

An aerial photograph of a city, likely St. Petersburg, Russia, showing extensive flooding. The water has inundated large areas of the city, including parks and residential neighborhoods. In the center, a large residential complex with many multi-story apartment buildings is partially surrounded by water. The foreground shows a dense residential area with many small houses and streets. The background shows more of the flooded city and distant islands.

Immersive Environments

OKSANA CHEPELYK

Espace Ocean



Iméra – Institute for Advanced Study of Aix-Marseille University
Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology
Mediterranean Institute of Oceanography



OKSANA CHEPELYK

Immersive Environments

as Audio-Visual Instruments for Changing Anthropocentric Optics

Espace OCEAN: Waters Come Into My Soul

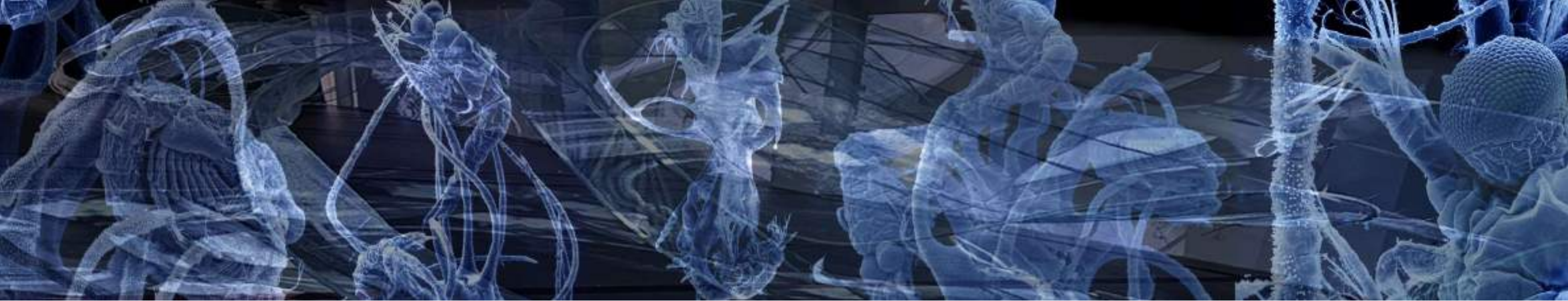
Espace OCÉAN : Les eaux ont atteint mon âme

From the series **Metabolomics**

Ecodata of Biodiversity as Biomarkers of Environmental Changes

Iméra | Marseille | 2023





Arts and Sciences: Indisciplined Knowledges Constance Moréteau

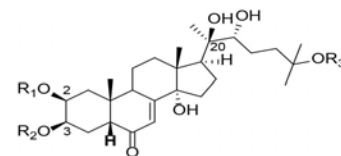
Scientific Coordinator of Iméra and responsible for the development of the Arts and Sciences axis

Since September 2021, Oksana Chepelyk has been artist fellow at Iméra, the Institute for Advanced Study (IAS) of Aix-Marseille University. After an Iméra Carte Blanche, she benefited, in the context of the war in Ukraine, from several support programs for Ukrainian refugee artists and researchers: the PAUSE program, the European program FIAS (French Institutes for Advanced Study Fellowship), The A*Midex Initiative of Excellence and, in 2023-24, from the Institute of International Education's Artist Protection Fund (IIE-APF).

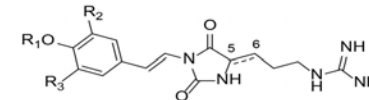
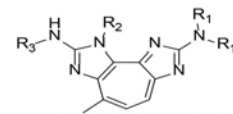
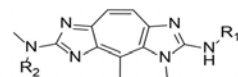
This allows the artist researcher to go further in a project of great ambition entitled « Analytical instruments for audio-visual translations of Metabolomics. Merging genotype and environment regarding climate change ». Thus her fruitful collaboration with the CNRS Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology (IMBE) has turned into a long-term research project. Indeed interdisciplinarity needs time to develop a common language for artists and academics, although they may have in common the implementation of methodologies and protocols, a keen sense of curiosity and also inventiveness.

Oksana Chepelyk's project is conducted within the Iméra research program « Arts and Sciences: Indisciplined Knowledges ». This program represents a collective space for reflection on research in art and on art, recognizing the specificities of art, including the freedom not to be a discipline in itself, by combining, for example, knowledges from different natures and epochs. The ambition behind hosting artists at Iméra is twofold: fostering dialogue between artistic and scientific knowledge, and addressing artists' social commitment. In the case of Oksana Chepelyk's work, these key objectives combine perfectly.

In the context of relations between arts and sciences, translating metabolomic data from marine sponges into an opera raises a number of



Specialized new metabolites from "METABOLOMICS Applied to chemotaxonomy and marine chemical ecology" Thierry Perez



Oksana Chepelyk "Metabolomics: New Stage" 4 channel media installation, 2023.
Microscopic photo by Jean Vacelet.

Arts & Sciences : savoirs indisciplinés Constance Moréteau

Coordinatrice scientifique de l'Iméra et chargée du développement de l'axe arts et sciences

fascinating questions, including the following: how to move away from an anthropocentric version when doing so? What mediation role does the artistic medium(s) play? How to avoid doing artistic illustration from scientific data? Beyond highlighting the ecological crisis of the living world, how can art tackle the fact that above all our relationship with other living species is in crisis? And in this respect, what role does sensitive and imaginary play? Should the artist conciliate theoretical and scientific interest in the seabed with its potential to inspire amazement and wonder? If so, in what way? How is such research informed by artistic practice and historical and contemporary artistic references (numerous in Oksana Chepelyk's work, whether in music, literature, poetry, visual arts, etc.), and how can the resulting knowledge enrich and stimulate scientific knowledge? In what context should this opera be performed? Etc.

« Metabolomics » project is also deeply connected to another Iméra's research program « Necessary Utopian »: Oksana Chepelyk's strong engagement with eco-art has as its ultimate goal a symbiosis between the human species and other living species, using a holistic approach. The tension between utopia and dystopia is very present, as shown in her multi-faceted art work Ocean (2023). The ensemble sensitizes as much as it denounces, highlighting some of the many factors responsible for the degradation of marine environments. Combining scientific data, philosophical reflections, and artistic works, Ocean depicts the anthropogenic impact of humans on marine environments. However there is still hope raised by Oksana Chepelyk's powerful work such as creating an awareness of the beautiful submarine biodiversity, still little known, at the very moment when it is threatened. It also emphasizes the necessity for a radical change in the relationship between man and other living species, and suggests that it could be done through multisensory cognition and empathy. ■

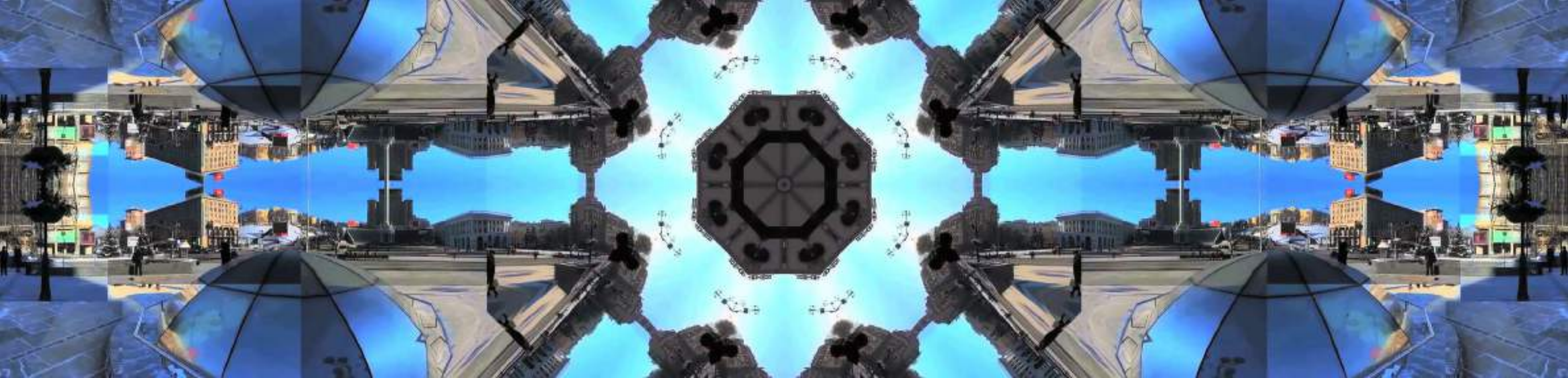
Depuis septembre 2021, Oksana Chepelyk est en résidence de recherche, en tant qu'artiste et chercheuse, à l'Iméra, l'Institut d'études avancées (IEA) d'Aix-Marseille Université. Après avoir été lauréate d'une carte blanche à l'Iméra, elle y bénéficie, dans le contexte de la guerre en Ukraine, du soutien de plusieurs programmes dédiés aux artistes et chercheurs réfugiés : le programme PAUSE, le programme européen FIAS – French Institutes for Advanced Study, l'Initiative d'excellence A*Midex et, en 2023-24, l'Institute of International Education's Artist Protection Fund (IIE-APF). Cela permet à l'artiste et chercheuse d'aller plus loin dans le développement d'un projet de grande envergure intitulé « Instruments analytiques pour les traductions audiovisuelles de la métabolomique. Fusionner le génotype et l'environnement dans le cadre du changement climatique ». Ainsi, sa collaboration fructueuse avec l'unité de recherche IMBE (Institut Méditerranéen de Biodiversité et d'Écologie marine continentale) donne lieu à un projet de longue haleine. Or, justement, l'interdisciplinarité a besoin de temps pour permettre aux chercheurs-artistes et aux chercheurs scientifiques de constituer un langage qui le rassemble, bien qu'ils puissent avoir en commun notamment le recours à des méthodologies et protocoles, un sens aigu de la curiosité et de l'inventivité.

A l'Iméra, le projet d'Oksana Chepelyk est mené au sein du programme de recherche « Arts et sciences : savoirs indisciplinés ». Celui-ci représente un espace de réflexion collective sur la recherche en art et sur l'art, reconnaissant à l'art des spécificités, dont la liberté de ne pas être une discipline en soi, en combinant par exemple des savoirs de natures et époques différentes. L'ambition qui soutient ce programme est de deux ordres : encourager le dialogue entre savoirs artistique et scientifique, et explorer l'engagement social chez les artistes. Dans le cas d'Oksana Chepelyk, ces deux objectifs clés se complètent parfaitement.

A l'aune de grands enjeux posés par les relations entre arts et sciences, la traduction en un opéra de données métabolomiques, émanant d'éponges marines, pose de nombreuses questions parmi lesquelles : Comment alors s'éloigner d'une vision anthropocentrique ? Quel

rôle de médiateur joue le/les médium(s) artistique(s) ? Comment éviter l'illustration artistique de données scientifiques ? Au-delà de la mise en avant de la crise écologique, comment l'art peut révéler la crise de notre relation avec les autres espèces vivantes ? A cet égard, quels rôles jouent le sensible et l'imagination ? Est-ce que l'artiste doit concilier un intérêt théorique et scientifique pour les fonds marins avec leur potentiel en tant que sources d'étonnement et d'émerveillement ? Si oui, comment ? Comment une telle recherche informée par la pratique artistique et des références artistiques actuelles et historiques (nombreuses dans le travail d'Oksana Chepelyk, que ce soit en musique, en littérature, en poésie, en arts visuels, etc.) et comment la connaissance en résultant enrichit et stimule la production de la connaissance scientifique ? Dans quel contexte, l'opéra pourrait-il être joué ? Etc.

Le projet « Metabolomics » est aussi en lien étroit avec un autre programme de recherche de l'Iméra, « Utopies nécessaires » : l'engagement fort d'Oksana Chepelyk pour l'éco-art a pour horizon la réalisation d'une symbiose entre l'espèce humaine et les autres espèces, selon une approche holistique. La tension entre utopie et dystopie est aussi très présente, comme le montre son œuvre en plusieurs volets Océan (2023). Cet ensemble sensibilise autant qu'il dénonce, en mettant en avant quelques-uns des nombreux facteurs responsables de la dégradation des milieux marins. Combinant à la fois données scientifiques, réflexions philosophiques, et travaux artistiques, Océan rend compte de l'impact anthropique de l'homme sur les milieux marins. Cependant, de l'espoir est suscité par l'œuvre puissante d'Oksana Chepelyk, en ce qu'elle provoque une prise de conscience de la beauté de la biodiversité sous-marine, encore peu connue, au moment même où cette dernière est menacée. Elle met en avant la nécessité d'un changement radical dans la relation entre l'homme et les autres espèces vivantes, et suggère que celui-ci puisse se faire au travers d'une cognition multi-sensorielle et de l'empathie. ■



Oksana Chepelyk "Collider_100: Kyiv 2014", 3-channel multimedia installation, Kyiv (UA), 2014.

Oksana Chepelyk : L'Océan

Juliette Bessette

Docteure en histoire de l'art contemporain,
Aix-Marseille Université, TELEMMe ; Centre André Chastel

Thierry Perez

Directeur de Recherche CNRS, Institut Méditerranéen
de Biodiversité et d'Écologie marine et continentale,
OSU Institut Pythéas, Marseille, France

Les collaborations entre naturalistes marins et artistes se sont longtemps bornées au domaine des illustrations scientifiques. On connaît par exemple les magnifiques peintures et dessins d'Else Bostelmann réalisés dans les années 1930 dans les Bermudes, sur le pont d'un bateau, à partir des descriptions d'animaux marins inconnus que lui livrait par l'intermédiaire d'une ligne téléphonique l'explorateur William Beebe, isolé dans une sphère d'acier dans les fonds marins. Aujourd'hui, près d'un siècle plus tard, notre connaissance du milieu marin est en grande partie le fruit de traitement de données générées à très haut débit, parfois des milliers de séquences d'ADN ou autres molécules produites par les organismes marins, témoignant de la diversité du vivant et de son état de santé. Dans les sciences marines, la métabolomique par exemple permet de caractériser la diversité des molécules produites par un organisme ou par un écosystème. Ces molécules spécialisées, produits du métabolisme et signatures de l'évolution, sont souvent des médiateurs chimiques, acteurs clés de la communication entre les espèces, ou entre les espèces et leur environnement. Cette diversité chimique, représentant le véritable langage de la nature, est encore trop mal connue, et les récentes avancées technologiques liées à la démocratisation des outils de la métabolomique (spectrométrie de masse à haute résolution et résonance magnétique nucléaire)

permet aujourd'hui de révéler régulièrement de nouvelles identités chimiques et des fonctions écologiques insoupçonnées.

Oksana Chepelyk embrasse ce paradigme du flux informationnel en s'emparant de nombreuses scènes sous-marines et des données métabolomiques, puis en les détournant de leur fonction scientifique pour les transformer en une forme autre de communication, plus sensible. Dans son installation multimédia L'Océan (2023), elle travaille à partir de données métabolomiques recueillies auprès de différentes espèces marines, notamment des éponges, et du coralligène, un écosystème emblématique de Méditerranée. Ces données ont été recueillies par les écologues marins de l'Institut Méditerranéen de Biodiversité et d'Écologie marine et continentale (IMBE), à Marseille. L'artiste transforme les signaux chimiques en musique à travers le passage des données dans logiciels de création sonore, aboutissant à une « metabomusique ». Certaines de ces données sont issues d'environnements où ces organismes vivent en bonne santé, d'autres d'environnements où ils manifestent un état de stress ou de maladie. Oksana Chepelyk veut ainsi montrer l'impact des pressions anthropiques sur ces organismes par le truchement des changements environnementaux, et notamment du réchauffement climatique.

Elle soustrait donc ces données au cadre d'exploitation pour lequel elles ont été produites par la science : optimisation de notre connaissance afin de mieux saisir, et peut-être de palier aux effets des activités humaines sur la biodiversité et les écosystèmes marins ; optimisation de leur exploitation, notamment par l'industrie pharmaceutique, des signaux chimiques émis par ces organismes marins. Dans l'art, ces données ne prétendent servir à rien d'autre qu'à la production d'une expérience sensorielle. Plastiquement, le son offre des possibilités dimensionnelles plus riches en matière de traduction des données par

rapport à une représentation visuelle. Surtout, le recours à un travail sonore nourrit régulièrement, dans l'histoire de l'art, un processus de détachement du primat du visuel dans le cadre de recherches spécifiques en relation avec l'environnement océanique et ses modalités sensorielles autres pour l'humain.

L'artiste travaille sur le concept, devenu central dans l'art contemporain, de point de vue non-anthropocentrique. Elle part du constat que ces organismes produisent ces signaux chimiques selon une agentivité non-humaine. En effet, leur recodage en données, opéré par les scientifiques, puis leur transformation en sons, opérée par l'artiste et son équipe, aboutissent à un message non lisible d'un point de vue anthropocentrique. En un mot, chaque « voix » d'organisme, qui correspond à ses émissions chimiques, ne nous transmet en tant que telle aucune information sur son état de santé. Chacune des lignes sonores mises en scène par l'artiste ne nous laisse aucunement présupposer, selon nos codes harmoniques, qu'elle correspondrait aux données d'un groupe d'individus sains ou malades. La parole qui aurait ainsi pu être donnée à ces individus par l'intermédiaire de cette stratégie humaine scientifico-artistique ne correspond in fine à aucun code partagé entre nos espèces. La « metabomusique » est la traduction d'un langage chimique d'organisme marin dans un langage sonore humain dans le procédé duquel l'information s'est perdue.

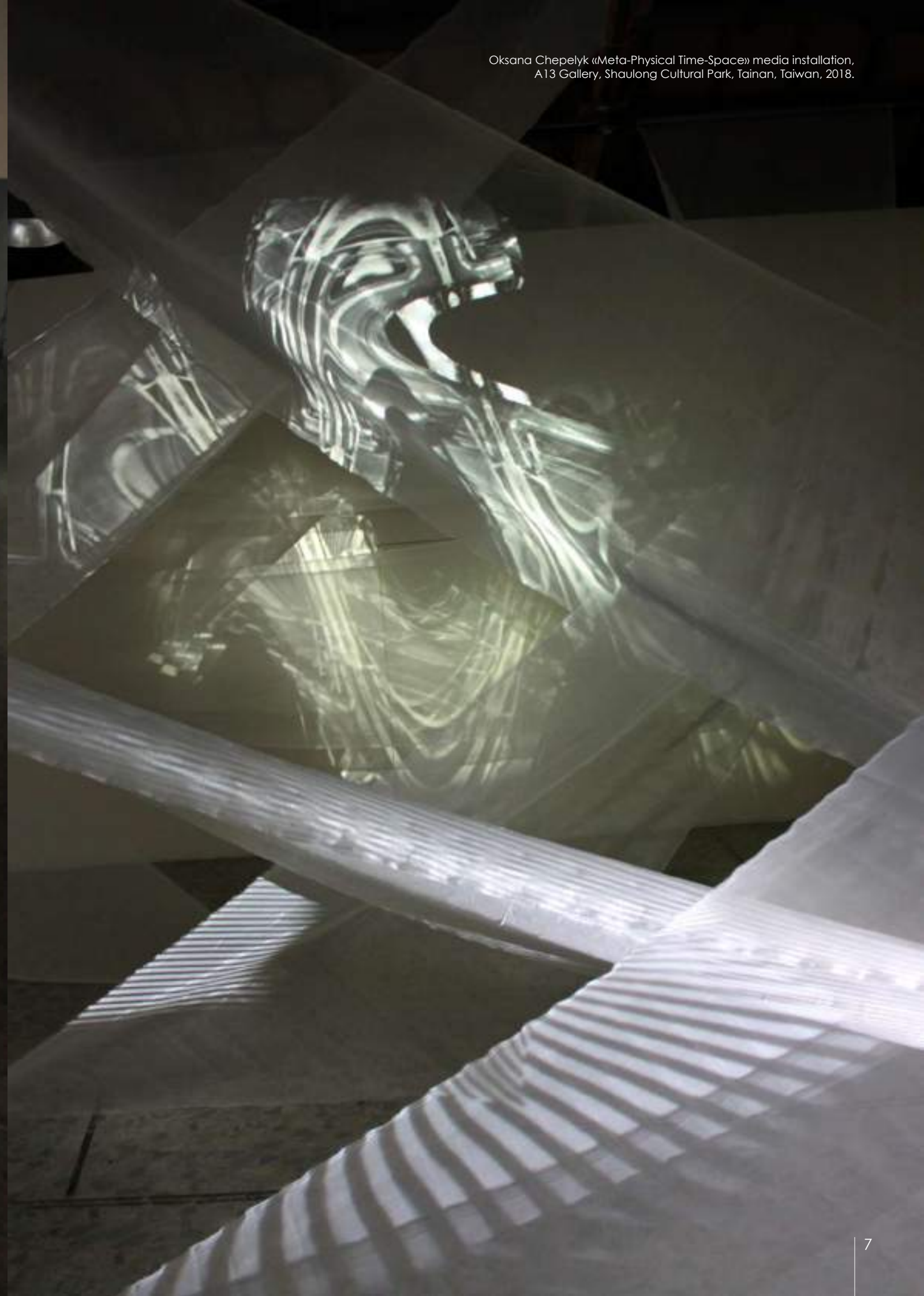
Ce procédé peut-il pour autant fournir une émotion à l'être humain ? C'est ce à quoi aspire l'artiste en nous proposant, dans l'installation L'Océan, la diffusion de la bande sonore de « metabomusique » au sein d'un environnement multimédia immersif composé de différentes autres propositions plastiques, particulièrement éclectique (vidéos documentaires, créations numériques, sculptures, papiers découpés, photographies scientifiques au microscope électronique, etc.) et qui n'ont en commun qu'un thème de travail, celui des pressions environnementales sur les organismes marins. Ce type

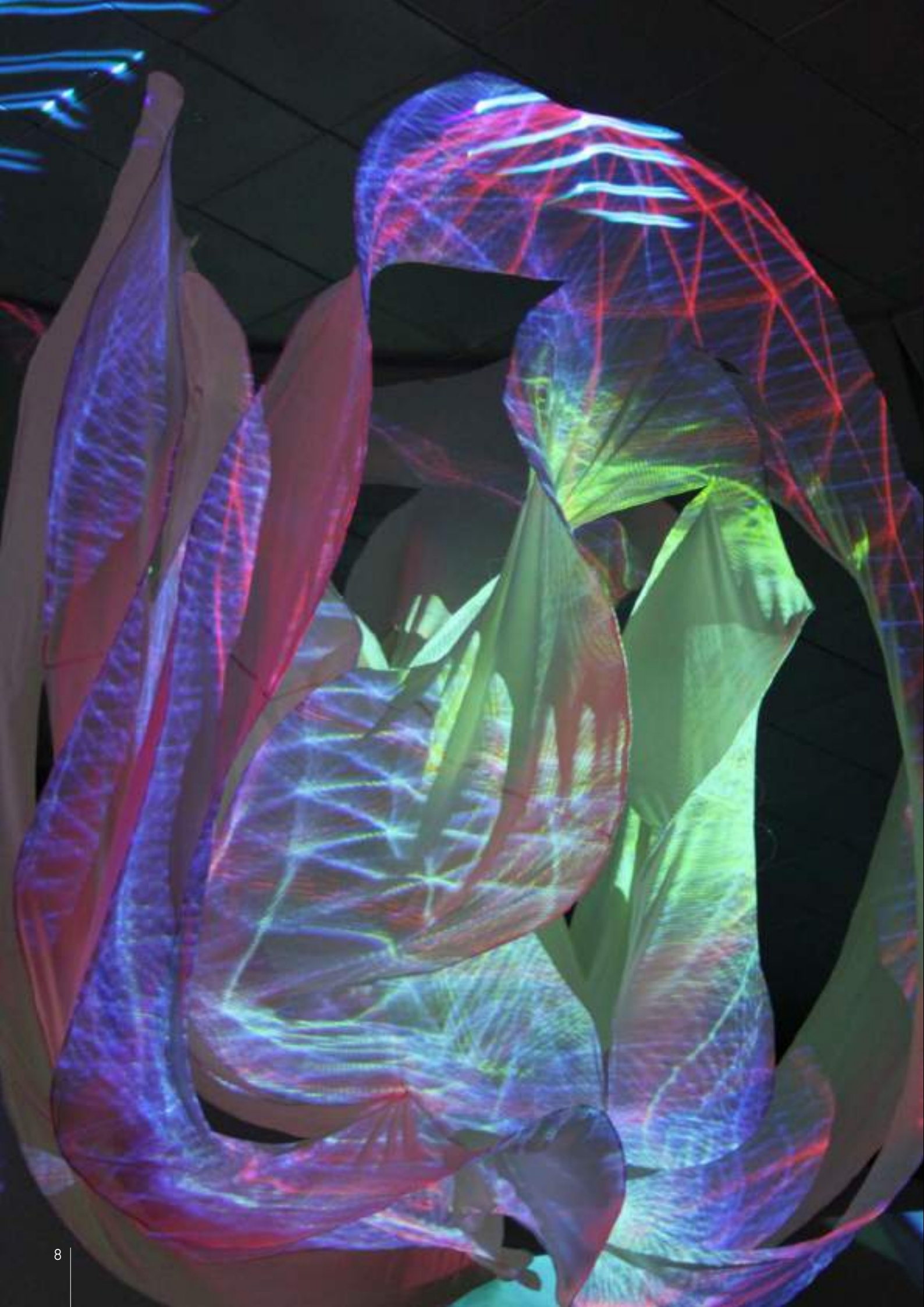
d'installation immersive manifeste une recherche de déplacement de notre sensibilité à l'océan en faveur d'un accès au point de vue des organismes vivant à l'intérieur de cet océan.

Le concept d'environnement immersif est souvent convoqué dans l'art contemporain sans qu'il soit aisé de le définir. Il renvoie généralement à des installations multimédia sollicitant différents sens, en premier lieu desquels la vue et l'ouïe, qui mettent en jeu notre équilibre, amoindrissent nos repères spatiaux ou temporels, taquinent nos cadres habituels de pensée. Pour cause, le terme d'immersion renvoie littéralement à un environnement non-humain, sous la surface de l'eau. Sans jamais s'y être rendue, Oksana Chepelyk travaille sur cet environnement sous-marin par l'intermédiaire de sa collaboration avec des écologues marins dont elle interprète le travail sur la notion d'environnement à différentes échelles. Une prise de vue vidéo sous-marine nous transporte par exemple aux côtés des chercheurs-plongeurs évoluant à la recherche des organismes qui constituent leurs sujets d'études, en l'occurrence des éponges, des animaux fixés façonnant les paysages sous-marins avec une foultitude d'autres animaux et végétaux, malades ou morts sous l'effet des pressions environnementales. L'image et le son, tels que réutilisés par l'artiste, nous plongent dans le rythme de la respiration lente et calme du plongeur cameraman, consciencieusement économe de l'air comprimé stocké dans ses lourdes bouteilles. Une contrainte de l'humain immergé dans un environnement qui lui est a priori hostile. ■

Expression levels of the major compounds during the sponge mass mortality "healthy" sponge & "diseased" sponge from "METABOLOMICS Applied to chemotaxonomy and marine chemical ecology" Thierry Perez. Sound by Alisa Kobzar, Victoria Viitrenko.







Oksana Chepelyk, Eugen Vashchenko «Neural Network»,
Carbon Media Art Festival, 13 Pavilion, EXPO, Kyiv, 2019.

Oksana Chepelyk, «Meta-Physical Time-Space», Art Museum of Prykarpattia,
International Festival «Carpathian Space», Ivano-Frankivsk, Ukraine 2019.





Oksana Chepelyk «Refraction of Reality»,
Korsak's Museum of Contemporary Ukrainian Art, Lutsk, Ukraine, 2021.



Technocratic world in the visual “optics” of Oksana Chepelyk

Svitlana Stoian

Doctor of Philosophical Science, Associate Professor
Taras Shevchenko National University of Kyiv

Modern technocratic world changed humans' optical perception of the world dramatically, making Homo Sapiens plunge into virtual reality, which at times can become a Procrustean bed – a trap for a confiding, uncritical brain. If you go on with Descartes' statement “I think, therefore I am,” we can see the humans gradually made rational all the spheres of their lives utilizing their 21st century powerful assistant – the technology. This way, without ever noticing it, a new and more global, from the first glance even unremarkable, the system of total dependence on artificial world was constructed. Nowadays the majority of people perceives the reality around through “the black mirror” – screens of multiple gadgets, which whether we want it or not, breaks the focus of our perception, distorting the “face” of a genuine reality considering a lot of factors. We all live in “the kingdom of crooked mirrors”, where every individual has his own perspective, judgmental perception of the world around creating the idea about existence of infinite number of parallel worlds which can never intersect one another.

It is an art-project of Oksana Chepelyk “Refraction of Reality” that gives us the feeling of this absolute dependency and plunges us into a dense web of technocratic reality, and you can not define where our movement starts or finishes, or whether it exists at all. It is not by chance that the author herself uses the notion of “refraction” which in different fields of science denotes breaking or shifting the focus of perception, and taken more widely, considering the idea of the project, refraction becomes a metaphor of crooked reality perception, becoming more simulative than real. Thus, it is even natural that the idea of being

confused, lacking something obvious is presented to us as innovative object, which is undoubtedly the center of exhibiting space. The mind-boggling delusiveness of the Mobius strip, endless virtual maze entered by a modern person, masterfully depicted by Oksana in this large-scale installation, as if frozen in the air in the large space of the exhibition hall of Korsak's Museum of Modern Ukrainian Art and in the rays of video projections, all these create an impression of impression of a illusory veil of Maya that obscures the true reality from our eyes.

Unfolding dreams come to our vision, blending conscious and unconscious, virtual and real, imaginary and true into single unified space. When the light goes off, projector rays go through the darkness like powerful streams of visual information, implementing the installation structure into the space of auditory imagination in a natural way, making the visitors wander through mysterious seductive mazes of the artificial world. Is this a trap? Or is it a natural transformation stage of symbolic world which according to Ernst Cassirer is just a product of human conscience, which creates a Rubicon between their natural essence and real world? Will symbolic henceforth mean completely artificial, virtual? Or maybe we have to deal with phantasms, empty simulacra, viciously blamed by Jean Baudrillard? Time will show and put everything in its place, gradually revealing new horizons of existence in the modern technology age, which no one can escape.

Even our own bodies are not parts of the natural world anymore. Apocalyptic premonitions like the one in “Terminator”, radical forecasts of transhumanists, breakthroughs in science, technology and medicine totally

transform the body of modern person. On the one hand, it gives extra means of survival (like artificial limbs, body organs, etc.), but on the other hand, it brings us closer to the arrival of a new being (in some sense), which is more of an artificial than natural origin. Bloody wars, injuries, individual and mass tragedies, everything of the kind is reflected in a colorful series of Oksana Chepelyk “Post Human”, which is a part of this project, where the characters with artificial limbs are depicted. But, however, it does not prevent these people from being active, full of lust for life, no matter what. The same context reveals the image of pre-mature children in incubators, which get their chance for survival due to recent advances of medicine, the science which with all the ambiguous and critical remarks still prolongs the life of a human significantly compared to the olden days and gives a chance to those who used to be deprived of one under any circumstances.

However, as it is mentioned by the researcher of modern media Neil Postman, technology not only gives but also takes away. We should always realize what we get more in the outcome – result with “+” value or result with “-” value. It is not at all a coincidence, that images of infants being fed through snorkels become an embodied image of total “connection” of a person the very moment being born with global network of manipulative technologies. This leads to absolute involvement of our will and our desires into a well-thought system of world control. Technologies give but at the same time technologies take away. More and more they invade our personal space territory, taking away freedom in exchange for security, as was foreseen by Erich Fromm. We become obedient blind crowd following the leader to the abyss, just like it was shown on the famous painting of Bruegel, but unlike those we are up-to-date, we are equipped with modern gadgets and technologies, which unfortunately can not save us from fatal falling down. Can the picture be a little bit less tragic? Is it possible that we are under the spell of Baudrillard's works or maybe the

total pessimism has also distorted the real vision of our reality perception? Where to look for the truth if we don't know what a genuine reality nowadays is – world that is natural or artificial, space that is virtual or real? Ask the youngsters where they feel better. What is the real space for them? I don't think we will be shocked by the answer, we pre-suppose it, foresee the choice. Just like Laocoon and his sons fell dead trying to warn the Trojans of the danger, the same way our premonitions regarding the reverse side of the technologies are more likely to fall victims of the progress. This is what Oksana Chepelyk describes in her works, whirling the antique character in the deathly funnel of distorted reality. The artist is reflecting over a difficult and at the same time terrifying dilemma – how not to lose your inner self in highly complex, transformed and sometimes unreal world of manipulative technologies, how to retain the ability to think critically, using the benefits of scientific and technological progress, avoiding illusions and numerous seductions. The author herself is like running on a razor's edge, utilizing modern media-technologies in her works, representing them in multiple international art-projects and meanwhile realizing the danger of crossing the subtle line, where the limits of one's own personality become vague and the borderline between the human and the natural becomes blurred.

Thinking over these questions together with the author we are deeply engaging our own critical thinking, directing our efforts on clear analysis of the situation where we stand. This situation becomes even more complicated because of the pandemics, which is an ace in the sleeve for limiting person's rights and freedom in favor of total control and manipulation based on widespread fear. Our wandering along the technocratic maze continues, but we still hope to see a light at the end of the tunnel leading us to a well-balanced space where natural and artificial, real and virtual, human and technocratic coexist together. ■



Immersive Environments as Audio-Visual Instruments for Changing Anthropocentric Optics

Oksana Chepelyk

Associate Professor, Dr.

Leading Researcher, Modern Art Research Institute of the National Academy of Arts of Ukraine

In order to choose a perspective not of cultural pessimism, but a desperate realism – perhaps in the spirit of Guattari's ecosophy, Latour's terrestrial coexistence, or Haraway's question of how to live on a damaged Earth, we need to contextualize the works of art, exhibited in physical space, as an immersive environment in a gallery or museum, or in virtual reality and on new virtual platforms on the Internet, which work to change the optics of established ways of viewing. Media ubiquity, war, and social divisions have landed us in a world of splintered realities: should we live with? heal? learn from nature? How can extended reality technologies help us to become more open and sensitive towards others and our environments that are affected moreover by ongoing military conflict?

The definition of immersiveness as immersion comprises the involvement of a subject in a system of relations with an artificially created environment using computer technology providing a person with the effect of presence in a three-dimensional world where it is possible to move and change viewpoints.

If we turn to the history of immersion, this concept has long been associated with architecture, symbolic systems and art. Early immersion systems are rock paintings in caves, and the Cosquer Cave Museum in Marseille, which opened its doors to visitors on June 4, 2022, is an illustration of this thesis. Cult buildings actively organized a

transformative environment with the help of architectural spaces and forms with the involvement of symbolism and light effects (immersive systems).

Oliver Grau's well-known art historical archaeology traces immersion through the imaginary worlds of Italianate frescos through the invention of panoramic displays in the 19th century and finally, into the technological image spaces of media-based art practices in the 1990s.

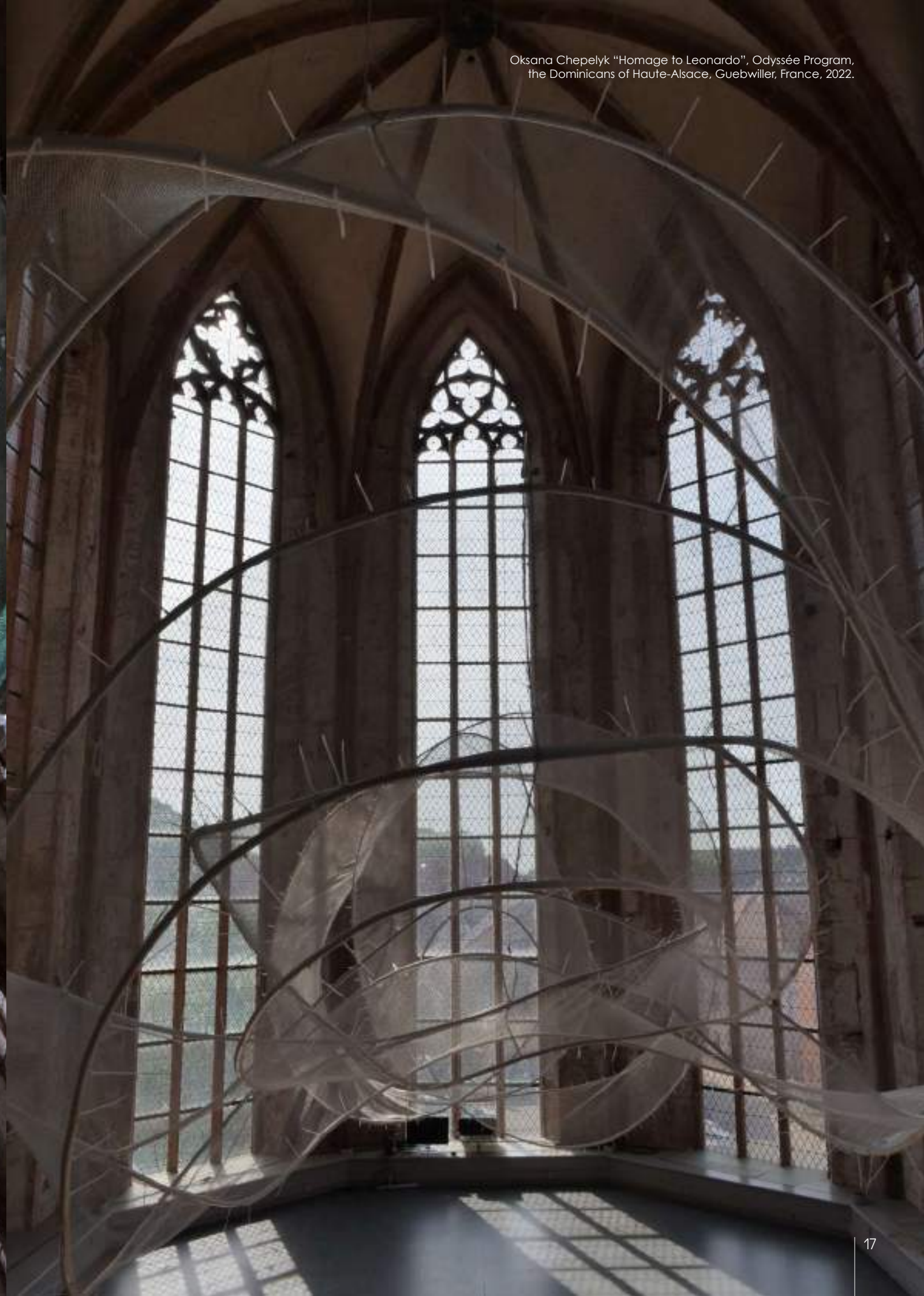
A further example of an immersive environment would also be my project "Collider", 2012-2020, as a panoramic and dome presentation of some of the most perilous political flashpoints through the Colliding Ideas project that connects how Physics looks to understand the Universe with the civilizational cataclysms we are experiencing now and that form new challenges. A time-space aspect to the project is presented by a video panorama, that consists of 24-60 fragments of moving images, which is revolves and, in so doing, activates a mechanism of audio-visual jumps, where certain fragments can gradually be substituted by archival videos, followed by visual "transmutations" (term used by physicist Marie Curie). This interplay between micro- and macrosystems, and between physical and social worlds explores a variety of contemporary and historical phenomena.

Another «Meta-Physical Time-Space» project with a fragment of the microworld, visualized as a large-scale

labyrinthine structure into which the visitor enters, was installed in the space of A13 Gallery of the Shaulong Cultural Park in Tainan, (Taiwan), 2018. This project offers a dialogue between conceptions of spatial experience and the reformatting of space/time relationships from video to immersive environments. It consists of a series of site-specific installations with moving imagery of the algorithmic nature of hidden information flows that we cannot influence, where human beings are immersed into a cosmogonic fluid environment, referring to Mark Hansen's idea of fluidity ("New Philosophy for New Media"). This principle allows us to research so-called "Interesting times" by Ralph Rugoff, seizing the fluidity of unnoticeable changes. Ralph Rugoff's approach reflects a scientist's point of view, examining the world under a microscope from the outside. The immersive project offers an inside view and possibility to experience the complexity of the world with empathic sensibility. The project is a work with a Möbius strip, as a semantic code, where algorithmic society, quantum physics, eco-consciousness and Eastern philosophy are explored in their visual dimensions in the flowing magma of cultural studies. The Carbon Media Art Festival in Kyiv in 2019 explored the collision of opposites — nature and civilization — through multimedia means. The spatial installation «Neural Network» was exhibited with video mapping of the processing data, shaping the future, because neural networks are created as a forecasting tool. ANNs - artificial neural networks - mathematical models, as well as their software or hardware implementations, are built according to the principle of organization and functioning of biological neural networks - networks of nerve cells of a living organism. The study of the processes

taking place in the brain initiated attempts to model such processes, which began not so long ago, and with the launch of ChatGPT caused a whole wave of turbulence and the understanding that 2022 started a new era of this «brave new world».

The Ukrainian version of the project «Meta-Physical Time-Space» was implemented in The Art Museum of Prykarpattia, curated by Natalya Sukholit, as part of the International Festival «Carpathian Space» in Ivano-Frankivsk in 2019. The Art Museum of Prykarpattia is located in the former Church of the Virgin Mary — the oldest building in the city - which was originated in 1661 following a plan in the Renaissance style - "The Ideal City" - designed by François Corassini from Avignon. From 1672 to 1703, this limestone baroque church was created under the direction of French architects Francois Corassini and Karol Benoe in the form of a three-nave basilica with a transept. Spatial structures in the project «Meta-Physical Time-Space» that are situated in the main nave entered into consonance with the interior and with sculptures by Johann Georg Pinsel, a Baroque sculptor in Ukraine in the 18th century, whose works were exhibited in the Louvre in 2012-2013, taking the form of suspended spatial structures of various configurations from quantum physics approaching a 6-dimensional Calabi-Yau manifold, with elements in the shape of helicoids and gyroids, the surfaces of which caught a moving video image that multiplied and reached the vault. This installation not only created a visual dialogue with the curvilinear Baroque forms of the church, but also showed the invisible microcosm microcosm and connected the project to the macrocosm of celestial circles, constellations and galaxies.





Oksana Chepelyk, camera by Thierry Perez, "Underwater Landscape", 5 screen video installation, "Metabolomics" project sketch for exhibition at Collider Space, canceled due to the Russian invasion in Ukraine 2022.

Such investigation found their continuation in the project «Refraction of Reality», implemented at the Korsak's Museum of Contemporary Ukrainian Art in Lutsk in 2021. Refraction is a concept used in physics, astronomy, and physiology, while referring to short-sightedness (myopia). The project explores all three hypostases of refraction, including the refraction of reality vs social myopia, where myopia is the type of refraction that indicates nearsightedness through the image of Laocoön, whose warning the Trojans did not take seriously. The pressing need to follow the crucial mutations, due to changing perceptions of the modern world in the era of the algorithm, calls for reference to the context of critical thinking of the 21st century. It asks questions such as: What signals are coming from modern society, which is flailing around in the childbirthing convulsions of its own future? How is the world catching those vibrations of time in the current political and technological system? In the aforementioned immersive environments, although they are created with the help of computer technologies, the participant can immerse him-/herself in real space and receive all the stimulus-reactions of being in a physical environment. Here it is necessary to turn to the sensorium, which became one of the foundations of the theories of Marshall McLuhan, Edmund Carpenter and Walter J. Ong in the 20th century: with the help of our mental capabilities, such as feelings, phenomenal and psychological perception, cognition and intelligence, interpretation of information about the surrounding world

takes place through sensations. McLuhan believed that because media were biased according to time and space, immersiveness therefore remained a deferred prospect. He paid particular attention to what he called the sensorium, or the effects of media on our senses, positing that media affect us by manipulating the ratio of our senses. When considering VR immersion and maintaining a "high level of presence", VR guru Jason Jerald has argued in his popular "The VR Book" that such presumed presence requires four conditions: the illusion of being in a stable spatial space, of self-embodiment, of physical interaction and of social communication. Mel Slater describes immersion as less the affective shifting of self and instead, a constructed belief about what the world gives you in order to act within it: "a property of the valid actions that are possible within the system". In essence, this concept is nothing particularly new — the so-called "willing suspension of disbelief" is a core element of theater. While VR has mainly been focused on (and criticized for) its overwhelming emphasis on vision, we need to recall Sutherland's desire for the "ultimate display" to operate across all of the senses. Defined by Jerald as simply an individual's experience of "being there", presence is seen as both "subjective" and objective — as something that also happens inside us. "The fundamental idea is that participants who are highly present should experience the virtual environment as the more engaging reality than the surrounding physical

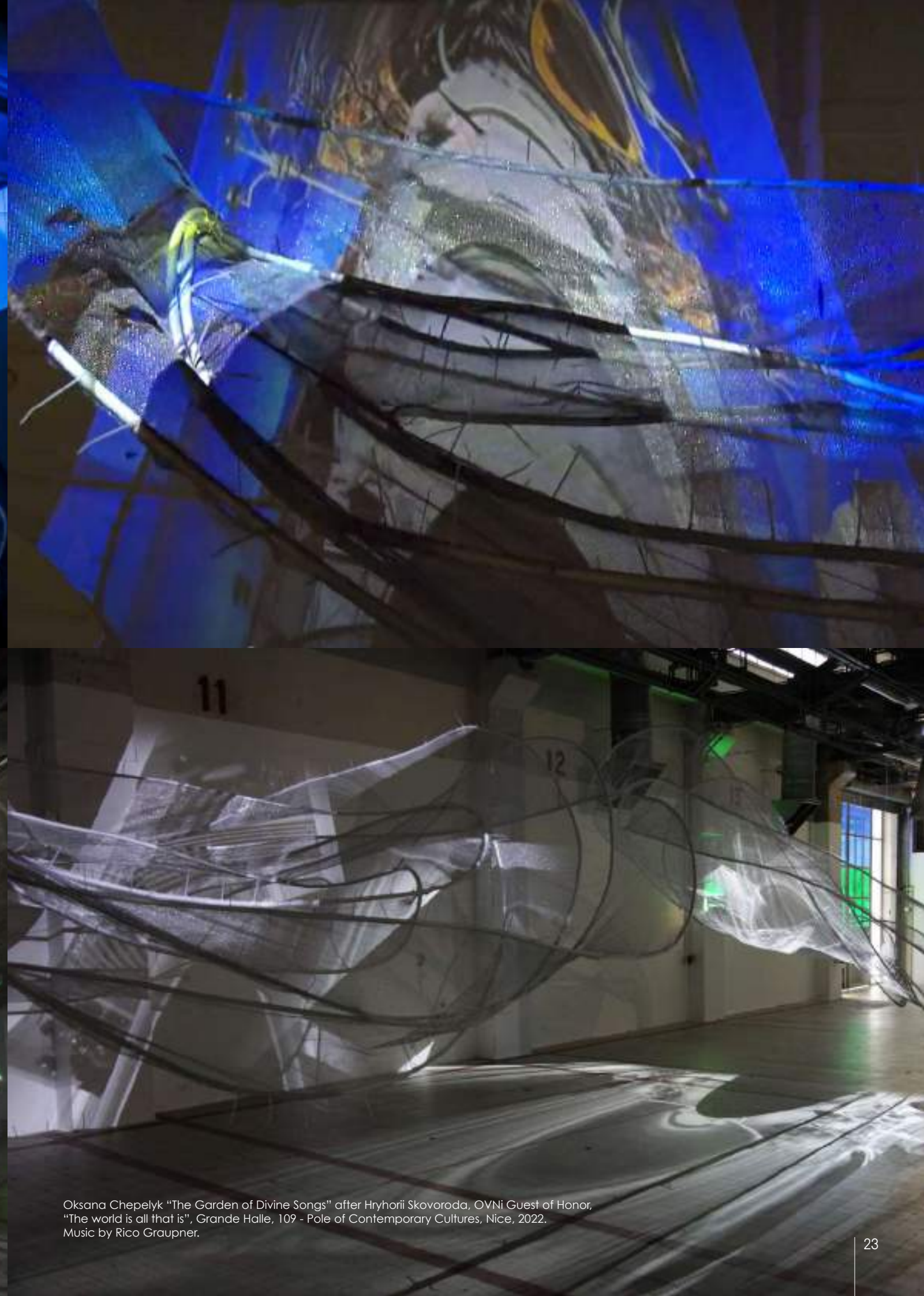


Oksana Chepelyk "On the Edge", 5 screen video installation, "Metabolomics" project sketch for exhibition at Collider Space, canceled due to the Russian invasion in Ukraine 2022.

world and consider the environment specified by the display as places visited rather than as images seen". Indeed, so much of the concept of immersion as a kind of ideal verisimilitude rides on the fact that one can forget the world beyond the simulation. The "VR Collider" project was created on the Mozilla Hubs online platform with research supported by the Goethe-Institut Ukraine, production by the UCF – Ukrainian Cultural Foundation, and obtained the State of the ART(ist) Award of Ars Electronica 2022. "VR Collider" works with time, public space and history. It examines the iconic places of the political history of the 20th and 21st century. It deals with events in public spaces that then influenced a subsequent historical development. It consists of a virtual environment built as a system of 4 platforms that flies as a space station in orbit over planet Earth and captures the vibrations of time-space. "VR Collider" combines events such as JFK's assassination in Dallas (1963), the Los Angeles Riots (1992), Moscow – collapse of USSR (1991), Kyiv – the Orange Revolution (2004), the Revolution of Dignity (2013-2014) and the Almaty Collider - "City Code" (Zheltoksan or «December» of 1986 in Alma-Ata) that occurred before Bloody Sunday in Vilnius (1991) and the Tbilisi Massacre (1989). Sarajevo Collider refers to 1914, a century before the Kyiv and Sarajevo events, when, following the assassination of Archduke Franz Ferdinand, WWI began, leading to the collapse of the Austro-Hungarian Empire and the

emergence of new states. The second event in Sarajevo was the Bosnian War 1992, namely, the shelling of the National Library in Sarajevo, that was fired upon first, and where the cultural memory of Bosnia and Herzegovina was preserved. If the genocide in the Balkans at the end of the 20th century was stopped by the international community, then is genocide by Russians in Ukraine already allowed in the 21st century? It took 100 years for the world to recognize the Holodomor of 1932-1933 as genocide of the Ukrainian people, now history is repeating itself and the debate is resuming: this centres on whether the murders of Ukrainians, which are happening live in front of the eyes of all mankind, can be considered as genocide, because no documents have been made public that would testify to a planned action, despite the fact that the American historian Timothy Snyder has already published all the necessary links with English translations in his article «Russia's genocide handbook». Thinking about... (8.04.2022). There are Mariupol and Slovyansk platforms in "VR Collider", each with a map of the attacks, and Lutsk, which is located in the western part of the country, but currently, there are no cities in Ukraine that have not been bombarded by Russian missiles. The Berlin platform, where the Berlin Wall collapses, represents the euphoria of Freedom at that moment. However, it shows that Ukraine found itself behind 'the wall' of the European Union, isolated, alone with the aggression and occupation since 2014.





Oksana Chepelyk "The Garden of Divine Songs" after Hryhorii Skovoroda, OVNi Guest of Honor, "The world is all that is", Grande Halle, 109 - Pole of Contemporary Cultures, Nice, 2022. Music by Rico Graupner.



Oksana Chepelyk "Homage to Matisse", OVNi Guest of Honor, Matisse Museum, Nice, 2022.



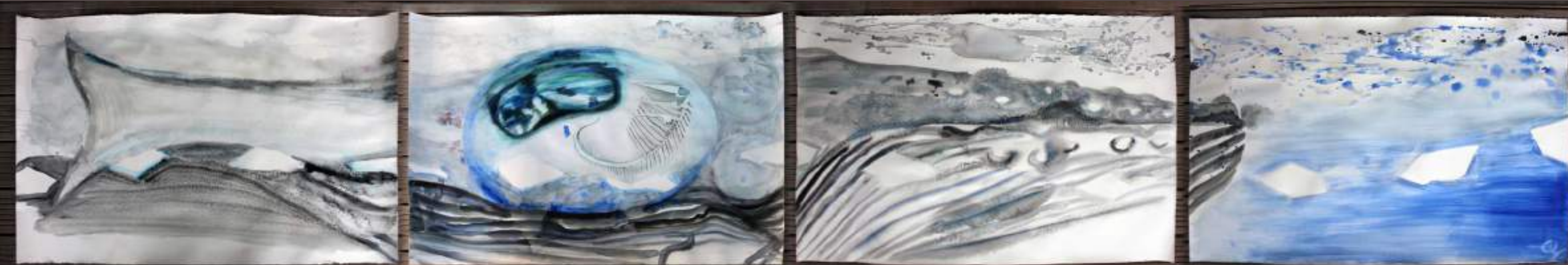
Oksana Chepelyk "Gaia", OVNi Guest of Honor, Windsor Art Jungle Hotel, Nice, 2022.



Oksana Chepelyk "Homage to Matisse", OVNi Guest of Honor, Matisse Museum, Nice, 2022. Photo by Hormoz Works.



Henry Matisse "Swimming Pool", Oksana Chepelyk "Homage to Matisse", OVNi Guest of Honor, Matisse Museum, Nice, 2022.



Oksana Chepelyk "Genesis: Mother-Whale", watercolor, paper, 60x440 cm, OVNi Guest of Honor, Matisse Museum, Nice, 2022.

The Double Moebius platform includes videos that relate to the seas: Venice, Odesa, Kotor, as well as Cetinje and Podgorica dealing with the formation of states: the Kingdom of Montenegro 1910-1918 and Ukraine 1917-1921, before the Bolshevik occupation.

The architectural rose on the facade is a reference to medieval cathedrals as a return to the Middle Ages when the norms of civilization no longer work, while military force is sufficient for domination.

The "VR Collider" raises the question: is a person a mere particle in the system of accelerators of global forces, or the energy of interaction examining new values, new forms of thought and new ways of existence in the world, insisting that "another world is possible"?

The next platform is the Chornobyl Room with a fragment of the VR Genesis, symbolizing the isolated city of Prypiat, abandoned in the exclusion zone 34 years ago. The walls of this room show an ultrasound examination of the fetus, while this area works as a real-time birth-rate monitor in Ukraine, where a child is born every 1,5 minutes and every technological element relates to the human body, history, ecology and memory.

VR and immersive technology engage both narrative experiences, emerging as part of the cinematic field, and non-narrative sensory experiences.

The "Homage to Leonardo" project that took place within Odyssey Program 2022 in the Dominican Convent, built in the 14th century in Guebwiller, as a reference to da Vinci's drawings from his Codex, resonates with his research about the universe understanding based on learning from nature. The presentation of an immersive environment in a sacred place, where everything appears as a single space-time, in which the divine and the medial, the cosmic and the mystical, the scientific and the artistic merge, strengthens reflection on the transcendental nature and existence of humankind. According to Petar Ćuković, the project is intended to

transmit the vibrations of the «universal mind that speaks to the human».

At Iméra, within the framework of the "Art & Science: Indisciplined Knowledge" programme, I have been collaborating with Thierry Perez, Director of Research (CNRS) from IMBE – the Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology – to research "Analytical Instruments for Audio-Visual Translation of Metabolomics" merging genotype and environment regarding climate changes. I have also been working with MIO - the Mediterranean Institute of Oceanography - studying plankton in relation to oxygen and carbon dynamics under climate change and as an exploration of marine ecosystem biodiversity.

In this collaboration, I address immersion and the creation of immersive environments as a research tool. Using this method, 3 projects were implemented within the OVNi-2022 festival, as the Guest of Honor (following well-known French artist Orlan in 2021), such as: "The Garden of Divine Songs" after Hryhorii Skovoroda within the main exhibition "The world is all that is" at the Grande Halle of 109 - Pole of Contemporary Cultures, "Gaia" at the Windsor Art Jungle Hotel and "The Ocean" with "Homage to Matisse" at the Matisse Museum in Nice.

"The Garden of Divine Songs" after Hryhorii Skovoroda project dedicated to the 300th anniversary of the birth of the most famous Ukrainian philosopher. This project consists of an immersive digital environment with 3 spatial transparent structures that serve as the screens for moving images, reflecting Hryhorii Skovoroda's philosophical doctrine of the three worlds: nature – both visible and invisible - macro and micro cosmos, and the symbolic world. German sound artist Rico Graupner, working with living species, created a soundscape of the project as an exploration of a chaotic biological system. It is derived from the system that involves various types of sensors, collecting useful information from

insects, their environment and providing data for a wide range of possible composition tools and strategies. The spatial structures shape the universe in humans and humans in the universe through to the hybrid forms combining constellations, Noah's Arc, UFO and cactus - the vegetation that resists. The moving imagery merges natural and urban landscapes that capture historical events. This visual research metaphorically explores Hryhorii Skovoroda's philosophical ideas from 18th century through to the ideas of 'liquid modernity' by Zygmunt Bauman within the limits of a wide range of interrelations. The project involves a keen sense of spatial structure to form this experience: the philosophy and emergence of the conditions that yield the new, the unimaginable, and the unthinkable. Anthropogenic factors and climate change are leading to significant changes shown in a video installation through distortions. The project works with today's context, as the National Literary and Memorial Museum dedicated to the philosopher, and situated in the Skovorodynivka village of Kharkiv Region, was directly hit by Russia's missile strike on the night of May 7, 2022, where Skovoroda worked for the last years of his life and where he was buried nearby with the following epitaph on his tombstone: "The world tried to capture me, but didn't succeed."

Another project was assigned to a public space at the Windsor Art Jungle Hotel with site-specific video installation "Gaia" (Goddess of the Earth in Greek mythology) as reference to 1970s Gaia theory by James Lovelock and Lynn Margulis of the 70s, which was based on the theory of the Earth's development by Ukrainian scientist Volodymyr Vernadsky in the 1920s that is now one of the foundations of Ecology. The female image in the video is the embodiment of the Terra, and small Lego human figures try to colonize the Earth, but it resists. It contains an ecological, feminist layer, as well as an allegory with Ukraine, which also resists.

The "Homage to Matisse" multimedia installation, exhibited at the Matisse Museum, is an expression of the master artist's ideas with his system of thinking «inspired by nature». Installation shapes the hybrid forms combining signs that lay at the basis of Matisse's art: «sign-swimmer», «sign-gorgone», «sign-jellyfish», «sign-cyanobacteria», «sign-algae-bloom» with a level of simplification reaching that of the hieroglyph. It merges video and sculptural objects through an abstract representation of a whale skeleton fragment, referring to a lost paradise due to the ecological situation, anthropocentrism and human irresponsibility. The video, shot by a drone, also shows a flight over the Irpin River with a number of channels that flow into the Kyiv Sea (reservoir). The city of Irpin, like Bucha, has become a symbol of the atrocities of the Russian army. Matisse's decoupage (cut-out) methodology can serve as an important instrument today helping to understand the consequences of anthropogenic factors and climate changes that lead to the significant loss of biodiversity and degradation of the environment, but also the human loss during the genocide in Ukraine, right now.

A second eco-art audio-visual installation at the Matisse Museum and called "The Ocean", worked with the sonification of metabolomics data, namely of healthy Spongia lamella and sick Spongia Lubomirskia received from Thierry Perez at IMBE / Marine Station of Endoume in Marseille. This work shows the various distortions of living species and environment induced by climate change.

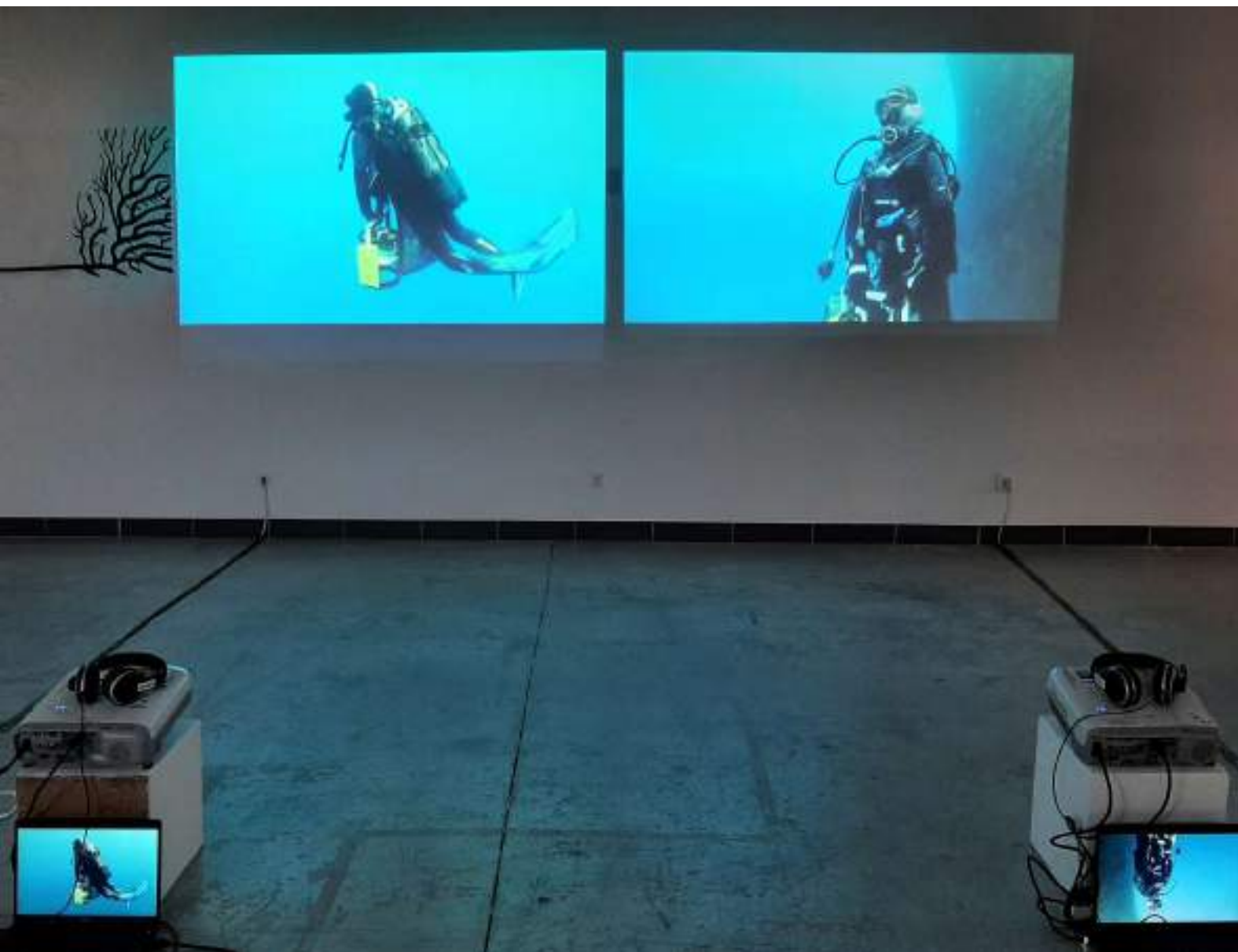
«The Ocean» installation was also presented at the «Hybrid-Art» contemporary art fair, organized by Fernand Leger Contemporary Art Centre in Port-de-Bouc, and as a fragment of the "Metabolomics" project, that had been scheduled to be shown in Kyiv in June, 2022 with the support of House of Europe, but which was canceled due to the Russian invasion in Ukraine.

Oksana Chepelyk "Homage to Matisse" and "On the Edge" diptych,
«Espace Ocean: Waters Come Into My Soul» project,
Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.
Music by Iury Lech.





Oksana Chepelyk "Homage to Matisse", «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.



Oksana Chepelyk "Underwater Landscape" video diptych, camera by Thierry Perez, «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.

The project "Espace Ocean: Waters Come Into My Soul" with 3 audiovisual installations was presented at Scientifica # 2, at the Gallery of Visual Arts, Le Cube in Aix-en-Provence in 2023.

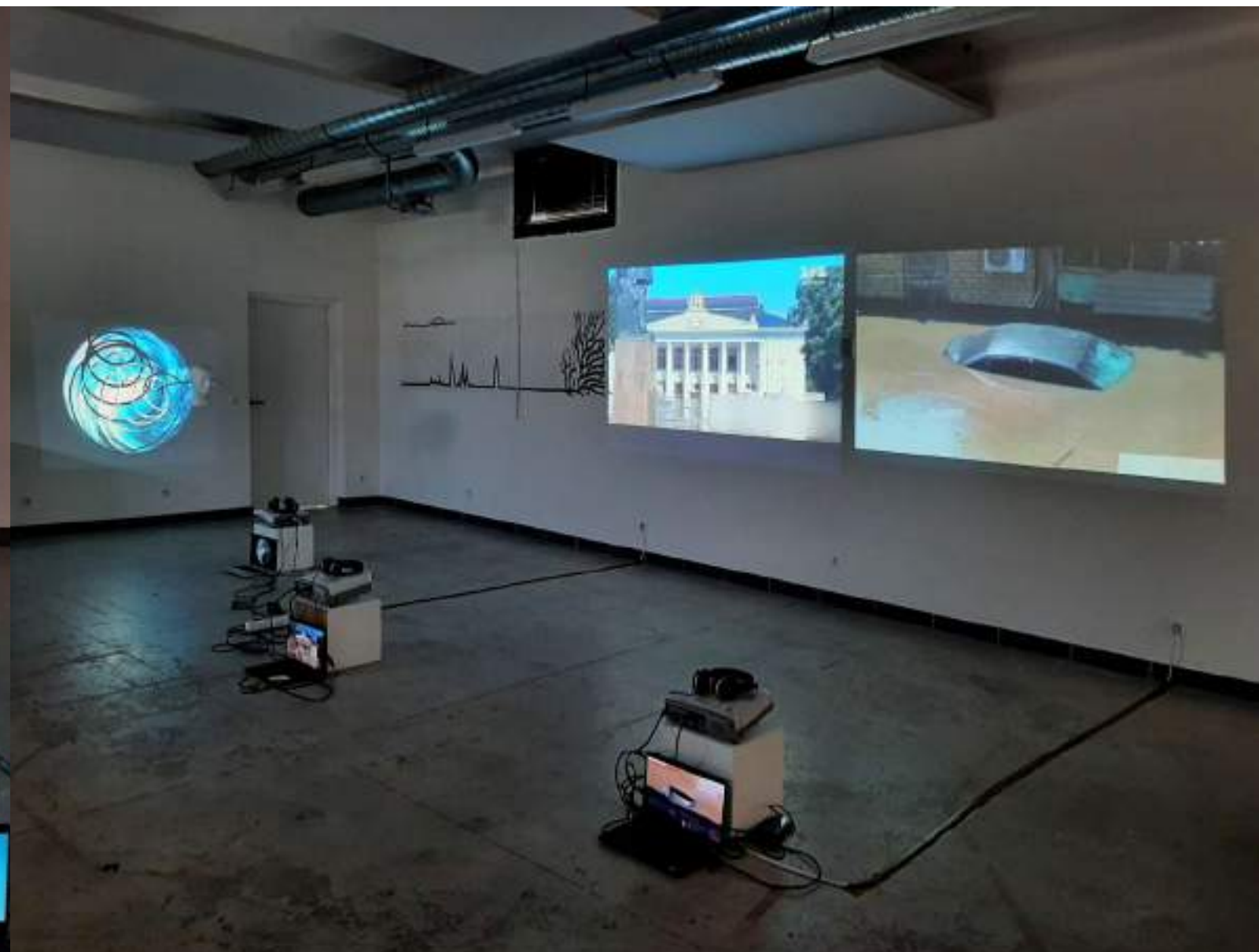
Eco-art installation "The Ocean" mixes marine species imagery and microscopia of living organisms: plankton, bacteria and other underwater inhabitants. As around 70% of the oxygen in the atmosphere is produced in the oceans from phytoplankton performing photosynthesis, the majority of the oxygen available for us and other organisms that breathe aerobically is therefore produced by plankton. This piece expresses the ethical basis of coexistence with nature, as the paradigm of "colonisation" is transformed into "partnership" with the "ethics of care". The polyphony in the piece is a signifier of biodiversity as it gives a voice to living species.

The 2-screen installation shows the trilogy: «On the edge», "Underwater Landscape" and "Ecocide". The performance "On the Edge" was dedicated to the 140th anniversary of Olexandra Exter in 2022, one of the

most prominent Ukrainian avant-garde artists of the 20th century, with strong links to Kyiv, as a tribute to the heritage of the artiste, who crossed boundaries both between styles and borders between countries, but at the same time served as a bridge between cultures and epochs.

The performance reflected the point now reached by humanity without it understanding this situation: the edge speaks to us with ecological disasters, pandemics, war and technological leap. This knot cannot be cut, but there must be a rethink of humanity's existence on planet Earth, and of a transformational transition.

The first part of the performance reflected the expansion of the urban border between Marseille proper and the neighbouring Calanques National Park through the prism of increased pollution in cities, and runoff from agricultural land. The main threats to aquatic biodiversity are climate change, including heat, ocean warming, acidification, oxygen depletion, and destruction of organisms.



Oksana Chepelyk "Ecocide" video diptych, «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.

In the second part, it was necessary to catch the wind, which blew the windsocks in the form of letters, from which the word «Hope» emerged. We can recall the traditional Japanese koinobori, made as windsocks fluttering in the wind in the form of carp (meaning «carp streamer» in Japanese). According to legend, once upon a time on the Yellow River in a fast stream, many fish tried to swim up a waterfall and jump over the waterfall, but only carp succeeded. Hence, the symbol of the carp rising over the waterfall has traditionally been associated with a symbol of the transition to adulthood. The reference to the koinobori in the performance indicated an invitation to conscious adult life of people in cooperation with nature.

The third part reproduces the soundscape of the deep sea, as sensory evidence of the threats to biodiversity due to pollution and climate change, created using metabolomics data, which are chemical indicators of environmental impact on genotype.

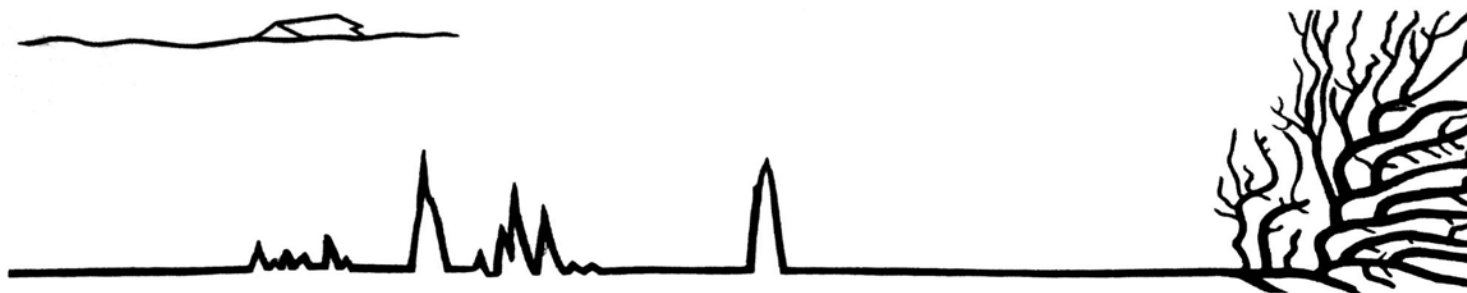
"Underwater Landscape" raises awareness of how

climate change and heat transformed a rich marine ecosystem into a garden of exoskeletons in August 2022. Thierry Perez and colleagues from France and Israel have written about the mortality of underwater species, namely Gorgonians and Spongia Oficialis, and the fragility of life and ecosystem due to an increase in sea surface temperatures reaching 5°C higher than average.

The "Ecocide" video reveals a human and environmental disaster, the mass destruction of flora and fauna, poisoning of air or water resources caused by Russia's destruction of the Ukrainian Kakhovka dam on June 6, 2023. The biggest man-made catastrophe in Europe in recent decades, its ecological consequences will last a long time, even in the Mediterranean, given the so-called "butterfly effect", as acknowledged by French mathematician and engineer Henri Poincaré, and well-known from a short story «A Sound of Thunder» by Ray Bradbury of 1952 and developed by mathematician and meteorologist Edward Norton Lorenz in the 1970s.

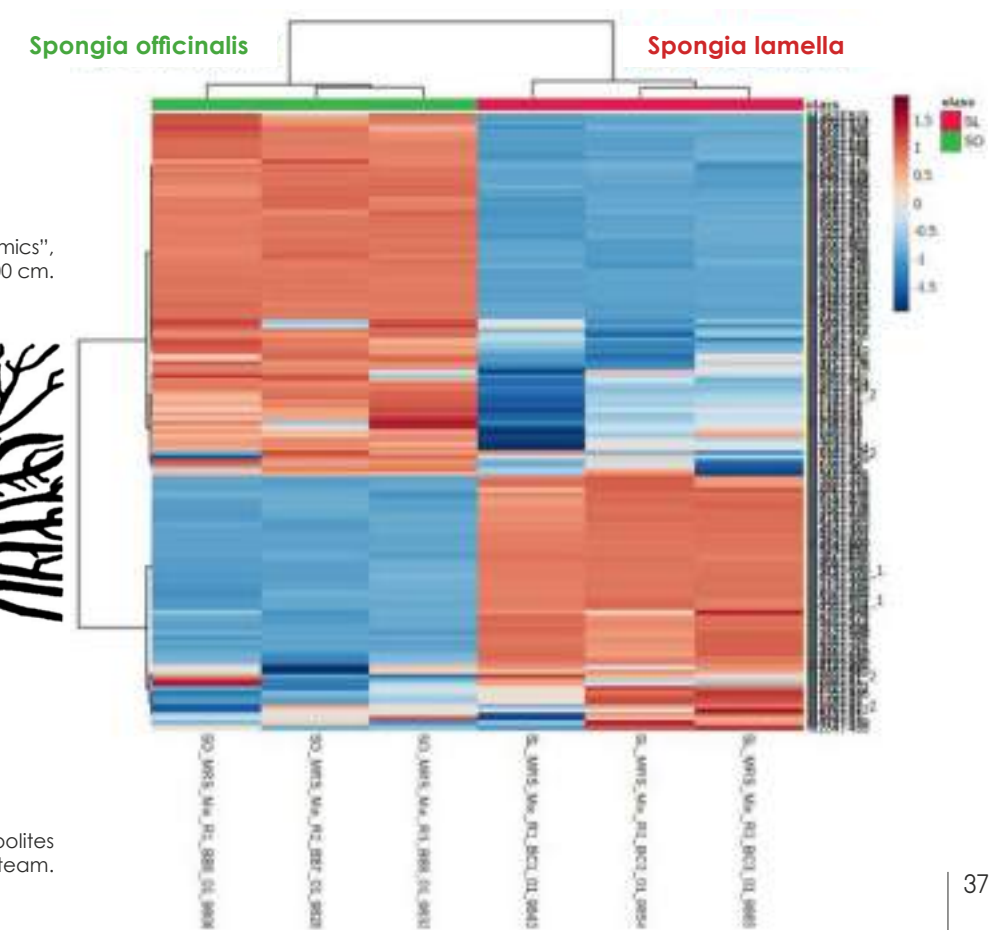


Oksana Chepelyk "Underwater Landscape" video diptych, camera by Thierry Perez, «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.



Ultraperformance liquid chromatography coupled with High Resolution Mass Spectrometry, IMBE, Marseille.

Oksana Chepelyk "Metabolomics", oil on paper, 60x300 cm.



Heatmap with most significant metabolites by DFME team.



Oksana Chepelyk "Underwater Landscape" video diptych, camera by Thierry Perez, "The Ocean", metabolomics data sonification, «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.



Gorgonia Gorgones, "Underwater Landscape". Photo by Thierry Perez.
Sound by Alisa Kobzar.



Tubastraea Coccinea Orange cup coral,
"Underwater Landscape". Photo by Thierry Perez.

All the more relevant is the research that Thierry Perez is engaged in, working with metabolomics on the development of X-Med Marine Biodiversity as a heritage concept - A COMMON natural heritage. An example of interdisciplinary Research as the first Mediterranean exploration program of this size, X-Med aims to disseminate scientific and artistic messages at the international level about the aesthetics of marine biodiversity, but also its poorly known benefits for people. Regarding the phenomena of growing eco-art practice, Andrew Brown's book «Art and Ecology Now» develops a six-level model for studying the degrees of environmental responsibility in art, which now serves as an analytical tool. Brown problematizes eco-art engagement, questioning whether artists "should participate in creating change and finding solutions to environmental problems». According to Thierry Perez, knowing, understanding and protecting our marine

natural heritage are equivalent to saving the work of nature and maintaining an invaluable potential of ecosystem services for mankind. DFME - Diversity and Functioning of Molecules in Ecosystems team, led by Thierry Perez, focuses on creating a metabolomic profile of the Mediterranean Sea. Such a task can be compared to the decoding of the human genome. Sonification of the Mediterranean metabolomics landscape offers the possibility of creating sound with "non-human agency" in order to shift anthropocentric optics. Molecular sonification, namely the encoding of molecules as music, is particularly intriguing since the multiple dimensions of music can allow encoding of many molecular properties. As Tim Chernak and his colleagues have argued, "music could be used for storage of molecular information". The researchers even explore how music could be used as a creative



Gorgonocephalus on a gorgonian in the Strait of Gibraltar,
"Underwater Landscape". Photo by Thierry Perez.

medium to generate new molecules, but in the course of the studies they have learned that molecules can, instead, provide an inspiration and creative outlet for the generation of new music. The AI series of underwater life is not only a reference to the "liquid modernity" in philosophy, but it explores humanity in relation to marine species. Its images form the core of an audio-visual installation approaching "Opera-Metabolomica", which is still in the early stages of development. This project introduces a few aspects of the complex system research and field work that are trying to contribute by placing interdisciplinarity at the service of ecological and environmental purposes. It also refers to a purely scientific combination of experimental ecology and next-generation -omics technologies (including genomics, epigenomics, transcriptomics and metabolomics) that represent an unprecedented

opportunity to characterize the patterns of local adaptation and phenotypic plasticity in natural systems and, ultimately, to understand the complex relationships between phenotype, genotype and environment in the context of climate change. Thus, approaches to this research using immersive environments, sonification and translation of complex biochemical events into visual liquid elements using AI serves as an additional sensory argument, to push toward a meaningful change in anthropocentric optics and sustainable management of our vulnerable ecosystems. Immersive environment is dedicated to the shift towards an ethical paradigm in favor of all the other living creatures, so that humans can more easily step down from the pedestal, built according to anthropocentric concepts. This project suggests an ethics of companionship instead of competition as a model for coexistence, which at the end is very beneficial for human survival on our planet. ■



Oksana Chepelyk "Ecocide" video diptych, "The Ocean", metabolomics data sonification, «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023. Sound by Alisa Kobzar, Victoria Vitrenko.

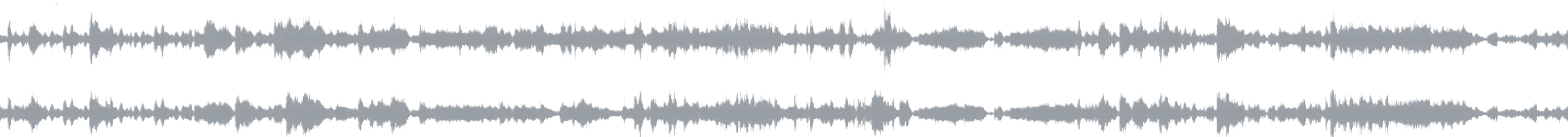


Oksana Chepelyk "The Ocean", metabolomics data sonification, «Espace Ocean: Waters Come Into My Soul» project, Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023. Sound by Alisa Kobzar, Victoria Vitrenko.





Oksana Chepelyk "Ecocide" video diptych,
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 Scientifica # 2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.
 Music by Iury Lech.





Thierry Perez, CNRS Research Director of the Pythéas Institute - Earth Sciences and Astronomy Observatory / Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology / Marine Station of Endoume

DFME - Diversity and Functioning of Molecules in Ecosystems team: Marie Derrien (PhD student), Marie Grenier (PhD student), Morgane Mauduit (PhD student), Flore Corallo (PhD student), Cesar Ruiz (Postdoc fellow), Stephane Greff (AMU engineer chemist), Dorian Guillemain (CNRS engineer, diver), Sacha Molinari (CNRS technician), Charlotte Simmler (CNRS Researcher), Jean Vacelet (CNRS Emeritus)

Iméra – Institute for Advanced Study of Aix-Marseille University
Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology
Mediterranean Institute of Oceanography

Acknowledgements

Deep gratitude to the researcher of IMBE and MIO
for their precious and generous contributions.
Gratfulness to Iméra for the opportunity to realize my project
and the wonderful stay in Marseille.

Many thanks for the support to
A*MIDEX and FIAS financed by the European Commission
in the frame of the Marie-Skłodowska-Curie Actions (COFUND Programme 2022-2023);
Artist Protection Fund (2023-2024).

Special thanks for the support to

Denis Bertin, President of the Iméra
Enrico Donaggio, Academic Director and Director of the Necessary Utopias programme of the Iméra, for his personal commitment in the project
Emmanuel Girard-Reydet, Secretary General of the Iméra, for his support
Constance Moreteau, Academic coordinator of the Arts & Sciences: Indisciplined Knowledge program of the Iméra, to which my project belonged, for her personal commitment in the project and this publication
Mary Margaret D. Gilliam, Program Officer, Artist Protection Fund, Institute of International Education
Raquel Sanz Barrio, FIAS Programme Officer, RFIEA Foundation
Odile Redolfi-Payen, Founder and director of OVNi - Objectif Vidéo Nice
Thierry Perez, CNRS Research Director of the Pythéas Institute - Earth Sciences and Astronomy Observatory / Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology / Marine Station of Endoume for inspiring me and supporting my project
Jean Vacelet, CNRS Emeritus of the Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology / Marine Station of Endoume
Stephane Greff, AMU engineer chemist of the Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology / Marine Station of Endoume
Juliette Bissete, Doctor in History of Art of the Aix-Marseille University, for her personal commitment in this publication
Valerie Michotey, Research Director of the Mediterranean Institute of Oceanography, OSU Institut Pythéas
Bernard Queguiner, Professor of the Mediterranean Institute of Oceanography, OSU Institut Pythéas
Karine Leblanc, Mediterranean Institute of Oceanography
Delphine Tibault, Associate Professor of the Mediterranean Institute of Oceanography
Charlene Martin, Management assistant of the Iméra
Solenne Bruhl, Administrative Assistant of the Iméra
Farah Ferraton, Communication manager of the Iméra
Timothée Andonian, Media and IT Assistant of the Iméra
Victor Sydorenko, President of the NAAU
Igor Savchuk, Director of the MARI NAAU
Iuri Lech, MADATAC director, interdisciplinary artist
Svitlana Stoyan, Associate Professor of the Taras Shevchenko National University, for her personal commitment in this publication
Rico Graupner, sound artist
Olexandra Khalepa, Founder of the Carbon Media Art
Victoria Vitrenko, InterAKT Initiative
Alisa Kobzar, sound artist

Oksana Chepelyk "Ecocide" video diptych,
«Espace Ocean: Waters Come Into My Soul» project,
Scientifica #2, Gallery of Visual Arts, Le Cube AMU, Aix-en-Provence, 2023.
Music by Iury Lech.





Oksana Chepelyk.
Photo by Rich Matheson.

Biography

Dr. Oksana Chepelyk is a leading researcher of The New Technologies Department at The Modern Art Research Institute of Ukraine, author of the book "The Interaction of Architectural Spaces, Contemporary Art and New Technologies" (2009) and curator of the IFSS in Kiev.

Oksana Chepelyk 1978-1984 studied at the Art Institute in Kiev, followed by a PhD course, 1995 CIES in Paris, 1996 Amsterdam University, 1998 the New Media Study Program at the Banff Centre, Canada, 2000-2002 Bauhaus Dessau, Germany, and 2003-2004, 2010-2011 Fulbright Research Program at UCLA, USA. **Residencies:** 1996 CREDAC, Paris, 1998 BANFF Centre, Canada, 2001 ARTELEKU, San Sebastian, Spain, FACT, Liverpool, UK, 2000-2002 Bauhaus Dessau, Germany, 2015, DEAC, Budva, Montenegro, 2018 SAV, Tainan; Kuandu Museum, Taipei, Taiwan; 2021-2024 Iméra, Marseille, France. 1992-2021 awarded with grants in France, Germany, Spain, USA, Canada, England, Sweden, Montenegro and Taiwan. She has widely exhibited internationally: 1998 MOMA, New York, 1999 "ART FAIR" Stockholm, Sweden, 1999 Museum of Contemporary Art, Zagreb, Croatia, 2000 German Historical Museum, Berlin, 2001 Munich, Germany, 2000 ISEA, Paris, 2001 Museum of the Arts History, Vienna, Austria, 2002 "SEAFair", Museum of Contemporary Art, Skopje, Macedonia, 2003, 2007, 20011 Museum of Jurassic Technologies, Los Angeles, USA, 2008 "DIGITAL MEDIA Valencia", Spain, VII Digital Art Salón, MACZUL Museum of Contemporary Art del Zulia, Maracaibo, Venezuela, 2009, 2010 "ArtVilnius", Vilnius, Lithuania, 2010 "Sarajevo Winter" Art Biennale, Sarajevo, Bosnia and Herzegovina, 2011 Broad Art Center, Los Angeles, USA, Art Arsenal Museum, Kiev, 4th Biennale of Contemporary Art, Moscow, Russia, 6th Tashkent Biennale of Contemporary Art, Uzbekistan (Award), 2012 1st Kyiv International Biennale of Contemporary Art ARSENALE, MMOMA, Russia, 2013 Sarajevo Museum, Bosnia and Herzegovina, MMOMA, Russia; 2014 International Festival «Sarajevo Winter 2014», B&H; IX ART-KYIV Contemporary, Art Arsenal National Museum Complex, Kyiv,

Biographie

Dr Oksana Chepelyk est l'un des principaux chercheurs du département des nouvelles technologies de l'Institut de recherche sur l'art moderne d'Ukraine, auteur du livre The Interaction of Architectural Spaces, Contemporary Art and New Technologies (2009) et commissaire d'exposition de l'IFSS à Kiev. Oksana Chepelyk a étudié à l'Institut d'art de Kiev (1978-1984), suivi d'un doctorat, 1995 stage au CIES à Paris, 1996 à l'Université d'Amsterdam, 1998 le New Media Study Program au Banff Centre, Canada, 2000-2002 Bauhaus Dessau, Allemagne, et 2003-2004, 2010-2011 Fulbright Research Program à UCLA, USA. **Résidences** :1996 CREDAC, Paris, 1998 BANFF Centre, Canada, 2001 ARTELEKU, San Sebastian, Espagne, FACT, Liverpool, UK, 2000-2002 Bauhaus Dessau, Allemagne, 2015, DEAC, Budva, Monténégro, 2018 SAV, Tainan ; Kuandu Museum, Taipei, Taiwan ; 2021-2024 Iméra, Marseille, France. 1992-2021 boursière en France, Allemagne, Espagne, USA, Canada, Angleterre, Suède, Monténégro et Taiwan. Elle a largement exposé à l'échelle internationale : 1998 MOMA, New York, 1999 «ART FAIR» Stockholm, Suède, 1999 Musée d'art contemporain, Zagreb, Croatie, 2000 Musée historique allemand, Berlin, 2001 Munich, Allemagne, 2000 ISEA, Paris, 2001 Musée de l'histoire des arts, Vienne, Autriche, 2002 «SEAFair», Musée d'art contemporain, Skopje, Macédoine, 2003, 2007, 20011 Musée des technologies jurassiques, Los Angeles, USA, 2008 «DIGITAL MEDIA Valencia», Espagne, VII Digital Art Salón, MACZUL Museum of Contemporary Art del Zulia, Maracaibo, Venezuela, 2009, 2010 «ArtVilnius», Vilnius, Lituanie, 2010 Biennale d'art «Sarajevo Winter», Sarajevo, Bosnie-Herzégovine, 2011 Broad Art Center, Los Angeles, USA, Musée Art Arsenal, Kiev, 4ème Biennale d'art contemporain, Moscou, Russie, 6e Biennale d'art contemporain de Tachkent, Ouzbékistan (prix), 2012 1ère Biennale internationale d'art contemporain de Kiev ARSENALE, MMOMA, Russie, 2013 Musée de Sarajevo, Bosnie-Herzégovine, MMOMA, Russie ; 2014 Festival international «Sarajevo Winter 2014», B&H ; IX ART-KYIV Contemporary, Art Arsenal National Museum Complex, Kyiv, Ukraine ; «Long Path to Freedom», Ukrainian Institute of Modern

Ukraine; "Long Path to Freedom", Ukrainian Institute of Modern Art, Chicago, USA; 2015 "Decompression: Coming Up for Air" Festival "L'Ukraine – Scene libre", Paris, France; "Borderline. Ukrainian Art 1985-2004", PinchukArtCentre, Kyiv; "The File" – Electronic Language International Festival, the Sesi-SP's Art Gallery in Centro Cultural Fiesp – Ruth Cardoso, Sao Paolo, Brazil; DEAC, Montenegro; 2016 XVII LPM Amsterdam, Netherlands; 2017 XVIII LPM Amsterdam, Netherlands; "City Code" ArtBatFest 8, Almaty, Kazakhstan; "Anonymous Society", PinchukArtCentre; 2018 2018 "Flashback. Ukrainian art of the 90th", Art Arsenal Museum, Kyiv; "Meta-Physical Time-Space", Tainan, Taiwan, "Free D", Kuandu Museum, Taipei, Taiwan; "A Space of On's Own", PinchukArtCentre, Kyiv; TIFF 2018, Soulange Cultural Park, Tainan, Taiwan; 2019 "Falling shadow of «Mriya» on the gardens of Giardini", Ukrainian Pavilion, Arsenal, Venice Biennale, Venice, Italy; "Insatiable Mind" Salisbury Arts Centre, UK; 2020 "Art+Feminism", Spazju Kreattiv, Valletta, Malta; XI MADATAC International Festival of a Contemporary Audio-Visual & New Media Art, Madrid, Spain; 2021 1st Ukrainian Biennale of Digital and Media Art, Artarea, Kyiv, Ukraine; 2022 EDAF, "Manifesta 14", Prishtina, Kosovo, Ars Electronica 2022, Linz, Austria; OVNi, Nice, France; 2023 XII MADATAC International Festival of a Contemporary Audio-Visual & New Media Art, Madrid, Spain.

She has been working with experimental video films since 1994. Her films were shown and awarded within different film, video and new media festivals: in Kiev, New York, London, Tallinn, St. Petersburg, Osnabruck, Montecatini, Linz, Moscow, Paris, Berlin, Oberhausen, Liverpool, Belo Horizonte, Karlovy Vary and Venice /A category/, Chisinau, Weimar, Tel-Aviv, Ankara, Pesaro, Santa Fe, Stuttgart, Barcelona, Berdiansk, Sebastopol, Sarajevo and Clermont-Ferrand. From 1993 she organised 15 curatorial exhibitions (Ukraine, France, USA, Canada, Brazil, Kazakhstan and Germany), 30 solo exhibitions in Europe and America, and participated in a number of joint exhibitions (Germany, Lithuania, Ukraine, France, USA, Sweden, Croatia, Brazil, Austria, Macedonia, Bosnia and Herzegovina). 1999 A.I.D.O. FilmVideo Award, Italy. 2013 Cinemadamare Award at Venice IFF, Italy. 2003 Werklietz Award 2003 at EMAF, Osnabruck, Germany. In 2007 she has founded the International Festival of Social Sculpture in Kiev. **Awards:** 1997 and 2007 ArtsLink Award and Independent Projects Award, USA. 2003, 2010 Fulbright Awards, USA; Academy Silver Medal, UA. 2011 – 6th Tashkent Biennale Award, Uzbekistan. 2013 – Artraker Award, UK. 2018 – Best Project of The Year, Taiwan. 2022 PAUSE, College of France; Ars Electronica Award, Linz, Austria; Guest of Honor, OVNi, Nice; 2023 Marie-Sklodowska-Curie Award, EU; APF Award, USA.

Oksana Chepelyk is an Artist Protection Fund Fellow (2023-2024) in residence at Iméra of Aix-Marseille University and was supported by A*MIDEX and FIAS financed by the European Commission in the frame of the Marie-Sklodowska-Curie Actions (COFUND Programme 2022-2023).

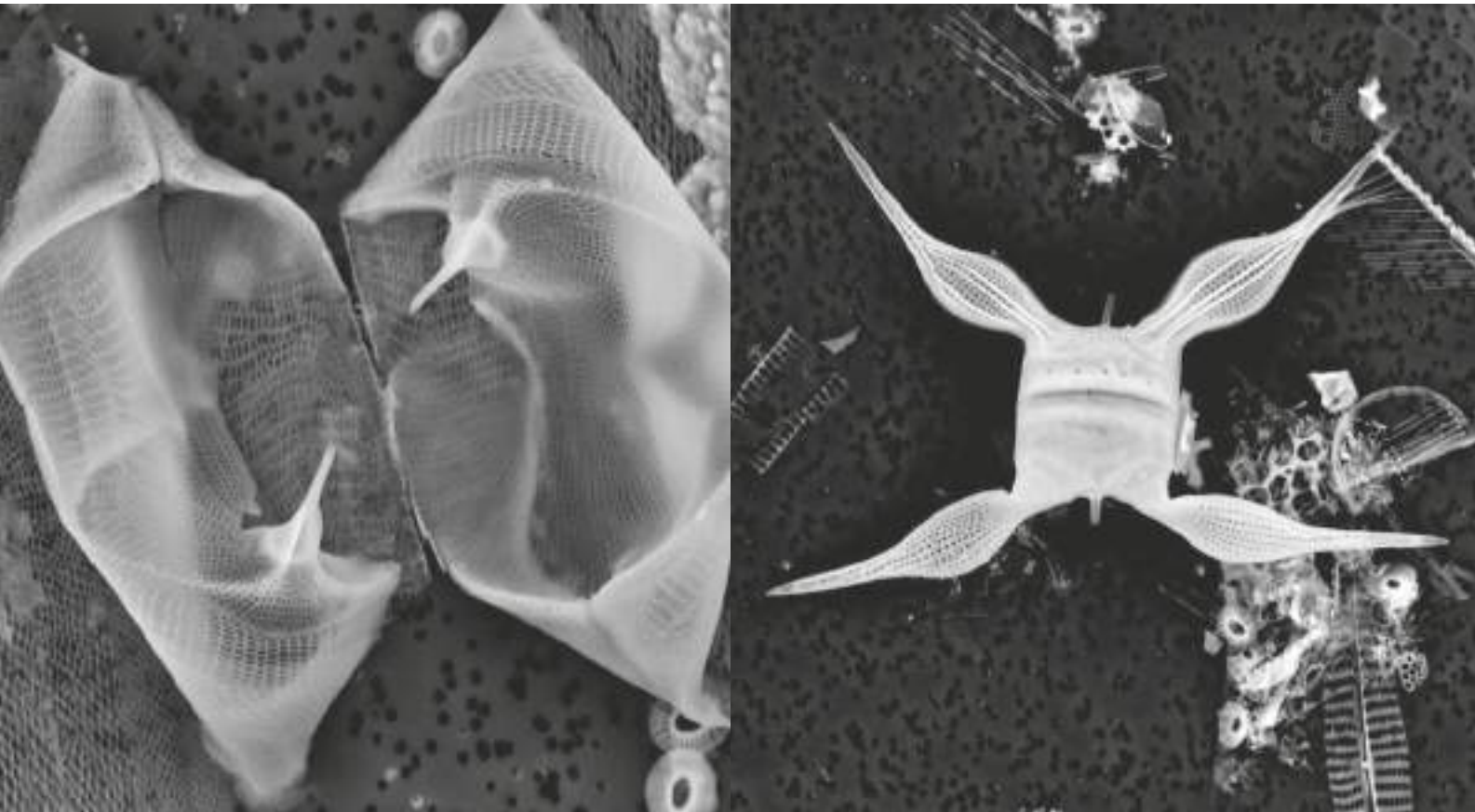
Art, Chicago, USA ; 2015 «Decompression : Coming Up for Air» Festival «L'Ukraine - Scène libre», Paris, France ; «Borderline. Ukrainian Art 1985-2004», PinchukArtCentre, Kiev ; «The File» - Electronic Language International Festival, la galerie d'art de Sesi-SP au Centro Cultural Fiesp - Ruth Cardoso, Sao Paolo, Brésil ; DEAC, Monténégro; 2016 XVII LPM Amsterdam, Pays-Bas ; 2017 XVIII LPM Amsterdam, Pays-Bas ; «City Code» ArtBatFest 8, Almaty, Kazakhstan ; «Anonymous Society», PinchukArtCentre ; 2018 2018 «Flashback. Ukrainian art of the 90th», Art Arsenal Museum, Kyiv ; «Meta-Physical Time-Space», Tainan, Taiwan, «Free D», Kuandu Museum, Taipei, Taiwan ; «A Space of On's Own», PinchukArtCentre, Kyiv ; TIFF 2018, Soulange Cultural Park, Tainan, Taiwan ; 2019 2019 « Ombre tombante de «Mriya» sur de Giardini », Pavillon ukrainien, Arsenal, Biennale de Venise, Venise, Italie ; «Esprit insatiable» Centre des arts de Salisbury, Royaume-Uni ; 2020 «Art+Feminism», Spazju Kreattiv, La Valette, Malte ; XI MADATAC Festival international d'un art audiovisuel contemporain et des nouveaux médias, Madrid, Espagne ; 2021 1^{ère} Biennale ukrainienne d'art numérique et médiatique, Artarea, Kiev, Ukraine ; 2022 EDAF, «Manifesta 14», Prishtina, Kosovo, Ars Electronica 2022, Linz, Autriche ; OVNi, Nice, France ; 2023 XII MADATAC Festival international d'un art audiovisuel contemporain et des nouveaux médias, Madrid, Espagne.

Elle travaille avec des films vidéo expérimentaux depuis 1994. Ses films ont été présentés et récompensés lors de différents festivals de cinéma, de vidéo et de nouveaux médias : à Kiev, New York, Londres, Tallinn, Saint-Pétersbourg, Osnabruck, Montecatini, Linz, Moscou, Paris, Berlin, Oberhausen, Liverpool, Belo Horizonte, Karlovy Vary et Venise /Catégorie A/, Chisinau, Weimar, Tel-Aviv, Ankara, Pesaro, Santa Fe, Stuttgart, Barcelone, Berdiansk, Sébastopol, Sarajevo et Clermont-Ferrand. A partir de 1993, elle a organisé 15 expositions curatoriales (Ukraine, France, USA, Canada, Brésil, Kazakhstan et Allemagne), 30 expositions personnelles en Europe et en Amérique, et a participé à plusieurs expositions conjointes (Allemagne, Lituanie, Ukraine, France, USA, Suède, Croatie, Brésil, Macédoine, Bosnie-Herzégovine). 1999 Prix A.I.D.O. FilmVideo, Italie. 2013 Prix Cinemadamare à l'IFF de Venise, Italie. 2003 Prix Werklietz 2003 à l'EMAF, Osnabruck, Allemagne. En 2007, elle a fondé le Festival international de la sculpture sociale à Kiev. **Prix** : 1997 et 2007 ArtsLink Award et Independent Projects Award, États-Unis. 2003, 2010 Prix Fulbright, États-Unis ; Médaille d'argent de l'Académie, UA. 2011 - Prix de la 6^e Biennale de Tachkent, Ouzbékistan. 2013 - Artraker Award, Royaume-Uni. 2018 - Meilleur projet de l'année, Taiwan. 2022 PAUSE, Collège de France ; Prix Ars Electronica, Linz, Autriche ; Invité d'Honneur, OVNi, Nice ; Marie-Sklodowska-Curie Award 2023, UE ; APF Award, États-Unis.

Oksana Chepelyk est Artist Protection Fund Fellow (2023-2024) en résidence à l'Iméra d'Aix-Marseille Université et a été soutenue par A*MIDEX et FIAS financé par la Commission européenne dans le cadre des Actions Marie-Sklodowska-Curie (Programme COFUND 2022-2023).

Oksana Chepelyk "Plankton" media installation, 2023.





Partners of the project:

Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology
Mediterranean Institute of Oceanography
Modern Art Research Institute of NAAU

Customer: Iméra – Institute for Advanced Study of Aix-Marseille University
Author of the project & design – Oksana Chepelyk
French translation – Constance Moreteau
English editing – James House

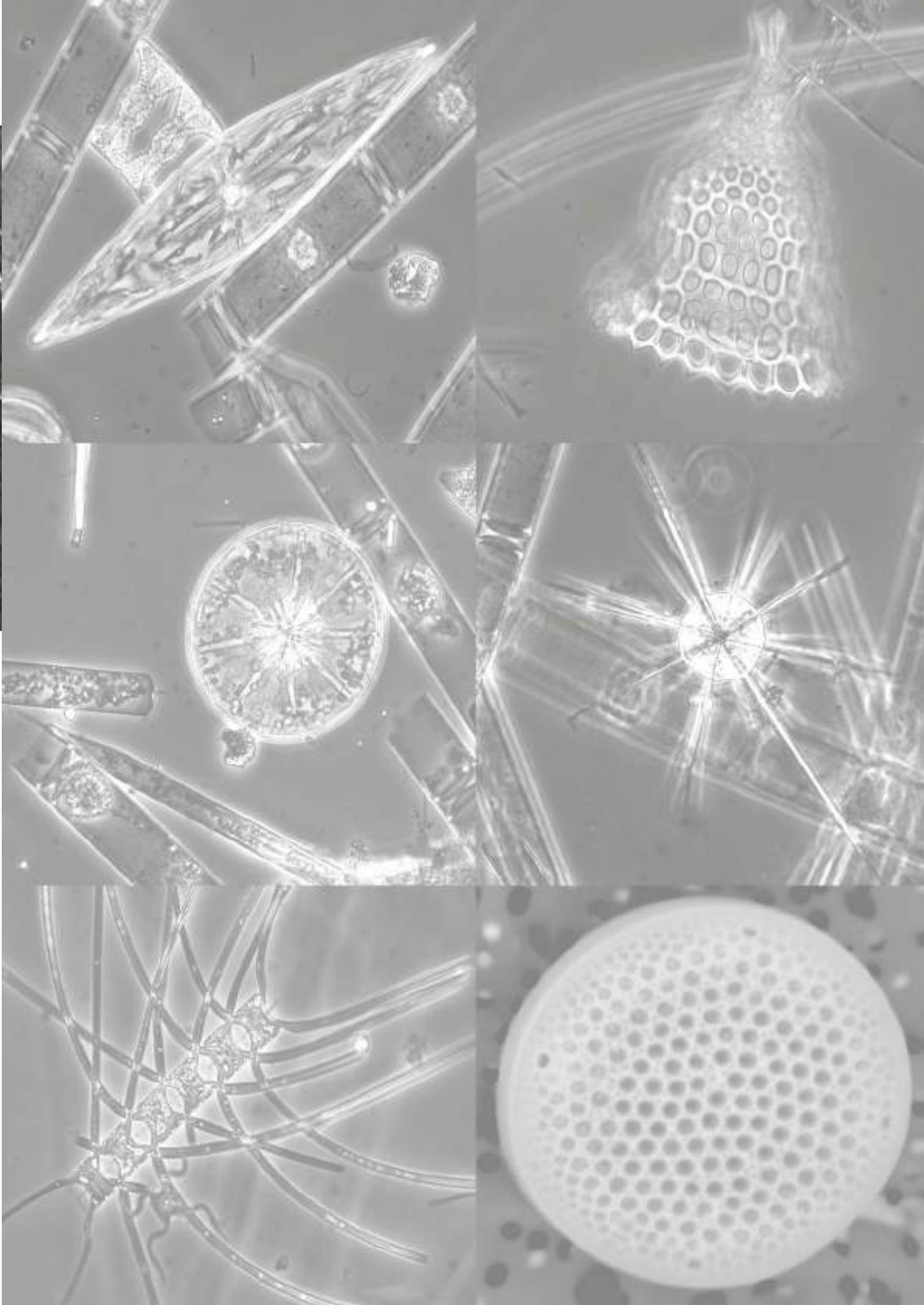
Photos: Evgen Maloletka (1), Oksana Chepelyk (15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 37, 39, 40, 41, 42, 43, 44, 45, 49, 51, 56, 57, 58, 59, 60), Thierry Perez (46, 47, 48, 50, 52, 53, 54, 55), Jean Vacelet (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14), Bernard Queguiner (66, 67), Karine Leblanc (62, 63, 64, 65, 68, 69, 70, 71, 72, 73), Robert Roux (31, 32), Yaroslav Kostenko (35), Yegor Zigura (36), Hormoz Works (38), Rich Matheson (61)

Cover – Houses are seen underwater and polluted by oil in a flooded neighborhood in Kherson, Ukraine, Saturday, June 10, 2023. Extensive flooding from the catastrophic destruction of the Kakhovka Dam on June 6 devastated towns along the lower Dnipro River in the embattled Kherson region. Photo by Evgen Maloletka, June 10, 2023, 5:58 PM

On the cover inside: Sponge images, DFME – Diversity and Functioning of Molecules in Ecosystems Team of the Observatory of Sciences of the Universe Institut Pythéas, Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology / Endoume Marine Station by Jean Vacelet
Plankton images, Mediterranean Institute of Oceanography (AMU/CNRS/IRD/Université de Toulon, Institut Pythéas – OSU), KEOPS – 2010, GREENEDGE – 2016, MOBYDICK-2018, MIO Plankton images

Layout – Camille Combes
Circulation – 40 examples
Printing – Corep Canebière

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e-mail: oksana.chepelyk@gmail.com
<https://oksanachepelyk.wixsite.com/cvcv>





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