

Solvita Zarina

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Professional Statement

I am a professor at the Faculty of Science and Technology of the University of Latvia (FST UL) and a senior researcher at the Innovative Information Technology Laboratory of FST UL, specialising in visual communication and graphic design for user interfaces. My teaching and researcher skills have been shaped by (a) my artistic background at the Art Academy of Latvia, (b) the theoretical approach based on my research interests in art and technology, and (c) a PhD degree in art history. My experience as a system designer and researcher in the Network Service Development Department at the Institute of Mathematics and Computer Science in UL makes me confident in web technology, graphic design for interfaces and design theory.

My digital artworks have been exhibited at the 30th International Symposium on Electronic Art ISEA2025, Seoul, South Korea, 2025; International Conference on Auditory Display ICAD24, Troy, NY, USA, 2024; at the UNESCO Headquarters, Paris, France, 2021; and at the SIGGRAPH Digital Art Exhibition “Face Tomorrow”, San Diego, CA, USA, 2007, among others.

Professional Appointments

I have 20 years of experience in higher education and research at the University of Latvia, BA School of Business and Finance, and Baltic International Academy.

Professor (from 2021), Senior Researcher (from 2017), Associate Professor and Assistant Professor at the University of Latvia since 2011.

Senior Researcher (2014–2017), Researcher and System Designer at the Institute of Mathematics and Computer Science of the University of Latvia, 2000–2017.

Education

Art Academy of Latvia, Riga, Latvia, PhD (Dr art.).

Art Academy of Latvia, Riga, Latvia, MFA.

Selected Exhibitions

2025

30th International Symposium on Electronic Art ISEA2025, Seoul, South Korea: media art “Saturation. Context. Communication” [Ojars Krasts, programming].

Art exhibition for the conference section “Art. Design. Technologies. Education” of the 83rd International Scientific Conference of the University of Latvia “Virisma [Surface]”: 2D digital artwork “Orchestra of Signs”.

2024

ICAD2024 Conference at EMPAC Theatre, Rensselaer Polytechnic Institute, Troy, NY, USA: media art performance “Stop-Wait-Go Time” [co-authors: Woohun Joo, sonification; Ojars Krasts, programming].

Selected Exhibitions (continued)

Art exhibition for the conference section “Art. Design. Technologies. Education” of the 82nd International Scientific Conference of the University of Latvia “Mezglis [Knot]” [online]: 2D digital artwork “Lingua Franca. Hide And Seek”.

2023

Art exhibition “Summa” [Sum] at the University of Latvia on the occasion of the 40th anniversary of the Faculty of Pedagogy, Psychology and Art of the University of Latvia: digital artwork “Composition of selected frames of media artwork Stop-Wait-Go Time”.

2022

Art exhibition “Creative Resilience Art by Women in Science” at Expo Dubai 2020, Dubai, UAE: Series of 2D digital artworks “Stop_Go_Wait_Go”.

2021

Art exhibition “Creative Resilience Art by Women in Science” at the UNESCO World Heritage Centre, Paris, France: series of 2D digital artworks “Stop_Go_Wait_Go” [catalogue].

2016

Digital art exhibition “Snap to Grid” at the Los Angeles Centre for Digital Art, CA, USA: artwork “November 13th, 2015”.

2009

“Face Tomorrow” travelling digital art exhibition, USA, Singapore, Canada, 2007–2009: 2D digital artwork “See – Buy – Fly”.

2007

Digital art exhibition at SIGGRAPH 2007 “Face Tomorrow”, San Diego, CA, USA: 2D digital artwork “See – Buy – Fly” [catalogue], [artwork was selected for the travelling exhibition of digital art].

2004

Latvian art exhibition at Fydel House Gallery, Boston, UK: 2D digital artworks “Journey’s Scrapbook. Remarks on Domestic Science No 8” and “See – Buy – Fly”.

2002

Exhibition of Latvian art at the company’s PR&P office Wiesbaden, Germany: 2D digital artworks “Journey’s Scrapbook. Remarks on Domestic Science No 8” and “Hansa – Net”.

2000

Competition exhibition “Riga 800” in the gallery “Bastejs”, Riga, Latvia: artwork “Hansa – Net” [prize winner].

Collections

Artworks are in the collections of Museum of the Artists' Union of Latvia, Latvia; Russian Art Academy, Russia, as well as in several private collections in Latvia, France, Israel, Japan, Sweden, Switzerland and United States.

Grants, Awards and Residencies

2023

Baltic-American Freedom Foundation / CIEE grant, Visiting Scholar at Pennsylvania State University, PA, USA, 2022–2023.

2020

Latvian Government Scholarship for participation in the Programme for Excellence in Computer Sciences for the Republic of Latvia at the State University of New York at Buffalo, NY, USA.

Grants, Awards and Residencies (continued)

2019

EU Erasmus+ International Mobility Programme grant, Visiting Scholar at Pennsylvania State University, PA, USA.

2018

Gratitude from the Rector of the University of Latvia for the introduction of Design Thinking at the Faculty of Computing.

2009

Artist residency at the Cité Internationale des Arts, Paris, France.

Selected Lectures / Workshops / Symposia

30th International Symposium on Electronic Art ISEA2025, Seoul, South Korea, 2025.

Guest lecture “Digital Art Case Studies” in the course “History of Digital Art” at the School of Visual Arts, College of Art and Architecture, Pennsylvania State University, PA, USA, 31 January 2023.

Guest lecture “Graphic Design for Usability of User Interfaces” in the course “Human Factors Engineering” at the College of Information Sciences and Technology, Pennsylvania State University, PA, USA, 30 January 2023.

Online guest lecture “Graphic Design for User Interfaces. The Best Communication Tool or the Best Weapon?” as part of the courses “Human Centred Product Design” and “Collaborative Product Design and Engineering” at the Department of Industrial and Manufacturing Engineering, College of Engineering, Pennsylvania State University, PA, USA, and at the Department of Industrial Engineering, College of Engineering, Seoul National University, South Korea, 29 November 2022.

Guest lecture “Saul Bass and John Whitnew – Pioneers of Motion Graphics” as part of the course “Visual Theory, Aesthetics and Criticism 2” at the Department of Art, College of Arts and Sciences, State University of New York at Buffalo, NY, USA, 3 March 2020.

Guest lecture “Visual Language and Hierarchy of Information” as part of the OR590 – Operations Research Colloquium Series in the Harold and Inge Marcus Department of Industrial and Manufacturing Engineering at the College of Information Sciences and Technology, Pennsylvania State University, PA, USA, 16 April 2019.

International Workshop INTERDESIGN'99, Seoul, South Korea, 1999.

Selected Publications

“Bridging the Gap between Graphic Design and Digital Accessibility in Design Education”. The 82nd International Scientific Conference of the University of Latvia, 2024. Proceedings of Scientific Papers, 2024. Ed. L. Daniela. Riga: University of Latvia, 2024. p. 470-480. ISBN 978-9934-36-301-6 <https://doi.org/10.22364/htqe.2024>

“Human-Centred Interface Design and ‘Must-Attractiveness’ in the U.S. Art and Design School Websites”. 28th International Conference Information Visualisation (IV 2024), 22–26 July, 2024, Coimbra, Portugal: Proceedings IEEE, 2024 P.101-104. DOI:10.1109/IV64223.2024.00027

Selected Publications (continued)

“Information Visualization and Artworks: from GPS to Point Cloud”. 27th International Conference Information Visualisation (IV 2023), 25–28 July, 2023, Tampere, Finland. Proceedings [S.l.]: IEEE, 2023, p. 358–361. DOI: 10.1109/IV60283.2023.00067.

URL: <https://ieeexplore.ieee.org/document/10303410/>

“Pending Recognition of Media Art: a Case Study of Themes in Media Art Festivals 2006–2021”. Digital Creativity Vol. 34, N 3 (2023), p. 179–191. <https://doi.org/10.1080/14626268.2023.2195378>.

URL: <https://www.tandfonline.com/doi/full/10.1080/14626268.2023.2195378>

ISSN 1462-62682

“Case Studies of Digital and Media Art 56°56'51"N 24°6'23"E”. 20th International Conference Information Visualisation (IV 2016), 19–22 July, 2016, Lisbon, Portugal. Proceedings: IEEE, 2016, p. 294–299. DOI: 10.1109/IV.2016.44

“Spectrogram Based Toolkit for High Density Visualization of Data”. Solvita Zarina, Ojars Krasts. International Conference on Computational Science and Computational Intelligence, CSCI 2016, Las Vegas, NV, United States, 15–17 December, 2016. Proceedings: Las Vegas, 2016, p.1393–1394. DOI: 10.1109/CSCI.2016.0265

“Visual Representation of von Koch Fractals”. Rusins Freivalds and Solvita Zarina. Discrete Mathematics and Computer Science / Eds. Gheorghe Paun, Grzegorz Rozenberg, Arto Salomaa. Editura Academiei Romane: 2014, p. 153–163.

“The Visual Language of Contemporary Digital Art and Its Collaborative Aspects on Science”. The Future of Art and Computing: A Post-Turing Centennial Perspective / Eds. Anna Dumitriu and S. Barry Cooper. [Online] 2014, p. 1–7. <http://doc.gold.ac.uk/aisb50/#s12>

Professional Organisations and Services

Member of the Latvian Artists' Union since 1991.

Expert of the Latvian Council of Science, Humanities and Arts – Music, Visual Arts and Architecture, 2024–2027.

Member of the Scientific Advisory Board and Organising Committee for the RIXC Art Science Festivals: ECODATA and POSTSENSORIUM, and Open Fields Conferences in 2021 and 2020.

Jury member of Daugavpils Mark Rothko Centre Art Residences programme, 2018 and 2016.

Member of the Latvian Artists' Association “B – 13”, 1997–1998.

Artwork series *Saturation. Context. Communication*

Artwork series *Saturation. Context. Communication* explore the visual communication power of a handwritten signature. The author relates expressiveness of the gesture, the prevalence of visual writing over legibility and the signature as a visual conceptual idea, which is operated when a person signs their name, to the art movements such as abstract expressionism, conceptualism and Eastern calligraphy. By using a single signature image as the smallest unit to form image clusters for the development of artwork series, the author creates a meta-level of communication exploring the signatures as signs.

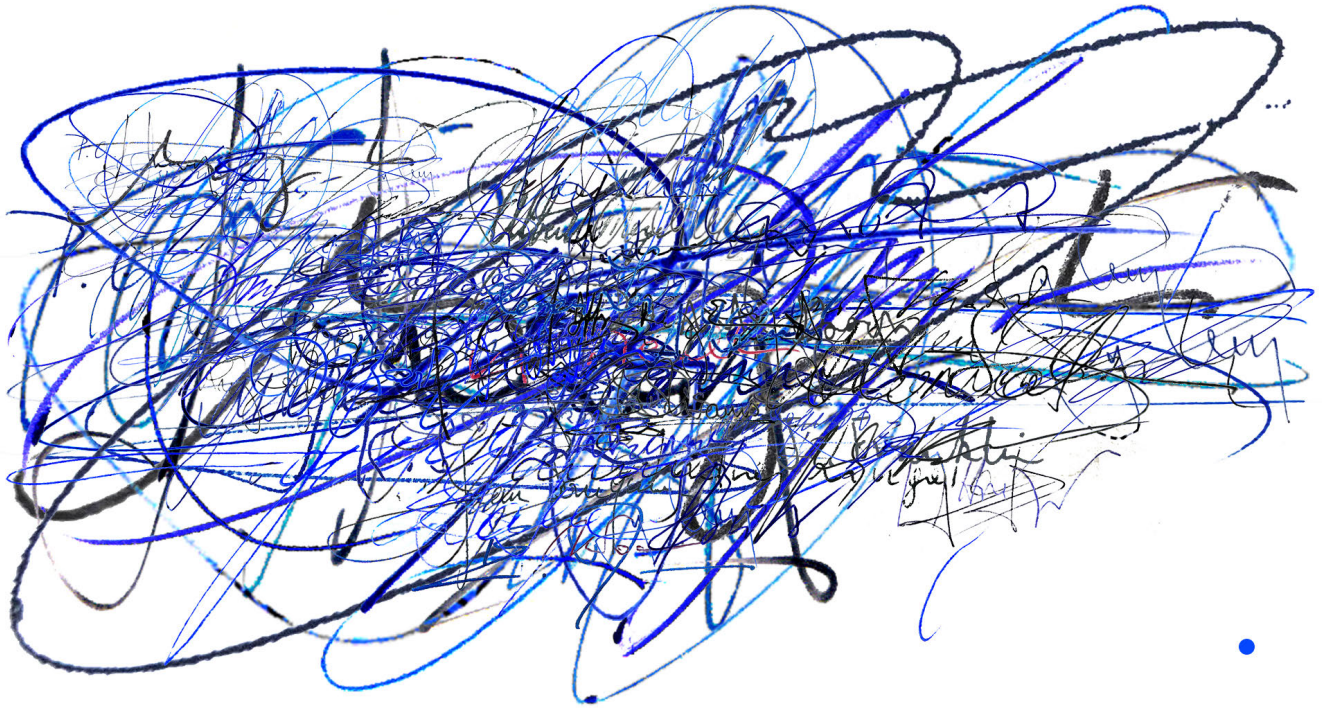
The series consists of 2D digital artworks, including a *Personal Seal* and a media artwork *Saturation. Context. Communication*.



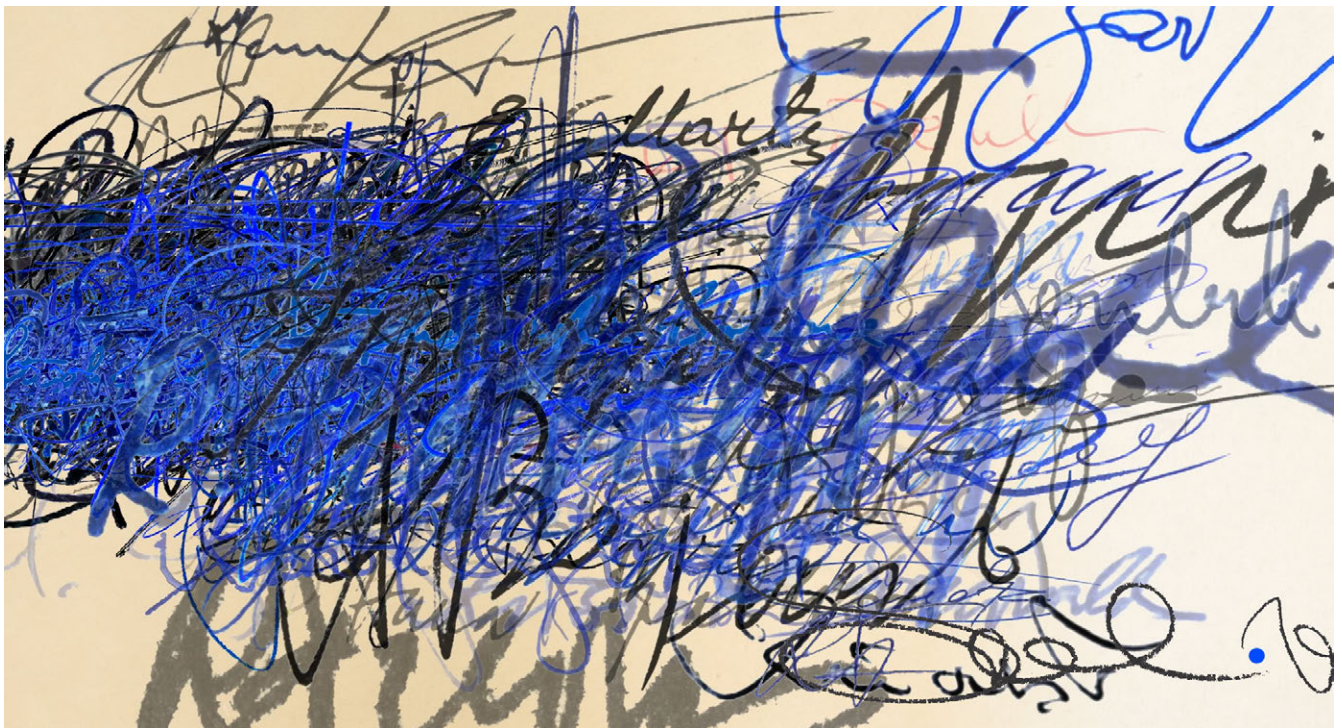
Personal Seal. Dimensions variable, 2005. Vector graphics.

Personal Seal is used as a conceptual visual unit for the artwork series “Saturation. Context. Communication”. The *Personal Seal* is easily recognisable due to its repetition throughout. It stands for the authorship of the work and at the same time remains anonymous, as it (a) has an omnipresent simple geometric shape, (b) contains no legible information and (c) was not developed as a logo of the artist.

Artwork series *Saturation. Context. Communication*



Saturation. Context. Communication III, 2024, 2D digital art.



Saturation. Context. Communication, 2024, screenshot from media artwork.



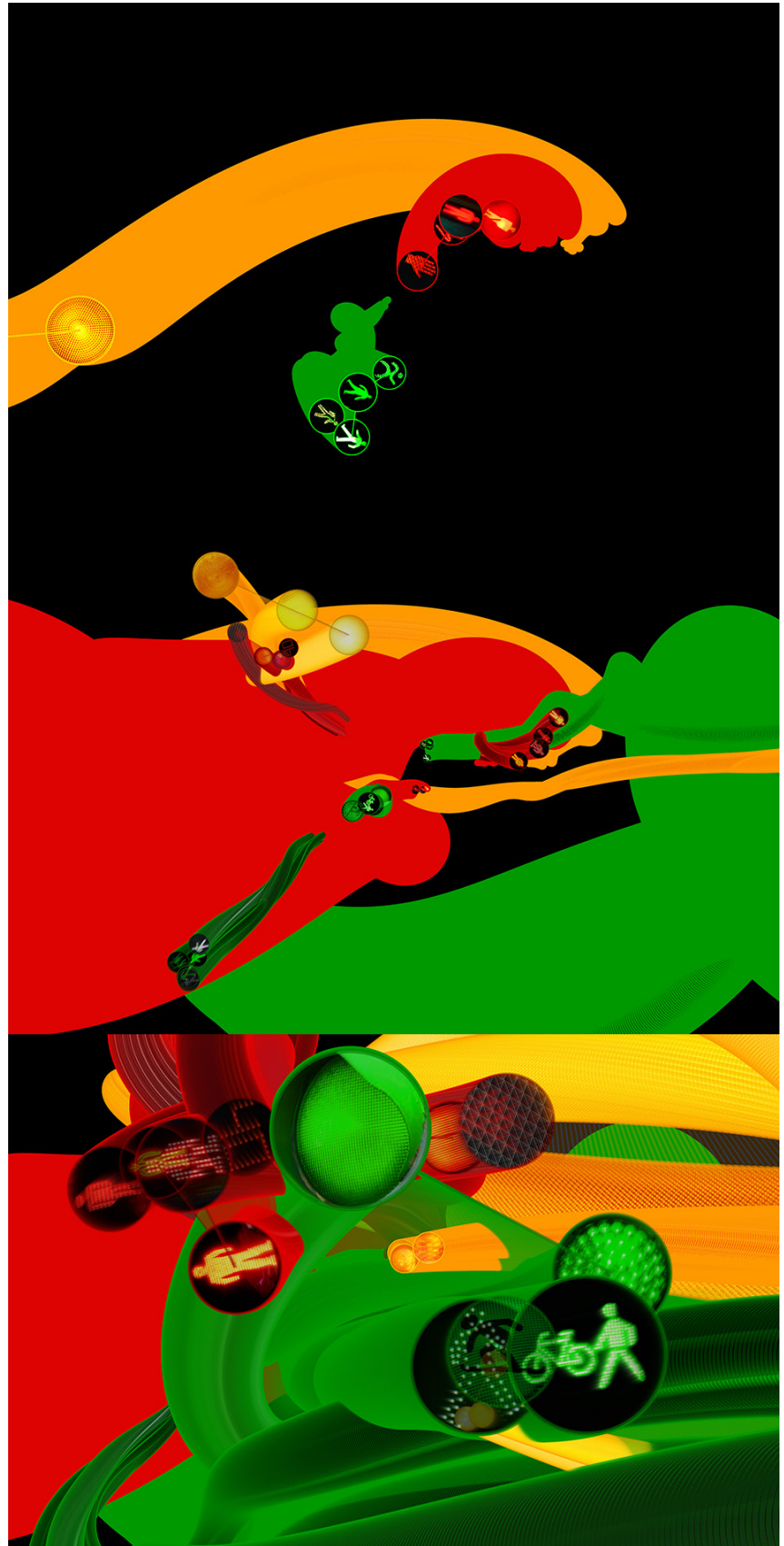
Lingua Franca. Hide and Seek, 2024, 2D digital art.

The artwork conceals and reveals three main protagonists: *Standard*, *Compression* and *Interaction*. We know English as the *standard* tool for today's global communication, as the *lingua franca*. We are used to the *standard* practise of printed conference programmes with a list of authors and the titles of their presentations. As a rule, days of research are *compressed* into a short presentation. The notes in the conference programme complement the *compressed* information in the printed text. Half-hidden texts *interact* with watercolour surfaces and scanned textures of book covers. *Lingua Franca. Hide and Seek* is a tribute to and *interaction* with Mladen Stilinovic's artwork *An Artist Who Cannot Speak English Is No Artist*.

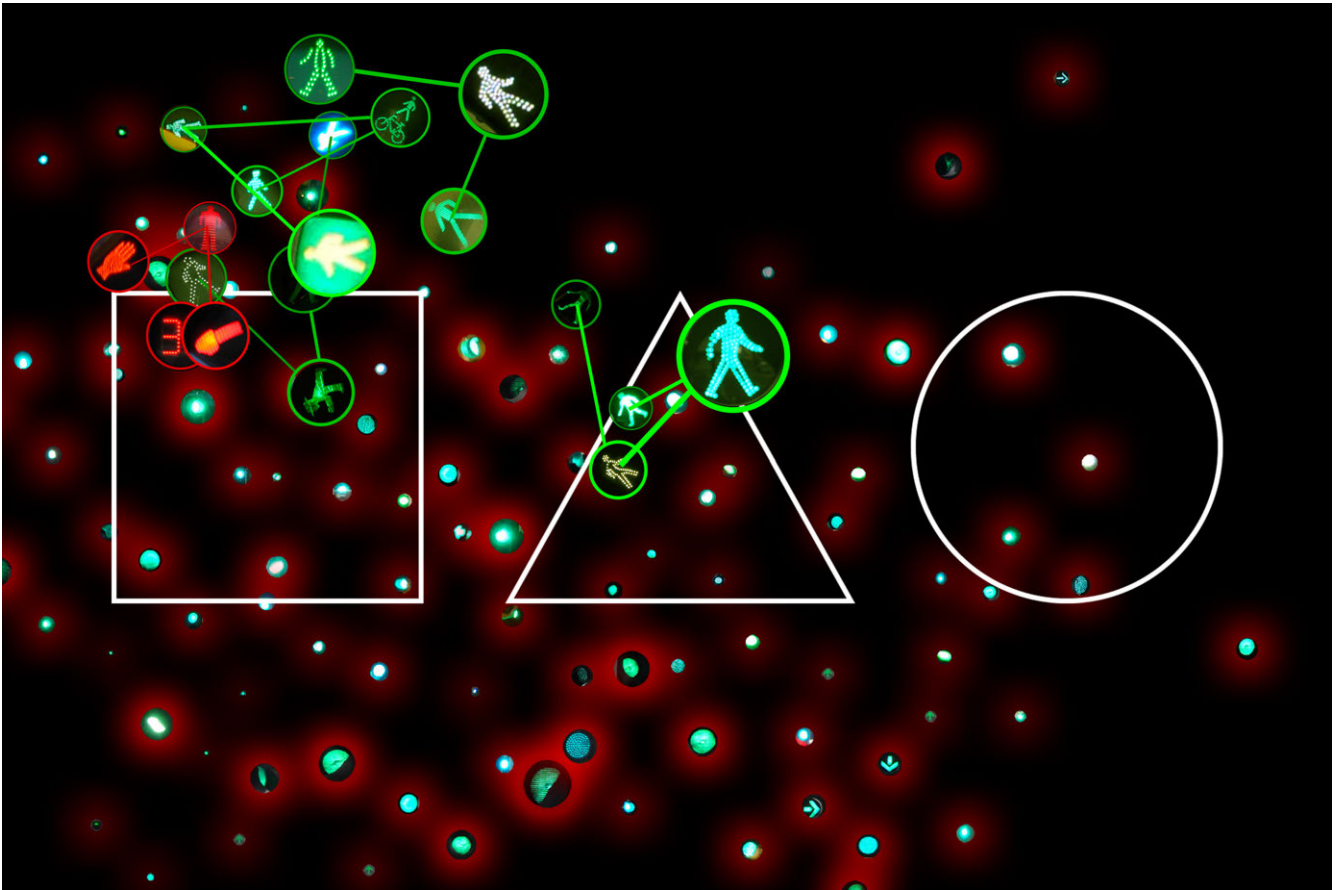


*Composition of selected frames of media artwork Stop-Wait-Go Time, 2023, 2D digital art
[co-authors of the media artwork: Woohun Joo, sonification; Ojars Krasts, programming].*

Here, the duality of the physical and virtual worlds – randomness and control, change and repetition, playfulness and seriousness – is represented by the cyclical change of traffic light signals that leave colour imprints in virtual space.



Composition II of selected frames of media artwork Stop-Wait-Go Time, 2023, 2D digital art [co-authors of the media artwork: Woohun Joo, sonification; Ojars Krasts, programming].

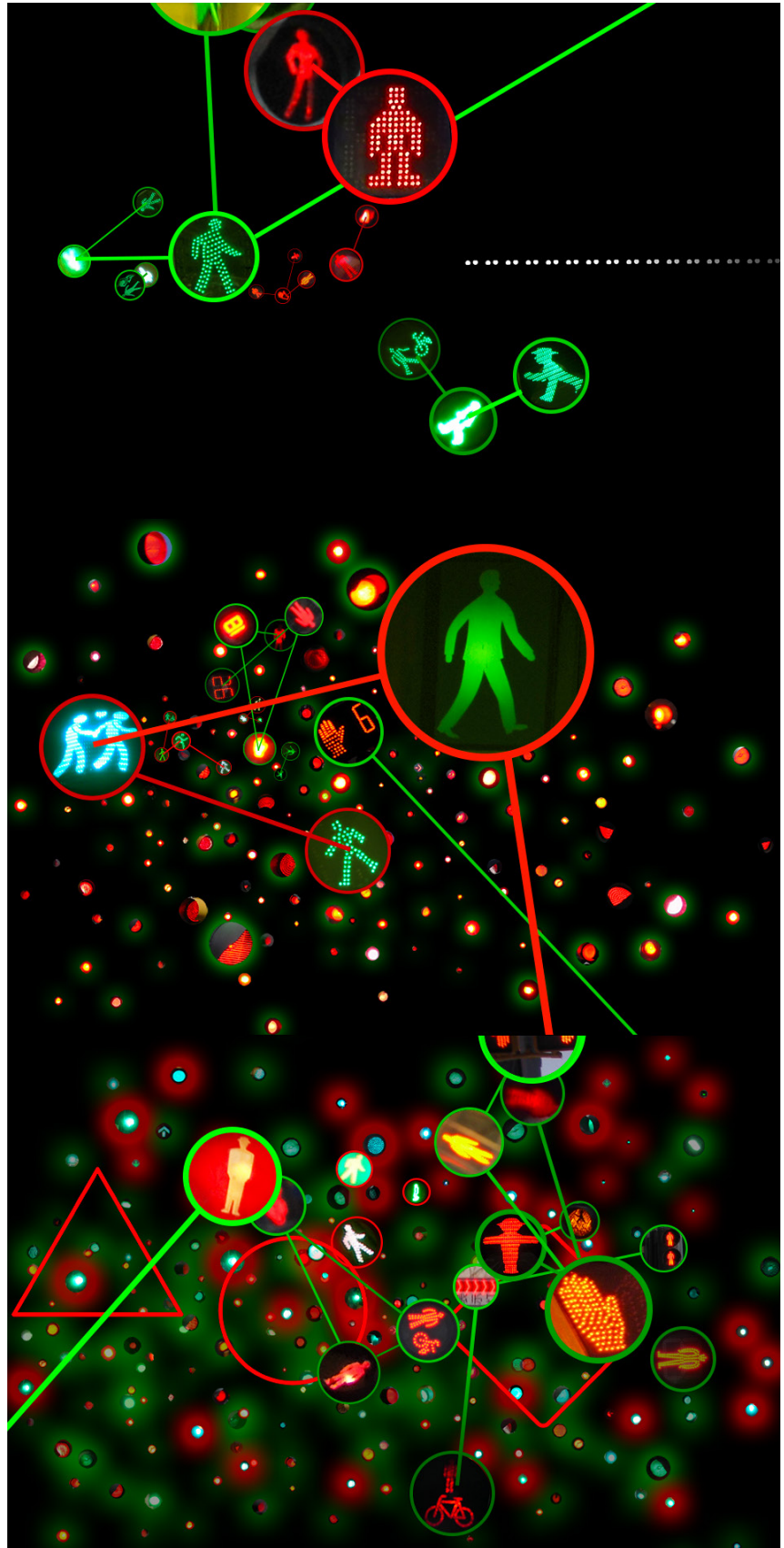


A selected frame of media artwork Controlling the Randomness: STOP_WAIT_GO, 2022, 2D digital art [co-authors of the media artwork: Woohun Joo, sonification; Ojars Krasts, programming].

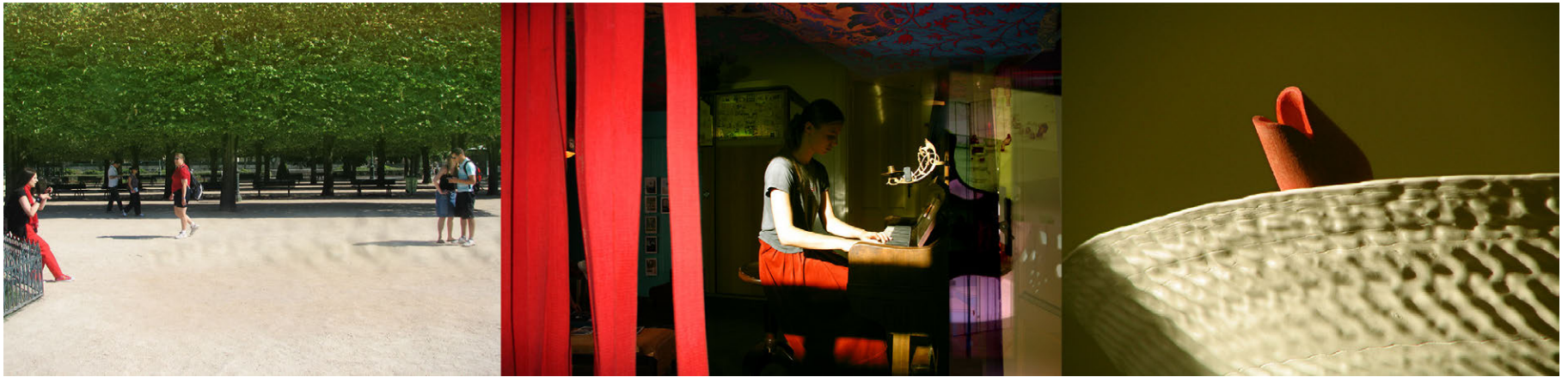
The idea of thinking about randomness and controlled randomness while creating a *Controlling the Randomness STOP_WAIT_GO*, stems from an altered model of interpersonal communication fostered by the global pandemic.

This artwork also reconsiders our place in the situation regulated by traffic lights — a man-made concept of universal control that signals danger and is meant to make everyone wait and move on after a while. In addition, it represents a new pandemic-induced regulation called the “traffic light approach” while reassuring our perception of order and predictability.

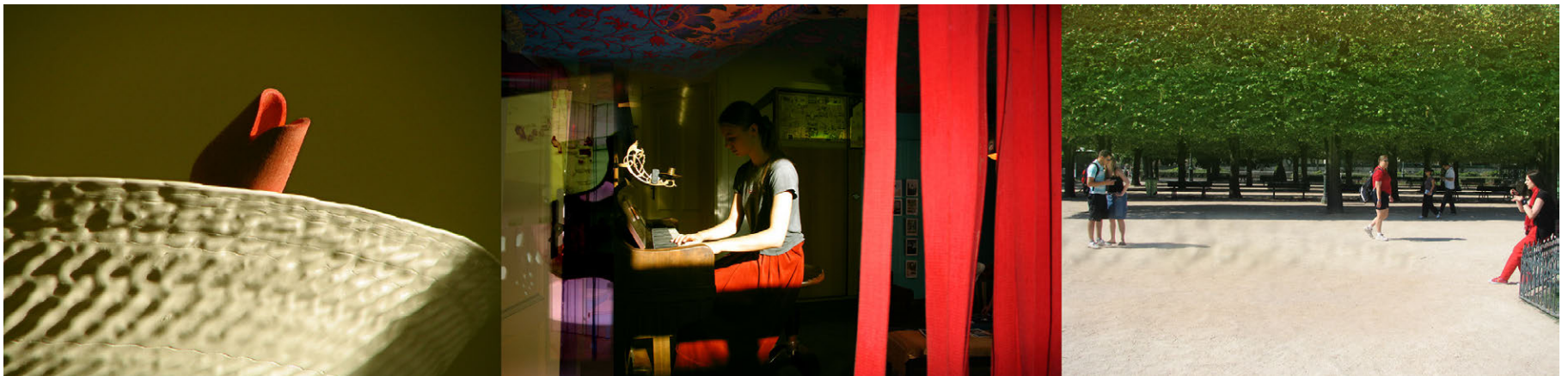
To emphasise the principles of STOP and GO, the complementary colours red and green help to create contrasting parts of the scenario in terms of content. The colour scheme with a black background and white lines also supports the principle of opposites. The traffic lights in this work form uniform STOP and GO clusters and thus create the possibility of a mutual dialogue in the mind of the viewer. This dialogue can be influenced by both social and cultural aspects.



Composition of selected frames of media art project Controlling the Randomness: STOP_WAIT_GO, 2022, 2D digital art [co-authors of the media artwork: Woohun Joo, sonification; Ojars Krasts, programming].



Zoom-Up Right-To-Left, 2024, 2D digital art [diptych].



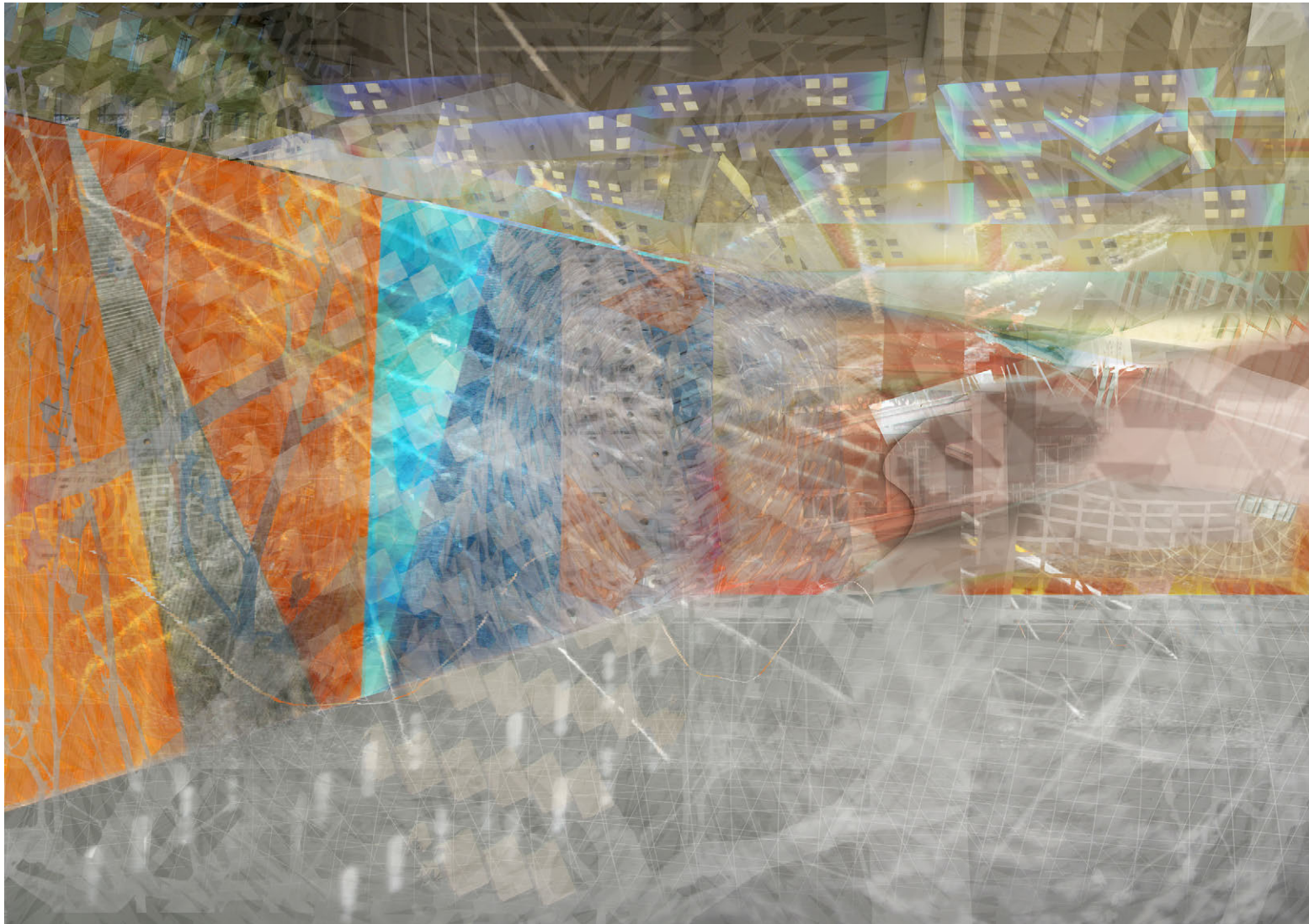
Zoom-Up, 2006. Digital art [diptych].

This diptych is dedicated to the visual processing of information in different cultures. Here, everyone can decide whether the artwork is an example of creating an inclusive viewing experience or an ironic commentary on geopolitical *correctness*.



November 13th, 2015, 2015, 2D digital art.

The work is a visual reaction to the terrorist attacks in Paris on 13 November 2015.



Corporeity of Space, 2009, 2D digital art.

The density of information here should be taken as a starting point for living and enjoying this millennium.



See - Buy - Fly, 2007, 2D digital art.

The SEE BUY FLY signage and its background show the intersection between the world of public consumption and the murky private drama.



Journey's Scrapbook. Remarks on Domestic Science No 8, 2002, 2D digital art.

I was fascinated by connecting objects that could not coexist in reality. The water reflecting everything upside down encouraged me to do the same.