

# Živi sustavi

## Koncepti prirodne i umjetne drugosti u kolektivnim habitatima

Izložba *Živi sustavi* predstavlja intrigantan spoj umjetničke vizije i znanstvenih koncepta koji istražuju evoluciju čovjeka i okoliša. Nadahnuta najnovijim istraživanjima i dostignućima u prirodnim znanostima i tehnologijama, izložba daje priliku za dublji zaron u holobionsku paradigmu, koja promišlja o vrstama kao kompleksnim ekosustavima te naglašava međuovisnost svih bića.

Svi radovi na izložbi producirani su u sklopu EMAP – European Media Art Platform, europske platforme koju čine organizacije i institucije specijalizirane za medijsku umjetnost, bio umjetnost i robotičku umjetnost. EMAP kroz rezidencijski program namijenjen europskim umjetnicima u sponu, producira i distribuira preko četrdeset kompleksnih novih radova unutar tri godine.

Umjetnički projekti istražuju uzbudljive, inovativne načine interakcije s prirodnom okolinom, promišljajući ljudsko tijelo kao resurs materijala i energije za recikliranje te važnu kariku u evulucijskom opstanku nakon što se anticipirane promjene na Zemlji realiziraju.

Kroz eksperimentiranje s kolektivnim habitatom, umjetnici postavljaju pitanje održivosti i prilagodbe, potičući promišljanje o budućim oblicima društvenog organiziranja. Osim toga, digitalna ekspanzija ljudske porodice i razvoj pametnih komunikacijskih sučelja otvaraju prostor za refleksiju o utjecaju tehnologije na međuljudske odnose. Koncepti, modeli i teorije koje umjetnici predstavljaju u radovima, iako poetični i utemeljeni na fikciji i mašti, pružaju nove, svježije perspektive na svijet i život. Kreativno koristeći i interpretirajući teorijski ili znanstveni okvir, te transponirajući arhive povijesnih znanja i sadašnjih tehnoloških

# Living Systems

## Concepts of Natural and Artificial Otherness in Collective Habitats

The exhibition *Living Systems* presents an intriguing amalgam of artistic visions and scientific concepts that explore the evolution of man and the environment. Inspired by latest research and achievements in natural sciences and technologies, the exhibition provides an opportunity for delving deeper into the holobiotic paradigm, which considers species as complex ecosystems and emphasises an interdependence of all beings.

All the works in the exhibition have been produced in the framework of the European platform dedicated to media art (EMAP – European Media Art Platform), bringing together fifteen European and one visiting world organization and institution specialised in media, bio and robotic art. Through a residency programme for emerging European artists, EMAP produces and distributes over forty complex new works in a three-year period.

These art projects explore exciting and innovative ways of interacting with the natural environment, rethinking the human body as a resource of materials and energy for recycling, as well as an important link in evolutionary survival once the anticipated changes on Earth have come to pass.

By experimenting with the collective habitat, the artists pose the question of sustainability and adaptation, encouraging reflection on future forms of social organisation. In addition, the digital expansion of the human family and the development of smart communication interfaces open up spaces for reflection on the impact of technology on interpersonal relationships. The concepts, models and theories the artists present in their works, though poetic and grounded in fiction and imagination,

moogućnosti u futurističke vizije, stvaraju senzorički bogat i imerzivan integrirani uvid ukazujući na povezanost biološkog, filozofskog, ekološkog, društvenog i političkog.

Dva rada koja su producirana na rezidenciji u KONTEJNER-u bave se odnosom biološkog ljudskog sustava i tehnološkog sustava. Propitujući fizički i virtualni prostor te ljudske veze s tehnologijom, So Kanno (DE/JP), Akihiro Kato (JP) i Takemi Watanuki (JP), osmislili su *Kazokutchi*, projekt koji istovremeno promišlja NFT tehnologiju i robotiku. *Kazokutchi* robot je dio ljudske obitelji i nosi prezime vlasnika, te služi kao kuća na čijem se ekranu mogu pratiti NFT bića. Uz prezime dodijeljena im je boja i RFID oznaka. NFT bića se razvijaju iz jaja, i međusobno razmnožavaju, a vlasništvo nad novim NFT bićima vezano je uz vlasništvo nad robotičkom kućom. Japanski tim umjetnika bavi se pitanjem stvaranja unikatnog umjetnog života i vrijednošću koji on može imati. Interakciju između digitalnih i fizičkih svjetova istražuje i rad Marie Smigielske (PL/CH) i CompMonksa (FR/CH) *Protej 4.0*. Inspiriran ponašanjem ferofluidnog materijala i grčkim mitom o morskome božanstvu, projekt stvara kompleksne transformabilne forme pružajući interaktivno umjetničko iskustvo i ostavljajući utisak uronjenosti u rastapajući, tekući okoliš. Koristeći praćenje pogleda i prepoznavanje emocija, rad poziva promatrače da komuniciraju s digitalnim ekosustavom.

Utopijska ideja u potpunosti programiranog okoliša umjetnice Paule Nishijime (BR/NL) u radu *Plug-in Habitat*, koja se referira na rad neofuturističke arhitektonske grupe Archigram, pokazuje jedan modularni isječak svijeta sačinjenog od biljaka i inteligentnih sustava. Nishijima se bavi idejom prilagodbe kao jedne od najvažnijih strategija evolucijskog opstanka. Rad je istovremeno vrlo eksperimentalan i statistički, bilježeći korisne podatke putem blockchain tehnologije i time stvarajući pravu mrežu disparatnih vrsta inteligencije: biljaka, tehnologije i ljudi. Sličnom se temom izgradnje simbiotičkog ambijenta bavi slovenska umjetnica Dorotea Dolinšek (SI). Ideja ljudskog preživljavanja u „tvrdim“ vanzemaljskim uvjetima svemira premisa je rada *Biosimbiotski*

provide novel, fresh perspectives on life and the world. Creatively employing and interpreting a theoretical or scientific framework, and transposing archives of historical knowledge and current technological possibilities into futuristic visions, they engender sensorially rich, immersive and comprehensive insights, pointing to the interconnectedness of biological, philosophical, ecological, social and political spheres.

Two works that were produced at the KONTEJNER residency tackle the relationship between the biological human system and the technological one. Re-examining the physical and virtual space, as well as human bonds with technology, So Kanno (DE/JP), Akihiro Kato (JP) and Takemi Watanuki (JP), designed *Kazokutchi*, a project that simultaneously rethinks NFT technology and robotics. The *Kazokutchi* robot is part of the human family and bears the owner's surname, serving as a house for tracking NFT beings on its screen. Along with a surname, they are assigned a colour and an RFID tag. NFT creatures hatch from eggs, and reproduce with each other, while the ownership of new NFT creatures is tied to the ownership of the robotic house. The Japanese team of artists address the issue of creating unique artificial life and the value it can have. The interaction between digital and physical worlds is also explored in the work of Maria Smigielska (PL/CH) and CompMonks (FR/CH), titled *Protej 4.0*. Inspired by the behaviour of a ferofluid material and the Greek myth of the sea deity, the project envisages complex transformable forms providing an interactive artistic experience and lending the impression of being immersed in a melting, liquid environment. Using gaze tracking and emotion recognition, the work invites viewers to interact with a digital ecosystem.

A utopian idea of a fully programmed environment envisioned by artist Paula Nishijima (BR/NL) in the work *Plug-in Habitat*, referencing the work of neofuturist architectural group Archigram, presents a modular snippet of a world made of plants and intelligent systems. Nishijima addresses the idea of adaptation as one of the principal strategies for evolutionary

egzoskeleton. Odijelo koje promišlja i stvara uz pomoć znanstvenika raznih profila, možemo nazvati protezom, biostrojem koji bi omogućio i olakšao preživljavanje u tim okolnostima. Pritom je zanima ljudski mikrobiom i sva ona, prostom oku, nevidljiva bića koja nosimo sa sobom i bez kojih ni život na Zemlji ne bi bio isti. Poseban naglasak Dolinšek stavlja na moguću proizvodnju biljaka iz mikrobne supstance.

Međuvrsnu komunikaciju i prilagodbu urbanom okruženju prikazuje Studio Above&Below (UK), koji su alate umjetne inteligencije upotrijebili kako bi snimili biotop jednog briselskog kvarta. U radu *Meditativna kohabitacija* tehnologija daje potpuno novu perspektivu na prirodu – omogućivši publici imerzivno iskustvo, osvještava se prisustvo nevidljivih i nečujnih, nezamjetnih bića koja nas okružuju i u najurbaniziranijim gradskim prostorima.

Nakon uzbudljivog i provokativnog rada s idejom ženske sperme, britanska umjetnica Charlotte Jarvis (UK) u suradnji sa znanstvenicom Patriciom Saragüetom (AR), usmjerila se na novi istraživački rad s idejom stvaranja *Organa radikalne skrbi*. Taj organ je maternica, kolektivna maternica nastala suradnjom ljudi koji su tradicionalno isključeni iz reproduktivnog procesa ili nemaju biološku mogućnost rađanja. *Organ radikalne skrbi* okuplja nebinarne i transrodne osobe, te čak uključuje neke stanice muškaraca. Ovim eksperimentalnim, transgresivnim istraživačkim projektom, kao i prethodnim *Ženska sperma*, umjetnica se uključuje u raspravu o rodu i spolu donoseći spekulativne prijedloge širenja mogućnosti spolnih i rodni uloga.

Ciparska umjetnica Marisa Satsia (CY) radi *DIY* laboratorij za stvaranje autentičnih kristala napravljenih od ljudskih suza, sline i drugih izlučevina. Radi se o postupku koji ono što tijelo procesuirala i izlučuje pretvara u dragocjenost koja je uz to jestiva, te potencijalno ljekovita. Satsia propituje odnos unutrašnjosti i vanjskosti ljudskog tijela, tabu izlučevina, te u posthumanističkom smislu, postavlja ljudsko biće u poziciju svih ostalih planetarnih bića – ljudsko tijelo postaje izvor hrane ili lijekova, tj. objekt za recikliranje.

survival. The work is both highly experimental and statistical, recording useful data through blockchain technology, thus creating a true network of disparate types of intelligence: plants, technology and humans. Slovenian artist Dorotea Dolinšek (SI) delivers a similar theme of building a symbiotic environment. The idea of human survival in “brute” alien conditions in space is the premise of the work *Biosymbiotic Exoskeleton*. The suit, which she contemplates and creates with the help of scientists of various backgrounds, might be seen as a prosthesis, a biomachine that would enable and facilitate survival in such circumstances. At the same time, she is interested in the human microbiome and all those beings, invisible to the naked eye, which we carry with us and without which even life on Earth would not be the same. Dolinšek places special emphasis on the possible production of plants from microbial substance.

Interspecies communication and adaptation to the urban environment is engendered by Studio Above&Below (UK), using artificial intelligence tools to record the biotope of a Brussels neighbourhood. In the work *Meditative Cohabitation*, technology offers a completely renewed perspective on nature – by enabling the audience to have an immersive experience, they highlight the presence of invisible and silent, imperceptible beings that surround us even in the most urbanised of city spaces.

After an exciting and provocative work about the idea of female sperm, British artist Charlotte Jarvis (UK) in collaboration with scientist Patricia Saragüeta (AR), focus on a new research project with the idea of creating an *Organ of Radical Care*. That organ is a womb, a collective womb created through the cooperation of people traditionally excluded from the reproductive process or not having the biological possibility of giving birth. *Organ of Radical Care* brings together non-binary and transgender people, and even includes some men’s cells. Through this experimental, transgressive research project, as well as her previous one, *In Posse*, about female sperm, the artist joins the discussion about gender

Uz Marisu Satsiu, umjetnica Kasia Molga (PL/UK) u svom se radu bavi suzama. *Kako napraviti ocean* je rad nastao nakon teškog emocionalnog gubitka koji je rezultirao mnoštvom prolivenih suza. Uz poetičnu antitezu temeljenu na povezivanju minijaturne suze i golemog oceana, Kasia Molga se također upustila u znanstveno istraživanje sastava slanih suza i mora, mogućnosti uzgoja bića poput algi u suzama, te općenito istraživanju povezanosti i ukorijenjenosti života u istim osnovama.

*Živi sustavi* pozivaju nas na putovanje kroz imaginarni svijet koji nas potiče na razmišljanje o budućnosti čovječanstva te na preispitavanje svoje uloge i odgovornosti u kompleksnom i dinamičnom ekosustavu kojeg smo dio.

Olga Majcen Linn

Partneri EMAP mreže su: Ars Electronica (AT), Antre Peaux (FR), CIKE (SK), gnration (PT), iMAL (BE), IMPAKT [Centre for Media Culture] (NL), Kersnikova Institute [Galerija Kapelica] (SI), KONTEJNER (HR), LABoral Centro de Arte y Creación Industrial (ES), m-cult (FI), NeMe (CY), Onassis Stegi (Grčka), RIXC Centre for New Media Culture (LV), WRO Art Center (PL), Werkleitz Centre for Media Art (DE), uz gostujuće partnere FACT (UK) u 2022., Hexagram (CA) u 2023. i ISSS - Indonesia Space Science Society / HONF u 2024.

and sex, offering speculative proposals that expand the possibilities of sex and gender roles.

Cypriot artist Marisa Satsia (CY) runs a DIY lab to create authentic crystals made from human tears, saliva and other secretions. The process turns what the body processes and excretes into a precious gem that is also edible and potentially medicinal. Satsia questions the relationship between the inside and outside of the human body, the taboo of excretions, and in a posthumanist sense, places the human being in the position of all other planetary beings – the human body becomes a source of food or medicine, that is, an object to be recycled.

Apart from Marisa Satsia, artist Kasia Molga (PL/UK) engages with tears in her work. *How to Make an Ocean* is a project created after severe emotional loss that resulted in many tears being shed. Alongside the poetic antithesis between a miniature tear and a huge ocean, Kasia Molga also embarked on a scientific research endeavour into the composition of salty tears and the sea, the possibility of growing creatures like algae in tears, and an exploration of the interconnection and rootedness of life on the same principles.

*Living Systems* invite us on a voyage across an imaginary world encouraging us to think about the future of humanity and reconsider our role and responsibility in the complex and dynamic ecosystem of which we are a part.

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