

VOLUME 2.

Driving

Collective approaches
enriching design principles

Design

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Creative Glass Serbia

Creative Glass Serbia is an initiative focused on the development of innovative creative entrepreneurship based on Serbia's glassmaking heritage through inter-connections between glass tradition, design, smart glass manufacturing and creative economy.

Project team

Hristina Mikić

Organization

Institute for Creative Entrepreneurship and Innovation

Location

Paraćin, Serbia – Europe

Project type

Product, process and service

PROJECT DESCRIPTION

Creative Glass Serbia is an initiative that connects glass tradition, creative industries, artists, designers and handmade glass production in Serbia. The initiative is focused on transformation of glass heritage into an asset for sustainable and fair local development. Inspired by Paraćin's industrial glass tradition, activities inspire and support artists, designers and creatives to develop their own cultural expressions in glass through distributed design, democratization of creative process, openness and regenerative approach in handmade glass production.

CONTEXT AND HISTORY

The oldest glass factory in Serbia was founded in 1907 in a small town of Paraćin (Serbia). It testifies to the development of glassmaking in Ex-Yugoslavia as well as in Serbia, but also to all the transformations the industry went through in the communist, then socialist system, until transition and privatization. Such an industrial past of Paraćin has a potential for the development of a local creative economy and creation of new economic opportunities for the local community.

At the same time, this heritage was burdened with negative identity (and community emotions) related to the collapse of an industrial giant, the loss of jobs and economic crisis. This glass giant was a hallmark of Serbian modernity at the beginning of the XX century, and during the socialist period, was emblematic of Yugoslavia's claim to develop workers' self-management and fast industrialization. A long-standing history of glassmaking thus became an "unwanted" heritage at the local level, a burden for the local community as it testifies to the decline of the industry and (unsuccessful) economic transition of Serbia¹.

In 2020, inspired to give this heritage a new life through the creative economy and to create decent jobs and welfare benefits for the local community, we launched the initiative Creative Glass Serbia.



IMAGE 1. Recycling of old glass created at Creative Glass Lab, work of one of the participants (2022, Paraćin, Institute for Creative Entrepreneurship and Innovation)

WHAT IS THE NEED IT TACKLES?

The initiative Creative Glass Serbia was born as a need to preserve national glassmaking heritage, diversity of cultural expression in glass, collective and individual memories and thus make it available to the wider audience, local community, artists and creatives. At the same time, the initiative is focused on using digital transformation of glass legacy as a creative space for developing different art practices and creative entrepreneurship. The two key factors that influence the handmade production of glass are energy and people. Changes in these factors led to the closure of many workshops and manufacturers throughout Europe that were engaged in the production of handmade glass and art glass works. Similar reasons led to the closure of the Paraćin factory's plant for handmade glass, so the factory now only manufactures packaging and containers.

On the other hand, the knowledge and skills of handmade glass production are passed down from generation to generation through informal means. Sometimes this knowledge is kept as a family secret and shared exclusively within the family members. That is why it is not surprising that the intergenerational transmission of this knowledge dominates in glassmaking and that with the disappearance of a generation of glassmakers, knowledge and skills also often disappear. Faced with these factors that can contribute to the disappearance and oblivion of the Paraćin's glass handmade production, the Creative Glass Serbia project was developed.



WHAT WAS THE DEVELOPMENT PROCESS OF THE PROJECT LIKE?

We often highlight the essence of this project in one slogan 'From digitalization to revitalization,' where the development process was guided by the methodology of industrial forensics and incremental innovation.

We started with the systematization and digitization of glass products, archival materials, technical drawings, testimonies of former workers and the memorialization of community remembrance in order to make its preventive protection. The 'Vitrum' database on the platform Creative Glass Serbia (www.creativeglassserbia.com) contains more than 200 digitalized and 3D modeled glass objects and represents the largest database of digital molds for Paraćin's glass, suitable for 3D printing, production or modification. These are reconstructions of the models created in the Serbian Glass Factory from 1907 to 1980. The initiative uses a specific combination of digital humanities tools – visualisation, text analysis, storytelling, industrial forensics, animations, mapping and timelines, 3D digital prototyping, (art)coding and programming. As the digitization of glass as a reflective material is very complex and demanding, our research resulted in the creation of a unique approach of metaglass engineering which, in addition to digitalization, enables the digital transformation of traditional manual glass production and democratization of the creative process².

We also started the Creative Glass LAB, a series of open-innovation experiments with different traditional techniques of glass finishing. These allow the local community to face the traumatic emotions associated with the collapse of the factory and, innovating these techniques together with the designers, feel pride as a bearer of the glassmaking tradition and participate in the democratization of the creative processes. Through these different phases of the project, the initiative progresses towards the idea of establishing a Creative Glass Living LAB in Paraćin which would integrate all our activities in the smart industry concept of a Lab.

IMAGE 2. Creative Glass Lab 2022 in Paraćin, lab participants lead by artist Sara Masnikosa (2022, Paraćin, Institute for Creative Entrepreneurship and Innovation)

IMAGE 3. Creative Glass Lab 2022 in Paraćin, handmade work with lab participants led by REMAKE (2022, Paraćin, Institute for Creative Entrepreneurship and Innovation)

IMAGE 4. Works with old master Milan Stefanović, ex-worker of Serbian Glass Factory, Paraćin, deep engraving cuts based on full eco-creative approach (2023, Paraćin, Institute for Creative Entrepreneurship and Innovation)

WHAT IMPACT DOES YOUR PROJECT CURRENTLY HAVE?

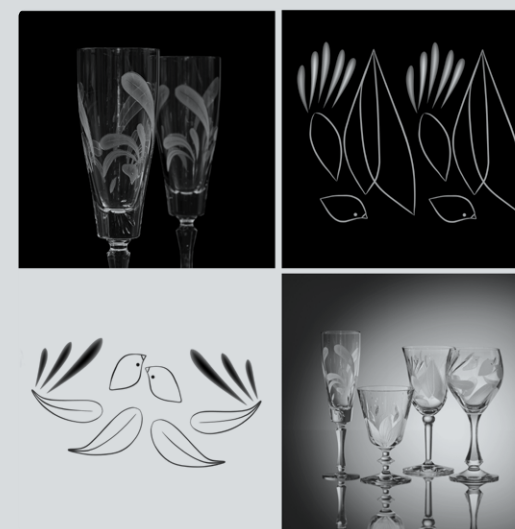
Until now, the main result of our initiative is the creation of the conceptual model of Creative Glass Lab based on "smart", digital and collaborative handmade glass manufacturing and design. Also, the initiative is focused on reducing the barriers to artists and entrepreneurs to produce glass products locally and in small production volumes.

In addition, our activities ensure healthy lives and promote well-being for the community by involving many local women (many of them worked in the Serbian Glass Factory in Paraćin) in innovative workshops for creative work with glass. They gained full access to the unique cultural content, were socially included and felt more confident.

Creative Glass LAB is strongly focused on glass circularity. Its sustainability is based on the circularity and safeguarding of traditional glassmaking techniques through digital arts, immersive experience and creative entrepreneurship. In this way, our Initiative ensures new economic and social opportunities for local people and their families.

WHAT IS THE GLOBAL-LOCAL RELATIONSHIP OF THE PROJECT?

Our initiative makes local glass knowledge, skills and production visible and available globally. Through our activities, we establish an intercultural dialogue between local tradition and creative practices, showing how handmade glass production from periphery places can have a universal language of art and creativity. Presenting and promoting local glass knowledge of Paraćin, our initiative contributed to the new valorization of the glass making tradition for the diversity of cultural expression in glass, especially for the decolonization of glass heritage and creative glass production. In addition, the Creative Glass LAB serves as a platform for circular solutions to local and global glass issues and employs co-creation and co-design techniques between communities and designers. The methodology of the Creative Glass LAB is adaptive to any glass community and can create synergies between local uncoded knowledge and skills and artists and designers.



WHY IS CREATIVE GLASS SERBIA DISTRIBUTED DESIGN?

The concept of distributed design is integrated within our approach that enables digital modification, manipulation, and fabrication of 3D models of glass and related digital manufacturing tools, offering to assist redesign and re-creation of new glass products. Models can be 3D printed and serve as molds for new glass pieces worldwide. That puts digital humanities and distributed design even more in the function of the revitalisation of glassmaking, and the promotion of contemporary cultural expressions in glass.

In addition, Creative Glass LAB is based on all the principles and values advocated by the distributed design discipline.



Openness and collaborative

Creative Glass LAB operates as an open innovation platform and platform for the democratisation of creative process that engages both local communities with glassmaking heritage as well as creatives, designers and artists, helping them to discover sustainable and inclusive ways of living and eco-creative working with glass as a fully recyclable material.

Regenerative & Open

Its regenerative nature is reflected in the fact that all processes are designed to minimize the environmental impact of glass production and improve the health of ecosystems. Recycle, reduce and reuse are the main principles on which the initiative has been built since its inception.

Through open innovation, LAB Designers are cooperating with the local community to create a new value of discarded glass and increase its functionality. This way, the redesign and revalorization of a single glass piece produces a carbon footprint of about 0,1 kg of carbon per kilogram of glass. In a glass factory ecosystem, disposal of these glass pieces as waste, their storage and reuse would produce a carbon footprint of about 0,9 kg of carbon per kilogram of glass, which is nine times more. In addition to that, efforts are being made to popularize and build skills in the recycling of glass through artistic approaches, raise awareness on reducing glass waste, and promote new habits that reduce environmental pollution³.

IMAGE 5. Creative Glass Lab 2022 in Paraćin, handmade work with photo foil (2022, Paraćin, Institute for Creative Entrepreneurship and Innovation)



IMAGE 6. Vintage collection „Birds and Petals“ created by Mina Miladinović, brand Koko Daš, 3D modeling and digital deep engraving cuts in combination with glass etching (2023, Paraćin, Institute for Creative Entrepreneurship and Innovation)



IMAGE 7. Creative Glass Lab 2022 in Paraćin, work with glass thermal folia (2022, Paraćin, Institute for Creative Entrepreneurship and Innovation)

QR CODE. Explore Creative Glass Serbia



IF YOU COULD HAVE DINNER WITH ANYONE (HUMXN, PLANT, FUNGI, OR OTHERWISE) LIVING OR DEAD, WHO WOULD YOU DINE WITH?

Rony Plesl, Marvin Lipofsky, Rene Lalique, Milivoje Popović

Driving Design is the sixth of seven publications from the Distributed Design Platform. Established in 2017 and co-funded by the European Union, the Distributed Design Platform brings together Fab Labs, Makerspaces, cultural organizations, universities, and design centers from around the globe.

Driving Design is a non-exhaustive collection of articles, reviews, and profiles that represents and highlights the motivations, opportunities and challenges that drive the practitioners and the field of Distributed Design.

The book curates a collection of works under five umbrella themes, each of which offers the space for the Distributed Design community to share their vision, approaches and areas of exploration to answer who and what are the drivers of Distributed Design.

The chapters explore Commoning approaches to combat the scarcity myth; Designing with abundance; From prototypes to possibilities: Democratizing design through learning; Living with worlds: Ecologies of practice and kinship; From heartland to healing: Designs cultivating rejuvenation.

