

Barbara Predan, Špela Šubic

WHY
IS A VASE
LIKE A
HOUSE?

From Systems to Fantasy With the Designer Janja Lap

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The publication of the scholarly monograph *Why is a Vase Like a House? From Systems to Fantasy* on the Slovenian architect and designer Janja Lap, in 2023 marked a turning point in history of Slovenian art and architecture. It was the first in-depth academic study to offer a comprehensive examination of the Slovenian architect's creative output in this field. As one of the pioneers of the post-war Slovenian architecture, Janja Lap not only made a key contribution to the design and planning of new integrated residential neighbourhoods, but also introduced innovative scientific methodologies based on systemic approaches to identifying and resolving challenges encountered in modern residential constructions. She is also recognised as one of the foremost pioneers of design in Slovenia.

Having spent part of her career working in institutions in the United Kingdom, the potential impact of her work beyond Slovenia justifies the publication of the monograph in English. This edition makes Janja Lap's work accessible to a wider, international audience, both professional and general, and facilitates placement within the global context of the history of architecture and design. The monograph thus makes an important contribution to the international recognition of Slovenian creativity and enriches existing international narratives, which have so far largely overlooked Slovenian authors, particularly women. The English edition also enables researchers, curators, museums and other professionals and institutions engaged with the history of design and architecture to include Janja Lap and her work in relevant comparative studies.

Dr Barbara Vodopivec,
*Historian and Sociologist of
Culture, Senior Research
Fellow*



From Systems to Fantasy With the Designer Janja Lap

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WHY IS A VASE LIKE A HOUSE?
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THE ROAD TOWARDS TRANSLATION

We are delighted to be able to present this English translation of our book about the designer Janja Lap. As the first scientific monograph dedicated to a female designer and architect from Slovenia, it holds particular significance for research into late twentieth-century design in Slovenia, as well as more broadly.

The research, which we conducted in collaboration with the Museum of Architecture and Design, the Academy of Fine Arts and Design of the University of Ljubljana and the Pekin-pah Association, concluded with the

survey exhibition and scientific monograph *Why is a Vase like a House? From Systems to Fantasy With the Designer Janja Lap* (15 June–5 November 2023). For this three-year research study, we received the international AWDA – AIAP Women in Design Award, which is awarded by AIAP (Associazione italiana design della comunicazione visiva) together with the ico-D organization (International Council of Design). The jury wrote the following:

The monographic publication and the exhibition project, both rooted in historical research, reconstruct the professional history of Janja Lap, a figure as excellent as she is forgotten in the history of Slovenian and international design and architecture. In a virtuous system that brings together knowledge and divulgation, the two projects pave the way to filling the gaps of history.

Further confirmation of the relevance of our study was provided by the publication of the scientific article “Janja Lap: distancing oneself from a servile identity” in the *Journal of Design History*, a respected scientific journal. Early in the process, while the exhibition was still in preparation, we established contact with the Royal College of Art, where Janja Lap



began her research career. In addition, we presented her work at several international conferences.

In light of the interest shown by the international public in her work, we decided to follow up the research with an English translation of the scientific monograph. In doing so, we are making her work accessible to her colleagues, friends, and researchers in her other homeland, the United Kingdom, as well as to broader international readership. For Janja Lap, creation, research, and teaching were inextricably linked in a way that transcended geographical and political boundaries.



Exhibition opening, *Why is a Vase Like a House? From Systems to Fantasy with the Designer Janja Lap* (Museum of Architecture and Design, 15 June–5 November 2023), photos: Aleš Rosa. Ljubljana, kept by MAO.

We trust that the English translation of the monograph will be welcomed by both researchers and the professional public, as well as the broader circle of readers interested in the history of design and the role of women within it.

Špela Šubic
Barbara Predan

ON THE PATH OF JANJA LAP

The first female architects and designers in Slovenia were from established urban families – Jela Vilfan, Dana Pajnič, Gizela Šuklje, Katarina Grasselli and Dušana Šantel; in this respect, Janja Lap was no different. I only met her once, in the 1990s, in the shadow of the Church of St. Joseph in Poljane, at what was then Viba film. In my work as a museum custodian, I often came across material that either belonged to her or was in some way related to her work. I knew her first husband, Riko Pollak, and socialised with her daughter, the architect Darja Mrevlje Pollak. I also met her son, Nikolai David Jeffs, on several occasions.

The exhibition *Why Is a Vase Like a House? From Systems to Fantasy With the Designer Janja Lap*, prepared by Špela Šubic of the Museum of Architecture and Design (MAO) and Prof. Barbara Predan, PhD of the Academy of Fine Arts and Design of the University of Ljubljana (UL ALUO), presents developments in the field of architecture and design in the latter half of the twentieth century through the life and work of Janja Lap (1929–2004), both in Ljubljana and abroad. In the mid-1960s the young designer travelled abroad to further her studies. Although Janja Lap is best known as a designer of glass objects, she also worked in other areas of design, including architecture and interior design, which included the planning of a model neighbourhood. She was also a researcher and an educator, publishing in scientific journals and playing an active role in various societies and congresses.

Her professional development took place in the 1950s, at a time when Yugoslavia, following the Tito–Stalin split, began to orient itself economically towards Western countries, which provided inspirational for Slovenian architects and designers. The 1950s represent a crucial period for understanding Slovenian architecture and design. The initial post-war years, marked by the reconstruction of the homeland and the first Five-Year Plan, were followed by a shift towards the modernisation of society and efforts to raise the general standard of living—in kindergartens and schools, as well as in homes and households.

A key role in the post-war modernisation of Slovenian architecture and design was played by the Department of Architecture at the Faculty of Technical Sciences in Ljubljana, or more specifically by Professor Edvard Ravnikar (1907–1993) and his circle at the seminar, which included Janja Lap. Alongside Janja Lap, graduates of Ravnikar's School included Branka Tancig, Majda Dobravec, Nana Lesnika, Marta Ivanšek and Marija Vovk, as well as other notable figures, including Oton Jugovec, Marko Šlajmer, Stanko Kristl, Milan Mihelič, Savin Sever, Vladimir Mušič, and Grega Košak. These individuals distinguished themselves in the spheres of architecture, urban planning, graphic and industrial design, often across multiple fields, and belong to the upper echelon of creative practitioners in Slovenia during the 1950s and 1960s.

By combining the legacy of Prof. Jože Plečnik, the experience of working briefly under the architect Le Corbusier in Paris, and the principles of the Bauhaus School with his own imaginative and innovative approach, Ravnikar able to respond effectively to the demands of the post-war reconstruction of his homeland and the modernisation of both the built environment and the material world. And so, during and after her studies, Janja Lap together with her charismatic professor, participated in important projects and initiatives of the time, such as *Stanovanje za naše razmere* [*Housing for Our Conditions*] 26 May–3 June 1956; *Stambena zajednica, Porodica i domačinstvo* [*Housing Community, Family and Household*], Zagreb, 1958; the course *Barva in oblika* [*Colour and Form*], Ljubljana, 5–11 June 1961; and the exhibition *Pogrnjena miza* [*The Table is Ready*] of 1962.

Later in her career, during her studies at the Royal College of Art in London and later through participation in various international conferences, she would meet leading experts in glass design and in other disciplines, establishing herself as an incisive and forward-looking designer with a rich and varied body of work.

Using material by Janja Lap that was previously unknown to the wider public and only recently acquired by the museum, the curators deftly interwove her professional achievements with her personal story. They did not shy away from addressing the challenges she faced as a successful and attractive female artist in a male-dominated professional world, including the difficulties of asserting herself, of being different, and the personal disappointments, conflicts and rejections she experienced.

I would like to thank the curators, Špela Šubic from the Museum of Architecture and Design and Barbara Predan from Academy of Fine Arts and Design of the University of Ljubljana, as well

as all their colleagues, and especially all of the relatives and friends of Janja Lap whose material and testimonies contributed to the preparation, design, organisation, and installation of the exhibition.

The new information and deeper insights into the life and work of the designer and architect Janja Lap, as well as into the social and professional conditions of her time, as well as any related new insights, enrich not only researchers and experts, but all of us.

Ljubljana,
10 May 2023

Dr Bogo Zupančič,
Director of Museum of
Architecture and Design
(2020–2023)



DOES WHAT
ELUSIVE AND
RESTLESS
SPIRIT OF
JANJA LAP
GIVE NAME
TO?*

Here we have an original monograph—original in the fundamental sense of the word – as the first and authentic—by Barbara Predan and Špela Šubic, which systematically and comprehensively examines the work and life of the designer and architect Janja Lap. Another important aspect of its originality is that, as stated in the introduction, it is the first such work in Slovenia to be intentionally and in its entirety devoted to researching and analysing a female practitioner active in the field of design in the latter half of the twentieth century; until now, comparable monographs in Slovenia had been written exclusively about male representatives of the design profession!

Through the extensively researched and carefully documented life of Janja Lap, together with the circumstances and conditions of her work, an exceptionally interesting and complex *substance of life* is revealed to us, as are the attitudes of her social milieu—and of wider society—towards a brilliant woman who was both a professional and a single mother in the ostensibly peaceful post-war period of the twentieth century. We come to know her personally, along with the rich spatial and temporal dynamics of her many professional and personal encounters, her social engagement, and the inevitable tensions that accompanied them.

* In the book, the French philosopher Alain Badiou is mentioned or cited twice, which makes it easier to paraphrase the title of his book.

In this extensive study, one can detect a subtle criticism of the lack of recognition afforded to her knowledge and work, as well as of the arrogance—perhaps born of fear—towards her valuable experience. The authors are, for example, critical of the fact that, on her return from England, Janja Lap was not deemed “good enough” or suitable for employment at the Faculty of Architecture, or, for that matter, in the newly established study programme for design at the Academy of Fine Arts. This judgement persisted despite her exceptional professional background: she had worked with pioneers of design research at the Royal College of Art in London, then taught for ten years in Sheffield and for two years at the Architectural Association School, London’s leading school of architecture.

This raises the question of what the Academy names itself today. If we acknowledge its historical role and significance for the fine arts and design (its former names being *Akademija za likovno umetnost* and, earlier still, at its establishment, *Akademija upodobljajočih umetnosti*, both accurately translated as “Academy of Fine Arts”) across both political regimes, the previous as well as the current one, initially for fine arts and later for the development and advancement of design and conservation-restoration, can we entrust it today, as an artistic, educational and research institution in art, design and conservation-restoration of fine art, with the responsibilities of emancipatory politics? *Art makes us better*, more human and more ethical, by stirring our sensitivity and awakening us from our soullessness—indeed, our irresponsibility. If impactful artworks and socially engaged, critical artistic and design practices foster awareness, justice, and equality, protect minorities, and promote human rights, does our Academy (the care and management of which is temporarily entrusted to us) do the same?

Is the Academy, as a community, truly in the service of solidarity of social and socio-ethical imperatives? Operates within the restrictive and rigid structures of a small (and underappreciated) national public higher education system, itself subjected to the destructive forces of global capitalism, how inclusive and equitable is it in practice? Does it, through its ideas and practices, effectively confront inequality and discrimination—whether gender-based racial, or otherwise—including xenophobia and the racism embedded in imperial global politics? And can our work, our contribution, and our creativity mitigate the many discriminatory practices of the prevailing political order?

At the Academy, we strive to ensure that women have equal opportunities to male candidates upon admission. In recent years,

the inclusion and employment of women have been on the rise; we have been actively promoting their equality and participation in all areas of the Academy’s activities, demonstrating a clear institutional commitment to inclusion.**

Unlike in the past, theoretical research and the sciences have in recent years been accorded far greater importance at the Academy, alongside increased space and incentives for their development within scientific, artistic and design fields alike. This shift is evidenced in the number of new research projects, the Academy’s strong interdisciplinary links both within and beyond the University of Ljubljana, and the long-standing aspiration—accompanied by sustained—to secure accreditation for a new PhD programme in the field of art.

Over the years, research at the Academy has become increasingly interdisciplinary, while also more integrated, bringing together diverse forms of knowledge and expertise across numerous fields and responding to social change and technological innovation. In-depth engagement with relevant social issues and ongoing technological changes constantly generates new insights into and discoveries about both the recent past and the present, while also building the knowledge necessary for different, better, and more relevant action in the future.

I would like to congratulate my colleague and close associate Dr Barbara Predan, professor in the theoretical field of design, and her collaborator, art historian Špela Šubic, on their important contribution.

Alen Ožbolt,
Dean of the Academy of Fine
Arts and Design of the
University of Ljubljana
(2021–2025)

** Prior to the most recent change in leadership, the Academy of Fine Arts and Design of the University of Ljubljana was headed by a female dean for two terms. In the current leadership structure, there are three female vice-deans and one male vice-dean. For a number of years, the position of Chair of the Academic Assembly has been held by a woman. Female higher education teachers form the majority in two departments and across five chairs. Women likewise hold positions as department heads, the Head of the Research Institute, chairs of committees, and members of both the Senate and the Board of Directors, and have also chaired these bodies in the past—and the list goes on.

INTRODUCTION,
OR, WHY IS
A VASE LIKE
A HOUSE?

INTRODUCTION,
OR, WHY IS
A VASE LIKE
A HOUSE?

The Hatter: Why is a raven like a writing desk?

Alice: I'm glad they've begun asking riddles –

I believe I can guess that.

March Hare: Do you mean that you think you can find out the answer to it?

Alice: Exactly so.

March Hare: Then you should say what you mean.

Alice: I do, at least – at least I mean what I say – that's the same thing, you know.

The Hatter: Not the same thing a bit! Why, you might just as well say that "I see what I eat" is the same thing as "I eat what I see!"

– Lewis Carroll

When we decided to plunge head-first into in-depth research on the work of the designer and architect Janja Lap in late 2020, we had no idea just how deep the rabbit hole would go. What we knew at the time was that she was a designer who graduated under Ravnikar¹ and was in love with glass design. We were

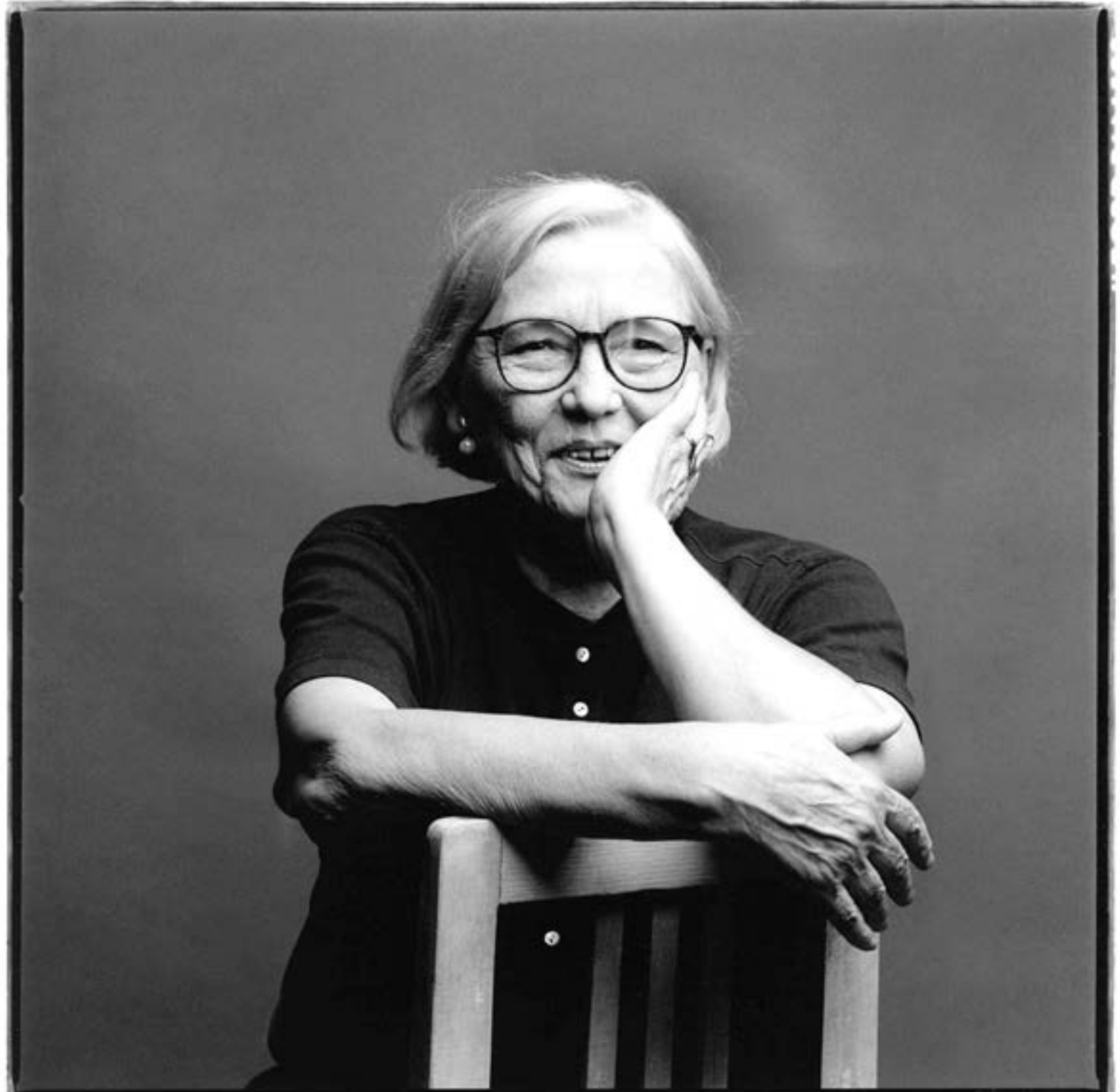
¹ Architect Edvard Ravnikar, born on 4 December 1907, died on 23 August 1993. After the Second World War, he was a professor of urban planning and public buildings at the Faculty of Architecture, Civil and Geodetic Engineering in Ljubljana. His work is today considered to be responsible for a decisive shift that took place in the latter half of the 20th century towards the characteristic artistic expression of Slovenian architecture and design on all levels, from urban planning, through industrial and graphic design, to theoretical currents of thought.

also familiar with her work at Iskra Elektrooptika,² owing to our earlier research into design at the Iskra company conducted together with Cvetka Požar in 2009 (Požar and Predan 2009), during which we uncovered a subset of her industrial design work. There were also scattered references to her studies at the Royal College of Art (RCA) in London and to her work as a visiting lecturer in Mosul. Beyond these fragments, however, there was a gaping hole of missing information. What little we did know nevertheless hinted at a fascinating story of an individual who refused to be confined by social dogmas and professional expectations.

The first phase of research revealed that her work is represented in the collections of the Celje Regional Museum National Museum of Slovenia, Museum of Architecture and Design (MAO) and the Design Museum/Die Neue Sammlung in Munich. Despite this, we were unable to find any substantial overview of her life. Instead, we came across fragments in the form of articles by or about her (published in *Arhitekt*, *Sodobno*

Janja Lap,
photo: Dejan Habicht.
Ljubljana, kept by MAO.

2 In the 1970s and 80s, Iskra Elektrooptika was one of the world's premier vendors of rangefinders for various applications and optoelectronic systems in general. For more on this, see *Direct Contact with Industry*, pp. 116–146.



gospodinjstvo, Sinteza, Domus, Gospodarski vestnik, among others) as well as a small number of exhibition brochures and a single exhibition catalogue, all of them related to her late-period glass design. Throughout the early stages of our research, we remained in contact with her son, Nikolai Jeffs, in order to gain access to her personal archive. Although we knew that some material had been preserved, having already established contact during the aforementioned exhibition of design at Iskra, our expectations remained modest. Here, we had a designer who moved around a lot, and it seemed overly optimistic to hope that these movements would have allowed for the preservation of a vast personal archive. Even after obtaining, initially just for a brief inspection, three old suitcases positively *stuffed* with paper, we were yet to realise that we had, in fact, struck gold. But, as it soon became clear, one of the key reasons for the limited coverage of her life and work at the time was the limited accessibility of her archive. Only once we were able to take a look into her personal archive did the full scope of her work begin to emerge.

At the beginning of 2021, an inventory by the Museum of Architecture and Design revealed a rich archive that comprising an extensive collection of personal documents, sketches, blueprints, manuscripts and typescripts, photographs, and objects designed by Janja Lap. Glass objects predominate—jars and vases in particular—alongside a smaller number of wooden models and barely a handful of plastic casings for electrical appliances. Taken as a whole, this constitutes a unique body of work by a prominent designer, acquired by the museum in 2022 for inclusion in its design collection.

In the subsequent research phases, we undertook an intensive examination of the archival material using the historical research method, with the aim of building as comprehensive a picture as possible of Janja Lap's work and research and thereby gaining an understanding of their wider context. We conducted a series of semi-structured interviews with her son, Nikolai Jeffs, and with several former students from her teaching and research period in Great Britain. We also talked to her three grandchildren—Urša Petja Mrevlje Lozar, Jaša Mrevlje- Pollak and Neža Mrevlje—as well as her sister-in-law Marija Lap Drozg; Eka Vogeljik, a peer and colleague of Janja's daughter Darja; her student Miša Jelnikar (Malavašič); and other associates. We also tracked down Janja's colleagues from Iskra, whose testimonies proved invaluable for our research into her work at the Centre for Electrooptics.³

3 A list of all interlocutors is provided in the *Literature and sources* section.

Another part of the estate we focused on is a body of correspondence encompassing 87 individual items dating from the period 1964–1966, when Janja Lap was studying at the RCA in London. The majority of the letters date from 1965, with smaller numbers from 1964 and 1966. Most of the correspondence took place between Janja and her mother Marija, followed by letters sent to Janja by her daughter Darja. There is only one letter from her father, alongside several from friends and acquaintances. This tranche also includes three letters written by Darja to her family. Of particular interest are Janja's letters to Darja, which are kept by Darja's daughter Neža Mrevlje, which comprised a collection of thirty-six items.

In addition to this correspondence, our research focused on Janja's unpublished studies and other unpublished archival material, such as study materials, preliminary research materials, carefully composed applications for research funding, and numerous biographical and bibliographical records. In the critical analysis phase, our objective was to interpret the impact of her research and to contextualise it through the research work of her teacher and mentor, Bruce Archer. Our evaluation of her glass design was built on visual art analysis, informed by the technological framework of glassmaking and comparative reference to the work of her contemporaries. In the field of industrial design, we similarly drew on a comparative analysis civil and military design contexts. Throughout the research process, we continuously verified interpretation of the data obtained against multiple sources. The findings presented here reflect the data that could be reliably obtained and corroborated. Cultural, social and political factors were taken into account throughout, and in our desire to establish a transnational perspective, we deliberately went beyond these frameworks where appropriate.

The chapters that follow are divided into five major thematic sections. The first, *The Elusive and Restless Spirit of Janja Lap*, situates the biographical narrative in the context of her social network and examines how key encounters impacted her professional development and scientific research. The chapter, *Opifex artis vitrae*, offers a systematic overview of her fifty years of intensive research and design work in glass, with particular emphasis on her studies at the RCA in London. This also serves as an excellent cue for the next thematic section, *The Overlooked Scientific Research*, which presents to the Slovenian public Janja Lap's hitherto entirely neglected research in design for the first time. What makes this work especially compelling is that it is rooted in the pioneering period of design research in Great Britain. Here, we also highlight her

ability to research and design complex systems while simultaneously developing new, systems-based approaches to previously identified design problems—expertise she later confidently transferred to the field of industrial design.

Her ten-year period at Iskra is discussed in the chapter *Direct Contact With Industry*. The final major section features an analysis by guest expert Maja Vardjan, who addresses Janja Lap's largely unexplored work in architecture and interior design. Vardjan characterizes this body of work as difficult to categorize, as it consistently transcends the conventional boundaries of architectural and design practice, incorporating a wide range of additional forms and fields of expertise. The monograph concludes with the chapter *Life's Hub of Creativity*, in which Janja Lap herself is given a voice through a curated selection of quotes from her various writings.

This metaphorical passing of the microphone is a deliberate gesture intended to compensate for the sense of being overlooked that haunted Janja Lap's entire career on numerous levels. This marginalization began at the faculty, where, as a young woman, she confidently navigated the architectural profession and worked informally as an assistant to the architect and professor Edvard Ravnikar. When the time came to formalise the role, however, the professor demurred—seemingly signalling that she was undeserving of official recognition. As a glass designer, despite her outstanding education at the RCA, she constantly had to deal with assertions that she could not possibly be as good as designers employed directly within the glass industry. Indeed, her daring approach to design, rather than being recognized as evidence of design excellence, was even criticised for being overly experimental. In the field of design research, the situation was even more perplexing. Given the tangible results of her work and her close association with the foremost pioneers of design research, it is difficult to comprehend how this aspect of her work remained almost entirely suppressed following her return to Slovenia. Neither more than a decade of teaching at the University of Sheffield nor her two years of work at the Architectural Association School of Architecture in London sufficed to secure her employment at the Faculty of Architecture or at the newly established Department of Design at what was then the Academy of Fine Arts. Her entire career was therefore also characterized by a recurring impulse to withdraw, as distancing herself from dominant centres of power became a prerequisite for the continued emancipation of her thought and work.

In interviews, Janja Lap liked to mention how enchanting she found the story of *Alice in Wonderland*, and particularly *Alice*

Through the Looking Glass, in which the heroine dives into a molten mirror and finds herself in the world beyond. Janja Lap would undoubtedly have found the fearless, inquisitive Alice relatable—the Alice that is in equal parts charming and sassy, but above all unwilling to accept the self-evident status quo. What follows is her story: about the story of Janja Lap and the world that she created beyond the *looking glass*, on the far side of the mirror of Slovenian design. It is in this world beyond that we find the answer to the riddle: Why Is a Vase Like a House?

THE ELUSIVE AND RESTLESS SPIRIT OF JANJA LAP

THE ELUSIVE AND RESTLESS SPIRIT OF JANJA LAP

Through a process of self-criticism, the “new art history” has developed and grown since the 1970s by incorporating social, political, feminist, psychological, and semiotic perspectives (Smith 2022b). In the field of design history, by contrast, such self-critical reflection remains in its infancy. Within art history, numerous authors (Clark 1973; Guilbaut 1985; Pollock 1987; Smith 1998; Nochlin 1988 and 2006; Smith 2014; Frigeri and Handberg 2022) have long engaged with postmodern concepts that we now understand as the “multiple modernities”, articulated by the sociologist Shmuel Noah Eisenstadt (2000) as well as with “planetary/polycentric modernisms”, as theorized by the gender studies scholar Susan Stanford Friedman (2015).

In the field of design, meanwhile, “design historians and curators of historical collections [...] are increasingly taking a more open approach, one that sees modernism as simply the design style apparent in the fine and decorative arts between the world wars and up to the 1960s” (Smith 2022b). By maintaining such an uncritical, superficial understanding of dominance and power in the history of design, we risk perpetuating inequalities and overlooking the plurality of voices. As the aforementioned studies demonstrate, diverse voices often developed outside centres of power and, through the simultaneous migration of numerous individuals from

the so-called periphery, directly influenced developments in the Western European and American centres of art and design at the time. According to Susan Stanford Friedman, this demands yet another “fundamental rethinking of modernity that posits it as a geo-historical condition that is multiple, contradictory, interconnected, polycentric” (Stanford Friedman 2015: 4).

Such rethinking has recently resulted in an increase in mapping practices that track the migration of artists from the so-called periphery of Europe, the Non-Aligned countries, and former colonies to cultural metropolises; during this process, they monitor the impact of knowledge transfer through key actors, as well as through exhibitions (DaCosta Kaufmann et al. 2015; Harney and Phillips 2018). Terry Smith cautions, however, that by mapping migration and tracking newly established phenomenological experiences, we should not mistakenly assume that migrants’ motivations were merely to “self-modernise” and integrate into the social, political and economic structures of Western market democracies (Smith 2022b). On the contrary, there is most often a dense web of interactions and reciprocal knowledge exchange. Or, as Urška Strle observes, “migration of people has left an enormous mark on social development, including the establishment of many civilizational achievements” (Strle 2018: 148). Despite this, the negative connotations of migration remain deeply rooted, with the notable exception of the migration of scientists, artists, students, and diplomats (*ibid.*).

The architect and designer Janja Lap also belongs within this context. In September 1964, at the age of thirty-five, she moved to London on a scholarship from the British Council and it was there that she began her career as an independent researcher. At the end of 1965, she was joined by her teenage daughter Darja Pollak, who had spent the previous year living with her grandparents and had just completed her Matura exam. With her move to London, Janja Lap initially took a year’s leave and later resigned entirely from her job at the Ljubljana School of Arts and Crafts (today’s Secondary School of Design and Photography Ljubljana). In doing so, she left behind her career as an award-winning architect and designer who had already established herself in Slovenia, yet, despite that success (or perhaps because of it), her professional path had not been an easy one. Her mother, Marija Lap, remarked in one of the many letters she wrote to her daughter, that she remembered “not just the small hindrances, but the heavy obstacles thrown in your path”.⁴

⁴ From a letter by Marija Lap to her daughter Janja, Ljubljana, 21 May 1965. Kept by MAO.



Janja Lap. Ljubljana, kept by MAO.

Janja and Darja with Nikolai and Urška. Ljubljana, personal archive of Urša Petja Mrevlje Lozar.

Despite the clearly difficult circumstances (it can be inferred from her mother's letters that, in addition to the challenges of professional life in Slovenia, Janja Lap lived very modestly in London, as did her family in Ljubljana), her move to London was of paramount importance for her professional development. As demonstrated below, going abroad was for her a vital necessity: both an escape from a constrained professional and personal life and an opportunity for the emancipation of her own thought and work. It was during this period that she created her most daring glass pieces and at the same time became the first Slovenian designer—at least according to currently available information—to develop her knowledge at the Royal College of Art (RCA) in London while actively participating in the burgeoning field of design research.

The Spatial and Temporal Dynamics of her Encounters

Alongside the critique of modernity, rooted in social, political, feminist, psychological, and semiotic perspectives and forming a distinct aspect of discussions on migration and the exchange and production of knowledge, there is another aspect that plays a crucial role in biographical analysis, namely the aspect of encounters. It is precisely the world of encounters that the French philosopher Alain Badiou proposes in opposition to our world of identities. His response to the question “what is an encounter” is as follows: “What is an encounter? It is a contingent, chance element of existence. Something happens to you that nothing among your existing world's points of reference made likely or necessary. You encounter someone who you do not know and yet who strikes you, attracts you, enters into your life.” It is, however, important to realize, Badiou continues, that no encounter is without risk. But “[since] the encounter is incalculable, if you try to reduce this insecurity then you destroy the encounter itself” you destroy the possibility of a beginning, the possibility of potentiality, or, as Badiou explains, the possibility of the encounter to “give rise to shared consequences, shared innovations” (Petitjean 2014). The power is therefore in the potential of the encounter, which can result not only in sharing knowledge but in creating the possibilities for generating new knowledge and experiences.

The biographical focus on the spatial and temporal dynamics of Janja Lap's encounters is grounded in the importance a transnational aspect. Masha Chlenova sees as a distinct advantage of a transnational approach to history that it enables us to consider human connections above and beyond the current boundaries of political ideologies.

In art historical scholarship this methodology allows us to restore the agency to individual players, artists, curators, critics, historians, collectors and patrons; by considering the transnational networks these individuals formed on the basis of shared values and goals, we can discern the ways in which these networks shaped historical processes, often operating outside the confines of specific nation-states or politically defined territories (Chlenova 2022).

We are therefore concerned with migrations that, through chance encounters, gave individuals opportunities to forge connections beyond the shifting political circumstances, while building on a multilateral transfer of knowledge. In our examination of Janja Lap's scientific research work within the context of her social network, we focus on contextualisation and how individual encounters influenced both her professional development and her scientific research in Great Britain, as well as after her return to Slovenia. Her extensive correspondence clearly demonstrates that her family stood by her side throughout this period. Moreover, in the course of their regular correspondence (sometimes as many as seven letters a month), her mother advises her on whom to contact in order to maintain professional visibility upon her return. Among other things, she often quotes [Janja's] father: “it would be better for her to write for *Razgledi*, so they won't forget her, write to *Delo*, offer some of her plans to factories. She should just keep writing in general. It's not like we'll forget her, but others will.”⁵

Another revealing aspect of documenting Janja Lap's life story is the insight it provides into community attitudes towards an ambitious professional and single mother in the mid-twentieth century. In the gossip circulating among her Slovenian acquaintances, the attractive architect⁶ was frequently dismissed as merely the “coffee girl” in Edvard Ravnikar's architecture studio. She was, in fact, an equal collaborator who had been designing important and award-winning competition entries since the beginning of her professional career. A telling example is her participation at the 1958 Zagreb Fair. As the head of the State Architectural Office of the Republican Committee for Family and the Household, she presented a

5 From a letter written by Marija Lap to her daughter Janja, Ljubljana, 29 May 1965. Held by the Museum of Architecture and Design (MAO). *Naši razgledi* (1952–1992) was the leading fortnightly periodical devoted to political, economic, and cultural issues. Since 1959, the daily newspaper *Delo* has been the principal national daily newspaper in Slovenia.

6 Her friend Eka Vogelnek described her as a femme fatale who looked like the actress Faye Dunaway. From the interview, 7 February 2022.

Janja Lap presenting a project for a housing district for 5,000 residents to the Yugoslav leadership at the 1958 Zagreb Fair. Josip Broz – Tito and Janja Lap are standing next to the model. Behind them, from left to right, are Zagreb's mayor Većeslav Holjevac, Aleksandar Ranković, Jovanka Broz, Pepca Kardelj, Lidija Šentjurs and Vladimir Bakarić. Ljubljana, kept by MAO.



model of a proposed housing district for 5,000 inhabitants. This is how she would later recall the event:

The concept was for a housing district, a self-contained urban unit featuring schools, kindergartens, shops, and quiet crafts in addition to housing. It would house 5,000 residents in an area equivalent in size to a single school district. Following the Swedish model, she was developing a system of footpaths with no level crossings of main roads that would ensure that no schoolchild would have more than 600 metres to walk to school. [Mitja] Jernejec designed a publication; we went on a tour of Ljubljana, photographing the life of a typical family in a housing district like this. At the seminar, we, as students, developed this idea and built a massive model for the exhibition in Zagreb. We made it so that lights could turn on and off to illuminate various activities. Then Tito came. He watched for a while, then asked why some of the apartments only had north-facing windows. He left with the words: “We didn’t learn anything, but at least we got some rest” (AAM Lap in Muratović 2002).

Despite the fact that Janja Lap acted as project manager in Zagreb, the photograph of the presentation (pg. 28) continues to provoke comments suggesting that she was sent to the presentation merely as an alluring female representative of Ravnikar’s studio. The reason she was chosen, the comments alleged, was because the sight of an attractive and bright woman would make Marshal Tito more receptive to the proposal for the modern housing district. We can only conclude that such comments, as well as her sense that her career was being inhibited by her mentor Edvard Ravnikar,⁷ were among the reasons she decided to emigrate to Great Britain in 1964. Going abroad, and thereby distancing herself from an overbearing teacher, appears to have been essential for her further professional development.

And so, on the basis of the rationale presented in the introduction, we now allow Janja Lap tell her own biographical story. We place deliberate emphasis on the transnational networks she formed throughout her professional and private life—networks that transcended both political ideologies and the borders of nation-states and politically aligned regions.

⁷ In a letter to her daughter, Janja’s mother writes about Ravnikar that he, among other things, “somehow isn’t willing and able to admit that there are young professionals rapidly developing alongside him, he is not strong and honest enough to overcome his ‘ego’ and help and acknowledge the young.” From a letter by Marija Lap to her daughter Janja, Ljubljana, 12 May 1966. Kept by MAO.

Early Childhood and Schooling

Janja Lap was born in 1929 as the second child of Marija (née Niefergall) and Anton Lap. A native of Novo Mesto, Marija was a member of the Sokol organization during the Novo Mesto Spring⁸ and an office clerk at the Grm School of Agriculture in Novo Mesto, where a young agricultural technician Anton Lap, an engineer from a prominent horticultural family, was also employed for a while. Preserved documents contain praise from their superiors for their work, along with evidence of associated promotions. In 1926, Anton Lap began



working in Ljubljana, first as the assistant city gardener. Three years later, he was appointed supervisor of the city's gardens and in 1932 he became manager of the city plantations.

■ **Marija Lap, 1934, and Anton Lap. Ljubljana, kept by Urša Petja Mrevlje Lozar.**



In addition to her privileged upbringing and the influence of successful, industrious and loving parents, Janja Lap's discipline in her mature years was undoubtedly also influenced by her primary education at the Ursuline Grammar School. Although her father expected that his wife would give up her job to provide care for the family after getting married, which she did, both parents supported their daughter throughout her studies and later professional life.⁹ While such expectations of married women in her parents' generation were still commonplace among her parents' generation, the daughter received no such pressure. Janja was able to pursue her chosen studies even though her parents could have found many reasons to ignore her wishes. She had two brothers, and her parents' willingness to support three children during their studies should not be taken for granted. An additional reason that could have prevented her from finishing her studies was her early preg-

8 The Novo Mesto Spring was an influential artistic movement. Seeking to produce new and original Slovenian art, it began in 1920 by combining visual, literary, and musical arts. Today, many consider this artistic manifestation the first act of the historical Slovenian avant-garde. From the late-nineteenth century onwards, *Sokoli*, as a union, also exerted important influence on the construction of Slovenian national consciousness, coinciding with the struggle for national political emancipation. They were heavily involved in the national-political, cultural and physical culture activities in Slovenia. Interview with Nikolai David Jeffs, son of Janja Lap, 4 February 2021.

9 *Ibid.*

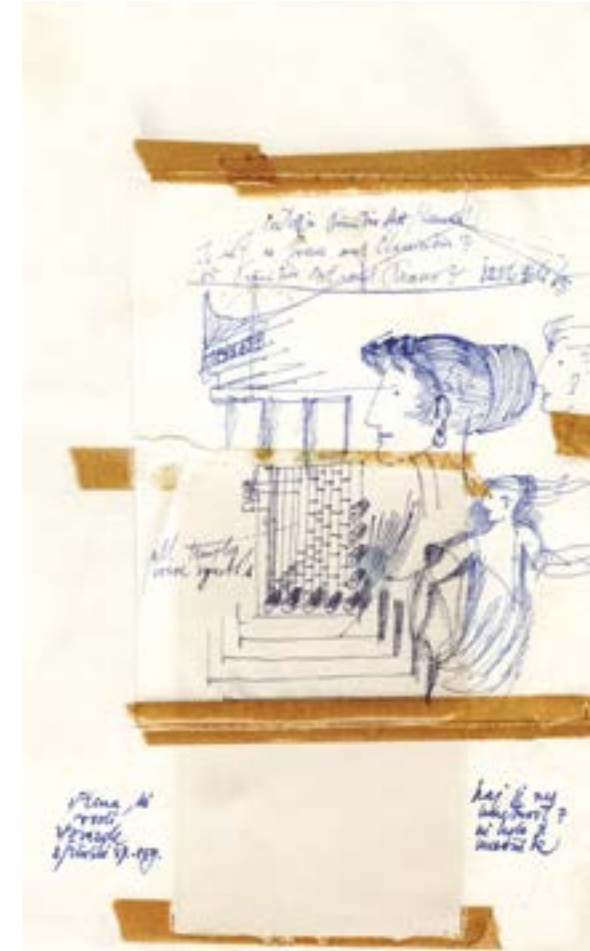
nancy and marriage.¹⁰ But none of that deterred her from her plan. She was determined to study, even if it meant she had to work alongside her studies.¹¹

It could be that her father found Janja's choice to study architecture personally satisfying, as it was his own career that, according to Janja, ended up being a powerful influence. It was due to his profession that the family spent two years living in the grange of Tivoli Castle, where Janja, who was still a child at the time, would frequently accompany him on his errands in the City Park. His work function, as well as his renowned expertise, brought Anton Lap into close association with Jože Plečnik, by then a renowned architect; the two would end up collaborating on virtually all of Plečnik's projects in Ljubljana that involved planting and landscaping. The origins of her attachment to architecture and Plečnik were therefore in her childhood acquaintance with the "master architect". She would later reminisce about this period:

Tivoli reminds me of my childhood – this is where I spent it. We lived in a house next to Tivoli Castle that was named *Pristava* (meaning "the castle grange"). I remember my father, Anton Lap, who was the head of city's gardens from 1929 to the end of the Second World War. I also remember Professor Plečnik, who provided plans for many of the plantations my father planted. It's no wonder that I began studying architecture in Plečnik's seminar (MAO AJL Muratović 1998).

10 Janja Lap married on 11 December 1946 and gave birth to Darja on 18 March 1947, when she was just 18 years old.

11 Interview with Urša Petja Mrevlje Lozar, granddaughter of Janja Lap, 27 January 2023.



■ **Janja Lap, drawings and notes from sketchbook, ballpoint pen, h: 29.7 cm, w: 21 cm. Ljubljana, kept by MAO.**

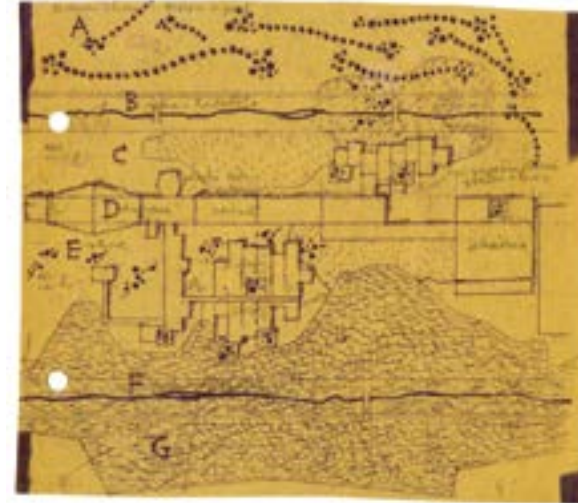
In interviews, Janja Lap would often allude to Plečnik's influence, but despite this clear affinity, there was no direct reflection of the architect's stylistic language in her work, with her creations showing no evidence of any direct transfer or imitation of Plečnik's forms. Where similarities can be seen is in the way they evolved their own visual language—both authors show a tendency towards deliberately departing from the established and the fashionable in favour of exploring exotic forms of artistic expression and ancient craftsmanship that they enhanced in imaginative ways. Plečnik, for instance, designed the colonnades at the Ljubljana Central Market in the style of a Greco-Roman temple and covered them with concrete roof tiles featuring decorations reminiscent of Japanese temples. Similarly, Janja Lap's objects in glass show evidence that she found inspiration in ancient cultures, whether in technique or in style. Her glass cup *Mit v steklu* [*A Myth in Glass*] is a good example, as it recalls the Horn of Plenty of the Antiquity [pg. 81]. A vivid example of boldness and wit all too often lacking in design today is her beer mug with impressed crown cap. The two creators share yet another similarity: the estates of both Jože Plečnik and Janja Lap include various paper scraps—envelopes, cigarette boxes, back sides of sheets of paper that had served some other purpose—that they used to jot down ideas in moments of inspiration. Masterful freehand sketches, sometimes supplemented with various thoughts, would thus often end up on a distinctly unglamorous and non-durable substrate.

Before enrolling in the faculty, Janja Lap finished the Girl's Lyceum. In September 1947, as the mother to a six-month old daughter, she enrolled in the faculty, Plečnik's Seminar, under a new surname, Polak. One year earlier, she had married Henrik (Riko) Pollak,¹² a student of mechanical engineering, but ended up divorcing him just a year later, in 1948. A surviving letter of his to Janja from 1948 indicates that by that time, they had already divorced and were on reasonably good terms.

Between 1953 and 1957, Janja Lap worked in the architectural studio of Professor Edvard Ravnikar that operated under the auspices of the faculty. It was under his mentorship that she gradu-

¹² Riko Pollak later finished the Faculty of Public Administration in Kranj and became an assistant to the Director-General of Lesnina, a trading company for timber, wood products, and building materials. The spelling of the surname in archival documents is inconsistent. Both Riko and daughter Darja would mostly spell their surname with two L-s.

ated in 1956;¹³ immediately afterwards, she was employed in the architectural studio of the construction company Tehnika as the assistant in the preparation of the conceptual and implementation plans for the Prule 3, 4 housing project. Her CVs reveal that in her first year of employment, her work overlapped with her position as Ravnikar's assistant at the faculty.¹⁴ In March 1959, Ravnikar formally proposed her as his assistant [pg. 34] for the Public Buildings

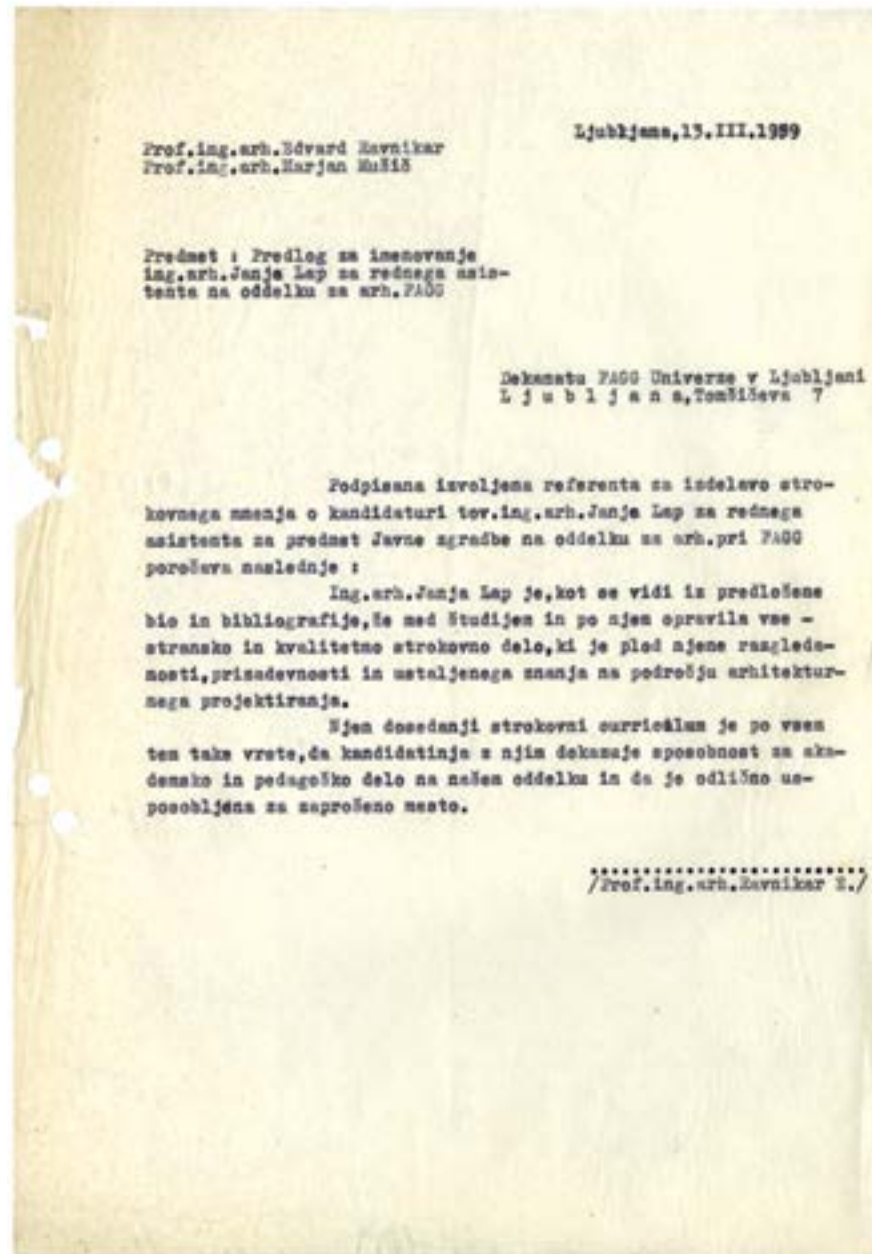


Janja Lap, sketch of her diploma thesis from a letter to the Ivanšek couple,¹⁵ ballpoint pen, 23 August 1954. Ljubljana, kept by the France and Marta Ivanšek Foundation.



Janja Lap, graduation diploma, 1956. Ljubljana, kept by MAO.

- ¹³ She graduated with a “very good” grade (9) on 22 May 1956. Her thesis was entitled *Višja gimnazija v Hercegovini. Popolna srednja šola, ki je obenem središče svoje soseske* [*High School in Hercegovina. The Perfect High School as the Heart of the Neighbourhood*]. The thesis has not survived. The diploma certificate is kept by MAO.
- ¹⁴ We don't know when their relationship transitioned from a professional to a personal one, but it was mentioned by multiple oral sources (Jeffs, Krečič, Zupančič). We can, in any case, conclude that their personal relationship ended in 1959 at the latest, when she married gynaecologist Dr Draško (Karel) Wilfan. They divorced on 9 April 1964. On 16 August 1966 she remarried, this time to the historian Robin Morton Jeffs (born 8 April 1933). Two years later they had a son, Nikolai David Jeffs. She divorced Robin Morton Jeffs on 8 June 1978. According to her son, she spent the latter half of 1990s living with the journalist and editor Tit Vidmar (1929–1999).
- ¹⁵ Marta and France Ivanšek were architects, sister and brother-in-law of architect Edo Ravnikar. They lived in Sweden in the latter half of the 1950s, where they established important professional contacts between Swedish architects and designers and their colleagues in their homeland.



An unsigned memo from Edvard Ravnikar proposing her as an assistant for the Public Buildings class at the Department of Architecture of the Faculty of Architecture, Civil and Geodetic Engineering, 13 March 1959. Ljubljana, kept by MAO.

course at the Department of Architecture at the Faculty of Architecture, Civil and Geodetic Engineering. However, according to the information obtained so far, the formal confirmation of the assistantship never came. There are no records of her application being either confirmed or rejected, either in Janja Lap's personal archive or in the archive of the Faculty of Architecture of the University of Ljubljana. Indeed, there is some doubt whether the application was formally submitted at all (MAO AJL Ravnikar and Mušič 1959). Highly revealing in this context is her very formal memo to Ravnikar from October 1959, in which she is informing him of the termination of her work as his collaborator in the drafting of plans for a residential tower block on Kidričeva Street in Ljubljana (MAO AJL Lap 1959). A 1966 letter from her mother contains a hint as to what might have been happening: "If you want to have your wish of becoming an assistant professor, you can't avoid dealing with Ravnikar. He has already balked once, don't give him the opportunity to do it again."¹⁶ Being part of Edvard Ravnikar's inner circle at that time meant being part of the Slovenian architectural elite. This sphere of influence spread throughout formal and informal academic circles, and it could work for or against someone.

Between 1958 and 1962, Janja Lap worked as the head of the State Architectural Office of the Republican Committee for Family and the Household, and it was in this capacity that she presented a project for a 5,000-resident housing district to the highest government officials at the previously mentioned exhibition *Porodica i domačinstvo* [Family and Household] in Zagreb. She passed the professional exam for the title of junior civil engineer in 1960. On 8 March 1961, she obtained a State Registration from the Secretariat of the Executive Council for Urban Planning, Residential Construction and Public Utilities, which signified that she was on the list of independent architects authorised for construction design (MAO AJL Saje 1961).

In the early 1960s she tried her hand at teaching for the first time. From 1962 to 1964 she taught Industrial Design at the Ljubljana School of Arts and Crafts. Her colleagues at the time included architect Gizela Šuklje (Plečnik's first female student and assistant) and designer Miloš Požar. Especially notable among Janja Lap's pupils were Miša Jelinkar (née Malavašič), Oskar Kogoj, Alojz Marcen, Janez Smerdelj, and Matjaž Vipotnik (Ekar 1996: 13 and ZAL_LJU/0366 1963–64). All of the above would later become highly

16 From a letter by Marija Lap to her daughter Janja, Ljubljana, 12 May 1966. Kept by MAO.

accomplished and professionally recognized designers in their own right. Janja Lap moved to Great Britain after divorcing her second husband in 1964. There, she joined the researchers at London's Royal College of Art and, no longer burdened by any ties to the Slovenian design and architecture scene, found new inspiration.

Moving to Great Britain

In the 1960s, through the work of the Design Council, London began to systematically open up to the world while at the same time paving the way for the professionalization of design, both in industry and (in a highly systematic manner) in education and research. Of course, this was also the era of the “swinging London,” where Janja Lap found herself in the company of intellectuals and artists such as David Hockney and Peggy Guggenheim. She would later describe the research period at the RCA as a “a particular zeitgeist: it was the time of the Beatles, mini-skirts and pop-art. There was increasing focus on the question of decoration. The period before was marked by the slogan ‘ornament is a crime’” (Senčar 2000: 7). The new era of the mid-1960s was much freer, with more willingness to explore beyond sheer functionality.

From a letter she received in London from her daughter Darja, we learn that immediately upon arriving in London, Janja Lap was “invited by her professors to their club.”¹⁷ Marija Lap expressed in a letter to her daughter how glad she was for her, that she had “so many pleasant acquaintances. You seem to be on the way up!”¹⁸ All these professional acquaintances quickly began to be reflected in Janja Lap's emancipatory approach to her work. As she would later often recall, the difference between the education systems in Yugoslavia and Great Britain became clear to her at the very beginning of her research work. Upon arriving at the RCA, she asked her professor what she should work on; he replied that if she herself did not know what she wanted to do, how could he? (Ekar 1996: 13).

17 From a letter by Marija Lap to her daughter Janja, Ljubljana, 5 October 1964. Kept by MAO. Nikolai Jeffs adds that after his mother arrived in London, she did not socialize with the Yugoslavian immigrant community. The only ties she maintained to Slovenia were rare visits by students from Ljubljana (Miša Jelnikar, for example, whom she helped apply to the RCA). He also points out that she was not interested in politics; the only political material she owned were the recently published books by the dissident Milovan Đilas, which were highly sought after at that time. Interview with Nikolai Jeffs, son of Janja Lap, 17 February 2022, and interview with Miša Jelnikar, former student of Janja Lap, 15 February 2022.

18 From a letter by Marija Lap to her daughter Janja, Ljubljana, 5 November 1964. Kept by MAO.

The British Council scholarship was initially for one year only, with the possibility of renewal. In March 1965, she wrote to her family that she would like to “find a position here in London. I can't stay another year on just the scholarship!” At the same time, her initial enthusiasm for living in London began to be somewhat dampened by what she saw as excessive social snobbery. In the same letter, she wrote:

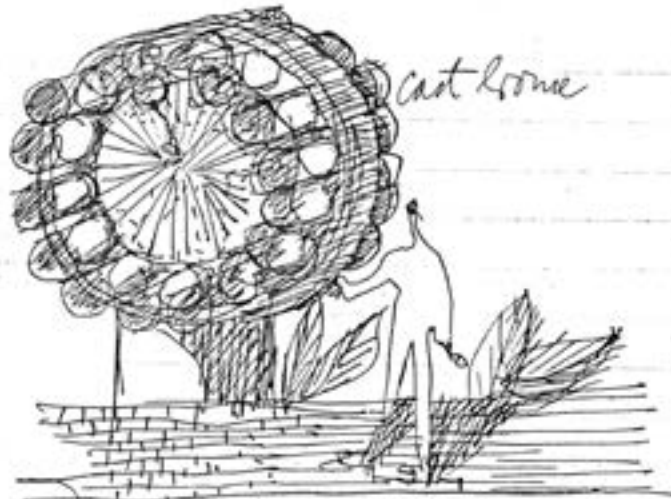
One of those “snobbish” intellectual moves here is to have acquaintances among the major players in the world of philosophy and the arts today. But I thought I was going to be sick when someone said: *Would you like to know Sylvette?* That's the girl who was so popular a few years ago in connection with Picasso. Even you had that picture in your room, Darja. No, I said. *I don't [want] to go.* I thought to myself, I don't care about some old ponytailed lady, even if she was the *love of Picasso*.¹⁹

On the other hand, she did not refuse the invitation to meet Tomás Maldonado, a giant of research theory in the field of design and the chief theorist of the Ulm Model at the Ulm School of Design. She wrote:

I met the *girlfriend* of Prof. Maldonado from Ulm. She's a rich Brazilian and frighteningly well educated. Yesterday, I had dinner with them, and she mentioned that she is going to Paris next week, and then to Rome, where she has a married daughter from I don't know which marriage. I remember how important it was in Ljubljana to know something about Maldonado... Here he is an everyday presence, sometimes slightly tipsy, like yesterday evening. He was very approachable, very nice. In two weeks, I am invited to dinner with the most well-known Japanese architect, who will be in Londonu.²⁰

19 From a letter by Janja Lap to her family, London, 9 March 1965. Kept by MAO.

20 *Ibid.* The letter contains no hints as to his identity. Given that in 1965, Kenzo Tange was the first Japanese architect to receive the Royal Institute of British Architects (RIBA) Gold Medal, it could well be him. His work was also of great interest to Janja Lap. Tange was the architect behind most of the reconstruction of Skopje after the earthquake (on 26 July 1963, an earthquake of 9.0 magnitude on the Mercalli scale destroyed or irreparably damaged three quarters of the buildings in the city). Much of Janja Lap's research work was in fact devoted to the topic of dwellings in emergency situations. In her application form for the “educational exchange between the SFRY and the USA” in 1985, her proposed topic for a lecture or scientific research work was “cities in Yugoslavia after earthquakes: Ljubljana 1895, Skopje 1963”. Kept by MAO.



Janja Lap, a sketch of the public sculpture and planning its installation in front of Midland Bank (Griffin House), Sheffield; the plan was drafted in 1976. The photograph shows Janja Lap with a tape measure. Ljubljana, kept by MAO.



Despite her initial hesitation, she eventually decided to extend her scholarship and stay in London for another year. During her first year in London, she was a researcher at the Department of Industrial Glass under the mentorship of Robert Goodden, and during her second year at the RCA she joined the Research Unit for Hospitals at what was then known as the School of Industrial Design (Engineering). There she met the head of the research unit, Professor Misha Black, as well as Professor Bruce Archer, who would later be the mentor for her Master's Thesis. In her research, she focused on critically analysing and understanding the advantages and disadvantages of various hospital feeding schemes and eventually completed her Master's Degree at RCA with an expanded topic in 1973.

In 1966, after two professionally very successful years, she moved to Sheffield, where she taught the Basic Design class at the Sheffield College of Art (later Sheffield Hallam University's Department of Art and Design). A year later she began lecturing at the Faculty of Architectural Studies of the University of Sheffield. For the next ten years (1967–1977), she taught Drawing and Design, Design Research, and Interior and Industrial Design at the aforementioned department. She would occasionally act as a mentor for Master's Theses. Between 1973 and 1975, she also lectured at the renowned Architectural Association School of Architecture in London (AA), and in 1974, she took her students on a field trip to Slovenia, where they visited several partisan²¹ hospitals in order to study the quality of construction achievable in the most difficult conditions. At the same time, between January and September 1976,



The letter formally confirming Janja Lap's position at the RCA as a Research Fellow between October 1964 to July 1966 and as a postgraduate student between October 1971 and July 1973. She received her Master's degree on 6 July 1973. Ljubljana, kept by MAO.

²¹ In Slovenian history, Partisans formed the resistance to the occupying army during the Second World War in the 1941–1945 War of National Liberation.

she worked part-time as an architect and designer at the Sheffield-based architectural studio Richard Hemingway and Partners.

Her students remember her as strict in the pedagogical sense but also a warm-hearted and charismatic person. According to Monica Tweddell (née Schmoller), between 1967 and 1969, under the mentorship of Janja Lap, they designed a motorhome, or caravan, and a tray with eating utensils for an airline. But more than the formal relationship with the lecturer, her students fondly remember her friendliness toward them, along with the fact that she even welcomed them into her home. For example, she let Monica Tweddell and her fellow student Lesley Hanchet use her own apartment to celebrate their birthdays.²² While Janja Lap would later recall her work with English students as a time of fostering the best qualities that an individual carries within them (Ekar 1996: 13), Monica Tweddell cited as Janja's main take home message to her students the phrase "be freer."²³

Return to Slovenia After returning to Slovenia in October 1976, Janja Lap sought to continue her career in higher education. Her application for the recognition of her Master's degree and the numerous habilitation applications she submitted testify to this intention. Initially, she obtained the status of an independent artist – industrial designer (October 1976–September 1977). Then, until 1979, she worked as a research associate at the Institute of Sociology and Philosophy at the University of Ljubljana, where she collaborated on and conducted independent research on the social issues of housing. In April 1979, she joined the Iskra company, where she worked for the next ten years. After initially working at Iskra Commerce, she was transferred to Iskra Elektrooptika as an industrial designer. In addition to working on special optical, laser, and other functional devices she developed for Iskra, she maintained her love of glass throughout her professional career. After returning, she once again began exhibiting her work regularly and offering her ideas to potential clients.²⁴ With her persuasively incisive approach, she succeeded in creating commemorative glass cups for various Slovenian towns. Among other things, she

22 Written correspondence with Monica Tweddell, 18 April 2021 and 5 May 2021.

23 *Ibid.*

24 Illustrator Zagorka Simić, author of drawings of protected plants, said in an interview on 28 January 2023, that she had met only a few designers in her career who were as insightful and as successful in marketing their work as Janja Lap.

designed a commemorative cup and two wedding cups for the city of Celje, a commemorative cup for Radovljica, and the Flora series of cups.

Attesting to the excellence she exhibited during her long design career are articles in both domestic and foreign professional periodical publications (*Arhitekt, Domus, Sinteza*), her participation (and the praise received) at BIO exhibitions,²⁵ exhibitions at Podsreda Castle (1994, 1996) and in Radovljica (2000), her inclusion in the design collection of Die Neue Sammlung in Munich (1987), the glass collection at the National Museum of Slovenia in Ljubljana (1997), and, last but not least, the collection of the Museum of Architecture and Design.

Janja Lap's restless spirit would not settle down even after her retirement in 1989. That same year, on the basis of one of the last agreements with the Non-Aligned countries, she spent half a year in Iraq, where she taught the class Interior and Industrial Design at the Architectural Engineering Department of the University of Mosul (AS 1140 20/468 1989). After coming back, she continued to teach at the Pedagogical Academy (now Faculty of Education) of the University of Ljubljana as an associate lecturer until 2003. As part of the course Culture of the Living Environment – Residential, she lectured on topics that are still relevant today: knowledge of the ethnological heritage of residential houses, understanding the influences of the environment (e.g. climate), the use of natural materials, technology, and the economics of construction. She also emphasized the need to understand the socio-cultural factors that determine the purpose of living spaces and worked to raise awareness of the importance of interior design for people with special needs. In her lectures and seminars, she also discussed the functions of living spaces, ergonomics, differences between craft and industrial production, methods of analysis, and comparison and evaluation of elements of the living environment. She paid particular attention to understanding aesthetic values and to floorplans of residential houses or apartments in residential blocks, furniture design, and the use of colours and different materials in the interior design of living spaces (MAO AJL Lap (s. a.)e). From 1989 onwards, even before collaborating with the Pedagogical Academy, she was involved in the British Open University programme in Ljubljana (Open University, Milton Keynes, UK), where she served as the academic advisor for Slovenia.

25 She participated in BIO with her works in 1964, 1979, 1981, 1984, 1986, 1988, 1994, 1998, and 2002.

- 1- Kako si pridobivati prostorske predstavitve po spominu
- 2- Kako reproducirati kreativnost

I. Skupina

1. naloga - 10 študentov

Vodja: Po spominu narišite plan 10 minut stanovanja ali ene etaze, če želite v hiši.

Vrste vsa vrata, s tem, da narišete v katero smer se odpirajo. Vrata se odpirajo v prostor, ali iz prostora.

2. naloga: Čas je zlato. Narišite.

Vodja: ravnajte hitro in nenehno. Vsaka naloga traja 3 minute.

1. naloga: Design součinitv ožal

2. naloga: narišite plan - ^{Yes} kako za Bolsho prostora ~~praznovanje rojstnega dne~~

3. naloga: Skica otroke in drsalke v muzeju

4. naloga: Načrt in oprema motornega čolna za dve osebi in oprema

5. naloga: ^{v opremu} ~~koraj~~ ^{zabitno} za piknik za 2 osebi

- Vodja predstavi 5 najbolj hiter odgovorov
- Skupina se odloči: - Kako organizirati bratke časovno določeno oblikovalske vzpostavljene brainstorming

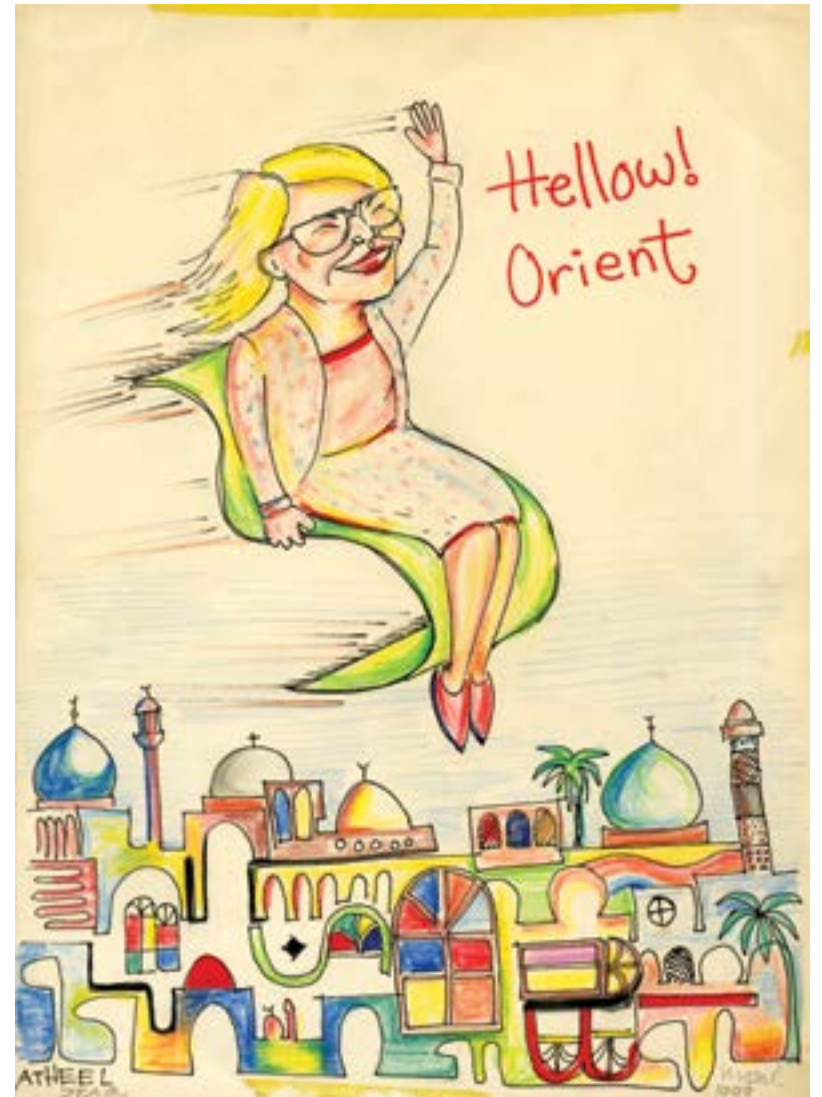


Illustration of Janja Lap on a flying carpet, Mosul, 1990. Ljubljana, kept by MAO.

Janja Lap, an example of a short exercise she conducted within the course Culture of the Living Environment - Residential at what was then the Pedagogical Academy of the University of Ljubljana. Ljubljana, kept by MAO.

A dense international web of interactions

Other than the assistance we received from the many well-known names, Slovenian or otherwise, that we have already mentioned, it was mainly Janja Lap's letters and postcards, as well as her planners and notes accompanying letters and plans, that were of the greatest help in uncovering the layers of her densely woven network of interactions and professional and personal exchanges. Where appropriate, we annotated and complemented their contents with valuable testimony from Janja Lap's acquaintances. Most of her associates recall her gregarious, ambitious nature, close ties to her family, and an undeniable charm that helped her form close bonds with the people around her. In addition to the letters she wrote to her family, her brief correspondence with architects Marta and France Ivanšek in 1954 and 1955 is also important for forming an understanding of her early professional network. The latter were both part of Edvard Ravnikar's inner circle.

Notably, the letters survive in the estates of both Janja Lap and the Ivanšeks,²⁶ giving us a rare glimpse of two-way communication. During their correspondence, the couple lived in Sweden, where they created a lively social hub for their Slovenian colleagues; remotely, they exchanged various professional materials and assignments, as well as personal favours—from photographing objects at Janez Kališnik's²⁷ to the long-term loan of a bicycle.²⁸ The Ivanšeks were keen to know what was happening in Ljubljana, being especially interested in the situation at the faculty; their colleagues in Ljubljana, on the other hand, were delighted to hear professional, fashion, and social news from Stockholm, a city renowned for advances in design and architecture. In one of her earlier letters,²⁹ Janja Lap describes a hard-working atmosphere at the faculty, with everyone busy working on internal competitions [pg. 46]. She is especially interested in a competition for a project in Mostar. Her professor's suggestion is to initially work with Mitja Jernejec, but by the end of the planning phase, Majda Dobra-

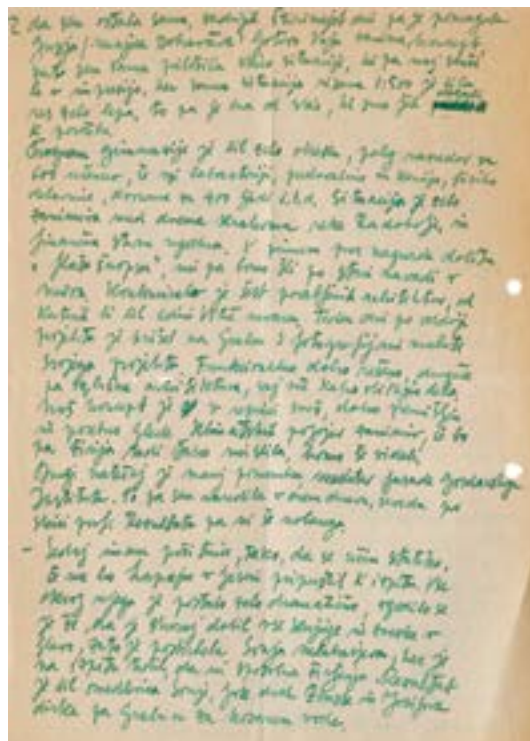
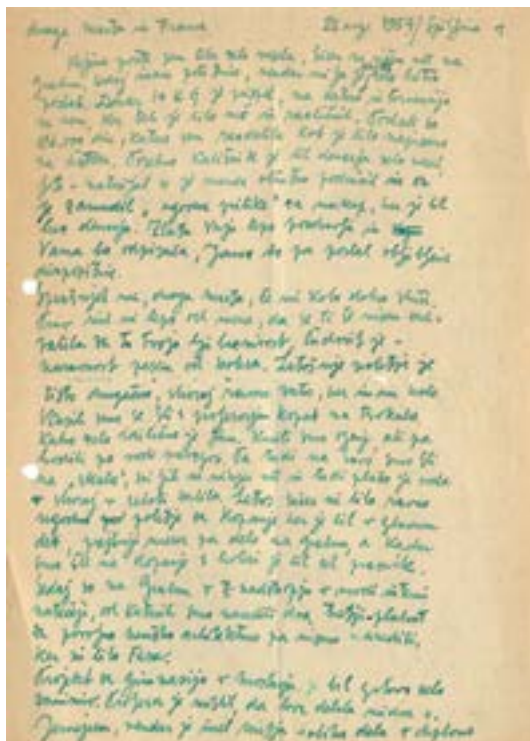
- 26 Two letters and a postcard by Janja Lap to the Ivanšeks and three letters from them to Janja Lap. The correspondence took place between 9 August 1954 and 21 April 1955. Kept by the France and Marta Ivanšek Foundation and MAO.
- 27 Photographer, television and film cameraman, and director of photography. He collaborated with all the prominent creators in the Slovenian media and received numerous prestigious awards for his work.
- 28 Letter from Janja Lap to the Ivanšek couple, 23 August 1954. Held by the France and Marta Ivanšek Foundation.
- 29 *Ibid.* Judging by Ivanšek's response (Stockholm, 16 September 1954), she lost the competition for the high school in Mostar. This did eventually become the topic of her Diploma Thesis.

vec-Gusja came to her assistance. The fact that a description of the competition along with a detailed draft drawing of the Mostar high school project were enclosed shows that some correspondence was also consultative in nature. Janja Lap's writing shows she was very confident about her plan and believed that only one of the six applications was potentially better than hers. She writes alternately in the first-person singular and first-person plural, which suggests she was the main author in the group planning process. There were at least three collaborators, as Professor Edvard Ravnikar was also involved in the work alongside Majda Dobravec. In the same letter, Janja Lap also mentions a "less important" competition project for the facade of the Forestry Institute, which she drew up on the basis of the professor's sketch "in a single day." In addition to her own projects, she also mentions what others were working on: Edo Mihevc "is working for Hajle [Haile Selassie]" in Addis Ababa, Gusja on the Museum of Modern Art and "the Old Man"³⁰ was working on a competition project for the Sarajevo parliament.³¹ In addition to chronicling what was happening at Graben, her correspondence with the Ivanšeks also reveals numerous details, such as the problems she was dealing with in Professor Svetko Lapajne's structural mechanics class.³² She also describes affectionate relationships with her colleagues and the professor, for example how they took bicycle trips to go bathing at Bokalce and Sava.³³

In the preserved planners we find, among other things, the names of photographers, designer colleagues, curators, and experts, both domestic and those from abroad, from different generations, and from various professional fields. One such acquaintance is illustrator Zagorka Simić, whom Janja Lap met at Iskra Commerce. In the warm atmosphere among colleagues, their professional collaboration grew into friendship. Zagorka Simić remembers Janja Lap as sociable and always full of energy. According to her, she was also very encouraging, especially to those younger than herself.³⁴

The contacts in her planner include the addresses of Erik Berglund, C. G. Boulogner, and Göste Sandberg, Swedish designers who taught the Colour and Form course in 1961 as part of the newly

- 30 Edvard Ravnikar.
- 31 A letter by Janja Lap to the Ivanšeks, 23 August 1954. Kept by the France and Marta Ivanšek Foundation.
- 32 A letter from France Ivanšek to Janja Lap, 27 December 1954. Kept by the France and Marta Ivanšek Foundation.
- 33 A letter by Janja Lap to the Ivanšeks, 23 August 1954. Kept by the France and Marta Ivanšek Foundation.
- 34 Interview with illustrator Zagorka Simić, 28 January 2022.



Letter from Janja Lap to the Ivanšeks, 23 August 1954. Ljubljana, kept by the France and Marta Ivanšek Foundation.



The last postcard from Janja Lap's correspondence with the Ivanšeks. A postcard from a spring ski trip were posted from Krvavec to Stockholm on 21 April 1955. Ljubljana, kept by the France and Marta Ivanšek Foundation.

established Design study programme at the Faculty of Architecture, Civil Engineering and Geodesy (B-course)³⁵. We also find the name and address of the renowned British industrial designer, silver-smith, and sculptor Brian Asquith (Rees 2008). While there is no direct evidence that they ever met, they certainly had many points in common. They were peers (there was only a year's difference in age between them), both studied at the RCA (Asquith in the late 1940s), and lived in or around Sheffield. Both had experience in designing public spaces and creating and situating sculptures within them. They were likewise both employed as designers for successful manufacturing companies during their careers, Asquith at Alessi and Janja Lap at Iskra. Although no evidence of possible collaboration with Asquith has survived, hints of collaboration with the internationally acclaimed South African architect Ora Joubert (Nelson Mandela University s. a.) can be found in correspondence. Janja Lap was making arrangements with her to come as a guest lecturer to the University of Natal and various other architecture schools in South Africa; as Ora Joubert explains in one of her letters, no specialized design schools existed there at the time.³⁶

Many of the names and contacts found in the planner and the various notes and pieces of correspondence were connected to Janja Lap's ongoing research or one of her special interests. This includes the aforementioned research into partisan hospitals. On a piece of letterhead stationery with the heading "Summer research project 1974 partisan hospitals in Slovenia," we find the name and contact details of psychiatrist Dr Matjaž Lunaček, son of gynaecologist and obstetrician Dr Pavel Lunaček, who "at the beginning of the Second World War, as a member of the medical committee of the Liberation Front of Ljubljana, led the collection and shipment of medical supplies for the partisans" (Rifelj et al. 2017: 7). He was also known for his key role in establishing the Slovenian Central Military-Partisan Hospital in Kočevski Rog (*ibid.*) and for "developing and introducing his concept of clandestine hospitals; the wounded, who would now be treated in hospitals outside the war zones, would no longer be a burden for the combat units" (Zupanič Slavec s. a.). In the same letter we also find the addresses of both partisan doctors and leaders of the Franja Partisan Hospital near Cerklje, Dr (Viktor) Volčjak and Dr Franja Bojc Bidovec (MAO AJL around 1974).

35 An experimental design programme initiated by Edvard Ravnikar and discontinued after two years, yet formative for a number of later prominent Slovenian designers.

36 Letter from Ora Joubert to Janja Lap, 18 September 1990. Kept by MAO.



From the family album.
Ljubljana, kept by Urša Petja
Mrevlje Lozar.



However, Janja Lap's contacts were not solely related to the field of design and architecture or her research. She had numerous acquaintances and friends, often prominent, socially engaged individuals. Among others, she was close friends with the art collector and famous London bookseller Agatha Sadler and her husband Charles Sadler (Delmar 2016). After her divorce from Robin Jeffs, she and her son Nikolai lived with them for a year.³⁷ After Janja Lap moved back to her homeland, they remained in contact, and at the end of 1990, when the political situation in Yugoslavia escalated, they invited her to return to Great Britain, telling her she was always welcome in their home.³⁸ According to her son, she was also good friends with Richard David Barnett, curator of the Department of Western Asiatic Antiquities at the British Museum.³⁹ Of her students, she remained in regular contact with Monica Tweddell. The many business cards and notes also include names of people with whom we have no evidence she maintained contact. On a piece of paper cut out from a notebook, for instance, we find the names Huda A. Aldahen and Neam B. Manona. Written next to the names is the address of the College of Engineering Mosul, Department of Architecture. As we learn in the radio programme *Spomini, pisma in potopisi* [Travels, Letters, and Travelogues], Huda A. Aldahen was an Iraqi assistant who spoke English and helped Janja communicate with other students throughout her stay in Mosul; Janja Lap remembered her fondly even after her return (RASLO 1993).

Inevitably, a significant portion of her work was influenced by her immediate and extended family. Attesting to the close family ties are the numerous letters and postcards exchanged between members of all generations of the Lap – Pollak – Jeffs – Mrevlje family. Social gatherings, which included vacations, celebrations, and mutual childcare, also led to the development of

³⁷ Interview with Nikolai David Jeffs, son of Janja Lap, 16 February 2022.

³⁸ Letter from Agatha and Charles Sadler to Janja Lap, 2 November 1990. Kept by MAO.

³⁹ Interview with Nikolai David Jeffs, son of Janja Lap, 16 February 2022.



intergenerational professional friendships. Colleagues and friends of her daughter, architect Darja Mrevlje Pollak, also socialized with Janja Lap. Among them were graphic designers Ranko Novak and Tomaž Kržišnik. The former, for instance, accompanied her to the ICSID Congress in Furuvik, Sweden. The latter hosted her in 1974, when she had stopped with her students on their way from the Franja Partisan Hospital to see the garden designed by Juta Krulc after Kržišnik's graphic proposal. The creative talent has been passed down through the family to subsequent generations. Janja's grandson, intermedia artist Jaša Mrevlje-Pollak (creating under the artistic pseudonym Jaša) recalls drawing "clowns" together (which would have been the cup *Myth in Glass*). Her granddaughter Neža Mrevlje is a journalist covering, among other things, culture, and the great-grandson Dan David Mrevlje Natlačen became an architect.

This overview is evidence enough that Janja Lap's transnational social network consisted of creative and ambitious individuals. She inherited from her family a social status that was, especially in architectural circles, associated with a certain gravity, specifically the father's reputation and his links to Plečnik. This was followed by Ravnikar's circle, but only for a short while: as far as design research is concerned, this particular milieu was soon replaced by her acquaintances at the RCA, who had far more significance on the global level. Looking back, it seems almost inconceivable that a female designer from a non-aligned country ended up studying, collaborating, researching, and going to dinner parties with such heavyweights as Misha Black, Bruce Archer, Robert Gooden, Tomás Maldonado, Peggy Guggenheim, Henry Moore, and David Hockney, to the point of making casual remarks in her letters describing, for example, Henry Moore as a pauper and Peggy Guggenheim as wearing a moth-eaten Napoleonic uniform.⁴⁰ Moreover, she was in Great Britain at a time when prominent figures were studying or lecturing there—names such as Umberto Eco, Keith Critchlow, Charles Jencks, and Zaha Hadid.⁴¹

The individuals who formed Janja Lap's social network indicate that she was one of the few Slovenian designers who could boast of being embedded, for a significant portion of her career, in a network of key players who were involved in pioneering scientific and systematic research in design in Great Britain. Despite

40 Neža Mrevlje's testimony on the basis of Darja Pollak Mrevlje's planner entries about the time her mother was at the RCA. 18 January 2023.
41 Written correspondence with graphic designer Ranko Novak, 30 March 2023.

that, she often failed to break through the gender-based prejudices in her efforts to achieve justified career advancement and recognition of her achievements. Her experience as an immigrant was certainly an important factor in her high level of emancipation; at the same time, we can find various indications throughout her career of sporadic disappointment, as, according to her son, she could be very direct in her communication.⁴² Most of her acquaintances, encounters, and friendships were formed on the basis of shared values and goals within the context of her practice and with a clear influence of the spatial and temporal dynamics. There were two exceptions. The only person from Ravnikar's circle with whom she remained in contact in her later years was the architect Savin Sever.⁴³ They met while they were both students and ended up collaborating on the design of OLO Kranj and the Kanarček (Canary) building in Ljubljana.⁴⁴ She was especially fond of the designer Romana (Nana) Lesnika, however. In 1964, they participated at the 1st Biennial of Industrial Design (BIO 1) as co-authors of a printed fabric pattern and remained close friends until Janja's death on 9 January 2004.



Janja Lap and Romana (Nana) Lesnika, 1960s. Ljubljana, kept by Urša Petja Mrevlje Lozar.

42 Interview with Nikolai David Jeffs, son of Janja Lap, 27 May 2022.

43 *Ibid.*, 16 February 2022.

44 The building of the Ljubljana newspaper *Dnevnik*, nicknamed after its vivid yellow facade.

In a text titled *Nova stekla Janje Lap* [*New Glass Pieces by Janja Lap*] to accompany the start of her glass design career, Edvard Ravnikar wrote the following:

That one of our compatriots would try the fickle luck and devote the bulk of her creative efforts to this fragile world, one that for thousands of years has been a noble guest of the most intimate corners of man's realm, seems at first glance to be an unlikely development—yet is so much more exhilarating for it. We are well aware how important it would be for our culture if someone were to come forward who would be willing to devote all their will and all their abilities to becoming our first *opifex artis vitrae* (Ravnikar 1966: 64).

Glass design, while not the sole focus of Janja Lap's rich and diverse career, nevertheless represents the bulk of her creative output. It could be said to have been the only true constant throughout her professional life. Despite numerous accolades, these are five decades of in-depth research in glass that have never been systematically examined until now. Discussion of her work has been limited to mentions of individual pieces or selected series, most often in the form of short presentation texts in exhibition catalogues, and occasionally in various daily publications, in the form of interviews or in short descriptions and statements to mark

OPIFEX
ARTIS
VITRAE

OPIFEX
ARTIS
VITRAE



Janja Lap in front of a showcase of glass products, 1990s, photo: Roman Šipić. Ljubljana, kept by MAO.

the most important of her international and domestic achievements, presentations and awards (Vidmajer 1991; Spominski park 1994; Rataj 2000; Senčar 2000).

One of the reasons for this sparse coverage was certainly the lack of access to the entirety of her archive. It was only through a deep dive into archival material over the last two years that a massive, albeit still incompletely preserved—according to the lists of her works compiled thus far—collection of Janja Lap's glass works was revealed. Most of the missing works are early pieces she created as a young architect at the beginning of her design career. Evidence of these works exists in photographs of some of the products and in the detailed lists she kept and regularly updated throughout her career.⁴⁵

The crucial turning point in her glass design career was undoubtedly her relocation to London in 1964. Her introduction to glass as a medium, however, had already occurred during her studies. In 1956, she exhibited her first glass and ceramic pieces at the *Housing for Our Conditions* exhibition, thereby establishing herself on an equal footing with other active designers of both genders whose work paved the way for the emerging field of industrial design. Further professional development and her first experiments in glass design followed during her time teaching at the Ljubljana School of Arts and Crafts.⁴⁶

Among the results of her experimentation with glassmaking techniques, and investigation of stacking glass cups by the Finnish designer Saara Hopea,⁴⁷ were the plans for a set of glass vessels *Zloženske* [*Stackable*] [pg. 56] which she co-authored with Milena

⁴⁵ Preserved in Janja Lap's archive are a number of detailed biographical and bibliographical lists of architectural and design works, titles of research studies, awards, and publications. Due to frequent relocations, applications for scholarships and research grants, and relatively frequent job changes, cataloguing her achievements was one of the few constants in her life. The documents survive in the form of typescripts (with handwritten additions by the author). Kept by MAO.

⁴⁶ The school was founded in 1946. Established by decree by the Ministry of Education of the Federal People's Republic of Yugoslavia, led by Minister Lidija Šentjerc, as the Ljubljana School of Arts and Crafts. The decree stipulated that it was to educate and train the pupils in the independent production of various handicrafts. The school soon became a springboard for anyone wishing to pursue a career in the arts and design. Still in operation today, the school is now known as Secondary School of Design and Photography.

⁴⁷ The glass cups were designed by Saara Hopea in the 1950s and won an award at the 1954 Milan Triennial.

56 Letnar.⁴⁸ The hand-blown vessels, made at the Rogaška Slatina Glassmaking School out of thin smoked glass,⁴⁹ earned the designers an honourable mention at the 1st Biennial of Industrial Design in 1964.⁵⁰ Exhibited at the same Biennial were glass cups formed from a glass tube that Janja Lap co-designed together with Jelka Intihar. Both co-authors were Janja's pupils at the time the pieces were designed, demonstrating that she conveyed various glass-making techniques to her students through practice and real-world application.



Janja Lap and Milena Letnar, glass vessel set *Zloženske [Stackable]*, 1964, hand-blown glass, photo: Zlata and Janez Kališnik.



Janja Lap and Jelka Intihar, glass cups, 1964, formed from a glass tube, photo: Zlata and Janez Kališnik.

- 48 In the 1963/1964 school year, Milena (Magdalena) Letnar was a pupil of the 4. a class at what was then the Ljubljana School of Arts and Crafts. At that time, Janja Lap taught the Design and Engineering class at the school. SI ZAL, LJU/0366, Šola za oblikovanje Ljubljana, TE 7, PE 143.
- 49 Janja Lap's correspondence with the curator Matija Murko. Memo on selecting works and authoring description texts for the accompanying exhibition to BIO 11, titled *BIO 1–10, Usoda oblikovanja [BIO 1–10: The Destiny of Design]* (IDCO). Kept by MAO AJL, memo No 369.86.MM, 23 July 1986.
- 50 The Biennial of Industrial Design (BIO) was officially established in the autumn of 1963 at the initiative of the Ljubljana City Council, the Chamber of Commerce of the Socialist Republic of Slovenia and various professional associations. It was to be a bi-annual comparative exhibition showcasing Yugoslav and foreign achievements in the field of industrial design. BIO was, alongside the Milan Triennial, one of the foremost European design events in the 1960s and the first biennial of its kind globally.

After arriving in London, Janja Lap joined the research team of the Department of Industrial Glass at the Royal College of Art (RCA). She devoted the first year of her stay in Great Britain to investigating the optimal possibilities of blown and pressed glass, as well as glass surface preparation, under the mentorship of Robert Goodden, an expert in metalwork and glass forming. Goodden, whose work would later earn him the title of Master of the Royal Designers for Industry, is still regarded today as one of the key figures responsible for the resurgence of British design in the post-war period. Among his contributions to the field of glass is *Spiderweb*, a pressed glass set he designed between 1944 and 1949 for Chance Brothers and Company. Lesley Jackson, a curator and historian specializing in twentieth-century design, observed that, with its modern shape—ribbed, angular, and clean—the set was the most progressive of the glass sets mass-produced by the company at that time (Jackson 1996: 26).

After leaving the RCA to take up a lectureship at the University of Sheffield, Janja Lap lost direct contact with the field of glass manufacturing and, with it, the opportunity to work in glass design. In her case, however, she continued to sketch new potential products even when she lacked the opportunity to manufacture them. Moreover, her research into glass would later inform her industrial design and architectural work:

Repetition of specific forms does not stem from a conscious decision. Such a pattern can only be discerned after years of work, as projects from various fields of design accumulate. The personal artistic references are in all likelihood the same, or at least applicable, even if the materials and applications differ. For example:

- Sales kiosk MB
- Single-family home in Oxford

[...] While the house project dates to 1977, similar geometrical shapes were already prefigured in 1965 in glass (MAO AJL Lap (s. a.)b: 4–5).

Janja Lap's dedication to glass design is also evident in her extensive collection of books on the subject. The just under thirty volumes on the history and design of glass that she had collected over the years were donated to the MAO library by her son Nikolai Jeffs. Among them is the book *Pohorske steklarne [The Pohorje Glassworks]* by Franc Minařik, which her father gave to her a year after its publication.

Glass Design and the Context of Time

According to Lenka Bajželj, the main influence on glass design in Slovenia in the 1950s and 1960s was the so-called Scandinavian boom⁵¹ (Bajželj 1996: 36). Its protagonists were the

designers Kaj Franck, Saara Hopea, Tapio Wirkkala, and Timo Sarpaneva. They were known for creating extremely innovative, functional, and artistically refined glass designs that were accessible to a broad public. One of the ways in which they built their international reputation was by experimenting with new, often unique, techniques, both in the field of design and in the production of glass products (Koivisto 1998: 129). Lenka Bajželj notes, however, that despite these high-quality influences, the ambitious efforts by Slovenian designers—some of whom even received awards for their glass products at the Biennial of Industrial Design (for instance Živa Baraga – Moškon, Niko Kralj, Janja Lap, Milena Letnar; Franc Papež)—“with rare exceptions, failed to find their way to the store shelves. [...] It was only in the late 1980s that a conscious shift⁵² in the glass industry could be observed” (Bajželj 1996: 36).

The lack of opportunities to market good design was also reflected in the pattern of development of glassworks during the years of the socialist economy. Generations of designers, bound to individual glassworks through various forms of employment, were often required to work in accordance with production capacities and were not permitted to deviate significantly from the tastes of the average consumer. As a consequence, in the latter half of the twentieth century, the only factories to achieve high sales volumes were those producing the “essential programme”, a range of products that included, for example, furniture and household appliances, but not glass. For this reason, glass designers were frequently overlooked, despite the high regard for their work since the 1960s. There were prominent creators, such as Dana and Ljubica Kočica, Slavko Marcen, and Ferdo Pak, who never achieved international renown despite regularly participating in exhibitions. At times, they exhibited at the BIO with series specially created for the occasion; for example, Tihomir Tomić’s set BIO 12 received an honourable mention at the event in 1988.

51 It should be emphasized that the influence of Scandinavian design was evident in all areas of Slovenian design, not just in glass. This was, in part, due to the efforts of the Ivanšeks, a couple who worked in Sweden and who, together with Swedish experts, organized the course *Barva in oblika* [Colour and Form] for the students of design (then known as the B-course) in 1961 (e.g. Dolenc 2007: 266–287).

52 We will show in the following that Janja Lap clearly recognized and took advantage of this shift in the glass industry.

At the end of the 1980s and in the first half of the 1990s, certain individuals began to express the view that, given its economic strength and rich tradition, glassmaking should have its own museum-study and promotional centre within the then Trebče Memorial Park (later Kozjansko Park). According to Jože Rataj,⁵³ the initiators of the idea included the retired curator Milena Moškon, director of the Dekor company in Kozje, Jože Božiček, director of the Trebče Memorial Park, Franci Zidar, and the highly committed Janja Lap, with Rataj himself occasionally participating in the discussions. He further explained that the basis for these ambitious plans was the (unfinished) glass-melting furnace in the northern keep of Podsreda Castle. In addition to a gallery of contemporary glassmaking and a national glass museum, the proponents also considered organizing symposia on glass design and hosting visiting artists. Initial efforts focused mostly on exhibitions.

In 1989, the renovated basement of the northern keep housed the inaugural museum glass collection, which continued to expand thereafter. This was followed in 1994 by an exhibition of glass by Janja Lap *Plemiči stekla na gradu Podsreda* [The Noblemen of Glass at Podsreda Castle] (Lap 1994), the first solo exhibition presenting the work of an individual glass designer, and, two years later by the international exhibition *Evropsko uporabno steklo* [European Glass in Use] (Rataj et al. 1996). Despite the best efforts of those involved, Rataj later recalled that hopes for the centre were quickly dashed, “as neither the glass industry nor the local community had a clear idea as to how the whole thing would be financed, who would manage it, and how to provide the staff and other capacities for the glassmaking centre, including accommodation for the participating artists”.⁵⁴ A letter to Franci Zidar reveals that Janja Lap also saw the centre as having the potential to implement and produce her own ideas,⁵⁵ as well as those of other interested glass designers outside the glass industry.

This clearly shows another distinction between “in-house” designers employed by glassworks and the “external” designers. The latter enjoyed greater freedom to experiment with technique and form, but they also had to negotiate their inclusion in the production programme, as well as their fees, on each occasion.⁵⁶

53 Correspondence between Špela Šubic and Jože Rataj, curator and museum councillor at the Regional Museum of Celje, 9 February 2023.

54 *Ibid.*

55 Draft memos dated 22 January and 28 January 1996. Kept by MAO AJL.

56 This is evidenced by draft letters from Janja Lap to the directors of glassworks. Kept by MAO AJL.

In-house designers, by contrast, were bound by technical and normative frameworks. As glass designer Nina Malovrh put it, the external designer comes to the glassworks unburdened, with their idea on paper, and proposes a product. The in-house designers must then make it feasible.⁵⁷ As a result, the designers employed within glassworks often had much larger portfolios, but they often remained anonymous and their talent underappreciated. In addition to adapting to the technical requirements of mass production, they were creatively constrained by the suggestions of their superiors, mostly sales personnel, who for the most part lacked any education in the fine arts and whose primary criterion was to satisfy customers and the general public (Novak 2003: [47–53]).

External designers, by contrast, typically signed off on products manufactured in small batches, which were often presented and promoted more effectively to the public, in most cases entirely through the designers' own efforts. One such designer was Janja Lap, who, according to her acquaintances and colleagues,⁵⁸ was highly adept at presenting her work not only to the public, but also to key individuals in production. That is, of course, not to suggest that her success was not merely a matter of effective promotion, as her technical knowledge was fully comparable with that of in-house designers. As discussed below, she acquired her initial knowledge at what was then the Boris Kidrič Glassworks in Rogaška Slatina⁵⁹ (now the Rogaška Glassworks) during her studies in the mid-1950s, knowledge she would later develop in the well-equipped glassblowing workshops at the RCA. This combination is what set her apart throughout her career. Although she was not constantly involved in production, she was able to create products that were a direct reflection of her own design ethos. In other words, as a designer, she consciously sought to depart from the approaches of her contemporaries.

57 Interview with the glass designer Nina Malovrh, 30 June 2021.

58 This was mentioned by, among others, Zagorka Simić, Jože Rataj, and her son Nikolai Jeffs.

59 On 1 July 1947, the factory began operating as the Slovenian Glass Factory in Rogaška Slatina. In 1953, it was renamed to the Boris Kidrič Glassworks in Rogaška Slatina (Rataj and Vrečar 2017: 32). In our text, we will use the name that appears most often in Janja Lap's documentation, namely the Rogaška Slatina Glassworks.

Master of Glass

By Janja Lap's own account, glass had already fascinated her during her architectural studies. She spent fourteen days at the Rogaška Slatina Glassworks at her own request. Peter Ogrin's notes suggest that it was there that she gained her first practical experience—it emerged “from conversations in the grinding shop; her first sketches were drawn on machine housings with water trickling over the grinding stones” (Ogrin 1994: 12). At the same time, her designs were initially heavily influenced by modernism, as she sought “forms that are based on functionality.” She elaborates further: “It is the detailed analysis of functionality and the technological process that leads us towards simple forms, which prioritise the purpose of the vessel to maximise its utility, while being much less susceptible to changes in taste in the aesthetic sense” (Lap 1956: 199). During her research and experimentation with the material, her design approach shifted several times, which is why her professional work in the field of glass design may be divided into four periods and thematic clusters:

- 1) Early Period – Training and Formation (1956–1964)
- 2) Research Period in London and Sheffield (1964–1977)
- 3) Iskra Period (1979–1989)
- 4) Post-retirement Period (1990–2004)

Below, her principal works in glass are listed for each period. All of them were produced in at least small batches. The highlighted works represent the most typical pieces from each period. A selected product may stand out for its distinctive character, visual expression, technique, experimentation or, in some cases, atypical collaboration. Particular attention is paid to the short passages in which the author highlights the advantages of a specific product in her own words. Her statements are compared and contrasted with expert interpretations—where available—in reference to domestic and international norms. Where the same product appears under several names, all variants encountered during the research are listed. The year of creation is indicated as recorded by the author herself under the plans or sketches; this does not always correspond to the year of production (which is often not specified).

Early Period – Training and Formation (1956–1964)

Marking the formal entry of architect and designer Janja Lap into the field of glass design was the previously mentioned exhibition *Housing for Our Conditions* from

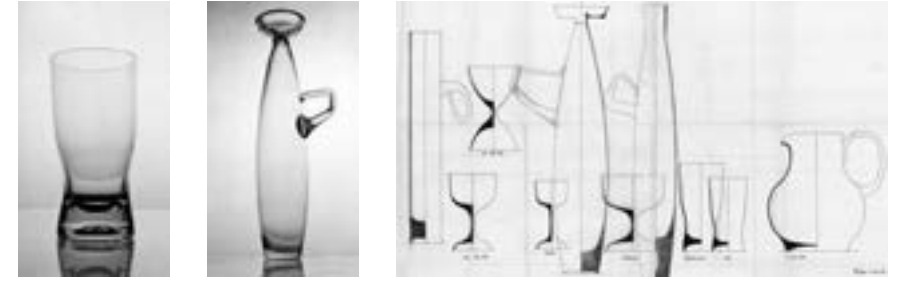
1956. While still a student of architecture and an external collaborator at the Central Institute for the Advancement of Households, she designed her first glass products, along with a set of porcelain tableware, for this exhibition. In an article she wrote about her products for the journal *Sodobno gospodinjstvo* [*The Modern Household*], she emphasized the importance of tableware in the overall furnishing of the home, and so became one of a small group of critical writers focusing on Slovenian design (Lap 1956: 199–201). It is worth noting that she gained experience working with major industrial production plants as early as the 1950s, designing for the Rogaška Slatina Glassworks and the Keramika Liboje factory.

Before leaving for London, Janja Lap designed or co-designed the following glass, porcelain, and ceramic products: a glassware set/glass cups and a vase for the exhibition *Housing for Our Conditions* (1956), ceramic tableware (1956–1957), porcelain vessels *Series II* (1960), water and wine jugs *Tamar* (1962), glass cups (co-designed with Jelka Intihar, 1964 or earlier) and the glass vessel set *Zloženske* [*Stackable*] (co-designed with Milena Letnar, 1964). This clearly demonstrates her affinity for glass, so it is no surprise that, after arriving in London, she devoted her first year of design research to studying this material.

A GLASSWARE SET/GLASS CUPS AND A VASE FOR THE EXHIBITION *HOUSING FOR OUR CONDITIONS*

The glassware set consists of glass cups and a vase,⁶⁰ blown into a circular mould, with their symmetrical silhouette shaped by modelling on a rotating blowpipe. To ensure a secure grip, the thick-bottomed glass cups first taper inwards and then flare outwards towards the rim. In the case of the vase, a handle is added subsequently. The products are intended for general use and, based on the photographs, their capacity may be estimated at no more than 3 dl. This being the designer's first foray into glass design, the items appear to reflect a certain apprehension about the glassmaking process on her part. She confined her ideas to the level of design and did not interfere directly with the glassblower's work. Even so, the final products are far from lacking in originality—on the contrary, they represent an excellent starting point for the exploration of forms that Janja Lap would elaborate upon later in her design career with bolder technical experimentation with the material.

60 Only a few sketches and photographs survive of these works. Kept by MAO.



Janja Lap, a glassware set/glass cups and a vase created for the exhibition *Housing for Our Conditions*, 1956, produced at the Rogaška Slatina Glassworks, photo: Vladimir Braco Mušič.

Janja Lap, glassware set, 1956, sketch on tracing paper. Ljubljana, kept by MAO.

CERAMIC AND PORCELAIN TABLEWARE

The ceramic and porcelain vessels⁶¹ were produced for the purposes of the *Housing for Our Conditions* exhibition at the ceramics factory in Liboje. A year later, Janja Lap would design additional tableware and dining sets for the same producer.⁶² In her work, she drew on contemporary German porcelain with its “simple but highly practical forms” (Lap 1956: 201), while offering a critical observation that the bowls available on the domestic market were not entirely fit for purpose. She had in mind the various ribbed bowls, which were “harder to clean than smooth bowls without edges and profiles” (*ibid.*: 199). Her own designs were, accordingly, the polar opposite of existing products. Perfected down to the last detail, the serving bowls and plates are entirely devoid of any decoration, with everything subordinated to the utility and technical refinement of the product. Or, as the author wrote under the product photos: “A series of dishes, including various plates and serving bowls. The dishes are smooth, made out of locally sourced ceramics, which also makes them inexpensive” (*ibid.*: 200).

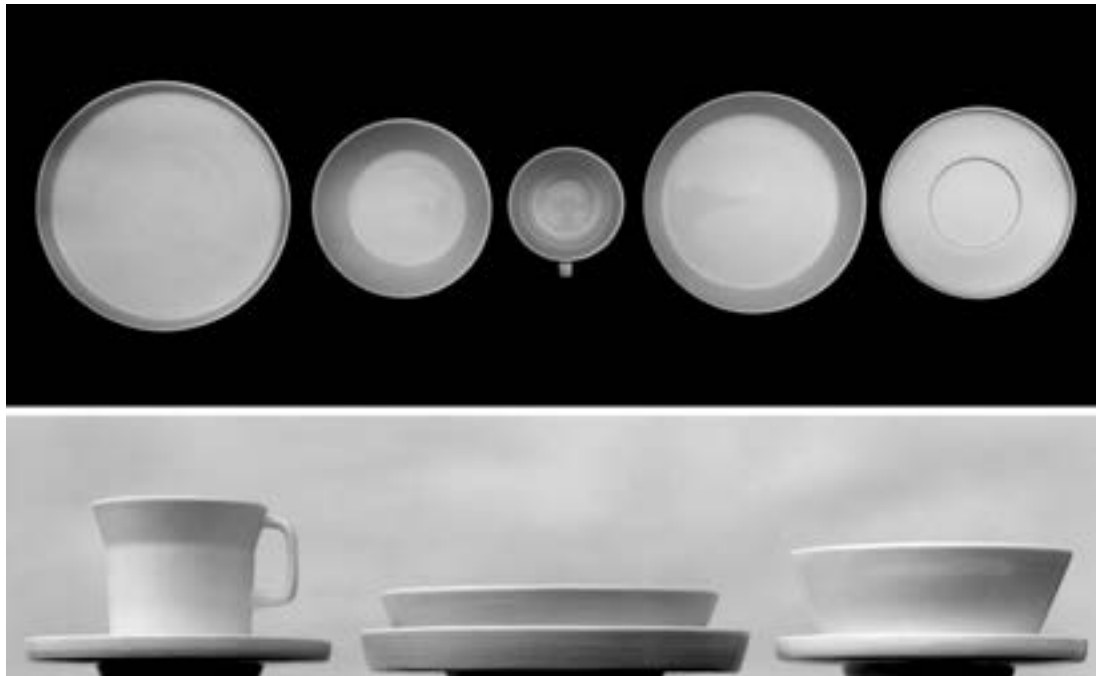
In the journal *Sodobno gospodinjstvo*, Janja Lap also mentioned that in Bosnia and Herzegovina, a large series of the porcelain dishes sold out immediately (*ibid.*: 201). This confirms that at least the second series entered mass-production and extended beyond the initial exhibition prototypes. She concluded the article with a critical observation, noting that, unlike Bosnian retailers, Slovenian retailers were still reluctant to stock such products, “even though there is already evidence that our consumers would buy them too if they were available at reasonable prices” (*ibid.*).

61 Only photographs and the design draft remain of the series. Kept by MAO.

62 After this collaboration, she would no longer work with porcelain and ceramics.



Janja Lap, from the article “Domača uporabna keramika in porcelan” [“Household ceramics and porcelain”], *Sodobno gospodinjstvo*, 1956, photo: Vladimir Mušič in Pfeifer. Ljubljana, kept by MAO.



Janja Lap, porcelain vessels *Serija II*, 1960, also shown at the Society of Applied Artists of Slovenia exhibition in the Museum of Modern Art 1961; produced at the Keramika Liboje factory, photo: Janez Kališnik. Ljubljana, kept by MAO.

WATER AND WINE JUGS TAMAR

The larger and smaller jugs are almost identical in shape, yet each has a character of its own, determined by the proportions of the narrowing and the form of the spout. The smaller jug, unlike the larger one, does not have a handle. It is clear that the designer deliberately eliminated what might otherwise have been a purely decorative feature. The narrowed section of the smaller jug, which (even when full) is considerably lighter than the larger one, is entirely sufficient to ensure easy handling.

In the next phase of exploration, the idea of a handle-free jug was developed further, culminating in the *Gubanka* [pg. 68] set consisting of several water jugs and a drinking glass. In these, the only grip-enhancing features left are four slight indentations shaped to resemble impressions formed by fingers. Through these two series, the designer demonstrated her command of the discipline, as well as her adherence to the modernist language in vogue at the time, from which she would gradually move away in her more mature period of glass design. According to the information available thus far, only prototypes were produced. These were exhibited, together with a series of serving and dining dishes, as part of a tableware set by Janja Lap at the exhibition *Pogrjnena miza* [Table is Ready].⁶³



Janja Lap, water and wine jugs *Tamar*, 1962, produced at the Rogaška Slatina Glassworks, photo: Miran Kambič. Celje, kept by the Celje Regional Museum.

Janja Lap, water and wine jug *Tamar* at the 1962 exhibition *Pogrjnena miza* [Table is Ready], photo: France Ivanšek. Ljubljana, kept by France and Marta Ivanšek Foundation.

⁶³ The exhibition took place in the meeting room of Nebotičnik [the Skyscraper] in December 1962.

Research Period in London and Sheffield (1964–1977)

Janja Lap's early research period was marked primarily by experimentation at the Royal College of Art in London (1964–1966). Moving to Great Britain

was extremely liberating for her in both a personal and a professional sense. She moved from the cramped school workshops at the Ljubljana School of Arts and Crafts to the seventh floor of the RCA, where a mere five students in total had access to three kilns, a master glassmaker, and a glassmaker's assistant (Ogrin 1994: 12). Whereas in the first phase, her research remained closely aligned with the functionalist modernist dogma, her time in London in the mid-1960s proved much freer and more conducive to research that went beyond mere functionality (Senčar 2000: 7).

A similar trend—the introduction of decoration into the design of glass products—could also be observed in Finnish design at the same time. Until the end of the 1960s, protectionist policies left no foreign competition on the Finnish market, which in practice allowed much greater freedom to experiment in design⁶⁴ (Koivisto 1998: 130). Despite these closed domestic markets, Scandinavian design became the dominant style far beyond national borders. In the United Kingdom, much like in Slovenia, Scandinavian and Italian designers were recognized as the leaders in glass design at that time. Among British companies, only Whitefriars Glassworks (V&A 1997) was able to successfully compete on the international market, thanks to exceptionally creative experimentation with various techniques and organic forms under the artistic direction of William J. Wilson. Nevertheless, the drive and desire to set new standards were already omnipresent at the RCA under the aforementioned mentorship of Robert Goodden.

Janja Lap made good use of the opportunity to research and experiment at the RCA in London. As she began her practice, she

64 It is important to note that Finland, as part of its post-war recovery, when production was primarily focused on debt repayment, actively incorporated design into the process; this led, however, to a distinction developing between so-called in-house designers and external “stars”. In-house designers were responsible for everyday glassware, while external designers created individual pieces (which would often become internationally renowned). Similar to Slovenia, Finland also organized numerous exhibitions with the aim of popularizing contemporary design. In 1949, Finland hosted the exhibition *The Beauty of Everyday* (comparable to *Housing for Our Conditions*), and in 1955, the Nordic design exhibition *H-55* took place in Sweden. Through regular education of its citizens about the techniques and characteristics of glass products, Finland, unlike Slovenia, cultivated a population of discerning consumers with an appreciation for well-designed products.

immediately began experimenting with blowing, grinding, and engraving (Senčar 2000: 7). As she wrote in *Oblikovalska izhodišča* [*Design Starting Points*], her overriding interest lay in blown and cast glass, and in the surface treatment of this material.

The characteristic element of form in blown glass is a glass balloon – a specific form that can be lengthened, shortened, narrowed or widened, but the basic cross section always remains circular. This technique manifests in stringing together glass “balloons” that are connected with cylindrical segments of various dimensions. We can therefore say that, in principle, we have two basic shapes to work with in blown glass that can be treated independently in terms of design, which, in combination, offer a whole range of design solutions, from functional to decorative (MAO AJL Lap (s. a.):b: 2–3).

This is most clearly evident in her research, which resulted in the creation of bottles that we (the authors of this text) provisionally named simply “Balloons” (probably 1964). While these works still show a clear inspiration in the 1954 work *Ateenan aamu* by the designer Kaj Franck, her other works created during her research at the RCA demonstrate the designer's exceptionally innovative and exploratory spirit. It was, moreover, during this period that she produced works that are still regarded as examples of bold design: a decanter and two shot glasses for spirits (1964), water jugs and a drinking glass *Gubanka* (1964), the vase *Kvadrat* [*Square*] (1965), the vase *Plamen* [*Flame*] (1965), and the vases *Predivanje* [*Overlapping*] (1965). The Sheffield period (1966–1977), on the other hand, was marked primarily by sketches, plans, and sporadically realised works, such as the glass vessels *Oblaki* [*Clouds*] (1970), the glass models she designed in collaboration with Gruppe 21 from Hamburg for the Table 1980 competition (1970), and the bottle and glass cup set *Sheffield* (1975).

WATER JUGS AND DRINKING GLASS GUBANKA

While Janja Lap's early works were considered transformations of well-known reference works, *Gubanka* “expresses ideas that show an apparent break with tradition and have no direct predecessors” (de Garcias and Jeffs in Ravnikar 1966: 64). As Betty de Garcias and Robin Jeffs observed, this is not the easiest thing to achieve when working with glass; being such a well-known material, it can be challenging to find a “new approach or way of designing it that is suitable for our current needs” (*ibid.*). The designer accomplished this with her series of jugs with an accompanying cup, named *Gubanka*.

Through a subtle, seemingly minimal intervention in the form, she created a deliberate indentation, or crease (*guba*), which brought a breath of fresh air to design. When viewed, the indentation reads like an impression left by the designer's hand on the organically shaped material, while also serving to provide the user with a better grip when decanting. *Gubanka* embodies the naturalness of the organic form, giving the impression that it was shaped by hand from clay rather than being the meticulously designed product of a complex glassblowing process. Edvard Ravnikar offered an enthusiastic assessment: "There are no less important parts, showing the simplicity of form in this water jug and drinking glass set. Each part flows freely into the next, creating a smooth silhouette and conveying a sense of sympathy between the vessel and its contents" (*ibid.*: 62).



Janja Lap, water jugs with drinking glass *Gubanka*, 1964, clear blown glass, h: 10.2 cm, ø: 7.8 cm (glass cup), made at the RCA, London. Ljubljana, kept by NMS.

VASE KVADRAT

The vase *Kvadrat* [Square] was created under a brief assignment that involved analysing geometric shapes in combination with visual elements. Contrary to established glass design practice, (which typically relies on spheres or cylinders), the designer took as her starting point a square, which she then divided into smaller squares, as can be seen from the

manuscript containing the sketch. By altering the position, in plain view, of the two smaller squares within the larger one, she was able to create multiple basic variations of the modern vase. The essence of the work therefore lay in the exploration of different possibilities of artistic expression, which, during the process, led her to "interesting questions regarding the differences between formal qualities created from the same building blocks by merely changing their spatial relationships" (MAO AJL Lap (s. a.) b: 3).

In her artistic exploration, the artist also made sure to account for technical limitations. The vase was produced by blowing into a mould whose shape prevented the mass at the end of the blowpipe



Janja Lap, vase *Kvadrat*, 1965, glass blown into a metal mould, brushed and polished sides, h: 18 cm, w: 13 cm, l: 19 cm, made at the RCA, London. Photo: Tomaž Lauko. Ljubljana, kept by MAO.



Janja Lap, drawings and notes, 1965, pencil and felt-tip pen, h: 21 cm, w: 29.7 cm. Ljubljana, kept by MAO.

from rotating. In cases where the vessels were more intricate in terms of their footprint, Janja Lap sought ways to achieve uniform and appropriate wall thickness, as required to attain the desired final form and stability of the vase. Her skill in designing by re-exploring familiar, basic geometric forms led her to create designs that can definitely be said to have stood the test of time. At the same time, she anticipated from the outset the emphasis on smooth exterior walls and the possibility of adapting the colour of the glass to contemporary trends. In addition to the colourless version, the vase was also produced in dark blue glass.

VASE PLAMEN

The vase *Plamen* [*Flame*] represents the designer's response to the revival and exploration of glass decoration, where she set out to find a way to break down the geometric form. Similar experiments, undertaken in the service of exploring modern decoration, were pursued by Finnish designers such as Tapio Wirkkala and Timo Sarpaneva. Both sought ways to recreate the texture of ice on the external surface of the glass. Sarpaneva went a step further in his research; roughly contemporaneously with Janja Lap, he endeavoured to find a way to create the appearance of spontaneity on the external surface of the glass. He achieved this effect by allowing the wooden mould in which the glass was blown to smoulder, producing the appearance of ice crystals (Koivisto 1998: 147).

At roughly the same time, Janja Lap approached the experiment somewhat differently. In the text *Design Starting Points* she describes what she set out to do with the vase:

The surface treatment of the glass is intended to optimise its sheen and the refraction of light. Conventional techniques such as grinding, etching, or engraving are craft techniques that depend on the manual skills of the individual grinder, and they especially tend to appear profane when used in poorly conceived ornamental designs. The industrial designer is thus left with the question of how to make full use of the specific properties of this material. After several experiments, I began to apply the idea of using an “uncontrolled”, or “random”, process to form the exterior surface texture: I lined the internal surface of a negative mould with pieces of old, nearly perished wood. As the hot molten glass floods the surface of the wood, the soft spots burn off more than the harder spots do. The final texture emerges as a result of this contact between two different materials under specific technological conditions (MAO AJL Lap (s. a.):b: 3–4).

She therefore exploited the technical characteristics of a process that had taken millennia to master, but in reverse. Whereas, in the past, a wooden mould that was too burnt would have been considered defective and this disposed of and replaced, a sacrificial layer of particularly sensitive wood was now deliberately inserted, allowing the designer to capture forever the texture of the surface as it steadily burned away.



Janja Lap, vase *Plamen*, 1965, clear glass, blown into a metal mould lined with thin strips of old, weathered wood, h: 18 cm, w: 12.5 cm, l: 14 cm, produced at the RCA, London. Ljubljana, kept by MAO.

Following her return to Slovenia, several additional pieces were moulded at the Rogaška Slatina Glassmaking School employing the same principle. The designer noted at the time that here, unlike in London, the wood inserted into the metal model consisted of *gorenjske škodle*—roof tiles made out of larch wood, traditional to the Gorenjska region (MAO AJL Lap (s. a.):b: 3–4). This was also, in all likelihood, the process used to produce the two versions of the vase *Bogatenje* [*Enrichment*], dating to 2001. Unlike the *Plamen* vase, these two differ in height and have two smooth sides, with the ornamentation limited to the wider “showcase” sides.

Iskra Period (1979–1989) Her enormously productive stay in London was followed by a ten-year period in Sheffield, during which she lacked access to glassmaking workshops. She devoted her time to writing her Master's thesis, conducting in-depth research in systems design,⁶⁵ and engaging in pedagogical work. Yet, despite the limited opportunities to practice glass design during this period, she produced an enormous number of sketches and ideas that she would develop further after her return to Slovenia and, when possible, realize in smaller or larger batches. Her third period encompasses the time she spent working as an industrial designer at Iskra.⁶⁶ In addition to designing electro-optical devices, she continued to be active in glass design throughout the remainder of her professional career.

In the ten years immediately prior to her retirement, she authored the following: new bottles and gift packaging for Alko Fructal⁶⁷ (1979–1982), glassware set *Val [Wave]* (1980), glass bowl set *Bala* (1981), glass bowls commemorating Iskra Day – Fighter's Day (1983), general purpose glass containers/crystal glass vessels for tea and sugar (1984), and the glassware sets *Portal* (1985) and *1303* (1986).

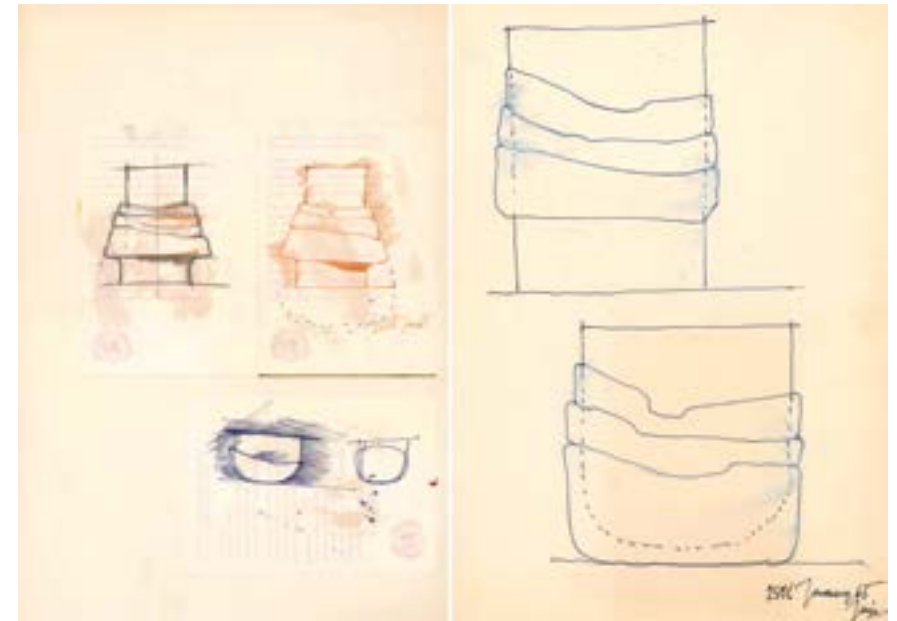
CRYSTAL GLASSWARE SET VAL

One of Janja Lap's stand-out products from her period at Iskra is the glassware set *Val [Wave]*. She took as her starting point the *Prelivanje [Overlapping]* vases, with their two-colour blown glass, which she had designed as an experiment at the RCA in 1965 [pg. 74]. For the *Prelivanje* series, she also developed a new technique for designing the exterior surfaces of glass objects, similar to the *Plamen* vase. She proved that "it is possible to 'coat' already manufactured glassware with molten glass while it is still hot. The flowing glass forms soft, 'random' shapes on its own, again depending on the temperature and quality of the glass" (MAO AJL Lap (s. a.):b: 4). Two years after Janja Lap conducted her experiment, the RCA hosted Samuel J. Herman as a visiting professor; he had developed his own approach for a similar experimental work and would later design a glass re-melt furnace at the University of Wisconsin (Campbell and Campbell 2021: 398).

⁶⁵ More on this can be found in the chapter *The Overlooked Scientific Research*.

⁶⁶ Her work at Iskra is discussed in the chapter *Direct Contact With Industry*.

⁶⁷ Fructal (established in 1945) is a Slovenian company manufacturing juices and candy bars. In the early 1970s, it was the largest fruit juice manufacturer in Yugoslavia.



Janja Lap, sketches and drawings for the series *Prelivanje*, 1965, fountain pen, ink, pencil, h: 29.7 cm, w: 21 cm. Ljubljana, kept by MAO.

However, his approach still differed from the process developed by Janja Lap, who insisted on the method of adding material to an industrially produced glass base. This constituted the crux of her research: her goal was to be able to combine, in a single piece, aspects of both industrial and artistic, one-off design. She was particularly intrigued by the conflict between the form itself and the question of its external application writing:

Should this relationship be expressed and emphasized as a conflict or be adapted into a whole? How can the uniqueness of each product be achieved within an industrial production framework? There is still a hint of the basic form. [The emphasis is] also on the fact that glass is fluid and essentially spreads out, thereby forming a kind of base. Several hundred bottles were produced—each one unique (MAO AJL Lap (s. a.):d: manuscript in pencil; data provided by the author).

She was delighted by how the same process was able to spontaneously create in the captured material a different pattern each time (Ovsenik 1981: 5; Vidmajer 1991: 16).

Comparing the *Val* set to the *Prelivanje* vases from the designer's early period, we find that both employ the same technique, except that in the case of *Val*, the ornamentation lies solely in the thickness and form

of the applied material, since both layers consist of clear glass. Using the same technique, Janja Lap created two completely different effects for these two product lines. The added wavy, undulating layer further emphasizes the stability of the already stout design of the bottle and the glass cups of the *Val* set, yet has the opposite effect in the more delicately proportioned *Predivanje* set. The additional (tinted, in this case) layer only strengthens the impression of lightness. There was undoubtedly another reason for the change in approach, namely the differing intended uses of the products: the *Val* set was designed as a gift package for Iskra's international representatives and for presentations at fairs and exhibitions in foreign markets.



Janja Lap, vases *Predivanje*, 1965, two-tone blown glass, h: 18.5 cm, w: 8.5 cm, l: 8.5 cm (left bottle), made at the RCA, London. Ljubljana, kept by MAO.



Janja Lap, glassware set *Val*, 1980, blown crystal glass, h: 9.2 cm, w: 8.5 cm, l: 8.5 cm (glass cup), made at the Rogaška Slatina Glassmaking School. Ljubljana, kept by MAO.

COMMEMORATIVE GLASS BOWLS FOR ISKRA DAY – FIGHTER'S DAY

Glass bowls with a matte engraving of a star symbol representing a laser were made for Iskra Day – Fighter's Day. During the Yugoslav era, 4 July was not only a national holiday but also Iskra Day, when all Iskra employees would gather for a mass rally each year. The bowls were made specially for this occasion in 1983 and were intended solely for employees. After eating goulash from them, the employees could take the bowls home as souvenirs.⁶⁸ The commemorative set also included a canvas bag and a spoon. The unusual choice of material for Iskra's commemorative gift was definitely Janja Lap's idea. Previously, employees usually received less fragile souvenirs: an enamel bowl, a cutting board, a badge, or similar items. That said, having made this decision, the designer also ensured that the glass was sufficiently thick and that the bowl facilitated a good grip via the rim on the lower third of the bowl.



Janja Lap, glass bowl for Iskra Day – Fighter's Day, 1983, clear glass, h: 10 cm, w: 14.5 cm, made at the Rogaška Slatina Glassworks. Ljubljana, kept by MAO.

⁶⁸ Following a public appeal for donations of the Iskra Day – Fighter's Day commemorative glass vessels with the aim of supplementing the Janja Lap archive in the MAO collection (2022), it turned out that many Slovenian households still have these glass vessels in their possession.

Post-retirement Period (1990–2004)

Janja Lap's post-retirement creative period was marked by two characteristics: a shift toward studying historical styles through a deliberate revival of tradition, and an exceptional ability to directly market her own works. She would offer mayors of Slovenian cities commemorative chalices designed specifically for their city or region. These collaborations, some more successful than others, resulted in unique items or small batches. In terms of media attention, the most successful items were sparkling wine glasses that the Municipality of Celje gifted to newlyweds. *The Flora* series of glass cups was designed to be relevant to multiple regions, as it was intended as a precious souvenir commemorating Slovenia's protected plants.

When asked about her recent turn towards designs drawing on ethnographic tradition and the past, Janja Lap explained that she was interested in these forms "because of their primal nature, which is part of our ethnographic heritage and is also present in Slovenian Gothic, among other things," adding humorously: "I never make thin-stemmed chalices, I find them extremely disproportionate. They remind me of unsteady women trying to balance on high heels. I like shapes that reflect the inner strength of the material. Instead of emphasizing fragility, I look for other, primarily spatial forms of expression" (Repovž 1995: 9).

During this exceptionally productive period, Janja Lap designed and produced the *Argentum* and *Venus 2000* series of candlesticks (in collaboration with Bor Balaš, 1991), the vases and glass cups *Konstrukta* (1993), the *Vivat* chalices (1994), the *Celje/Champagne* wedding glasses (1994), the gift cup of the city of Celje (1994), the chalice of *St Barbara/Spomin [Memory]* (1995), the cup *Myth in Glass* (1995), the beer mug *Zlatorog* (1996 and 2000), the *Flora* series of glass cups (in collaboration with illustrator Zagorka Simić, who made drawings of six protected Slovenian plants, 1997), the gift chalice *Optima* (1997), the multipurpose glass *Joy/Celebration* (1997), a coaster for Eta (in collaboration with Slavko Marcen, 1997), the vase *Vetrolovka/Dan in noč [Windcatcher/Day and Night]* (1998), the *Zita* goblets (1998), the hanging glass lamp *Satje [Honeycomb]* (2000), the standing glass lamp *Kroženje [Spinning]* (2000), Radovljica city glass (2000), and *Bogatenje [Enrichment]* vases (2001).

KONSTRUKTA VASES AND GLASS CUPS

Janja Lap presented the *Konstrukta* set of vases and glass cups for the first time at an exhibition at Podsreda Castle in Kozjansko. Peter Ogrin wrote of the set that it "speaks to us silently and abstractly" (1994: 12), while the designer described the collection "as a tribute to the artistic movement of Constructivism, whose presence in the Slovenian art scene was otherwise modest" (MAO AJL Lap 1997: 4–5). Another purpose of the collection was to serve as a tribute to her late acquaintance, the art historian Camilla Gray Prokofiev, who, in 1971, presented works of Soviet Constructivism in a comprehensive exhibition titled *Art in Revolution: Soviet Art and Design Since 1917* at the Hayward Gallery in London. Janja Lap found the exhibition enchanting, and more than twenty years later, she recapitulated and expressed what she had seen in the form of the *Konstrukta* glass collection, which featured geometric designs in black and red enamel. While the form was a tribute to Constructivism, the glass painting technique drew inspiration from much older sources. She chose a method that had already been employed by ancient Roman and medieval glassmakers, who decorated glass using enamel paints, which were then fired or baked onto the glass surface (Minařik 1966: 17–18). The merit of the collection is reflected in the Aalto-level quality of the design: the individual pieces in the series complement each other perfectly, yet retain their full impression and function individually. Indeed, in a sense they function as stand-alone art objects: a bouquet of flowers would seem to distract from, rather than enhance or complement, the contrasting black and red graphics adorning the vase.



Janja Lap, *Konstrukta* vases and glass cups, 1993, hand-blown crystal glass with black and red fired enamel, h: 30 cm, ø: 23 cm (all vases), glasses - h: 16 cm, ø: 8 cm, made at the Rogaška Slatina Glassmaking School, photo: Dragan Arrigler. The vases initially had different names: *Empire*, *Kloun [Clown]*, *Konstrukta 1* and *Konstrukta 2*. Later they all came to be named *Konstrukta* and distinguished only by numbers 1 to 4. Ljubljana, kept by MAO.

THE CHALICE OF ST BARBARA/SPOMIN

The chalice *Spomin* represents a “historical memory” of a Gothic sculpture of St Barbara, no more than ninety centimetres in height, that I saw at the Gothic exhibition at the castle in Podsreda. The figure held a life-size chalice in her hand. The sculpture’s form suggested a possible origin from the well-known Ulm carving workshop of Niklaus Weckmann. I was so intrigued by it that I started to research the background of the sculpture. The statue was created by an unknown carver from the Celje area, supposedly in 1510, and in reliving his journey to Ulm—a very distant city by the standards of the time—I imagined the transfer of cultures and influences. This simple rural master’s evident thirst for knowledge inspired me with an immense optimism (Senčar 2000: 7).

It is abundantly clear that, in the course of her research, Janja Lap came to identify closely with the unknown carver. She was fascinated by “his



Janja Lap, the Chalice of *St Barbara/Spomin*, 1995, hand-blown crystal glass, sandblasted and deep-cut, h: 20.5 cm, ø: 9 cm, made at the Rogaška Slatina Glassmaking School, photo: Dragan Arrigler. Ljubljana, kept by MAO.

creative ability to grasp new cultural ideas and influences beyond the immediate area in which he worked” (Binkova 1998: 34). This enthusiasm led her to create a glass design based on the medieval chalice that represents a piece of a wooden sculpture from the church of St Barbara in Šmarje pri Jelšah (kept today by the Celje Regional Museum). With her round face and the parallel folds of her dress, the saint in fact breaks free from Gothic rigidity. The chalice, her attribute, is the most prominent and most modern element of the statue. As the saint’s attribute, it was deliberately made disproportionately large in relation to the rest of the sculpture, and its shape already anticipates the Baroque era (Kos 1997: 38). The glass replica of the chalice features a frosted surface finish, which could be seen as representing wood as an opaque material;

only the nodule and the thin lines on the stem glisten with a translucent sheen. Whether the master carver who created the sculpture of St Barbara had a glass or metal chalice in mind remains an open—and indeed irrelevant—question.

The modern glass reinterpretation of the chalice of *St Barbara*, the work of designer Janja Lap, was created for the Municipality of Šmarje pri Jelšah to serve as an official gift. The newly designed chalices—in packaging designed by the graphic designer Miljenko Licul—were presented to a group of meritorious townspeople by the Mayor of Šmarje on the occasion of the 760th anniversary of the first written mention of the town. Janja Lap’s design also received validation from editor and designer Richard Sapper, as the chalice (by then renamed *Spomin*, or *Memory*) was included in a selection of works featured in *The International Design Yearbook*, published in 1998 by Laurence King Publishing in London.

COMMEMORATIVE GLASSES

Unusually for sparkling wine glasses, the *Celje* ceremonial wedding glasses lack a classic stem. Instead, they merely taper down while remaining hollow all the way to the base, which significantly increases the volume of what is otherwise a distinctly “delicate” glass. With this feature, Janja Lap managed to preserve the stable thick-stemmed silhouette that characterizes her drinking glasses and cups, except that in this case, she achieved it through a very thin and unusually deep wall. Interestingly, the two glasses differ ever so slightly: the groom’s glass has a base three millimetres wider than the bride’s. The liveliness and festivity of sparkling wine is emphasized through “bubbles” engraved into the thin walls. Another distinctive feature is the three glass loops on each glass, which were attached while the product was still hot. On the groom’s glass, the loops are slightly



Janja Lap, *Celje/Champagne* wedding glass, 1995, hand-blown cut crystal glass, h: 21 cm, ø below: 7.5 cm, ø above: 6.4 cm (the bride’s glass); h: 21 cm, ø below: 7.8 cm, ø above: 6.4 cm (the groom’s glass), made at the Rogaška Slatina Glassmaking School, Photo: Miran Kambič. Celje, kept by the Celje Regional Museum.

thicker than the more subtle ones that adorn the bride's glass. Through these loops, various ribbons, as appropriate to the occasion, could be woven. At a wedding, for instance, a ribbon in the national colours would symbolically unite the bride and groom. Both decorative elements—the bubbles and the loops—allude to ancient Roman glassworking techniques, thereby highlighting the rich archaeological and glassmaking heritage of the Celje region. The bases are further decorated with an engraving of the Celje coat of arms and the inscription “Poročena v Celju” [“Married in Celje”].



Janja Lap and Zagorka Simić, *Flora series of cups*, 1997, hand-blown cut crystal glass, h: 22 cm, ø: 10 cm, made at the Rogaška Slatina Glassmaking School and the GRY studio, photo: Boris Gaberščik. Private collection.

During the period when the municipality of Celje introduced the wedding glasses into its wedding ceremonies, Janja Lap created or designed several other distinctive commemorative gift glasses. There was an additional gift glass for Celje, as well as the gift glass for Radovljica, which was produced in a small batch according to her plans. Her sketches and drafts also include the initial drafts for a glass cup and candleholder set *Morje* [Sea], which were intended for one of the coastal towns. The *Flora* series, unlike the individual municipal commemorative glasses, was conceived to resonate with the country as a whole. Inspired by drawings of Slovenian protected plants created by Zagorka Simić, an illustrator and her former colleague at Iskra Commerce, Janja Lap developed the idea to engrave them on commemorative glass cups. They selected six plants: the alpine sea holly (*Eryngium alpinum*), flower of the sweet lady (*Gentiana clusii*), Blagay's

Daphne (*Daphne blagayana*), lady's slipper (*Cypripedium calceolus*), Carniolan lily (*Lilium carniolicum*) and bog rosemary (*Andromeda polifolia*). Unlike the wedding glasses, these chalices are chunky and relatively tall. Marking the transition from the thick stem to the conical cup are four deep grooves that serve to haptically amplify how the object's importance is impressed upon the person raising the glass to their lips or eyes, so that they do not overlook the fundamental message of the fragility of nature. When asked whether the chalices remain functional despite their weight, Zagorka Simić answers affirmatively. Moreover, she points out that the chalices, in their well-designed packaging, were predominantly sold for ceremonial purposes, and that they made a superb impression on tables laid for such formal occasions. Her engravings stood out most beautifully when the glasses were filled with rosé.⁶⁹

THE CUP MIT V STEKLU



Janja Lap, the cup *Mit v steklu*, 1995, hand-blown crystal glass and fired enamel, h: 15.5 cm, ø: 7 cm, made at the Rogaška Glassworks, PS Dekor Kozje, photo: Dragan Arrigler. Ljubljana, kept by MAO.



Janja Lap, blueprint with a description of the *Myth in Glass* cup, 1995, collage, ink, pencil, h: 39.7 cm, 29.7 cm. Ljubljana, kept by MAO.

The form of the cup *Mit v steklu* [Myth in Glass] also draws inspiration from old cultures, specifically the myth of the Goldhorn.⁷⁰ It is a rhyton derived from the shape of an animal horn. Initially used as drinking vessels or musical instruments, animal horns would later be replaced by imitations produced by various cultures in a wide range of materials, but especially precious metals, ceramics, and glass. Janja Lap's horn sits solidly on a stable base and its upward-curving tip terminates playfully in a "jester's" coloured ball. This may be seen as an allusion to the grape as both the source of the venerable drink and the fruit borne in the drinker's very own cornucopia. The glass shows—as do most of her works—a sense of humour that few designers dared to express in their work. This was, in practice, how she demonstrated her rejection of the "formalistic and doctrinal premises that characterized the European mentality," which she wrote about in her text *Design Starting Points* (MAO AJL Lap (s. a.)b). She continued: "Glass is myth – and can also be art" (Repovž 1995: 9). The glass cup was selected for exhibition as part of the international competition Trieste Contemporanea and presented at the Studio Tommaseo exhibition in Trieste in 1995.

GIFT VASE *VETROLOVKA/DAN IN NOČ*

Vetrolovka [Windcatcher] represents another technical milestone in Janja Lap's design journey. While it is rather typical for clay products to be "trapped" in a net made from intertwined wire, this is certainly not the



Janja Lap, gift vase *Vetrolovka/Dan in noč*, 1998, crystal glass, hand blown in a mold lined with a silver net, h: 15.3 cm, 6 cm, l: 14 cm, made at the Rogaška Glassworks, PS Dekor Kozje, photo: Dragan Arrigler. Ljubljana, kept by MAO.

70 Next to the blueprint is a note stating that the inspiration for the design came from the old Slovenian legend of the Goldhorn. Kept by MAO.

case for glass products. This ambition, to capture what can not be captured, is precisely what the designer set herself as her next challenge. The result was an oval vase that "through an abstract pattern of silver wire brings to life a memory of idea-seeking inspired by romanticism; at the same time, we see the creation as a continuation of medieval alchemy and its experimental drive towards the new" (MAO AJL Lap 1997: 7). The designer also pointed out that the vase should be "viewed as a technological feat, as its decoration is executed in the form of a silver wire mesh dipped into the pure hot glass mass, causing the glass and silver to fuse together" (Binkova 1998: 34). What delighted Janja Lap most about the result was the fact that, much like with the *Prelivanje* vase and the glassware set Val, the end result is not entirely deterministic, depending to a considerable degree on the properties of the materials themselves.

CHANDELIER *SATJE* AND THE STANDING GLASS LAMP *KROŽENJE*

In an interview with Eva Senčar, Janja Lap reveals that the *Satje* [Honeycomb] chandelier was inspired by the chandeliers produced in old glasshouses, giving special mention to the one that hangs in the church in Loka pri Žusmu (Senčar 2000: 7). That said, the conical cups are even more reminiscent of the chandeliers found in many churches across the world, where light comes from numerous oil lamps in hanging glass cups mounted in a magnificent metal framework (e.g. the Hagia Sophia in Istanbul) or the somewhat smaller example in the Sienna Cathedral. Although there are instances of the glassmakers of Pohorje exporting their works to Turkey and Italy (Minařik 1966: 59), no evidence exists to tie Janja Lap's chandelier to those in the aforementioned churches. The *Satje* chandelier was initially designed as a candleholder (hence some of the recorded names), but according to her son, Janja Lap abandoned this idea as soon as she attempted to fill the conical glass cups with water for candles to float in.⁷¹ After this experiment, she adapted the design into a chandelier by fitting into the frame a housing for three light bulbs; discreetly hidden among the cones, the bulbs cast light sideways and downwards, significantly contributing to the atmosphere of solemnity.

The aforementioned glass parts of the chandelier at Loka pri Žusmu are more reminiscent of the standing ambient light lamp *Kroženje* [Spinning] than of the *Satje* chandelier. The designer conceived the standing lamp as a "manifestation of blown glass" (*ibid.*). Here, with inspiration from glasshouses, she used the mirroring technique, which creates the impression of rotation, or spinning of the glass bubble on the end of the

71 Interview with Nikolai David Jeffs, son of Janja Lap, 16 February 2022.

glassmaker's blowpipe. She additionally emphasized the playful, dynamic nature of the luminosity by only putting light bulbs in every other bubble.



Janja Lap, *Satje* chandelier, 2000, h: 70 cm, w: 95 cm, made at the Rogaška Glassworks, PS Dekor Kozje and in the Uko company photo: Miran Kambič. Ljubljana, kept by MAO.

Janja Lap, standing lamp *Kroženje*, 2000, h: 165 cm, w: 50 cm, l: 50 cm, made at the Rogaška Glassworks, PS Dekor Kozje and in the Bojan Kunej's workshop, photo: Miran Kambič. Ljubljana, kept by MAO.



Lifelong Learning of Designing in Glass

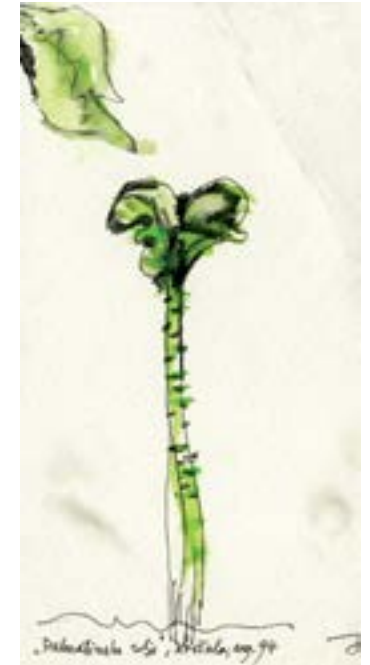
It is often said of glass design that it is very difficult to create something fundamentally new in this domain, or invent something that has not been done before (Rataj et al. 1996: 38). This assertion, however, hardly applies to Janja Lap's glass designs. In her extraordinary desire to experiment, challenge tradition, and transcend the existing, she had, in her long professional career as a glass designer, repeatedly pushed the boundaries of the possible. Even when drawing inspiration from the past, she looked at it through the eyes of modernity, seeking ways to develop it further. This open-minded attitude to a wide variety of influences, which she absorbed like a sponge during her stay at the RCA, remained her constant companion until the end of her active professional involvement. Betraying this restlessness of spirit were numerous relocations, job changes, and a constant drive to know more. It is this restless spirit that enabled her to continually nourish her talent in her creative pursuits and express it in her glass designs in a manner that was both original and tempered by experience.

Yet despite the proven quality of her work, she often felt marginalized and overlooked after her return to Slovenia. During the development of the higher education study programme for design at the Academy of Fine Arts,⁷² she was recognized as a potential lecturer for the subject Designing in a Material – Glass, for which she also wrote the first syllabus (MAO AJL Lap 1984). However, when the time came to potentially introduce the course and hire (or contract) her after the department was established, her repeated attempts were unsuccessful; she was not hired at either the then Academy of Fine Arts or at the Faculty of Architecture, Civil and Geodetic Engineering. Reviewing the preserved documentation detailing her rich experience and references, one cannot help but form the impression that the decision-makers balked at having an assertive female colleague with an international reputation in their ranks.

The body of work in glass by designer Janja Lap is, without doubt, outstanding and worthy of further consideration. It is reasonable to suspect that, had her London period not been interrupted by her move to Sheffield, she would today most likely be ranked among the key international designers in glass, at least in Europe. She arguably deserves to be seen as such even on the basis of

⁷² Known today as the Academy of Fine Arts and Design of the University of Ljubljana.

her existing oeuvre, as do several other Slovenian glass designers who worked at various Slovenian glassworks during the same period. With different working conditions and market orientation, many of them could easily have competed internationally. It is also worth noting that, had Janja Lap been born in Finland, some of her works, such as *Gubanka*, *Kvadrat*, *Plamen*, *Prelivanje*, *Konstrukta*, and others, would still be in production and successfully marketed worldwide today. We never truly had this sensitivity in our region (and still don't today). In light of this, it is easier to understand the bitterness behind her statement that glass design was her love that "never materialized to the extent [she] would have liked, but that [she] grew up with and learned from it" (Vidmajer 1991: 16).



OVERLOOKED THE SCIENTIFIC RESEARCH

THE OVERLOOKED SCIENTIFIC RESEARCH

When I was working, some years ago now, in the Department of Industrial Design at the RCA, I was asked to design a set of hospital dishes. In the College atmosphere then, no project could have been more inviting. It meant not only playing with forms—squares, circles or triangles—but also with plate decorations—bright coloured flowers or peaceful looking lions. I was then invited to visit Derby Royal Infirmary in order to see a hospital kitchen and to understand the performance of a hospital catering system; but what did I find there? I remember myself standing apart from the great drama which was going on in the middle of the kitchen, with its conveyor belt, harassed girls throwing spoonfuls of potato onto trays, hot pellets looking like dangerous flying saucers carefully tackled by the man in heavy industrial gloves. [...] My dreams of flowers and lions were gone and I decided to approach my design problem in A NEW way (MAO AJL Lap and Whittlestone 1974: 1).

It was nine years after her first visit to the hospital kitchen in question that Janja Lap wrote this vivid description of her first encounter with the Ganymede system,⁷³ which, albeit originally

73 The Ganymede system, or “tray service”, was developed in America and is employed in the organization of meal preparation in hospitals. Under this system, individual patients’ trays are prepared along a conveyor belt according to the pre-ordered (customized) requests of the patients. Various methods are

American, was increasingly being introduced into English hospitals in the 1960s.⁷⁴ Despite this intervening period, in her proposal for continuing the research project⁷⁵ in the form of a Master's thesis,⁷⁶ the designer found that, for the most part, insufficient effort had been put into systemically solving the issue of preparing and distributing food in hospitals and that the issue needed further consideration. At the same time, she expanded the scope of her research somewhat, putting forward the additional thesis that a systemic consideration of the specific case of the hospital opened up possibilities for subsequent elaboration and introduction of the food preparation and delivery system elsewhere, such as in educational and childcare institutions, schools, nursing homes, and offices. She would eventually demonstrate the latter after her return to Slovenia and in doing so influence subsequent developments in the realm of organization of food provision in our country. As is evident from the memo approving the topic of her Master's thesis, she divided the topic into three interrelated thematic clusters from the outset (RCA OMJL Catlin 1971):

1. the issue of central kitchens in urban environments, intended for hospitals, schools, offices, etc.
2. macro- and micro-transport in feeding systems
3. a design for single-use dishes that would be introduced into the system proposed under item 2

employed to maintain food temperature (whether hot or cold), from pre-heated or pre-chilled pellets to special insulation. When the trays are ready, they are taken to the wards on trolleys. The food is fresh and is supposed to be delivered to the patient at most 15 minutes after the moment it was plated (Fund's Catering Advisory Service et al. 1966).

74 The first instance of the Ganymede system in Great Britain was introduced in 1962 at the Bethnal Green Hospital. The prototype kitchen with tray service began operation in February 1964. As elaborated in the report *The Ganymede Tray Service in Hospital* from 1966, the experiment revealed many advantages, but also a number of organizational deficits, since successful implementation of the service requires a greater degree of cooperation among the services involved (*ibid.*: 7 and 14).

75 Janja Lap was part of the research group for hospitals in 1965–1966.

76 In 1967, RCA was granted Royal Charter and thus a university status and the power to grant its own degrees (interview with Neil Parkinson, Manager of Special Collections & Archives at RCA, 2 March 2023). This also spurred the development of postgraduate study and many former students and researchers (among them Janja Lap) decided to develop their past research work further in the form of a Master's thesis project. Janja Lap enrolled in postgraduate studies at the RCA in the 1971/72 academic year, with all her previous work from 1965/66 recognized. She was assigned a mentor, Professor Bruce Archer, and a desk on the 4th floor, which at that time was reserved for the research group (RCA: Janja Lap's Personal File, correspondence from Misha Black (22 March 1971), Joan Catlin (22 March 1971), and H. W. Denyer (28 April 1971)).



Letters from Misha Black (22 March 1971), Joan Catlin (22 March 1971), and H. W. Denyer (28 April 1971), informing Janja Lap that her application for the continuation of her 1965/66 research in the form of a Master's thesis had been approved. Due to the hospital-related topic, Professor Black assigned Professor L. Bruce Archer as her mentor. London, kept at the Royal College of Art – Special Collections & Archives.

The above quote, however, offers another important insight, as it reminds us of Janja Lap's completely overlooked scientific research work in the field of design. As we will show below, this not only reveals her desire to research and design complex systems, but also evidences her concrete research and development of new systemic approaches to previously identified problems. It should be noted that Janja Lap's research focused on systems, moving beyond the mere redesign of products and services for a single unit (in this case, hospital tableware). She consistently focused on a holistic understanding of design in a broader social and geographical context. Her work clearly demonstrates a confluence of two distinct approaches to design research, associated with two institutions: the Faculty of Architecture in Ljubljana and the RCA in London. In her professional practice, we can see how Janja Lap intertwined the knowledge gained from her architectural and urban planning background—acquired during her studies and later collaboration with her mentor, the architect Edvard Ravnikar⁷⁷—and the knowledge she acquired at the RCA under the mentorship of Bruce Archer, a British mechanical engineer and educator who devoted himself to systematic research in the field of design. In 1977, Archer described this endeavour as follows: “You cannot ignore the nurturing of the material culture and still expect to enjoy its fruits. That is why I invented design research as a back-up to design practice. I don't think it is because I happen to be standing here instead of somewhere else that the world seems to be revolving around this point” (Boyd Davis in Reeve 2016).

That said, it was the work of researcher and professor Misha Black that proved crucial to the development of scientific research in design at the RCA, as he exerted an extraordinary influence on the manner in which industrial and systems design would be taught. His efforts laid the foundations for the emergence of design research as a distinct discipline and paved the way for Bruce Archer's appointment as a professor in the first RCA department to systematically and thoroughly address design research. In 1972/73, this unit was renamed the Department of Design Research (DDR). During her time in Great Britain, Janja Lap was in close contact with both figures. She worked in the Hospital Research Group alongside Misha Black, its head, and the senior research associate Bruce Archer. Six years later, when

⁷⁷ Ravnikar completed his study of architecture under Jože Plečnik. He was an insightful thinker, able to derive important knowledge from the so-called Plečnik school while staying critical of Plečnik's approaches and work. Ravnikar also put all this into practice during his further studies under Le Corbusier.



Research group for hospitals at the RCA, 1964. Bruce Archer is fifth from the right. London, kept at the Royal College of Art – Special Collections & Archives.



School of Industrial Design (Engineering) at the RCA, 1960s. The researcher on the left could be Janja Lap. London, kept at the Royal College of Art – Special Collections & Archives.

Archer had become a professor, he also—with Black’s blessing—served as her supervisor for her Master’s thesis titled *Communal Feeding System*.

Despite the exceptional references and foundational research that Janja Lap conducted—primarily in Great Britain but also partly in Slovenia within institutions such as the Central Institute for the Advancement of Households, the Association of Childcare Communities of the SR Slovenia, and the Institute of Sociology and Philosophy at the then Edvard Kardelj University in Ljubljana—her scientific research work has, until the present study, largely gone unnoticed by both the professional community and the general public.

In the field of post-WWII design research, prominence was accorded to figures such as the architect Branka Tancig, who, among other topics, researched the concept of laboratory kitchens (Tancig 1954; Tancig - Novak 1958; 1968; 1971); the architects France and Marta Ivanšek, who conducted research in the field of housing and interior furnishings (Ivanšek 1959; 1960; 1963); and the sculptor and industrial designer Ciril Cesar, who studied at the Ulm School of Design in Germany and, during his tenure as head of Gorenje’s design centre, carried out in-depth research and developed the “ma-de-ko” system (marketing – design – construction), a multidisciplinary conceptual model, based on so-called operational science for interdisciplinary development processes, focused particularly on (modular) products (Berg et al. 1978).

The only public account of Janja Lap’s research was published in 1980 in the Belgrade journal *Industrijsko oblikovanje* [*Industrial Design*], in which she herself provided a three-page retrospective summary of her research and its potential (Lap 1980: 37–39). Subsequent research and an in-depth examination of the archival material obtained, however, reveal a body of scientific research that was far more extensive, systematic, and, on her part at least, carefully preserved.

The remainder of this chapter will shed light on Janja Lap’s independent research. Having deliberately distanced herself from the Slovenian architectural and design milieu, she left for Great Britain, where she became involved in the pioneering period of design research. This engagement would characterize much of her professional career, as she cultivated it continuously and systematically. It will be shown that her studies from the 1960s and 70s represent a practical application of design methods and approaches that remain relevant today. Furthermore, her work demonstrably influenced both the organization and significance of communal

feeding in Slovenia, with some of her findings incorporated into the 1978 policy document *Stališče, sklepi in priporočila za oblikovanje in izvajanje politike na področju družbene prehrane in preskrbe prebivalstva v SR Sloveniji* [*Opinions, Conclusions, and Recommendations for the Formulation and Implementation of Communal Feeding Policy in SR Slovenia*] (AS 1277 158–370 1979). The main objective of this chapter is to present and evaluate a selected segment of Janja Lap’s overlooked work and to show, at least in part, the problematic consequences of such an oversight for the Slovenian design profession.

The wealth of material testifies to the fact that she approached her research topics (and her professional activities more broadly) with remarkable enthusiasm and on an extremely solid foundation. The latter is undoubtedly thanks to Bruce Archer, who advised her before she began her Master’s research to “use scientifically obtained data to build a ‘solid foundation’ on which to create a complex systemic concept, which will encourage a range of different industries to think about new industrial products” (MAO AJL Lap (n.d.)b: 6). In retrospect, this statement encapsulates the essence of her subsequent work.

A Holistic Research Approach: Contribution to Issues of the Social Standard of Living Through Active Introduction of Systems Design

In the introductory remarks to her article titled “Objekti društvene igrane” [“Communal Feeding Facilities”], published in 1980 in the journal *Industrijsko oblikovanje*, Janja Lap outlined her interest in the field of design research. She wrote that she was primarily “interested in the effects [of industrial design] on systemic issues associated with a particular social standard of living” (Lap 1980: 37). She situated this interest within the distinguished tradition of post-war architects and designers who regarded the gradual modernization of the living environment, raising of the standard of living, and contributing to the development of technical culture as the fundamental mission of their work (Ivanšek 1951: 28; Bill 1952: 33).

Her departure for London in 1964 also marked a decisive shift from designing final products for industry. During her first year, as detailed in the previous chapter, *Opifex artis vitrae*, she devoted herself to research at the Department of Industrial Glass under the mentorship of Robert Goodden. In the second year of her residence at the RCA, she joined the Hospital Research Group at the School of Industrial Design (Engineering). There, she became

acquainted with the aforementioned head of the research group, Professor Misha Black (known for designing the street signs in Westminster and recognized as one of the pioneers of hospital equipment optimization) and with her future Master's thesis supervisor, Professor Bruce Archer (known, among other things, as the designer of the first systematically developed hospital bed).

Archer had joined the RCA in 1962 at Black's invitation and was entrusted with leading a research project focused on non-surgical hospital equipment (Boyd Davis and Gristwood 2018: 187). Prior to this, he had spent a year at the Ulm School of Design, where he was invited by Tomás Maldonado, working under the design theorist and lecturer Horst Rittel, among others (Krippendorff 2008; Boyd Davis in Gristwood 2018: 186). As Stephen Boyd Davis and Simone Gristwood have noted, Archer worked at the RCA for 27 years, during which he became not only a key figure but also a driving force in the development of scientific research in design. In the 1960s, he instituted and advanced a rigorous and distinctly "systematic" approach to the nature and practice of design.

He sought to establish a philosophy of design (Archer 1981: 33), even a "science of design" (Archer 1968: foreword), a phrase often associated with Herbert Simon's *Sciences of the Artificial* (Simon 1969; Cross 2001). Essential to this science was an understanding that Design Research was the study, not only of design's methods, but also of its ontology as a discipline and an activity (Boyd Davis in Gristwood 2018: 185).

The foundation of Archer's systematic design methodology lay in the necessity of shifting design away from the sculptural to the technological. In his view, the task of the designer was to find ways to incorporate into design thinking "the knowledge of ergonomics, cybernetics, marketing and management science", thereby keeping pace with technology developments and starting to "adopt a systems approach as distinct from an artefact approach" (RCA Archer 1964: 1).

Archer tested these principles in practice during his research and design process for hospital beds for British hospitals. In September 1965, he presented the project at the Fourth General Assembly and Congress of ICSID in Vienna. In his presentation, he also briefly outlined the operation of the Hospital Research Group. He described it as a research unit consisting of a small number of permanent staff and a larger number (between ten and fifteen) of employees, researchers, and advisers engaged on a contractual basis, depending on project requirements and for periods ranging

from one month to one year.⁷⁸ He emphasized the professionalism of the team, noting that they only rarely hired students. At the time of its founding in 1961, the group focused exclusively on hospital equipment, but by the time of its presentation in Vienna, however, its activities had already expanded into numerous additional areas of research (RCA Archer 1965: 1–2).

Before turning to Janja Lap's research, it is important to point out that the systemic approach associated with Misha Black and Bruce Archer was by no means an isolated case. On the contrary—Janja Lap arrived at the RCA during a vibrant, pioneering period marked by international interest in the professionalization of systemic design. In addition to Archer and Black, other figures whom we now recognize as key contributors to the field (Maldonado and Bonsiepe 1964; Alexander 1964; Simon 1969; Rittel and Webber 1973) were deeply engaged in seeking, defining, and actively constructing a scientific approach to design. Each in his own way built on a premise articulated by Hannes Meyer in his 1928 text *Bauen [Building]*, namely that the architect and designer assume the role of organizing the processes of life (1928: 120). Expanding on this idea thirty years later, Tomás Maldonado described designers as coordinators who are "constantly and closely in collaboration with a large number of specialists" (Frascara 2019: 95). As Christopher Alexander (1964) characterized this formative period of the emerging discipline, it was a time when quantitative methods were being introduced into design on an equal footing with qualitative ones, with the aim of establishing new connections and understanding the interrelationships involved in developing design solutions to complex social problems.

From Adaptable Dishes to Systemic Service

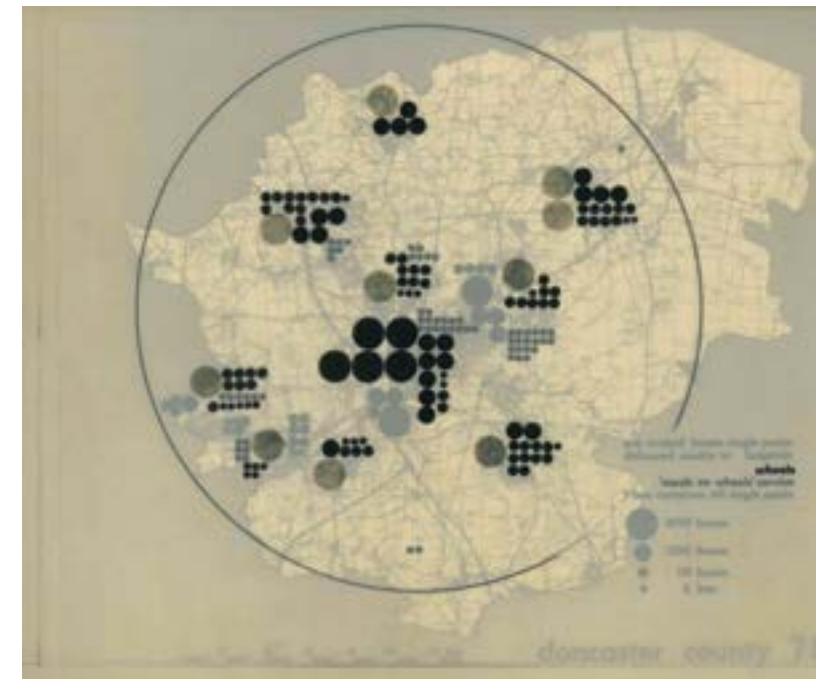
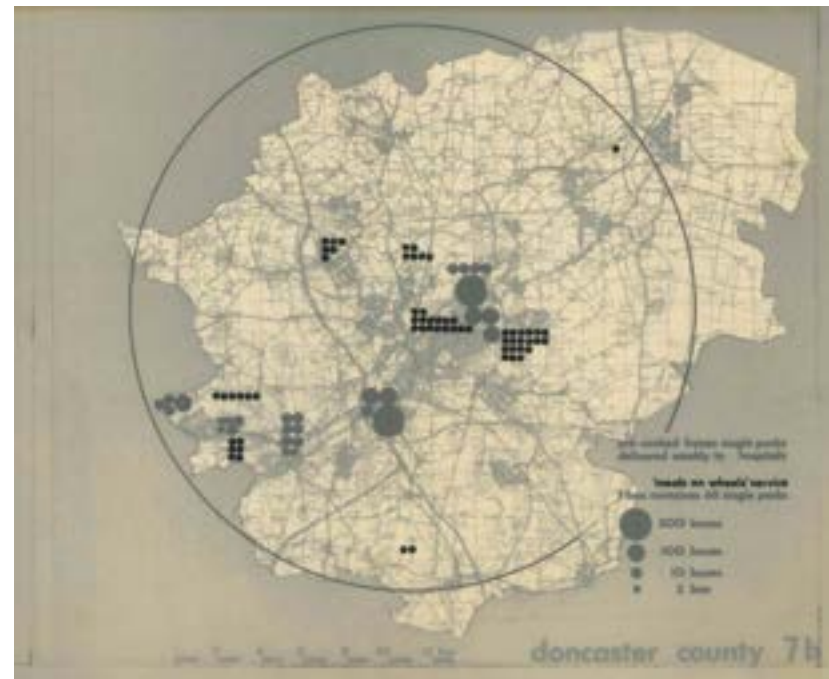
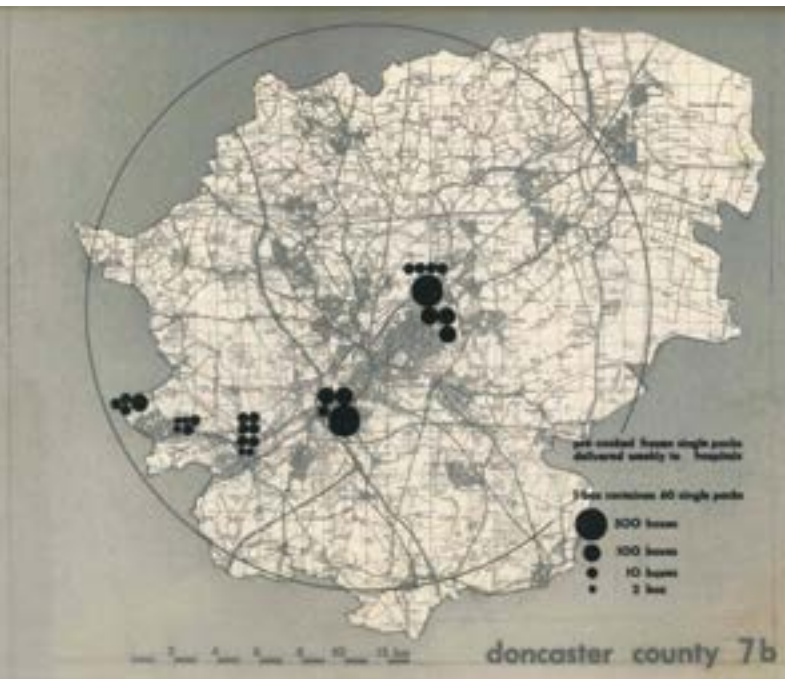
After joining the research group for hospitals, Janja Lap focused on critically analysing and evaluating the advantages and disadvantages of various hospital feeding schemes. In her study titled *Hospital Feeding Systems*, she not only identified numerous shortcomings in existing models, but also found that, within established systems, food loses vitamins and many other nutrients during the interval between preparation and consumption. She attributed this not solely to the factor of time, but also to repeated reheating, the transfer of meals, and inadequate transport and serving procedures.

⁷⁸ These part-time professional researchers most likely included Janja Lap. The certificate of participation in the group does not mention part-time contract work.

These findings compelled her to develop her own idiosyncratic approach grounded in detailed analysis and the systematic resolution of clearly defined problems. Indeed, from today's perspective, and in light of the remarkable proliferation of methodological approaches in design over the past decade, the methods described in her research work appear unusually progressive for the mid-1960s and early 1970s period and remain relevant today. She successfully incorporated the principles of systemic, service-oriented, and circular design into her research and planning, while situating them within the context of Ravnikar's conception of the functionalist city,⁷⁹ an idea that “strives towards order and good organization of all essential city functions. According to these principles, all urban activity is divided into four functions: living, working, leisure, and transport as a link between the first three” (Žnidaršič 2004: 9–10). It was precisely the latter aspect—a detailed consideration of the use of urban road networks that facilitate the relocation of main food preparation facilities to the outskirts of cities, while at the same time enabling fast and efficient delivery of meals to individual institutions—that in Janja Lap's work forms one of the founda-

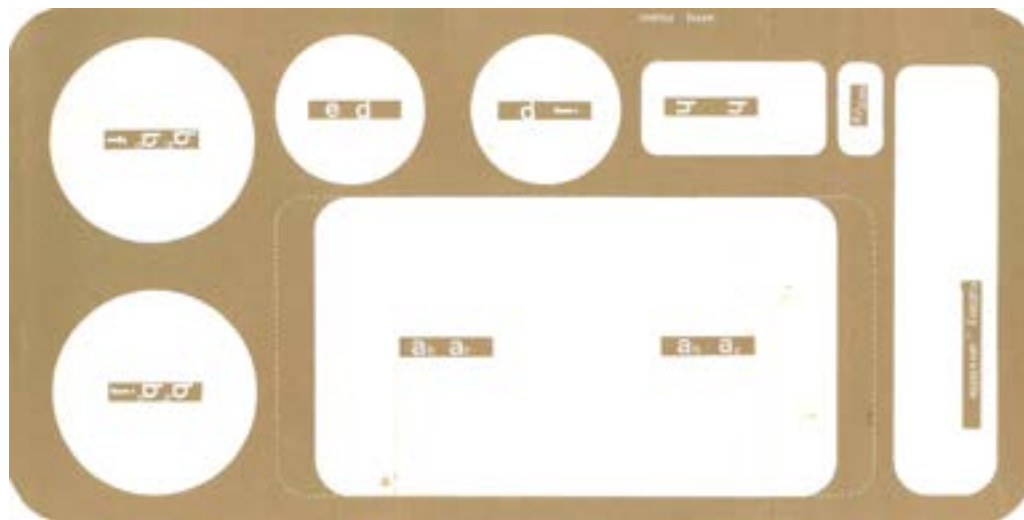
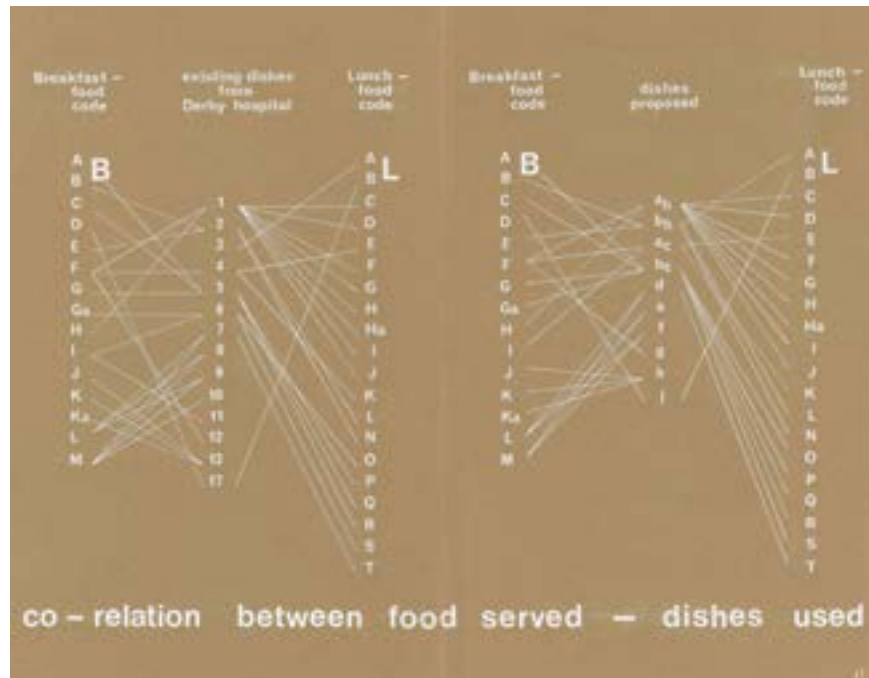
tions for solving the complex challenge of improving the quality of communal feeding for the most vulnerable social groups, including young people, the elderly, and the sick. Nevertheless, the urban organization matrix only served as the basic premise for the further development of system design.

On a micro-level, the ubiquity of the idea of systemic design in Janja Lap's work is evident in the precise structuring of all possible combinations of hospital meals in the Ganymede system. The study was based on three different menus (breakfast, lunch, and dinner) from the Derby Royal Infirmary. The combinations of main and side dishes alone resulted in 700 different variations, forming a crucial database for her further research and planning work. She broke down her research into nine steps, which ultimately led her towards the design of a new tray and an extraordinarily economical set of tableware that, in practice, allowed for numerous combinations. During testing, the proposed set proved highly flexible; however, a new problem emerged: how to keep food warm, fresh, and of high quality during the 30–40 minutes it took to transport it from the kitchen to the patients. She concluded that addressing



79 Janja Lap first encountered the idea of a functionalist city in Edvard Ravnikar's seminar at the Faculty of Architecture. In his understanding of the functionalist city, Ravnikar followed in the footsteps of architectural giants such as Walter Gropius, Ludwig Hilberseimer, and Le Corbusier (Žnidaršič 2004: 10).

Janja Lap, schematic diagram of a “meals on wheels” service for Doncaster County, Master's thesis, 1973. Ljubljana, kept by MAO.



Janja Lap, excerpt from a study for the Derby Royal Infirmary examining possible combinations of dishes and the newly designed tableware, 1965-1966. Ljubljana, kept by MAO.

this issue necessitated the introduction of a different systemic solution for the preparation and delivery of meals, as well as for maintaining their heat and quality.

While researching and devising a system solution, Janja Lap became intrigued by a rapidly evolving approach to food preservation: “cook and flash freeze”⁸⁰ (Kurlansky 2013; El-Ansari and Bekhit 2014: 125). It was this focus on an alternative system of food preparation prompted her to consider the macro-level, and with it, the urgent need to improve the quality of communal feeding. On this basis, she expanded on and further developed her study from the mid-1960s, submitting it as her Master’s thesis proposal. The proposal included an examination of the operation of the central kitchen, whose task it would be to prepare food in large quantities. This would then be rapidly packed, frozen, and distributed to smaller local kitchens in the individual hospitals, schools, and nursing homes. There, the food would be reheated in microwave or infrared ovens and served on trays using the tableware sets that she had previously designed. She chose Liverpool as a model city where her concept could be tested. She regarded all of the above as forming the basis for the development of a new food distribution system, one in which the interval between preparation and serving would no longer be as critical as it had been in the existing Ganymede system.

In other words: by focusing her research on food preparation methods and all subsequent stages leading to the delivery of a high-quality warm meal to the end user, Janja Lap actually created a paradigm shift. While her initial objective had been to design adaptable tableware, her focus in her Master’s thesis evolved towards the research and redesign of systemic services. While

⁸⁰ According to Mark Kurlansky, it was Clarence Birdseye who discovered that if food is flash frozen immediately after preparation, it retains the same quality after thawing that it had before freezing. In 1927, Birdseye patented his freezing machine. Three years later, through his Birds Eye Frosted Food Company, the first frozen food products reached the general public. More on that in Kurlansky 2013. An interesting fact: in March 1974, it was to that very company, Birds Eye Foods Limited, that Janja Lap sent a proposal for support on a research project titled Community Welfare Catering System. Her letter was replied to by R. P. Howard-Jones (Head of Marketing, Hospitality Department). He let her know that they were accepting her proposal to publish the article. With regards to research funding, she was advised to further refine her research study. She did so, together with her colleague Paul Whittlestone, and the refined proposal (Way to Community Catering, 1975) resulted in her securing support for the research within the scope of her work at the Architectural Association School of Architecture. The research study was commissioned by the company Birds Eye Food Industry (England). Correspondence kept by MAO.

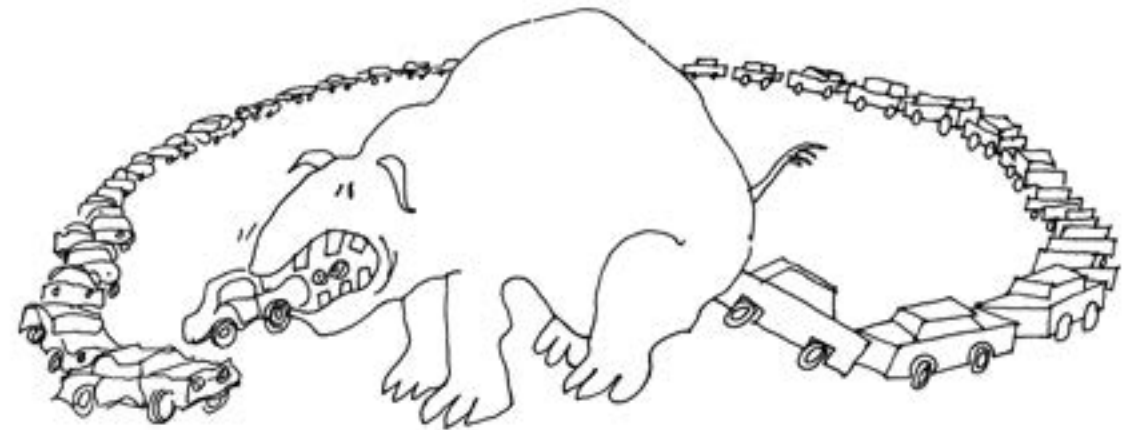


Janja Lap, design of a new tray and economical set of containers. London, kept at the Royal College of Art - Special Collections & Archives.

claims of her being “the first Slovenian service designer” might be somewhat overstated, the above nevertheless provides a compelling perspective in the context of investigating the development of service design in Slovenia. The pivot towards service, and towards designing the experience as a whole, is often attributed to the industrial designer Janez Smerdelj, who, in collaboration with Anton Holobar, devised a new approach to washing machine design (Simple and Logical). In 1996, Smerdelj placed the user—someone who needs to wash clothes—at the centre of the household appliance design process, rather than treating redesign merely as an opportunity to add ever more functions (Predan 2012). The same approach is already evident in Janja Lap’s work of the 1960s. She centred her research and design on the end user, who seeks a healthy and high-quality meal, as well as on all those involved in its preparation and delivery—from cooks, through those who distribute and plate the food, to delivery personnel. In doing so, she approached design in a manner typical of a service designer, even though it should be noted that the formalization of service design as a discipline

was not concretely articulated until 1995 in Germany (Mager 2019). In this context, her initial statement becomes clearer; during her research, “she designed a new approach to a previously identified design problem” (MAO AJL Lap and Whittlestone 1974: 1).

Once again stepping from the micro-level of design to the macro, systemic level of research and redesign, Janja Lap recognized as early as 1971, based on in-depth studies, what has since become an acute social problem—the world’s reliance on single-use packaging (MAO AJL Lap 1971: 56–57). Seeking to address this issue, she devised a durable container suitable for the flash freezing, rapid reheating, serving, and consumption of food. However, she did not stop there. She also highlighted the need to establish a system for dealing with the container once it had to be discarded due to wear and tear. She insisted that this process should not be left to individual organizations; instead, a coordinated system should be created for the collection of discarded containers, the cleaning of the material, and its reprocessing (MAO AJL Lap 1971; Lap 1980: 7). With this proposal, she ventured into what is today recognized as the highly relevant field of circular design and the circular economy. She had, in fact, crossed over into the field of reverse logistics.



Imagine glass dishes!!!

Gerd Wukasch, illustration of circular design with Janja Lap’s commentary, published in her Master’s thesis titled *Communal Feeding System*, 1971. Ljubljana, kept by MAO.

In parallel with the professionalization (and industrialization) of the discipline of design, numerous design theories and practices concerned with environmental awareness were emerging. These developments most often arose directly in response to the prevailing “throw-away culture” that characterized the latter half of the twentieth century and continues to shape contemporary consumption. Despite this early recognition, the systematic integration of these theories and practices into the field of design progressed far more slowly. Although Kenneth E. Boulding had already written about the necessity of considering a circular system—as an alternative to the existing “cowboy economy”—in the realm of production and economics in his 1966 essay *The Economics of the Coming Spaceship Earth* (1966: 5, 7), it was not until the late 1970s that real momentum began to gather (Ellen MacArthur Foundation). Another decade passed before the first systemic and conceptual considerations began to be discussed in the field of design in the early 1990s. Among them was the concept “cradle to cradle” developed by William McDonough and Michael Braungart. The authors outlined the concept around nine (circular) principles, which they published in 1992 under the title *The Hannover Principles: Design for Sustainability* (McDonough and Braungart 1992). In the same year, the author James R. Stock published *Reverse Logistics* (1992), the first discussion of the eponymous concept. Against this backdrop, Janja Lap can once again be positioned among those perceptive researchers who, at a time when today’s sustainability concepts were only beginning to take shape, contributed thoughtful proposals advocating their systemic implementation. This is further evidenced by her efforts to transfer her research findings into the Slovenian context.

Transferring the Research Approach to Slovenia

The first attempt dates back to 1972. Under the auspices of the Central Institute for the Advancement of Households, and commissioned by the Republican Association of Child-care Communities, she prepared the *Proposal for Tableware and Food Serving System for Pre-school and Primary School Kitchens*, which was based on a study of typical menus. In the same year, as an external collaborator of the Central Institute for the Advancement of Households, she was commissioned by the Chamber of Commerce of the SR Slovenia to prepare a programme for a research assignment *Certain Transport and Distribution Systems for Collective Feeding* (MAO AJL Lap 1972). The proposal incorpo-

rated the findings of the research, which was clearly adapted to the Slovenian context.

She began by laying out a critical-analytical review of existing feeding systems for children and adults in schools, hospitals, and educational and childcare institutions, as well as in nursing homes, with the possibility of expanding it to include commercial and industrial canteens. As in the UK, her preliminary investigations in Slovenia identified fluctuations in food quality and quantity standards. All establishments were found to share a common weakness: the conventional system of preparing food for large numbers of people. She observed that the cooking methods employed were essential the same as those used in individual households; the difficulty lay in the fact that this pattern could not be scaled up without a loss of nutritional value of the food. In her study, she therefore advocates for the exploration of more advanced techniques of food preparation and distribution with the aim of improving quality, alongside the establishment of an economically viable and sustainable system. Her central thesis was that this could only be achieved through the use of deep-frozen food.

Three years later, commissioned by the Association of Child-care Communities of the SR Slovenia, she prepared a further study titled *Introduction of Industrial Food Provision in Educational and Childcare Institutions and Schools in the Municipalities of Ljubljana* (MAO AJL Lap 1975 and AS 2153 358). Once again, she approached the task in a thorough and systematic way. She included statistical data on the nutrition of school and pre-school children enrolled in educational-childcare institutions and after-school classes, pupils in dormitories and special institutions, as well as data on the needs of children in primary schools, secondary schools, and vocational schools across Slovenia.

In the next step, she verified the data and conducted a detailed analysis of the existing organization of food provision in educational institutions in five municipalities in Ljubljana. This analysis clearly highlighted the problems present in the field, from which she derived the starting points for understanding the systemic needs. She examined the issue from three perspectives: the ideal situation, the existing situation, and the adaptation of the existing situation. Among the matters considered was how to introduce industrial food-processing techniques into existing central kitchens, the direct involvement of the food industry, and the question of how to systemically introduce various methods of preparing and processing food.

What began with redesigned tableware evolved, through the involvement of an ingenious design researcher, into systematic research studies that were ultimately transferred to Slovenia at the highest levels at the end of the 1970s. A 1979 initiative stating that the Executive Council of the Assembly of the SR Slovenia “will, in cooperation with sociopolitical organizations, examine whether communal feeding should be treated as an activity of special social importance in the future” (*ibid.*: 90) was certainly not solely the result of Janja Lap’s efforts;⁸¹ her work, however, undoubtedly represented an important piece in the mosaic of understanding the urgent need to upgrade the existing infrastructure in a rational and systematic manner.

Research Studies

In parallel with her efforts to improve the quality of meals for the most vulnerable segments of the population, Janja Lap was also conducting in-depth research on design in times of crisis, ranging from wars to earthquakes. She thoughtfully connected this topic to Slovenian partisan hospitals, focusing in particular on the Franja and Jelendol hospitals, and drew comparisons with other instances of disaster response. In order to underscore the importance and necessity of understanding vernacular design and architecture, she organized a research trip for English students, during which they undertook field research by visiting, measuring, and photographing a Partisan hospital site. Throughout the process of observation and data collection, they were constantly encouraged to situate the site within the broader context of the Second World War, paying particular attention to the extraordinary complexity involved in organizing the services essential to the functioning of any hospital.

Even after formally stepping away from full-time research—following two years at the Institute of Sociology and Philosophy, she took up a position at Iskra Commerce)—Janja Lap did not sever her ties with research. In the early 1980s, she served as an external collaborator on a research project conducted by the Urban Planning Institute of the SR Slovenia titled *Planning Temporary*

⁸¹ Between 1968 and 1978, under the auspices of the Institute for the Advancement of Households, they conducted 28 studies and research projects on improving nutrition in educational and childcare institutions (AS 2153 286). The studies mainly focused on analysing nutrition and menus, organizing kitchens and, above all, training kitchen staff. A minority of the studies (3) focused instead on the broader systemic problem and opportunities for improvement. This also includes the aforementioned studies by Janja Lap.

Housing – Criteria of National Defence and Social Self-protection in Municipal Social/Spatial Plans. Among the documents dating from 1985, we also find her application for a two-year study programme in the USA on the topic of designing habitation and planning infrastructure for natural disasters.

Below is a list of Janja Lap’s research projects, compiled on the basis of archival documents and the author’s notes.

1965–1966

Hospital Feeding Systems, a research project she undertook as part of the research group for hospitals at the School of Industrial Design (Engineering) at the RCA.

1971–1973

Communal Feeding System, study project for obtaining a Master’s degree at the RCA. Mentor: L. Bruce Archer. The basic research task also includes appendices with supporting material (tables, diagrams, measurement results, and schematic illustrations).

1972

Transport and Distribution Systems for Communal Feeding, study assignment. Among the surviving archival documents is a typescript titled *Program raziskovalne naloge: Določeni transportni in razdeljevalni sistemi kolektivne prehrane* [Research Assignment Programme: Certain Transport and Distribution Systems for Collective Feeding]. The study was commissioned by the Chamber of Commerce of the SR Slovenia. Its author, Janja Lap, is listed as a collaborator at the Central Institute for the Advancement of Households. She also included part of the study in her Master’s thesis.

1974

Partisan Hospitals in Slovenia, research project including a summer school and a conference on the topic of Partisan hospitals. As part of a summer school for students from London’s Architectural Association School of Architecture (AA School), they met with former Partisan doctors and watched a film about the Partisan healthcare system. As part of their fieldwork, they visited Kočevski Rog, including the Partisan hospitals in Jelendol and Zgornji Hrastnik and the headquarters of the political leadership of the Slovenian National Liberation Movement (Base 20), and Cerklje, the site of the Franja Partisan Hospital. The main purpose of the research was



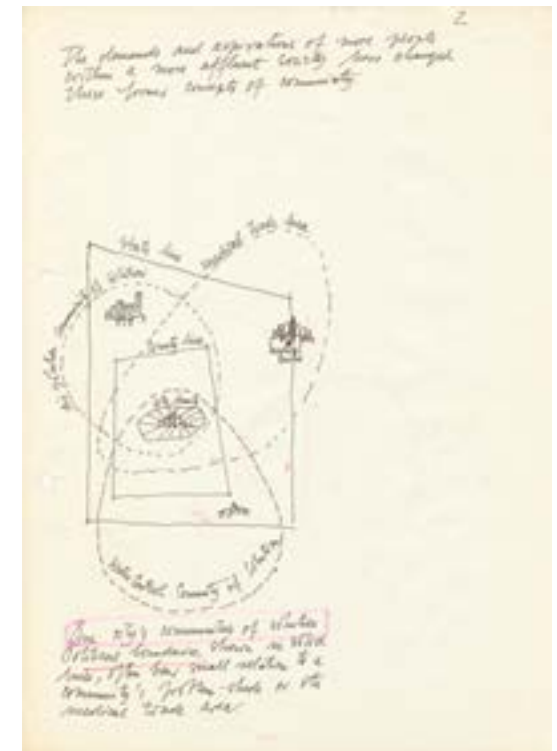
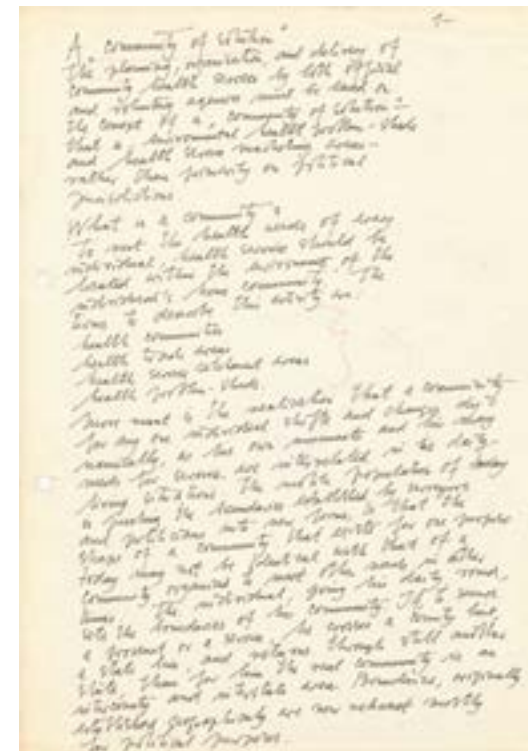
Janja Lap, Partisan Hospital Jelendol, pencil sketch, 27 July 1974. Ljubljana, kept by MAO.



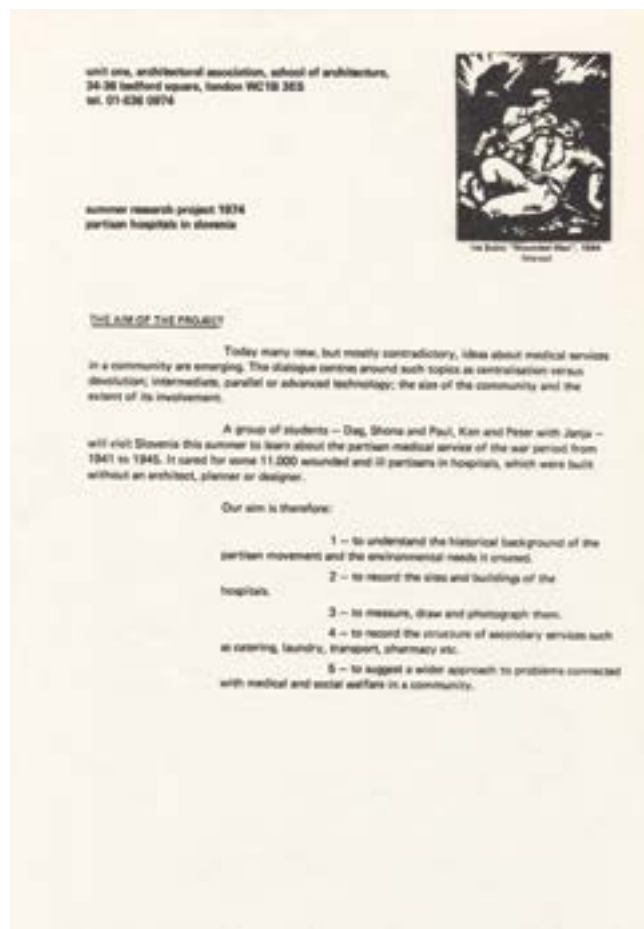
Janja Lap, field notes and sketches, 1974. Ljubljana, kept by MAO.



Photographs of the participants of the summer research project *Partisan Hospitals in Slovenia*, 20 July-4 August 1974. Ljubljana, kept by MAO.



to document the surviving Partisan hospitals— photographing, measuring, and drawing them—while also studying their historical background and understanding how they had been adapted to the environment and context of the Second World War. Special emphasis was placed on understanding the organization of secondary services, such as food preparation, laundry, transportation, and pharmacy supply. As Janja Lap noted, most of these services were organized centrally, with widely dispersed distribution routes, meaning that hospitals hidden deep in the forests could be reached on foot (in the nearest cases) within 24 hours. A report on the summer school was also published in the AA School brochure *Technology for Survival* under the title “Yugoslav Summer” (MAO AJL Lap 1974).



Memo regarding the summer research project
Partisan Hospitals in Slovenia, 20 July–4 August 1974.
Ljubljana, kept by MAO.

1975

Uvedba industrijskega načina preskrbe prehrane v vzgojno-varstvenih zavodih in šolah v ljubljanskih občinah [Introduction of Industrial Food Provision in Educational and Childcare Institutions and Schools in the Municipalities of Ljubljana], study assignment. Commissioned by: Zveza skupnosti otroškega varstva SR Slovenije (Association of Childcare Communities of the SR Slovenia). Janja Lap was the person responsible for this assignment.

1975

Way to Community Catering. Collaborator: Paul Whittlestone. Commissioned by: Birds Eye Food Industry, Great Britain. A draft research proposal titled *Community Welfare Catering System* was sent to Birds Eye Foods Limited in March 1974. At first, only the publication of the article was approved. In order to secure the research funding, they suggested that they refine the research (MAO AJL Howard-Jones 1974). They succeeded with their proposal in 1975, when Janja Lap was already collaborating with the Architectural Association School of Architecture.

1975

Post-Disaster Planning. A research study on the urban and architectural planning after the Skopje earthquake. There are many surviving photographs attesting to Janja Lap’s meticulous field research.

1977

Samoupravni sistem v stanovanjskem in komunalnem gospodarstvu [The System of Self-management in Housing and Utilities], research report, Ljubljana: Institute of Sociology and Philosophy at the Edvard Kardelj University of Ljubljana. Mišo Jezernik was the person responsible for the project. Collaborators: Franc Bučar, Andrej Caserman, Miša Grčar, Janja Lap, Nevenka Sadar, Stane Saksida, Janez Šmidovnik.

1979

Družbeno-socialne možnosti gradnje [Social Opportunities of Construction]. Independent study project at the Institute of Sociology and Philosophy at Edvard Kardelj University in Ljubljana.

1980

Začasno bivanje in urbanizacija [*Temporary Housing and Urbanization*]. Janja Lap's research was published in the collection *Planiranje začasnega bivanja – kriteriji ljudske obrambe in družbene samozaščite v družbenih/prostorskih planih občin: 1. faza, prostorsko-urbanistični vidik* [*Planning Temporary Housing – Criteria of National Defence and Social Self-protection in Municipal Social/Spatial Plans: Phase 1, the Spatial-Urban Aspect*], Ljubljana: Urban Planning Institute of the SR Slovenia. The research coordinator was Nevenka Sterlekar.

1985

Disaster housing and design for disaster infrastructure. The draft proposal for a research project was prepared for the purposes of an application for a study programme in the USA.

Consequences of Being Overlooked

Without detracting from Janja Lap's undoubtedly illustrious career in glass and industrial design, this chapter has sought to highlight that, for most of her professional life, she was also an immensely insightful and persistent researcher. Further underscoring the remarkable complexity of the research topics she addressed is her ability to deftly incorporate her insights into other aspects of her professional practice.

It is equally important to recall that she was among the few Slovenian designers to have acquired fundamental knowledge of design research through active collaboration with pioneers of the discipline in Great Britain. Despite this, as mentioned in the previous chapter, upon her return to Slovenia in the late 1970s, her wealth of experience in research and teaching appears to have carried little weight in securing her employment at the Faculty of Architecture, Civil and Geodetic Engineering or at the Academy of Fine Arts in the 1980s. The neglect of this aspect of her work is therefore undoubtedly even more significant for the Slovenian design milieu, especially in relation to education and research. The lack of recognition is already evident in the fact that, during the development of the higher education study programme for the field of design at what was then the Academy of Fine Arts, she was seen merely as a potential lecturer for the subject Design – Applied Arts: Glass. Meanwhile, at the Academy of Education, as a retired

architect, she was assigned the subject Culture of the Living Environment – Residential. The syllabus indicates that she also taught methods of analysis as part of the course, while the time allocated to practical exercises remained very limited due to the breadth of other course content [pg. 42]. It is therefore difficult to regard this as conducive to understanding or as offering genuine opportunities for the transfer of contemporary design methodologies—from service and systemic thinking to circular design—all of which Janja Lap had regularly practised at the RCA and more broadly—to Slovenia.

This suggests that Janja Lap was not recognized as a potential leader within the academic discipline of design research, which had already been established abroad for at least a decade. Had decision-makers acknowledged this at the time, we might not today be compelled to argue for the inclusion of designers as equal partners in research projects, regardless of gender. Indeed, nearly four decades later, we might already have reached a broader societal understanding that research in design constitutes an essential part of the research and teaching process in higher education. It is precisely that dimension of inquiry which, when confronted with complex social challenges, does not retreat, but rather, when necessary—just as Janja Lap demonstrated—develops new approaches and proposes alternatives to the existing systems.

DIRECT CONTACT WITH INDUSTRY

DIRECT CONTACT WITH INDUSTRY

In April 1979, Janja Lap took a job as an industrial designer at Iskra Commerce (TOZD⁸² Marketing). This was her first entry into the realm of designing mass-market products and gave her an opportunity to explore ways of applying her research. Despite her ambitious goals, she joined Iskra at precisely the moment when their independent design department was being dismantled. It is therefore no surprise that, two years into her employment, upon receiving the international BIO Award, she stated in an interview for the *Iskra* newsletter:

I always look at things through the magical prism of the future, wholeheartedly wishing and hoping that the design will really come to life and take Iskra by storm. [...] This is why all of us at Iskra ought to make considerable sacrifices to this end. We ought perhaps to consider that design is no longer a good fit for Iskra Commerce and instead reimagine it as an institute operating at two layers: a service layer for addressing everyday issues and a second layer, where bona fide development would take place in close association with other development institutes (Ovsenik 1981: 5).

82 TOZD (*Temeljna organizacija združenega dela*, meaning “Basic Organization of Associated Labour”) was the basic organizational unit of a company in socialist Yugoslavia that was a characteristic feature of the system of socialist self-management in the latter half of the 20th century. It represents a partially autonomous working unit in which the workers participate in management, and which would be integrated into the broader organization of the company.



She added that her departure from the Institute of Sociology and Philosophy after two years was due to missing “creativity, direct contact with industry, the need to design”. At the same time, she would have liked to see more development projects at Iskra: “We deal exclusively with practice, that is, with product design projects, but I feel like we are not getting enough of them yet” (*ibid.*: 6). That said, two key premises must not be overlooked. The first is that, as a designer, she “looks at things through the magical prism of the future”. The second is that, in order for this perspective to

prevail in practice, designers must be given the space to reach the level of actual development. Or, in the words of Jamer Hunt, design is “generative, speculative, transformational”. The designer therefore repeatedly uses the present “as a provisional leaping off point for re-imagining possible futures” (Hunt 2011: 35).

When interpreting Janja Lap’s industrial design work, it is important to keep in mind an aspect she began cultivating during her architecture studies and later developed further at the RCA: the awareness that “we are constantly confronted with the problem of the historical aspect of creativity, which needs to be examined especially in the context of the diversity of cultural traditions and the existing social structure” (Lap 1981: 13). In the 1980s, she additionally pointed out that it was time

we asked ourselves if we are capable of recording our periods of life through a deeper engagement with the questions of a nation’s cultural and social heritage, and, from these starting points, form our own visual concept of industrial design that would, by virtue of its authentic and original expression, be able to equal the European level of industrial product creation” (*ibid.*).

The search for uniqueness and authenticity of expression already hinted at tendencies that would later

Janja Lap at Iskra, 1980s. Ljubljana, kept by MAO.

be reflected in society during the breakup of Yugoslavia a decade later. At the same time, by emphasizing the need to explore the so-called *historic aspect of creativity*, Janja Lap raised a topic that remains relevant today. This thought should be read in conjunction with her earlier statement that she always looks at things “through the magical prism of the future”. A similar argument was advanced by Alison J. Clarke, who contends that it is, in fact, impossible to look to the future without understanding history. She argues that “at the core of the imaginary and the speculative within design, history has always played a major theoretical and conceptual part”. This is why there is such an issue today with “this explosion in contemporary design [that] now largely neglects, or actively denies [history’s role] through its lack of engagement with historiographical framing and its acritical approach to ‘the social’” (Clarke 2016: 73–74).

Janja Lap’s incidental comment noting that at Iskra’s design department they deal “exclusively with practice, that is, with product design projects,” testifies precisely to this shortcoming. In other words, she critically recognizes that, while design has a place at Iskra, its role is reduced solely to serving the company or the everyday life of the consumer. What is neglected (or even deliberately overlooked) is design’s role as an actor with definite agency that can, on this basis, generate new knowledge for further reflection on a liveable world. Such reflection extends beyond the mere application of design knowledge and skills for the purpose of meeting the needs of industry. By accepting this reduction, we consent to the removal of the essence of design, since, according to Tony Fry, agency is integral to ontology. Design, he argues, continues to act upon our being as “a determinate force of our continual becoming” (Fry 2012: 10). Cutting even closer to the core is his statement that “we can only get to a future with a future (for us) by design” (*ibid.*: VIII).

Once we touch upon these aspects, however, Janja Lap, along with the rest of the authors, compels us to reflect on our values. Everything we create, or design, is an extension of ourselves and, as such, tells us what it means to be human. We are therefore talking about a language of things, services, and experiences. And design is precisely the discipline that, by constantly reshaping our (tangible and intangible) environment, integrates our values into it over time. Or, as Dori Tunstall puts it, “design translates values into tangible experiences”. This is crucial, because design is everything that we make as human beings, and nothing that we make as neutral—there are always values attached” (Klein 2018: 65). Or, return-

ing to Janja Lap’s idea, the designer is someone who, through what they integrate into their work (for example, their national cultural and social traditions), not only defines the understanding of design as a concept, but can also elevate the level of our creativity. Taking a broader view: designers are repeatedly faced with the decision of whether to uncritically reproduce the values they have been taught, or to employ rigorous critical thinking in order to reflect on the kind of world we might inhabit, and by incorporating these values, influence not only (the never-ending process of) our becoming, but also our very existence as such.

In focusing on Janja Lap’s industrial design, one quickly notices a distinct departure from experimental and, in some cases, decorative glass products. In her industrial work, she prioritized clear usability, culminating in the highly refined products of the late stage of her career. She constantly centred the user, taking into account the extent of their knowledge. Unsurprisingly, the user experience designed into the laser rangefinder and the thermal camera was tailored to skilled professionals and the specific circumstances of use. By contrast, objects intended for broader use, such as the stimulator for short-term treatment of incontinence, were designed so that no prior knowledge was required. The stimulator, furthermore, is just the right size so that even an elderly person with a weak grip can hold it steadily in one hand while using the other to turn the (suitably large) knob with a clearly legible scale, even in cases of joint swelling or poor eyesight. The language of Janja Lap’s industrial products makes it clear that the central focus is the individual, the user. This is the key concern that drives everything else, with both the function and the appearance subordinate to it, yet without neglecting an understanding of how industrial production operated in a company as large as Iskra during the Yugoslav era.

Iskra and its Department of Industrial Design

Iskra - Tovarna za elektrotehniko in finomehaniko Kranj [Iskra – Factory for Electrotechnics and Precision Mechanics Kranj] was officially established on 8 March 1946 on the foundations of Tekstilna industrija Jugočeška [Jugočeška Textile Manufacturing], which dated back to 1923. During the Second World War, the textile factory was retooled and transformed into a branch of the Berlin-based company Luftfahrtgerätewerk, which produced aircraft parts. After the war, the factory was briefly renamed Strojne tovarne Kranj [Mechanics Factories of Kranj]. At the

time of its establishment, Iskra had 850 workers. By the end of 1983, it would employ more than 32,000, which amounted to 4% of all employees in Slovenia and 20% of those in the Yugoslav electrical industry. In the same year, Iskra accounted for 25% of the total value of the Yugoslav electrical industry (SOZD⁸³ Iskra 1984; 10, 16).

Despite Janja Lap's previously cited—and entirely justified—criticism, it should be noted here that Iskra's strong domestic and international position was undoubtedly due not only to its top-tier engineering staff, but also to its design.⁸⁴ Among the few post-war companies that systematically developed and promoted industrial design in Slovenia, Iskra was the one that stood out the most.

As part of Iskra's Automation Institute in Ljubljana, which was established for the purpose of research and development in the field of mass production, the first industrial design department in Yugoslavia was established in 1962 (it had previously operated as part of Iskra's propaganda service) [pg. 123].⁸⁵ The department was led by industrial designer Davorin Savnik,⁸⁶ with the key premise being to develop a unified house style for Iskra that would also take into account the latest technologies and market requirements. During the following decade, Iskra became the only Yugoslav company to strategically incorporate design into its statute, while Savnik also served as an advisor to the general director. A crucial consequence of establishing the industrial design department was its inclusion in the broader sphere of development. This clearly demonstrated recognition of the role of industrial design in the production process.

In the early 1970s, Iskra developed into Yugoslavia's largest company in the field of electromechanics, telecommunications,

83 SOZD (*Sestavljena organizacija združenega dela*, meaning "Composite Organization of Associated Labour") was a higher-level organizational structure in socialist Yugoslavia that linked multiple TOZDs into a larger economic entity. It enabled coordination of activities and joint management, while individual TOZDs retained a degree of independence.

84 The role and significance of design in Iskra was discussed in more detail in the survey exhibition and accompanying book *Iskra: Non-aligned Design 1946–1990* (Požar and Predan 2009).

85 Before that, in 1952, Niko Kralj set up a design and development service at the Stol company (Predan and Šubic 2011). It was not, however, an independent department like the one at Iskra.

86 Davorin Savnik studied architecture and music in Ljubljana and industrial design in Gottwaldov (today Zlín); after initially pursuing a career in music, he continued his professional career at Iskra and later as an independent designer. He designed a number of important industrial, telecommunications, and household products, lectured at home and abroad, and received numerous domestic and international awards, including the Prešeren Fund Award.



Photograph of the Department of Design at Iskra, Ljubljana, kept by Technical Museum of Slovenia (TMS).

electronics, and automation. Its outstanding achievements in industrial design were most evident in telephony, measuring instruments, and machine tools. At the same time, the 1970s heralded the first shifts in attitudes towards design. As early as 1970, design was transferred from the development division to Iskra Commerce—the company's marketing arm—a move that signalled management's lack of understanding of the designer's role. The decision was widely condemned by the designers, but the criticism fell on deaf ears. The joint development services were subsequently divided into separate development departments assigned to individual Iskra factories. At the beginning of a new technological era, which in the late 1970s saw the emergence of electronics and the corresponding need for new design approaches, development was dealt a further blow with the increased adoption of licensed technology.

Posvetovanje o kakovosti

Na posvetovanju, ki se bo odvijalo v središču Iskra, bodo predstavniki iz različnih podjetij in organizacij razpravali o kakovosti izdelkov in storitev. Na tem področju je Iskra že dolgo leta vodilna in to bo tudi v prihodnosti. Na posvetovanju bodo predstavniki iz različnih podjetij in organizacij razpravali o kakovosti izdelkov in storitev. Na tem področju je Iskra že dolgo leta vodilna in to bo tudi v prihodnosti.

ČETRTLETJE ZAKLJUČILI S POZITIVNO BILANCO

Četrtoletje, ki se je zaključilo na koncu leta 1979, je bilo za Iskra zelo uspešno. Poslovni rezultati so bili pozitivni, kar kaže na to, da je Iskra v tem obdobju uspela izboljšati svojo konkurenčnost na trgu. Poslovni rezultati so bili pozitivni, kar kaže na to, da je Iskra v tem obdobju uspela izboljšati svojo konkurenčnost na trgu.

Oblikovanje iz lastnih korenin

Oblikovanje izdelkov iz lastnih korenin je postalo ena od ključnih strategij Iskra. To pomeni, da so dizajnerji in inženjerji skupaj razvijali nove izdelke, ki so bili prilagojeni potrebam domačih in tujih tržnih segmentov. To pomeni, da so dizajnerji in inženjerji skupaj razvijali nove izdelke, ki so bili prilagojeni potrebam domačih in tujih tržnih segmentov.

Razstava oblikovalskih dosežkov

Razstava oblikovalskih dosežkov Iskra je bila priložnost za predstavitve najboljših delov in projektov, ki so jih izdelali v podjetju. Razstava je bila priložnost za predstavitve najboljših delov in projektov, ki so jih izdelali v podjetju.

Strokovna ekskurzija v Krmino v Italiji

Strokovna ekskurzija v Krmino v Italiji je bila namenjena izmenjavi izkušenj med strokovnjaki iz različnih podjetij. Ekskurzija je bila namenjena izmenjavi izkušenj med strokovnjaki iz različnih podjetij.

The article “Oblikovanje iz lastnih korenin” [“Design from One’s Own Roots”], *Iskra*, 23 May 1981, pg. 5. The two photographs accompanying the adjacent article show the design of the exhibition *Iskra na bienalih industrijskega oblikovanja* [*Iskra at the Biennial of Industrial Design*]. The concept and exhibition design were developed by Janja Lap. Ljubljana, kept by National and University Library (NUK).

The in-house designers expressed their discomfort by organizing internal exhibitions. Two in particular stand out: *Design – Designa ni* [*Design – Design is Not*] from 1979 and *Iskra na bienalih industrijskega oblikovanja* [*Iskra at the Biennials of Industrial Design*] from 1981; the latter was conceived and designed by Janja Lap. In 1982, despite its indisputable successes, Iskra’s industrial design department was dissolved. The industrial designers were reassigned to the development departments of individual Iskra factories; only the graphic design department continued to operate as part of Iskra Commerce. In the same year, Janja Lap was transferred to Iskra’s Centre for Electrooptics. There, she continued to work as an industrial designer until 1989, designing both civilian and military products, with particular emphasis on optical and laser instruments.

Iskra’s Centre for Electrooptics

The origins of the Centre for Electrooptics date back to 1964. On 1 February, the Laboratory for Technical Optics was established within the aforementioned Automation Institute. Among its first tasks was the development of gas, semiconductor (injection), and solid-state lasers (K. 1970: 3). These were subsequently developed into various products, including laser directional communications for audio and video transmission, the laser fax machine *Telikon*, instruments for the precise measurement of short distances and for terrestrial surveying, radars, underwater locators, altimeters, various range-finders, laser navigational devices using circular lasers, devices for use in interferometers, polarimeters, microscopes, future optical computers, devices for use in medicine, such as coagulators and other surgical devices, as well as numerous other products (such as engraving lasers). The development of helium-neon lasers for use in schools and laboratories was a particular success. By 1974, approximately 2,000 school lasers had been produced, 95 per cent of which were sold to West Germany (C. 1974: 5).

In addition to its civilian programme, the Laboratory for Technical Optics also maintained a very strong military (defence) programme,⁸⁷ and according to Iztok Kočevar, was the source of its international reputation. The basic project strategy was built on an analysis of the “current and future battlefield and [...] findings regarding the characteristics and types of resources that will be

87 Interview with Vanda Dittrich, head of human resources at Iskra Elektrooptika during Janja Lap’s tenure at the company, 3 August 2022.

employed”. This understanding formed the basis for defining requirements for the modernization of existing military equipment. The fundamental challenge lay in ensuring that these modernizations were incorporated “into the existing structure [while] ensuring integration with existing systems.” Kočevar further notes that each project had to satisfy conventional military requirements: from the standardization, simplicity, reliability, and modularity of the hardware and software components—facilitating new connections, upgrades, full compatibility, and adaptation to existing systems—to a broad and standardized logistical support, straightforward maintenance and component interchangeability, and, in particular, an optimal price-to-quality ratio (Kočevar 2008; 254).



Products and premises of Iskra's Centre for Electrooptics, 1980s. Ljubljana, photographs kept by TMS.

Engineers at Iskra correctly foresaw the essential role of optical communication in future telecommunications. Iskra had been conducting research in the field of optical fibre information transmission since the early 1970s. As a result, in 1975 the Laboratory for Technical Optics was renamed Iskra Elektrooptika [Iskra Electrooptics]. By the mid-1980s, as many as 23% of the employees at the Centre for Electrooptics held higher education degrees, reflecting the fundamentally research- and development-oriented nature of their work (SOZD Iskra 1984: 6, 16). The Centre's achievements include the development of electro-optic transducers, and by 1980 they had already tested the first 32-channel optical fibre connection.

Iskra's engineers regularly published these achievements in the weekly newsletter of the joint Iskra company, *Iskra: glasilo delovnega kolektiva Iskre* [Iskra: The Work Collective's Newsletter] (1962–2008). In the 1980s, Iskra Electrooptics also began publishing a popular science newsletter *Laserski žarki: glasilo Iskrinega*

Centra za elektrooptiko [Laser Beams: Newsletter of the Iskra Centre for Electro-Optics] (1982–1989), which grew out of a smaller, internal bulletin. In addition to workers' organizational, trade union, cultural, sports, and leisure/vacation activities, *Laserski žarki* also published numerous authoritative professional articles and reports on the technical achievements and internationally recognized successes of its departments.

One research and development breakthrough recognized as outstanding in the 1980s was the live television broadcast of the Sarajevo Olympics via optical fibre. The newsletter also regularly reported on the worldwide recognition of (primarily) military equipment at international trade fairs and its widespread adoption in the Middle East, as well as on the expanding use of laser technology, which at the time was transitioning from primarily military use into industry and medicine. The magazine also described the typical organization of laboratory work:

members [of the laboratory] join interdisciplinary teams of experts that carry out individual development assignments. A laboratory member [...] together with the rest of their colleagues, searches for optimal solutions, having all the necessary technical and technological support for successful development, which means: assistance in preparing documentation, contacts with external cooperating partners, organizing the manufacture of components, assistance in prototype assembly, research and development equipment and literature (Kavčič 1984: 2).

It was this high-quality engineering expertise that enabled Iskra Electrooptics to survive the turbulent transition period following the breakup of Yugoslavia with the attendant political and economic crisis. In 1984, it was thus transformed into Fotona. According to Iztok Kočevar, its continued survival was due to its “sales successes on domestic and foreign markets” and to the regular reinvestment of revenue “into improvements, research, and development both in the military field (fire control systems, laser systems, night vision systems ...) and in civilian programmes (medical lasers, industrial lasers, optical communications ...)” (Kočevar 2008: 253).

Janja Lap's Industrial Design

It proved to be quite a challenge to collect, catalogue, and organize works in the field of industrial design and development projects that Janja Lap designed or collaborated on as a member of the team at the Iskra

Centre for Electrooptics. Although she had produced numerous and detailed lists, it became evident that, in the field of industrial design, these inventories focused largely on the civilian programme, while the military component was, with a few exceptions, only briefly described in her typescripts. It is reasonable to conclude that this was due to her being bound by a non-disclosure agreement. Even after an extensive review of military collections and archives (the Park of Military History Pivka, the Military Museum of the Slovenian Armed Forces, and the Technical Museum of Slovenia) as well as numerous semi-structured interviews with the developers and engineers who worked at the Iskra Centre for Electrooptics in the 1980s, this part of her work remains rather opaque. As the relevant archives had been sealed or destroyed by the time this research was conducted, the data were often impossible to obtain. Where data were obtainable, they were typically limited. In most cases, the only additional details beyond the product type were the manufacturer and the year of production, but not the team responsible for its development and design.

A tangible example of the latter is a typescript by Janja Lap, most likely from the early 1980s (MAO AJL Lap (s. a.)b). In it, she wrote that “cooperation with Iskra Electrooptics enabled [her] to design laser binoculars, a goniometer, a periscope, and a few other instruments, one of which is already in regular production” (*ibid.*: 1). The laser binoculars most likely refer to the miniature laser rangefinder RLD-2, which entered regular production in 1981. The goniometer, periscope and other instruments she mentions having designed were likely, based on the data obtained so far, components of the OMU observation and target acquisition system for artillery [pg. 129]. As Branko Mušič clarified, the OMU device contained the listed elements—namely the periscope, goniometer and rangefinder—and was designed to take measurements from a trench.⁸⁸ OMU was “the result of development work carried out by experts, opticians, electronics engineers, physicists, designers, and workers in mechanical and optical workshops in collaboration with all the other departments of the Centre for Electrooptics” (Kavčič 1984: 2). Further indication of Janja Lap’s involvement in the development of the product as a designer is one of the airbrush drawings preserved in her estate.

The following inventory lists works whose authorship could be verified and which are also included in her records. At this stage,

88 Interview with Branko Mušič, a development engineer at Iskra Elektrooptika, 10 February 2023.

works for the military have been omitted, as they could not be conclusively verified despite her references to them. The products are divided into three groups: those Janja Lap designed during her time at Iskra Commerce (1979–1982); those created by the Iskra Centre for Electrooptics (1982–1989); and those products resulting from collaborations outside Iskra (1980s and early 1990s). Within each group, the works are further divided into products that remained at the design stage and those that were fully realized and entered production. As with her glass design, a selection of her essential industrial design works is listed below in chronological order, accompanied by brief descriptions.

During her time at Iskra Commerce (1979–1982), Janja Lap designed the Velox 2 vacuum cleaner for Iskra Železniki (1979) and the Nana hair dryer for Iskra Reteče (1980). For the latter, she also drafted two proposals for a coffee grinder intended for export to Egypt (1982), and for Iskra Železniki, she also prepared a design proposal for a signalling device (1982). The fully realized products from this initial period include the Sora 2 electric water pump for Iskra Železniki (1980), the MVP 600 microwave oven for Iskra Škofja Loka (1981), and the RLD-2 miniature laser rangefinder/distance meter for Iskra Electrooptics (1981).

The RLD-2 miniature laser rangefinder was a superb product that proved highly successful on the military market. This likely contributed to Janja Lap’s transfer to Iskra Electrooptics after the dissolution of the industrial design department in 1982. At the time she began working there, the company was considered to be among the world’s leading manufacturers of laser rangefinders. In the period up to 1989, her work for the company included designing the housing and modules for the VAE device for transmitting TV signals via optical fibre (1983–1984), the interior of a military training centre in Libya (1984), the LSA-02 laser stimulator (1985–1986), the ESA-02 electrical stimulator (1987), the civilian thermal camera TopScan 808 (1987–1988), and the microsurgical ophthalmic laser MOL-01 (1988–1989). All of the works listed above were realized.

As in the case of her glass design, Janja Lap’s archival material also includes several industrial designs created in collaboration



Observation and target-acquisition system OMU, 1984, Iskra Elektrooptika, Ljubljana, photograph kept by TMS.

with former colleagues from Electrooptics and for other (external) clients. One product was created while she was still employed at Iskra Electrooptics and two more followed after her retirement. These are the Conmax therapeutic stimulator for Konmed, Ljubljana (1984), the Skat indoor antenna and a housing and module for TV signal transmission via optical fibre—both for Elrad, Gornja Radgona (1989–1990), and Geo-scan (1991). The latter survives in the archive only as a wooden model, together with an application submitted to a Japanese competition.

MINIATURE LASER RANGEFINDER/DISTANCE METER RLD-2

As Orest Jarh explained, the lasers were initially used “to determine the distance to a potential target. The system emits a laser beam that is reflected off the target, and this reflected beam is detected again. The time elapsed between the emission of the beam and its return represents an accurate measure of the distance to the observed object” (Jarh 2016). This principle formed the basis for the development of a new miniature monocular laser rangefinder for military use. Iskra’s development engineers Zdenko Vižintin and Božo Vukas later emphasized the product’s success: approximately 4,000 units were manufactured, as the Yugoslav army



Janja Lap, miniature laser rangefinder/distance meter RLD-2 (product photograph), 1981, h: 9 cm, w: 22.5 cm, l: 18 cm, Iskra Elektrooptika, photo: Miran Kambič. Private property.



Janja Lap, miniature laser rangefinder/distance meter RLD-2 (photograph of the product in use), 1980s, Iskra Elektrooptika, Ljubljana, photograph kept by TMS.

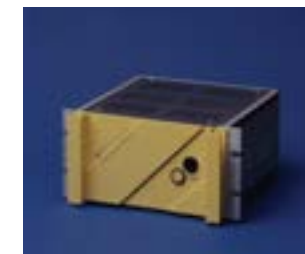
allocated one to each company. Vukas also recalled that Janja Lap’s initial design concept was considerably slimmer, and that it was difficult to convince her to abandon this initial idea in favour of adhering to the military and engineering requirements that mandated a 45 mm ocular lens diameter⁸⁹ to ensure standardization, component modularity, and upgradeability—key principles in military equipment design (Kočevar 2008: 254).



Janja Lap, miniature laser rangefinder RLD-2 being used in practice. Page from the *Laserski žarki* magazine, section *Po širnem svetu* [All Around the World], 1988, 8/2-3, 3. Ljubljana, kept by NUK.

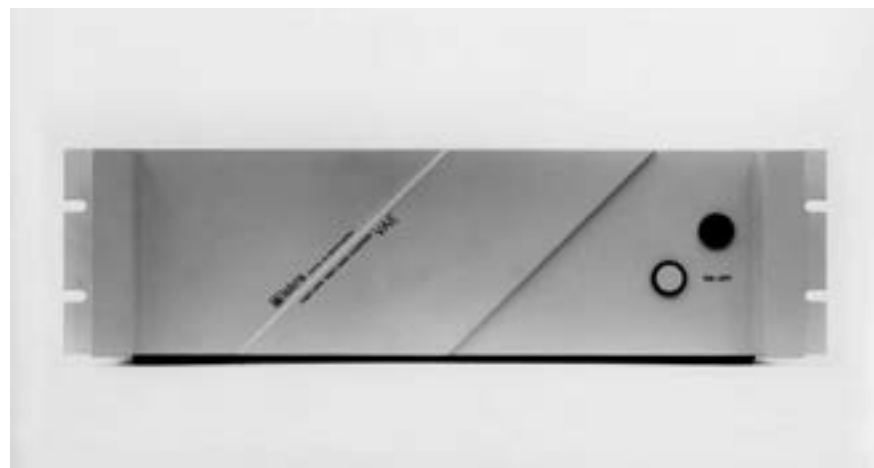
HOUSING AND MODULES OF THE VAE DEVICE FOR TRANSMITTING TV SIGNALS OVER OPTICAL FIBRE

By 1984, telecommunications had become the biggest and most prominent segment of Iskra’s production (SOZD Iskra 1984: 6). Development in this field at Iskra dates back to 1948, while research and development in the field of optical transmission systems in the company began in 1973 (Telekomunikacije s. a.: 1). On the path towards the development of the device for transmitting TV signals over optical fibre, the company developed a personal laser communicator (PLK) in 1978—the first optical



communications system—and produced its first optical fibre a year later (Jarh 2016). In 1980, the first 32-channel optical fibre connection entered trial operation (SOZD Iskra 1984: 6).

A mere three years later, in early 1983, the optical communications laboratory undertook the demanding task of developing eight pairs of “electrooptical transmitters and receivers that would enable the television crew of RTV Ljubljana to transmit video and audio signals via fibre optic cables” (Berdajs 1983: 6) during the 1984 Winter Olympics in Sarajevo. All devices had to comply with CCIR television standards, since even mini-



Janja Lap, housing and modules of the VAE device for transmitting TV signals over optical fibre, 1983–1984, Iskra Elektrooptika. Ljubljana, photographs kept by TMS and MAO.

mal deviations could result in the rejection of the Yugoslav Radio Television’s (JRT) signal by Eurovision in Brussels. Iskra’s engineers had only six months to develop the prototype. In June 1983, the prototype was handed over to TV Ljubljana employees for field testing. Another important milestone was the test broadcast of the World Cup ski race in Kranjska Gora on 1 December 1983.

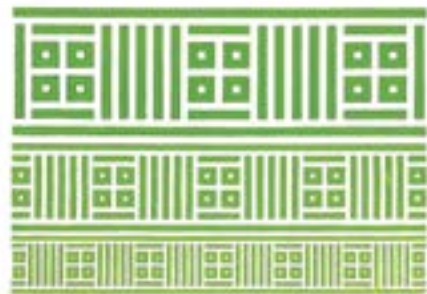
The first public presentation of the Fiber Optic Video/Audio Equipment – VAE prototypes was at the Elektronika ‘83 exhibition in October (*ibid.*). Following successful testing and iterations, the system’s “baptism of fire” on the world stage took place on 8 February 1984, “with a half-hour broadcast of the downhill training run and the ABC company TV signal transmitted to America via satellite” (Mušič 1984: 2). The Winter Olympics in Sarajevo are therefore regarded as the first Games to be broadcast live via fibre optics. Branko Mušič adds the following: “Inclusion in subsequent transmissions was a routine matter, but reliability nevertheless required a high degree of caution and cooperation” (*ibid.*). Following the Olympics, the VAE device was once again used for broadcasting the Ski Jumping World Cup in Planica.

Janja Lap’s design of the housing and modules of the VAE device for transmitting TV signals over optical fibre earned her an honourable mention at BIO 10 in 1984. The merits of the design include a ten-to-one reduction in weight and size compared to similar contemporary equipment. In determining the size of the modules, they followed the contemporary standards for electronics racks,⁹⁰ but Janja Lap also kept transportation and assembly in mind throughout the process. To reduce mechanical stresses on the cables and connectors, she introduced a slight recess on the back of the device. She designed the module housing to minimize interference while also making sure to carefully design the front panels and other protective components. In addition to clearly labelling the functions (optical, video, audio), she added pull-out handles to the front panels to facilitate quick replacement of the entire module in the event of a malfunction. To facilitate the installation of the modules, the front panels were designed in three colours: yellow, red, and orange. Through this thoughtful integration of technical requirements and user-oriented design, she succeeded in simplifying the VAE modules and making them more affordable. Nevertheless, as Matija Murko observed, the sophisticated nature of the equipment, which, being aimed at professional use, meant that production remained small-scale and largely dependent on specific customer orders (Murko 1986).

90 The Uno 84 racks were manufactured by Unis. Interview with Branko Mušič, a development engineer at Iskra Electrooptics, 10 February 2023.

TRAINING CENTRE, LIBYA

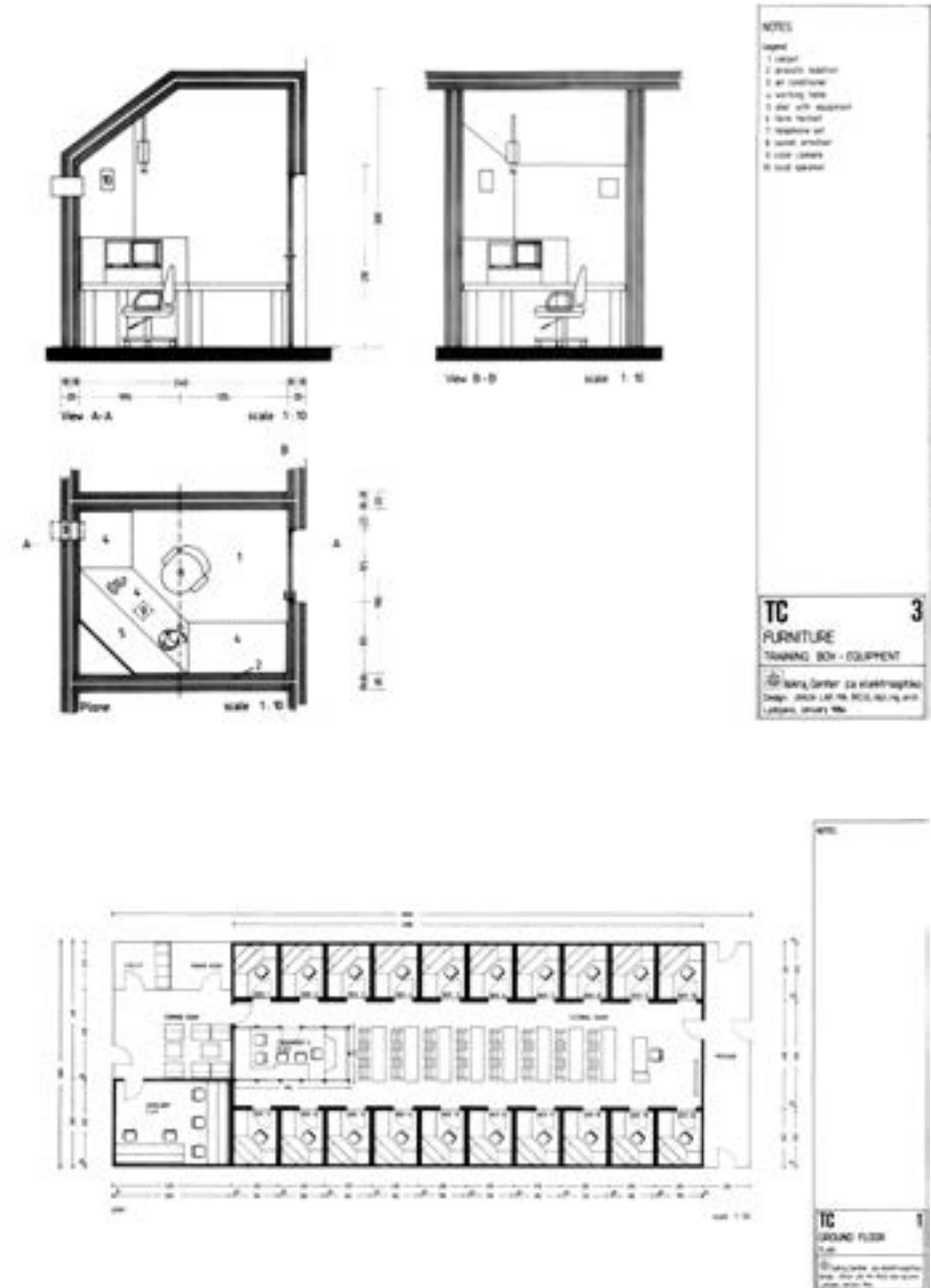
The design of the Training or (according to some accounts) Service Centre in Libya, “south of Tripoli, in the desert,”⁹¹ must be seen in the context of the Non-Aligned Movement.⁹² Slovenian design and architecture developed for the Global South have received far less scholarly attention, yet they are no less important. There, we find architects and designers who travelled there on the basis of international economic agreements with non-aligned countries (AS 1140 425 1984; 459 1985; 474 1983). During the time of the Non-Aligned Movement, Yugoslavia established a special Committee for Cultural Relations with Foreign Countries, which, as Bojana Piškur writes, “arranged exhibitions outside Yugoslavia’s borders.” In this context, “exchanges touched on all levels of cultural production.” According to her analysis, it was, in particular, “architecture, urban planning and industrial design [that] had a special, somehow different status, and were considered state-sponsored vehicles of the new modernist tendencies that were compatible with the idea of creating a new socialist society” (Piškur 2019: 10).



Archival records corroborate this example. They show that architects, urban planners, and industrial designers in non-aligned countries helped establish study programmes, lectured at higher education institutions, and carried out a considerable amount of planning and building in practice (AS 1140 453 1987–1988; 707 1985).

To mention just a few examples: between 1968 and 1970, architect Božidar Janez Gvardjančič supervised the construction of residential buildings in the province of Garian and later in Tripoli. From Libya, he went to Kenya, where between 1971 and 1978 he designed and built, or supervised the construction of, rural health facilities. Between 1982 and 1983 in Iraq, architect Vlado Emeršič worked as an architect, designer, and coordinator. He would later go on to design a pharmaceutical plant in Nigeria and low-cost housing in Sudan. In 1987, working for LIZ engineering under the auspices of Rudis, architects Marija Jugovec, Tanja Robek, Meta Deu, and Matija Suhadolc built the Sonipec shoe factories in the Algerian towns of Frenda, El Bayadh, and Bousaada.⁹³

- 91 Interview with architect Matija Suhadolc, 5 July 2022.
 92 Interview with the development engineer Božo Vukas, 7 July 2022.
 93 Interview with architect Matija Suhadolc, 5 July 2022.



Janja Lap, plans for the Tank Crew Training Centre, Libya, 1984, Iskra Elektrooptika. Ljubljana, kept by MAO.

In other words, architects and designers were recognized in the Global South as experts, as professionals who possessed and selflessly shared knowledge. However, according to Bojana Piškur, Yugoslavia's knowledge exchange was not understood as a desire to civilize others—as was often the case when it came to the “modern’ and ‘advanced’” West (Messell 2018: 91). Yugoslavia instead “maintained the notion of itself as the culture/nation that aimed to help others establish a position in a role that had yet to be created and clearly defined.” Bojana Piškur described the latter as the paradigm of the “older brother,” a position that, from today's perspective, is equally problematic (Piškur 2019: 14).

Despite the sometimes-awkward positioning and the endless balancing act that had to be kept up, it should be stressed that for Slovenian designers and architects during Yugoslavia's membership in the Non-Aligned Movement, professional work in the Global North and the Global South were not mutually exclusive. A telling example of this is the protagonist of this monograph, Janja Lap, who, among other things, planned



Janja Lap, model club table for the Tank Crew Training Centre, Libya, 1984, Iskra Elektrooptika, photo: Aleš Rosa. Ljubljana, kept by MAO.

at least one project (identified so far) for a non-aligned country. This project encompassed the interior design of the Training Centre in Libya, which she planned and implemented in 1984 for the Libyan army. In addition to furniture design, the project incorporated modern Iskra computer and electro-optical equipment. According to Božo Vukas, Libya represented a major market for Electrooptics at the time, and the company therefore sought to establish both a service centre and a facility primarily intended for training service technicians.⁹⁴

Even a brief examination of the blueprints from the green folder bearing the English title “Training centre” demonstrates that Janja Lap's design process followed the logic she had developed previously during her

research on designing for disasters. In her 1977 article “Disaster Housing in Yugoslavia”, published in the New York-based magazine *Disasters, The International Journal of Disaster Studies and Practice*, she wrote that the main challenge in designing for disasters is that “All too often people design an item for a disaster without taking into account the variety of needs that different cultural groups may have. This is important if the aid is to be of value and facilitate the rebuilding process” (Lap 1977: 61). By respecting cultural heritage and understanding diversity, she was also aligning her approach with the broader principles of the Non-Aligned Movement itself. Although, as Piškur notes, culture was not a priority for the Non-Aligned Movement, the cultural policy of the Non-Aligned Movement strongly condemned cultural imperialism and promoted cultural diversity and culture hybridization.

Western (European) cultural heritage was to be understood in terms of “juxtaposition”; this heritage would be interwoven with and into the living culture of the colonized, and would not simply be repeated under new (political) circumstances. For this reason, a “cross-national appreciation for cultural heritages” and a local-to-local approach was extremely important. Here we could well paraphrase Achille Mbembe, in that it was important not only to generate one's own cultural forms, institutions, etc., but also to translate, fragment, and disrupt realities and imaginaries originating elsewhere, and in the process place those forms in the service of one's own making (Piškur 2019: 15).



Janja Lap, Tank Crew Training Centre, Libya, 1984, Iskra Elektrooptika, render: Bor Jarh. Ljubljana, kept by MAO and UL ALUO.

These principles are also evident in the design of the equipment for the Libyan training centre. The preserved blueprints specify the basic interior furnishings, including seating for 55 people. The rational arrangement of working desks, club tables, and seats is clearly visible in the main hall (the lecture hall) as well as in the smaller separate rooms, of which there were 20, intended for individual work and study. One room was meant for the centre manager, one was used as a social space, and there were two additional service/utility rooms.

Other than the blueprint, Janja Lap's estate preserves only one more artefact—a single club table, low and stable, of solid and relatively heavy construction. The slats of the tabletop are glued together in a pattern derived from the Greek meander motif. Given the designer's fondness for ancient cultures, it is reasonable to assume that she drew inspiration from Antiquity, when Cyrenaica—Libya's north-eastern region—was a Greek colony. The wood, stained green, is unsurprising in the context of the Islamic world. The ornament, discreetly integrated into the tabletop, together with the choice of colour, represents culturally specific details skillfully woven into an otherwise rationally and purposefully designed object. Although the choice of wood was not informed by the understanding of local materials, it was pragmatic, since the centre was designed in cooperation with Slovenian industry, which also furnished the buildings.⁹⁵

The Libyan training centre thus illustrates how Slovenian designers, operating within the Yugoslav social order, sought to introduce into the international arena ideas of decentralization and the necessity of emancipation to draw attention to voices from the so-called periphery of design. Janja Lap directed her attention towards understanding and developing a holistic approach in the broader cultural, social, and geographical context. In doing so, she incorporated elements of decolonial discourse into her work and articulated a new design methodology attentive to overlooked cultural dimensions.

CONMAX

The quality of Janja Lap's cooperation with Iskra's engineers is further demonstrated by the fact that she continued to work with them even after they left the company. The first example of such cooperation is Conmax, a product intended for the short-term treatment of urinary incontinence by means of electrical stimulation. It was developed by IOCE, a private company founded by Franc Kunšič after he stepped down from his position as technical director at Iskra Electrooptics. Material preserved in Iskra's photographic archive suggests that this, or a very similar product, may already



Janja Lap, Conmax, 1984, h: 4 cm, w: 8 cm, l: 16 cm, Konmed. Ljubljana, photograph kept by the TMS.



Janja Lap, Conmax, 1984, product colour proposals. Ljubljana, kept by MAO.

have been under development during their time at Iskra. In addition to Franc Kunšič and his colleagues, the Faculty of Electrical Engineering and the University Medical Centre also participated in its development.

The product brochure highlights the development and design rationale. By that time, electrical stimulation had been used in the treatment of urinary incontinence for almost twenty years, having been shown to stimulate the urethral closure mechanism while inhibiting premature and uncontrolled bladder contractions, thereby improving urinary retention. However, the principal drawback with the electrical stimulators available at the time was their impracticality. Achieving the desired therapeutic effect required several hours of daily use over several months. Moreover, the electrodes had to be removed before every urination or defecation, meaning that the device had to be applied repeatedly throughout the day.

With the redesigned Conmax device, the developers succeeded in delivering a more effective and stronger electrical stimulation, allowing for shorter and more practical treatment. For most patients, one month of therapy, consisting of a single twenty-minute session a day, proved sufficient to achieve a positive outcome. The device was extremely easy to use, and the product was ergonomically adapted to users of different age groups, including those with underlying conditions and diseases, such as arthritic patients with weakened grip. In this respect, Janja Lap's contribution resonates strongly with Victor Papanek's call⁹⁶ for designing for

⁹⁶ In his book *Design for the Real World*, Victor Papanek makes it clear that "all people are handicapped in some minor or major way, throughout or for part of their lives." This is why the belief, common among designers, that they design for the so-called normal majority, is mistaken, as in doing so they actually design for a very narrow minority (Papanek 1992: 67–68).

extreme situations, or better yet, for individuals' diverse health-related circumstances. Designing for diverse health-related needs becomes, in the medical field, not merely desirable but essential.

Following its initial production by Konmed, manufacturing and servicing of the device were taken over by Elektronika Naglič. Its owner, Miroslav Naglič, later praised the product, noting that approximately 5,000 units were manufactured and that the device sold well in specialized medical supply stores, such as Sanolabor. However, the introduction of new licensing requirements rendered continued production unprofitable for a small enterprise, and so they were forced to abandon it in 2017.⁹⁷

The archival material preserved in Janja Lap's estate includes plans for the control unit of the device, complete with power scale and various markings, suggesting that, at the time of its design (the plans are dated September 1984), the product name had not yet been chosen. Alongside the full-scale (1 : 1) technical drawings are individual sheets with proposals for different colour schemes, ranging from light to intense blue and green, accompanied by various test inscriptions. The surviving prototype in her estate, however, is white with an orange button, a comparatively conventional choice when measured against the earlier proposals. The stimulator was exhibited together with the LSA-02 laser stimulator at the 11th Biennial of Industrial Design in 1986.

LSA-02 LASER STIMULATOR

The LSA-02 was the first therapeutic laser stimulator for medical use to be developed by Electrooptics under the leadership of Jože Žakelj. The device was intended to be used in physiotherapy in cases of acute or chronic pain due to soft tissue disorders. It operated on principles similar to acupuncture, except that the acupuncture needles were replaced by a laser stimulator. In the product description included with the submission to the 11th BIO, the designer explained:

The laser stimulator is a device developed in response to the findings suggesting that laser light, due to its special properties, can have beneficial effects. Over the two decades of research, scenarios were discovered in which the laser beam can be used as a source of beneficial stimulation, as a coagulator, or as a knife. An important advantage of laser stimulation in comparison to classical acupuncture is that it is painless. The beam, which penetrates the skin up to a depth of 20 mm (He-Ne laser) or even deeper (GaAs laser), will not harm the subcutaneous tissues and cannot introduce contamination.

97 Interview with Director Miroslav Naglič, 3 January 2023.

Attempts to remedy discomfort, pain, disease or injuries are in many cases successful and pose no risk.⁹⁸

At BIO 11, the LSA-02 laser stimulator was positively received by experts from Munich's Staatliches Museum für angewandte Kunst (Die Neue Sammlung). On 28 November 1986, Hans Wichmann, PhD, wrote to the Centre for Electrooptics requesting a donation of the device for inclusion in the museum's collection. Both Janja Lap and Marko Štular, Director General of the Centre for Electrooptics, responded positively.

In 1987, Janja Lap designed the ESA-02 electrical stimulator. Conceived to complement the laser stimulator, the ESA-02 was designed to employ electrical impulses to stimulate muscle fibres into triggering natural signals. Although significantly lower in height, the ESA-02 was designed to visually complement the LSA-02 laser stimulator and could be positioned under the LSA-02, forming a cohesive whole.

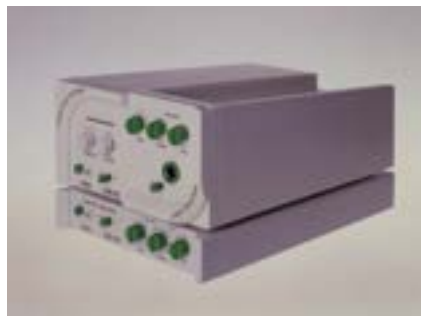


Janja Lap with her product, the LSA-02 laser stimulator, 1986. Ljubljana, photograph kept by MAO.

98 The typescript in Janja Lap's personal file, which is kept by MAO – design department, is attached to a copy of two letters from Die Neue Sammlung, in which they ask Iskra for the laser and request information about the product and its designer. Our conclusion on this basis is that this typescript is a draft for the letter to the Munich museum. Enclosed is a longer manuscript by the designer in which she provides a more detailed description of the laser stimulator and the work carried out by the researchers at the Centre for Electrooptics. Kept by MAO.



Janja Lap, LSA-02 laser stimulator, 1985–1986, h: 14.5 cm, w: 27 cm, l: 36 cm, Iskra Elektrooptika. Ljubljana, photograph kept by TMS.



Janja Lap, LSA-02 laser stimulator, 1985–1986, and the ESA-02 electrical stimulator, 1987, Iskra Elektrooptika. Ljubljana, photograph kept by TMS.

TOPSCAN 808

The TopScan 808 comprised an optical scanner, a processing unit, and a power supply unit. Its accessories included a colour television screen, a video recorder, a printer, a telescope with 5x magnification, a tripod, a folding trolley, and a trunk for transport and storage. This civilian thermal camera, operating on the basis of infrared radiation detection, was used to identify heat losses, monitor heat transfer, and assist in medical diagnostics. The



design challenge lay in integrating a series of largely box-shaped components—scanner, processing unit, power supply unit, telescope, and tripod—into a convenient mobile unit – a trolley – that could be taken to the inspection site. At the same time, the complexity of the apparatus had to be considered, as its operation required liquid nitrogen. The blueprints reveal that the individual technical elements were designed by engineers, while the task of the designer was to integrate them into a coherent product that facilitated easy mobility of the interchangeable components. The resulting trolley transformed a complex assembly of instruments into a manageable device.

Janja Lap, TopScan 808, 1987–1988, h: 85 cm, w: 95 cm, l: 41 cm, Iskra Elektrooptika. Ljubljana, kept by Fotona.



Janja Lap, TopScan 808, 1987–1988, blueprint. Ljubljana, kept by MAO.

MICROSURGICAL OPHTHALMIC LASER MOL-01

Laser research and development at Iskra encompassed three technical domains: military applications, industrial technology, and medicine. According to Boris Vedlin, the military programme remained central, as it generated the majority of the company's revenue, thereby enabling research and development in other domains. As he observed, "laser sources from different technical fields are very similar in the technological sense: a laser for a rangefinder and an ophthalmic microsurgery laser, a material marking laser and a surgical laser, a laser for the "novi avion" (a new airplane then under development) and a shipborne fire control laser, a laser for breaking up gall- and kidney stones, etc." Iskra also made clever use of its work for the military to advance the medical programme, since "the

knowledge acquired in the development of military technology was also used in the development of medical equipment.” This transfer, however, was not a one-way street, with Vedlin adding that the medical ophthalmological programme enabled the transfer of new technical solutions to the development of the binocular laser rangefinder and a laser for a new tank (Vedlin 1988: 6).

The basis for the development of the microsurgical ophthalmological laser was the pulsed polarized Nd-YAG laser that Iskra began developing in 1984 for medical use (Žakelj 1988; Jarh 2016). As Jože Žakelj explained, the device was developed for eye surgery, in particular for glaucoma or cataracts. “The apparatus works by focusing a laser pulse on the appropriate spot in the eye, creating plasma, which, due to its high temperature, generates an ultrasonic wave that tears or cuts tissue” (Žakelj 1988: 6). During the design phase, engineers Žakelj and Vedlin developed the laser head and electronics, while Kombinat Carl Zeiss contributed the slit lamp (LD 1989: 6). Janja Lap’s role was to design the overall product (Žakelj 1988: 6).

Looking at the device through the eyes of its designer, it can be seen that its use involves two simultaneous users occupying markedly different roles—one is active, the other passive. Accordingly, the device was conceived as two separate, yet closely coupled, units. On one end is the surgeon, who needs at hand everything necessary to ensure that the procedure is uninterrupted and precisely conducted; on the other end is the patient, who must be made as comfortable as possible during an uncomfortable procedure performed in a seated position with the head stabilized. Although neither the product itself nor the blueprints for the MOL-01 have survived, the dual nature of the device is still evident in the photograph: the surgeon’s side features concisely labelled functional parts, while the patient’s side includes a comfortable headrest that is cushioned yet stable.



Janja Lap, MOL-01, microsurgical ophthalmic laser, 1988–1989, Iskra’s Centre for Electrooptics and Kombinat Carl Zeiss. Ljubljana, photograph kept by TMS.

Industrial Design as a Team Effort

Janja Lap’s industrial design practice is marked by a dichotomy of approaches. On the one hand, her thinking and work are characterized by a great deal of criticism of the situation within Iskra and of broader social conditions. In the context of innovation, she constantly lamented the lack of understanding of the role of industrial design and criticized inconsistent decision-making approaches “not backed by applied research tasks and moreover lacking any long-term orientations that would enable global design decisions” (MAO AJL Lap 1981b: 2–3). On the other hand, her work consistently demonstrated a stronger user focus, combined with a great degree of adaptability and understanding of the numerous factors impacting her daily practice. Responding to Jože Volfand, editor of the cultural section of *Delo*, who in the early 1980s asked her about the state of Slovenian and Yugoslav industrial design and the challenges it faced, she explained, among other things, that:

Industrial design is an intricate creative process whose results depend on numerous factors. In addition to personal inspiration, every concrete instance of design involves taking into account a whole range of factors that might as well be imperatives, namely: the technological competence of the client, the anticipated sales channels and the level of understanding of the problem among other collaborators on the project, who are involved in various combinations in each specific case (mechanical and electronics engineers, technologists, etc.). Likewise important is, of course, the ability of the sales and marketing departments to convince the potential customers of the advantages that aesthetically superior products offer in comparison to the standard “junk” that is a product of questionable tastes (*ibid.*: 1–2).

As a designer, Janja Lap was acutely aware of these conflicting pressures and approaches, yet she continually sought ways to reconcile them. One such attempt was the development of an internal training programme for engineers and other colleagues at Iskra Electrooptics. According to her friend and colleague Vanda Dittrich, Janja Lap approached this project with great enthusiasm. She based the proposed training on Zoran Didek’s book *Raziskovanje oblikotvornosti* [*Researching Design*] (1982). In this publication, Didek identifies design as the foundation of creativity and production, arguing that “visual thinking, design and planning are among the cornerstones of any production process aiming to

achieve the quality level of modern creative dimensions in all areas (*ibid.*: 16). Despite her initiative and genuine commitment to fostering a shared space in which different professional perspectives could be articulated and understood, and thereby to improving collaboration in the development of new products, Janja Lap failed to convince the management. The training programme therefore remained unrealized.⁹⁹ Nevertheless, she remained convinced of the necessity of collaboration. In the latter half of the 1980s, she concluded a typescript titled “The Economic Benefits of Investing in Design” with the following unequivocal assertion: “Industrial design is a team effort” (MAO AJL Lap (s. a.): 4).



99 Interview with Vanda Dittrich, head of human resources at Iskra Electrooptics during Janja Lap’s tenure at the company, 3 August 2022.

JANJA LAP, THE ARCHITECT

Maja Vardjan,
associate expert
for architecture

JANJA LAP,
THE
ARCHITECT

In recent decades, the historicization of architecture has been marked by discussions, publications, and exhibitions addressing the role and position of women in architecture and design. New research has revealed a significant gap, demonstrating that the contribution of female architects has remained largely or even entirely overlooked by the established canon of architectural history. This canon has been shaped, both globally and nationally, on the celebration of male authors working, for the most part, in the privileged conditions of the so-called developed world, as understood from the comfortable, predominantly European and North American vantage point of architects, architectural historians, and critics. Many recent efforts to remedy this situation by examining and highlighting the work of female architects have encountered considerable challenges, particularly in the search for lost archives that might, in rare and fortunate circumstances, supplement institutional collections with the names and works of female creators. Unfortunately, most contributions to date aimed at filling this gap—visible to the public in the form of exhibitions, publications, and online content—are based primarily on reconstructing forgotten biographies and on individual projects, with relatively few holistic discussions of the role, position, and significance of female creators in the broader context of the periods in which they were

active. While the processes of feminist historiography in the field of architecture are far from complete, the initial momentum and the associated polemics have given way to calls for reflection and a re-examination of its methods and assumptions (McLeod 2004). This text is not merely a chronological contribution to Janja Lap's borderline in-existent biography within the history of Slovenian architecture; it is primarily focused on her extraordinary contribution—both individual and collective—to the Slovenian architecture of the 1950s and early 1960s, when she, through her design work in various formats and at various scales—from designing household objects, through consulting, to planning neighbourhoods and communities—created and co-created a new chapter in Slovenian architecture, one grounded in the development of a modern society and housing culture. In examining her body of work, the narrative deliberately avoids the strict monographic model, since “the monograph's insistence on heroic individualism has also discouraged histories of collaborations, as if acknowledging the work of a team would diminish the pot of glory. This has contributed significantly to the forgetting of women architects because it is common for them to work in partnership (for professional and personal reasons), usually with a man who is often also a spouse (Stratigakots 2016).

The Archive as a Tool of Production

Today, Janja Lap is known primarily as a glass designer; her architectural work has remained virtually unknown, even within professional circles. In 2022, when we gained access to her personal archive in the Museum of Architecture and Design, it initially appeared that researching her work in architecture would be straightforward. However, even a brief review of the archive revealed a distinct lack of material from her period of study and early career, which would ordinarily constitute a crucial formative period for a young creator.

In order to gather material to substantiate this claim, we had to look beyond her personal archive, which, incomplete as it was, ultimately served primarily as a tentative framework for further research, which involved assembling overlapping fragments from various archives,¹⁰⁰ as well as from magazines, newsletters, catalogues, and other documentation. During the research process,

¹⁰⁰ Among them are archives of the Architects' Association of Slovenia, Union of Slovenian Associations of Veterans of the National Liberation Army, Union of Women's Associations of Yugoslavia, Designers' Society of Slovenia, archive of the Socialist Alliance of the Working People of Slovenia, Historical Archives of Ljubljana, and Janja Lap's and Edvard Ravnikar's archives in MAO.

which required repeatedly sorting through fragmentary material, new relationships emerged within the archival material. These connections helped fill gaps in the personal archive and enabled the present, by no means complete, reconstruction.

Such research processes, in which a mention in a women's magazine may prove more revealing than a building's implementation plan, are common when investigating the overlooked oeuvres of female architects, since such enquiries cannot rely on unambiguous reproduction of existing knowledge. This methodological approach draws inspiration and tactics from *archival activism*, a form of “radical or counter-hegemonic history making activity” used to advance different perspectives on what constitutes archival content, how it is classified, and who has the authority to create it (Harriss and House 2021).

The Intellectual and Working Environment of Edvard Ravnikar's Seminar and Studio

Janja Lap belongs to the post-war cohort of architects who regarded architecture as one of the fundamental tools for achieving social and cultural change. She acquired a comprehensive understanding of architecture, which also included other scientific fields, while studying¹⁰¹ at the Department of Architecture of the Faculty of Technical Sciences at the University of Ljubljana as a student in Professor Edvard Ravnikar's seminar. Ravnikar—alongside Jože Plečnik the most prominent figure at the Ljubljana faculty—was an educator who subjected existing educational processes to continuous scrutiny and constant efforts at improvement. He established in his seminar a demanding creative environment that, on the one hand, continued Plečnik's tradition, based on a workshop model involving close cooperation between professor and student. On the other hand, Ravnikar's school was far more systematic, placed greater emphasis on architectural research, and was far more receptive to global developments. It was a “unique laboratory for architecture, urban planning and design that was home to a variety of projects that dealt with contemporary issues in life” (Vodopivec 2010).

Ravnikar's innovative and interdisciplinary methodologies of architectural education¹⁰² left a lasting impression on the numerous

¹⁰¹ She enrolled at the Faculty of Technical Sciences of the University of Ljubljana on 30 September 1947.

¹⁰² In devising his innovative educational methods, Ravnikar took inspiration from Bauhaus and the Ulm Hochschule für Gestaltung. The most forward-looking

young architects of both genders who were interested in a wide range of creative practices. Among them was Janja Lap, who assumed numerous roles within the seminar, progressing from an inexperienced student to leading demanding projects at the republic level. The seminar functioned as a hybrid environment combining study, research, and professional studio work, both in terms of conceptualization of competition proposals and in the development and realization of projects. This model was grounded in the belief that the expanded role of the architect at that time necessitated an integral approach to the study of architecture:

Students need theoretical foundations, but they must not become abstract—they should always be accompanied by direct experience. Instead of an ever-increasing number of subjects, we must seek to synthesize them, general subjects should be taught within laboratories and experimental construction sites where theory can be explicated (Ravnikar 1951).

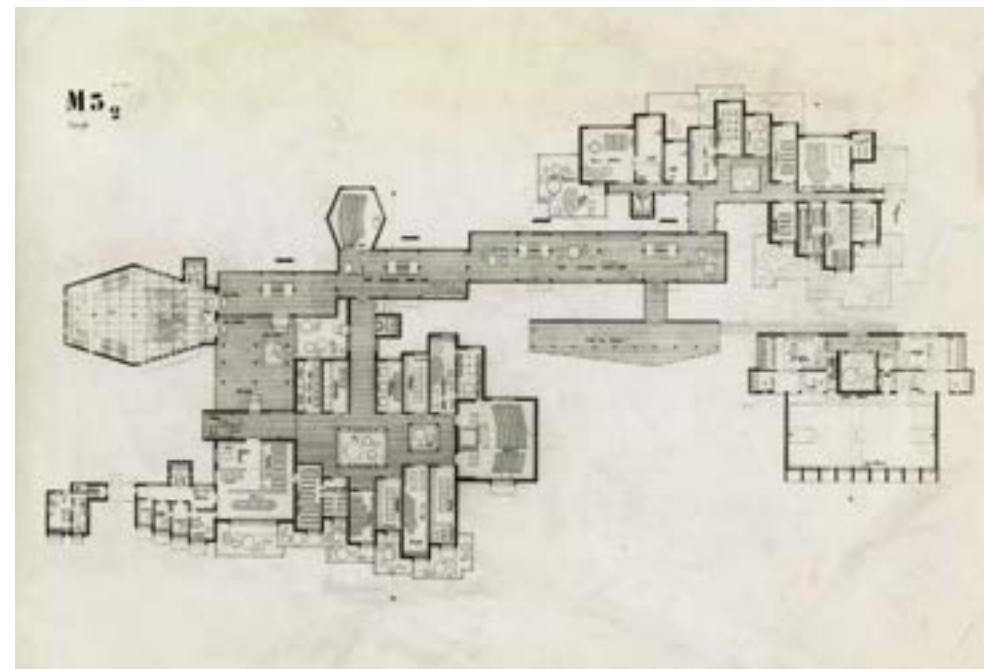
Janja Lap's diploma thesis,¹⁰³—in fact a competition project—clearly illustrates Ravnikar's pedagogical maxim “away from verbal and practical teaching towards active lessons”, as well as the processes of collective creation. A letter addressed to Marta and France Ivanšek indicates that internal competitions were organized within the seminar. In it Janja Lap writes: “The project for the high school in Mostar was certainly an interesting one. Professor thought it was going to be Jernejc and myself working on it, but Mitja is so busy with his diploma that I ended up alone. Last two weeks it was Gusja / Majda Dobravčeva helping me.”¹⁰⁴ Enclosed with the letter is a site plan [pg. 33] showing a progressive concept for a non-monumental school complex that reflects the local spatial environment and climate.

By introducing structuralist principles and fragmenting and off-setting functional units, green atriums and open common areas were created, resulting in a vibrant, human-scale school building. The letter also mentions another characteristic of the work process in Ravnikar's seminar: “The second competition is not as

of his projects was his study programme, the so-called B-course (1960–1962), which introduced experimental education of architects/designers.

¹⁰³ She graduated on 22 May 1956 with the project *Višja gimnazija v Hercegovini. Popolna srednja šola, ki je obenem središče svoje soseske* [High School in Hercegovina. The perfect high school as the heart of the neighbourhood].

¹⁰⁴ Excerpt from Janja Lap's letter to Marta and France Ivanšek, Ljubljana, 25 August 1956. Kept by the France and Marta Ivanšek Foundation.



Janja Lap, competition project for the high school in Mostar, site plan. Ljubljana, kept by MAO.

important—designing the facade for the Forestry Institute. I did that in a day, based on a sketch by Prof. Ravnikar, of course.”¹⁰⁵ Ravnikar developed many projects in collaboration with his students, as well as various chance collaborators, who further elaborated them based on his conceptual sketches, thereby actively and creatively contributing to them.

It was in this laboratory of constant challenges and re-examinations that Janja Lap—through various forms of collaboration—developed her practice. In her biography she listed seven projects¹⁰⁶ developed at the faculty together with Ravnikar and

¹⁰⁵ *Ibid.*

¹⁰⁶ These are the residential building competition project for the City People's Committee of Ljubljana, the conceptual plan for the administrative building for Slovenija-Les, the competition project for the high school in Mostar, the competition project along with the conceptual and implementation plan for the District People's Committee building in Kranj, the conceptual and implementation plan for the residential blocks 3 and 4 of the University Housing District Prule, the competition project for the completion of the student housing district in Ljubljana, and the conceptual plan for a high-rise on Kidrič Street in Ljubljana. Kept by MAO.

other colleagues, although there were likely more. Most are only attested only by individual archival fragments, such as the internal agreement between the project design team and Ravnikar for the realization of a conceptual design and investment programme for the National Bank building/tower (Housing Construction Institute of the District People's Committee of Ljubljana). This document indicates that Janja Lap was responsible for the entirety of the detailed expert report (MAO AER Ravnikar 1958). Another example is an invoice for the payment of fees for study sketches of the conceptual plan for the Slovenija-Les building (MAO AER 1954).

In a manuscript recalling her participation in the competition project for the administrative building of the District People's Committee (OLO) of Kranj—one of the pinnacles of twentieth-century Slovenian architecture—she emphasizes the complexity of the project's development: "I remember in particular the constant difficulties with the deadlines for the submission of the required proposals and decisions, which is illustrated by how Ravnikar determined the colour of the concrete on-site: serving as the colour sample was his own ochre-coloured coat that was placed on the facade of the building. There was no time to perform lengthy colour studies" (MAO AJL Lap, probably 1958).

The nature of Janja Lap's collaboration with Edvard Ravnikar after 1959 is not entirely clear from the archival material. The archive includes an unsigned memorandum proposing that Janja Lap be made Ravnikar's formal assistant for the subject Public Buildings at the Department of Architecture. Submitted by Edvard Ravnikar and Marjan Mušič, the proposal testifies to an intention to formalize their collaboration, although it ultimately remained unrealized (MAO AJL Ravnikar, Mušič 1959). Nor is there clarification regarding the reasons leading to the termination of the agreement (MAO AJL Lap 1959) concerning the design of carpentry furnishings for the residential high-rise on Kidrič Street (now Štefan Street).

From today's (immensely important) perspective of drawing attention to the alarming gender inequalities in the field architecture, their professional relationship might be interpreted through the lens of stereotypical assumptions about the relationship between a man and a woman or between a colleague and her superior; but even here, one needs to be cautious. In the period following the Second World War, an increasing number of women chose to pursue careers in architecture, and while the environment was not ideally conducive to their full and equal participation, Ravnikar's studio nevertheless employed several superb female architects committed to collective values and to a culture in which architects

of either gender had opportunities for professional development, in line with the sociopolitical climate of the time, which was supportive of female emancipation.

Architectural Monuments of the National Liberation War

In Janja Lap's early career, a significant portion of her work involved the design of National Liberation War monuments.¹⁰⁷ These local war memorials were erected shortly after the Second World War on the initiative of the Union of Slovenian Associations of Veterans of the National Liberation Army and local communities. Unlike the monumental memorial complexes of the 1960s and 70s, which were designed to symbolize national ideology and the socialist revolution, these local monuments were more intimate and were associated with what were, in most cases, tragic, traumatic events.

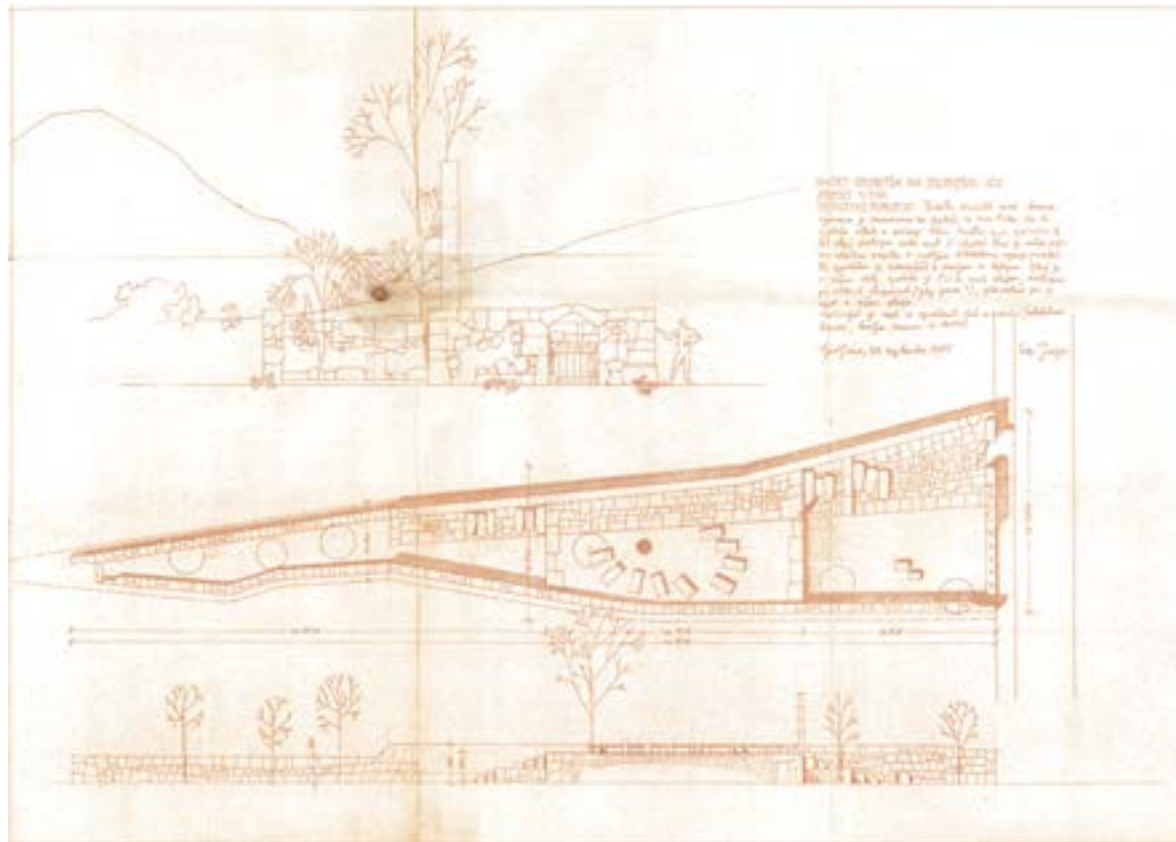
Between the end of Second World War and the beginning of the 1960s, monument design was a constant feature of Ravnikar's work and seminar, as well as a distinctive feature of Yugoslav architecture in general, as highlighted by Edvard Ravnikar and France Ivanšek at an international presentation of Yugoslav architecture. They also pointed out the diversity of the cultural context of the SFRY, characterizing monuments in Slovenia as architectural, in contrast to those elsewhere, which they regarded as more sculptural in nature (Ravnikar, Ivanšek 1955).

Janja Lap made a substantial contribution to the development of both conceptual and implementation projects for architectural monuments during this period. Her earliest preserved drawing from her studies depicts her improvement plan for Gramozna



National Liberation War monument, Zgornji Ig, 1955, cemetery plan with technical report. Ljubljana, kept by MAO.

¹⁰⁷ The phrase National Liberation War signifies the armed resistance by the Liberation Front and Partisan Units against the occupying and collaborationist forces in Slovenia and former Yugoslavia.



National Liberation War monument, Zgornji Ig, 1955 (the first photo shows Janja Lap at the site). Ljubljana, kept by MAO.

jama¹⁰⁸ (1949). Through her constant presence in Ravnikar's seminar, she collaborated on the design of several monuments that Ravnikar also researched throughout the study process.

Among the realized monuments, for which accompanying plans, sketches, and photographs can be found in both Janja Lap's and Ravnikar's archives, are the National Liberation War monuments in Zgornji Ig, Pivka, and Radovljica. An interesting note regarding the attribution of authorship for these monuments is that in her biography, Janja Lap counts them among her own independently developed projects, with the Cultural Heritage Register listing her as

the author of the monuments in Zgornji Ig and in Pivka (RKD 5723 and 4801).¹⁰⁹ At the same time, however, these two monuments are often listed, sometimes together, in catalogues of works attributed to Edvard Ravnikar. The Cultural Heritage Register, however, identifies Ravnikar as the author of the monument in Radovljica.

It is significant that all of these monuments transcend what was then the typical treatment of National Liberation War monuments of the period, going beyond the mere preservation of collective memory to also offer an extraordinary spatial experience. They have in common a thoughtful integration into the natural landscape or park setting, which is treated as an essential component of the project that, together with the monument, forms an integral whole. Attesting to the shared architectural language is also the abstract, fragmented composition, the vertical emphasis embodied in the form of an obelisk, the horizontal elements of the gravestones, and the spatial demarcation created by a stone wall or a platform. These elements situate them within the context of Ravnikar's outstanding memorial complexes, such as the internee cemetery on Rab Island (1953) or the hostages' cemetery in Draga pri Begunjah (1952/53) (Krušec 2002).

There is little doubt that Edvard Ravnikar played a leading role in the design of these monuments, but it is equally clear that numerous young architects participated in these projects—Janja Lap among them—whose role should be acknowledged.¹¹⁰

Particularly valuable are the preserved plans for the monument at Zgornji Ig, as they illustrate the project's genesis through three phases. The first plan (10 January 1955) proposes a concentric arrangement. The cemetery is conceived as a necropolis of ten sarcophagi¹¹¹ opposed by ten semi-circular benches, with an obelisk in the central position between them. Contrasting this more introverted composition is the second variant (20 September 1955), which, by removing the benches, establishes a longitudinal composition framed by a stone wall constructed from material salvaged from abandoned buildings in the vicinity. The third version further

¹⁰⁸ Gravel pits were abandoned excavation pits where the occupying authorities carried out mass executions of hostages during the Second World War as part of repressive retaliatory measures.

¹⁰⁹ The Cultural Heritage Register lists Janja Lap as the co-author of the Ig monument (RKD 5721) together with Edvard Ravnikar.

¹¹⁰ An undated list in Ravnikar's archive names the students involved in drafting the designs for the National Liberation War monuments. Janja Lap's name is attached to two unrealized projects, "No 1 LJ – Celje" and "Soteska – Polje". The document also states that Ravnikar received no compensation for these projects, only the student's fees were paid. Kept by MAO.

¹¹¹ The project proposes hollow stone sarcophagi composed of two parts to facilitate the manufacture and placement of the existing lead coffins inside them.

emphasizes the sequential character of the composition in a drawing of the optical perception of the vertical elements (May 1957), which defines the dimensions and positions of two obelisks.

The project as implemented represents an exceptional example of integrating a monument into the landscape. Not only does the wall, which rises up into a portal, echo the contours of the slopes of Krim,¹¹² but all of the elements of the memorial—including the natural setting—and their mutual relationships, as well as their interaction with the landscape, contribute to the drama and intensity of the space. The optical perception of abstract elements within the landscape is another characteristic shared by these memorial complexes, and is an expression of Ravnikař's inclination to transfer architectural qualities from decorative and structural elements to optical ones (Ravnikař 1954).

In the archive of the Union of Slovenian Associations of Veterans of the National Liberation Army (AS 1238 1957), Janja Lap is credited with two additional National Liberation War monuments, the plans for which were drafted in 1957: one in Krka na Dolenjskem and another in Šmarje. However, Janja Lap herself does not mention these monuments among her conceptual projects. Judging from the drawings and the spatial composition of the memorials, it is highly likely that both were conceived within the complex and open system of Ravnikař's seminar.

Housing as a Social Issue

Janja Lap never separated her architectural practice from issues of housing culture and everyday life. The post-war period was marked by profound changes in these areas, particularly in relation to housing culture, which became one of the central architectural and social issues in the 1950s and 1960s. The establishment of the new socialist state was accompanied by rapid development and a push for social transformation that entailed a break with the pre-war capitalist system. This shift was especially evident in housing culture, in the drive to raise living standards for all, regardless of social status. The rapid industrialization and modernization of society triggered significant urban population growth, which in turn led to a severe housing shortage. At the same time, extensive debates unfolded regarding possible models of modern housing construction compatible with the socialist vision of a progressive, urbanized society. In the 1950s, housing culture became a central issue not only in architectural

112 Krim is a 1107-metre-high mountain on the southern margin of the Ljubljana Marsh.

discourse but also in ideological debate. Architects and designers were quick to respond to these circumstances. The debate on the social role of housing addressed both the “why” (emancipation) and the “how” (modernization) of housing, thereby establishing a direct link between socialist self-management and architectural modernism” (Mrduljař 2018).

Slovenian architects played an active role in these debates,¹¹³ including Janja Lap, who became deeply engaged in housing issues. In fact, by the mid-1950s, they had become her central professional focus, both in collaborative and independent projects. By addressing the topic across multiple scales and project types, she emerged as an important voice in both professional circles and among the wider public in efforts to realize the democratic ideal of ensuring quality living conditions for all.

The Call for Advanced Architecture

In 1953, the City People's Committee (MLO) Ljubljana launched the first post-war call for proposals for new residential buildings (at eight locations), planned for construction in 1953/54. A number of renowned architects responded, as well as some emerging figures,¹¹⁴ among them the recent graduate Janja Lap, who submitted a conceptual plan¹¹⁵ for a residential building to be built on the corner of Preřeren and Vesel Streets in Ljubljana.

Janja Lap's proposal, awarded second prize by the jury, featured a modern architecture characterized by a varied, segmented facade and an open ground floor designed to contribute to the urban fabric with a diverse programme. The apartments were distinguished by a clear differentiation of rooms according to their use; in the larger, three-room apartment, the dining room could be connected to the living room to form a single open space—a rarity in apartment floor plans of the time.

113 In 1954, Rogaška Slatina hosted a three-day conference *Posvetovanje arhitektov Jugoslavije o stanovanju* [Yugoslav Architects' Consultation on Housing] which featured numerous participants from Slovenia (Tone Klemenčič; Pavel Göstl; Ljubo Humek; Niko Kralj, Marko Šlajmer, and Branka Tancig; Edvard Ravnikař) (AS 1173 1954).

114 The competition, which was announced by the Architects' Association of Slovenia, included 29 designers; among them were Ilija Arnautović, Danilo Fürst, Pavel Göstl, France Ivanšek, Stanko Kristl, and others (Residential buildings competition MLO ... 1953).

115 In her biography, Janja Lap includes the conceptual design among the projects created in collaboration with Edvard Ravnikař, but the archives of the Architects' Union of Slovenia and the magazine *Arhitekt* list her as the sole author.



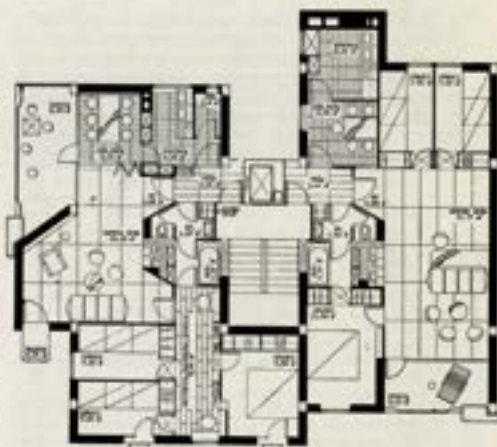
Situacija 1:200 / Site plan

Perspektiva / Perspective view

II. nagrada, aba. arch. Janja Lap.

Mnenje žirije:

Osnovna misel projekta sodi zelo dober arhitektonski priljubljen na obstoječo starbo in zasimiro bogato razgibano fasado. Dispozicija pritrilja je zasimiro zasnovana, pri čemer poudarjamo, da je občestni lokal te vrste na Prešerenovo cesto tudi stremeljša. Pri florirnih dispozicijah stanovanj so sledile glavne kibe: stopnišče je slabo osvetljeno in pretesno, drigalo ni od stanovanjskih prostorov zračno izolirano, celotna sanitarna baterija je pretesna, amfiteatrska za družino prenamajna, stranilce pa težko dostopno, kuhinji zapadnega stanovanja manjša delovna miza, v kuhinji vzhodnega stanovanja je delovno mesto slabo osvetljeno, otroške spalnice proti severu naj bi se organizirale na način, da je možno slačenje in oblačenje v predprostoru — garderobi in ne v dnevni sobi. Kubeture otroških spalnic so iz bioloških razlogov prenamajne. V splošnem je celotno uređenje, ki je sicer kulturno, izboljšati z večjimi dimenzijami, kar bi bilo brez dvoma v korist načrta in konstrukcijem. V splošnem je konstrukcija starbe po svojih nosilnih elementih nejasna in neustrezno dimenzionirana. Vse instalacijski rodi naj se pri skeletnem sistemu vodijo mimo konstrukcij, da ostanejo te čiste in smotne.



Tloris nadstropja 1:200 / Floor plan 1:200

Tloris kleti 1:400 / Cellar plan 1:400

Tloris pritrilja 1:400 / Ground floor plan 1:400

Tloris terase 1:400 / Terrace plan 1:400

1 pralnica, 2 sušilnica, 3 klet za stranko, 4 hladilnik, 5 garderobna kupača, 6 kopalnica, 7 povojni, 8 dograditvena komora, 9 zaklonišče, 10 WC, 11 sanitarni izhod

1 vhod, 2 dvigalo, 3 rampa, 4 skramba koles, 5 skramba za hitri čištni prho, 6 skramba otroških vaučkov, 7 trgovski lokal, 8 stopnice v skledilce, 9 WC, 10 posredna, 11 terasa, 12 miznik, 13 garderoba, 14 točilnica, 15 kuhinja, 16 kuhinjski vhod, 17 WC za osebe, 18 WC ženke, 19 WC moški

1 predprostor, 2 sprejemni in jedilni kot, 3 kuhinja, 4 Anelje, 5 spalnica, 6 sanitarni, 7 studio, 8 terasa



Although the jury praised the integration with the existing building and the design of the facade and the ground floor, they criticized the project for having poor lighting in some rooms, for the small size of the bedrooms, and for the perceived lack of clarity with respect to the load-bearing structure.¹¹⁶ While many architecture graduates might have quietly accepted the verdict of such a prestigious jury, Janja Lap took issue with the jury's justification for their choice for first prize. After criticizing the winning author for a lacklustre ground floor design, the jury had suggested that its author adopt Janja Lap's "interesting solution."

Janja Lap, competition project for a residential building on the corner of Prešeren and Vesel Streets, 1953, floor plan and perspective drawing (Residential buildings competition MLO ... 1953).

The young graduate's analytical and straightforward response demonstrates the tremendous self-confidence and boldness with which she sought to realize her architectural ideals and find her place on the architectural scene of the time. In her letter, she points out the jury's lack of objectivity and refutes their criticism by pointing to a deviation of the prescribed dimensions on the part of the award-winning project, which did allow for larger apartments, but with a conventional floor plan design. Her response also demonstrates her advanced understanding of residential architecture in relation to its broader urban context, as she emphasizes the highly representative nature of the site, which calls for progressive architecture and requires commitment not only from the architect but also from the investor:

Since it is the duty of the Architects' Union of Slovenia,¹¹⁷ as the organizers of this competition, to ensure that objective criteria are employed in order to promote true architectural quality, and seeing as the improvement of architectural quality is their main goal, I ask the Union to appoint a commission to investigate the objectivity of the jury's decision in the matter of the building on Prešeren Street, and to form its opinion strictly on the basis of quality, regardless of

¹¹⁶ From the jury's explanation; the jury members were Stane Miklavčič, jury chair and representative of the investor, and architects Franc Cacak, Vladimir Mušič, Stanko Rohrman, and Branko Simčič (Residential buildings competition MLO ... 1953: 7).

¹¹⁷ Architects' Union of Slovenia (DAS).

the anticipated deadline for completion or other administrative considerations. Deadlines are relative, but poor architecture will remain (AS 1173 1953a).

While the Architects' Union of Slovenia upheld the appeal, with both Janja Lap and the author of the winning competition project, Dušan Bohinec, given the opportunity to create the implementation plan (AS 1173 1953b), it was ultimately Bohinec's project that was realized. Nevertheless, the competition organized by the City People's Committee remains a vivid illustration of a period in the history of Slovenian housing construction that was characterized by extraordinary effort that resulted in a shift towards a new understanding of residential architecture. Edvard Ravnikar, too, criticized the competition within the context of the broader housing situation, arguing that it offered only partial solutions to systemic problems. At the same time, he called for comprehensive strategies and for the realization of the idea of an organized residential neighbourhood (Ravnikar 1953).

Modernizing Everyday Life

In establishing a new housing culture, Janja Lap was significant not only as a designer but also as a promoter of the idea through exhibitions, and as a designer of household objects and furnishings. While still a student, she became an associate of the Central Institute for the Advancement of Households, an organization founded in 1953 with the aim of conducting expert research into the economic, architectural, and nutritional aspects of a household, which was understood—in line with the political vision of women's emancipation—as part of the wider social production (Tomšič 1954). The institute's many tasks included assisting in improving the quality and functionality of household items, and collaborating on the design of residential buildings, as well as on the arrangement and furnishing of living spaces (Korže 1954).

The institute offered many young architects an opportunity to make a name for themselves by working with experts to promote and guide the industrial production of various small domestic items, furniture, and interior furnishings; one of these young architects was Janja Lap. She shared her expertise in the institute's consulting office, where she advised on apartment interiors,¹¹⁸ and

¹¹⁸ The consulting office was open every Friday for personal consultations and was run by Drago Černič, Marjeta Kregar, Janja Lap, and Marija Vovk (Interior Furnishings Advice Section 1960: 95).

it was within this institutional framework that she also developed her first two product series for the pioneering exhibition *Housing for Our Conditions*.¹¹⁹

Educational exhibitions and symposia organized by architects' unions in collaboration with numerous other social organizations played an important role in addressing housing issues and



Janja Lap, interior of Dr Joža Vilfan's apartment, 1959 Janez Kališnik. Ljubljana, kept by MAO.

Interior of the Trata terraced house with a tableware set by Janja Lap and interior furnishings by Niko Kralj, exhibition *Housing for Our Conditions*, 1956, photo: Janez Kališnik. Ljubljana, kept by MAO.



¹¹⁹ The exhibition covered the entire field of residential construction, from urban planning to home accessories. For the purpose of the exhibition, a competition was announced in 1954 for the best solution on the theme of terraced houses, sanitary nodes, and rational furniture design. The models of the award-winning houses were built in full scale and fully furnished (Tepina 1957).

developing industrial production, from the construction and furniture industries to the manufacture of household items. The exhibitions of idealized model apartments, which demonstrated new living concepts on a 1:1 scale to a wider audience, were particularly impactful. The differentiation of floor plans, resulting from the trend towards rationalization and standardization in construction, introduced new room sizes and spatial relationships, which were novelties that most people were unfamiliar with. Evidence of Janja Lap's engagement with these kinds of issues can be found in an unpublished text (MAO AJL 1955) describing a model of a rationally designed apartment featuring a dining corner spatially connected to a laboratory-style kitchen and living room. The architect emphasized that the latter should no longer function merely a space for representation, but rather as a multifunctional space and the centre of family life.

She applied this knowledge in practice through interior design projects for apartments, furnishing them with modern, functional equipment and furniture, which she designed herself as needed.¹²⁰

Architects frequently addressed gaps in the market by designing certain products themselves, and, in some cases, these entered mass production. Janja Lap participated in the *Housing for Our Conditions* exhibition with glass and ceramic objects that were displayed within a carefully designed model interior of a terraced house, where they demonstrated how functional and aesthetic objects could support a new, modern lifestyle. At the same time, they also served to stimulate domestic industrial production and consumption, as there was a lack of similar products on the market.

The emphasis on mass produced products showcased in the context of model interiors also reflected the ideological foundation of these processes, with architects acting as agents of broader social programmes aimed at ensuring quality living for all.

Residential Community

The concept developed for the *Housing for Our Conditions* exhibition in Ljubljana served as a model for the Family and Household series of exhibitions, organized as part of the Zagreb Fair in 1957, 1958, and 1960. These ambitious projects linked the issue of housing to the broader context

¹²⁰ Janja Lap lists two projects of apartment interior furnishing. The clients were Dr Joža Vilfan (project 1959) and Vida Tomšič (project 1961). Photographs of Vilfan's flat are kept by MAO.

of socialist life, with the 1958 exhibition standing out in particular. Janja Lap participated in this exhibition as the head of the architectural studio "Residential Community – General Section" at the Republican Committee for Family and the Household. The exhibition focused on the concept of the residential community, which at the time occupied a central position in the sociopolitical agenda: "the residential community is not just a form of increased social concern for the family; it is principally a way for us to take care of ourselves. It is an extended family that brings us together on a territorial basis at the place where we live and in which we resolve common issues" (Tomšič 1958). The residential community, together with the workers' councils and communes, served as a basic unit of self-management.¹²¹ In cooperation with residents, it provided numerous social services designed to assist individuals, and families in particular, in the organization of everyday life (O nekim problemima ... 1958). The exhibition aimed to demonstrate the social character of residential communities and their role in the urban environment, specifically the neighbourhood, as the basic urban unit.

Under the guidance¹²² of Edvard Ravnikar and his seminar at the Department of Architecture, Janja Lap led a team that designed an ambitious project for an ideal neighbourhood for 5,000 residents. The project represents a unique example of Slovenian architecture and urban planning in that it analytically and explicitly linked housing issue to urban planning and the concept of a residential community:

And it is only when we become more assertive in linking the issue of housing with the associated urban planning, which is an indispensable aspect of properly managing planned construction of residential estates, that we master the concept of the residential community. This concept, which represents a complete unit in urban planning and programme terms, empowers us to think and work more realistically than before (Lap 1958).

¹²¹ In socialist Yugoslavia, self-management was a system in which workers, through workers' councils, participated in making decisions regarding the management of companies, work organization, and income distribution. It was built around the idea of collective responsibility and limiting the extent of direct state control of the economy.

¹²² In addition to Janja Lap as the leader, the invoice made out to the organizational bureau "Family and Household" also lists the architects Majda Dobravec and Vladimir Sedej and architecture graduates Tone Blejec, Boštjan Jan, Roman Serša, Zvone Verbič, Bogdan Mikuž, Vlado Sekavčnik, Franjo Čížek, and Marijan Gnamuš (MAO AER 1958).

rather than as a proposal for direct implementation. Owing to its significance, the model of the ideal neighbourhood was showcased at the entrance to the pavilion *Stanovanjska skupnost – razširjena družina* [*Residential Community – Extended Family*], where Janja Lap, as project lead, presented it to Josip Broz – Tito [str. 28]. The project was awarded a prize by the Federal Committee for Family and the Household.

The Floor Plan Evolution: From Rationalism to Structuralism

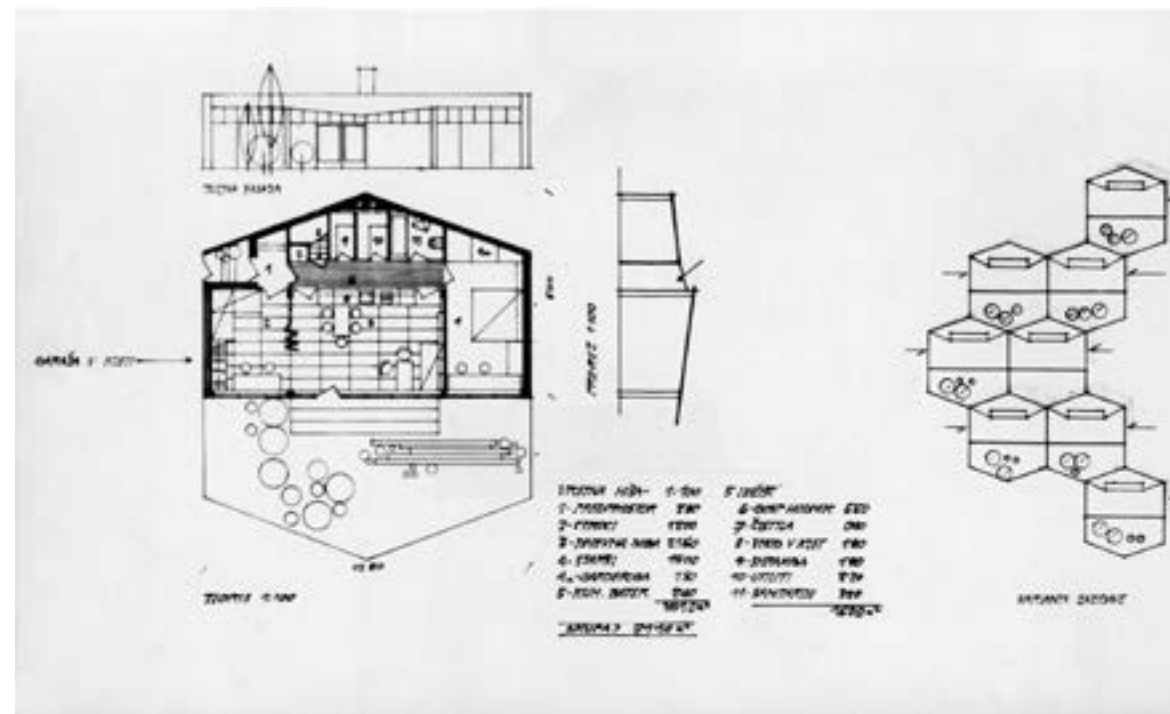
In 1956 and 1957, Janja Lap was employed at the architectural office of the construction company Tehnika, and between 1958 and 1962 at Architectural Studio, a Design Company for Architecture, Urban Planning and Civil Engineering. Cross-referencing the list of her collaborations with Edvard Ravnikar and the projects carried out by Tehnika and Architectural Studio reveals some overlapping projects, such as the apartment blocks in the University Housing District Prule, while Tehnika built a residential high-rise on Štefanova Street.

Ravnikar entrusted part of the University Housing District Prule project intended for the employees of the University of Ljubljana to architect Stanko Kristl, who designed the blocks for assistants. Ravnikar himself designed the units for professors, with Janja Lap collaborating on this part of the project. The University Housing District Prule is one of the first residential neighbourhoods in Slovenia designed around the idea of densifying an existing neighbourhood through the introduction of new housing stock and a system of internal circulation that segregates pedestrians from motor traffic.



Interior of an apartment in the professors' residential block in Prule, 1958. Ljubljana, kept by MAO.

Janja Lap's archive contains floor plan photographs for residential blocks 3 and 4, as well as numerous photographs of the interiors, showing a progressive, modern layout with differentiated spaces, a connection between the laboratory-style kitchen and the dining room, built-in cabinets and equipment, and a balcony that functions as an outdoor room connecting the interior with the surroundings. The extent and stage of Janja Lap's contribution to the development of the Prule project remains unclear; however, it is interesting to note that the Architects' Union of Slovenia's list of projects for the exhibition of Slovenian architecture in Belgrade credits both her and Ravnikar as authors (AS 1173 1957).



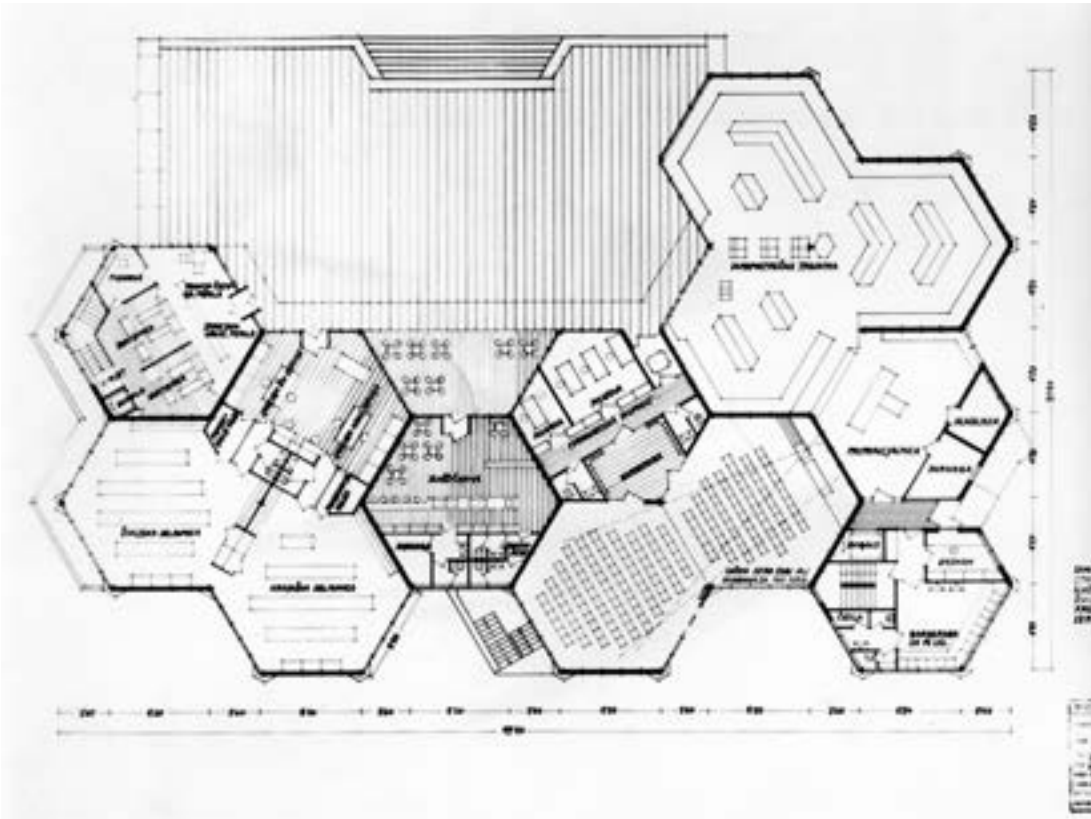
Janja Lap, residential development of terraced houses, internal competition, 1960, floor plan and site plan. Ljubljana, kept by MAO.

Janja Lap's archive also contains fragments of other projects from her period at Architectural Studio, including photographs of plans from an internal competition for terraced houses. These demonstrate a completely unorthodox, non-orthogonal approach to residential space that departs from the functionalist and rationalist understanding of residential architecture of the period. The

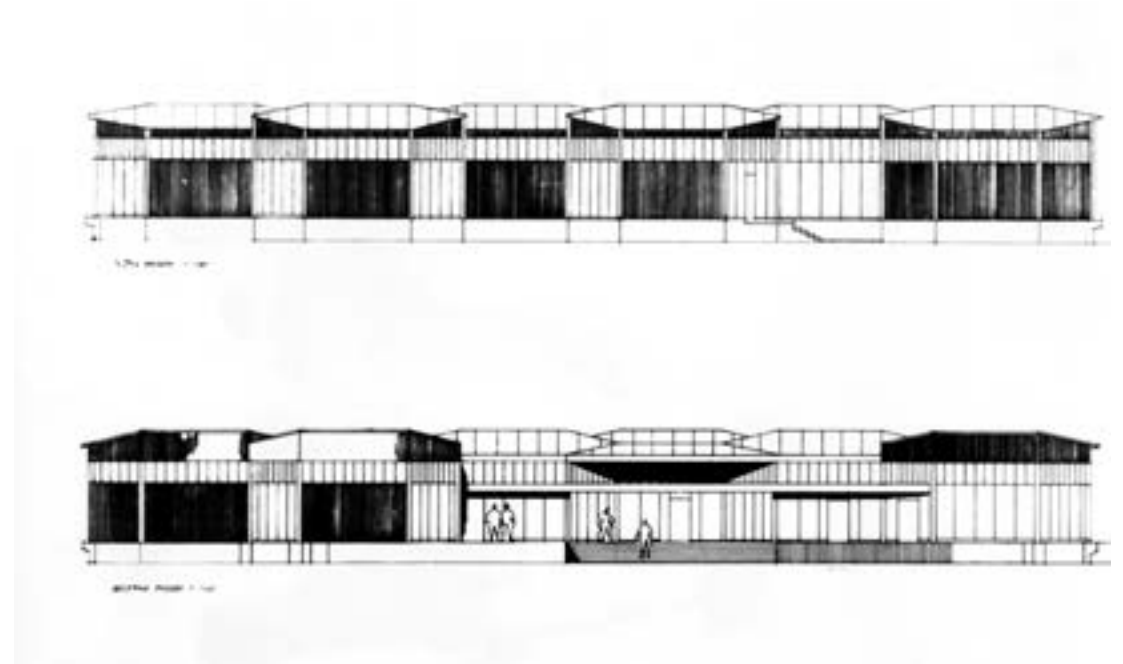
design of the terraced house project shows a distinctly structuralist approach involving the multiplication of hexagonal units that, stacked side by side, form an open, organic structure that theoretically allows for infinite growth and development.

The living module, which forms the basic building block of the neighbourhood, is divided into an outdoor atrium and a residential part with an innovative spatial layout, in which all living spaces, including the children's room and bedroom, open onto a green atrium.

Janja Lap would return to the hexagonal form in her competition project for the Consumer Centre in Prule in 1960, where she used hexagonal modules as spatial units to compose the centre's public programme organization, which would cater to the multifunc-



Janja Lap, Consumer Centre in Prule, competition project, 1961, floor plan. Ljubljana, kept by MAO.



Janja Lap, Consumer Centre in Prule, competition project, 1961, elevation. Ljubljana, kept by MAO.

tional needs of the residential community.¹²⁴ This project, whose exceptional architectural articulation unfortunately remained only on paper, bears witness to a shift in the architect's approach to floor plans. This shift may be interpreted as a response to the rationalist, standardized approach to architectural design of the time, as well as an interest in and response to international structuralist architectural tendencies. Alternatively, it may reflect a growing interest in expressive geometric forms that would later characterize her work in glass.¹²⁵

¹²⁴ The photograph of the plan shows that the centre was intended to include a shop, a confectionery, spaces for the residential community, tailoring and sewing workshops, a laundry room, and a multipurpose hall with corresponding service rooms. Kept by MAO.

¹²⁵ Janja Lap writes about other similarities between the geometric shapes in her glass design and architectural work in an unpublished text about her work – *Design Starting Points* (MAO AJL (s. a.)b).

Projective Thinking and Practice

Her move to London in 1964 marked a new chapter in Janja Lap's career, although architectural design remained part of it. In 1966, she participated in a high-profile international competition for the enhancement of the San Francisco Civic Centre Plaza, which she conceived as a vibrant space featuring a covered promenade. In the 1970s, she drafted a project for the redesign of the exterior area of the Midland Bank in Sheffield, designing an expressive bronze sculpture formally related to her works in glass [pg. 38]. She realized her modernist ideas of architectural design in three projects for single-family houses,¹²⁶ which are characterized by openness, interconnected living spaces, and a connection to the outdoors and nature.

Despite the distance in terms of time and place—or perhaps because of it—she consistently returned to the notion of the family as the basic unit of community, whether social, residential, or local. Improving living standards for families remained her central architectural concern. In her reflections on architecture in the 1970s, she repeatedly critiqued the construction of the residential neighbourhoods whose idealized models she had developed in late 1950s, nothing that in reality they never achieved any “special vibrancy” (Lap 1979). Yet her stance was not merely one of criticism and passivity. As an architect in the purest sense, she constantly sought new possibilities for change: she saw them in the participation of residents in the planning of architecture, while also raising prescient questions of ecology and the relationship between the built environment and nature. Her projective attitude—understood not only as problem-solving, but also as the raising of questions and the search for alternatives—establishes her as a timelessly modern creator whose research projects into residential communities and construction continues to be relevant to contemporary architectural discourse.

This text gives a brief insight into the extensive work of an architect whose projects defied neat categorization. Their diversity reflects both her talent and her ability to work across a variety of conditions and environments; at the same time, it is also likely a consequence of the reality of the situation at the time, which, despite formal emancipation, did not allow for truly equal

126 These are the project involving the renovation of a residential house in the Peak District National Park (Sheffield, England), a project for the renovation of a residential house in Menorca, Spain, and a residential house project in Oxford, England. Kept by MAO.

professional opportunities for women architects. Janja Lap's projects testify to the excellence of an architect who expressed her strength and insight primarily through broader, collective efforts to establish a new housing culture while remaining in dialogue with other creative fields. It is precisely this quality that renders her work exceptional—not the desire to produce a coherent body of work, but her dedication to the processes of research, development, and the materialization of programmes that constructed spatial frameworks for the everyday lives of families, individuals, and communities.

LIFE'S HUB OF CREATIVITY

LIFE'S HUB OF CREATIVITY

“Most of recorded human history is one big data gap. Starting with the theory of Man the Hunter, the chroniclers of the past have left little space for women’s role in the evolution of humanity, whether cultural or biological. Instead, the lives of men have been taken to represent those of humans overall. When it comes to the lives of the other half of humanity, there is often nothing but silence. And these silences are everywhere.”
— Caroline Criado Perez

It is difficult hard to discuss the life and work of the designer and architect Janja Lap without concluding, with some bitterness, that her work would, in all likelihood, receive much greater acclaim and professional attention during her lifetime had she not been born—in what seems like some unwritten rule of history—into that other, overlooked half of humanity that Caroline Criado Perez insightfully explores in her book *Invisible Women: Exposing Data Bias in a World Designed for Men* (2019). Given this context, we have chosen in this conclusion to leave the floor mostly to her—the designer, Janja Lap. The focus is on her own thoughts, as captured in published articles and unpublished typescripts—a deliberate move to centre the perspective of a designer

who was capable of meeting every challenge (from glass design and systemic food distribution to electro-optical devices for both civil and military use, and pedagogical work spanning Ljubljana, Sheffield, London, and Mosul) with great meticulousness and a thorough scientific approach on one the hand, and playful creativity, underpinned by a mastery of her the discipline, on the other.

As a designer, Janja Lap knew how to make the most both of the freedom afforded by working as an external contractor and the status of a regularly employed designer-researcher working as part of a team. Indeed, she would often deftly navigate between these two modes of employment while developing—a process informed by her experience at the RCA—a unique theoretical approach of her own. When the journalist Danica Radović asked her whether it is better for designers to be employed full-time in the industry or if working independently provides them with better creative opportunities, Janja answered that she favours

the third option [...]. Each of the above options has its own distinguishing characteristics, but my own ambition is to develop a modern and genuinely effective form of design organization, and this under the auspices of an applied research institute that would integrate design creativity from the very foundations and the very beginnings of the working process in a broad, team-based approach with all the developmental, innovational—revolutionary, if you like—elements that can or should be the basis of each new project, even if it only materializes in the form of some new consumer object. Incorporating new design ideas into the basics of product design is to me an indispensable quality of modern industrial thinking (MAO AJL Lap 1981a).

Interdisciplinary teamwork was the common thread in her efforts both in design research and the practice of design. It bears pointing out that in her vocabulary, design research and product design represent two sides of the same coin. The same premise also underpinned her pedagogical approach. Her return to Slovenia after a 13-year stay in Great Britain coincided with a period of renewed activity in the development of a higher education programme in the field of design. She returned at a time when the profession was striving to convince both the academic community and the general public that designers required the opportunity to pursue higher education in Slovenia. Janja Lap became actively involved in this process. Through her articles, she skilfully communicated to the department's planners her vision for the direction in which the future interdisciplinary design study programme should be develop,

ensuring that it would be as modern as possible. As early as in the late 1970s, she advocated for the introduction of contemporary pedagogical methods, particularly those emphasizing student-centered learning and project work, where students become active participants in the research community. In an article for *Gospodarski vestnik*¹²⁷ magazine, she wrote the following:

If we return to our specific problem—the education of designers—and include two fundamental assumptions, namely that future designers ought to be drawn from different but related professions and that the education process should be conducted at different levels of difficulty, the fundamental mission of this comprehensive education should be to foster the development of each student's creativity. The education system should encourage mutual engagement between educators and students to foster mutual exchange of knowledge and experience. Presenting material in the form of lectures, where students acquire knowledge passively, without participation, is outdated and divorced from real-life experience. The path to improvements in education is also considered to include examining the thought processes that take place during the design process. The complexity of design problems and the analyses of the thought processes that arise in this activity should form the basis for new ways of understanding, which would in turn give rise to new pedagogical methods (Lap 1978: 81).

Janja believed that, to achieve and maintain the vitality of matter, work organizations should be linked with educational and research communities in a kind of “hub” of foundational educational interests. Such a hub would represent a “vibrant and active pedagogical unit” that would form the basis for an interdisciplinary study of design. It would enable collaboration among experts with diverse profiles, thereby fostering “mutual influences between theoretical research and the physical creation and realisation of design tasks” (*ibid.*).

As we have noted several times in this monograph, Janja Lap consistently advocated throughout her life for understanding the past and learning from it as a prerequisite for looking ahead. She recognized in the past the power of (vernacular) local knowledge, which can empower us to develop our own way of thinking

127 *Gospodarski vestnik* (1952–2005) was a professional journal dedicated to covering economic, business and development issues and providing information to businesses, managers, and economists in Slovenia during the Yugoslav era.

the present and to build a future of our own potentials. Or, in her own words:

In our social system we should be able to offer people something more than just what suits their current tastes, which have largely been shaped by consumerist industrial patterns. Then we could claim an industrial culture that stems from our own traditions. But are we conscious enough of them today, and do we know how to make use of them? When I was still in England, I brought a group of my students to Slovenia to see the Franja Partisan Hospital. We explored what people were capable of creating, even in the most dire of circumstances and with the crudest of means, and how they demonstrated, in doing so, an unusual natural gift and a powerful instinctual desire to practise design. Even with the mortal threat of the enemy constantly hanging above them, they had the will and the ability to imbue every piece of their work with a certain design and aesthetic concept. Later, in England, when I showed photographs of the barracks, windows, roofs, bridges, orthopaedic and prosthetic aids, etc., made at the Franja hospital, there was a general agreement that the objects demonstrated extremely imaginative and original design creativity. I wondered then, and still do, why we are unable to better capitalize on our own potential and traditions. [...]

History has proved that we are very capable and creative—in all respects. We have original ideas, and I hope that in my own field I get to the point where I can write about these things. It is about reflecting on and being aware of ourselves. Of all we are bound to, all we belong to. If we recognize and capitalize on this, we will truly be able to stand alongside designers from other European countries, who certainly do not rely on some abstract inspiration but also draw from their own design roots (Lap in Ovsenik 1981: 5).

It was on this premise—the necessity of drawing on her own design roots—that Janja Lap also developed her critique of modernism and the Ulm approach to design. She rejected the imperialism of thought and colonization of ideas, which, in her view, manifested in dogma, a singular truth, and a belief in the only “correct” approach to design. Moreover, she perceived the alienation of the artist in industrialized society as a problem, as it deprived them of the opportunity to explore new forms of artistic expression (Lap 1978: 81). She further clarified this in a typescript titled *Design Starting Points*:

Modern technology brings with it newer, more mature avenues in design, thus facilitating a move away from outdated formalistic and doctrinal principles that in general still characterize today’s European thinking. As an illustration, let me point to the relevant philosophy of the former Ulm School of Design, whose “white-grey-black” idea during the German post-war industrial boom produced a period of forceful dogmatism, characteristic impersonality and uniformity in the field of design, obstructing for a long time the only way forward for design, namely, to draw from one’s own cultural tradition—from oneself, so to speak; for design is a product of a society and at the same time a realization of its technological development (MAO AJL Lap (s. a.)b: 2).

However, it is not just design that is the product of a society and a realization of its (technological) development. The same holds true for historiography. Closing the glaring gaps between the genders and creating space for the equal treatment of women’s lives and work will not happen overnight. And neither will the invisibility of women’s work, which remains an omnipresent phenomenon despite the growing social awareness of its insufficient remediation, be eliminated overnight. Change will also be needed among us women. In her text *“We, women”, what do we want?*, Antonia Birnbaum says the following: “becoming a political subject [...] facilitates distancing from the servile identity and entering into a free identity. Hence, the paradoxical move known by every emancipatory struggle: if we are to lead it, we first need to demonstrate the capability for living a life different to the life of the submissive” (Birnbaum 2017: 1). This, if anything, was what drove Janja Lap forward. Her restless spirit would not tolerate being restrained. Every time a husband, a teacher, or a superior sought to restrict her options, it would only be a matter of time before she would, in both thought and action, begin paving her way towards an alternative to the status quo. This is precisely why she found her time at the RCA to be so formative and liberating. She was the one determining the direction of the research and the methods of discovering new approaches and knowledge. When she found herself at a crossroads, she clearly decided to follow her main guiding principle in life, which she also liked to share with her students:

“BE
FREER.”

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- Lap, Janja (probably in 1958). Manuscript on the development process of the competition project for the District People’s Committee building in Kranj.
- Lap, Janja (1959). Notice by Janja Lap to Ravnikar on the termination of her collaboration in the preparation of plans for a residential tower block, 12 October 1959.
- Lap, Janja (1981a). Typescript entitled “danica radović, ‘borba’ beograd, kulturna rubrika” [Danica Radović, ‘Borba’ Belgrade, cultural section] Dated 16 June 1981.
- Lap, Janja (1981b). Untitled typescript. This is a response to Jože Volfand, editor of the culture section of *Delo*. Dated 8 September 1981.
- Lap, Janja (s. a.)a. *Ekonomske pridobitve investiranja v oblikovanje* [The Economic Benefits of Investing in Design] (handwritten addition: based on the English model), typescript, with corrections; one page of manuscript with notes and bibliography.
- Lap, Janja (s. a.)b. *Oblikovalska izhodišča* [Design Starting Points], typescript.
- Lap, Janja. *Predlog študijskega programa za predmet Oblikovanje v gradivu – Steklo* [Proposal for a Study Programme for the subject Designing in a Material – Glass] (together with the syllabus for the subject Design II. Designing in a Material – Glass), Ljubljana. The correspondence in the same folder suggests the year is 1984.
- Lap, Janja (s. a.)c. Manuscript with sketch.
- Lap, Janja (s. a.)d. Pencil manuscript.
- Lap, Janja (s. a.)e. *Predmet: KULTURA BIVALNEGA OKOLJA – stanovanjski del* [Subject: CULTURE OF THE LIVING ENVIRONMENT – Residential]. The subject syllabus is preserved as a typescript. The subject was part of the Biology – Home Economics study programme at the Pedagogical Academy of the University of Ljubljana.
- Lap, Janja, and Paul Whittlestone. *Way to Community Catering*, typewritten. Architectural Association School of Architecture, 1974.
- Lap, Janja. *Application to take a Master’s Degree by Project in the School of Industrial Design (Engineering)*. London: RCA, 1971.
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- Lap, Janja. Letter to Edvard Ravnikar informing him that she is resigning from her position as his colleague, typescript with her handwritten signature, 12 October 1959.
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- Lap, Janja. The typescript in Janja Lap’s personal file, which is kept by MAO – design department, is attached to a copy of two letters from Neue Sammlung, in which they ask Iskra for the laser and

information about the product and its designer. Our conclusion on this basis is that this is a draft for the letter to the Munich Museum. Accompanying the typescript is a longer manuscript in which Janja Lap describes the laser stimulator and the work of researchers at the CEO in more detail; 1986.

Lap, Janja. *Uvedba industrijskega načina preskrbe prehrane v vzgojno-varstvenih zavodih in šolah v ljubljanskih občinah* [Introduction of Industrial Food Provision in Educational and Childcare Institutions and Schools in the Municipalities of Ljubljana]. Ljubljana: Zveza skupnosti otroškega varstva SR Slovenije, 1975.

Lap, Janja. Yugoslav summer. *Technology for Survival (Events list)*. London: AA School of Architecture, circa 1974: 4.

Muratović, Amir. *Slovenski magazin*. Speech transcript, TV clip “Janja Lap”. Camera: Andrej Lupinc, director: Amir Muratović, Televizija Slovenija, 1 February 1998.

Drafts of letters from Janja Lap to company directors and fellow designers at various glassworks, as well as work contracts:

- draft of a letter to Franci Jankovič, the Commercial Director of Rogaška Glassworks, regarding the production of wedding glasses, and the contract with the municipality of Celje for these glasses. 16 May 1995,
- draft of a letter to Slavko Marcen – proposal for a collaboration on the design of a beer glass, 23 June 1996,
- draft of a letter to the head of Eta Kamnik (no name specified), 1997,
- drafts of letters to the director of Trebče MP, Franci Zidar, regarding the production of the Mit v steklu [Myth in Glass] project, 22 January and 28 January 1996,
- contract with Iskra Invest for a gift beer mug, 21 May 1997,
- contract with the municipality of Šmarje pri Jelšah for the Chalice of St Barbara, 12 May 1996,
- contract with the municipality of Šmarje pri Jelšah for a serving dish, 12 May 1996.

Ravnikar, Edvard, and Marjan Mušič. Unsigned typescript of an application for the appointment of Janja Lap, eng. arch., as a formal assistant at the Department of Architecture, Dean's Office of the Faculty of Architecture, Civil and Geodetic Engineering, 13 March 1959.

A manuscript on a letter sheet with the heading “Summer research project 1974 partisan hospitals in Slovenia”, 1974.

Saje, Miro. State registration of inclusion in the list of independent architects authorised for construction design. 8 March 1961.

Telecommunications. Typescript (s.a.).

Velkoverh Bukilica, Vesna. Typescript (s.a.).

Museum of Architecture and Design, Edvard Ravnikar Archive (MAO AER)

Binder: Stolpnica [The Tower], Ravnikar, Edvard. Internal agreement between the design team: prof. eng. arch. Edvard Ravnikar and the collaborators listed below, 15 February 1958.

An invoice to the organisational bureau “Family and Household”. 18 August 1958.

Box: ER V./1. Letters, contracts and other documents 1946–1969, invoice for the study sketches of the conceptual plan for the

Slovenija-Les building following the investor's requested changes. 17 February 1954.

Personal Archive of Amir Muratović (AAM)

Muratović, Amir. *Edvard Ravnikar. Screenplay for a documentary film*.

Typescript, 26 September 2002. A year later, the documentary was shown under the title *Iskanje popolnega mesta* [The Search for the Perfect City]. The television film about Edvard Ravnikar also includes footage of Janja Lap. Directed, written and edited: Amir Muratović, Televizija Slovenija, 9 November 2003.

Register of Cultural Heritage

EŠE 4801, Pivka – Tomb of fallen soldiers in the National Liberation War on Habjan hill, <http://giskd2s.situla.org/rkd/Opis.asp?Esd=4801>.

EŠE 5721, Ig – National liberation War Monument, <http://giskd2s.situla.org/rkd/Opis.asp?Esd=5721>.

EŠE 5723, Gornji Ig – Mass grave of the fallen soldiers of the XIV. in XVIII. Division, <http://giskd2s.situla.org/rkd/Opis.asp?Esd=5723>.

Special Collections & Archives, Royal College of Art (RCA)

Archer, L. Bruce. *Case study: designing a bed for British hospitals*.

Typescript of a conference lecture for the 4. General Assembly and Congress of ICSID in Vienna, *Aspect D – Health*. 23 September 1965.

Archer, L. Bruce. *Systematic method for designers*. A reprint of seven partially updated texts published in *Design magazine* between 1963 and 1964. The collection was published by the Council of Industrial Design in London in 1964.

Janja Lap's Personal File (OMJL), letters:

- Misha Black (22 March 1971),
- Joan Catlin (22 March 1971),
- H. W. Denyer (28 April 1971).

Technical Museum of Slovenia (TMS)

Jarh, Orest. *Supersvetloba* [Superlight]. Accompanying texts to the temporary exhibition. 23 November 2016–3 December 2017, TMS Bistra near Vrhnika.

Historical Archives of Ljubljana (ZAL)

ZAL, LJU/0366 (1963–64), file 1963/64, School of Design Ljubljana, TE 7, PE 143.

Field Notes

Interviews and written correspondence with Nikolai Jeffs, Janja Lap's son, 4 February 2021, 19 February 2021, 25 May 2021, 16 February 2022, 13 May 2022, 27 May 2022, 26 September 2022, 8 February 2023.

Interview with art historian Peter Krečič, 15 April 2021.

Interview with art historian Maja Kržišnik, 17 April 2021.

Interview with Marija Lap Drozg, Janja Lap's sister-in-law, 21 April 2021.

Interview with Nina Maloverh, glass designer, 30 June 2021.

Interview with designer Eka Vogelnik, 7 February 2022.

- Interview with Miša Jelnikar (Malavašič), Janja Lap's pupil, 15 February 2022.
- Interview with Jože Rataj, curator for glass objects at the Celje Regional Museum, 7 April 2022.
- Interview with architect Matija Suhadolc, 5 July 2022.
- Interview with Božo Vukas and Zdenko Vižintin, development engineers at Iskra Elektrooptika, 7 July 2022.
- Interview with Vanda Dittrich, head of human resources at Iskra Elektrooptika during Janja Lap's tenure at the company, 3 August 2022.
- Interview with Jaša Mrevlje Pollak, Janja Lap's grandson, 13 October 2022.
- Interview with Franc Kunšič, technical director of Iskra Elektrooptika, 28 December 2022.
- Interview with Miroslav Naglič, director of Elektronika Naglič, 3 January 2023.
- Interview with Neža Mrevlje, Janja Lap's granddaughter, 18 January 2023.
- Interview with Urša Petja Mrevlje Lozar, Janja Lap's granddaughter, 27 January 2023.
- Interview with illustrator Zagorka Simić, 28 January 2023.
- Interview with Branko Mušič, developer at the Iskra's Centre for Electrooptics, responsible for data and video signal transmission via optical fibres (he also participated in the development of optical fibres), 10 February 2023.
- Interview with photographer Boris Gabersčik, 1 March 2023.
- Interview with Neil Parkinson, manager of the Special Collections & Archives at the RCA, 2 March 2023.
- Written correspondence with Monika Tweddell, Janja Lap's student, 18 April 2021 and 5 May 2021.
- Written correspondence with graphic designer Ranko Novak, 30 March 2023.



BIOGRAPHY

JANJA LAP

Birth:
13 March 1929

Place of birth:
Stara pot 3, Ljubljana

Baptised:
17 March 1929

Father:
Anton Lap
(7 August 1894–29 January 1971)

Mother:
Marija Lap, née Niefergall
(12 April 1895–1972)

Death:
9 January 2004, Ljubljana

First and last name

These are the variations of the first and last name encountered in the archival documentation.

Janja Lap

Janja Marija Lap
(name in the register of births) /
Janja Maria Lap

Janja Lap Polak / Janja Polak

Janja Marija Wilfan /
Janja Marija Wilfan

Janja Lap Jeffs / Janja Jeffs /
Janja Marija Jeffs / Janja M. Jeffs /
JM Lap (Jeffs)

Addresses of Residence

Listed are all addresses recorded in the archive documentation. Where a year was given next to the title, it is added in brackets.

Stara pot 3, Ljubljana (1929)

Pod turnom (the Tivoli Castle grange), **Ljubljana (1935)**

Kocenova ulica 7, Rožna dolina, Ljubljana (1937–1938)

Beethovnova 7, Ljubljana
(address given in the student booklet, 1945)

Poljanski nasip 16, Ljubljana (1947–1953)

Cankarjeva cesta 18, Ljubljana (1959)

Prijateljeva ulica 7, Ljubljana (1961)

Gradišče 11, Ljubljana (1966)

5 Phillimore Terrace, W. 8, London

303 City Road, Sheffield 2 (1966)

25 Lawson Rd, Sheffield 10 (1977)

Ilirska 12 a (c/o Mrevlje), **Ljubljana**
(after returning from the UK, she stayed temporarily with her daughter's family, 1976)

Gotska 4, Ljubljana
(on the document for the personal identification number, 1980)

Cesta 27. aprila 51, Ljubljana (1983–1986)

Zarnikova 9, Ljubljana (1989–2004)

All the information below has been extracted from her CVs and other surviving archival material, and further verified, where possible, in the available archival collections and documentation of the various organisations.

Personal**13–15 May 1945**

Participation in the National Liberation War

16 May–10 September 1945

Participation in the Yugoslav People's Army (JNA No 929)

11 December 1946

Marriage to Henrik (Riko) Pollak (16 March 1927–22 March 2012) in Ljubljana

18 March 1947

Birth of daughter Darja Polak (She worked as an architect, under the name Darja Mrevlje Pollak. In 1965 and 1966 she studied at the Department of Interior Design of the Hammersmith College of Art in London. In 1973, she graduated from the Faculty of Architecture, Civil and Geodetic Engineering, where she had studied at the Department of Architecture under Professor Marjan Mušič. Died on 27 June 2008.)

17 May 1948

Divorce from Henrik Pollak

19 September 1959

Marriage to Dr Draško, Karel Wilfan in Kranj

9 April 1964

Divorce from Dr Draško, Karel Wilfan in Kranj

16 August 1966

Marriage to Robin Morton Jeffs (1933–1986) in London

1968

Birth of son Nikolai David Jeffs (He received his BA and PhD from the University of Essex (Colchester)). Since 2001 he has been an honorary lecturer at the Faculty of Arts of the University of Ljubljana, and since 2011 he has been employed at the Faculty of Humanities, University of Primorska.)

8 June 1978

Divorce from Robin Morton Jeffs

1 June 1989

Retirement

Education**1935–1939**

She attends the private Ursuline Grammar School in Ljubljana (Drava banovina, Kingdom of Yugoslavia).

First grade class teacher: Angela Porenta.

1939–1947

She attends a private Lyceum.

30 September 1947

She enrolls at the Faculty of Technical Sciences of the University of Ljubljana.

23–27 February 1948

She finishes the Lyceum with a higher state examination.

1947–1956

She studies at the Department of Architecture of the Faculty of Technical Sciences of the University of Ljubljana.

22 May 1956

She graduates (No 213) from the Department of Architecture of the Faculty of Technical Sciences of the University of Ljubljana under Prof. Edvard Ravnikar with a good grade (9). Academic title: engineer-architect.

27 October 1960

Obtained a certificate of completion of the professional examination (No. Gr-18/60). Title: junior civil engineer.

8 March 1961

She is entered in the Register of Chartered Architects – List of independent architects authorised for construction design under No 06-P-712/61. The state registration of inclusion is issued by the Executive Council for Urban Planning, Residential Construction and Public Utilities.

1971–1973

Postgraduate studies at the RCA, London. Enrolls into Master's Degree by Project. Mentor: Prof. Dr Bruce Archer.

6 July 1973

She earns a Master's degree in Industrial Design from the RCA. Title: MA RCA.

10 July 1985

Recognition of the postgraduate diploma issued by the University of Zagreb. Academic title: Master of Applied Arts.

Employment and membership of professional organisations**1953–1957**

She works as an informal assistant in Professor Edvard Ravnikar's architectural studio within the Department of Architecture at the Faculty of Technical Sciences, University of Ljubljana.

26 June 1953

She joins the Architects' Union of Slovenia.

1956–1957

She is employed in the architectural studio of the construction company Tehnika.

1958–1962

She takes over as head of the architecture studio for residential communities at the Republican Committee for Family and the Household in the state architectural office with the official title Architectural Studio – Design Company for Architecture, Urban Planning and Civil Engineering, Cankarjeva 18/IV, Ljubljana.

1958

She also works in parallel at the architectural studio "Residential Community – General Section," Zoisova 5, Ljubljana (at the time the location of the Faculty of Architecture, Civil and Geodetic Engineering).

1959

Unsigned proposal for the appointment of "Janja Lap, Eng. Arch. as a formal assistant for the subject Public Buildings at the Department of Architecture at the Faculty of Architecture, Civil and Geodetic Engineering." The proposal was submitted by Prof. Eng. Arch. Edvard Ravnikar.

19 April 1960

Joins the Designers' Society of Slovenia.

1962–1964

She teaches industrial design at the School of Artistic Crafts School of Arts and Crafts Ljubljana.

1964–1966

She is active as a research fellow with a British Council Scholarship at the RCA (Royal College of Art) in London.

1966

She is a part-time lecturer at the Sheffield College of Art (later Faculty of Art and Design). She teaches the Basic Design subject.

1967–1977

She works for ten years as a part-time lecturer in the Department of Architecture at the University of Sheffield. She teaches the subjects Drawing and Design, Design Research, and Interior and Industrial Design.

1973–1975

She is a part-time mentor at the AA (Architectural Association School of Architecture) in London. She is also a member of the Architects' Association.

July–October 1975

Contract research work for the Association of Childcare Communities of the SR Slovenia.

January–September 1976

She works part-time as an architect and designer at Richard Hemingway and Partners, an architecture studio in Sheffield.

October 1976–September 1977

She works as an independent artist in the field of industrial design.

September 1977–April 1979

She is employed as a researcher at the Institute of Sociology and Philosophy at Edvard Kardelj University in Ljubljana.

1979–1982

She is employed as an industrial designer by Iskra Commerce, TOZD Marketing (TOZD – Basic Organisation of Associated Labour).

18 February 1981

She submits an application to the Faculty of Architecture, Civil and Geodetic Engineering for the title of associate professor for the Industrial Product Design field/subject.

1982–1989

She transfers from Iskra Commerce to Iskra's Centre for Electrooptics.

2 August 1985

She sends a late application for the position of assistant professor of design at the Academy of Fine Arts (ALU) of the University of Ljubljana, having missed the deadline due to being on holiday.

30 January 1986

She submits an application to ALU for the title of associate professor in the field/subject Design – Applied Arts: Glass

5 June 1987

She submits an application for formal recognition of artworks (the latter being a prerequisite for obtaining a habilitation title). The members of the Commission are Prof. Jože Brumen, Prof. Andrej Jemec, and Prof. Sergej Pavlin.

15 January 1988

She reapplies for the title of associate professor in the field/subject Design – Applied Arts: Glass

13 March 1989

She obtains the formal recognition of her artworks.

1989

She participates in the British Open University programme for Ljubljana (Open University, Milton Keynes, UK), working as an academic advisor for Slovenia.

20 April 1990

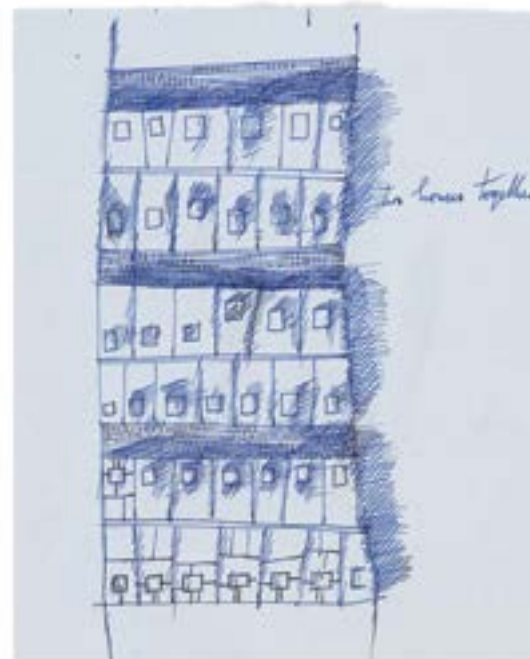
Her application for the title of assistant professor for the subject Design – Applied Arts: Glass is approved.

1989–1990

Under an agreement with the non-aligned countries, she lectures at the University of Mosul in Iraq as a visiting lecturer.

1990–2003

As a contracted external associate, she lectures in the Biology – Home Economics study programme at the Pedagogical Academy of the University of Ljubljana. She teaches the subject: CULTURE OF THE LIVING ENVIRONMENT – Residential].



SELECTED BIBLIOGRAPHY

Published texts

201

- 1956 Janja Lap, Domača uporabna keramika in porcelan [Practical Ceramics and Porcelain for the Household] *Sodobno gospodinjstvo* 3/36, 199–201.
- 1958 Janja Lap, Nekaj o programu sošeske [Some Words on the Neighbourhood Programme]. *Naši razgledi* 18, 4 October 1958, 465–466.
- 1960 Janja Lap, Natečaj za kombinirano otroško ustanovo Angelce Ocepke v Ljubljani [Competition for the Angelca Ocepke Combined Children Institution in Ljubljana]. *Arhitekt* 4, 25–26.
- 1960 Majda Dobravec, Grega Košak, Janez Lajovic, Janja Lap, Braco in Seta Mušič, Fanika Pogačar, Marija Vovk, 12. Triennale Milano. *Arhitekt* 6, 92–94 (Janja Lap – 94).
- 1973 Janja Lap, Predlogi jedilnih posod za potrebe šolske in predšolske kuhinje [Proposals for tableware for use in school and preschool kitchens]. *Otroško varstvo* 2, 18–23.
- 1974 Janja Lap, Yugoslav summer. *Technology for survival (Events list)*. London: AA School of Architecture, 4.
- 1976 Janja Lap, Skopje after the earthquake. *AARP* 9, 82–86.
- 1977 Janja Lap, Disaster housing in Yugoslavia. *Disasters: The International Journal of Disaster Studies and Practice* 1/1977, 61.
- 1977 Janja Lap, Potrebe za podrobnejšo proučitev določenih vprašanj s področja stanovanjske problematike [The Need to Examine Specific Housing Issues in More Detail]. In: Mišo Jezernik and collaborators Franc Bučar, Andrej Caserman, Miša Grčar, Janja Lap, Nevenka Sadar, Stane Saksida, Janez Šmidovnik, *Samoupravni sistem v stanovanjskem in komunalnem gospodarstvu [The System of Self-management in Housing and Utilities]*. Ljubljana: Institute of Sociology and Philosophy at the University of Ljubljana
- 1978 Janja Lap, O študiju oblikovanja: Kako deluje londonska pedagoška institucija RCA – Royal College of Art [On the Study of Design: The Operation of London's RCA – Royal College of Art]. *Gospodarski vestnik* XXVII/12, 30 March 1978, 78–81.
- 1978 Janja Lap, Bauhaus – da ali ne [Bauhaus – Yes or No]. *Gospodarski vestnik* XXVII/14, 13 April 1978, 80–81.
- 1978 Janja Lap, Izobraževanje oblikovalcev [Education of Designers]. *Gospodarski vestnik* XXVII/16–17, 27 April 1978, 80–81.
- 1978 Janja Lap, Začasno bivanje – začasna urbanizacija [Temporary Housing – Temporary Urbanisation]. *Naši razgledi* 17, 15 September 1978, 486.
- 1979 Janja Lap, Kje je zdaj arhitektovo mesto z njegovimi vizijami? [Where Is the Architect's Place Now with His Visions?]. *Delo – Sobotna priloga* 103, 5 May 1979, 23.
- 1979 *Družbeno-socialne možnosti gradnje [Social Opportunities of Construction]*. Independent study project at the Institute of Sociology and Philosophy at Edvard Kardelj University in Ljubljana.
- 1980 Janja Lap, Objekti društvene ishrane – Polazne osnove za rešenje dizajn problema [Community Feeding Facilities – Basic Principles for Solving Design Problems]. *Industrijsko oblikovanje* 11/57–58, 37–39.
- 1980 Janja Lap, Začasno bivanje in urbanizacija [Temporary Housing and Urbanisation]. In: *Planiranje začasnega bivanja – kriteriji*

- ljudske obrambe in družbene samozaščite v družbenih/prostorskih planih občin: 1. faza, prostorsko-urbanistični vidik [Planning Temporary Housing – Criteria of National Defence and Social Self-protection in Municipal Social/Spatial Plans: Phase 1, the Spatial-Urban Aspect]* (ed. Nevenka Sterlekar). Ljubljana: Urbanistični inštitut SR Slovenije, 1–4.
- 1981 Janja Lap, Industrijsko oblikovanje in vprašanje ustvarjalnosti [Industrial Design and the Question of Creativity]. *Gospodarski vestnik* XXX/15, 17 April 1981, 13.
- 1981 Pripravi Marijan Zlobec, odgovarjali Janja Lap et al. (Vladimir Pezdirc, Jernej Repovš, Niko Kralj, Matija Murko, Maja Kržišnik, Ivo Bunič, Saša Mächtig, Davorin Savnik, Alojz Marcen), Na tuji trg lahko prodremo samo z lično oblikovanimi izdelki, ne pa s posnemanjem tujih zgledov – anketa Dela: Problematika in položaj slovenskega industrijskega oblikovanja [Prepared by Marijan Zlobec, responses by Janja Lap et al. (Vladimir Pezdirc, Jernej Repovš, Niko Kralj, Matija Murko, Maja Kržišnik, Ivo Bunič, Saša Mächtig, Davorin Savnik, Alojz Marcen), The foreign market can only be penetrated with neatly designed products, not by imitating foreign examples – Delo survey: the Issue and the Situation of Slovenian Industrial Design]. *Delo – Sobotna priloga* 229, 3 October 1981, 28.
- 1983 Janja Lap, Steklo – nekaj danes [Glass – Then and Now]. *Moj mali svet* 15/12, 4–5.
- 1984 Janja Lap, Načrtovanje II – Unikatno oblikovanje – Steklo [Design II – Applied Arts: Glass]. In: *Training and education programme – design*, Ljubljana: ALU, Univerza Edvarda Kardelja v Ljubljani, 146–149.
- 1984 Janja Lap, Sporočilo velikega moža [Message from a Great Man]. *Laserski žarki* 3/1, 4.
- 1986 Janja Lap, Bogata obrtniška dediščina [A Rich Artisanal Heritage]. In: Marijan Zlobec, Uspehi naših izdelkov v svetu so predvsem rezultat prizadevanj posameznikov v redkih DO [The International Successes of Our Products are Largely Due to the Efforts of Individuals in a Small Number of Labour Organisations], *Delo – Sobotna priloga* 226, 27 September 1986, 28.
- 1990 Janja Lap, Univerza brez študentskega doma: sodobne možnosti učenja na daljavo [A University Without Student Dormitories: Modern Remote Learning Options.], *Delo* 255, 31 October 1990, 5.
- 1994 Janja Lap, *Plemiči stekla na gradu Podsreda / Die Adelige der Glaskunst in der Burg Podsreda* [The Noblemen of Glass at Podsreda Castle]. Trebče: Spominski park.
- 1994 Stojan Česnik, Janja Lap et al., Svež veter, ki lahko prepriha tudi naš univerzitetni prostor: Odprta univerza – študij na daljavo pridobiva pomen [A Fresh Wind May Reach Our Universities Too: Open University – Remote Study Increasing in Importance], *Delo* 283, 7 December 1994, 6.
- 1995 Letters to the editor by Oskar Kogoj and Janja Lap. *Delo*, 16 September 1995, 41–42; 23 September 1995, 43; 30 September 1995, 41.
- 1998 Janja Lap, Ob jubileju tudi naprej [A Look Forward on the Anniversary]. *Les* 9, September 1998, 269–270.

- 1971 Janja Lap, *Nekaj misli o prostoru in bivanju* [Some Thoughts on Space and Living]. A lecture in the hall of the Slovene Society, Ljubljana. 20 September 1971.
- 1973 Janja Lap, *Talk on Yugoslavia*. Lecture at the Architectural Association School of Architecture (AA School), London, 8 October 1973. A shorter typescript of two pages and a longer manuscript of 11 pages are preserved. In the manuscript, she moves from the political situation to a reflection on architecture.
- 1974 Janja Lap, *A Community of Solution*. Manuscript with sketch.
- 1975 Janja Lap, *Balliol College: Report on the interior design of the lecture hall*. The three-page typescript contains suggestions on how to improve the lecture hall interior. Particular attention is paid to the ceiling and the colours in the room.
- s. a. Notes for a lecture on glass, most likely accompanied by a slideshow. The preserved manuscript consists of nine pages. Lecture topic: the history of glass, foreign references and her work. The list of reference works she cites goes up to the early 1970s.
- s. a. A typescript entitled *Pomen simbolov* [The Meaning of Symbols], together with the original symbols on tracing papers. Janja Lap's name is not recorded anywhere on the typescript. It could plausibly be an excerpt from an independent study, *Družbeno-socialne možnosti gradnje* [The Social Opportunities of Construction] (Institute of Sociology and Philosophy, Edvard Kardelj University, Ljubljana, 1979).
- s. a. Notes for the preparation of the curriculum Design II – Applied Arts (for Academy of Fine Arts). Manuscript, probably from the late 1970s or early 1980s, four pages.
- 1980 Janja Lap, *Srečanje s Titom* [Meeting with Tito]. The typescript consists of five pages, with captions to the figures on the last page. The text describes the presentation of the residential neighbourhood at the international exhibition *Porodica i domačinstvo 1958* [Family and Household 1958]. Photocopies of the published articles on the subject of the exhibition are attached, together with the diagrams referred to in the text by Janja Lap.
- 1981 Janja Lap, *Borba – kulturna rubrika* [Struggle – the Cultural Section]. Two pages of answers (preserved as a typescript) on industrial design, Yugoslav design and work in Iskra. Her answers were later published in a text authored by Danica Radović and Spomenka Jelić Pouka stiža iz Iskra [The Lesson Comes from Iskra], *Borba*, 26 June 1981.
- 1981 Janja Lap, untitled typescript, dated 8 September 1981. This is a reply to the editor of the cultural section of the *Delo* newspaper, Jože Volfand, who in a letter dated 20 August 1981 asks for her contribution and reflection on the issue and situation of Slovenian and Yugoslav industrial design. One of the issues raised by Janja Lap is the lack of originality in industrial design. She also writes about the importance of marketing for design, innovation, and Iskra, as well as about the organisation of industrial design at Iskra and the company's weaknesses. Published in *Delo (Sobotna priloga)*, 3 October 1981 – see Published texts.
- s. a. Janja Lap, *Oblikovalska izhodišča* [Design Starting Points]. Type-

- script on seven pages, probably from the early 1980s (in the text she states that she has been at Iskra Elektrooptika for three years). She outlines her design starting points in three topics: 1) designing optical laser instruments; 2) glass design; 3) community feeding systems and designing sets of dishes and trays for hospitals, schools and community feeding establishments.
- s. a. Janja Lap, *Ekonomске pridobitve investiranja v oblikovanje* [*The Economic Benefits of Investing in Design*] (handwritten addition: *based on the English model*). Typescript with handwritten corrections (the last page is a manuscript with notes and bibliography), likely from the second half of the 1980s, as the text refers to an English study from 1982–1986 that provides tangible evidence of the rapid return on investments in design.
- s. a. Janja Lap, inventory of her works at the time of their purchase by the National Museum of Slovenia. Manuscript, probably from 1997. In some cases, the technical product information is accompanied by a brief description of the design. The following glass pieces are included in the inventory: *Spomin – kelih sv. Barbare* [*Memory – The Chalice of St Barbara*], *Optima, Flora, Vivat 1, Vetrolovka* [*Windcatcher*], *Champagne, Mit v steklu* [*Myth in Glass*], the Beer Mug, *Konstrukta 1–4, Kvadrat* [*Square*] and *Plamen* [*Flame*].
- s. a. Janja Lap, recollections of her collaboration with Ravninar in the competition project for the building of OLO Kranj and receiving the 1st prize. Manuscript, one page.
- s. a. Janja Lap, untitled typescript, one page (missing pages before the conclusion). In the text, she cautions against rushing to adopt foreign ideas from centres of power and the potential of a prospective design centre.

Published articles on her work

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- 1964 s. n., 1. Bienale industrijskega oblikovanja [1. Biennial of Industrial Design]. *Delo*, 20 October 1964.
- 1966 s. n., Da Londra in vetro [From London in Glass]. *Domus* 434, 42.
- 1966 B. M. [Vladimir Braco Mušič], Trije prikazi naše arhitekture: Tronchetto v DBZ, Lapova v Domusu, Center Skopja v AD [Three Displays of Our Architecture: Tronchetto in DBZ, Lap in Domus, the Centre of Skopje in AD]. *Naši razgledi* 2, 29 January 1966, 40.
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- 1966 s. n., Idee, appunti, divagazioni. *Domus*, January 1966, 42.
- 1969 s. n., AB 68/69, 566.
- 1969 s. n., Oblikovanje porcelanske in steklene posode [Porcelain and Glassware Design]. *Naš dom* 3, 22–23.

- 1970 *Oblikovanje v Jugoslaviji / Design in Yugoslavia*. Savez likovnih umetnika primenjenih umetnosti Jugoslavije, Beograd 1970, s. p. (Janja Lap: No 76 – the pages are unmarked).
- 1980 Andrea Branzi, Denis Santachiara, Idee, appunti, divagazioni / Ideas, notes, digressions. *Domus - Numero speciale Mobili '81*, 6-48 (Janja Lap – pg. 43).
- 1980 Janez Zadnikar, Sodobniki – Janja Lap, oblikovalka [Contemporaries – Janja Lap, designer]. *Teleks* 41, 10 October 1990, 12.
- 1980 Janez Zadnikar, Pogovor z oblikovalko: Janja Lap [A Conversation with the Designer: Janja Lap]. *Iskra* 42, 8 November 1980, 4.
- 1981 Mara Ovsenik, Bio-nagrada tudi naši oblikovalki [Our Designer Among Bio-Award Recipients]. *Iskra* 19, 9 May 1981, 5.
- 1981 Mara Ovsenik, Oblikovanje iz lastnih korenin [Designing from One's Roots]. *Iskra* 21, 23 May 1981, 5.
- 1981 Danica Radović and Spomenka Jelić, Pouka stiže iz Iskre [The Lesson Comes from Iskra]. *Borba*, 26 June 1981.
- 1983 s. n., Ilustracija paketa za dan borca – dan Iskre [Illustration for the Fighter's Day – Iskra Day Gift Package]. *Iskra* 26, 18 June 1983, 1.
- 1984 Božana Ruble, Dizajn je prirodna sila [Design Is a Force of Nature]. *Danas* 139, 16 October 1984, 49–51.
- 1987 s. n., Vrhunski izdelek – v muzej [A Superb Product Belongs in a Museum]. *Delo* 46, 25 February 1987, 14.
- 1989 *The Design Solution*. London: Design Council.
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- 1994 Peter Ogrin, Janja Lap. *Slovenec* 254, 3 November 1994, 12.
- 1994 Mateja Kos, Glass. *Ars Vivendi* 21–22, 67–75 (Janja Lap – pg. 71).
- 1994 Obrazi uporabnega sveta – Janja Lap [Faces of the Functional – Janja Lap]. *Slovenec*, 13 November 1994, 12.
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- 1995 Grega Košak, Trieste Contemporanea. *Delo* 275, 28 November 1995, 12.
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- 2004 Maja Kržišnik, Do konca zaljubljena v steklo: Janja Lap, 1929–2004

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- 2022 Barbara Predan, Špela Šubic, Opifex artis vitrae. Contribution to the scientific conference Po stekleni poti [Along the Glass Trail], Koper, 6–7 October 2022.
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Exhibitions, Competitions, and Placements in Collections

- 1953 Residential buildings competition Municipal People's Committee of Ljubljana.
- 1954 Competition for the high school in Mostar, Bosna and Herzegovina (collaboration with Edvard Ravnikar).
- 1955 Competition for the building of OLO Kranj (District People's Council of Kranj), Kranj (collaboration with Edvard Ravnikar).
- 1956 I. Exhibition of Applied Arts of Yugoslavia, Ljubljana.
- 1956 Exhibition of the Association of Slovene Fine Artists (DLOS), Maribor.
- 1956 Housing for Our Conditions exhibition and catalogue, Ljubljana, venues: Gradis Palace (educational and promotional section), GR – Ljubljana Exhibition and Convention Centre (commercial section) 26 May–3 June 1956 (exhibition and conference).
- 1957 Participation in the competition for the X. Triennale di Milano.
- 1957 Competition for the final construction of the student dormitory complex, Ljubljana (collaboration with Edvard Ravnikar).
- 1958 II. international exhibition *Porodica i domačinstvo* [Family and Household], Zagreb. She received an honorary award at the exhibition.
- 1961 IV Exhibition and Catalogue of the Association of Slovene Applied Arts Artists (DLUUUS), Museum of Modern Art, Ljubljana, 28 February–15 March 1961.
- 1961 Competition for the Consumer Centre in Prule, Ljubljana.
- 1961 International Industrial Design Exhibition, Venice, Italy, 14–17 September 1961.

- 1962 Industrial Design Exhibition, Besançon, France.
- 1962 Industrial Design Exhibition, Maribor and Slovenj Gradec.
- 1962 Yugoslav exhibition of photographic reproductions of industrial product design, Art Pavilion Slovenj Gradec.
- 1962 *Pogrjnena miza 62* [Table is Ready 62], Ljubljana, 22–29 December 1962.
- 1963 ICSID Exhibition, Pavillion de Marsan, Paris, France.
- 1963 Fine Arts Symposium: Integration in Art, Belgrade.
- 1963 The Little Things of Applied Graphics, Ljubljana.
- 1963 II. Competition of graphic concepts for the tourist poster Ljubljana 1964, Town Hall, Ljubljana, 1963.
- 1963 Exhibition and catalogue Fine Art Integration (accompanying documentary exhibition as part of an eponymous symposium), Belgrade, Exhibition Pavilion, 23 September–1 October 1963.
- 1964 Federal Applied Arts Exhibition, Ljubljana.
- 1964 BIO 1 exhibition and catalogue, Museum of Modern Art, Ljubljana, 1 October–20 November 1964.
- 1965 Exhibition of Glass by Janja Lap, Royal College of Art, London, Great Britain.
- 1966 Exhibition within the ICOGRADA Congress (at the time of BIO 2) 10 June–18 September 1966.
- 1966 Exhibition of Glass by Janja Lap, Royal College of Art, London, Great Britain.
- 1972 DLOS Exhibition – Design '72, GR – Ljubljana Exhibition and Convention Centre, Ljubljana.
- 1979 Exhibition and catalogue Slovenian Fine Art 1945–1978, Museum of Modern Art, Ljubljana, 22 March–6 May 1979.
- 1979 BIO 8 exhibition and catalogue, Jakopič Gallery, Ljubljana, 4–28 October 1979.
- 1980 Design Iskra, Pulj and Ljubljana.
- 1981 Exhibition and catalogue 30 Years of DOS: an exhibition of industrial design by members of the DOS (Designers' Association of Slovenia), Jakopič Gallery, Ljubljana, 24 June–10 July 1981.
- 1981 BIO 9 exhibition and catalogue, GR – Exhibition and Convention Centre, Ljubljana, 24 April–17 May 1981.
- 1981 Exhibition and publication (without pictures) Innovations for Stabilization, Ljubljana.
- 1981 The Iskra exhibition at Biennials of Industrial Design, the Iskra Tower, Ljubljana.
- 1984 BIO 10 exhibition and catalogue, GR – Exhibition and Convention Centre, Ljubljana, 8–26 October 1984.
- 1984 Exhibition and leaflet Applied Arts by Members of the Designers' Association of Slovenia, Jakopič Gallery, Ljubljana, 5–18 November 1984.
- 1984 Participation in the international workshop Fair of the Future and the ICSID Interdesign symposium and exhibition, Furuvik, Sweden.
- 1985 The Optical Communications Exhibition, Ljubljana.
- 1986 BIO 11 exhibition and catalogue, Cankarjev dom, Ljubljana, 3–14 October 1988.
- 1986 BIO 1–10 Exhibitions: the Fate of Design, IDCO, Ljubljana.
- 1986 Modern Electronics '86, GR – Ljubljana Exhibition and Convention Centre, Ljubljana.

- 1987 Inclusion in the collection of the Neue Sammlung national museum of industrial design, Munich, Germany
- 1988 BIO 12 exhibition and catalogue, Cankarjev dom, Ljubljana, 3–14 October 1988.
- 1988 Accompanying events of BIO 12 (DOS and City Museum of Ljubljana). Janja Lap, together with Metka Vrhunc and Žare Ognjenovič, moderates an expert discussion on glass, leather, and jewellery design.
- 1989 Exhibition and catalogue At the Crossroads, 17 Nagoya, Japan.
- 1990 DOS exhibition and catalogue – industrial design section, Ljubljana.
- 1990 Kompas Art 90 exhibition, Ljubljana.
- 1992 BIO 13 exhibition and catalogue, Jakopič Gallery, Ljubljana, 17 May–14 June 1992.
- 1992 40 years of DOS exhibition and catalogue, Ljubljana Castle, 18 May–18 June 1992.
- 1993 Round Table Exhibition, Bratislava, Slovakia.
- 1994 Solo exhibition and catalogue The Noblemen of Glass from Podsreda Castle, Podsreda Castle, 9 September–15 November 1994.
- 1994 BIO 14 exhibition and catalogue, Jakopič Gallery, Ljubljana, 10 October–11 November 1994.
- 1995 Trieste Contemporanea exhibition – Dialogues with the Art of Central Eastern Europe, Galleria Studio Tommaseo, Trieste, Italy, 19 October–30 November 1995.
- 1996 International exhibition and catalogue European Glass in Use, Podsreda Castle 31 May–15 October 1996.
- 1997 Her works in glass are placed in the collection of the National Museum of Slovenia in Ljubljana.
- 1998 BIO 16 exhibition and catalogue, Ljubljana Castle, 5 October–8 November 1998.
- 1999–2000 Participation in the Decorative Arts Workshops in Europe project, Council of Europe, Strasbourg, France.
- 2000 Solo exhibition and catalogue *Prosojnosti časa* [The Transparencies of Time], Šivec House Gallery, Radovljica, 28 September–29 October 2000.
- 2001 Dida: Delo International Design Award exhibition, National Gallery, Ljubljana, 6–9 December 2001.
- 2002 BIO 18 exhibition and Catalogue, Business Commercial Centre Evropa, Ljubljana, 1–30 October 2002.
- 2002 Exhibition and catalogue *Ujeta prosojnost: 55 let Steklarske šole Rogaška Slatina* [Transparency Captured: 55 Years of the Rogaška Slatina Glassmaking School], the Celje Regional Museum, 01 October 2002–31 January 2003.
- 2002 Exhibition Fragile! Quinto concorso internazionale di design, Museo Civico Revoltella, Trieste, Italy, 11 December 2002–11 January 2003.
- 2003 Exhibition and catalogue *Ujeta prosojnost: 55 let Steklarske šole Rogaška Slatina* [Transparency Captured: 55 Years of the Rogaška Slatina Glassmaking School], Jakopič Gallery, Ljubljana, 21 October–23 November 2003.
- 2009 Exhibition and catalogue *Iskra: nevrščeno oblikovanje 1946–1990* [Iskra: Non-Aligned Design 1946–1990], Architectural Museum – Fužine Castle, Ljubljana, 12 November 2009–16 March 2010.

- 2013 Exhibition and catalogue *Iskra: Non-Aligned Design 1946–1990*, Museum of Yugoslavia, Belgrade, Serbia, 24 April–23 June 2013.
- 2017 Exhibition and leaflet *V ospredje II: pionirke slovenske arhitekture, gradbeništva in oblikovanja* [To the Fore II: Slovenian Women Architects, Civil Engineers, and Designers], DESSA Gallery, Ljubljana, 6 March–20 April 2017.
- 2017 Exhibition and catalogue *Umetnost za vsak dan: slovensko modernistično steklo* [Art for Everyday Life: Modernist Glass Design in Slovenia], National Museum of Slovenia, Ljubljana, 8 March–1 October 2017.
- 2019 Exhibition and leaflet *V ospredje II: pionirke slovenske arhitekture, gradbeništva in oblikovanja* [To the Fore II: Slovenian Women Architects, Civil Engineers, and Designers], House of Architecture Maribor, 8 March–8 April 2019.
- 2022 Exhibition *Kroženje in Satje, svetili Janje Lap* [Spinning and Honeycomb, Lamps by Janja Lap], Muzej za arhitekturo in oblikovanje, Ljubljana, 13 October 2022–17 January 2023.
- 2023 Exhibition and monograph *Zakaj je vaza podobna hiši? Od sistemskega do fantazijskega z oblikovalko Janjo Lap* [How is a vase like a house? From the systemic to the fantastical, with designer Janja Lap], Museum of Architecture and Design, Ljubljana, 15 June–5 November 2023.
- 2025 Exhibition *Slovensko uporabno steklo* [Slovenian Functional Glass], Museum of Dolenjska, Novo mesto, 12 September 2025–18 January 2026.

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CATALOGUE OF WORKS

01



Administrative building of the District People's Committee (OLO) of Kranj, Kranj (as Edvard Ravnikar's collaborator), 1955

02



Residential blocks 3 and 4, University Housing District Prule, Ljubljana (as Edvard Ravnikar's collaborator), 1956

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A glassware set/glass cups and a vase for the exhibition *Stanovanje za naše razmere* [*Housing for our Conditions*], Rogaška Glassworks, 1956

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Ceramic and porcelain serving and dining ware, Keramika Liboje, 1956-1957

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National Liberation War Monument, Zgornji Ig (as a collaborator in Edvard Ravnikar's studio), 1958

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National Liberation War Monument, Pivka (as a collaborator in Edvard Ravnikar's studio), 1958

07



Interior of Dr Joža Vilfan's apartment, 1959

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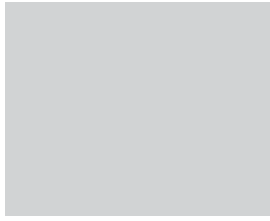
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Patterns for canvas printing *Roseta* (co-authored with Romana Lesnika), Induplati Jarše, kept by MAO

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Glass cups (co-authored with Jelka Intihar), Rogaška Slatina Glassmaking School, 1964

14



Glass vessels *Zloženske* [*Stackable*] (co-authored with Milena Letnar), Rogaška Glassworks, 1964

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Set of bottles *Baloni* [*Balloons*] RCA, likely 1964

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Decanter and two glasses for spirits, RCA, 1964, kept by MAO

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Water jugs and a drinking glass *Gubanka*, RCA, 1964, kept by NMS

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Vase *Kvadrat* [*Square*], RCA, 1965, kept by MAO

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Vases *Prelivanje* [*Overlapping*], RCA, 1965, kept by MAO

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Residential house renovation, Peak District National Park, Sheffield, England, 1973, kept by MAO

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Residential house, Oxford, England, 1973

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Residential house renovation, Menorca, Spain, 1974, kept by MAO

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Crystal glassware set *Val* [*Wave*], Rogaška Slatina Glassmaking School, 1980, kept by MAO

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Electric water pump Sora 2, Iskra Železniki, 1980

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Microwave oven MVP 600, Iskra Škofja Loka, 1981

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Housing and modules belonging to a piece of video/audio equipment that permits transmission of a TV signal over optical fibre, Iskra Elektrooptika, 1984, private property

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33



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34



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35



LSA-02 laser stimulator, Iskra Elektrooptika, 1985-1986, kept by Die Neue Sammlung, Munich

36



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MAO

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Zlatorog beer mug,
Rogaška Glassworks, PS
Dekor Kozje, 1996 and
2000, private property

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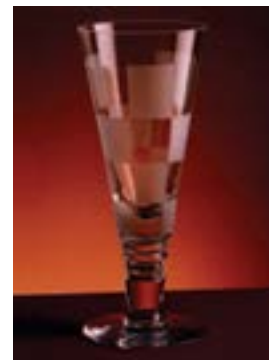
Flora series of cups
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illustrator Zagorka
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General purpose glass
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[*Windcatcher/Day and
Night*] vase, Rogaška
Glassworks, PS Dekor
Kozje, 1998, kept by
MAO

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Zita chalices, Rogaška
Glassworks, PS Dekor
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property

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Satje [*Honeycomb*],
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PS Dekor Kozje, 2000,
kept by MAO

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Set of vases *Bogatenje*
[*Enrichment*], Rogaška
Slatina Glassmaking
School, 2001, kept by
MAO



Our research into the life and work of Janja Lap, which lasted more than two years, was marked by a number of encounters that yielded important insights and discoveries, as well as offered much-needed explanations. This monograph could not have been realised without the gracious assistance of individuals who knew Janja Lap and/or her work through their institutions or personal connections. We would like to thank all of the following for their kindness, cooperation, and enthusiasm in collecting the information and objects.

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Exhibition *Why is a Vase Like a House? From Systems to Fantasy with the Designer Janja Lap* (Museum of Architecture and Design, 15 June–5 November 2023), photos: Miran Kambič and Tanja Vergles (pg. 232). Ljubljana, kept by MAO.





This scientific monograph is the first work to systematically and comprehensively cover the life and work of the designer and architect Janja Lap, who was active in the field of design during the latter half of the twentieth century. The scientific discussion includes an analysis of the scientific literature on the subject, with the authors synthesising everything into original findings. The monograph will, in most cases for the first time, shed light on the many overlooked aspects of the work and life of Janja Lap, while also drawing attention to the hitherto unknown foundations of Slovenian research in the field of design. It is certainly a work for which we have long been waiting.

Prof. Dr Irena Lazar,
*Scientific and Museum
Councillor*

The scientific monograph on the Slovenian architect and designer Janja Lap is of groundbreaking importance for the Slovenian art and architecture history, being the first in-depth scholarly work focusing on a female Slovenian practitioner in the fields of architecture and design. It is no coincidence that the authors chose this particular artist, as Janja Lap was not only among the first post-war pioneers of Slovenian architecture, whose research and projects made a key contribution to the design and planning of new integrated residential neighbourhoods, but also one of the key pioneers of design in Slovenia. She introduced a completely new scientific methodology, namely the research and development of new systemic approaches to previously identified problems. Through her research in the 1960s, Janja Lap was at least thirty years ahead of other Slovenian designers in the field of service design and environmentally friendly, sustainability-oriented circular design which have since become omnipresent facets of modern life.

Dr Helena Seražin,
Senior Research Fellow



“Be freer.”

ALUO
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