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Bio Art Forum

May 16-18, 2024

Novi Sad, Serbia

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The background is a light purple color with a pattern of faint, thin, white, hand-drawn circles and lines. There are several large, solid-colored shapes in shades of purple and magenta scattered around the edges. A large, bright white circle is centered on the left side of the image.

Bio Art FORUM

Art in the Age of Biotechnology



“Art is dead, dude. It’s over. AI won. Humans lost”, said Jason M. Allen, whose picture, generated by AI, won the Colorado State Fair’s annual art competition in 2022. His voice is not entirely alone. More and more people believe that new technologies have “killed” art. But is that really the case? What if we told you that modern technologies have enabled art to come alive and become more vibrant than ever before?

In the evolving landscape of contemporary art, biotechnology has emerged as a revolutionary medium, enabling artists to delve into the living, the synthetic, and the genetically modified. Historically, biotechnology’s contributions have ranged from everyday staples like bread and cheese, over the diverse breeds of animals and plants to hybrids, clones, mutants, synthetics, and transgenics. Today, biotechnology has become a focal point of cultural and ethical debate. These developments challenge traditional notions of what is “natural” and compel us to reconsider our role in shaping organisms and their environment and, consequently, the evolutionary trajectory of life on Earth.

As we grapple with the implications of these advancements, contemporary biological art refuses to be confined to the grotesque or the abnormal. What was once seen as exceptional now integrates seamlessly into the mainstream, reflecting the profound shifts in our understanding of life itself. Artists engage with these new life forms and new relations to explore their aesthetic potential and provoke thoughtful dialogue about the ethical and ecological consequences of biotechnological innovation.

The Bio Art Forum, held from May 16-18, 2024, at the SKUP (Union of Collective Art Practice) venue in the Creative District of Novi Sad, Serbia, brought together artists, scientists, and enthusiasts at the unique intersection of art and biotechnology. This forum marked a significant step forward in exploring how living organisms and biotechnological processes can be utilized as artistic media, expanding the boundaries of creative expression.

Over three days, the Bio Art Forum offered a rich program of presentations, workshops, panel discussions, and interactive sessions. Participants could hear from renowned speakers, including Polona Tratnik, Jurij Krpan, Adam Zaretsky, Roland van Dierendonck, Jens Hauser, and Marta de Menezes. These experts shared their insights on topics ranging from hybrid art and biohacking to the ethical implications of biotechnological art.

A diverse group of participants attended the forum, including artists, researchers, students, and public members interested in the proliferating field of bio art. The international representation underscored the global interest in this interdisciplinary practice and the potential for cross-border collaborations and projects.

The forum's themes revolved around pivotal topics, including the development and support of artistic laboratories, interdisciplinary collaboration, the democratization of science, the evolution and current state of the DIYBio movement, living and hybrid art, transgenic humans and germline aesthetics, the care and presentation of bio art creations, *biomediality* and *microperformativity*. Participants engaged in hands-on workshops and practice-based sessions, exploring practical aspects of bio art through sensorial walks, environmental experiences, sample collection, and analysis of the invisible world of contemporary microscale and nanoscale water pollutants and life forms. These activities not only imparted practical skills but also ignited essential discussions on sustainability, ethics, and the future of bio art.

The forum aimed to break down barriers, encourage interdisciplinary approaches and inspire new ways of thinking about art and science. It also served as a platform to recognize and critically examine the diverse practices within the hybrid and bio art, aiming to push the boundaries of what is possible and to highlight its potential impact on society. By bringing together leading figures from various fields, we aimed to foster a deeper appreciation of the intricate relationships between art, science, and the phenomenon known as life.



Talk

Hybrid Art and the Democratization of Science



Prof. Polona Tratnik Ph.D. (SI)

Biotechnological artists who have responded to the advancements in biotechnology in “the biotech century” have entered laboratories and started using them as their studios or established their laboratories as art studios. Art has converged with biotechnology. This has affected the shape of art projects, artistic methodologies, and epistemologies, as well as creative tools and materials. Nevertheless, not only has art approached biotechnology and the institution of art has changed, but the formation of science has also gone through a profound transformation that has opened up possibilities for science to collaborate with art. Has art become biotechnology, or worse still, its mere promotor? What is the function of art addressing biotechnology?

In her lecture, prof. Tratnik argues that DIY and DIT practices democratize biotechnology, promoting creativity and critical reflection outside traditional scientific institutions. By integrating biotechnological procedures, contemporary artists navigate a landscape of scientific innovation and political strategy, challenging our understanding of life, ethics, and the role of art in society.

*Polona Tratnik, PhD in philosophy, is a full professor at the Faculty of Arts at the University of Ljubljana and senior researcher at the Institute IRRIS. Her recent publications include *The European Avant-Garde – A Hundred Years* (ed., Brill, 2024), *Through the Scope of Life. Art and (Bio)Technologies Philosophically Revisited* (co-author with González Valerio, Springer, 2023), *Art as capital: the intersection of science, technology and the arts* (Rowman & Littlefield, 2021) and *Conquest of Body. Biopower with Biotechnology* (Springer, 2017).*



Inspirational Panel Session

Living Art

Margherita Pevere (DE); Dorotea Dolinšek (SI); Robertina Šebjanič (SI)
Moderator: Sonja Jankov Ph.D. (RS)

The panel explored the dynamic nature of living materials, systems, and processes in art, highlighting how these elements contribute to continuously evolving artworks. Margherita Pevere delved into the intersections of bio art, performance, and queer theory, discussing her engagement with various organic materials and the ecological aspects of death. Dorotea Dolinšek shared her transition from more traditional art practice to art-science collaborations. She is focused on life in extreme environments and integrating her body into her work. Robertina Šebjanič discussed her exploration of aquatic environments and the Anthropocene, coining terms like *Aquathocene* and *Aquaforming* to describe human impacts on marine life. The panel emphasized collaboration between artists, researchers, and institutions to foster innovative bio art practices and address the challenges and beauty of creating by using living systems.

Margherita Pevere is an internationally acknowledged artist and researcher working across biological arts and performance with a distinctive visceral signature.

Dorotea Dolinšek is a Ljubljana-based artist, whose work emerges from the nexus of art, science, and technology.

Robertina Šebjanič is an artist whose work explores the biological, chemical, (geo)political, and cultural realities of aquatic environments and the impact of humanity on other organisms.

Sonja Jankov is a researcher and curator. She holds a Ph.D. in Art and Media Theory from the University of Arts, Belgrade.





Talk

Three Laboratories as One



Jurij Krpan (SI)

In his inspiring talk, Jurij Krpan presents the challenges and advantages of integrating artistic laboratories into the creation of art involving living systems. He discusses the evolution of the Kapelica Gallery's collaboration with research institutions, leading to the establishment of BioTehna, Rampa, and Vivarium laboratories. These labs provide essential environments for artists to work with microorganisms, plants, and animals under controlled conditions.

The lecture highlights the importance of these specialized spaces for fostering innovation at the intersection of art, science, and technology. It reflects on the difficulties faced in maintaining ethical standards and achieving true collaboration between artists and scientists. The talk underscores the necessity of creating environments where artistic and scientific practices can merge, allowing for the exploration of new artistic expressions and scientific insights.

Ultimately, Krpan emphasizes the role of these laboratories in promoting a new approach to understanding and interacting with our environment, advocating for a shift from an anthropocentric worldview to a more integrated and sustainable perspective.

In 1995, Krpan conceived the Kapelica Gallery - Gallery for Contemporary Investigative Art as a non-governmental and non-profit organisation. Since then, he has been its senior curator. As a curator and commissioner, he has contributed to both national and international exhibitions and festivals. Since 2012, he has been the artistic director of the Kesnikova Institute. He is a member of the National Council of Culture of the Republic of Slovenia from 2019 to date.





Inspirational Panel Session

Keeping Art Alive

Olga Majcen Linn Ph.D. (HR); Stevan Kojić Ph.D. (RS); Dalila Honorato Ph.D. (GR)
Moderator: Petar Laušević Ph.D. (RS)

The panel explored the intersection of art and science, highlighting various approaches and challenges in bio art, and the importance of fostering collaboration and ethical considerations in the field. Dalila Honorato discussed creating networks and safe spaces for art and science interactions, emphasizing the importance of interdisciplinary collaboration and the challenges posed by underfunded projects. Olga Majcen Linn focused on the ethical and practical challenges of exhibiting living biological materials in art, advocating for the creation of guidelines to manage complexities such as the transport and care of living organisms, intellectual property rights, and public safety. Stevan Kojić shared his journey from sculpture to bio art, describing the integration of biological materials with artificial intelligence algorithms to create dynamic, evolving artworks. Stevan also highlighted the educational aspect of bio art, noting how students respond to integrating nature and technology in his projects.

Olga Majcen Linn is a curator and art critic based in Zagreb. She holds a Ph.D. in arts and media from the Faculty of Media and Communications, Belgrade.

Stevan Kojić, Ph.D., a Novi Sad artist, explores society's intersections with technology, science, and nature.

Dalila Honorato, Ph.D., identifies as a social scientist and a facilitator of safe spaces for hosting the interaction of ideas around liminal issues in the frame of Art&Sci.

Petar Laušević holds a Ph.D. in electrical engineering. At the CPN, he is primarily engaged in projects that blend art, technology, science, and society.



Interactive Talk Session

New Reproductive Technology and the Human Germline Commons



Adam Zaretsky Ph.D. (USA)

In his inspirational talk, Dr. Zaretsky presented wet lab bio art workshops for non-biologists, co-creating transgenic humans and experimenting with transgenesis. His nomadic practice integrates ecology, biotechnology, non-human relations, body performance, and gastronomy, staging lively, hands-on bio art labs to explore the implications of biotechnological materials and methods, focusing on transgenic humans and germline aesthetics.

Dr. Zaretsky's public workshops cover ovum and sperm collection, cryogenic freezing, sperm microinjection, gene transfection, AI-based germ cell grading, and uterine implantation, potentially using artificial wombs or selective reduction. They frame biological science as a subset of creative arts, addressing the legal, ethical, social, and libidinal implications of reproductive technologies.

Emphasizing mutant baby production as a bio art process, the workshops connect with kinetic sculpture and practice-based research, engaging participants with bio media, body art, and performance studies to explore gonad bending, genome hacking, and novel archiving technologies like Cryogenic Storage Archives and Bioinformatic Databases.

Adam Zaretsky Ph.D. is a Wet-Lab Art Practitioner mixing Ecology, Biotechnology, Non-human Relations, Body Performance, and Gastronomy. Zaretsky stages lively, hands-on bio art production labs. Principal at VASTAL (Vivoarts School for Transgenic Aesthetics Limited), Researcher at NADL Inc., Chief Executive Officer at psyFert, Founder of BEAK (The Bioart Ethical Advisory Kommission), and proud member of the World Congress on New Reproductive Technology Arts (WCoNRTA) of thGAP.





Film Projection

K-9_topology:
Through the Lens of
a Long-Term Care of an
Artwork

Maja Smrekar (SI)

The Bio Art Forum 2024 featured a film projection titled "K-9_topology: Through the Lens of a Long-Term Care of an Artwork," a video essay by Maja Smrekar. Screened at the Cinema Hall of the Museum of Contemporary Art of Vojvodina in Novi Sad, this 54-minute documentary provided a comprehensive overview of Smrekar's 'K-9_topology' series.

The film delved into the development, production, and exhibition of artworks that incorporate living organisms and biomaterials, highlighting the unique challenges faced by artists and professionals in re-installing and archiving such works. Through detailed footage and insightful commentary, the documentary illuminated the complexities of working with bio art. The narrative was enriched by contributions from renowned curators and theorists, including Jens Hauser, Ida Hiršfenfelder, Martin Honzik, Lucie Strecker, Jessica Ullrich, Jurij Krpan, and Eva Smrekar, offering diverse perspectives on the care and presentation of bioartistic creations.

Maja Smrekar's (SI) work has been established in the international art and science milieu. Her practice has allowed her to lead collaborations in developing cross-conceptual productions that include performances, installations, site-specific art, videos, workshops, lectures, talks, and texts. She's been using her artistic voice to speak on ecofeminism, inter-species relationships, technology, and ideological structures in society.



Talk

DIY Bio is dead,
long live DIY Bio



Roland van Dierendonck (NL/UK)

DIY Bio initially aimed to democratize biology through open-source tools and shared labs, but the reality has been more complex, with the closures of many DIY Bio spaces and limited resources. However, van Dierendonck argues that the spirit of DIY Bio lives on, particularly within art school laboratories. He emphasizes a move away from a purely “masculine” desire to manipulate biology, instead promoting care, literacy, and a sense of wonder. This new approach aligns with van Dierendonck’s artistic practice, which often explores themes of human-nature interaction and the inherent beauty of biological systems.

The lecture highlights bio art as a powerful tool for fostering a more inclusive and imaginative engagement with biology, suggesting that the core tenets of DIY Bio can be revitalized through artistic expression. This artistic reimagining of DIY Bio principles has the potential to inspire a new wave of interdisciplinary collaborations, fostering a future where wonder and exploration guide our interactions with the biological world.

Roland van Dierendonck is an artist and researcher. He investigates new ways to relate to, experience, and understand microorganisms in his practice. He is a PhD candidate at Lab4Living, Sheffield Hallam University, using touch and time to connect with microbial presence and movement. Next to his PhD, he works as a senior researcher in Responsible Applied AI at the Rotterdam University of Applied Sciences, bridging AI and ethics.



The background is a solid purple color. A large, bright white circle is positioned on the left side of the frame. Scattered around the white circle and across the purple background are several abstract, organic shapes in various shades of purple and magenta. Some of these shapes resemble liquid droplets or soft-edged blobs. In the upper right quadrant, there are faint, thin white line drawings of human figures in various poses, some appearing to be in motion or dancing. The overall aesthetic is modern and artistic.

Inspirational Panel Session

Art for Change

Maya Minder (CH), Ewen Chardronnet (FR)
Moderator: Kristijan Tkalec (SI)

Ewen Chardronnet shared insights from his extensive work in marine biology and art. He discussed the significance of seaweed in marine symbiosis and its environmental and biological importance. Maya Minder continued the discussion by exploring the intersection of art, microbiomes, and human evolution. She emphasized the role of fermentation and cooking in understanding the fluidity of microbiomes and their evolutionary implications. The panelists also discussed their collaborative project on Homo Photosyntheticus, which investigates the potential of humans to develop photosynthetic capabilities through symbiosis with algae.

The *Art for Change* panel demonstrated the transformative potential of innovative projects combining art and science to address pressing environmental, human health, and biological issues.

Maya Minder is an artist based in Zurich and Paris. She uses grassroots ideas, safe zones, and citizen science to enable collective storytelling through food and cooking.

Ewen Chardronnet is a collective artist, author, journalist, and curator. He is an editor-in-chief of Makery, a magazine focused on creative communities and maker culture.

Kristijan Tkalec is the expert head of labs and chief mentor at Kersnikova Institute. He has been the coordinator and project manager at BioTehna Laboratory since 2013.





Practice based sessions

Transformative Relations

Throughout history, humans have learned from nonhuman entities, integrating this knowledge into scientific, cultural, and technological achievements. However, our anthropocentric perspective often leads to a power-driven approach rather than mutual respect and listening, obscuring the interconnectedness and impact on one another and the environment. *Transformative relations* aim to foster a symbiotic relationship that promotes well-being on Earth, challenging us to unlearn binary distinctions between human and nonhuman.

During the Bio Art Forum, the 2-day practice-based session included a guided walk showcasing two different research methodologies coming from art and science, designed to navigate the flow toward a symbiotic multiplicity of diverse relations. These were followed by the workshop the next day, complementing the experience.

Day 1 - Friday, May 17: Transformative Relations - Intertidal Moment

The first session took place at the Bečarac location and involved 20 participants. Using the Danube shores as a case study, participants identified and learned from the transformative relations between human and nonhuman agential sensing. This session emphasized the concept of the intertidal moment in our Anthropocene era, symbolizing a time of change and uncertainty.

Direction I - DIY Bio Methodology

Participants engaged in hands-on activities using DIY chemicals and digital technologies to discover and analyze the invisible world of contemporary microscale and nanoscale water pollutants and life forms. By sampling water from the Danube and samples on the shore, they explored the impact of human activities on aquatic and terrestrial life and investigated emerging remediation methodologies. This part of the session was facilitated by Gjino Šutić and Filip Grgurević.





Direction II - Embodied Methodology

Participants engaged in EcoSomatic protocols of Kinship, an experiential walk around the Danube shore, led by Sunčica Pasuljević Kandić. Through breathing, touching, and proprioceptive movement participants were repositioning familiar body movements as observational tools. Technologies of the self are meant for mapping and gathering experiential samples from the environment.

The session also featured speculative fabrication and tea meditation using local birch, connecting participants with nonhumans and highlighting intertidal interconnectedness. This methodology, grounded in embodied and tacit knowledge practices, recontextualizes ancestral approaches to multispecies well-being through contemporary philosophy and art. As part of her PhD research, Sunčica developed these movements and elements as EcoSomatic protocols of Kinship to explore the intertwining interdependence of species in our Anthropocentric AI Age.





Day 2 - Saturday, May 18: Transformative Relations - Intertidal Zone

The second session was held in the Creative District at SKUP, moderated by Jelena Joksimović. The session was focused on the collective ideation of future relations. Participants exchanged insights and transformed various samples gathered during the previous day's walk into a collective response. This final collaborative gathering aimed to draft several mental maps tracing the transformational flow from the present to future scenarios. The goal was to create a collective output imagining life in an earthly, multispecies well-being, fostering a symbiotic relationship between human and nonhuman entities.


This session focused on storytelling, exploring genres like romance, horror, action, and comedy, often blending these elements. Characters ranged from human to transhuman, transcending time and place. Participants reinterpreted Novi Sad's floodplains, drawing inspiration from samples collected earlier. The stories addressed themes of toxicity and the agency of human and nonhuman actors, emphasizing the interconnectedness of life forms. This blend of artistic creativity and scientific inquiry allowed participants to imagine futures where the boundaries between human and nonhuman, and organic and synthetic, are fluid. These narratives entertained and provoked critical thinking about our trajectory and potential futures, tackling issues like climate crisis and social inequalities.

Both sessions showcased the importance of interdisciplinary and cross-pollination of knowledge in hybrid art/science/tech practices, encouraging participants to unlearn and relearn ways of observing, listening, and acting. The collaborative efforts during these sessions emphasized the potential for a symbiotic relationship that promotes ecological well-being.

The conceptual framework and program structure of the Transformative relations program are designed and written by Sunčica Pasuljević Kandić and co-edited by Bojan Kenig, in cooperation with individual program facilitators.







Gjino Šutić is a biotechnologist, new media artist, biohacker, innovator, and educator. He is the founder and director of the Universal Research Institute (UR Institute) and the company Geno Industries.



Filip Grgurević is a research assistant and a coordinator of educational activities at UR Institute. His research is focused on freshwater ecosystems.



Jelena Joksimović is a psychologist, researcher and activist in the field of education. She teaches at the Faculty of education in Jagodina, University of Kragujevac and Faculty of media and communications, Belgrade.



Sunčica Pasuljević Kandić is an interdisciplinary practitioner. She explores the triangular relationship between society-technology-nature. She has been teaching at the Department of New Media Art at the Academy of Arts in Novi Sad since 2016.

Talk

Biomediality and
Microperformativity:
A Genealogy of
a Contemporary
Paragone



Prof. Jens Hauser Ph.D. (FR/DE/DK)

In his lecture, Prof. Jens Hauser explored the concepts of *Biomediality* and *Microperformativity*, highlighting their significance in contemporary art and performance. Biomediality denotes the use of biological materials and processes as active media, challenging traditional views of media as passive carriers, and emphasizing the dynamic nature of living entities in art. Microperformativity focuses on small-scale, often invisible biological and technological processes, destabilizing human-centric perspectives and spotlighting the agency of microorganisms and cells.

This convergence challenges artists to engage critically with technologies exploiting life on a molecular scale, prompting a re-examination of biopolitics, necropolitics, and the relationship between dystopian economic and utopian ecological narratives. The lecture explored the dynamic interplay between organic and mechanic systems, questioning the appropriate media to stage biological aliveness and the evolving paragon in contemporary art.

Jens Hauser is a Paris-based media studies scholar, writer, and art curator focusing on the interactions between art and technology. He is currently a researcher and has been a Professor in Art History at the Karlsruhe Institute of Technology (KIT) since 2022. He is also a researcher at the University of Copenhagen's Medical Museion and a distinguished faculty member of the Department of Art, Art History and Design at Michigan State University, where he co-directs the BRIDGE artist in the residency program.



Talk

Art and Immunology: A lifelong love affair



Marta de Menezes (PT)

Marta de Menezes' work explores the artistic possibilities modern biology offers, emphasizing collaboration between artists and biologists to deepen understanding of genetic makeup and the concept of "self vs. non-self" in immunology. Her art challenges traditional notions of identity by incorporating biological materials like DNA, proteins, and cells, creating a unique artistic discourse.

A notable example is "Immortality for Two," a collaboration with an immunologist and her partner Luis Grasso. They explored identity through cellular immortality, attempting to create immortal cell lines. Safety limitations led to the introduction of cancer-inducing genes into each other's cells, granting a form of cellular immortality through partnership. This work explores the paradox of immortality – the desire for endless life balanced against inevitable isolation.

Menezes' journey highlights the power of artist-scientist collaboration, transcending traditional art forms and inviting viewers to engage with scientific concepts, re-examining their identities through a fresh, thought-provoking lens.

Marta de Menezes is a Portuguese artist, with a Degree in Fine Arts from the University of Lisbon and a MSt from the University of Oxford. De Menezes is the director of Cultivamos Cultura, the leading institution devoted to experimental art in Portugal and Ectopia, dedicated to facilitating the collaborative work between artists and scientists.





Closing Session

Cultivating the Future

Moderators:
Milica Rašković (RS), CE DESK and
Dobrivoje Lale Erić (RS), Center for the Promotion of Science (CPN)

The closing panel at the Bio Art Forum in Novi Sad served as a thought-provoking event focusing on the integration and future of bio art. The panelists emphasized the importance of creating platforms and opportunities for young artists and scientists to explore bio art practices, inspired by institutions like Institute Kersnikova in Slovenia. They underscored the vision of nurturing young talent and establishing dedicated spaces in Western Balkans for bio art, highlighting the necessity of an interdisciplinary and collaborative approach to research and practice.

Speakers also reflected on the historical divide between art and science and highlighted the need for mutual understanding and respect between disciplines. Moreover, the panel acknowledged the practical challenges of securing funding for hybrid projects, advocating for more inclusive funding mechanisms that recognize the value of interdisciplinary work.

Overall, the panel acknowledged the achievements of the BioArt Forum while setting a forward-looking agenda to support and expand the bio art community through continuous learning, collaboration, and innovation.

Dobrivoje Lale Erić works at the CPN, and has been involved in numerous sci-comm and art-science projects since 2011, with a focus on learning, climate, and AI topics.

Milica Rašković is an educational and cultural manager with over 20 years of experience in international project management. After her team won the European Capital of Culture title, she managed the program The Other Europe, which focused on marginalized art and groups. She is currently working as a project manager at the Creative Europe Desk in Serbia.





Participant Feedback from the Bio Art Forum

The Bio Art Forum was a dynamic event that attracted participants from diverse fields including humanities, art & science practices, social sciences, and technology. Feedback from the evaluation questionnaire revealed the forum's significant impact on attendees' knowledge and engagement. Participants, primarily from the humanities, reported an increased understanding of bio art, with many transitioning from limited to high levels of familiarity.

The forum also highlighted bio art's potential to contribute to the UN Sustainable Development Goals (SDGs), particularly in social development and sustainable partnerships. While environmental impact views were mixed, the majority saw bio art as valuable in fostering collaborative and social initiatives.

Motivation to continue in the bio art field was high, with participants expressing strong interest in future collaborations and projects, particularly at the regional level. Key factors identified for advancing bio art in the Western Balkans included financial support, developed infrastructure, educational programs, networking, and public engagement.

Notable sessions, such as those by Jens Hauser, Polona Tratnik, and Adam Zaretsky, were highly praised. Participants suggested shorter programs with interactive formats, better scheduling, and consideration of legal implications of bio art practice in non-EU countries. The forum's positive feedback and constructive suggestions will guide future improvements, ensuring continued growth and impact of bio art in the region.





awaking
guest



About the project

Europe, as a shared natural environment, is facing significant environmental challenges. Being one of the areas particularly exposed to pollution, the Western Balkans becomes a focal point for positive change to which the project aims to contribute. In collaboration with partners from Serbia, Bosnia and Herzegovina, Slovenia, and Croatia the project seeks to explore environmental protection issues by engaging a broader professional, artistic, and activist community. Advocating for sustainable development through participatory bio art installations, Bio Awakening aims to raise awareness of the role art can play in sustainability processes.

The project's specific objectives include developing a network of bio artists across Europe, strengthening the capacities of European artists in utilizing biomaterials, and creating bio art installations using environmental samples. Additionally, the project will focus on involving decision-makers in all phases of the process, fostering an audience for bio art that supports environmental conservation, and nurturing cultural, artistic, and educational collaboration in addressing environmental challenges in Europe and the Balkans.

The activities of the project include the Bio Art Forum, "do-it-yourself" online bio-art workshops, study visits to Slovenia and Croatia, a moving laboratory scientific-artistic program, bio-art exhibitions at festivals in Serbia and Bosnia and Herzegovina and the "One Tree(s)" initiative, as the final step of the project, which symbolizes ecological awakening by planting cloned seeds of endangered species from the Western Balkans in all countries involved in the project.

Find out more:
artandscience.rs/en/bioawaking/
reaktorngo.org/projects/bio-awaking/



Developing Bio Art Practice in the Western Balkans

The Bio Awakening project emerges as a response to the ecological crises exacerbated by traditional notions of progress in science and technology. As climate change and biodiversity loss intensify, a paradigm shift is needed to reconsider these fields' role in protecting our planet's future. In the Western Balkans, increasing pollution and poor environmental practices have led to significant ecological degradation, despite the region's rich biodiversity. The Bio Awakening project addresses these issues by merging art, science, and public engagement.

It aims to stimulate dialogue and action on environmental challenges, empowering communities to advocate for change. Inspired by the European Green Deal and New European Bauhaus, the project seeks to democratize bio art practices, making them accessible and fostering collaboration between artists and scientists. Through international exchange, residency programs, and the establishment of bio art labs in Serbia and Bosnia and Herzegovina,

Bio Awakening aims to create a sustainable ecosystem for artistic innovation and environmental protection.


Partners

The Citizens' Association "Reactor" unites cultural managers and artists engaging with contemporary social issues using artistic and experimental practices. The current focus of "Reactor" is on collaborating with various artists exploring new forms of artistic expression, especially in biological and ethical practices. In 2022, they realized the Biofabrika project, supported by the European Capital of Culture - Novi Sad 2022, which promoted bio-art through experimenting with SCOBY biodegradable material (a symbiotic culture of bacteria and yeast). The main purpose of this material is to offer alternative solutions for environmental preservation, such as replacing plastic as the planet's biggest pollutant, but its significant potential in textile replacement has also been discovered.

The Kersnikova Institute is a cultural and educational organization and a production platform for artists and projects intersecting at the nexus of art, science, and technology. Alongside developing and exhibiting artworks in the Kapelica Gallery, the organization has an extensive program of educational activities, partly supported by a network of wet and mechatronic laboratories. With decades of experience collaborating with artists on new projects involving living systems, biotechnologies, and a recent focus on artificial intelligence, as well as new peer-to-peer, do-it-yourself, open-source, and hands-on learning approaches within educational activities, the platform has expanded through collaboration with experts, institutions, and the business sector, all integrated into the Institute's creative processes.

The Universal Research Institute (UR Institute), a Croatian non-governmental think tank organization, pioneers interdisciplinary applied scientific research and projects, advocating for STEAM (Science, Technology, Engineering, Arts, and Mathematics) in sustainable development. UR Institute is dedicated to fostering social and cultural progress, with a special focus on research, innovation, STEAM education, cultural production, and cross-sectoral cooperation. Research areas encompass biotechnology, environmental engineering, cybernetics, experimental electronics, bioelectronics/biorobotics, and art-science connections, emphasizing participatory research and socially beneficial innovations. UR Institute champions DIY and DIWO culture, knowledge freedom, and scientific inquiry.

The Center for the Promotion of Science (CPN), a public institution from Belgrade, Serbia, was established in 2010 to promote and communicate science, technology, and innovation. CPN collaborates with research and educational institutions at all levels in Serbia and worldwide. It closely cooperates with relevant ministries, media, the private sector, and civil society. CPN's goal is to influence and adapt the general research agenda to reflect society's needs. Methodologies of citizen science research and co-creation, artistic and scientific collaboration, and various educational programs rooted in the STEAM concept are instrumental and leading approaches in CPN's work.



Greenways, a nonprofit association from Bosnia and Herzegovina, initiates social, economic, and ecological innovations aimed at sustainable development. The association's vision is to empower the community to lead prosperous lives while preserving the existing ecosystem. Greenways nurtures community dedication and value-based initiatives, drawing on diverse expertise in agribusiness, policy development, environmental advocacy, and fundraising. With extensive experience in managing international projects, including EU IPA Cross-border and Erasmus+, we strive for impactful, well-managed interventions that create economic, ecological, and social value.

The **'Novi Sad - European Capital of Culture' Foundation** was established in 2017 after Novi Sad was named a future European Capital of Culture in 2016, becoming one of the first cities outside the EU to receive this title. The Foundation prepared for this significant cultural recognition, leading to other accolades, such as the European Trend Brand of the Year Award (2021), the Melina Mercouri Prize (2022), and joining the UNESCO Creative Cities Network (2023). In 2022, the Foundation hosted over 4,000 programmes and 6,000 artists and initiated the renovation of five cultural centers and the creation of new cultural spaces. With 40,000 square meters of renewed cultural heritage, the Foundation continues to develop programmes like Doček and Kaleidoscope of Culture, setting artistic standards, and becoming the leader and partner in important international projects.

Support

The Creative Europe program of the European Union supports activities that promote cultural diversity and respond to the needs and challenges of the cultural and creative sectors. The main objectives of the program are to safeguard the competitiveness and economic potential of the cultural and creative sectors, particularly the audiovisual sector. The program's new approach will contribute to the recovery of these sectors by supporting their efforts to become more inclusive, digitalized, and sustainable in their environment.

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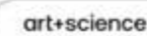
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