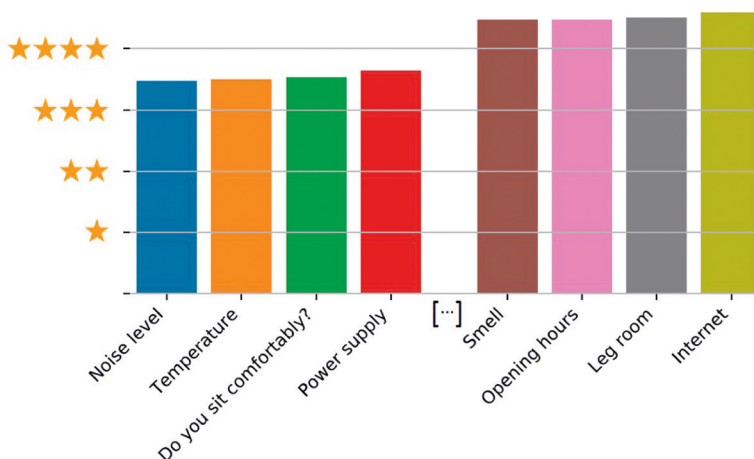
Challenges

Although some of the demands, such as more sockets, seem easy to fix, the situation is more complicated: ETH has to adhere to fire safety requirements, as well as mandatory space for escape ways, which makes it difficult to install plugs and more desks in various areas. Another problem is the multifunctionality and high utilisation of the available spaces: used for teaching, eating, aperos, exhibitions and other events, various user groups need to coordinate their activities.

One of the points raised most frequently in the survey was how much the temporary learning spaces installed during the COVID pandemic were missed, especially in HG and HIL. With hybrid classes, students needed space on campus to watch lectures that were only given online in between classes or laboratories that were conducted in presence. In the heat of the pandemic, a special permit was provided to temporarily use certain spaces as learning environments. Now that students are back on campus, this exceptional situation is over, and escape route regulations prevent temporary workplaces from being set up again.

Tackling the problem

To make it transparent, which places are available, ETH offers an overview on ethz.ch/workspaces and is working on improving the current display system. Additionally, proposals for new permanent workspaces in HG, HIL and CHN have been developed involving VSETH and submitted by the Rectorate. In addition, various projects were started to improve the utilisation of teaching spaces. The goal is to make the most use out of the existing ETH buildings and to fill the remaining gap by integrating demand in new buildings projects to tackle the problem in the long run.





**GRADUATE
CONSULTING CLUB**

CONSULTING WITH A CONSCIENCE

You might think that consultants only solve problems for businesses and profit organisations, but that's not the case! Learn about consulting for the social sector in this workshop. The workshop will be led by development scholar Dr Balasubramaniam (Balu), known for his pioneering development work with rural and tribal people in Karnataka, India. After giving an introduction to consulting for the social sector, Balu will present a problem you will be able to solve in teams.



VSETH
PIN-UP
BOARD

TEXTE VON MAXIMILIAN FORBERG,
CELINE KALBERER, CORVIN SPIRGI,
MILENA, PAUL FROESE,
LEO VALSECCHI & TIARA GREBER



FRÜHLINGSBALL «IN CONCERT»

Das Universitätsorchester Polyphonia Zürich lädt herzlich zum Frühlingskonzert ein. Auf dem Programm steht Tanzmusik diverser Stile, von Wiener Walzer bis zu einigen Klassikern aus Oper und Operette! 20. Mai, 19.30, Aula UZH (KOL-G 201) Eintritt frei/free entry.

Mehr auf unserer Website: polyphonia.ch



IS LONELINESS A DISEASE?

Paradoxically, experiencing solitude is the best way to prevent loneliness. Solitude is an important process that enables us to become aware of our own wishes, fears and needs. Learn in this workshop in collaboration with the Swiss Red Cross how you can enjoy your own company and grow without feeling lonely. Register by contacting noemi.vicini@srk-zuerich.ch.

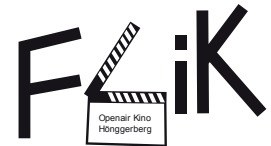


WAS IHR WOLLT!

Lust auf einen spannenden Theaterabend, um Übungsblätter und unfertige Projektberichte zu vergessen? Die Theatergruppe Aktiv spielt dieses Jahr das Stück «Was ihr wollt» von William Shakespeare, am 21., 22., 24., 25., 27. und 28. Mai im Theatersaal Irchel. Die Komödie verknüpft Geschichten über Liebe, Leidenschaft und Rache, und greift aktuelle Themen wie Verwirrungen über Geschlechteridentitäten und Mobbing auf. Freier Eintritt mit Kollekte. Mehr Informationen unter: aktiv.ch



THE OPENAIR CINEMA ON THE HÖNGGERBERG IS BACK!



From 18 to 20 May, FliK presents the 19th edition of the open-air cinema on the Hönggerberg. This year's programme includes "The Nice Guys", "Spirited Away" and the Quentin Tarantino classic "Pulp Fiction". As in previous years, local bands will play before the films start at sunset, and there will be a barbecue and bar from 3 pm onwards. For more information, visit our website (flik.ethz.ch) and follow us on Instagram!



FU**UPNIGHT MAY 2022!

What comes with entrepreneurship? Really fu**ing up. Stories of success are incomplete without stories of failures. For this reason, we organise Fu**UpNights, where diverse high-profile speakers share stories of their past failures and unexpected twists in life, and how these events have brought them closer to their successes today. Don't miss out on hearing the captivating stories of entrepreneurs and high-level executives, followed by a Q&A session at Volkshaus Zürich on 18 May.



FEMALE FOUNDERS WORKSHOP

Are you interested in the topic of women in the start-up space? Do you want to improve your pitching skills? Join us on 20 May at 4:30 pm at University of St.Gallen, where female founders Sarah Nordt, Sabrina Schenardi and Lorena Neira-Ramirez will share their experiences. In the workshop that follows, you can get feedback on your pitching style and learn how to convince investors of your business idea.

Get more information at: sequoiacub.ch/event



SONAFE 22 - SEMESTERENDPARTY

The Sommernachtsfest is the traditional end-of-semester party of the ETH spring semester. We are happy to announce that we will finally be able to party once again in person and are looking forward to seeing you on Thu, 2.6.2022 in the HXE building on campus Hönggerberg. As always, you can look forward to DJs, dancefloors and more.

For further information, follow us on Instagram: @winafe.sonafe and Facebook: @WiNaFeSoNaFe or visit our website: winafe-sonafe.ethz.ch

People with many different cultures, backgrounds and personalities mingle at ETH Zurich. On any given day, you are passing by many of them, without ever knowing them, or their story. For this edition of "People of ETHZ", we asked people from the LGBTQ+ community, the African Students Association and other minority groups to share their opinions and stories. Let's hear what they have to say about diversity and discrimination at ETH!

Would you like to share your thoughts in English or German on the topic "Health / Gesundheit" in the next Polykum edition? Send an email to: redaktion@polykum.ethz.ch

PEOPLE OF ETHZ

The most notable incident of discrimination/bigotry at ETH that I remember, ironically enough, did not have a straight preparator. It was the first time I ever attended an L-Punkt (Polyunique's predecessor) event and I was pretty nervous. The event was a sort of game where we were separated into several groups and had to complete tasks. I was assigned to a group with two rather boyish girls, and at first it seemed to go rather well... until one of my teammates asked me if I was sure I was gay and not just a straight girl on an "experiment", since I did apparently not look the part. She "advised" me to cut my hair and "butch up" a bit if I wanted to be taken seriously.

After that "welcome" I left rather quickly and it took me several months to gather the courage to go to another L-Punkt event (luckily it went better the second time).

TANJA



Anna Weber, 29, loves broadening her horizon by hearing from people with a different perspective.



While I do not doubt that ETH is trying its best to be as inclusive as possible, there are still a lot of things that are missing and quite frankly simply being overlooked or not seen as a priority. One of these things is the inclusion and representation of visible and invisible disabilities. Considering that the Disability Equality Act has been in existence for over two decades, it is quite shameful that the main building, so far, only has two wheelchair friendly toilets, no guidelines for blind canes or Braille descriptions and most auditoriums aren't equipped for people that are hard of hearing. Some may argue that all these things aren't seen as a priority since the majority of students aren't disabled. However, that should not be a reason in any institution and definitely not in any public building as it is their duty to cater to people of all shapes, forms and abilities.

ANONYMOUS

ETH-WELT



Repräsentation war nicht etwas, was ich zu Beginn an der ETH in Überfluss hatte. Als Frau im Mathematikstudium ist man schnell in der Unterzahl, und offen queere Personen sind noch seltener. Dieses Fehlen von Personen wie einem selbst kann ein Gefühl von Einsamkeit auslösen, das auch trotz guten Freund*innen nicht weggeht. Diese fehlende Sichtbarkeit macht es schwer, selber offen zu seiner Identität zu stehen.

Ein Wendepunkt für mich war damals die Activity Fair. Beim Durchstöbern der Vereine sah ich die Regenbogenflagge und wusste, dass ich nicht alleine war, egal wie es manchmal schien.

Nur dank der mutigen, selbstsicheren Menschen, die damals stolz bei der Flagge standen, fand ich zu dem Verein, der mit nun schon so viel Spass, Erfahrungen, Möglichkeiten und Freundschaften ermöglicht hat. Und mir den Mut gab, nun vielleicht selber die Repräsentation für andere zu sein, die ich damals suchte.

JULIA

In general, I'm happy being openly trans at ETH. I'm grateful that my supervisors and colleagues are immensely supportive. I have difficulties with bigger structures here, which seem slow to change.

For example, in correspondence I can only be "Frau Dr." or "Herr Dr.", not simply "Dr.". When I see "Liebe Kolleginnen, liebe Kollegen", I think "Oh, so not me then". "Kolleg*innen" or "Hallo zusammen" seems more efficient and inclusive to me. Such daily subtle exclusions are demoralising. The truth of who I am feels blotted out.

I've been told one issue is that operating systems are old and only have two gender options. It seems strange that one of the most advanced technological institutions in Switzerland has difficulties changing a binary gender into a variable one. ETH says it wants to increase diversity, and simple language changes feel like easy, uncontroversial steps that could make trans people feel more welcome.

ED BRACEY (THEY/THEM, DEY/DENEM)



Universities are mirrors of society, constantly evolving. When I arrived at ETH, "diversity" was quite frankly not very inclusive. Thanks to passionate people's tireless fight, we've started to acquire more visibility – but there is still a lot to achieve and so many questions I keep asking myself: Why are Black students so blatantly underrepresented at ETH compared to the proportion of Blacks in Zurich, in Europe as a whole and among international students? When they include them, why are the posters on the walls at ETH depicting Blacks as poor people waiting for external help, and not as experts occupying centre stage in charge of their own destiny? I'm really concerned about the lasting popularity of far-right ideology and the openly racist double-standards in the application of human rights in Europe and only hope ETH still continues on its path towards inclusivity. When not given an opportunity, go and get it.

JEREMY, 20, BSC MECHANICAL ENGINEERING

Where Are You REALLY from?

Microaggression are commonplace verbal, behavioural or environmental slights – intentional or unintentional – that communicate hostile, derogatory, or negative attitudes toward stigmatised or culturally marginalised groups.

Our author reports on why microaggressions, whether conscious or unconscious, are hurtful. *by Jessie Li*

The term microaggressions was coined in 1970 by Harvard University psychiatrist Chester M. Pierce to describe insults and dismissals which he regularly witnessed non-black Americans inflicting on African Americans. Today, this term is mainly used to describe “casual degradation of any socially marginalised group, including LGBT+ people, people living in poverty, and people with disabilities”.

But let me begin this article with a personal experience a Muslim student decided to share with us via Instagram.

“We are a Muslim family and have moved to Switzerland a few years ago from the Middle East. My younger brother was attending a language school in Zurich and my mum would drive him to and from the school. One day she went to pick my brother up from the school and was a little early. She parked the car and was busy on her WhatsApp when she felt someone went past the car staring at her, but she did not take much notice of it as people normally stared at her due to the way she dresses. She always goes out in an abaya (long dress), hijab (head covering), and a niqab (face covering, before it was banned). After a few minutes a police car with 2 officers came and very apologetically asked her a few questions. She was in complete shock that her waiting in the car could be taken as a threat just because of her appearance.”

Jessie Li, 21,
studies Computer Science in Bachelor's programme
and is writing an article for the first time.

Discriminatory biases

Microaggressions often come from a place of ignorance, where people assume certain attributes about others based on appearances, leading to a prejudiced view. Humans have the tendency to generalise and to be afraid of things that appear foreign and unfamiliar to them. After all, the unknown induces a primal sense of fear because it is unpredictable. If a woman senses a man following her on the way back home at 1 am, she will very likely get anxious and assume the worst for her own protection, even though the man might just coincidentally be heading in the same direction. But we are no longer primal, and that is not an excuse to discriminate against others just based on first impressions.

Do some of these assumptions have any actual basis? Have we ever tried to talk to someone in the group we perceive as “the others”? Are we aware that correlation is not the same as causation? Just because there are certain extremist groups in a certain religion does not mean that the religion itself is the problem. Have we tried to see things from the other person's perspective? Have we considered that the stranger we encounter is an actual human being with feelings, just like us? To them, our culture might seem strange and intimidating too, yet they might be trying their best to adapt and understand us.

Curiosity instead of intention?

Growing up as one of the only two Asians in my local school in the German countryside, in a classroom of prepubescent kids, I would often be greeted by “Konnichiwa”, “Ni-Hao” and “Ching Chong Chung”. People would ask me why all Asians looked the same and pull their eyes back as a form of mockery. This type of blatant racism stopped as I matured and learned to stand up for myself, confronting the aggressor and making it clear that this type of behaviour will not be tolerated. However, the impact of the experience stayed. It made me aware from a young age that the world was not colour-blind, and that I deviated from the norm.

Microaggressions do not always result from malicious intentions. Sometimes people are not even aware what their words imply. Friendly shopkeepers, wanting to find a conversation starter, often asked me where I was from. When I replied with Germany, some repeatedly asked “But where are you REALLY from?”, hoping for a more spectacular answer. Upon hearing this, I would often feel conflicted because in my mind I was really German, but at the same time I understand that for them the question was probably synonymous to asking about my ethnic roots. They did not mean to hurt me, they were simply curious. However, the encounter does imply, that in their eyes, I will never truly be

German. For them, being German means having certain features that I simply do not possess. It signifies that sub-consciously, they are likely to hold the belief that an Asian person must not be German. The question does not bother me personally. For some however, who have been born and raised in a place, who consider that place their home, the place they belong to, yet be constantly considered as an outsider, can have a deep psychological impact.

Confrontation

According to "Scientific American", psychologists have described the impact of microaggressions on mental health as "a death by thousand cuts". It is a very uncomfortable issue to discuss openly because no one wants to admit that they hold prejudices. But how can we solve a problem if we refuse to identify it? Well intentioned people make mistakes, and it is important to separate intent from impact, to educate instead of accusing. Sometimes people are simply unaware of their implicit biases. In that case, open communication is often the most effective solution. Instead of condemnation, which often leads to defensiveness and unnecessary hostility, simply explaining your

perspective and the impact the interaction had on you subjectively, can result in mutual understanding and discontinue the offending behaviour. The issue becomes more complex when the aggressor has no interest in mutual understanding and refuses to change their patterns. Especially when the aggression is not severe enough to be criminal, but nonetheless harmful, it is often extremely difficult to figure out the optimal response.

My personal bottom line is to always stand up for yourself, make it publicly known that such behaviour is unacceptable and never allow yourself to be disrespected. Not only for your own sake, but also for those who might potentially fall victim to the same microaggression. Although I do realise that the execution of this principle is often very challenging depending on the situation.

ETH has multiple initiatives to raise awareness about such issues, some examples being the Instagram page "speakupeth", the Diversity Team of AVETH and the "Respekt Kampagne".

Deine Finanzen immer im Griff.



Mit Zak hast du stets die Übersicht über deine Finanzen und weisst immer, wie viel dir wofür noch bleibt. Unkompliziert und gratis. Zak. Die Bank auf deinem Smartphone.

Mehr dazu unter www.cler.ch/zak-50

Jetzt Konto
eröffnen und
50 CHF sichern!
Code:
UNDZAK

Zeit, über Geld zu reden.

Bank
Banque
Banca

CLER



Jetzt downloaden.

Who Cares about Sustainability?

How can you contribute to a more sustainable world during your studies at ETH and afterwards? Are your specialised skills useful for tackling the climate crisis? Even something as seemingly far removed as physics? *by Jan Zibell*

Among my circle of friends who started studying at ETH five years ago, hardly anyone knew what the journey would be like afterwards. How could we? After all, no one could have anticipated a two-year pandemic during which work would mainly take place from home, getting to know new people would be much more difficult, and experiences abroad would have to be postponed, if not cancelled. Who knows what the future holds? Well, one thing we do know is that our climate is changing and we should do something about it. But how exactly can students address this crisis?

Dedicated to sustainability

There is often not much time for non-academic activities while studying at ETH – ideally, there should be room for doing sports, meeting friends, and getting some sleep. On top of that, lockdowns and covid infections are rather dampening for the motivation. Nevertheless, our climate is changing and does not wait for us to have time. Simultaneously, career decisions are getting closer and closer – what will I do after graduation? Motivated by this question, Petia Arabadjieva and I, both physics students, thought about how students could make the world more sustainable with the knowledge gained at ETH.

“who cares?”

With our project “who cares?” we want to get one step closer to answering this question. We chose – maybe the most obvious approach – to

meet and interview people who have been in our situation. We asked former physics students who are promoting sustainability today: How does your physics degree help you now? Which skills have proven to be useful? What would you do differently today? It is not always evident how the skills and knowledge acquired in abstract lectures can be of value when it comes to solving societal challenges. Hence, we are not only after scientific solutions to tackle climate change, but also interested in approaches in the private sector or personal activities during free time. We also want to show that there are numerous possibilities with a physics degree. Therefore, we share a written interview on our website whocares.ethz.ch and record video statements to easily spread the most important points.

Representing the students’ demands: SSC

Of course, we are neither the only ones, nor the first, who aim to make ETH students aware of how they can use their drive and skills to contribute to a more sustainable world. Within the Student Sustainability Commission (SSC), the Development Team is working on promoting sustainability in all areas of life at ETH. It works closely with VSETH to bring the students’ demands for more sustainability in campus development to the attention of the competent people in the ETH administration. It is in close collaboration with “ETH Sustainability”, the central body for sustainability at ETH.

There is a lot going on

One major and long-continued area of work is the food offer in the campus cafeterias. A survey among students showed that they wish for more vegetarian and vegan meals, and that these should also be less expensive.

Jan Zibell, 23,
studies Physics and would probably commit to a sustainability initiative much earlier if he were to study again.



Petia and Jan are shooting a video statement.

Connecting sustainability initiatives at ETH

Besides the SSC, there are many more sustainability initiatives all across ETH, led both by students and staff. These include, for example "PRISMA", which organises a course where students of different departments can work on projects related to the UN Sustainable Development Goals. Furthermore, the Student Project House supports multiple projects such as "Circular Horizon", which aims to remove CO₂ from the atmosphere. The "Arbeitsgruppe Nachhaltigkeit" set up a room where architecture students can recycle their modelling materials. Mechanical engineering students can apply to D-MAVT CARES for funding for sustainability-related focus projects. The list is long – these are only some examples! From experience, it is often hard for student initiatives to receive publicity and they might not even know about each other. Thus, SSC launched the group "Sustainability Initiatives at ETH" on the ETH social network "Point", where you can find brief descriptions of all these. If you are interested in contributing or even want to set up your own sustainability initiative, you should definitely get in touch with SSC!

The Development Team then prepared a presentation that summarises these demands and will be presented to the Gastroskopmission in May. Another focus is the development of campus infrastructure. The Development Team is currently preparing on proposals to reduce electricity and water consumption, improve waste recycling and create more green spaces on campus. Furthermore, the Development Team is pushing for more coordination between the different department's flight reduction programs. Finally, another ongoing objective is to bring more sustainability into the curricula of the different departments, e.g. through more "Science in Perspective" courses in sustainability. To sum up, the variety of projects to engage in is indeed large.

Get Involved

Check out the website of the "who cares?" project to find out what physicists are doing to make humanity sustainable: whocares.ethz.ch

SSC (ssc.ethz.ch) is continuously looking for new members to support and continue its many ongoing projects. It is hosting an "ETH Sustainability Summit" in May, at which different sustainability initiatives briefly present themselves. Furthermore, you can check out the ongoing projects at the "SSC Meet and Greet" event on 18 May, 6–8 p.m. in HG E 33.3.

A collection of sustainability initiatives can be found at point.ethz.ch.

ETH zürich



Nacht der
Physik 2022

Forschung feiern:
Ein Fest für alle.

ETH Zürich, Campus Hönggerberg

FR, 17. Juni 2022, 16 – 23 Uhr



Decolonising Environmental Sciences

Marginalised communities from the Global South are disproportionately affected by negative consequences of the climate crisis. Why then do we accept that the discussion and education about this topic is utterly dominated by ideas and research from the Global North? Our author appeals for a transformation of our curriculum to include all perspectives. *by Navya Itty*

Take a moment and try to think of a person who has changed the world. Have you got one? Great! Now try to think of an East-Asian, a Latin-American, and an indigenous person (for example, someone descended from the Cherokee, Apache, Māori, or Australian Aborigines) who changed the world. Have you got one yet, or is this taking you a while?

If the responses I got from a (very limited) group of friends are any indication of the status quo, there's a good chance the first person you thought of is white and male. And you probably struggled to answer the second one.

This exercise is by no means scientific; I have no facts and figures to make any earth-shattering revelations. But I hope it triggers you to reflect critically on two questions. First, why we are exposed to so few people from minority communities? Second, why are their accomplishments hardly ever talked about?

Excluded from the reading lists

A study conducted as part of the podcast series "Citing Africa" by the Firoz Lalji Centre at the London School of Economics looked at the reading lists of leading "Development Studies" programmes in the UK, Ghana, South Africa, and Sudan. The results expose a grim reality: they found that non-Africa based scholars represented between 73.2 and 100 per cent of cited authors in the surveyed reading lists. In fact, at one leading British university, out of 274 assigned readings, only one came from an author based at an African institution.

This pattern is not exclusive to these educational institutions or courses; Eurocentric perspectives shape the curricula of universities all over the world. As I approach the eight-month mark of my Master's degree in Environmental Sciences, I can say that this is also the reality at ETH. Although I speak from the perspective of my degree, it may be a worthwhile to ponder if this applies to your area of study as well. Undeniably, there are politics involved in knowledge production and dissemination, which influences whose voices and perspectives assume the authority of objective truth and whose are devalued, dismissed, or absent. Paolo Freire, a Brazilian educator and activist, ideated that education is and will always be a reflection of the individuals who wield power in society. Historically, this power belonged to heterosexual, upper-class white men. In the "post-colonial" world of today, this role has been assumed by the rich countries of the Global North and is reflected accordingly in academia.

Missing perspectives mean missing chances

My curriculum aligns heavily with Western scientific practices and approaches to understanding human-environment relationships. Natural sciences and techno-scientific solutions take center stage when it comes to tackling environmental problems. This focus on white perspectives reinforces the pattern of erasure of these socially vulnerable and historically marginalised communities and establishes their dominance at the expense of non-Western knowledge systems.

Non-Western knowledge systems do not only include indigenous scientific approaches to the environment and other traditional ecological knowledge systems. They have in fact existed

Navya Itty, 25,

from the state of Kerala in India, is a committed optimist and garlic bread connoisseur.

much longer than the Western environmental movement, and it is worth highlighting that many innovations and climate change solutions today are coming out of these indigenous communities. For example, the regenerative agriculture movement is built on indigenous practices such as intercropping, agroforestry, and crop rotation. There is a wealth of knowledge to be gained from integrating their perspectives especially into conversations around climate change mitigation and adaptation.

We cannot ignore systemic injustices

Moreover, the positivist approach adopted by Western science renders the field into a seemingly apolitical one. Systemic injustices have shaped the world as we know it today; the economic gap between rich and poor countries is a remnant of this. Additionally, these inequalities are still perpetuated today. Some of the classes I have attended on sustainable energy transitions are illustrative examples of how the curriculum is falling short in this respect; it is about innovation, sustainability, and feasibility. The potential environmental degradation and human rights abuses that accompany the mining of transition materials required for this rapid decarbonisation rarely finds its way into conversations in these classrooms.

Taking the marginalised into focus

Although it seems like I'm painting a very grim reality, I think that what the curriculum lacks in diversity, the class makes up for in curiosity. My peers are acutely aware of the interplay between environmental issues and racial, economic, and geopolitical contexts. They often enable constructive discussions and create the space for students like me to bring in different perspectives. When I speak of a different perspective, here's what I mean; having been born and raised in a country in the Global South, my idea of "environmentalism" is a movement of the marginalised. It often emerges in defense of livelihoods, communal access, and local production of indigenous communities that have long been economically and politically repressed. In stark contrast, environmental

agendas here carry a globalist discourse. It is often conservationist in nature and primarily occupied by aesthetic and scientific considerations.

Distant abstract concepts like the melting glaciers and ice caps are important. But it is equally important to acknowledge that the resulting sea-level rise will disproportionately affect the marginalised communities of developing economies who have contributed least to the crisis. By reorienting education on the dimensions of justice and equity, the life experiences of people belonging to these communities become a core concern, not an elective one, like it is now.

The necessary transformation

Just as conditions of racial inequity, social injustice, and unsustainability were all constructed by humans, they can also be transformed by humans. Education is connected to broader societal challenges, and treating it as a neutral site takes away from the transformative impact it could have. For students enmeshed in overwhelmingly white spaces, like you and me, conscious efforts have to be made by educators to diversify our reading lists and provide alternatives to traditional Western thinking. Critical consciousness should be cultivated in classrooms and be included as a necessary learning outcome of our courses. However, the onus is as much ours as it is the system's. Do the extra work and expand your own readings beyond the prescribed curriculum. Challenge dominant narratives and question not just what we know, but how we know it

To help you get started on your journey, here are five of my favourite books!

1. "Pedagogy of the Oppressed" by Paulo Freire
2. "Why I Am No Longer Talking to White People About Race" by Reni Eddo-Lodge
3. "Unbowed: A Memoir" by Wangari Maathai
4. "Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land" by Leah Penniman
5. "The Mushroom at the End of the World" by Anna Tsing

aktuell im
vdf



Einführung in die Schweizer Agrarpolitik

Robert Huber

2022, 260 Seiten
zahlr. Abb. und Tabellen, farbig
Format 17 x 24 cm, broschiert
CHF 41.–, ISBN 978-3-7281-4058-6
auch als eBook (Open Access)
erhältlich

Dieses Buch vermittelt Basiswissen der Schweizer Agrarpolitik und ordnet dieses aus agrarökonomischer Sicht ein. Es beschreibt die theoretischen und konzeptionellen Grundlagen und erörtert die Wirkungsweise von agrarpolitischen Instrumenten. Diese Grundlagen werden mit Blick auf internationale Entwicklungen, die Geschichte der Agrarpolitik und die Schweizer Agrargesetzgebung vertieft. Das Buch wirft auch einen Blick auf die zukünftigen Herausforderungen: die Digitalisierung der Landwirtschaft, den Klimawandel und die Transformation der bestehenden Agrarpolitik in eine ganzheitliche Agrar- und Ernährungspolitik. Die Agrarpolitik als integrale Ernährungspolitik zu konzipieren, würde es ermöglichen, die ökonomischen, ökologischen und sozialen Herausforderungen ganzheitlich anzugehen.

**25% Rabatt
für Studierende**
(Printversion)

vdf Hochschulverlag AG
an der ETH Zürich
VOB D, Voltastrasse 24
CH-8092 Zürich
www.vdf.ch

Bestellungen unter:
verlag@vdf.ethz.ch
Tel. 044 632 42 42
Fax 044 632 12 32

The Graveyard of Houseplants

Most of us have been trying to bring some vitality into our homes by adding a nice plant here and there. It should make the room seem more alive. Until weeks pass and then you suddenly notice that the leaves are no longer green but have adapted a brownish colour. But I just watered them, right? Well, probably not well enough. The plant becomes just another addition to the graveyard of houseplants. *by Nicole Pfenninger*



Cause of death

There are three main causes of houseplant death. First, *overwatering*. What a surprise! Yes, we all love the effort of watering our plants regularly, but too much can be too much. The best prevention is to let the soil dry out a bit. Do the finger test and if there is not much moisture left, water your plant then and only then.

The second most common cause of death is a co-morbidity of overwatering: *lack of drainage*. When strolling through the pot aisle, the prettiest

one might not be the best. Pots with no holes will keep all the water in. This not only increases the risk of your plant drowning, but can also lead to root rot. A certain death sentence for a plant.

Lastly, there is the well-known *not enough light*. Light is their food. No light, no food, no life. Most plants like sunny rooms. Now, if you are realising that you are hiding your plant in a corner of the room, do not suddenly move it into light. Make the transition gradually. Remember: when you wake up in the morning, the sun helps us to feel a bit more alive, but most of us probably do not like to wake up with the strongest light shining directly in our face.

Death prevention

Apart from knowing what might be the causes of deaths, it is also important to be able to read the signs. The most common is probably the yellowing of the leaves. This can literally mean anything. In that case, it is important to look for other signs. If the rest of the plant looks perfectly healthy, the leaf may just be old. Another change of colour that one of your plants might show is that its edges are turning black. This is a sign of low humidity or a fungus that eating away at the leaves. If the leaves start getting wrinkled or drooping of, you may not have watered your plant enough. Another reason could be that your plant is not receiving enough light. So basically, there are not enough nutrients available to the plant and it starts getting rid of its leaves. With all this in mind, I hope we can all keep our plants healthy and alive this semester. Fingers crossed.

Check out the anecdotes from other students, some have been more successful than others. Can you do better?

Nicole Pfenninger, 20,

studies Health Sciences and Technology. The lemon verbena that she planted last week is already looking a bit sad, let's see what can be done about it...

A matter of perspective

A few months ago, I saw this very cute macramé plant hanger in a shop. Immediately, I thought: this would fit perfectly next to the window in my bedroom. I ended up buying it without having a plant to hang in yet.

Over the last few years, I developed a love for potted plants. However, I realised that I am not very talented at keeping them alive. Nevertheless, I have never stopped trying. When I bought the macramé hanger, my room was already decorated with a few plants: A baby monstera with two sprouting leaves, an ivy which was not growing but also not drying out, and an orchid where two of the four flower-carrying parts were actually in blossom.

Some time passed since I bought the macramé hanger, when my boyfriend gifted me a very cute plant to hang in it. The plan was that the plant would grow and get long branches that would hang down. And for a few months it did! I happily watered my new plant and proudly observing its growth.

However, having the plant hung up and not being able to see into the pot turned out to be disastrous for it. I ended up watering the poor plant too much, thereby causing its end. Until now, I could not bring myself up to throw it away. I secretly still hope that it somehow recovers. So, the dead little plant is still hanging in the macramé next to my bedroom window. – Rossella Sala



Trial, error and success

I had a plant in my room in Living Science. For people who don't live there: The air is very dry in winter. I did not do much and – what a surprise – the plant lost all its leaves after they turned from yellow to grey. In the end I had to give up and throw the plant away. Project one: complete failure.

For my birthday, I got another plant. I have to add this time it was not an easy one. After being absent for a week and a half and not having adjusted to being a plant owner again, I came home to find my second plant dying. All the leaves, which had been flourishing before, had dried out. My heart was broken. But I did not stop believing and kept watering the plant. I also placed it in the common area of our six-person flat and told my flatmates to water it as well. This led to the plant swimming in water, so I had to drain it from time to time to prevent mould. But believe it or not, after a week or two, new leaves started to grow! Since then, it has been three weeks and I am still a proud plant mum. – Helena Golling



Heating pipe of doom

I had a beautiful papyrus in a pot. It had countless thin green stems, dense almost like human hair. It was inside all summer because I do not have a balcony. The best place with most sunlight was by the window. Then fall came and the pipe of the heating, which was also next to the window, suddenly became very hot. My poor papyrus lost most of its stems. They got burnt so quickly. First, I thought the plant would not make it, but a few stems (maybe 4 out of 40) at the edge of the pot survived. By now, the plant has recovered and grown many new small stems. But I am really looking forward to my new flat with a balcony. – RG



Polykong: Steckbriefe



Banandr 

Name: Banandr 
Alter: 21
Gr sse: 185cm
Gewicht: 88kg
Mag: Reisen
Mag nicht: Fenchel
Lieblingslied: P.Y.T.
Lieblingsessen: Sukiyaki
Lieblingsfilm: Pirates of the Caribbean
Vorbild: Nelson Mandela



Polykong

Name: Polykong
Alter: 8
Gr sse: 82cm -121cm (dies ist eine spezielle F higkeit von Polykong und keineswegs assoziiert mit Nicis Unf higkeit, den Affen in einer konstanten Gr sse zu zeichnen)
Gewicht: 21kg
Mag: Bananen
Mag nicht: Fl he
Lieblingslied: It Wasn't Me
Lieblingsessen: Bananen
Lieblingsfilm: The Junglebook
Vorbild: Banandr 



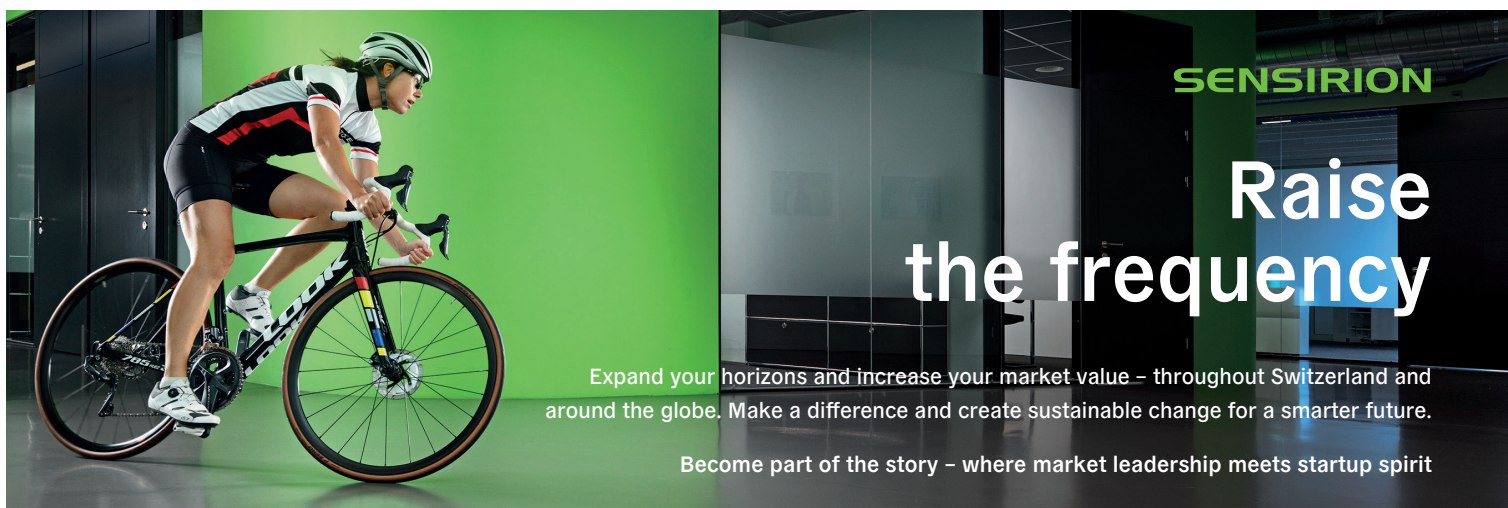
Platanja

Name: Platanja
Alter: 22
Gr sse: 176cm
Gewicht: Geheimnis
Mag: Videospiele
Mag nicht: F sse
Lieblingslied: O Happy Day
Lieblingsessen: Paella
Lieblingsfilm: Pretty Woman
Vorbild: Julia Roberts

 @nici.toth

Nicolas Toth, 21,

bedankt sich vielmals f r das Lesen und f r die positiven Feedbacks seiner Mitstudierenden zu seinem letzten Comic. Bis bald!

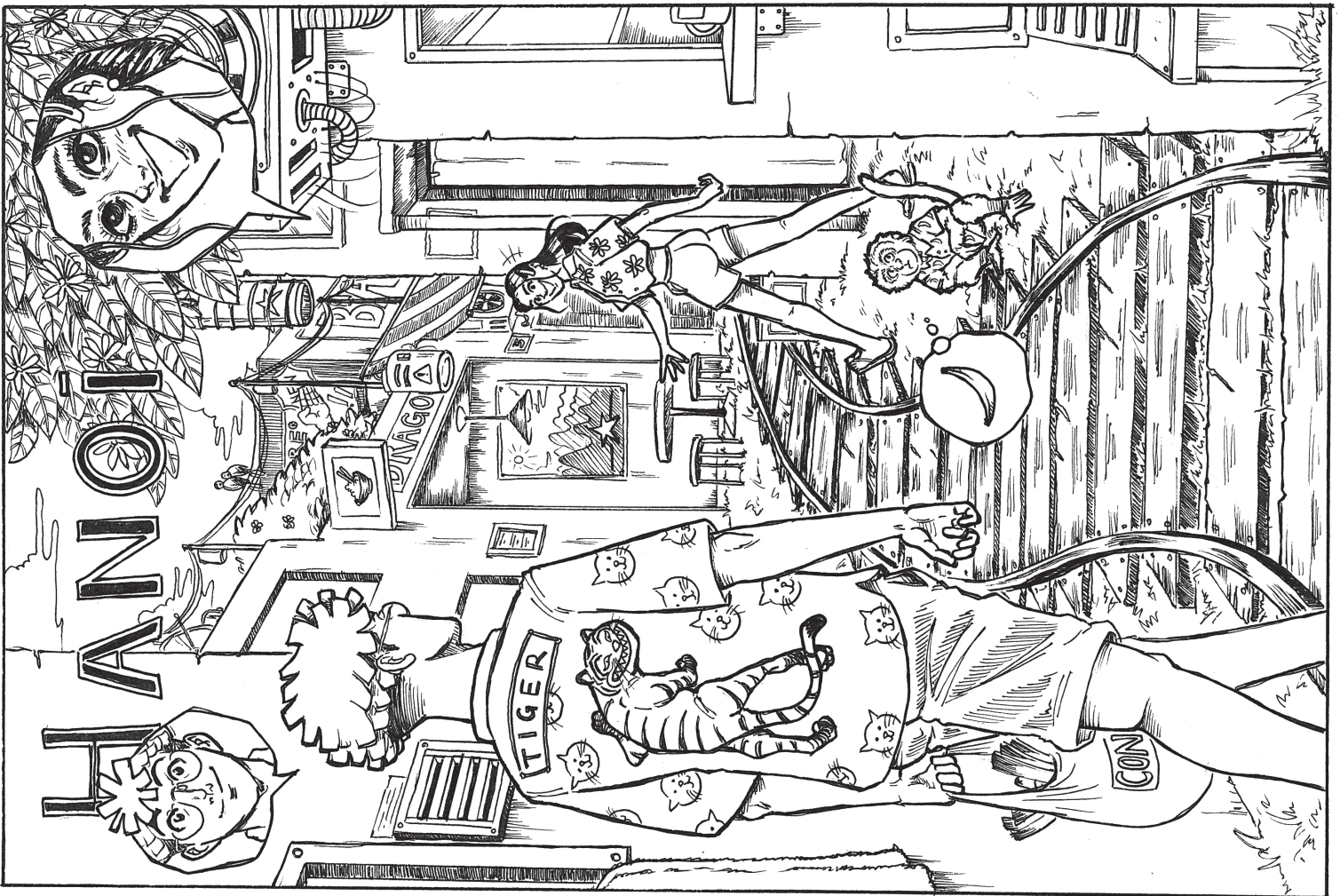
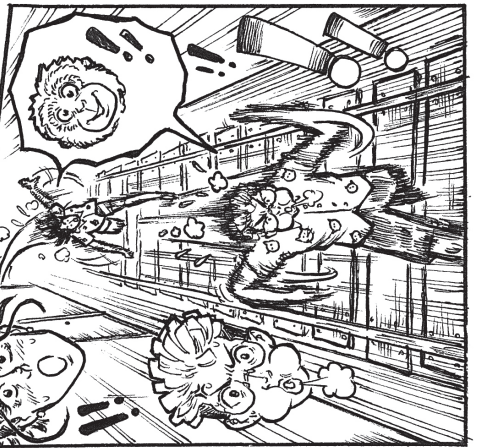
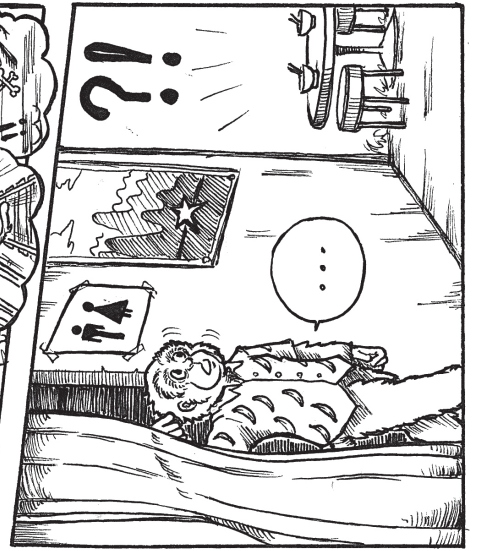
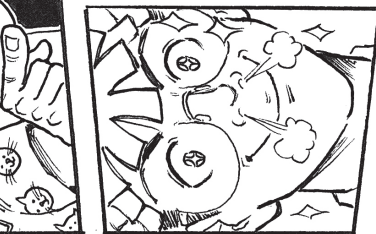
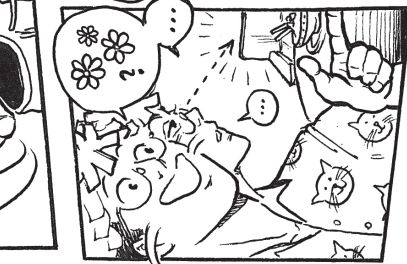
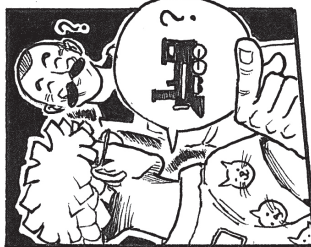
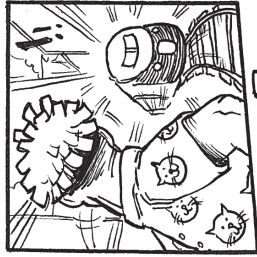


SENSIRION

Raise the frequency

Expand your horizons and increase your market value – throughout Switzerland and around the globe. Make a difference and create sustainable change for a smarter future.

Become part of the story – where market leadership meets startup spirit



Polykum is looking for you!

Do you have good English language skills and know how to structure a text? Then get in touch with Polykum! We are looking for people to redact English articles starting next semester.

Wherever you want to land with your application.



Shirin S.
Bachelor student D-BIOL

> www.eth-gethired.ch



ETH GET HIRED

The job platform for talent made in Switzerland

THE VALLEY - KEMPTPARK 2 - 8310 KEMPTTHAL

THE HAUNTED VALLEY

BE AFRAID

OKTOBER 2022

WWW.THEHAUNTEDVALLEY.CH

GOODNEWS ticketcorner

Die Natur schlägt zurück

Die Natur hat nicht nur positive Seiten – das bekommen Pollenallergiker*innen jeden Frühling zu spüren. Haben wir uns das Problem selbst eingebracht? von Anna Heck

Es ist April, die Sonne scheint, die Vögel zwitschern und das Imperium schlägt zurück. Mit Imperium ist natürlich niemand anderes als die Pollen gemeint. Landauf, landab schnäuzen sich die Menschen die Nasen und reiben sich die juckenden Augen, wenn ein Windstoss den gelben Unrat an ihre Schleimhäute befördert. Unter Allergien leiden laut dem Allergiezentrum Schweiz gut drei Millionen Schweizer*innen. Insbesondere Pollenallergien sind weit verbreitet. Betroffene haben vor allem mit juckenden Augen, verstopften Nasen und ständigem Niesreiz zu kämpfen. In einer kurzen, nicht repräsentativen Umfrage unter meinen Allergikerfreund*innen kam zu Tage, dass aber vor allem die Folgen dieser Symptome nervig sind. So manch einer*m Mitstudierenden ist das Phänomen Heuschnupfen nicht bekannt und man setzt sich weg mit den Worten «Junge, du bist krank!» (Marcus H., 22, immer noch leicht beleidigt). Wenn man dann die ewig juckenden und tränenden Augen mit Allergiemitteln (... unser tägliches Cetirizin gib uns heute...) bekämpfen möchte, kann man sich gar nicht mehr an den fehlenden Symptomen erfreuen, denn das Zeug macht sehr, sehr müde (Natalie L., 23, würde lieber nicht zwölf Stunden am Tag schlafen).

Warum sich Pollenallergien entwickelt haben, ist nicht ganz geklärt. Es gibt aber Hinweise, dass man, wenn man als Kind in einer zu hygie-

nisch sauberen Umgebung aufgewachsen ist, als Erwachsener eher mit Heuschnupfen zu kämpfen hat. Diejenigen Allergiker*innen unter den Lesenden, die jetzt hoffen, ihre Allergien dadurch zu verlieren, dass sie etwas Dreck aus dem Sandkasten des nächsten Kindergartens essen, muss ich leider enttäuschen. Der Zug ist abgefahren.

Die Folgen unserer Eingriffe in die Natur

Die Grube des Heuschnupfens haben wir uns als Menschheit also zumindest teilweise selbst gegraben. Der Eingriff in die Natur hat uns einen Nachteil gebracht. Ein ähnlicher Zusammenhang findet sich auch dort, wo viele von uns ihre Winterwochenenden verbringen. Es geht um die Abholung in den Bergregionen für Skipisten.

Der Wald bietet einen sehr effektiven Lawinenschutz. Er verhindert nämlich das Anbrechen von Lawinen direkt und bremst jene, die oberhalb der Baumgrenze angebrochen sind. Ein Gebirgswald verhindert Lawinen auf verschiedene Art und Weise: die Schneedecke im Wald ist weniger mächtig, die Bäume vermindern Temperaturschwankungen, der Wind wird ausgebremst und kann so weniger Schnee verfrachten und die Stämme stabilisieren die Schneedecke.

Bei den menschlichen Eingriffen in die Natur ziehen wir in den meisten Fällen den Kürzeren. Dafür gibt es natürlich noch viele weitere Beispiele. Vielleicht wäre es an der Zeit, dass der Mensch wieder lernt, mit der Natur zu leben statt gegen sie. Dann müssten wir nicht jedes Frühjahr Unmengen an Taschentüchern mitschleppen.

Anna Heck, 24,

studiert Mathematik im Master und fand als Kleinkind ihre Allergie gegen Kinderschminke (ja, die gibt es tatsächlich) an Fasching sehr nervig.

BG

Bauen Sie mit uns zusammen grossartige Projekte

Die BG-Gruppe ist ein internationales Ingenieur- und Beratungsunternehmen in Infrastruktur, Umwelt, Hochbau und Energie.

Es ist Zeit, dass wir zusammenarbeiten.



INGENIOUS SOLUTIONS

Publishing between Prestige and Peer Review

Producing scientific results is one thing – sharing them with the world is a completely different story. Our author explores how the publishing system works and how it influences the way science is conducted. by Hung Hoang

There are many ways to announce a scholarly discovery. Shouting “Eureka!” in the street. Making a podcast episode on Spotify. Buying a space in “20 Minuten”. Tweeting. However, all these channels, and even talks at academic conferences, generally cannot guarantee that the results are correct. As you probably know, bad science can have severe consequences. Not only does it lay flawed foundations for future works, but it can also adversely impact the society through implications in consumer products and public policies. So how can we trust a research output?

When in doubt, ask an expert

Just like how we avoid fake news, one way is to read from reliable sources. For the academic community, these are the peer-reviewed publications. The most common form is academic journals. The publishing process is similar to that of regular magazines, such as Polykum. Authors write an article and submit to a journal. An editor decides to accept or reject the article, sometimes after requesting the authors for revisions. Once it is accepted, the publisher publishes it in an issue, either in print or online. The difference to most normal magazines is how the editor decides on the merit of the article.

In academic publishing, the editor is generally not the most well-versed in the subject matter of the article. Therefore, she*he looks for experts to review it. Since presumably the authors are also experts, this process is called “peer review”. The editor usually asks the reviewers to comment not only on the correctness of the paper, but also on the presentation and understandability as well as the novelty and impact of the results. Based

on these comments, the editor makes her*his decision.

However, the process is neither objective nor bullet-proof. Reviewers may not read the article thoroughly and overlook mistakes. While the methodology can be checked and the analysis can be verified, it is hard to confirm the integrity of the data. Editors may get unsuitable reviewers or ignore their recommendations. Additionally, there is no clear-cut threshold for the novelty of an article, and its impact may be judged best by the test of time. Therefore, the fact that the journals are peer-reviewed is often not enough. People also look at their reputations. Each field has its own set of renowned journals. However, “Cell”, “Nature”, and “Science” are widely considered as prestigious, mainly based on a measure called the ‘impact factor’. The impact factor measures how often a publication in the given journal is cited by other researchers. Still, we need to take this with a grain of salt. Even these apex journals had to retract published articles that were later discovered to be erroneous or fraudulent. At the same time, many phenomenal results are published in lesser-known journals.

Other publishing venues

Besides journals, peer-reviewed publications also include some books and, especially in computer science, some conferences. These special conferences have peer-reviewed selection processes similar to journals. The written reports of the talks there are later published in the proceedings. As the number of slots for talks are limited, some conferences can be very competitive, and publishing in these conferences is comparable to publishing in reputable journals. However, these reports are subject to space constraints and mostly considered as extended abstracts rather than full articles. Furthermore, reviewers for conferences usually have tighter deadlines and hence are only required to read the limited pages that will appear in the proceedings. As such, although counted

Hung Hoang, 32,

is a doctoral student in Theoretical Computer Science. He hasn’t been able to play Dungeons and Dragons for a long time, because a player keeps having paper deadlines.

as peer-reviewed publications, these conference proceedings may not be as rigorous. Authors are therefore encouraged to follow up with full journal versions.

The dark side of publishing

Nowadays, publications are not only a form of knowledge dissemination, but also a performance measure of researchers. However, just like other measures that tie to compensation, this influences how science is conducted. Candidates for research positions and funding are usually evaluated based on the quantity and quality of publications. This creates pressure to produce results that are publishable and "citable". This may steer researchers towards topics that are more trendy or can guarantee results in a shorter term. The focus on "significant results" makes negative results less favoured or shunned completely. However, these results, if done correctly, could benefit other researchers by revealing problems or documenting methods that don't work. Some researchers even resort to cheating, using fake data or honourable authorships. Therefore, it is crucial for institutions and funders to have a fair and suitable evaluation process that can recognise research excellence in a more holistic manner and discourage shortcuts.

Open access

Traditionally, readers have to pay fees to the journals to access scientific articles. This does not sound so strange, as we normally need to pay for the magazines we read. However, it has created a barrier to knowledge and hindered research of individuals with limited funding. As such, there has been an increasing discussion in recent years towards open access. Broadly speaking, this movement aims to make scientific knowledge freely accessible to the public. However, the publishing fee still needs to be paid by somebody. In order to move towards open-access, many journals instead charge the authors. This in turn creates other problems. For example, some publishers simply publish articles for payment, without a proper editorial process. On the positive side, with easy electronic publishing nowadays, there are free archiving services, such as arXiv, where authors in many fields can make preprints of their published papers available.

It is worth noting that in any model, the researchers who write and review the articles receive no compensation from the journals. At the same time, they may be charged even an excessive fee, either as readers or authors. This has led to the call for fair open access that supports non-profit journals controlled by the academic community.



Oliver Kunz,
studies Agricultural Science and is not cited often.



Stadt Zürich



**«Attraktive Aussichten
bietet Zürich auch als
Ihre Arbeitgeberin.»**



#JobsfürZürich

Der Mensch funkt dazwischen

Bei Naturlandschaften denkt man an unberührte Natur ohne menschliches Eingreifen. Doch so einfach ist das nicht – oft schützen wir die Artenvielfalt besser, wenn der Mensch seine Finger trotzdem wieder im Spiel hat. von Sabrina Strub

Wie bewahrt und schützt man eine Naturlandschaft? Die Antwort darauf scheint einfach: Man überlässt sie sich selbst und unterlässt sämtliche menschliche Eingriffe. Doch gerade kleine Gebiete haben oft keine ausreichende Grösse, damit die natürliche Dynamik funktioniert. Wildtiere in umzäunten Nationalparks können bei Trockenheit beispielsweise nicht in andere Gebiete ausweichen.

Doch während ein über Jahrhunderte angesammeltes Wissen existiert, wie man Land kultivieren und landwirtschaftlich nutzen kann, weiss man vergleichsweise wenig über das Managen natürlicher Systeme.

Menschengemachte Natur

Manche artenreiche Ökosysteme wären ohne menschliche Einflüsse gar nicht erst entstanden, wie Weiher oder Stein- und Asthaufen, die in stillgelegten Gruben angelegt werden. Oder Trockenwiesen und offene Eichenwälder, die durch eine bestimmte Art der Beweidung durch Kühe oder Schweine entstanden sind. Überlässt man diese nun sich selbst, wird der Artenbestand kaum so bleiben wie bisher. Es muss herausgefunden werden, welche Massnahmen nötig sind, wie etwa der richtige Zeitpunkt zum Mähen des Grases oder regelmässiges Abtragen des Bodens, um die Artenvielfalt zu erhalten.

Gutgemeinte Eingriffe

Ein gutes Beispiel für Nationalparkmanagement bietet der Kruger Nationalpark in Südafrika, der eine rund 20 000 km² umzäunte Fläche umfasst. Nach seiner Gründung 1898 war eine der ersten Massnahmen das Erstellen künstlicher Wasserlöcher und -dämme, um den regelmässigen Dür-

ren entgegenzuwirken. Dieses gesteigerte Wasserangebot führte tatsächlich zu einer höheren Dichte an stark wasserabhängigen Tieren wie Zebras oder Gnus und damit auch an Jägern wie Löwen oder Leoparden. Zeitgleich brachen aber die Zahlen der grossen Antilopen ein. Diese leben nomadenhaft in trockenen Regionen und können sich in Gebieten mit zuverlässigem, reichlichem Wasserangebot nicht gegen die dortigen Arten behaupten. So wurden zahlreiche künstliche Wasserstellen wieder geschlossen, um eine natürlichere Verteilung von Gebieten bezüglich Wasserreichtum zu schaffen.

Die Tücken des Feuers

Neben dem Wasserangebot ist für manche Ökosysteme auch Feuer von grosser Bedeutung, so auch im Kruger Nationalpark. Für diese Savannensavannenlandschaften sind kleinere regelmässige Brände nötig, um die botanische Vielfalt zu erhalten, da manche Pflanzensamen erst durch die Hitze des Feuers aufspringen. Bleiben Brände zu lange aus, sammelt sich viel brennbares Material an. Wenn sich dieses entzündet, kommt es zu sehr intensiv brennenden, sich schnell ausbreitenden Feuern, die manche Bäume und Tiere nicht überleben. Um herauszufinden, welche Brandhäufigkeit für welchen Vegetationstyp am besten geeignet ist, führt der Nationalpark seit Jahrzehnten andauernde Experimente durch. Über die Jahre waren verschiedene *Fire Policies* in Kraft. Bei der seit 2002 angewendeten *Integrated Fire Management Policy* werden natürliche Feuer begünstigt und einem jährlich angepassten Plan folgend, wo nötig, zusätzlich künstliche Feuer gelegt.

Wir verstehen die Komplexität natürlicher Systeme oft noch nicht gut genug, um abschätzen zu können, welche Effekte Eingriffe haben werden. Dies führt immer wieder zu Fehlern, woraus wiederum neue Erkenntnisse resultieren. Das Forschungspotential ist nach wie vor riesig und der Klimawandel verändert vielerorts die Randbedingungen.

Sabrina Strub, 23,

studiert Bauingenieurwissenschaften und mag Elefanten im Nationalpark, aber keine Skorpione im Schlafzimmer.



Nature and Young Minds against Resistant Bugs

This is a story about the role of a natural substance and young scientists in the silent pandemic of antimicrobial resistance. *by Alisha Föry*

An antibiotic compound provided by nature

Long before Fleming's famous discovery of penicillin in 1928, many organisms were already using antimicrobial agents for survival. For example, small worms called entomopathogenic nematodes use antibiotic substances produced

Alisha Föry, 25,

studies Health Science and Technology in Master's programme and would like to raise awareness about the spread of antimicrobial resistance in the hope that more young minds begin to contribute to this field of research and development.

by bacteria in their guts to feed on prey. These compounds can subtly beat off pathogens, but are non-toxic for the worms themselves. This phenomenon is interesting because it is what researchers are looking for: substances that are non-toxic to humans but fatal for bugs. Scientists therefore gave those bacteria in the worms a closer look and found darobactin, a peptide that can efficiently kill hard-to-treat bacteria, so-called Gram-negative bacteria. It is darobactin's mechanism that makes it a unique and interesting drug candidate. Antibiotics often work by penetrating bacteria – a difficult task with Gram-negative bacteria as they are protected by two membranes. Darobactin overcomes this challenge by attacking the so-called BAM complex, which is exposed on the surface. This natural antibiotic works in petri dishes and in mice, but its safety for the treatment on humans has yet to be figured out.

Young scientists for the future

Developing new antimicrobial therapies and diagnostics is crucial, but bringing them to market is a whole other story. Earlier this spring, scientists, politicians, investors, big pharma, and start-ups gathered at the AMR Conference in Basel for a vibrant discussion on this very topic. One thing that particularly stuck with me was a short comment by Louise Norton Smith, head of the global AMR strategy in the UK. She emphasised the importance of students, and the youth in general, in the battle against resistant bugs. Young minds can bring such a huge motivation and a breath of fresh air to the discussion. Moreover, it is this generation that will bear the consequences of the current insufficient response to one of the most pressing global public health challenges. Fortunately, youth involvement was not only discussed theoretically, but also put into practice at the conference: young scientists presented their work on posters and in talks. One of them was Majed Modaresi, a PhD student at Hiller Lab at the University of Basel, who is studying the mode-of-action of substances that disrupt the aforementioned BAM complex.

How to get involved

As the resistance of pathogens is still a neglected topic in lecture halls, it is crucial to raise students' awareness about this subject and provide opportunities to get involved. One option was proposed at the AMR Conference by Anita Suresh, Deputy Director of Genomics Sequencing at FIND, a Geneva-based non-profit health organisation focusing on universally accessible diagnostic programmes. FIND offers many broad and flexible work opportunities for students. Interested students can simply contact the company, indicating their preferred area of work and the duration of a possible internship.

Natur pur?!?

Der Mensch ist auf der Suche nach sich selbst und nach der Ruhe – durch die Verbindung mit der Natur kann man in Schweizer Alpentälern angeblich noch fündig werden. Aber gibt es die echte Natürlichkeit überhaupt noch irgendwo? Oder sitzen wir dabei nur einer Lifestyle-Lüge auf? von Julia Kamml

Sämtliche Spatzen pfeifen es von den Dächern: Die Stadtflucht hat eingesetzt und die gemeinen Städter*innen suchen heutzutage Zuflucht in der *Natur*. Verständlich, wir leben in einer schnelllebigen Welt: Die Hälfte der Zürcher Bevölkerung scheint beruflich irgendwas mit Artificial Intelligence zu tun zu haben. Und der Rest? Der pflegt auf irgendeiner Internetplattform ein Profil, das mehr Virtual Reality als von *der Natur* gesegnet ist. Kein Wunder also, dass wir uns nach den einfachen, ursprünglichen Dingen sehnen.

Ruhe und Einklang

Aber wieso genau rennen jetzt eigentlich alle bei jeder Gelegenheit raus in die vermeintliche *Natur*? Als Begründung höre ich immer wieder, dass man Ruhe sucht, am besten noch den Einklang mit sich selbst. Mal abgesehen von dem leicht esoterischen Beiklang, müsste einem von *Natur* aus mit Verstand gesegneten Menschen doch klar sein: Wenn sämtliche Leute die Stadt verlassen, ist es am vermeintlichen Zufluchtsort sicher nicht mehr ganz so ruhig. Erst stehen alle im Stau vor dem Gotthard und dann tummeln sich die ach so CO₂-neutralen VW-Busse auf irgendwelchen *Naturcampingplätzen*. Umweltverträglicher *Naturtourismus*, versteht sich.

Mein Freund, der Baum

Der Mensch hat ja oft die Angewohnheit, mit seiner Liebe das Objekt seiner Begierde zu erdrücken. Scheint hier auch der Fall zu sein – bei so vielen Bussen wächst hinterher sicher kein Gras mehr. Und die armen Bäume können sich gegen die vielen Umarmungen auch kaum zur Wehr setzen – aber was tut man nicht alles als Baum für seine Likes auf Instagram (#LovingNature #Naturkind #MeinFreundderBaum).

Naturfreund*innen unter sich

In diesem Zusammenhang habe ich letztes das Zitat einer Instagrammerin gelesen: «Nichts ist härtere Arbeit als Natürlichkeit.» Wie viel Wahrheit in dieser Aussage steckt, wurde mir kürzlich bewusst: Da schlenderte ich völlig arglos durch die Räumlichkeiten eines bekannten Vertreibers von Outdoorerquipment. Man glaubt es kaum, aber diese *Natur* ist offenbar ein sehr lebensfeindlicher Ort – zumindest der Menge an Dingen nach zu urteilen, die man anscheinend für so einen Trip raus in die *Natur* benötigt – und wir reden hier nicht von einer Himalaya-Expedition, sondern von einem mitteleuropäischen Campingplatz. Vom multifunktionalen Campinggeschirr übers Luxusmätteli zur Outdoorhose mit Fuchseblem, der Absatzmarkt scheint grenzenlos. Und das alles natürlich komplett nachhaltig produziert. Überhaupt war mir nicht bewusst, dass es für *Naturfreund*innen* offenbar eine bestimmte Uniform gibt: ähnlich wie die der Outdoorsportler*innen, allerdings weniger farbenfroh. Die Farbpalette: beige, oliv, braun, aufgepeppt höchstens mit einer Spur senfgelb oder weinrot. Die Zeiten, als man zum Zelten seine alte Jogginghose mitnahm, sind scheinbar vorbei – vorausgesetzt, man will sich nicht als Amateur*in outen ... Der Club der Naturfreund*innen erkennt sich nun schon von Weitem gegenseitig und man diskutiert mit Leidenschaft über die Wassersäule seiner Funktionsunterhose. So ein *natürlicher* Lebensstil hat also nicht nur mit sehr viel Arbeit zu tun, sondern ist auch mit enormen Kosten verbunden. Deshalb bin ich dazu übergegangen, die Stadt nun als meinen *natürlichen* Lebensraum zu betrachten. Und weil alle über die Feiertage das Weite suchen, hat man hier mittlerweile sogar an Ostern herrlich seine Ruhe.

Julia Kamml, 32,

hat früher gerne Zeit in *der Natur* verbracht. Nachdem diese aber von einer VW-Bus-Schwemme überflutet wurde, sucht sie nun Zuflucht im Zürcher Rieterpark.

June 20, 2022 at 18:00 | University of Zurich, Aula

Good economics for hard times

Nobel laureates
Abhijit Banerjee and
Esther Duflo

Public lecture with limited
seating. Register now:



t.uzh.ch/1k3

© 2019 Nobel Media. Photo: A. Mahmoud

IMPRESSUM

HERAUSGEBER

VSETH, Verband der Studierenden an der ETH,
Universitätsstrasse 6, ETH Zentrum CAB, 8092 Zürich,
vseth@vseth.ethz.ch, vseth.ethz.ch

REDAKTION

Polykum, Zeitung des VSETH, Universitätsstrasse 6,
ETH Zentrum CAB, 8092 Zürich,
redaktionsleitung@polykum.ethz.ch,
vseth.ethz.ch/polykum/

REDAKTIONSLEITUNG

Anna Weber & Anna Heck

REDAKTION:

Jonas Baggenstos, Mara Bless, Alisha Föry, Riccardo
Giacomello, Hung Hoang, Navya Itty, Nils Jensen,
Julia Kammli, Jessie Li, Leah Mönkemöller, Nikolaus von
Moos, Nicole Pfenninger, Sabrina Strub, Nicolas Toth
& Jan Zibell

TITEL:

Natur / Nature

LEKTORAT:

Cornelia Kästli

BILDER:

Fotokommission, fotokommission.ch

GRAFIK KONZEPT/LAYOUT/GESTALTUNG

Lorena La Spada

ADMINISTRATION:

Cornelia Kästli, info@vseth.ethz.ch

WETTBEWERBE & VERLOSUNGEN:

Die Gewinner werden per E-Mail benachrichtigt. Der
Rechtsweg ist ausgeschlossen. Über den Wettbewerb
wird keine Korrespondenz geführt. Die Mitarbeitenden
und deren Partner*innen sind von Wettbewerben und
Verlosungen ausgeschlossen

ADRESSÄNDERUNGEN:

Adressänderungen müssen selbstständig unter
adressen.ethz.ch vorgenommen werden. Sollte kein
Postversand mehr erwünscht sein, kann dies ebenso
unter adressen.ethz.ch angegeben werden (siehe Ver-
sendungen > per Post an: keine Postzustellung).

ANZEIGENMARKETING:

Haben Sie Interesse daran, im Polykum ein Inserat zu
schalten? Kontaktieren Sie uns direkt:
timothy.walder@2047.agency
– wir freuen uns, Sie im Heft zu haben!

DRUCK:

Vogt-Schild Druck AG, Derendingen

AUFLAGE:

Druckauflage 20 880 Exemplare, Mitglieder-
auflage 20 676 Exemplare (WEMF bestätigt 2021).
Das Polykum erscheint 6-mal jährlich.

LESERBRIEFE:

Das Polykum-Team freut sich über Anregungen, Kritik
und Lob. Kürzere Leserbriefe haben eine bessere
Chance veröffentlicht zu werden. Die Redaktion
behält sich vor, Kürzungen vorzunehmen.
redaktionsleitung@polykum.ethz.ch

WANTED:

Schreibtalente & Comiczeichner*innen
für die Polykum-Redaktion gesucht!
Du möchtest kreativ eskalieren? Dann fehlst
genau du in unserem Team! Melde dich bei:
redaktionsleitung@polykum.ethz.ch

printed in
switzerland



Vom Wald ins Wohnzimmer

Eine Analyse zum Bauen mit Holz.
 von **Nikolaus von Moos**

Das Circular Engineering for Architecture Lab (CEA) baut momentan ein Gebäude – bestehend nur aus Bauabfällen – wie das ETH-Magazin «Globe» berichtete. Das Grundgerüst besteht dabei aus wiederverwendeten Holzleisten. Doch wie wird Holz sonst eigentlich im Bausektor verwendet? Jener Sektor, der momentan nicht als nachhaltig gilt, da er 2019 für 38 Prozent der globalen CO₂-Emissionen verantwortlich war.

Wieso Holz?

Holz gilt als ökologisch vorteilhafter Baustoff, weil durch seine Verwendung der Atmosphäre Kohlendioxid (CO₂) für die Lebensdauer der Produkte – hauptverantwortlich für den Treibhauseffekt – entzogen wird. Dies, da wachsendes Holz über die Fotosynthese CO₂ speichert.

Dazu zwei Fakten: Erstens reduziert jeder Kubikmeter Holz, der als Ersatz für einen anderen Baustoff verwendet wird, die CO₂-Emissionen in der Atmosphäre durchschnittlich um 1,1 Tonnen Kohlendioxid. Zweitens werden über die Lebensdauer eines Produktes 0.9 Tonnen CO₂ pro Kubikmeter Holz aus der Atmosphäre entzogen und im Holz gebunden.

Weitere Vorteile

Da Holzprodukte als CO₂-neutral gelten, sind also nur die aus der Herstellung resultierenden zusätzlichen Treibhausgasemissionen klimarelevant. Aufgrund der einfachen Bearbeitbarkeit ist in der Regel nur ein geringer Energieinput nötig. Allerdings kann der Einsatz von Klebern, Folien und Stahlverbindungen aus Gründen der baulichen Stabilität das Treibhausgasprofil negativ beeinflussen.

Nikolaus von Moos, 23,

hat hoffentlich bald den Bachelor in Gesundheitswissenschaften und Technologie abgeschlossen und zeltet gerne draussen in der Natur.



Ein Holzhaus in Konstruktion

Für die Verwendung spricht, dass Holz als warmes Material gilt, das Gemütlichkeit ausstrahlt und somit ein angenehmes Wohnklima schafft. Zudem lassen sich Bauteile auch nach ihrer Nutzung stofflich weiterverwenden. Falls eine Weiterverwendung nicht mehr sinnvoll ist, können diese immer noch zur Energiegewinnung dienen. Dabei wird CO₂ abgegeben, das aber vom nachwachsenden Wald wieder aufgenommen werden kann. Der Kohlenstoffkreislauf wird auf diese Weise geschlossen.

Wieviel Holz ist denn eigentlich da?

32 Prozent der Schweizer Landesfläche sind mit Wald bedeckt. Jede Sekunde wachsen in der Schweiz 0.3 Kubikmeter Holz nach. Aufsummiert entspricht dies alle vier bis sechs Minuten dem Bedarf für den Bau eines Holzhauses. Auswertungen von Josef Kolb in «Holzbau mit System» aus dem Jahr 2007 zeigen jedoch, dass in der Schweiz nur ca. 55 Prozent des Holzzuwachses auch verwendet werden. Es gibt also noch Kapazität.

Vorbehalte gegenüber Holz

Der grösste Vorbehalt gegenüber dem nachwachsenden Baumaterial ist die angenommene fehlende Feuerbeständigkeit. Gemäss einer Umfrage zu Zukunftsmärkten der Forst-Holz-Kette (ZUFO) halten 51 Prozent der Befragten Holz für überhaupt nicht feuerbeständig. Weiter wird oft angenommen, dass Holz ein wenig dauerhafter Baustoff sei. Dabei stimmt dies gar nicht. Technologische Verarbeitungsprozesse und Lackierungen gewährleisten die Tragfähigkeit im Brandfall, und eine Gesamtnutzungsdauer von 80 bis 100 Jahren ist möglich. Unter anderem deshalb ist das Bauen mit Holz keine Utopie, sondern realistisch und machbar. Und stellt einen Weg dar, der CO₂-neutrales Bauen ermöglicht und eine Entwicklung hin zu mehr Wiederverwendung aufzeigt, wie es auch die Forschungsgruppe des CEA vormacht.

Through the Woods

An exhibition at the Swiss National Museum explores the relationship between humans and nature. Our author recommends a visit. by Riccardo Giacomello

A powerful man chops down the last trees in a bleak landscape: Swiss painter Ferdinand Hodler's famous "Woodcutter" opens up the temporary exhibition "In the Forest. A Cultural History" at the Swiss National Museum. The painting from 1910 is nowadays more relevant than ever. Man dominates nature; he overmasters it, but this power ultimately threatens himself. When all trees are cut, he will be all alone.

An inseparable whole

The division between culture and nature runs through our history since we left the "state of nature" through the neolithic revolution. The first forest clearances in that epoch marked the beginning of a steadily growing use of forest resources that culminated in the large-scale destruction since the industrial age. This history constitutes the first main part of the exhibition. It turns out that the division between culture and nature is misleading: humans continue to be totally dependent on and a part of nature. The woods are our original home; visiting them boosts our health, strengthens the immune system and lowers blood pressure. And the fact that humans are lost without nature surrounding them was realised in Switzerland in the 19th century, when the deforestation of mountainsides for industrial purposes came at the cost of devastating landslides.

From destruction to restoration

The view of the forest as a human habitat and as an ally instead of a simple resource for exploitation points to another focus of the exhibition: the protection of the woods. Here ETH had an important role, having trained forest preservation specialists as early as its foundation in 1855. Moreover, progressive legislation acknowledged the importance of trees as protectors from landslides and avalanches. All this led to a recovery of

Swiss woods over the past 150 years. The problem of deforestation has shifted since then to tropical areas, where numerous indigenous peoples call the forest their home. How their fight against rainforest destruction was also supported by Swiss people like Bruno Manser is explained in the exhibition as well.

What lies ahead?

A third topic is the presentation of forests in art and literature. It is shown how they inspired philosophers, romantic poets, fairy-tale authors and modern filmmakers. Paintings are often idealising; the more modernity has torn man from his primordial bond with nature, the more nostalgia and romanticisation of wild, pristine landscapes. The problem of deforestation ultimately called performance artists to action. Klaus Littmann planted 299 trees in a stadium, implying a future in which nature can only be seen in narrowly delimited reserves.

The story at the museum ends with this grim outlook, with little hope for a positive turn: a sculpture of a dead olive tree. But as necessary as change is, it is also still possible. Unfortunately, the exhibition doesn't discuss what can be done. Which political and economic measures could stop deforestation? How much would the promotion of plant-based nutrition contribute? Are environmental protection and material prosperity reconcilable? Such and more uncertainties persist as we leave this beautiful but worrying exhibition.

The exhibition "In the Forest. A Cultural History" is open until 17 July 2022.



Ferdinand Hodler (1853–1918), *Der Holzfäller*, 1910, Öl auf Leinwand, 129.5x100 cm.

© Kunstsammlung der Schweizerischen Mobilien Genossenschaft

Riccardo Giacomello, 26,

studies Comparative and International Studies. He agrees with Jean-Jacques Rousseau that forests are among the best places to find happiness.

PRIX
DU PUBLIC
NOMINIERT
SOLOTHURN 2022

lost in paradise

Ein Film von FIONA ZIEGLER

IVAN POKORNÝ
DOMINIQUE JANN
HEIDI MARIA GLÖSSNER



« Bern - so lustig
wie noch nie! »
DER BUND

« Ein grosser Spass. »
DER BUND

AB 12. MAI IM KINO

FRENETIC
FILMS

JOANNA SCANLAN



NATHALIE RICHARD

AFTER LOVE

A FILM BY ALEEM KHAN



BAFTA
WINNER FILM



AB 19. MAI IM KINO

FRENETIC
FILMS

