

Exhibition & Workshop @ KH7 Artspace/Smallspace, Aarhus, DK / May 10–26, 2024

Becoming Mycelial

In an interweaving of artistic, scientific and practical approaches, the collaborative research project Mycelial Space makes fungi the linchpin for an open-ended exploration of relational, non-binary and a-hierarchical forms of knowledge production and transfer. Since 2021, the project has been opening up space for collaborations and synergies between artists and experts from a wide range of disciplines and practical fields. It pursues the idea of a transversal intelligence that can open the mind and senses by drawing on theoretical and scientific approaches as well as basic cultural techniques such as observing, collecting, reflecting, interweaving, telling, listening ... In collaborative and experimental formats that promote and strengthen practices of togetherness, sharing and caring, the project aims to critically question existing norms and open up perspectives for a good coexistence between individuals and species.

Within the exhibition *Becoming Mycelial*, we invite members of our international network to present artworks and posters that give insight into their approaches to and explorations of fungi as a material and method. The individual contributions will be on display as part of a collaborative space installation that makes our mycelial network tangible within the framework of a large-scale wall drawing. The project is intended as an initial spark through which we want to get in touch with local individuals and networks working with/on fungi. In an open call, we invite artists, researchers and an interested public to submit projects based on their own engagement with fungi. A selection of the submitted works will be shown in October 2025 as part of another exhibition at KH7 Artspace Aarhus.

With contributions by Amir Bastan (IR), Ludovica Breitfeld (IT/SE), Jitka Effenberger (AT), Paula Flores (MX/AT), Matilda Forssblad (SE), Taro Knopp (AT), Flavia Matei (RO), Peter McCoy (US), Clizia Moradei (IT), Marion Neumann (CH), Günter Seyfried (AT), Noor Stenfert Kroese (NL), Jonas Studer (CH), Dila Suay (CH), Kristin Weissenberger (AT), Birgit Wenninghoff (DE), Wiener Pilzfestspiele (AT), Kanishka Wijayarathna (SE)

Curated by Mycelial Space / Sarah Kolb & Jutta Strohmaier

Opening hours and specials

Opening: Friday May 10, 16.00

Workshop: Saturday May 11, 14.00 – 17.00

Opening hours: Thursday – Saturday 14.00 – 17.00

Finissage: Sunday May 26, 14.00 – 17.00

KH7 Artspace/Smallspace

Sydhavnsgade 7, 8000 Aarhus C

www.kh7artspace.dk

www.mycelial-space.net

Supported by
Statens Kunstfond
Aarhus Kommune
University of Arts Linz

Contributions

Ludovica Breitfeld

Berlin, Germany

Here to pass, not to stay, mixed media, 2023

Here to pass, not to stay is a site-responsive installation that transcends the staging of an architectural archetype. While providing an intimate refuge, it invites us to an immersive experience of collective imaginary. Passing through a gate, an uncanny and arcane organism is encountered, hosting humans, non-humans, plants and spores. Reminiscent of the primitive hut (Marc-Antoine Laugier), the structure is made of poor and fragile elements, loosely circumscribed by a row of mycelium bricks. By crafting elemental gestures of construction, a tangible bond with the elusiveness of the cosmos is formed, conveying the precariousness of all things. Nestled within perceptions, the exhibition is enveloped by soft atmospheric forces, carrying us to remote environments, where monuments – once memorial embodiments – now stand as relics of a bygone era (Alois Riegel).

By experimenting mycelium composites through various scales and methods of fabrication, Ludovica critically juxtaposes its unpredictable nature with current anthropocentric practices of resource extraction and their ceaseless desire for perpetuity, whilst embracing the transitory nature of the composite organic material. In order to call upon the creature residing within the room, hosts shared texts that talked about the themes of time, renewal and rituals. At the end of the event, all the natural materials used for the installation are digested and evacuated, thus giving a new stage of life.

Ludovica Breitfeld (IT/SE) is an architect based in Berlin. Her practice questions material cultures while reinterpreting their relationship with space, identity, and bio-technospheres from research to production. In 2021, she proposed "MoU: Memorandum of Understanding," a performative installation at the Trieste Biennale (IT) "BID21". In 2022 a research project on fungal mycelium's applications in architecture in collaboration with NASA was exhibited at EXPO Dubai 2020 within the Austrian Pavilion and later presented at UNOOSA (UN Office for Outer Space Affairs). In 2023, her site-responsive installation "Here to pass not to stay" was exhibited at Kollektiv Kaorle in Vienna (AT) with backing from the Federal Ministry of Arts and Culture's START grant.

Ludovica is a practicing architect and founder of Studio Goshénite, a material research platform focused on reuse, upcycling, and repurposing of materials within the design discipline.

More information: www.studiogoshenite.com / @studiogoshenite

Jitka Effenberger

Soft Matter Physics Division (SoMaP), Johannes Kepler University, Linz, Austria
BASEhabitat, University of Arts Linz, Austria

Mycotiles, ceramic screen-print of mycelium materials, 2023/24

Mycotiles is based on an experimental approach to visualize pure mycelium materials and mycelium bound composites on ceramic surface. Collaborating with mycelium as co-creator due to the use of mycelium digestion to create printable patterns. Exposed

screen-printed mycelium skin of the species *g. lucidum*. Printed fruiting bodies of *pleurotus columbinus*.

Jitka Effenberger (DE) works as Technician at the department of Soft Matter Physics at the Johannes Kepler University Linz, researching and investigating on mycelium-based materials in interdisciplinary teams (projects: MycoInsulation, MycoSoft). She is teaching and organizing collaborative mycelium material workshops and lectures in multiple departments at the University of Arts Linz and other institutions. Technical consulting in several artistic projects. Architecture student at BASEhabitat, University of Arts Linz, with focus on sustainable ecological building materials, working on her MA thesis on mycelium in architecture. Artistical experiments with mycelium materials. Board member of Collaborative Building & Living, Vienna.

Paula Flores

Tijuana, Mexico & Vienna, Austria

Soft doors, ink and acrylic on canvas, 30 cm diameter, 2022

A documentation of the growth of my companions, pink oyster mushrooms in my studio. I decided to try and captivate the beautiful contrast of sunlight and the pink flesh of the mushrooms.

The calling, ink on canvas, 30 cm diameter, 2022

A tribute to the knowledge of Maria Sabina, a famous Mazatec healer and the Mazatec culture who use mushrooms as medicine and guides.

Paula Flores (MEX). Through her artwork she attempts to represent the complexity of nature, and our knowledge as well as ignorance that we have towards it. She treats themes such as interspecies communication and relationships, immigration and the disappearance of native cultures, flora, and fauna as a result of modern industry; the spaces they occupy and how they've changed or disappeared due to commodification. Making use of diverse artistic disciplines and a mix of organic and industrial materials, she creates a dialogue regarding the current situation between human and nature. Paulas work has been shown in exhibitions such as *Party of a lifetime*, curated by Marcello Farabegoli, Kunstraum Feller/Vienna Art Week. *TRAUMA*, Monologe gallery, Belgrade, Serbia. *SMOM overload*, KUBUS export, Vienna, Austria. *Trauma*, Kunstraum Munich, *VARIOUS OTHERS*. Munich, Germany. *Is this intimacy*, curated by agenda Krinzing Projects, Honolulu, Hawaii. *Biennale Sessions*, Biennale di Venezia, Italy. *Consciousness reframed*, Porto, Portugal.

More information: www.paulafloresart.com / @paula_flores_studio

Taro Knopp

Stadtwerkstatt Linz, Austria

ml-iso/la/ti/o/nis/mus, mixed media, since 2017

ml-iso|la|ti|o|nis|mus is one of several departments of the project myco-logick: a series of attempts of interaction with our fungal cohabitants. focusing on fungi as an omnipresent organism, communicating. mycelia as a tactical sociopolitical comparison, used to critically rethink the alternative models of economic production and coexistence. Isolationism has been defined as: a policy or doctrine of trying to isolate (...) from the affairs of other(...)s by declining to enter into alliances, foreign economic commitments,

international agreements, and generally attempting to make one's economy entirely self-reliant; seeking to devote the entire efforts (...) to its own advancement, both diplomatically and economically, while remaining in a state of peace by avoiding foreign entanglements and responsibilities.

Taro Knopp (AT) is working, observing, researching, experimenting, playing [with] the fringes of science, art, politics, life, realities...

More information: www.creaturesmessages.org

Flavia Matei

BASEhabitat studio, University of Arts Linz, Austria

The way we plan, build and therefore shape our living spaces is inextricably connected to ecological, economic, social and political aspects. Aware of these challenges, BASEhabitat has been working on sustainable architecture and spatial development for 15 years with exemplary projects. Founded in 2014, the studio explores architecture education in transdisciplinary, internationally diverse contexts with a focus on sustainable building and local, regenerative building materials and technologies.

Flavia Matei (RO) is an architect and researcher at the BASEhabitat studio, University of Arts Linz, Austria. She has been the driving force in setting up a module on regenerative building materials, including mycelium, for the MA program at the BASEhabitat studio. She has been organizing hands-on workshops and has supervised outstanding design projects such as *Botswana Housing* (2019), *Little John's wird groß!* (2020), *Into the Garden* (2021), *Botswana: Housing for a Changing Planet* (2022).

More information: www.basehabitat.org

Peter McCoy

Radical Mycology & Mycologos, Portland, USA

Amanita in Section, photography, 2023

Digestion, photography, 2023

100 Fungi to Know, poster, 11" x 17" (dimensions variable), 2024

These mushrooms, lichens, molds, and yeasts are the 100 that we consider to be the most culturally influential. Whether they're familiar or foreign to you, we believe all are worth honoring for the support they offer humans and habitats.

The Fungi Lover's Basket List, poster, 11" x 17" (dimensions variable), 2024

This checklist covers 100 of the most exciting, unique, and quintessential fungi-infused experiences that we can imagine. Some may be familiar to you, and perhaps a few can already be checked off. But we hope most excite you with new insights into all that working with fungi offers.

Peter McCoy is an interdisciplinary mycology researcher and educator with 20 years of experience. His work is widely regarded as pioneering in the topics of accessible mushroom cultivation and mycoremediation, while his in-depth mycological knowledge has also elevated his voice to one of the foremost in the less-explored fields of fungal evolution, fungal communication, and the history of fungi in human cultures. Peter's daily

practice centers on researching, designing, and cultivating ever-healthier relations between humans, fungi, and the habitats we share.

He is the author of *Radical Mycology: A Treatise on Seeing and Working with Fungi* (2016) and *The Mycocultural Revolution: Transforming Our World With Mushrooms, Lichens, and Other Fungi* (2024), the founder of the grassroots organization Radical Mycology, the director of the Fungi Film Festival, and the founder of Mycologos, an applied mycology school and experimental fungi farm based in Portland, Oregon. His work has been featured in the films *Fantastic Fungi* and *The Mushroom Speaks*, and in the books *Entangled Life*, *In Search of Mycotopia*, and *The Future is Fungi*.

More information: www.radicalmycology.com / www.mycologos.world

Clizia Moradei & Matilda Forssblad

Università Iuav di Venezia, Venice, Italy / University of Borås, Sweden

Act Like a Lichen: A Queer Fashion Workshop, April 2024, University of Borås, Sweden

The fostering of an environment for collective work where to interact with a set of »material provocations« to develop open-ended projects is the focus of this activity, that aims to test how to apply a queer attitude inspired by the lichens onto fashion design.

Clizia Moradei (IT) is a PhD candidate in sustainable fashion at Università Iuav di Venezia (Italy), and a multidisciplinary designer with a special interest in contemporary jewelry. She approaches research through a hybrid theoretical and practice-based attitude. Her work focuses on developing interdisciplinary perspectives entangling fashion, product design and visual art, through a material-driven, bio-inspired and post-human approach, set within the frame of biological, ecological, cultural, and sustainable studies.

More information: [@cmoradei@iuav.it](mailto:cmoradei@iuav.it)

Matilda Forssblad (SWE) is a PhD candidate at the Swedish School of Textiles, University of Borås (Sweden). Her research is situated within the sphere of practice-based artistic research in fashion design. She focuses on the role and identity of fashion and how it is practiced, and understood, through material and non-material cultures. By exploring different ways of thinking, doing and being fashion, she searches for words that do, actions that say, and communications that form something with our understanding of fashion.

Contact: matilda.forssblad@hb.se

Marion Neumann

Basel, Switzerland

The Mushroom Speaks, film documentary, 1:43 min, 2021

Marion Neumann (DE) is an artist and filmmaker. She works in an interdisciplinary way with an interest in altered states of consciousness. Her cinematic work is rooted in personal experiences and moves between documentary and experimental narrative forms that interweave science, poetry and contemporary social issues. *The Mushroom Speaks* is her second documentary, which tells the story of the unique abilities of fungi. As co-director of the festival MosEspa, together with the artist Frédérick Post, she has successfully curated several editions on the theme of the trance experience. As a

founding member of the Swiss psychedelic association, Eleusis Society, she is committed to a better understanding of psychedelics and is working on her new film.

More information: www.marionneumann.net / www.themushroomspeaks.ch

Noor Stenfert Kroese & Amir Bastan

University of Arts Linz, Austria

ZOE (datacarpets), mixed media, 2022/2023

ZOE is a temporary co-existence between reishi mushrooms and a custom-made robotic system exploring possibilities of internal communication. Within this seeming paradox between nature and technology, an ecosystem occurs that cares for and affects each other through sensing technologies. *ZOE* uses sensors to collect data from the environment as well as the mycelium of the reishi. It uses this data to create the internal communication between the reishi and the robotic system. The reishi and their behaviour define what the robotic system does and the robotic system influences the shape of the light-sensitive reishi. Over time, this influence sculpts the shape of the fruiting bodies of the reishi as a reflection of their ecosystem. The data is used in the space to create a sensory experience to explore this unknown communication. Finally, the datacarpets are created from the daily collected data from reishi in relation to their environment to see if we could experience any correlation between them. These tactile data visualizations explore the unknown communication going on in this temporary co-existence.

ZOE is the first step in the ongoing research project Mycobotics, which focuses on the possibilities of biocomputing with fungi through robotics and parallel interactivity. It explores the intricate connections between human and non-human entities and the role of data in shaping these interactions.

Noor Stenfert Kroese (NL) is a new media artist, scenographer and artistic researcher. From a critical post-humanistic perspective, her works evolve around the encounters between humans and non-humans in spatial performative installations. Noor lives and works in Linz (AT), where she is a PhD candidate in Creative Robotics and a lecturer at the University of Arts Linz as well as a University Assistant in the Master's program Art & Science at the University of Applied Arts Vienna. Her current research focuses on data storytelling of living organisms, fungal-inspired biocomputing with industrial robots. Noor's work was exhibited and performed at venues and festivals such as the Ars Electronica Festival (AT), Festival X (UAE), Barcelona Design Week (ES), and Dutch National Opera & Ballet (NL). She received awards for her work from YouFab Global Creative Awards (JP), New Media Architecture Biennale (CA) and Prins Bernard Young Talent Award (NL).

More information: www.stenfertkroese.com / @noorstenfertkroese

Amir Bastan (IR) is a new media artist with a background in fine arts and philosophy. By designing narratives through real-time processes, he explores the gap between the conscious and the unconscious. "The Human Robot Transference" is the centerpiece of his current research, drawing parallels between psychoanalysis theories and human-robot interaction within the context of new media arts. Alongside his artistic practice, Amir is developing "The Bunraku Project," a software utilized for real-time control, visualization and simulation of industrial robots. Amir is based in Linz (AT), where he is pursuing his PhD and is currently a researcher at Creative Robotics and a lecturer at the University of Arts Linz.

More information: www.amirbastan.com / @anamirbast

Dila Suay

Scuola IMT Alti Studi Lucca, Italy & University of Zurich, Switzerland

Synopsis, pastel, 2024

Synopsis aims to illustrate the profound interconnectedness that permeates our existence. Drawing inspiration from the sprawling mycelial networks of fungi, this artwork transcends mere illustration to offer a visceral exploration of the ties that bind us. Just as fungi communicate and share resources through their vast mycelial networks, so too do our thoughts, emotions, and experiences intertwine to form the fabric of human consciousness.

Gazing upon the upper reaches of the drawing, one is immersed in a palette of cool hues, a testament to the singular unity that permeates all life. As the eye descends, warm hues emerge, and the threads of connection intertwine, weaving a tapestry of shared consciousness, echoing the timeless wisdom of nature's interconnected web. Just as fungi thrive through symbiotic relationships, so too can we flourish when we recognize and embrace our interconnectedness with each other and the world around us. For in this convergence of art and science, we find not just a reflection of our interconnectedness, but a celebration of the boundless potential that arises when we embrace the unity of all beings.

Dila Suay (TUR) is a PhD candidate in Clinical and Cognitive Neuroscience at the Scuola IMT Alti Studi Lucca, Italy, and the University of Zürich, Switzerland. With a profound passion for understanding self-consciousness, she delves into the depths of the mind, unraveling neural complexities and probing the essence of perception. Her research extends beyond traditional boundaries, as she explores the transformative effects of psychedelic substances on cognition and creativity. Drawing from a multidisciplinary approach, Dila investigates the potential therapeutic benefits of psychedelics and their impact on the creative process. Through her work, she seeks to bridge the gap between science and art, aiming to illuminate the profound connections between altered states of consciousness and creative expression. She believes that by embracing the intersection of neuroscience and art, we can unlock new avenues of exploration and insight into the human experience.

Jonas Studer

Brugg & Wimmis, Switzerland

Durga, myceliography from a diapositive, 2023

The myceliographies are expressions of the transformative power inherent in the enzymes of the mycelium. In an era of rigid hierarchies, the mycelium teaches us the strength of decentralized structures: there are no centers, only nodes of cooperation. These fungal networks break down outdated, patriarchal ideologies, promoting diversity and equality. Their model of mutual support and sustainable use could revolutionize our social and ecological practices.

The mycelium calls on us to rethink connections: a world in which exchange and solidarity nourish both the individual and the whole. In its quiet, persistent way, it transforms the old, prepares the ground for the new, and shows that profound changes can grow from what is hidden.

Jonas Studer (CH) intertwines the captivating world of fungi with art and science – as an artist, researcher, and educator. His work draws from Édouard Glissant's concept of *Tout-Monde*, which defines human identity through diversity. Jonas explores fungi as a living

countermodel to traditional concepts, conducting aesthetic inquiries at the intersection of nature and technology, exemplified by his mycelographies, offering novel perspectives. As an educator, he shares his knowledge of artistic thinking and practices, fostering collaboration among art, science, and society. Studer's work points at a multilayered reality, emphasizing the significance of fungi for our future and biodiversity conservation.

In addition to his artistic pursuits, Jonas serves as the Chief Education Officer (CEO) at eduLAB Thun (CH), an innovation hub for children and adolescents. He is the founder of Pilz potz Blitz, a platform for artistic research and networking, and is affiliated with the Society for Mycelial Studies at the University of Arts Linz.

More information: www.jonasstuder.ch / @jonas_studer

Kristin Weissenberger & Günter Seyfried

Academy of Fine Arts Vienna / New Design University St. Pölten, Austria

probe_particle_encounter, 2021– ongoing, www.probe-encounter.xyz

probe_particle_encounter is a dynamic artistic research project that delves into the intersection of ceramic craftsmanship, environmental influence, touching concepts of non-place, non-time, and the unique perspectives of living beings.

probe_particle_encounter, which was starting at the residency Ars Bioarctica Finland's Kilpisjärvi focusing on the development of ceramic objects and processes designed to provide optimum habitation (biocaptivity) for various life-forms. These ceramic objects continue to serve as architectural platforms for lichens, mosses, fungi, insects, and more, all while collecting data on environmental influences.

The project emphasizes relationships between these objects and their environment, including interactions with humans, animals, and other natural phenomena. This artistic research process is envisioned as a long-term experiment that will extend over at least five years, providing opportunities for revisiting and collecting the objects for analysis and further artistic representation.

Kristin Weissenberger (AT) is an artist, material researcher and lecturer based in Vienna. In her practice she encompasses different formats and media to examine our possibilities to interact with the non-human world. Through an ongoing investigation that destabilize the boundaries between science, craft, alchemy and technology, she explores the questions "How do we interact with the surrounding sphere of matter and organisms and how does this interaction shape our understanding of being in the world?", "How can we create new forms of encounter in the ruined environment of the late Anthropocene?" In her complex and multipart installations, she often builds speculative landscapes or ecosystems, that invite to be examined, discussed and questioned by the visitor, who is encouraged to become a seeker. Her studio-based work focusses on experimental research with different kinds of materials, organisms and technologies. Inspired by New Materialism, Speculative Design, DIY Bio, Alchemy and Ceramic Tradition Weissenberger examines the hierarchical structures in human and matter exchange. She proposes new forms of material and techniques such as "Anthropogenite", a human-made rock or stone or "Pyroglomerates", assemblages driven by heat and ceramic agency. She also works with living organisms, such as mycelium, yeast and bacterial cellulose.

Weissenberger studied Scenography (University of applied Art Vienna) as well as Art History and African Studies (University of Vienna). She is a Senior Lecturer at the Academy of Fine Arts Vienna, where she is also Head of the Workshop for molding and casting techniques.

More information: www.kristinweissenberger.com

Günter Seyfried (AT) is an artist who lives and works in Vienna. He has a background in medicine and psychology, which he studied at the University of Vienna, and has strong links to the fine arts, digital art, and media art, having graduated from the University of Applied Arts Vienna (Department of Digital Art). He is teaching at the New Design University in St. Pölten, department of manual and material culture. He combines science and art education and develops projects as an independent artist, participating in national and international exhibitions and publications. He is a founding member of pavillon_35 — Gesellschaft für wissenschaftsbasierte Kunst.

More information: www.pavillon35.polycinease.com / www.polycinease.com

Birgit Wenninghoff

Bornheim, Germany

Coprinus Comatus, photo print on high-gloss photo paper, 2021

Fungi are ambivalent creatures that usually exist underground as rhizomes and become visible on the earth's surface as fragile carposomes. Contrasts are also evident in their existence between plant and animal, between food and poisonous plant, between almost perfect design and rapid decay.

Since 2014, Birgit has been exploring the possibilities of approaching the manifestations of carposomes in a transformative artistic practice. She does this by exploring their fleeting beauty and in attempts to make their specific transience visible in an unusual way. One method is to preserve the forms in porcelain. In a constantly evolving process, the fungal bodies are encased in porcelain. After firing, a negative image remains inside the translucent shell, which becomes visible in places through fractures, cracks and displacements.

The work *Coprinus Comatus* uses fragments of preserved *Coprinus Comatus* species and thematizes specific characteristics such as fragility, translucency and physicality through the medium of digital photography.

Birgit Wenninghoff (DE) studied product design (Dipl. Des.) at the Niederrhein University of Applied Sciences, specializing in ceramics, porcelain and glass design, and fine arts (M.F.A.) at the Alanus University of Arts and Social Sciences, where she now runs the ceramics workshop and teaches sculpture. She is represented by Raum für Kunst und Natur (Bonn, DE), an art gallery and cultural space where art closely linked to natural phenomena is displayed and discussed.

More information: www.birgitwenninghoff.de / birgitwenninghoff (Instagram)

Wiener Pilzfestspiele

proudly hosted by MyPilz, Vienna, Austria

The festival offers a captivating experience with a series of lectures, film screenings, and photo exhibitions that showcase the diverse beauty of fungi. Attendees gain unique insights into the world of mycology through interactive workshops, providing a hands-on opportunity to explore the vast range of fungi and their ecological roles. This event invites participants to delve into the secrets of fungi and discover how they profoundly influence and enrich our world. Next date: October 6–12, 2025.

MyPilz (AT) is dedicated to raising awareness about the crucial role of fungi in natural ecosystems. The organization is committed to preserving and protecting these

environments, ensuring ongoing exploration and understanding in the future. MyPilz's vision highlights the importance of fungi as integral components of ecological health and sustainability.

More information: www.pilzfestspiele.at / @pilzfestspiele / www.mypilz.eu / @mypilz

Kanishka Wijayarathna

University of Borås, Sweden

Fungi grown on food waste to produce biobased materials

Filamentous fungi include microscopic fungi that decompose food. These fungi synthesise biopolymers that can be extracted and processed to produce materials. On the other hand, using food waste to grow fungi adds both waste valorization and low-cost benefits to the process. Therefore, in this study, waste bread was used to grow fungi and to produce different materials. The filamentous fungus *Rhizopus delemar* was cultivated via submerged cultivation using a suspension of bread powder. The harvested biomass was treated in two paths to produce different materials. In one path, the biomass is treated with vegetable tannins to stabilize the proteins in the biomass. Fungal sheet production was done with the tanned biomass using the wet-laying method. The produced sheets were treated with glycerol and a bio-based binder to further enhance their properties. Overall, three of the produced materials exhibited leather-like properties that were comparable to those of natural leather. On the other path, the cell wall fraction of the harvested biomass was isolated using a mild alkali treatment. This cell wall fraction contains biopolymers, such as chitin and chitosan. When the cell wall reaction is treated with mild lactic acid to reduce the pH to 3, the protonation of chitosan transforms the material into a hydrogel. Monofilaments were spun by wet spinning using hydrogel as the spinning dope. The produced monofilaments were post-treated with glycerol and water to tune their mechanical properties. These findings demonstrate fungal monofilaments with tunable properties that fit a wide range of sustainable textile applications and fungal sheets that have the potential to be used as environmentally friendly substitutes for leather.

Kanishka Wijayarathna (SE), born in Sri Lanka, is a PhD candidate at the University of Borås, Sweden. He is doing multidisciplinary research in biotechnology, polymer technology, and textile engineering. His work is related to material development from fungi grown on food waste. The target application areas of the fungal materials are in the area of textiles.

More information: www.hb.se/forskning/forskningsportal/forskare/KABA/