



UNIVERSIDADE DE ÉVORA

Mestrado em Gestão e Valorização do Património Histórico e Cultural -

Master Erasmus Mundus TPTI

(Techniques, Patrimoine, Territoires de l'Industrie: Histoire, Valorisation,
Didactique)

Former factory Fotokemika as a museum of photography

Nevena Ilić

Sous la direction de: **Ana Cardoso de Matos**

Évora, agosto de 2016 | Évora, août 2016

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Ao longo do processo de transmissão do suporte fotográfico, do suporte analógico ao suporte digital, fenómeno esse que vê a luz no fim do século XX, a maior parte das fábricas de suportes analógicos vêm os seus dias contados. Como consequência disso, a produção de equipamento fotográfico analógico desaparece e a tradição secular de fotografia analógica está a acabar.

No caso de estudo da fábrica Fotokemika (1947-2012), já famosa e reputada fábrica de produtos fotográficos durante a Jugoslávia, e depois durante a República Croata, o meu objetivo é o de demonstrar o que esse processo de transmissão significa ao nível local e global.

Este documento, pelo estudo da fábrica de Fotokemika, como exemplo de unidade industrial fechada que produzia equipamento para processar fotografia analógica, tenta contribuir para um melhor entendimento da posição do processo e da técnica de fotografia analógica no século 21. Este trabalho examina a história da fábrica, os seus resultados nos campos da ciência, tecnologia, técnica, publicidade, design e suas influências ao desenvolver fotografia analógica no território da Croácia criando critérios para a valorização da herança da fotografia analógica.

O objetivo desta pesquisa é o de examinar como é que museus, sendo instituições para a proteção e salvaguarda da herança, sobretudo com a nova definição de museu, podem dar soluções para manter a herança do património industrial num processo de reutilização do edifício antigo num museu.

Palavas-chave: *fotografia, fotografia analógica, técnica analógica, herança, herança intangível, herança industrial, reutilização industrial, museus, memórias.*

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RÉSUMÉ

Au cours du procédé de transmission du médium photographique, du support argentique au support numérique, un phénomène voit le jour à la fin du 20^{ème} siècle: la plupart des fabricants de supports argentiques au fur et à mesure ferment leurs portes. En conséquence, la production de matériel photographique s'arrête et cette tradition séculaire de la photographie argentique doit faire face à l'abandon et à la disparition progressive.

Dans l'étude de cas du fabricant Fotokemika (1947-2012), une ancienne fabrique de matériel photographique en Yougoslavie et plus tard de la République croate, mon objectif est de démontrer ce que ce processus de transmission signifie au niveau local ainsi qu'à l'échelle mondiale.

Ce document, à travers l'étude du cas de Fotokemika, en tant qu'exemple d'unité industrielle fermée qui fabrique du matériel pour la photographie argentique, tente de contribuer à une meilleure compréhension de la situation du processus et de la technique de la photographie argentique au 21^{ème} siècle.

L'étude explore l'histoire de la fabrique, ses réalisations dans les domaines de la science, de la technologie, la technique, la publicité, le design et son influence sur le développement de la photographie argentique sur le territoire de la Croatie en créant des critères pour la valorisation du patrimoine de la photographie argentique.

L'objectif de la recherche est d'examiner comment les musées, en tant qu'institutions responsables pour la protection et la sauvegarde du patrimoine, surtout après leur nouvelle définition, pourraient encourager la conservation du patrimoine industriel dans un processus de réaménagement d'un ancien bâtiment industriel en musée.

Mots clés: *la photographie, la photographie argentique, technique de la photographie argentique, le patrimoine, le patrimoine immatériel, patrimoine industriel, réhabilitations et reconversions des sites industriels, musées, mémoires.*

ABSTRACT

In the transmission process of a photography medium, from analog to digital, a phenomenon that occurs at the end of the 20th century, most of the analog photo factories are being shut down. As a result, production of photo equipment dies and centuries-old tradition of analogue photography is disappearing into history.

In the case study of Fotokemika factory (1947-2012), once a famous and respectable photo equipment factory during Yugoslavia, later the Croatian Republic, I am showing what this transmission process means on a local and global level.

This paper, through case study of Fotokemika factory, as an example of shut down industrial unit that produced equipment for processing analog photography, is trying to contribute to a better understanding of position of analog photography process and technique in 21st century. The study examines the history of the factory, the achievements in the fields of science, technology, technique, advertisement, design and its influence on developing of analog photography in the territory of Croatia creating criteria for valorization of analog photography heritage.

The research aim is to examine how museums like an institution for protection and safeguarding of heritage, especially after the new definition, can give a solution in maintaining industrial heritage in a process of reusing former industrial buildings into museum.

Key words: *photography, analog photography, analog technique, heritage, intangible heritage, industrial heritage, industrial reutilization, museums, memories*

CHAPTER I - INTRODUCTION

Le premier chapitre présente les orientations de la recherche : l'étude de cas de l'emplacement historique et géographique Fotokemika, une enquête scientifique, et la méthodologie de recherche que je vais utiliser pour ce travail. De plus, je vais présenter une vue d'ensemble de l'état de l'art sur le sujet des musées, du patrimoine industriel et de la photographie.

This thesis is broadly focused on the themes of heritage, memories and photography. Within these broad themes, areas such as industrial heritage, industrial reutilization and museums will be discussed.

The goal of this thesis is to make a conceptual proposal for the reutilization of a disused factory building into a museum. My case study is the former factory Fotokemika, in Samobor, Croatia- once a very important industrial unit that produced equipment for processing analog photography, such as films, papers and chemicals.

The first chapter will explain the justification for the research, including a case study which will cover Fotokemika's historical and geographic location, scientific inquiry, and the research methodology that I will be using in this work. Furthermore, I will provide a general overview of the existing literature on the topic of museums, industrial heritage and photography.

1.1. Research justification

A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.¹

After years of discussion in professional circles, ICOM adopted this definition on the 22nd General Assembly in Vienna, Austria on August 24th, 2007. In essence, that definition expanded the role of museums, with the emphasis not just being about

¹ Available at: <http://icom.museum/the-vision/museum-definition/> (Accessed 1 May 2016)

collecting objects any more, but on communication and exhibit values of the tangible and intangible heritage. In the 21st century a lot of museums started to build their mission and move their philosophy in that direction. Museums dedicated to art are still lagging behind in presenting their work in this way, and their duty is still primarily to preserve and present their collections, in the form of physical objects. Museums specializing in the field of photography are also included in that category. In overview, photography museums are divided into two categories. First, museums dedicated to historical objects, such as cameras and equipment showing the development of media through history. The other category of photography museums are those with collections of printed/developed photos of artists known in the photographic world promoting historical, modern or contemporary photography, through exhibitions. Despite, these two kinds of museums, there is something that connects them; they create their collections based on artifacts or authentic objects and the philosophy of presenting these objects to the public, with no interaction with visitors.

First of all, let's define an object in a museum. A museum object is something which musealised, an object that is removed from reality into the museum context. Depending on the changing of museological theory, or the development of new spheres in museology throughout the history, this definition has changed a lot. For example from the point of view of a structuralist approach, the museum object is a document, sign or part of heritage, philosophic approach is talking about that museum object is not same like a thing, a new museology school is putting away the term of a museum object and talking instead about the heritage. The approach of the new museology school is starting to become the most prominent one internationally in the museum world. In art museums, the collections are mostly created in the form of physical objects, and they created unconsciously thinking that the museum object is only physical things. The idea of authenticity is particularly important in fine arts museums (masterpieces, copies and fakes) and influences the majority of the questions attached to the status and value of museum objects.²

² Available at:
http://icom.museum/fileadmin/user_upload/pdf/Key_Concepts_of_Museology/Museologie_Anglais_BD.pdf. (Accessed 1 May 2016)

Authentic objects in museums of photography are very rooted in their environment and they present the core values of art museums of museums. The question of what an object in museums of photography really is, started to be questioned during the big transformation of media. The metamorphosis from analog to digital started to revitalize museums of photography to think more of their intangible heritage. One of the best examples is the frequent discussions about the topic of photography in social media, as a part of everyday life, and its continued move in that direction.

At same point, with the development of new technology and modern media, analog technology and techniques started to be seen in a secondary role, slowly disappearing from everyday lives. Already, at this point in time, a younger generation is often curious about analog photography, often not understanding exactly what it really means.

With the invention of digital photography, the analog process started to slowly vanish from the global scene, especially after the millennium, when improvement of digital technology became completely mainstream. At the same time as the rapid process of digitalization, came the rapid collapse of the analog photo industry. Just in the last ten years almost all factories of analog film closed their doors, leaving the entire tangible and intangible heritage behind.

Museum professionals are more concerned about how they will be able to manage with the change of medium, and how they will present 'objects' now. In only a few museums is there an awareness of the analog legacy, shown occasionally through workshops. The processes of analog photography stayed dominant only in departments of photography, in art schools. At this point, transit on a global level from analog to digital in photography passed almost invisibly. Thanks to the social network *Instagram* and popularity of digital photography processed by filters to look like an old photo, the curiosity for analog film is starting to make a comeback. With the closure across the world of factories dedicated to the photo industry, material and chemicals for analog photography had been harder and harder to find, but, thanks to this new social media interest and new demand in the market, factories like British *Ilford* and Japanese *Fuji* survived. The question is, is it just a trend, or enough to make the analog process live again?

If we consider the definition of museums again, it's a perfect time for museums of photography to participate in taking care of the analog process, which should be recognized as a heritage, and rejuvenated again, and stop it being just an exhibit in the 'cabinet of curiosities' of photography.

The aim of this project is to create a proposal for the former factory of photo material Fotokemika in Samobor, Croatia, as a museum of photography, where its technical, social and artistic - aesthetic heritage could be evaluated, conserved and treasured. The final goal is to make a museum in which an analog process could be brought to life again, to create a center which will promote photography in every aspect, giving space to a younger generation of photographers to create a core which will combine tradition and future visions of the role of museum of photography.

Research is also directed into finding an answer to the question as to why a museum of photography does not yet exist in Croatia, considering its long and rich photography tradition and many different photographic collections in other museums and institutions. The final problem this project deals with is trying to answer the question of what is going to happen to the closed Fotokemika factory and also proposing tools for it's protection, in a form of conversion, so it doesn't become just another neglected object of industrial heritage of Croatia.

Research is directed towards giving the best possible solution to transforming former industrial buildings into museums. The best possible concept is to use this gem of industrial heritage to create a Museum of Photography, a unique place where past, present and future meet- providing a whole new experience of photography.

1.2. Case study object

The city of Samobor in Croatia is known as a small historic town within the Zagreb metropolitan area. Since 1242, according to a document of endowment by King Béla IV, it has held the status of a free royal town. Today it is a part of the Republic of Croatia and a popular tourist destination.

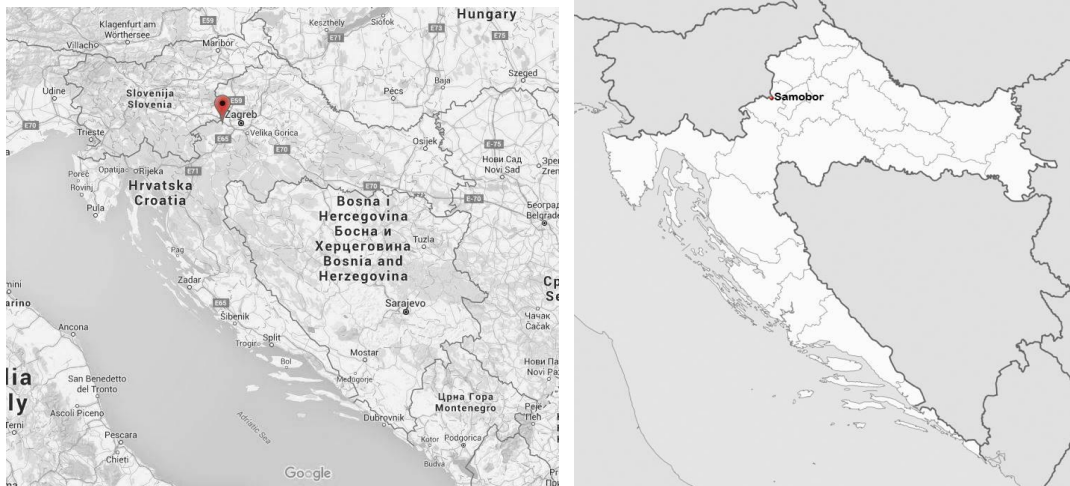


Fig. 1. Map of Croatia and city of Samobor on map of Croatia

Source: www.karta-hrvatske.com.hr

As well as Samobor's history, it is also known for its industry. One of the chief industries in Samobor is crystal cutting, acclaimed in Europe and all over the world. But a few years ago, the city was known by one of the few factories in the world that still produced all the necessary materials for the analog process of making photographs, Fotokemika.

The birth of the photo industry in former Yugoslavia started after the Second World War in the time of major renovation. With the demands of the market, and on the initiative of a group of photographers and photographic experts the idea of photo factory was born. By merging companies *Photo* and *Ozachel* they formed a stock company *Fotokemika* which began building a factory in Zagreb in 1946. They started with the production of black and white photo paper, photo chemicals, and simple cameras. Soon after, in 1952 the new plant in Samobor was opened where they produced among other products, photographic, cinematographic and x-ray film. At that point the only

countries that had a photo industry were Germany, Belgium, England, France, Italy, the former Union of Soviet Socialist Republics, USA and Japan. Fotokemika was once one of the region's most successful photochemical companies.

What started as a small regional company, Fotokemika became a big player in the photo industry with the creation of brand *eFKe*, which included films and materials for analog photographic processes. Because of improving the products inside of Fotokemika was established laboratory for chemical testing of products with the leading names from chemistry industry.

The formulas for black and white film production were bought from company *Dr. Schleussner GmbH of Frankfurt aus Main*, in the photographic world this is better known as *ADOX*, the world's first photographic materials manufacturer, which developed their legendary silver rich black and white films.

Silver in films produced quality of printed image, and made eFKe brand one of the best known films in the world, especial edition *KB25* films. Because of a lack of money, and competition from large conglomerates like Kodak, Fotokemika stopped pursuing improving their technology for films in color in the 1980s and instead continued with black and white production, which made it the last factory in the world that produced films with silver, until eventual closure in 2012. Even today many professionals believe that theirs was the best film in the world.

It is important to highlight that a key part of the photo manufacturing industry is the actual machinery. Each factory had bespoke machines constructed by the engineers. The machines, on which the eFKe films were made, were until recently, the last original machines designed to create the special film and originated from the '50s and '60s. They were partly bought and partly invented and built by their own engineers. Most of the knowledge, like chemical processing and building of machines, is known only by the former employees of Fotokemika. Many of them were trained at the factory while still studying and had been working there ever since. They are the true specialists that hold the knowledge and well-kept secrets of eFKe's traditional film making.³

³ Available at: <https://thefotokemikaproject.wordpress.com/> (Accessed 1 May 2016)

Amongst the Fotokemika factory experts, were some of the leading chemists and engineers in the country, responsible for improving the product in field of photo industry. Managers employed *Josip Sudar*, who is considered a pioneer of marketing in the former Yugoslavia. Thanks to Sudar marketing campaigns, Fotokemika accessed different world markets very soon after it opened. Sudar's vision was accompanied by an *avant-garde* tendency of visual expression at the time. He started collaborating with Aleksandar Srnec, one of the most famous Croatian artists, whose signature works feature geometric abstraction and a minimalist aesthetic. Second half, beside Sudar, in creating public image eFKe brand was *Dušan Bekar*, chief designer at Fotokemika in the 1950-60s. Using today's terminology he was the equivalent of the company Art Director. During those years, with both the vision of Sudar and the modern, contemporary design of Bekar, Fotokemika achieved a record-breaking success, and from this point of view, it could be said that was the 'golden age' period for Fotokemika.

The case study for this project will be the Fotokemika factory, with all tangible and intangible heritage, that was created during the 65 years of its existence. Its effect on the global scene of the analog photo industry has to be emphasized, creating an increasing regional and local influence on the development of photography in the former Yugoslavia, especially in the territory of Croatia.

1.3. State of Art

Fotokemika factory published a factory magazine called *Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper* from the year 1954 until 1994. Editorial section made of articles dedicated to work of factory, to scientific research in field of photography, improvements in technology of analog photography and reviews from exhibition of photography give an overview of Fotokemika work of 40 years. The magazine is important because it is only place with information where can be readably all the aspects of factory from business, propaganda, science until the social component. The Fotokemika factory until the present day has

not been the subject of scientific research, so there is a lack of written literature in that direction. Only a small amount has been written about Fotokemika, in the catalogues of two exhibitions. The first exhibition was held at the *Museum of Art and Crafts*, 1966, titled *100 years of photography in Croatia (1840-1940): 20 years Fotokemika*. The exhibition presents an overview of the graphic design of Fotokemika factory, from posters to product design. *Radoslav Putar*, author of the text, and a leading art historian of the time, on visual analysis of works speaks about advanced design within the company in the context of that time. Other exhibition is organized by *Gallery of City Zagreb* forerunner of the *Museum of Contemporary Art*, with the title *Croatia photography of the nineteen fifties to the present. Development Fotokemika from 1947 until today*, held in 1993. In the context of Fotokemika factory, this catalog is important, because for the first time, official chronology of factory was published. Another thing which is important to emphasize is text in introduction part, where is written that exists of Fotokemika factory, like the only photo-industry in this region, created prerequisites for the development of the photographic medium.

Despite this two catalogs, like an only written publication, with little bit of thematic of Fotokemika, research will be concerned more on archive work, and literature that is connected with its legacy, such as describing the work of Aleksander Srnec in its context.

About the work of Aleksandar Srnec in Croatia art history was written a lot, especial in the context of EXAT 51, the group of artist which artistic expression was marked with the geometric abstraction in the begging of 1950s. Srnec work always had pretensions to be looked in artistic environment and about his work as a graphic designer didn't been written a lot until the exhibition *Aleksandar Srnec, Present Absence* held in *Museum of Contemporary Art* in 2008. Presenting his entire opus, for the first time his work in context of graphic design got properly spaces in exhibition with text written by *Feda Vukić*, theorist of the history of design in Croatia. Vukić is speaking in text about all the graphic design that Srnec had done, but gives a title just dedicated to Srnec works for industrial companies, including work for Fotokemika too.

At present, the process of transition from analog to digital photography continues. Simply by looking at the statistics for closed factories in the analog industry, it could be said that the predominance of digitalization in photography now is very high. Considering that we are still in that process, there is a lack of literature dealing with the issue. A project of the photo documentation of vanishing and closing factories of the photographic industry that photographer Robert Burley started in 2005, led to the production of a book with the title *The Disappearance of Darkness: Photography at the End of the Analog Era*, in 2012. This book contains his photographs and the theoretical essays of curators, including essays on the topic of the state of analog photography in a digital age. This is one of few sources edition that deal with this subject matter.

In the beginning of 20th century photograph activities in Zagreb were very strong and in 1930s was active movement called 'Zagreb School of Photography'. Despite the fact of importance of that period, in the literature didn't exist in a book form until the big exhibition in Zagreb in *Museum of Arts and Crafts* in 1994, *Photography in Croatia 1848-1951*, under the supervision of curator *Marija Tonković*. The catalog of the exhibition presents the overview of development of photography and presents the most significant names of that period. The exhibition and the catalog were the product of many years research that Marija Tonković dedicated to photography as an expert and the head of department for photography at the *Museum of Arts and Crafts* in Zagreb.

Second part of the twentieth century about history of photography in Croatia was structural concise in a work of *Želimir Koščević*, a leading theorist in contemporary art and photography in Croatia. He was one of the key figures of the contemporary art scene and one passionate driver of many events related to photography in Croatia. After many years work, he wrote a book in 2002 called *Photography picture - 160 years of photographic art* in which he deals with the subject of Croatian photography in the context of the world with artistic and theoretical aspects. The book is divided into six chapters, in chronological order, from after the first photos in 1839 and the events that immediately preceded it, to the ending where the final essay describes the challenges at the end of the millennium. It should be emphasized that is the first book in which there is a systematic overview of Croatian photography after the 1950s. Beside this book,

Želimir Košćević in the book *History of European Photography, 1900-1938*, was an author of essay *The History of Croatian Photography* in period of 1900-1938.

In addition to books of Croatian photography it should be mentioned that periodic works have been issued by *Centar za fotografiju, film i televiziju (Center for Photography, Film and Television)*, CEFFT, in which the photography had plenty of space. One of the most important issues published by CEFFT was magazine SPOT, going out in period of 1972-1978, dedicated to contemporary photography on that time. In contemporary time's editions of the journal *Život umjetnosti (Life of Art)*, where are a lot of theoretical articles about the position of photography today.

Awareness of industrial heritage and the recognition of its value in the former Yugoslavia started in the 1980s and the first writing about Zagreb's industrial past was in the magazine: *Informatica museologica* with the title *Museological challenge of industrial archeology* in 1982, written by *Višnja Zgaga*. Because of the civil war and the unstable situation in the 1990s, all aspects of culture suffered. But at the beginning of new millennium, the city of Karlovac hosted the first *Croatian symposium on the transformation of industrial heritage in new urban landscape scenery*, organized by the *Society of architects, builders and surveyors* from Karlovac. On that occasion, appeared: *City for the 21st century*, today one of the most important collections of written texts about industrial heritage in Croatia.

The next publication which presented new tendencies and examples of industrial heritage was an edition of the magazine *Informatica Museologica*, which in Vol.38 in 2008 was dedicated to all forms of the presentation of new achievements in industrial heritage topics.

Thanks to the existence of *TICCIH (The International Committee for the Conservation of the Industrial Heritage)*, international society dedicated to promotion and protection of industrial heritage on all level, today we have many published edition on this subject. The crucial issue is *Industrial Heritage retooled: the TICCIH guide to industrial heritage* published 2012, which brings together a series of works on the theme of industrial heritage subject to contemporary views. It is divided into four large units that

deal with the topics of valuation, protection, transformation, and the adoption of new theoretical concepts of industrial heritage. This collection gives an insight into the big picture of today's situation in a field of industrial heritage, pointing to examples of how theory works in practice.

On the other hand, in the field of museums and its theories, the leading work is *A Companion to Museum Studies*, published in 2006, which captures the multidisciplinary approach to the study of the development, roles, and significance of museums in contemporary society. In this collection of essays a new era of museums is presented, postulating what museums of the 21st century should be like and what is their responsibility to society.

Eileen Hooper-Greenhill, professor Emeritus on University of Leicester, is a, perhaps the, leading practitioner in field of museum studies and the concepts concerning them. She is the one of the experts that introduced postmodern theory into a museum field, creating the concept of post-museum. In her first book, *Museums and the Shaping of Knowledge*, published in 1992, she announced post-museum as the future, museum-to-come, which concept she will explain in the next book *Museums and the Interpretation of Visual Culture*, from 2000. Through the book, the author examines the relation between object and audience, and asking the question is still collection will be essence of museum in future.

1.4. Methodology

In the case study of Fotokemika factory, I will base my research on the analysis of archival material, which will enable me to construct the historical overview of the company. Fotokemika case never has been a subject of scientific research and despite that fact there are a small number of written texts on thematic of Fotokemika in other publication. Considering that fact with archive materials I will be able to construct historical frame of Fotokemika factory with information which will give new approach for understand its roll in history and determine its importance as heritage.

Beside work in archive, my research will include a field work, which will help me to understand today situation of factory and construct models for valorization of its heritage. Fieldwork allows a deeper insight into pre-inventory of the machinery, materials and photographs that existed in the factory to have one idea of its importance. Research also includes people such as engineers, photographs and artist linked to the Fotokemika to stress the significance of their work in the context of the factory.

Theoretical research will deal with the subjects of museums and industrial heritage. In museum field it is important to explore development of museums and there position and role in 21st century, especially after the new definition. How the subject of research include industrial heritage monument, the work will be study principles on industrial heritage with historical overview, and analyze existents examples of reutilization for better understanding Fotokemika possibilities in that direction.

Furthermore, using a qualitative approach to better understand the social significance of Fotokemika factory, I will conduct semi-structured interviews with members of the Fotokemika *community*, namely former workers, users of Fotokemika products, professional and amateur photographers and the citizens of the city of Samobor.

This research is based on constructivist paradigm. Constructivist grounded theory acknowledges the subjectivist stance of researchers who ‘construct our grounded theories through our past and present involvements and interactions with people, perspectives and the research practices’.⁴ Constructivist grounded theory is based on the data - inductive approach, continuous coding material and return to reading materials in the light of new themes and codes.

Creating a group Fotokemika community, I’m trying to study protagonists in their historical and social context of trying to understand and interpret the meaning or significance of their actions and experiences connected with field of photography.

⁴ Charmaz, K., *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage, 2006, p.10

Multiple perspectives of those involved in the case of Fotokemika factory aiming to gather collectively agreed upon and diverse notions of what occurred.

To gain a holistic perspective, diverse members of the community will be interviewed. From Fotokemika community will be taken two protagonist of the group which is divided in categories of workers, users and citizens with question relevant in relationship of them and Fotokemika. Each group will contain equal number of genders, women and men. In the group of workers average age is between 60-70, in users 30-90 and in citizens 30-40.

The form of interview with different groups on same subjects is giving different view of the same things, and differently constructed meanings of Fotokemika factory and analog photography. With this approach is trying to get global picture of Fotokemika influence on different levels and open the field for furthermore research.

1.5. Dissertation's structure

This dissertation is structured in 7 chapters, which presents the project from its justification until the conclusion.

In the first chapter, the goal of project is presented, why this research is needed, where are the gaps in knowledge in the field of museums of photography, and in the field of industrial heritage in Croatia. Also a general overview of the existing literature is presented about the major topics in my thesis and the best methodology to be used.

Chapter two introduces the problem of the situation of analog photography in the digital age and attempts to give a solution to the new vision of the role of museums in the 21st century. In this chapter the main topics of this thesis are reviewed; the disappearance of analog photography techniques and how the new vision of museums can help in the process of transmission of media.

The third chapter is dedicated to terms of industrial heritage, adaptive reuse and museums. The aim of this chapter is to show historical overview of developing the field

of industrial heritage and what it's perception in 21st century. Also the aim of chapter is to show the examples of converting industrial architecture into a museum and adaptive reuse, considering the criteria for proposed plans for Fotokemika as a museum of photography, with the goal to show how it can help in cultural development of the city. Considering the long tradition and history of photography in Croatia, even today there is a big question in professional circles, why there is not a specialized institution for photography, in a form of museum or center.

The fourth chapter presents an answer to this question, emphasizing why the future museum should be in an industrial building, also rising problematic of protection of industrial heritage in Croatia.

In fifth chapter will give a history of the Fotokemika factory with its entire tangible and intangible heritage. The aim is to present the factory in the context of the region and to see its influence on the development of photography in the territory of Croatia.

In the sixth chapter is a proposed plan for Fotokemika-museum of photography, from the description of today's state, criteria of valorization of its heritage to a museological concept of the Fotokemika-museum of photography. Also, the aim is to show how reutilization of industrial building can help in a cultural development of the city based on examples presented in chapter three.

Finally, at the end is conclusion based on research done with analysis of data and proposed plans for a museum of photography.

CHAPTER II - MUSEUMS IN A ROLE OF SAVING ANALOG PHOTOGRAPHY

Le chapitre deux introduit la problématique de la place de la photographie argentique dans l'âge numérique et tente d'esquisser une nouvelle vision du rôle des musées pour le XXIème siècle. Dans ce chapitre, les principaux sujets du mémoire sont examinés: la disparition des techniques de l'argentique et comment ces nouveaux musées peuvent être utiles dans le processus de transmission des médias.

2.1. New era of museums

*ICOM has for some time been formally reconsidering the definition of the museum, as contained in its Statutes. Quite recently the question has been raised: Why does ICOM need a new definition of the museum?*⁵

This is the first sentence of an article *From Specialist Reference to Social Recognition and Service* of ICOM News Magazine on topic *The Definition of the Museum*, in 2004, which was written by the *Bernice L. Murphy*, at that time Vice-President of ICOM. At the beginning of the 21st century museums have been in the process of metamorphosis, conditioned with the big changes in society influenced by growing globalization which culminates at the beginning of new millennium. Precisely for this reason, in the sphere of the cultural world, there is one of the biggest turning points in terms of the notion of heritage. At a General Conference of UNESCO, in Paris in 2003, a *Convention for the Safeguarding of the Intangible Cultural Heritage* was adopted. It said: *'Cultural heritage does not end at monuments and collections of objects. It also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.'*⁶

⁵ Available at: http://icom.museum/fileadmin/user_upload/pdf/ICOM_News/2004-2/ENG/p3_2004-2.pdf (Accessed 10 May 2016)

⁶ Available at: <http://www.unesco.org/culture/ich/en/what-is-intangible-heritage-00003> (Accessed 10 May 2016)

This new approach to heritage defines a better way of expanding the field and value of heritage, museums started to review the definition which was adopted in 1974. By that definition, a museum is a non-profit making, permanent institution at the service of society and its development, and open to the public, which acquires, conserves, researches, communicates, and exhibits, for purposes of study, education and enjoyment, material evidence of man and his environment.⁷

In this definition the word material should be underlined, it describes most of the missions of museums who build their collections on physical objects. Parallel with the raising the awareness of importance of non-material heritage in the 21st century, discussion in museum fields started, with the prime question being: is this definition enough to cover all tasks that a museum is supposed to cover in its role to serve society. The importance of intangible cultural heritage is not the cultural manifestation itself but rather the wealth of knowledge and skills that is transmitted through it from one generation to the next.⁸ This is the key sentence in which experts of UNESCO describe what is intangible heritage and asks professionals in the museum world, in a global era to start to think more about values of non-material aspects of culture and how they could be implemented in the museum environment.

If we look at the historical overview of the development of museums, we can see the occurrence of the movement called eco museums which started in central France in 1971. This was one of the first movements of museology into a new direction, moving the boundaries of traditional points of view about the meaning of museum objects and their connection with the community.

The eco museums story begins after World War II, when in the region around the towns of Le Creusot and Montceau-les-Mines almost 150,000 locals lost their jobs because of the shutdown of one of the biggest industrial plants in that part of France. A unique solution for the recovery of the region and its economic development was proposed by *Hugues de Varine, Georges Henri Rivière* and *Marcel Evrard*, who proposed *The Museum of Man and Industry*, a museum that was to startup the economy again, but

⁷ Available at: http://archives.icom.museum/hist_def_eng.html (Accessed 10 May 2016)

⁸ Available at: <http://www.unesco.org/culture/ich/en/what-is-intangible-heritage-00003> (Accessed 10 May 2016)

also, perhaps even more importantly, help the local population rediscover meaning, their own identity, and open new development possibilities.⁹

The revolutionary approach in this case lies in the emphasis of all heritage connected with the project. In center of museum was the Schneider family's castle, the defunct industry's ex-owner's house, in which was presented collections of the objects in relationship with the past, but the philosophy of the museum was to cover all parts of the region that was somehow connected with the everyday life of habitants and creating *in situ* places with tangible and/or intangible testimonies of community. In the year 1974, when it was completed, it became known in the museum world most of all due to its collection definition published in the Museum magazine: '*Any movable or unmovable object within the community's perimeter is a notional part of the museum. This introduces the idea of a kind of cultural ownership, which has nothing to do with legal ownership*'.¹⁰

After this example, which was a breakthrough new concept of museums and museology, the first countries that followed this concept was French-speaking part of Canada and later Scandinavia peninsula, and then in other countries, started to appear many kinds of this type of museums.

Since that period the museum world has undergone radical change. The circumstances in which they found themselves, affected by economic and political factors, forced its professionals to shift their attention away from their collections towards visitors. Model eco-museums served as a bridge in the transition and conditioned the various variants of the museum that are in its mission, which is more turning towards visitors and interaction with them.

For the past thirty years the *Museum of Man and Industry* in France has raised question in ICOM magazine, and in that time many kind of museums developed, which are not basing their mission on collection and objects or doing so only partially. If we compare, a traditional museum, which is based on the principle of object philosophy, and display

⁹ Babic D, Experiences and (hidden) values of ecomuseums. *Ethnological Researches* 1 (14), 2009, pp. 237-252.

¹⁰ Idem.

character, to the opposite examples such as a science center and children's museums which provide programs to stimulate informal learning experiences with a philosophy of touching objects, creating a full experience of interactivity. From these two extremes, eco museums on one side and traditional museums on another side, were created other versions of the museum that cannot be placed in either one of them. Examples are one-object museums, such as a ship museum or a house museum with a plethora of culturally associated objects, the avocation lists' museum that puts its member's models on exhibition but does not concern itself with acquisition, preservation or research, the art museum that appears not to have acquired a permanent collection.¹¹ The definition of museums from 1974 excludes these kinds of institutions because they are not based just on material heritage, but also as a service for society and its development. In the issue of ICOM magazine from 2004 *Paul F. Donahue*, Executive Director of *Museum Services Canada Science and Technology Museum Corporation*, in his article *Collection=Museum?*¹² asked the question: *'Do we principally exist to collect or to inform?'*¹³ considering the fact through all the changes the museums passed in three decades, questioning which of their functions is more important.

Finally on the 22nd General Assembly in Vienna, Austria on August 24th, 2007, ICOM adopted a new definition of which it states: *'A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.'*¹⁴

With this new definition, museums entered into a new era of their existence with new visions. Through that definition, which was changed by just a few words, but with very crucial meaning, the museum world has been shaken from the basis and a long existence of the philosophy on a physical object as a base of collection has been questioned. In the

¹¹ Available at: http://www.cool.conservation-us.org/icom/fileadmin/user_upload/pdf/ICOM_News/2004-2/ENG/p4_2004-2.pdf (Accessed 10 May 2016)

¹² Available at: http://icom.museum/fileadmin/user_upload/pdf/ICOM_News/2004-2/ENG/p4_2004-2.pdf (Accessed 10 May 2016)

¹³ Idem.

¹⁴ Available at: <http://icom.museum/the-vision/museum-definition/> (Accessed 15 May 2016)

introduction part of ICOM edition *Key concepts of museology*, published 2010, some questions were raised:

*'What is a museum? How do we define a collection? What is an institution? What does the term 'heritage' encompass? Museum professionals have inevitably developed answers to questions such as these, which are fundamental to their work, compiled according to their knowledge and experience. Do we need to reconsider these? We believe so.'*¹⁵

Since changes have been noticeable in the museum world for some time, especially after the official publication of the new definition, professionals are now trying to answer these questions. Although the official definition changed the view on the understanding of heritage, there is still a recognizable difference between the so-called Western school museum, founded on European practice, based on physical objects and new museum practices that are more present in the rest of the world, especially in local communities where the presence of non-material heritage is far bigger. The Western museum's emphasis on objects does not readily accommodate the need for preserving 'living' culture, an important limitation for those in societies in which less emphasis is placed on preserving the materiality and more on maintaining the intangible aspects of heritage, including the relationships, knowledge and activities that give objects meaning.¹⁶

In years after 2010, in museum circles, there is more and more talk about how best to include intangible heritage in museums structured in a traditional school. But, these kinds of discussions are not something new. During the 1980s, *New Museology* was created, which at the core of its philosophy stresses the more sociological aspects of the museum, rather than as a collection. The principles of the new tendency or a new faction in museology are based on postmodern theory of society which emphasizes moving process from material culture to of exchange knowledge that should be

¹⁵ Available at:

http://icom.museum/fileadmin/user_upload/pdf/Key_Concepts_of_Museology/Museologie_Anglais_BD.pdf (Accessed 15 May 2016)

¹⁶ Moira G. Simpson, CHARTING THE BOUNDARIES, Indigenous models and parallel practices in the development of the post-museum, Knell, S., Macleod, S. and Watson, S. *Museum Revolutions: How Museums Change and are Changed*, Routledge, 2007, p. 235

dominant in a term of new museums. In addition to global changes in society, the birth of a new museology happened, and was influenced by the emergence of eco museums, which made the further development of the museum possible. According to the movement of the *New Museology*, museums have a social, educational and cultural responsibility towards their public and for this reason special attention should be given to the satisfaction of the educational and cultural needs of audiences.¹⁷ The manifesto of the new museum school is the publication of the collected essays entitled *The New Museology* edited by *Peter Vergo* in 1989, who also created the term New Museology. The publication set canons of new school of museology and was a major turning point in the relationship between museums and society.

Carried away by a wave of new trends in museology, an environment was created in which there were more and more discussions about the needed changes in the museum world. Entering the new millennium, the concept of post-museum was born, introduced by author *Eilean Hooper-Greenhill* in her book *Museums and the Interpretation of Visual Culture* in 2000. The concept of the 'post-museum' is thus proposed as a way for enabling multivocality in terms of displaying artifacts and active meaning-making in terms of audience response. In her vision of the 'post-museum', Hooper-Greenhill describes it as a process of several events taking place before, during and after the exhibition and underlines the existence of multiple perspectives that replace static and monolithic knowledge. In this sense, the 'post-museum' envisions museums as vibrant spaces of creation and discovery of new knowledge, fostering cultural diversity and constructive learning.¹⁸

The author herself by presenting a vision of the museum in the 21st century in the form of post-museum, says: *'This notion of the post-museum as the future, but as yet ill-defined, shape of the museum-to-come, has gained further ground in a number of recent writings which examine the development of the museum as an institution that has both*

¹⁷ Alivizatou, M., (2006). Museums and Intangible Heritage: The Dynamics of an 'Unconventional' Relationship. Papers from the Institute of Archaeology. 17, p.47–57. DOI: <http://doi.org/10.5334/pia.268> (Accessed 18 May 2016)

¹⁸ Idem.

*shaped, and been shaped by, Western knowledge and continues to change under the influences of post-modernist perspectives and new technologies.*¹⁹

The simplest definition of post-museum would be that they are socially active and responsible museums. That should mean that they are not just turned to show the history, their exhibits should include present and current social topics; the shift from museum objects to people, their personal stories, and experience.

In the process and transmission from objects to knowledge, more and more museums are building their mission statement on that point. Following the official re-definition of the museum, and the faction of new museological school, whose principles have begun to be more and more in the reform of the museum, it could be said that a new era has begun for the museum, the museum of the third wave or revolution²⁰, whose witnesses are we because the reform by itself is still in progress. Because of this, that process is still ongoing, in professional publications, we will meet the various opinions, and ask new questions, some of which are the most common, which is the definition of a museum object today and how to define the boundaries of intangible heritage, or better say what to include in it.

Although the factions of the traditional and the new museum schools are still very much current, it must be emphasized that museums entered in the era of change. Even those museums that have spent their long existence building prestigious collections, such as the world's most famous art museums, they are taking small steps towards introducing a component of social character and interaction with visitors. And generally speaking, the faction of the museum that has a mission aimed at a sociological component gets bigger and bigger.

It could be said that Hooper-Greenhill's creation of the concept of post-museum had a vision of creating a hybrid of the traditional/new museum which do not exclude each other, and perhaps, precisely in this concept and way of thinking in relation to tangible

¹⁹ Moira G. Simpson, CHARTING THE BOUNDARIES, Indigenous models and parallel practices in the development of the post-museum, op. cit, p. 235

²⁰ The first museum revolution took place around the year 1900 where the museum institutionalized and became more professional. The second revolution happened in the 1970's where the function based museum was replacing the collection based museum. (Van Mensch, 1992)

and intangible heritage, which are at the same level in this vision, paved the way for the museum of the 21st.

2.2. The disappearing art of analog photography

'The advent of chemical photography was sudden and celebrated. [...]Photography changed everything. Perhaps no technological invention since movable type has so profoundly affected how and what we know or remember, and how we understand ourselves. Unlike the start of this phenomenon, however, the end has come, in T.S. Eliot's words, 'not with a bang but a whimper.'

Andrea Kunard, On endings, Disappearance of Darkness: Photography at the End of the Analog Era, 2012, p. 28

Photography is one of the inventions that changed the whole spectrum of the human vision of reality and from its birth, influenced many areas of human life. The 'civilization' of a photo changed the relations towards the visual media, as well as within the medium. It allowed the testimonies of events and people's lives to acquire a different dimension, and joined together the word and the image that would, with its documentary, reduce the subjectivity of the written word and open the possibility of creating a visual memory of mankind. It has greatly influenced the changes in painting and graphics that used to carry a strong documentary note, at least in one important segment.²¹

The golden age of photography begins with *George Eastman* and the popularization of the process of shooting on celluloid film, which happened at the beginning of the twentieth century. Eastman is the man who founded the *Kodak* brand, one of the giants of analog film industry. As Ford created the automobile industry, it could be said that Eastman created the photography industry. The Kodak Company launched the *Brownie* camera in 1900 that marked the era of photography as the beginning of mass production, from manufacturing to a standardization process. Made of leatherette-covered cardboard and selling for a dollar, it popularized low-cost photography and

²¹ Fotografija kao muzejski predmet, I. Maroević, Informatica Museologica, Vol.31 No.3-4 Veljača 2001, p. 1

over 250,000 were sold in one year. The release of Kodak's Brownie, an inexpensive, portable, and easy-to-use film camera, took advantage of the technological breakthroughs in analog photographic processes. Murray (2008), notes that the Kodak Company, through its advertising, defined amateur photography '*as a practice that could be easily integrated into everyday leisure activities and could be used to express creative impulses*'²². The Kodak empire dominated the world photo industry for more than a century.

Through the popularization of digital photography in the new century, techniques and the technology for analog products started slowly disappearing. We are witnesses to big technological changes in the world. Just as the industrial revolution has marked a phase in history, the same is happening today with digitization and its virtual information that is changing our reality today. Inevitable changes of a digitized world have also impacted the photographic medium, and its transition is passing almost invisible. Nowadays, the technique of analog photography is quietly vanishing, because of the general availability of digital technology and omnipresence of photos, visible on a small LCD screens.

The big difference between traditional film cameras and digital cameras is how they capture the image. Instead of film, digital cameras use a solid-state device called an image sensor. The rapid progress of technology made digital photo cameras more affordable, and as prices fell, the need for film and analog cameras declined. The law of supply and demand and the transition of the media, caused an accelerated collapse of the analog photo industry. Kodak started shutting down plants and demolition of the factories started in 2005, and the company declared complete bankruptcy in 2012. The decline of the analog photo industry can be seen quantitatively in the case of Kodak. Kodak's revenues peaked at nearly \$16 billion in 1996 and its profits at \$2.5 billion in 1999. The consensus forecast by analysts is that its revenues in 2011 were \$6.2 billion.

²² Murray S. 'Digital Imaging, Photo-Sharing and Everyday Aesthetics', Journal of Visual Culture Vol.7, 2008, p. 151

With the slogan, You press the button, we do the rest, Kodak introduced to public new philosophy of developing photos. Campaign was constructed on way, you bought the camera with the film inside, when you shoot everything, you send camera into the factory, and they develop the photos and refill the camera with the new film. Kodak with this kind of philosophy made photography popular world wide in a short period of time and changed the forever development of photography and her influence on society

In 1988, Kodak employed over 145,000 workers worldwide; at the last count, the workforce was barely one-tenth of the 1988 figure. Its share price has fallen by nearly 90% in the past year.²³



Fig. 2. Demolishing 92-year-old Kodak Building in Rochester, New York, 2015

Source: www.telegraph.co.uk

The decline of chemical film developing, during the digital era, was not responsible for destroying only one brand or industry; it took hold across the world. For example, *Ilford Company*, the black-and-white film manufacturer based in Britain closed many parts of its factory, and the European factory of *Kodak in Chalonsur-Saône*, France, the birthplace of photography closed its doors in 2006. The same thing happened to the famous brand *Polaroid*, which had a factory in Massachusetts, USA. The same fate befell the factory *Fotokemika* in Samobor in Croatia, its machines stopped production forever in 2012, the year that which was the final nail in the coffin for the analog photographic industry.

As the photo industry launched a large-scale development of the photographic medium, so its extinction launched a disappearance of developed/printed photos from our

²³Statistic taken from Economist magazine, and describe the period in 2012 Available at: <http://www.economist.com/node/21542796> (Accessed 20 May 2016)

everyday life. The process of analog photography is marked by an object; its presence in our lives was on paper, paper on which our memories were recorded. Photographs are no longer material objects created on film or paper – they have become dematerialized data stored in a cloud somewhere else. This alters one of the photograph's most important characteristics – its relationship to time and place.²⁴ Under the wave of digitization, life in the virtual world, and photos on the screen, customs that were bound with an 'old' image, slowly vanished, almost gone in the present day. Older generations remember a shoe box full of various different memories developed on photo paper or neatly sorted photo albums full of memories of summer or winter vacations, with written reminders of events. It was not unusual for some of the photos to be destroyed and cast into oblivion in a fit of rage. Do you still have photos in your wallet? With the shutting down of industrial plants of the photo industry, something else vanished. From the cities landscapes small photo shops are disappearing, shops that had windows decorated with photos from weddings to art forms. The photo shops with labs were an integral part of the whole process that at the end of the chain would distribute photos to curious users.

After the unstoppable collapse of analog photography industry, the technique and legacy of the dark room process started to vanish too. In the newspaper it was talked about absolutely crash down of photo industry, talking in majority a lot about the well known names, like Kodak, but very silently passed the fact that all tangible and intangible heritage of dark rooms technique is in a process of fading away.

Because of this reason photographer *Robert Burley* 2005 in Canada began the project of photographing the demolition of industrial plants of several factories whose names were important to the photography world over the last century, which resulted in the book *Disappearance of Darkness: Photography at the End of the Analog Era*. Part documentary, part devotional gesture book, presenting amazing photographs which exactly describe what is happening with analog photography and its entire legacy to today, raising some questions, and looking towards to the future.

²⁴ R. Burley, *Disappearance of Darkness: Photography at the End of the Analog Era*, 2012, p.19

*'In another decade or two I think we'll understand the exact nature of this fundamental change in photography,' says Burley. 'How will this change our idea of the photograph as document, evidence or imprint of the real world? How will these changes affect the ways we capture, collect and store our personal and collective visual histories? What impact will these changes have on photography as an art form, a social or political tool, as a form of reportage? While my work doesn't attempt to answer these questions directly I hope it at least provides a record and interpretation of photography at this significant moment in the medium's history.'*²⁵



Fig. 3. Ilford paper closed building, Mobberley, U.K., 2010

Source: www.slate.com

Burley's visual nostalgia shown in beautiful photographs in book of time that is passing includes essays on topic of disappearing the analog photography. *Alison Nordstrom*, curator at *George Eastman House*, points out that the digital era is redefining the relationship between art, photography and industry. In his essay, *François Cheval*, chief curator of the *Niepce Museum*, is comparing Kodak financial downfall today and how once the Kodak factory in Chalon-sur-Saone in France was a symbol of photography

²⁵ Burley, R. *Disappearance of Darkness: Photography at the End of the Analog Era*, 2012, p.19

history. And *Andrea Kunard*, Associate Curator of photographs at the *National Gallery of Canada*, analyzing Burley's photography through point of document in history with a personal touch emphasized the moment of nostalgia in abandoned industrial spaces, closed windows of photo shops in cities.



Fig. 4. The Art Photo Studio in Toronto closed due to retirement in 2005

Source: www.slate.com

Nostalgia is often described in literature as a "yearning for yesterday". Fred Davis considered as one of the major authors about nostalgia, and he defines it as "a positive preference for the past involving negative feelings toward the present or future".²⁶ Nostalgia for analog media can be seen in the digital world. It may be noted that the photos on mobile devices organized in the folders that have the name 'roll', like a roll of film, and the trigger has the sound of a shutter on analog cameras. In the virtual world,

²⁶ Davis F., *Yearning for yesterday*. New York: Free Press, 1979, p.18

social networks are playing a major role in a nostalgia movement that is more and more recognizable in the changes that are constantly happening in the society.

The giant in the virtual photo world, *Instagram*, (the largest photographic/picture-based social network that brings together millions of users and fans of photography) introduced filters so digital processing of a pixelized image can create the effect of films, with a range of effects that remediate old-fashioned analog photography. By using photo-software services, consumers can add visual signs of imperfection to their pictures such as dust specks, cracks, fading tones or Polaroid frames. These effects aim to reproduce the visual appearance of analog pictures and to create a feeling of authenticity.²⁷ It's not uncommon that filters sometimes have overtones of some old models films. The filters available reproduce the appearance of analog cameras such as the Kodak Brownie, the instamatic or the Polaroid.

Beside the nostalgia moment in our modernity, there is the interesting appearance of a vintage trend phenomenon which emerged approximately 10 years ago and is increasingly growing in Western countries, as well as in developing countries.²⁸ Also during the last decade this trend has been mainly prevalent among the younger generations.²⁹ Consumers who purchase vintage products are looking for authentic items produced in a past era, generally from the twenties to the seventies of the twentieth-century.³⁰ The type of product can vary from clothes to furniture, also including analog cameras.

Thanks to the popular vintage trend among younger generations and Instagram, whose entire marketing strategy was based on a retro style, some of the factory photo

²⁷ Chandler, L. and Livingston, D., *Reframing the Authentic: photography, mobile technologies and the visual language of digital imperfection*, 2013, p. 115

²⁸ Cervellon, M. and Lindsey, C., et al. Something old, something used Determinants of women's purchase of vintage fashion vs second-hand fashion. *International Journal of Retail & Distribution Management*, 40 (12), 2013, pp.956-974

²⁹ Iverson (2010) *MILLENNIAL PERSPECTIVE: Vintage Fashion & The Twice-Around Economy* | Newgeography.com. [online] Available at: <http://www.newgeography.com/content/001343-millennial-perspective-vintagefashion-the-twice-around-economy> (Accessed 8 May 2016)

³⁰ Cervellon, M. and Lindsey, C., Something old, something used Determinants of women's purchase of vintage fashion vs second-hand fashion. *Op.cit.*, 2013 pp.956-974

equipment survived the market crises, like the British Ilford.³¹ At the end of 2014 Ilford company has done an international survey in 70 countries to better understand the customers of the film. The results for them were very promising. In a press release they said: *'Our belief that support for traditional film is growing was confirmed by the 30% of respondents who were aged under 35, with 60% of them using film for less than 5 years. For many of those the interest began after receiving a film camera as a gift from family or a friend. Canon, Nikon, Mamiya, and Pentax cameras all featured strongly in the survey, with a large percentage also being bought on EBay.'*³² On the question why they choose to shoot film, photographers answered in survey that they “wanted to slow down.”³³ *'The limitations of film'*, they said, *'forced them to think carefully about their craft as opposed to digital where “you just shoot.”'*³⁴ One of the interesting responses that a many people answered to same question are they thought of film as “retro” and fun.

Another nostalgic approach with a new curiosity for analog effect in photography can be seen in the case of the Fuji Company. In 2011 *Fujifilm*³⁵ released their *Instax* compact camera models, combining self-developing film reminiscent of Polaroid with consumer digital camera technologies.

In the age of digital technology, the question is what is going to happen to the analog techniques. Is this trend sufficient to make analog process last for a long time? At this point transit is passed very invisible, and is in process of rejection of old to make space for new, because many objects and customs are already lost. The problem is in question if there is a public awareness that we have, very rapidly, lost something that we used on a daily basis in near past.

³¹ Ilford Photo is a manufacturer of photographic materials known worldwide for its black-and-white film, papers and chemicals.

³² Available at: <http://www.ilfordphoto.com/pressroom/article.asp?n=198> (Accessed 1 June 2016)

³³ *Idem.*

³⁴ *Idem.*

³⁵ Fujifilm is a Japanese multinational photography and imaging company headquartered in Tokyo.

2.3. Projects in the new millennium dedicated to the analog technique

Like a domino effect, after the curiosity in the global sphere about analog photography, a few projects started which were connected with the analog techniques in the 21st century. Some of them continue old traditions and some of them have bridged a gap between the old and new technologies.

An important role for the resurgence of analog photography was played by the revival of the successful brand *Lomography*. Created in the 1990's by a group of students in Vienna, Lomography sell and deliver worldwide playful analog cameras at affordable prices even today. As they say on their official internet page, the aim of this brand is to promote the 'unique imagery and style of analog photography' through its products, gallery stores, blogs and magazine. In 1992 they found the *Lomographic Society International* (LSI). During the summer, the legendary '*10 Golden Rules of Lomography*' were written and later published in the '*Wiener Zeitung*' newspaper along with the revolutionary '*Lomography Manifesto*' on November 5th.³⁶

The philosophy of the *Lomo* brand is based on a community that used the cameras and films to make experimental results in photography. It is a known fact that with Lomo cameras there is no possibility that two photos will look the same, so the moment of unpredictability, plays a big role in the popularity and curiosity of these kinds of cameras. Even though we live in an increasingly digital world, and for the results of vintage-looking photos we don't have to wait- it is just enough few clicks on smart phone- there are a large number of fans of Lomo photography at this time.

Nowadays, the concept of social networks is nothing unusual. Wild world is spread thought that Mark Zuckerberg, leading name of Facebook platform, is originator of social network idea, but concept of internet community appears before new century. Enthusiastic students from Vienna, three years after they popularized plastic, unusual Russian camera LOMO LC-A, in 1994 they opened first web site *lomo.com*, on which they created a platform for sharing the lomography photos by users itself. The entire project soon got name Lomo movement and with essential *10 Golden Rules* and motto

³⁶ Available at: <https://www.lomography.com/about/history> (Accessed 1 June 2016)

'Don't Think, Just Shoot' they spread the idea of photography can be used by anybody and served for fun. Relaunching *lomo.com* the website introduced a product shop, community interaction, special projects, activities and services, plus the *WorldArchive*, which displayed a collection of amazing Lomographs from different places across the globe.³⁷ The strength of this community and movement can be seen in the first *Lomographic World Congress* which was held in Madrid 1997 and boasted a LomoWall of over 120 meters with more than 35,000 analog photos. Entering into a new millennium with increasing internet usage, a new website community was launched with the name changed into the *lomography.com*. One of the new functions was *LomoHomes*, a space for the Lomography community to store all of their analog photos and make their very own *LomoWalls*, to make it more personalized. Sound familiar? This is the one of the principle features of nearly every social network working today.



Fig. 5. LomoWall of 120 meters in Madrid, 1997

Source: www.lomography.com

³⁷ Idem.

The very first Lomography shop in the world opened in Vienna in 2001. The store feature walls decked with *Lomography LomoWalls* in reality, and today they have shops in almost every big city all across the world.

Although the movement itself has existed for over twenty years, sudden demand, and improved popularity of Lomo cameras, has started after Instagram popularized analog effects on digital photos. In the words of Matthias Fiegl, one of the original founders of the Lomo brand, it is very simply explained, he said: *'People have tried out filters on Instagram and now they want to do the real thing. We hear that all the time in the shop.'*³⁸

If we return a little bit to the theory of vintage trends that have connections with the nostalgia moment, it can be seen from the case of Lomography that there are many users under 30. In a survey that they did in 2012 *'Analog, Digital and You'*, 2229 of those who took part in the questionnaire were under 30 and 1119 were over 30.³⁹ From the survey it can be seen that the younger the people are, the more they want to do analog, which confirms the connection in theory that younger people want to experience something that they did not have the ability to experience, and which is almost a part of the past- idealizing a past era which they have not experienced in reality.

An important thing that has to be emphasized about the Lomo brand is that they are not just a product which is on sale, through the community sharing philosophy and organized exhibitions they have created a lifestyle based on the principles of photography and blending online and live communities have ensured that they have survived in the era of a transition of photography media. The second thing for Lomo, which is maybe more crucial, of being still present on the photography scene, is that their cameras are simple to use, which makes their operation familiar to the digital user. Fiegl says that amateur photographers for whom digital is normal, see something appealing in old-fashioned technology—and unlike larger and older photo brands,

³⁸ Available at: <http://time.com/3788437/lomography/> (Accessed 1 June 2016)

³⁹ Statistic take from: <http://microsites.lomography.com/analog-vs-digital/> (Accessed 1 June 2016)

Lomography has grown alongside digital photography and has not had to struggle to reorient itself in that landscape.⁴⁰

Prior to the very popular trend that of Lomography photography, the photographic world was shackled in the middle of the 20th century with invention of instant cameras. Polaroid cameras and instant photography became very popular and fashionable in the photography world. The invention was the *instant camera*, which is, as the words suggest, are cameras that can produce instant photographs on self-developing film. The *Polaroid Corporation* pioneered and patented consumer friendly instant cameras and film, and was followed by various other manufacturers.

The Polaroid brand was about to stop the production of film in 2008 when three fans decided to take over the factory to save the production and distribution of the films. Inspired by the very powerful sentence of *Edwin Land*, founder of Polaroid and inventor of the world's first instant camera: '*Don't undertake a project unless it's manifestly important and nearly impossible*', they named new brand *The Impossible Project*.

As I said before, during this very chaotic time for the analog photo industry, many factories were closed and machines and formulas for the production of film were lost. Leaders of *The Impossible Project* with the help of chemists, engineers and photographers started again a production of original format instant film. Eight years later, in 2016, they make films for color and black and white, for Polaroid 600-type, SX-70 and Image/Spectra cameras, as well as large format 8x10 film.

Very recently in May of 2016 they launched their first camera product, named *Impossible Project I-1*. This is the first completely new camera to shoot on true Polaroid-style film format for at least a decade. In the words of *Impossible Project CEO Oskar Smolokowski*, it's a camera that stands at the border between two worlds. One side: the nostalgic pleasure of the analog instant cameras of old; on the other: the sleek design and digital control we've grown accustomed to in the 21st century.⁴¹

⁴⁰ Available at: <http://time.com/3788437/lomography/> (Accessed 1 June 2016)

⁴¹ Available at: <http://petapixel.com/2016/04/11/impossible-project-debuts-1-instant-camera-reinvented/> (Accessed 3 June 2016)



Fig. 6. New instant camera I-1 made by Impossible Project, 2016

Source: www.petapixel.com

In their mission statement of company explain why they still do analog photography, they say:

*'We believe in making real photos. Photos with a life after the shutter clicks. Photos that develop in the palm of your hand, ready to pin to the wall or give to a friend. That's why we've spent eight years working on our film formula. It's why we're reinventing analog instant photography in a digital world.'*⁴²

Exactly that is what their new camera is doing, on chemical films creating a real photography, on the same analog technique that was used in Polaroid cameras. This new camera is a product of new technology, which has a Bluetooth connection, connected to smart phone app allows for manual controls and a remote shutter feature. But it's not creating the digital version of images; it's solely an analog camera.

At the beginning of their project in 2008, few people believed that they would manage to reach their goal, to save the analog industry which almost went to oblivion because of

⁴² Available at: <https://eu.impossible-project.com/pages/about-us> (Accessed 3 June 2016)

the transformation of photography media. But because of ambitious *Kikstarter* campaign the project gained a cult following and they provoked curiosity about the instant photography era, for which word was '*Polaroid*' had been synonymous. New camera I-1 somehow contrast digital apps like Instagram, because at the end we have a tangible product in the real world, with results that we can see right now, which were available decades before smart phone photography.

Another project that fosters analog heritage into the 21st century comes from Croatia, and it is called *Fojo*. A group of enthusiasts and fans of photography developed the enlarger, *Enfojer*, which enabled them to develop digital photos from smart phones with classical technique in the darkroom. This is the first example in the world that connects old technique with the digital device in a sphere of photography.

'Photos were once printed in darkrooms under a red light. You had to wait for the picture to magically appear on paper, overwhelmed with anticipation. To us, this technological romance is worth preserving for future generations. So we started our project with the Enfojer – a bridge between 200 years of photographic history and the instant future we now live in' -is the word of their founders.⁴³

In comparison with *Lomography* and *Impossible project* which attempts to save the analog heritage with production of cameras and films, the *Fojo* project is trying to end the disappearance of dark rooms, which were the part of process of developing the black and white photographs with needed chemicals for analog processing on sensitive photo papers.

⁴³ Available at: <https://fojo.me/team/> (Accessed 5 June 2016)



Fig. 7. Enfojer - enlarger for developing photos from smart phones and film

Source: Photo by Ilija Stjepić

The idea came about because of more and more dark rooms being closed across the world, with the loss of all objects and equipment that were needed for the process of developing. The founders of project and patent are *Ilija Stjepić* and *Vanda Voloder Stjepić*, both photographic enthusiasts who have spent a lot of their lives in dark rooms, and with the nostalgia they decided to create the new device to make the analog technique live. The project started with a crowd founding campaign on *Indigogo* platform in 2013 with the presenting the first prototype of enlarger smaller dimensions on which smart phone could be fixed and with the help of a lens projected image onto photo sensitive paper. Part app and part hardware, Enfojer enlarges the image displayed on a smartphone's LCD, projecting it onto real photo paper. The Enfojer works similarly to a traditional enlarger and produces prints up to 6x6 inches. With this patent they offered developing silver gelatin print using quality photo paper instead of printing out an inkjet picture from home printer. If we talk about quality of develop prints in photo labs, it is scientific proof that can last up to 70 years and more.

With the name of campaign *ENFOJER - Old School Darkroom for Smartphones* they invoke the interest of a generation of photographers who spent their lives in dark rooms, but also the interest of a younger generation who didn't have a chance to experience the magical creation of image on photo paper. Enfojer patent shook the photo world, at almost the end of the era of developing photos in dark rooms they gave the solution. In *Tech Church* on line magazine during the campaign were interesting sentence: *'Of course there's no shortage of services offering to pro print your Instagram photos for you, in a variety of ways — such as Piccolo, Instantgram.me, Kanvess.com to name three — but Enfojer has an educational/enthusiast angle since it's DIY photo printing.'*⁴⁴

The word, *educational* should be underlined in this quote sentence. Developing of photography in dark rooms is not a mechanical process; it is almost artisan work, with a required knowledge and practice to do it. With the Enfojer it could transfer that knowledge into the 21st century in the digital era, especially to a younger generation.

Enfojer is not a replacement for professional darkrooms, but it is a product which combines old and new, which is important when we talk about the era of the end of analog photography on a global level. It should be emphasized that Enfojer is capable of making prints from negatives too and is ideal for schools that want to teach darkroom techniques.

Step in this direction, Fojo team, showed organizing the exhibition *The Spirit of the Modern City Through Eyes of Tošo Dabac* in collaboration with the Museum of Contemporary Art in Zagreb and Tošo Dabac Archive in 2014. Negatives of Tošo Dabac were enlarged on Enfojer and exhibit in side of museum. In the part of event was organized the workshop for younger generation, to show and explain dark room techniques.

Vanda Voloder Stjepić in interview said: 'The aim of this project was to connect an analog to digital, to show how Enfojer great works with the old, and in this case, and extremely valuable negatives, and try at least to explain younger generation that

⁴⁴ Available at: <http://techcrunch.com/2013/09/02/enfojer/> (Accessed 5 June 2016)

photography is not something just to shoot and erase, something consumable and why good photos, as well as painting, justifies its price.⁴⁵



Fig. 8. Enlarging negatives and developing photos of Tošo Dabac in his laboratory

Source: Photo by Ilija Stjepić

All of the three projects outlined above are trying somehow to keep alive the process of analog photography. In the era of the digital medium, some may consider them overenthusiastic, but desire to use analog photography is increasing. For example, *Heidi Mace*, the Digital Manager for Lomography, claims that Lomography sold 1.8 million rolls of film in 2011, so it can be seen from this statistics that needs and curiosity for the film in the first decade has not disappeared.

Iford has again started to produce some old models of film, because people wanted to shoot again on their famous films. Lomography community today has a half a million users, and 12 million uploads per month. The Impossible project created a new instant

⁴⁵ Interview with Vanda Voloder Stjepić, held at 1 August 2016, done by Nevena Ilić

camera in 2016, and first edition of Enfojer came out of production in May 2016 and has sold all across the world.

This all shows that analog photography is not yet completely dead, and has had a big revival in last few years. It is hard to predict from this point, the progress of development in future, but for sure, it is not going to have all the glory of last century. From the point of view of the leading persons of these projects, it can be seen that they trying to continue the analog legacy into the new millennium, because influence of analog photography in the last century was priceless on many ways and levels. So, if the individuals recognize its big tangible and intangible heritage, the question is why still do cultural institutions, like museums, are doing little to preserve analog photography heritage, because soon they are going to be only place that we can still see it.

2.4. Role of museums of photography in 21st

In the new definition of museums adopted by ICOM in 2007, it is very clear that we need not talk any more about the material culture that we need to protect; the definition is expand on the term of heritage which became very important in the world cultural sector. In history, the term heritage is for a first time mentioned in Roman time, on Latin *patrimonium*, when it was connect with Roman law referred to all the assets received by succession, assets which, according to law, are inherited by children from fathers and mothers.⁴⁶ In this root, it can be seen that heritage means that is something we nursed from generation to generation, but today there is a difference between the terms of heritage and inheritance. The concept of heritage differs from the concept of inheritance with regard to time and events: whereas inheritance is identified immediately after a death or when there is a transferral of goods from one generation to another, heritage defines all the goods received or gathered and safeguarded by earlier generations that will be transmitted to their descendants.⁴⁷

⁴⁶ Available at:

http://icom.museum/fileadmin/user_upload/pdf/Key_Concepts_of_Museology/Museologie_Anglais_BD.pdf. (Accessed 10 June 2016)

⁴⁷ Idem.

From the time of French Revolution and in 19th century term of heritage was incorporated in sector of culture referred to immovable property. From the mid 1950s, the notion of heritage gradually incorporated all material evidence of man and his environment and became considerably wider.⁴⁸ After that period the definition of heritage was expanding and includes step by step terms such as folklore heritage, scientific heritage and industrial heritage.

Today cultural heritage is an expression of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions and values (ICOMOS 2002).⁴⁹ At the present time heritage is divided in two main categories, cultural and natural. In cultural we have a tangible cultural heritage: movable cultural heritage (paintings, sculptures, coins, manuscripts), immovable cultural heritage (monuments, archaeological sites, and so on), underwater cultural heritage (shipwrecks, underwater ruins and cities); and intangible cultural heritage: oral traditions, performing arts, social practices, rituals and festive events, knowledge and practices concerning nature and the universe and traditional craftsmanship.⁵⁰

Entering to new millennium, the breakthrough in the cultural world has been adopting the ICOMOS *Convention on the Safeguarding of the Intangible Cultural Heritage* in 2003. By the global atmosphere, and influenced with the new approaches in museology, museum change it's definition too. With the development of anthropological science and the impact of sociology, the definition of museums has gradually become more complex introducing official the term of heritage, tangible and intangible, in it.

Why intangible heritage is important in the context of museums and how it reflects on the term of museums objects? First of all, intangible heritage is something that is threatened in the era of globalization and museums are institutions which should protect it, as they protected physical museum artifacts throughout history. And if we move from

⁴⁸ Idem.

⁴⁹ Available at: http://www.cultureindevelopment.nl/cultural_heritage/what_is_cultural_heritage (Accessed 10 June 2016)

⁵⁰ Available at:

<http://www.unesco.org/new/en/culture/themes/illicit-trafficking-of-cultural-property/unesco-database-of-national-cultural-heritage-laws/frequently-asked-questions/definition-of-the-cultural-heritage/> (Accessed 13 June 2016)

the approach of a traditional view of museum objects, that sees an object just like a physical presence in museum space, we need to read all the levels that are written in the context of its existence. Objects used in past and present everyday life frequently do not tell much if exhibited without an insight into their intangible meanings. How they were made, who made them, what was their role in society, what were they used to do – these are only some of the intangible meanings that every object carries.⁵¹

A lot of museums started to move their philosophy in that direction, putting material and non-material heritage on same level. In a case of art museums it is hard to explore and present the intangible heritage of museum objects, because a piece of art is an artifact that first of all has an aesthetic value and its criteria had been valued by its physical characteristics that played an important role in some historical overview. Museums dedicated to photography are in the same classification because they are dealing with photography as a physical object depending on mission statement of museum. Usually they collect, preserve and exhibit photography printed on paper like an art form or like an evidence of changing of society in history. In another case there are museums of photography that collect technical objects that are connect to process of photography, like old cameras.

One of the good examples that combine the both of them is *George Eastman Museum* in Rochester, New York founded in 1949, and today is one of the oldest institutes dedicated to the photography medium. Established on the legacy of George Eastman, who was the pioneer of popular photography, they cherish the photography through collections, which they preserve and exhibit to public. In their mission statement the main point is to collect, preserve, study, and exhibit photographic and cinematic objects and related technology from the inception of each medium to the present.⁵²

The main collections in museums are: photography, movie image, technology, library, George Eastman legacy collection and historical landscape. The interesting part of museum is conservation laboratory which was founded in 1975. Despite the main function of laboratory, which is preservation and care of the museum's collection

⁵¹ Nikočević L., Culture or Heritage? The Problem of Intangibility, *Etnološka tribina* 35, vol. 42, 2012, p. 1

⁵² Available at: <https://eastman.org/history-george-eastman-museum> (Accessed 14 June 2016)

materials, they explore the all forms of photography and educate the public about historic photographic processes through photography workshops.⁵³ Because of renewed curiosity in the new millennium about the photographic process, that marked some period in history, they organized workshops such as ambrotypes, tintypes, wet and dry collodion negatives, on silver bromide emulsion paper, digital negatives, photobooks, and developed-out salt prints.

In this case it has been shown how a museum of photography can take a care of intangible heritage of photography and make it alive in a form of transmission of knowledge. All of these photography processes are at this point heritage, because they are not any more in use in global sphere. If we return a little bit, it is very important to define which the point is in which some thing, object, process or knowledge becoming heritage. From the Roman time until the today the main core or main idea of heritage is inevitably tied to the potential of loss or disappearance. If the institutions, community, groups or individuals recognize that something that was in daily use in everyday life is vanishing and that it had an important role in history with the relevant connotation in society, it should be act for its safeguarding.

In entering into the era of digitalization, this is exactly what is happening with the analog photography process. Because of a diminishing market, a lot of photo industries closed their doors, and like a domino effect it was reflected on use of analog technique in everyday life. With the lack of material for completing the process, the knowledge starts to disappear which is most visible if we see younger generation who were born when the digitalization conquered all our previous habits and the virtual world became a synonym for reality. Analog photography process for them is already part of past.

The term of intangible heritage started to be a burning issue when the institutions realized that some customs, knowledge or practices started to be threatened of completely lost. In a lot of cases it was talked about in terms of anthropology or ethnology. Until today the analog technique and processes was not recognized as a heritage from the institutions, but if we look at the rapid change of the photography medium that has happened in just ten years, how the analog photo industry collapsed in

⁵³ Available at: <https://eastman.org/conservation> (Accessed 14 June 2016)

a just a moment, we have already lost a part of its legacy. We lost most of factories, with them photo shops with analog customs started to vanish, dark rooms start to close its doors and all equipment and knowledge stays buried literally in the dark.

In the cases of Fojo and Impossible project it can be seen that there is an awareness of analog heritage in the mind of individuals. Viewing their projects it is evident that they see analog photography as a legacy that is threatened and they have tried to keep it alive in the new millennium.

In this step we are slowly losing the analog photography technique, and from this point of view it is hard to say that we are going to lose it in future, but we are nearer to that fact because it is unquestionably that we live in digital era and society will not go backwards in technological improvements.

From all the parameters leading cultural institutions have used to define a process as in the heritage stage, the analog photography process is evidently already within this phase. The question is, if we have individual awareness of its importance in history, why have institutions seemingly not reacted. Photography Museums should be the first, in all of the types of cultural institutions that acknowledge its importance. In some of the prediction in future it is the matter of time when is going to be a part of museum, but hope with a not to big loss.

The crucial word that regarding intangible heritage is safeguarding. The Oxford dictionary defines safeguarding as: *A measure taken to protect someone or something or to prevent something undesirable.*⁵⁴ Why is safeguarding so important these days? Because society is going through such rapid changes today that we have not realized that we lost some customs and habits. Safeguarding intangible cultural heritage is about the transferring of knowledge, skills and meaning. Transmission or communicating heritage from generation to generation.⁵⁵

⁵⁴ Available at: <http://www.oxforddictionaries.com/definition/english/safeguard> (Accessed 15 June 2016)

⁵⁵ Available at: <http://www.unesco.org/culture/ich/en/safeguarding-00012> (Accessed 15 June 2016)

This last sentence should be crucial for the museums of photography. They should be a bridge taking analog photography into the 21st century. If we revisit the new definition of museums: ‘*A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.*’⁵⁶; museums must adopt process of safeguarding in their mission statement, to become institution which can transmit the knowledge of analog process to future generation. Another important fact to emphasize is that the process of safeguarding a heritage does not necessarily mean to freeze the heritage. The process is crucial to make it alive again, especially in a field such as analog photography, which is not completely dead, but it evident that it is in the process of disappearing. To be kept alive, intangible cultural heritage must be relevant to its community, continuously recreated and transmitted from one generation to another.⁵⁷ Obviously there is a public interest, seen through the enthusiastic projects which are trying to find a way onto the market, the question is, if they are going to manage the pressure of competition and diversifying away from digital, because in this moment it seems like a David against Goliath situation.

Museums of photography in this aspect, in the 21st century, should take care in safeguarding analog heritage, in a view of collaboration with projects such us Fojo or Impossible Project. On one hand they would expand its operations in accordance with a new definition, and become more live museums, removing focus from the philosophy of exposure physical objects to the public. On another hand this could be breakthrough example of combination of principle of eco museums with traditional museums.

⁵⁶ Idem.

⁵⁷ Idem.

3. MUSEUMS AND INDUSTRIAL ARCHITECTURE

Le troisième chapitre est dédié aux termes de patrimoine industriel, reconversions et musées. Son but est de montrer d'un point de vue historique l'émergence de la notion de patrimoine industriel et comment il est perçu au XXIème siècle. Aussi, l'idée est de présenter des exemples de bâtiments industriels reconvertis en musées, afin de proposer des plans pour transformer Fotokemika en musée de la photographie L'objectif est de montrer comment cela peut renforcer le rayonnement culturel de la ville.

3.1. Industrial heritage in the context of new creative spaces for cultural development

'The best way to conserve a heritage building, structure or site is to use it ... Adaptation links the past to the present and projects into the future.'

New Uses for Heritage Places

Often when factories are abandoned or in a state of decay there is a question whether to preserve it or demolish it. The reutilization of buildings is a better solution, because of its environmental, social and economic advantages. The reutilization process is in a way similar to recycling and contributes to sustainable development of a city. Furthermore, reutilization of a building keeps the memory of the city alive through all the phases of its development.

To make the transformation of industrial heritage a good long-term move we have to see the reasons behind the development of a particular industrial landscape, the relation that landscape has with his surroundings and finally what does this landscape mean to the citizens.

There are three dominant types of transformation of abandoned industrial areas. Transformation can be where the dominant is the history and culture, the second where is social and economic and third one environmental and aesthetic. There are many options because each different area needs different types of restructuring depending on

the needs of the community. All of these examples represent the sustainable development of the city thanks to the reurbanisation of industrial areas.

The the process of de-industrialization in second half on 20th century left a lot of industrial buildings and landscapes been abandoned, threat from lost. From that point onwards, the main questions were whether to demolish or not, or what to do with them after, to be museums dedicated to industry or to give them a new function. It could be said that reuse of industrial heritage goes in both direction, industrial museums, sites *insitu* and adaptive reuse. But is very important fact to emphasize that in every case they create a space for cultural development, which is lost with demolition.

The awareness of heritage of the industrial ‘world’ begins in 1950s when industry in Europe started to stagnate and some industries started to close due to technological advancements, and economical changes. That fact reflected especially at industrial sites that marked process of industrialization in 19th century, like a mine industry in England or Germany. The same effect was seen on shipbuilding industry, with a many abandoned spaces left in ports landscapes. In that period it a discipline of industrial archaeology was born, like a distinct form of archaeology, with a strong emphasis on preservation. In the mean time, the period after Second World War was marked on a global level with the awareness on the protection of buildings which were destroyed in large numbers in war time. Immediately after war, two crucial institutes were founded, UNESCO in 1945, and *International Council of Museums*, ICOM in 1946. In 1965 it was founded the roof institution for monuments and sites *International Council of Monuments and Sites*, ICOMOS. These bodies issued guidelines and recommendations for the care of the protected built environment.

In the second part of 20th century the care for industrial heritage became stronger, this was reflected by the increasing number of monuments of the industrial environment being preserved. Moreover, during that time, an institution for its protection was founded. In 1973 the first *International Congress on the Conservation of Industrial Monuments* was held, called Iron Bridge, and took place in the *Railway Valley Museum* with members from 61 different countries. After a series of meetings, in 1978, at a congress in Sweden, *The International Committee for the Conservation of the Industrial*

Heritage (TICCIH) was founded. TICCIH has grown in influence and impact over time, with over 40 nations represented these days. TICCIH holds regular congresses every 3 years and occasional intermediate meetings, most with published proceedings. From the 2000, TICCIH has also served as a *Scientific Committee for the International Council and Sites* (ICOMOS), providing expert advice on World Heritage nominations of industrial sites. The most significant document made by TICCIH is *The Nizhny Tagil Charter For The Industrial Heritage* from 2003 in which are definition of industrial archaeology and industrial heritage, what are tools for a legal protection of it, with a strong emphasis on industrial heritage for a future research and education. With the existing and work of TICCHI, the focus was more transferred from ‘monument’ in a vision of just material heritage, such us industrial buildings and other materials remains, to heritage which includes all the aspects tangible and intangible, expanding the term of industrial past to present and future time.

With the creation of industrial archaeology as a scientific discipline, the studying of industrial heritage began⁵⁸, its valorisation, preservation and musealisation or designed conversion.

In a second part of 20th century, parallel with the interest of industrial past, started a movement of industrial museums. Exception was the first example in USA opened 1925 at *Old Slater Mill*, in Pawtucket, Rhode Island, at the site of the first successful textile mill in the country, built in 1793. In Europe the beginning was marked with the opening *The Ironbridge Gorge Museum Trust* established in 1967, significant as one of the first places of the industrial revolution in Britain. In France the new concept of the industrial museum was developed, the Eco museum in 1971. Eco museum is defined as a museum of man and nature on a determined territory that needs to be managed by the local population with the objective to reinforce the sentiment of Collectivity. The first eco museum was opened in 1972 in Burgundy, *Le Creusot-Montceau-les-Mines*.

⁵⁸ TICCIH defines the industrial heritage in this words: “*Industrial heritage consists of the remains of industrial culture, which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education.*”

The boom of industrial museum is linked to the second half of the 20th century. Under this denominator we meet museums of different names such as: *Museum of Industrial Heritage in Bologna, Italy*; *Museum of Industrial Archaeology and Textiles (MIAT) in Ghent, Belgium*; *Dutch Textile Museum in Tilburg, The Netherlands*; *The National Museum of Techniques and Work in Mannheim* and group museum within the museum industry landscape *Westfalia* in Germany, *Museum of Science and Industry Manchester*, etc.⁵⁹ They are all based on the value of industrial heritage, a subject of their study permits intervention of different scientific disciplines, to science and technology, and social sciences and humanities.

Saving all industrial heritages in industrial museums is an impossible mission. Another solution that came was an adaptive reuse, which is commonly used in the field of architecture. *Burchell and Listokin* in the book *The adaptive reuse handbook: procedures to inventory, control, manage, and reemploy surplus municipal properties* define adaptive reuse as a revitalization strategy which employs a series of linked procedures to plan for, inventory, acquire, manage and reuse surplus or abandoned real estate. An imperative aspect of adaptive reuse projects is that the land or building which is being considered, had a previous use that is no longer suitable for that type of building or location, and therefore the potential value of the property will be maximized by adapting the space.⁶⁰

When an industrial plant is closed it is very hard to maintain the primal function of the building, so the only solution to make the building alive is adaptive reuse. Due to the pressure of time and years of being abandoned, it is often the case that the buildings become ruins or completely demolished at some point. Industrial activities and processes undergo constant change and development, so the history of industrial sites is often one of continual change and adaptation. Changes in products and technology mean that, unlike offices or houses, it is not easy to keep using custom-built industrial

⁵⁹ Fernandez Cervantes, Magda, INDUSTRIJSKA BAŠTINA: sustav muzeja Nacionalnog muzeja znanosti i tehnike Katalonije (mNACTEC), *Informatica Museologica*.- 42, 1/4 (2011), p.6

⁶⁰ Burchell, R.W., & Listokin, D. *The adaptive reuse handbook: procedures to inventory, control, manage, and reemploy surplus municipal properties*, 1981, p. 29

places for their original purpose. This means that adaptive reuse is particularly important in the conservation of industrial sites.⁶¹

Adaptive reuse takes an especially important role in the new millennium. Reutilization of industrial buildings and landscapes into some new purpose was a theme at a congress held in Terni, Italy (2006), with working titles such as *Industrial Heritage and Urban Transformation* and *Productive areas and industrial landscapes*, of *TICCIH XII congress*. The conference program illuminated the issues of the conservation and reuse of industrial heritage and stressed that these cannot be seen as individual objects but rather are integrated urban issues.⁶² With these new approaches in 21st century, especially after the *The Nizhny Tagil Charter* in which, for the first time, the position of industrial heritage was clearly defined, the term itself was expanding in field of social recognition with heritage that can make contributions where contemporary demands are concerned, in terms of sustainable development, urban regeneration, architectural invention, local economies, culture and education.⁶³ They concluded that interventions, including industrial patrimony, have been undertaken in two ways: either the factory would be transformed into industrial museum including the open air museums which would have conserved and exposed the machinery for the its production, or the old construction is reutilized for something new.

This decision was made in new millennium by *TICCIH*, the roof institution for industrial heritage, but a process of adaptive reuse started at the same time, when starting a process of de-industrialization. Industrial heritage conversion practice was established in Western Europe and the United States from the 1970s. This trend became very fashionable because of new model development in New York city in 1960s when abandoned industrial sites started being converted into artists' studios, creating a very trendy lifestyle living in loft apartments, which remain popular in artistic and architectural world. Curiosity about the abandoned spaces created new communities which would occupy the unused space, such us squatters. Abandoned industrial areas,

⁶¹ Available at: http://heritagecouncil.vic.gov.au/wp-content/uploads/2014/08/HV_IPAWsinglepgs.pdf (Accessed 15 June 2016)

⁶² Available at: <http://ticcih.org/wp-content/uploads/2013/04/B34.pdf> (Accessed 20 June 2016)

⁶³ Available at:

http://ticcih-2015.sciencesconf.org/conference/ticcih2015/pages/TICCIH_2015_Call_for_papers_1.pdf (Accessed 20 June 2016)

including harbour areas, of all major European cities became the home of alternative ways of living, such as squatters with or without particular political and social agendas, alternative artists, etc.⁶⁴ Thanks to their activities, to try to revitalize social life, and putting on cultural events in industrial spaces they become a cultural oasis, often revitalizing the neighbourhood that were impoverished city areas. In scientific circles it is known as a term of *urban gentrification*, the process of renewal and rebuilding accompanying the influx of middle-class or affluent people into deteriorating areas that often displaced poorer residents.⁶⁵ The term was first used by British sociologist *Ruth Glass* in 1964, with the new statement, creating a new approach in urban sociology, links between the housing and class struggle in London in 1960s. The gentrification process made abandoned industrial spaces desirable for the new function of their spaces. Because of variety of functions, and a scale of dimensions of spaces, industrial spaces became a host for many museums, galleries, restaurants and flats.

Today it is very popular process of adaptive reuse to use industrial buildings and convert them into the buildings dedicated to cultural activities and lot of them are museums. One of the most known examples is the building of *Tate Modern Gallery* in London. After the closing the biggest electricity plant in London 1981, it was a big decision what to do with the building, to demolish it or not. The proposers of the conversion had strong arguments why to keep it still 'alive'. In 2000 it opened, through the vision of Swiss architects *Jacques Herzog and Pierre de Meuron*. The Tate Modern, is one of the most well-known institutions for modern and contemporary art. Curiosity to see inside the building which was an industrial London landmark was so big that in first free days after opening, forty thousand people visited to see the combination of art in a former industrial environment. Today the Tate Modern remains one of the main tourist sites in London. The same situation, happened to *Musee d' Orsay* in Paris, which was a former train station built for *Universal Exhibition* in 1900. Today the municipality of Paris should be thankful for the decision not to demolish the building which became museum in 1986. Including one of the symbols of French avant-garde

⁶⁴ Peti Buchel, Bert Hogervorst, *The turning tide : the user's role in the redevelopment of harbour buildings in North-West Europe = Het kerend tij: de rol van de gebruiker bij de herontwikkeling van havenpanden in Noord- West Europa* trans Annie Wright, Amsterdam: De Appelbloesem, Pers, 1997

⁶⁵ Available at: <http://www.merriam-webster.com/dictionary/gentrification> (Accessed 20 June 2016)

movement, impressionist, into the collection, it became one of the most visited museums in the world.

This are one of the most famous examples have to save the industrial heritage, still keeping the values of what they present in past, but with new function make it alive for present and future. With the examples like this many monuments of industrial architecture was saved in a form of museum. Connection between the industrial legacy and culture made so called '*factories of cultural tourism*' giving a new solution with the benefits for society and its development on a scale of micro communities to examples in cities such as London or Paris.

If we come back, and see the connection with process of urban gentrification and process of deindustrialization, it could be said that industrial heritage created the 'city' for the 21st century with the new perspective for cultural development.

3.2. Old buildings, new ideas

'Old ideas can sometimes use new buildings. New ideas must use old buildings.'

Jane Jacobs, Death and life of great American cities, 1961

Buildings often survive their original uses as silent witnesses of the passing of time.⁶⁶ The new philosophy to maintain industrial heritage is moving towards the direction of adaptive reuse as its solution. First examples of bigger reuses came upon a wall from the side of industrial archaeologist, but with the more and more consciousness that we can not save every industrial building, the compromise was done with the putting some basic criteria which should be respected in every adaptive reuse. First of all it is very important to determine the heritage value of the building or site, and to decide if it is better to give it a new function or to freeze it in time as a museum.

In the city of Lisbon, despite being a territory of just a few kilometers, we can see a good example of adaptive reuse, the *LXFACTORY*, and a good example of conversion of an industrial building into a museum, the *Electricity Museum*.

⁶⁶ Usines reconverties, L'inédite, 2006

To understand these two cases, it is very important to put them into the geographic and historical context. The LXFACTORY is situated in a neighbourhood *Alcântara* and Electricity Museum in *Belém*, but very close to the border with *Alcântara*, which remains a symbol of the industrial landscape in Lisbon.⁶⁷

Alcântara, because of its location on the river Tagus, has a name derived from the Arabic word meaning *the bridge*, and refers to an ancient Roman bridge that once existed there. In the process of global industrialization in 19th century many companies opened factories there instead of the center of Lisbon. It all began in 1846 when a thread and fabric Company called '*Companhia de Fiação e Tecidos Lisbonense*', moved to *Alcântara*, this was one of the most important manufacturing complexes in Lisbon., a quarter located on the way to *Belém*. Other companies moved as well to the 23.000 m² industrial site during the golden industrial age.⁶⁸ With the developing industries, the areas infrastructure improved- one of the most important was Porto of Lisbon and the railway system that connected *Alcântara* with the valley of *Xabregas* and *Sintra*, all together creating one big industrial landscape. By the hand of *Fontes Pereira de Melo* and *Ressano Garcia*, the modern and urban *Alcântara* was born, fitting the systems of the city and assuming new functions in the second half of the nineteenth century.⁶⁹

Big surface of industrial units was created in that time. In second half of 20th century many factories were closed and most of neighbourhood start to be abandoned and leaving the question what is going to be with closed unites. After the *Expo 98* maintained in Lisbon, it started development plans for urban regeneration of *Alcântara*. From today perspective, in urban planning industrial complex which are not in function anymore, sometimes comprise an obstacle, because ones being located on periphery of cities, these days are a part of cities, often close to city centre, or even part of it. It is always raising a question, do demolish it or not, but with the criteria it should be

⁶⁷ Ana Cardoso de Matos and Raffaella Maddaluno, "The industrial district of *Alcântara*: from a culture of work to a culture of leisure time", paper presented in International Conference *Cultural and Creative Industries. Economic Development and Urban Regeneration*, Rome, 4-5 December 2015 (in publication)

⁶⁸ Available at: <http://www.spottedbylocals.com/lisbon/lx-factory/> (Accessed 1 July 2016)

⁶⁹ Available at: <https://fenix.tecnico.ulisboa.pt/downloadFile/395142728421/extended%20abstract.pdf> (Accessed 1 July 2016)

determinate their historical value and what kind of symbols they preset it time they were working.

In the beginning of 21st century new urban studies for Lisbon created a plan for regeneration called *Alcântara XXI*, in which was located former textile and graphics factories. The new plan stated that factories should be demolished to make a space for a new building planned for 2004. Because of stagnation due to recent economic problems performances was stopped, and there were make a space for a project called *LXFACTORY* (LX is a nick name for Lisbon) disengaged by private owners like a temporary solution which covert former factories into different spaces, like galleries, restaurants, shops, concert venues, etc. While waiting to be renovated, the site was gradually occupied by artists and entrepreneurs, which gave the promoter the idea of transforming it into a space to house the creative industries.⁷⁰

These days, *LXFACTORY* is a host for over eighteen small companies, giving space for co-working practice, transforming spaces into artist ateliers with unique designer shops, with many restaurants and bars. The new aesthetic being based on the industrial aesthetic. Old pipes and machines remained untouched and were incorporated into the newly designed environment.

With all these elements a creative community was created, with some kind of mini-city inside an urban centre. The story attracted a lot of media attention, putting a new focus on a place which was now an attractive site beyond the old part of Lisbon. The effect was that reutilization became very interesting, not just for inhabitants of the city; it also became a very popular tourist destination.

This is an example of how abandoned industrial sites which could at one point have a depressing effect on the surrounding area, became a new urban centre with a suburban heritage character. It could be said that this project had luck; to have the opportunity to show how successful reutilization of industrial sites can be, with the approach of sustainable urban development.

⁷⁰ Available at: [http://www.thecityfactory.com/fabrique-de-la-cite/data.nsf/0DA4DE3385486D6AC1257D1000560364/\\$file/3006_fiche_lisbonne_uk.pdf](http://www.thecityfactory.com/fabrique-de-la-cite/data.nsf/0DA4DE3385486D6AC1257D1000560364/$file/3006_fiche_lisbonne_uk.pdf) (Accessed 1 July 2016)

LXFACTORY complex lying under the magnificent bridge of Ponte 25 de April, which has become a symbol of urban development of the city in second half of twenty century. Together, they are creating a new visual landscape with industrial aesthetics and becoming new creative centre, putting a Lisbon back to back with other world examples of reutilization of industrial sites with the vision of the contemporary city for a 21st century.

Nearby the new ‘creative factory’ is the *Electricity Museum*, in the Balem neighbourhood. This is only fifteen minutes walking distance, and it too sits on the waterfront of the river Tagus. Interestingly, it is situated in a former power station, and is an example of the reutilization of an industrial building into a museum of industry.

Today’s museum was once *Tejo Power Station*, one of the units that supplied Lisbon with electrical power. Construction of the building began in the early twenty century; a period in which the city and indeed the country went through significant modernisation in many ways. The plant stopped working in 1975 when it was decided that the industrial building should host the future museum in order to save the important architecture, as both a symbol of the city’s identity, and memory based on the importance of electricity. A team of experts made a plan for the museum, which was opened finally in 1990.

One of the biggest reasons why this industrial unit was saved is the fact that it is the one of the most beautiful examples of industrial architecture in Lisbon, from the start of the last century. Its structure follows the western type of architecture of iron covered with brick, which shapes and decorates the facades in artistic styles that range from art-nouveau, in its older sections (low-pressure building), to classicism in the more contemporary parts (high-pressure building).⁷¹ This change in architectural aesthetic was caused by the fact that the plant was built from 1908 until 1951, constantly adapting new elements that were needed for work. Another reason for saving the building was the fact that the active power station certainly had a large impact on

⁷¹ Available at: [https://en.wikipedia.org/wiki/Electricity_Museum_\(Lisbon\)](https://en.wikipedia.org/wiki/Electricity_Museum_(Lisbon)) (Accessed 1 July 2016)

everyday life in Lisbon and the surrounding area- the invention of electricity changed society on so many levels.

The Electricity Museum, based on the concept of an industrial *Museum of Science*, shows the different concepts of Energy, in the Past, Present and Future. Beyond the resident exhibition, where it is possible to visualize and understand (based on the original machinery of the old Central Tejo) the operation and working environment of different eras of the power station, they regularly present several temporary exhibitions (photography, sculpture, painting, design ...) and also have recreational spaces and teach the subject of energy.⁷²

Interestingly the museum is hosting many kinds of different exhibitions not connected to industrial legacy. For example, it hosted the *World Press Photo* exhibition for a few years- in just 2012 more than 33 000 visitors came to see that exhibition.⁷³ It is some evidence that industrial spaces and the aesthetic are very good environments for any kind of artistic events. Continuing with this approach, *EDP Foundation* who is in charge of the museum, which belongs to the *EDP Group - Energias de Portugal*, announced that from 2016 the museum will form part of MAAT, the *Museum of Art, Architecture and Technology*.

This case shows a new hybrid of museum concepts. The criticism of industrial museums in scientific circles is that they are that they are ‘dead’ museum, frozen in time, standing like a monuments of past, especial after the new definition of museums which push museums to operate more in a time of present for the future.

On the other hand, from the aspect of reutilization of industrial heritage, this example shows that one concept should not exclude the other, in the view of industrial museums versus adaptive reuse, and that they can live together.

⁷² Available at: http://www.museums-exhibiting-europe.de/wp-content/uploads/2014/02/EMEE_Mapping-Process_P6_Electricity-Museum.pdf (Accessed 3 July 2016)

⁷³ Available at: http://www.museums-exhibiting-europe.de/wp-content/uploads/2014/02/EMEE_Mapping-Process_P6_Electricity-Museum.pdf (Accessed 3 July 2016)

To make some conclusion for this chapter, is to emphasize, that still today, with all the institutions and guidelines for the protection of industrial heritage, unfortunately many industrial sites went to oblivion through the process of demolition. Even the examples in big cities sometimes are not enough to raise the awareness of industrial legacy. Maybe the reason lies in the fact that industrial heritage is a very new term to the general public and it is still not accepted on a global level as a monument with historical and aesthetic values.

At the end, if we convert former industrial buildings into museums dedicated to industry, or made adaptive reuse into the new purposes such are museums, galleries, restaurants, we are creating sustainable and cultural development, and more importantly, we save industrial heritage.

4. LEGACY OF CROATIAN PHOTOGRAPHY AND JUSTIFICATION FOR THE MUSEUM OF PHOTOGRAPHY IN INDUSTRIAL BUILDING

Considérant la longue tradition et la longue histoire de la photographie en Croatie, la question « pourquoi n'existe-t-il pas une institution spécialisée pour la photographie, musée ou centre » agite, aujourd'hui encore, les milieux professionnels. Le quatrième chapitre offre une réponse possible à cette question, en justifiant du fait que le futur musée devrait être dans un bâtiment industriel. Il soulève ainsi également la problématique de la protection du patrimoine industriel en Croatie.

4.1. The history of photography in Croatia

The best short description of the importance of Croatian photography in the city of Zagreb was given by *Marina Benazić*, curator of *Tošo Dabac Archive*, in the introduction to the exhibition *Tošo Dabac- Les Gens de la rue / An autre regard*, *Galerie Pont Neuf*, held in 2008 in Paris:

...We are talking about a city that already in 1839 discovered the photography of Daguerre and Niépce, and in early 1910 organized the first international exhibition of art photography. In 1939, Department of Photography was established in the Museum of Arts and Crafts which was immediately called among contemporaries the photographic museum. For the sake of comparison, let us remember that the establishment of the Department of Photography by the generally recognized authority today- the Museum of Photography in New York's Museum of Modern Art, MoMA, which, through its work, managed to popularize and deepen the perception of photography as art succeeded in its efforts to bring dignity to the photographic art on a world scale, dating back to 1940....

In these few sentences crucial moments in Croatian photography have been recognised. These moments include: when it begins, when the first art photography exhibition was held, and when the first official collection of photography in museum was opened.

So, to begin from the start. In the first half of the 19th Zagreb was a small town, but very progressive in following the news from the world. The invention of photography rapidly came to the city, and the first traces dates in 1838 when wealthy merchant *Demeter Novaković* procedure daguerreotypes with the images of Zagreb surroundings. These works, unfortunately, are not preserved so today no vestige of this activity exists. However, the facts were documented in writing by *Ivan Kukuljević Sakcinski*⁷⁴ (1816-1889), the first art historian in Croatia, in *Slovníku umjetnikah jugoslavenkih: 'Novaković, painter and daguerreotypist, was in Paris in about 1839. He came to Zagreb in 1940 and made several daguerreotypes of Zagreb environs, which be later printed'*⁷⁵. Novaković passed by school of Daguerre and left photography traces in Budapest and other Balkan countries and with this he started the official history in Croatian photography.

In that period a few names are crucial in the development of photography in Zagreb and Croatia. Count *Juraj Drašković*⁷⁶ (1804-1889), is one of the first amateurs photographers in Croatia. The *Museum of Arts and Crafts* keeps his album with 57 callotypes made in the period from 1848 to 1853, showing family members and family possessions.⁷⁷ Photography, as a profession occurred at the time, and one of the most important photographers in that period was *Franjo Pommer*⁷⁸ (1818-1879), who issued in 1856 the first album of photographs of prominent contemporaries. What is making this work very important is the fact that it was made 14 years before the famous French photographer *Nadar* (1820-1910) did a similar album in Paris, almost simultaneously with *Ivan Standl*⁷⁹ (1832-1897) and his photo monograph *Photographic images from Croatia*

⁷⁴ Ivan Kukuljević Sakcinski was a Croatian historian, art historian, writer and politician. He was the one of prominent figures in a movement called *Illyrian national revival* which advocated union of South Slaves and Croatian like an official language within the Austro-Hungarian Empire. He was the founder of archeology in Croatia.

⁷⁵ Fotografija u Hrvatskoj: 1848-1951 = Photography in Croatia, Muzej za umjetnost i obrt, Zagreb, catalogue edited by Vladimir Maleković, Marija Tonković Muzej za umjetnost i obrt, 1994, p. 48

⁷⁶ Juraj Drašković was the pioneer of Croatian photography who is considered the founder of art photography in Croatia and major Croatian amateur photographer of the 19th century. Thanks to this passion he became the members of the elite Photo Club Wiener Camera Club Vienna.

⁷⁷ Available at: <http://www.muo.hr/hr/zbirke/zbirke/zbirka-starije-fotografije/> (Accessed 10 July 2016)

⁷⁸ Franjo Pommer opened the first photographic atelier in 1856 in Zagreb, Croatia.

⁷⁹ Ivan Standl was one of the first professional photographers in Zagreb, known mostly for his award-winning documentary work. He he won the first prize at the *Gospodarska izložba* (Business Fair) in 1864 in Zagreb. His works also appeared and won prizes at international exhibitions in Moscow (1872), London (1874), Trieste (1882) and Budapest (1885).

done in the 1870s. In that period photography could be accessed only by wealthy citizens, since the process of daguerreotypes was an expensive hobby because of the cost of equipment, difficulties with its procurement and difficulty of the procedure. Despite that fact, in 1864, at *Gospodarska izložba (Business Fair)* in Zagreb, a number of exhibits were from Croatian photographers.

The great boom of photography in Croatia began with in developing new technologies for that time- dry plate- which made photography available to more people. It is important to emphasize that in the period of 1880, in Zagreb was establish strong association in promotion of culture, *Društvo umjetnosti (Zagreb Art Society)*. The Society launched a *Museum of Arts and Crafts*, which is going to be the crucial institution that is going to promote photography medium, and even in late 19th century, they had photography in their collection.

In that kind of circumstances was established and first amateur photo club, in 1882, the *Zagreb Art Society* founded *The Zagreb Club of Amateur Photographers*, which gathered around thirty enthusiasts of photography. This was the sixth club in the world, opened only one year after the club in London and first artistic photo exhibition in Vienna. Forming photo clubs in the world was important in the development of art photography, because at that time, from the perspective of institutions, photography was not yet recognized as artistic form. It was a craft apprenticeship in the faithful capturing reality. *Želimir Košćević* in the book *History of European Photography, 1900-1938*, talking about the significance of photo amateurs, concludes: *'Today, we can see clearly how from this prolific stratum of amateurs, to whom the medium was not simply a task but a passion, gradually formed a completely new visual culture at the beginning of the 20th century. Professional photographic studios kept firmly to portrait and landscape stereotypes, but in the hands of 'amateurs' the medium not only offered new challenges, but began to develop a new aesthetic based on dynamic vision, attractive angles and poetics.*⁸⁰

⁸⁰ Košćević Ž., *History of European Photography, 1900-1938*, Central European House of Photography, FOTOFO, Bratislava, 2011, p. 87

The club organized even two international exhibitions of art photography in Zagreb, in 1910 and the 1913, and at the beginning of the clubs existence in 1894, members first collectively performed and exhibited their work at the national art exhibition of the Art Society.

One of the most important names from that period that marked with his aesthetic photography was *Vladimir Guteša*⁸¹(1888-1960). Photography *Zrinjevac on Corpus Christi* done in 1902 by Vladimir Guteša is a paradigmatic example of a new modern visual culture, which at the time had been more or less embedded into the fourteen-year-old's adolescent consciousness. This is a dynamic fragment of the urban and social reality, almost impressionistically innocent, but clearly aimed at the new aesthetic of the photographic image.⁸²



Fig. 09. Vladimir Guteša, Zrinjevac on Corpus Christi, 1902

Source: Zagreb City Museum

The time when the First World War started, the work of club stopped. At that point, one period of photography in Zagreb ended. The big revival happened in 1922, when society was renewed, but under the name of *Photo Club Zagreb*, and that name remains to this

⁸¹ Vladimir Guteša been engaged in photography from an early age, from the year 1902. Through his work he is recording many motifs from Zagreb; landscapes, portraits, architecture. He was the member of Photo Club Zagreb. He was the first official photographer of City Museum Zagreb.

⁸² Idem.

day. Because of the post-war depression and the onset of the global economic crisis, the activities of the club were stagnating. Already in 1930s the club managed to stand on its feet financially and started its exhibition activities again.

The great milestone of the club occurred in the early thirties when the group of photographers started to take remarkable photos with very specific aesthetics present in their work. In historical review this phenomenon, by experts is known as the '*Zagreb School of Photography*'. The impact on the development of social power in the photograph was the emergence of the *Grupa Zemlja (Group Earth)*⁸³ with strong social orientation as a result of organized gathering of painters, sculptors and architects, left-oriented, socially sensitive and highly critical people towards the current situation.



Fig. 10. August Frajtić, *Our Daily Bread*, 1930

Source: www.hrvatska-fotozbirka.com

⁸³ Grupa Zemlja existed from 1929 until 1935, when it was prohibited by police. It was an artistic group, a combination of painters, sculptors and architects with left-oriented political views.

In 1937 the club had 150 members, and some of them have already achieved international prominence, such as *Vlado Cizelj (1903-1973)*, *Tošo Dabac (1907-1970)*, *Milan Fizi(1904-1976)*, *August Frajtić (1902-1977)*, *Vladimir Guteša (1888-1960)*, *Ignjat Habermuller (1898-?)*, *Đuro Janeković (1912-1989)*, *Branko Luš (1905-1992)*, *Albert Starzyk (1911-2002)*, *Marijan Szabo (1913-1967)*, *Oskar Schnur (1906-1974)*.

One of the biggest successes of this generation of photographers is considered to be when in 1938 the *Royal Photographic Society* in London, proposed that Zagreb photographers prepare a solo exhibition with 100 photos. The success of the London exhibition was so great that they received a call from the universities of Oxford and Cambridge with a request that the entire collection would like to be exhibit and in their cities. After the exhibition in England, this exhibition went to Scandinavian countries, the United States, Belgium, Bulgaria, Germany and Argentina.

From this group of photographers, the name that was most known in Croatia and also world is *Tošo Dabac*, today one of the most important names for photographs taken in the former Yugoslavia. He worked as a photo-reporter and in the early 1930s started the opus *People from the Street*, enlarging it until 1937 in which he marked with social aesthetic everyday life in Zagreb from that time. Today, from the eyes of art historians, it is the one of greatest cycles in the field of photography from Croatia.



Fig. 11. Tošo Dabac, Mercedes Goritz Pavelić i Ljubica Valentaković, Zagreb, 1934

Source: Archive Tošo Dabac

Besides the social photography, in the same period, there was a tendency for avant-garde photography with very strong influence from the surrealist movement. In the context of such stars, the young *Ivana Meller – Tomljenović (1906-1988)* stands out as exceptional, who, after studying at *The Zagreb Academy of Visual Arts*, went to *Bauhaus*, in Dessau, for the academic year 1929/1930 and who attended preparatory classes with *Joseph Albers*⁸⁴ (1888-1976) and later studied photography with *Walter Peterhans*⁸⁵ (1897-1960). Familiar with the modern concept of photography, and in contact with the avant-garde tendencies of the time, Ivana Meller Tomljenović, as a young Bauhaus student, readily accepted the new ideas of the general visual culture and the concept of the photographic medium. Her photographs, taken during her stay in Bauhaus in 1929 – 1930, show clearly, in both concept and morphology, the decisive influence of *Laszlo Moholy-Nagy*⁸⁶ (1895-1946) and *Alexandre Rodchenko*⁸⁷ (1891-1956) on her education.⁸⁸



Fig. 12. Ivana Meller – Tomljenović, Dictatorship in Yugoslavia, 1930

Source: Marinko Sudac Collection

⁸⁴ Joseph Albers was German painter, photographer and teacher. He was one of the founders of op art in painting.

⁸⁵ Walter Peterhans was a German photographer best known as a teacher and course leader of photography at the Bauhaus from 1929 through 1933.

⁸⁶ Laszlo Moholy-Nagy was a Hungarian painter and photographer and professor at the School of Design Bauhaus.

⁸⁷ Alexandre Rodchenko was a Russian artist, sculptor, photographer and graphic designer.

⁸⁸ Koščević Ž., History of European Photography, 1900-1938, Central European House of Photography, FOTOFO, Bratislava, 2011, p. 87

After Second World War time was marked with the tendency of stopping continuity with the traditionalism and making space for the new *avant-garde* approach. In countries such as the former Yugoslavia, the dominant movement was social modernism, during after war time, and this was reflected in the field of photography too.



Fig. 13. Mladen Grčević, *From the bird's eye view*, 1945

Source: www.hrvatska-fotozbirka.com

The name that dominated the photographic scene in that period of 1950s was *Mladen Grčević* (1918-2012) who started his career in *Photo Club Zagreb* in 1939, but after the war he left that aesthetic behind and instead continued with the *life* photography characteristic for his style. Grčević photography in 1950s signalled the time of the modern concept of documentary photography, which was soon confirmed by the listing of these images in contemporary publications and in international exhibitions. Already

by that time he had his first solo exhibition in Paris and London. Magazine *Stern*⁸⁹ was publishing his photographs and he exhibited a magazine exhibition in Hamburg which had specific topics year after year, like *Was is der Mensch?* (1964.), *Die Frau* (1968.), *Unterwegs zum Paradies* (1973.) and *Kinder dieser Welt* (1977.). In his long career, of approximately seventeen years, he became a known name, and exhibited in many countries, such as USA, England, Portugal, and Brazil.

Milan Pavić (1914-1986), was of the photojournalist, which continued the typical Zagreb school aesthetic. Besides portraying everyday life, he was one of photographers who had a tendency to show abstraction in his work, which was influenced with the aesthetic of the group EXAT 51.⁹⁰



Fig. 14. Milan Pavić, Crossroads, Zagreb, 1950s

Source: www.fotoklubzagreb.hr

Beside Milan, in the context of photography in Croatia, another very important photographer was his wife, *Slavka Pavić*, born in 1927. She never did photography on a professional level, but many of her works have an important place in the anthology of Croatian photography. She was a member of *Photo Club Zagreb*, and one of the people

⁸⁹ *Stern* is a weekly news magazine published in Hamburg from 1948.

⁹⁰ EXAT 51 is the name of artistic groups from Zagreb, (acronym of Experimental Atelier), painters and architects active in Zagreb from 1950 to 1956. EXAT 51 advocated abstract art, contemporary visual communication and synthesis of all disciplines of fine art, today would it said - total design.

responsible for the establishment of the first women's sections within the club. Slavka held 19 solo exhibitions and participated in over 300 group exhibitions in Croatia and abroad, thereby winning more than 90 different awards. In 2014, the *Zagreb City Museum*, organized big exhibition with her works from the period on 1950s until present days.



Fig. 15. Slavka Pavić, Kompozicija, 1956.

Source: Collection of Slavka Pavić

Tošo Dabac continued his work after 1950s with less focus on social topics, and instead concentrated on the big renewal in the city of Zagreb, like the creation of new settlements, and recorded lifestyles within the town.

The group *Gorgona* in 1960s were very important in developing avant-garde photography. They were a Croatian avant-garde art group which consisted of artists and art historians, operated along the lines of anti-art. *Gorgona* was not an art group in the common way, it did not act according to some kind of program or manifest but rather it gathered artists that shared the same spiritual tendencies. Some of their performances

were documented, and one of the most famous was done by *Branko Balić*⁹¹ (1930-1976), called *Adoracija (Adoration)*. *Tomislav Gotovac*⁹² (1937-2010), a conceptual artist, usually took photographs as a medium to record his performances, in the manners of Gorgon spirit, in the form of half documentary and half art photography.

In the 1970s, the magazine *SPOT* appeared in Croatia, it was dedicated to photography in the context of new approaches, towards seeing photography as a contemporary artistic media with an experimental aesthetic. The Editorial of the magazine in 1973 initiated the exhibition project *Nova Fotografija (New Photography)* on which there were exhibit works of by *Petar Dabac*⁹³ (1942), *Željko Jerman*⁹⁴ (1949-2006), *Enes Midžić*⁹⁵ (1946), names that will mark the photography scene of the second half of the twentieth century.

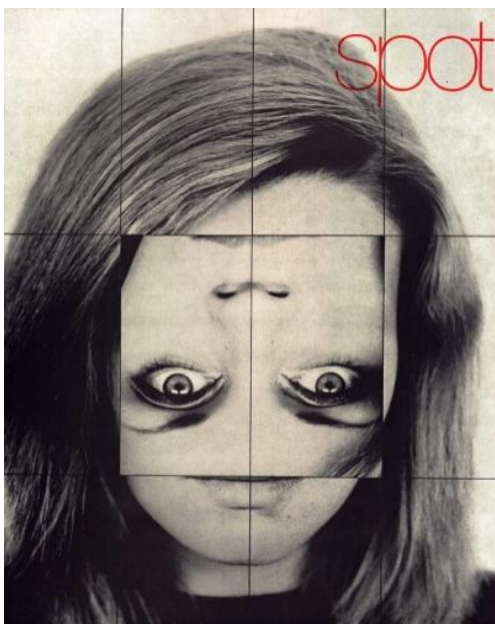


Fig. 16. Magazine *SPOT*, cover of first edition 1970

Source: Museum of Contemporary Art Zagreb

⁹¹ Branko Balić was a photographer from Zagreb. He was a chronicler of social events and artistic tendencies.

⁹² Tomislav Gotovac was Croatian film director, actor, performer, multimedia and conceptual artist. He was the founder of performance art in Croatia and one of the most important presenters of contemporary art in second half of 20th century in Croatia.

⁹³ Petar Dabac is Croatia photographer, nephew and student of Tošo Dabac. After Tošo dead he inherited Tošo legacy and open The Archive of Tošo Dabac in 1970.

⁹⁴ Željko Jerman was the Croatian contemporary artist and essayist. He was the part of Grupa šestorice (Group of six) which marked 1970s on Croatian art scene with conceptual works.

⁹⁵ Enes Midžić is Croatian photographer. From 1967. student masters of art photography of Tošo Dabac and his associate until 1970.

Besides the male company that gathered in atelier of Tošo Dabac, one of his students was *Marija Braut* (1929-2015), the most important female name in history of Croatian photography. Like for her professor Tošo, Zagreb was been always her artistic inspiration. Her first solo exhibition was held in 1969 with Peter Dabac in SC Gallery. She was a member of *ULUPUH*⁹⁶ and *Photo Club Zagreb*, she worked as a photographer in the *Gallery of the city of Zagreb*, and after 1972 became an independent artist. She marked the history of photography with her works and specific aesthetic with reflection of *zeitgeist* of modern city from the 1960s until 2015.



Fig. 17. Tošo Dabac, Petar Dabac, Marija Braut and Enes Midžić, 1968

Source: Archive Tošo Dabac

⁹⁶ ULPUH is short name for Croatian Association of Artists of Applied Arts.

4.2. Photography collection in museums and other institutions

Important collections have been created in some Croatian museums and other institutions due to the long tradition of photography in Croatia. To cover all collections in Croatia in this dissertation would be almost impossible, and would be a whole topic in itself. In this presentation, focus is to see amount of photography collection with an amount of register photographs in major institution in Zagreb, and what kind of position they have in inside of institutions.

The *Museum of Art and Crafts* in Zagreb formed an independent department in 1939 for collections of photography, in comparison with other museum institutions globally, this makes it one of the first of its kind. It covers the period from the first daguerreotype of the first half of the 19th century to contemporary artists. It is separated into three collections; a collection of old photographs, a collection of new photographs and a collection of photo equipment. The collection houses almost 60,000 items. Part of the collection is, as a separate thematic unit, documentary photography of the Museum of Arts and Crafts. That collection is made up of 40,000 objects - photographs, negatives, slides, created from 1925 to the present days. Ever since 1880, when Museum of Arts and Crafts was founded, due to the initiative of *Izidor Kršnjavi*, photography is included as a documentary medium, and from the beginning was part of the permanent collection.⁹⁷

In the collection of the *Museum of Contemporary Art* in Zagreb are mainly works done in the period after the 1950s. Collection of the Museum of Contemporary Art continues the activities of the *Center for Photography, Film and Television* (CEFFT) which started operating at the beginning of the 70s, at a time when were inadequacies in the collection of contemporary photography. The primary task of the collection was to collect, storage and presentation of artistic photography, film and video, and more lately activity includes entering and processing of artistic works created contemporary forms mechanical, electronic and digital registration and reproduction (photo, film, video,

⁹⁷ Život Umjetnosti, 74/75, Institut za povijest umjetnosti, 2005, p. 145-160
Available at: https://www.ipu.hr/content/zivot-umjetnosti/ZU-74-75-2005_156-160_Lulic_Mrduljac_Vidmar.pdf (Accessed 10 July 2016)

CD).⁹⁸ The other key photography collection in the Museum Of Contemporary Art is the *Archive of Tošo Dabac* which is an *in situ* art collection with almost 200 000 negatives, some 2000 vintage master prints, valuable photographic equipment, library and hemeroteca.

In the *Zagreb City Museum* collection of photography and photographic equipment, in a form of documentation, was formed immediately after its establishment in 1907, when the institution obtained its first stereoscopic diagram positives and negatives, photographs and postcards. The museum from its foundation had a collection of a documentary character. The collection consists of recordings from the streets, squares and parks, and in the old town systematically recorded households. With them are preserved and aerial photographs of the city, old footage from a balloon from the beginning of the century, then significant events and almost all segments of community life in the city - municipal works, education, culture, and important figures.⁹⁹

There are important collections in other museums, such as in the *History Museum*, *Natural History Museum* or *School Museum*. In these institutions photography is not media in itself; it's just a part of documentation.

Today there are a lot of collections in other institutions that are not specialized in photographic media. For example *Croatian State Archives in Zagreb* has around 650.000 negatives and 60.000 photos without negatives. The most extensive fund is photos stored in a *Fond Agencije za fotodokumentaciju (Agency Fund for photo-documentation)* which operated from 1939 to 1990 and consists of 500,000 negatives and so many copies, sorted by topic or place of recording. The second largest is the collection of the *Služba državne sigurnosti (State Security Service)* and consists of about 50,000 photographs of various formats and techniques.¹⁰⁰ In it has a division in the documentary and art photography and some rare examples of people or past events that are very important in both fields. The archive is closed to the public, and these images are used mostly for scientific purposes, and are rarely seen.

⁹⁸ Idem.

⁹⁹ Idem.

¹⁰⁰ Idem.

In other cities in Croatia, most photographic collection are formed in archives and museums of municipalities, collecting most photographs from historical periods, more in a documentary form of place and significant events and people that were important to the community, and photographs that show crucial changes to cities.

4.3. Legacy and archive of Tošo Dabac

Tošo Dabac is a representative of the social photography in Croatian art and one of the founders of the *Zagreb School of Photography*. He is one of most important and versatile Croatian photographers, winner of many awards and was a member of prestigious Croatian and international photographic associations; he has had a huge influence on the development of Croatian photography.

He started his photographic career in the *Photo Club Zagreb*. In 1933, Tošo was already exhibiting his photographs in anthological exhibition *Second Philadelphia International Salon of Photography*, in the company of great photographers such as *Margaret Bourke – White*¹⁰¹ (1904-1971), *Henri Cartier – Bresson*¹⁰² (1908-2004) and *Paul Outerbridge*¹⁰³ (1896-1958).

Dabac was born in 1907 at place Nova Rača, near Bjelovar, Croatia and after 10 years he moved with his family in Samobor, a small picturesque town near Zagreb. His oldest photography stems from this period, called *A panorama of Samobor*, taken in 1925. As a student job, he started to work in the *Metro Goldwyn Mayer* office in Zagreb, and the experience in the movie industry left an influence on the aesthetic in his work, especially on his most famous opus *People of the Streets*, a unique visual chronicle of a European town in the making. Tošo Dabac was not directly connected with the then progressive social art groups and leftist trends, so his photographs *People of the Streets*

¹⁰¹ Margaret Bourke-White was an American photographer and documentary photographer. She was the one of rare female photographer at that time and she was the first female photographer that worked for Life magazine.

¹⁰² Henri Cartier-Bresson was a French photographer. He helped develop street photography, considered the master of candid photography, and an early user of 35 mm film. His work has influenced many photographers.

¹⁰³ Paul Outerbridge, was an American photographer in a field of fashion and commercial photographer. He was an early pioneer and teacher of color photography, a creator of erotic nude photographs that could not be exhibited in his lifetime.

cannot be interpreted as a piece of social criticism, but they can be understood as socially-engaged, humane photographs, which were to be formulated by Steichen's exhibition *The Family of Man* only after World War II.¹⁰⁴

After that period, he became a known photographer in the former Yugoslavia and abroad. Despite his fame, he never took photography abroad, apart from taking photos on his first big journey along the Mediterranean in 1932. His favorite subject was Zagreb, and he was its visual chronicler, from the first moment that he took camera until his death in 1970.

In 1940 Dabac moved his studio to the now historic place 17 Ilica Street, which was soon to become a favorite venue among the artists and intellectuals of Zagreb in the 1950s and 1960s. This was the time of the *Music Biennial*, art group *EXAT 51*, the *Zagreb Fair*, and similar events, which made Zagreb an innovative and dynamic cultural spot in Europe.¹⁰⁵

After his death, his nephew Petar Dabac, inherited his legacy, and he immediately opened the *Tošo Dabac Archive* in his studio, taking care of this precious photographic heritage. In 1980, Petar, a renowned photographer himself opened a gallery too, inside the archive. With the work of the gallery he organized exhibitions and workshops of famous international artists, and made the collection open to many people, from the art world to curious enthusiasts in the field of photography. For the next decade Gallery ATD organized forty-seven photographic exhibitions and numerous photo shop local and international photographers. With *Sretna Galerija* in Belgrade, *Fotogalerija Marmontova* in Split, and before establishment CEFFT in the Museum of Contemporary Art, it is significant as an endemic example gallery focused on contemporary photography in the former Yugoslavia.¹⁰⁶

In March 2006 the Archive was acquired by the City of Zagreb and passed on to the *Museum of Contemporary Art* for management. Since then an expertise has been taking

¹⁰⁴ Košćević Ž., *History of European Photography, 1900-1938*, Central European House of Photography, FOTOFO, Bratislava, 2011, p. 90

¹⁰⁵ Benažić M, Prosoli I., *Tošo Dabac: 1907-1970, život & fotografije = life & photographs (katalog izložbe; exhibition catalog)*, Muzej Suvremene Umjetnosti, 2008, p.7

¹⁰⁶ Interview with Marina Benažić, curator of Tošo Dabac Archive, 20 July 2016, done by Nevena Ilić

place of this huge comprehensive collection, which yet needs to be given its rightful place in the history of world photography.¹⁰⁷

Today, the collection in the Archive of Tošo Dabac is separated into a number of sections: negatives, contact copies and test photos, enlarge photos by Tošo Dabac and by others, photographic equipment, photos on which is Tošo Dabac taken by others, slides, magazines, private and other documents, bibliography with clippings from newspapers and individual volumes and private library.

The Tošo Dabac Archive is currently an in situ art collection with almost 200 000 negatives, some 2000 vintage masterprints, valuable photographic equipment, library and hemerotecha. It represents one of the most complete collections of that kind in the world because it contains the complete works of Tošo Dabac. In addition to its artistic importance, the photographic collection of Tošo Dabac also has a huge documentary value because it bears witness to the history of Zagreb and Croatia. It includes various motifs, from portraits, art works and monuments, images of urban life to landscapes and folklore.¹⁰⁸

Today, the archive is under the supervision of curator Marina Benažić, which nurtures and promoting Tošo Dabac legacy trough the exhibition in Croatia and aboard, and trough the organization of *Days of photography of Tošo Dabac Archive*, one annual event that brings together professional photographers, art historians and critics, that through exhibitions, lectures and workshops encourage the further development of the photographic medium. This year is the eighth year of organization, with the three big exhibitions, one of them dedicated to Tošo Dabac and his touristic photography. The project of *Fotokemika as a museum of photography* will also be presented on this year *Days of photography of Tošo Dabac Archive*.

¹⁰⁷ Idem, p. 9

¹⁰⁸ Idem, p. 8

4.4. Proposal plan for museum of photography by Petar Dabac in 1986

Like it was mentioned before, at territory of Croatia, exist a very strong awareness of photography medium. In that field *Museum of Arts and Crafts* played important roll, founding a department of photography there before the Second World War. The collection was systematically enriched and in 1939, to mark of centenary of photography, it became a special museum department called '*museum of photography*' by the press.¹⁰⁹ *Marija Tonković* in a catalogue of exhibition *Photography in Croatia: 1848-1950* conclude: '*The museum collection in Zagreb was establish one year before that in the Museum of Modern Art in New York which is considered the beginning of a museological approach to photography*'¹¹⁰

Photo Club Zagreb was very connected in that period with museums of *Art and Crafts* and together they created field for the developing of photography. One of the proofs of that is a flyer published for the exhibition in 1941 made by the organization of *Photo Club* in which they are inviting citizens to donate they photographs, cameras and equipment to '*museum of photography*' which is located in a museum of *Art and Crafts*.

Next improving in a shape of creating of museum was opening an *Archive of Tošo Dabac*, which happened in 1970. *Petar Dabac*, nephew of *Tošo*, after his dead, takes care of the entire legacy that *Tošo* left after the almost 40 years on scene. With the great collection behind of himself, *Petar Dabac* in 1986 made a proposal plan for *National Museum of Photography*.

The elaborate was done on eight pages, from the giving reasons why is important to establish the museum dedicated to photography until the organization scheme of museum. In a first point of *Petar Dabac* proposal, emphasized long tradition in photography in field, and with very strong critical view, he is talking about neglected photography heritage. He said: '*Despite this photographic tradition no one has ever cared about keeping on professional level photography heritage, a few institutions and*

¹⁰⁹ *Fotografija u Hrvatskoj: 1848-1951 = Photography in Croatia*, Muzej za umjetnost i obrt, Zagreb, catalogue edited by *Vladimir Maleković*, *Marija tonković* Muzej za umjetnost i obrt , 1994, p. 47

¹¹⁰ *Idem*.

*individuals showed understanding for it, but even today a collection that are kept inside still slowly declining because it is in the very nature of photographic materials.*¹¹¹

In a continuing of text he is explaining that a fact that made him thinking about the preservation of photography is a legacy that he inherited and experience that he made after the 15 years of taking care. He is talking about the importance of preservation of photo documents. In text Petar Dabac explains: *'Some collections are completely destroyed due to neglect of the owner (usually an heir), some because of lack of money for their purchase, some during the second war, some due to poor conditions in which they were kept, and it is very often the case that the authors themselves devotes too little attention to the processing films and photos.*¹¹²

The interesting fact that Dabac is amount is lack of education institution just devoted to medium of photography. Usually, in Croatia, photography is just part of craft school, or a part of *Academy of Fine Arts* or *Academy of Dramatic Art*. He emphasised that is very important to have a professional staff in taking care of photography heritage. Another interesting point is lack on literature and for example in that time there were not published a historical overview of history of Croatian photography. For all of this reason, he is giving a solution in an institution of museum of photography.

*'About the future of photography we can now think only when we preserve its most valuable achievements'*¹¹³ is the sentence in which Petar Dabac gave the strong justification for his proposal plan of National Museum of Photography.¹¹⁴

It is interesting fact in this plan that like a first source of founding is Fotokemika factory. On mine observation on that fact when I was reading documents, Petar Dabac in interview said: *'Leading persons of Fotokemika factory was always generous. I remember once when I took some portraits of people who used to work there, like a*

¹¹¹ Proposal for National museum for photography, concept by Petar Dabac, 1986, private documents, p. 1

¹¹² Idem, p. 2

¹¹³ Idem, p. 3

¹¹⁴ In an annex part is an transcription of structure of National Museum of Photography made by Petar Dabac.

*reword I got full car of films and paper, but when I mean full, I mean it full by the end, I barely could drive, that time.*¹¹⁵

Unfortunately, this plan didn't have any kind of feedback, not in the period in 1986, and even later when Petar Dabac was writing many letters to institution as *Ministry of Culture or Cultural department of City of Zagreb*. With his experience as a professional photographer, as an archivist and curator, he gave a strong justification for a museum of photography. Again, unfortunately, this is just one of the examples that photography isn't seen as important in Croatian society

4.5. Neglected industrial architecture and legacy in Croatia

The process of de-industrialization in the early 1990s caught majority of Croatian industrial plants and many factories stop to work due to the war civil war in the former Yugoslavia. The factory closure was caused by the large wave of privatization, because of the transition from communist to a capitalist society. Many of factories in the hands of private holders started to be used in another function, mostly like warehouses, and some of them have been demolished because of market interest for land. Privatization of industrial buildings implies a problem of protection of cultural property, because of no clearly defined laws on the protection of cultural property.

The Law on the Protection of Croatian cultural monuments from 1999 stipulates the protection of cultural landscapes in which industrial legacy belongs, but industrial heritage is not given a separate status, and examples of protection are very rare. Since 8625 registered cultural assets in Croatia, only fifty are examples of industrial heritage.

Problems of industrial heritage in Croatia is that there is no awareness of the possibility of how to use the potential of industrial heritage in urban and economic development; backward approach reflecting the transformation of attractive locations: financial interests which exclude heritage; lack of application of positive foreign experience; too much influence of local / national authorities to decide on the mode of management, protection and conversion of valuable objects; lack of plans and models of conversion

¹¹⁵ Interview with Petar Dabac, 25 July 2016, done by Nevena Ilić

of industrial heritage sites, their under-development or transparency; and unresolved property-legal relations.¹¹⁶

The problems of industrial heritage in Croatia come from the lack of awareness of how to use industrial heritage in urban and economic development.

However, awareness of industrial legacy exists in scientific circles. One of the best examples of reuse is former factory of leather in Zagreb that is transformed into a *Glyptotek*, a museum of sculpture. What makes this example unique is the time period when that happened. The *Glyptotek* has become an *avant-garde* example of conversion and content conversion of one factory paleo-industrial complex in 1940, while the European and world examples of this practice first started in the 1960s.¹¹⁷

Besides the *Glyptotek*, of rare example in the field of reutilization of industrial heritage in Croatia, a few years ago there was another case where the idea came not from the institutions but from private investors. *Lauba - Houses for People and Art* is an interesting project of the revitalization of the building of the former Cavalry Barracks which was in 2011 turned into a business public content building solely from the invested capital of private entrepreneurs. In the space where Lauba is located there is a gallery with investor's collection of contemporary art, cafeteria and offices of its parent company. The building of the former riding arena was later adapted for the needs of the textile industry and the conservation and restoration works for the needs of Lauba tended to keep the original design and architectural features. Lauba was nominated for the *Best Museum of the Year in 2014* held by *European Museum of the year Award*.

In contemporary times there are a few initiatives that are worth mentioning in Zagreb and Rijeka, which are cities with the biggest and oldest industrial heritage. In terms of evaluation and protection of industrial heritage, Rijeka has made the biggest step with the *Association for the promotion and preservation of industrial heritage Pro torpedo*, founded in 1993, and that is systematically engaged in Rijeka waterfront regeneration-

¹¹⁶ Šimičić, N., Konzervatorsko-restauratorski projekt za zgradu kraljevskog povlaštenog zagrebačkog parnog i umjetnog mlina, Diplomaska radnja., Filozofski fakultet u Zagrebu, Odsjek za povijest umjetnosti, 2014, p. 31

¹¹⁷ Mihalinec M., Povijest i transformacije Tvornice Koža u Gliptoteku HAZU, u: Stručni skup „Budućnost zagrebačke industrijske baštine“, program i sažeci, MGZ, 15.-17.4. 2010, p. 19, 20

and therefore the port and industrial zone. Constant work and perseverance of association resulted by putting Rijeka former torpedo factory on the map of *European Route of Industrial Heritage*, as the sole example from Croatia.

The project of *Zagreb City Museum, Zagreb industrial heritage: history, state, perspective*, led by curator *Goran Arčabić* should be mentioned as an important project for Zagreb. The project started in 2009, and the goal was to increase awareness about rich and important industrial heritage in the capital.

The project included three exhibitions: an exhibition of *Modernization on the periphery of the Empire: Zagreb industrial heritage from 1862 to 1918*, which sought to determine the historical context, meaning and consequences of the process of industrialization of the city of Zagreb and its population by the end of the First World War and to present the current state of twelve industrial facilities / complexes built by 1918, the system for their protection and perspective. Another exhibition was the *Industrial center of the country: Zagreb industrial heritage from 1918 to 1945*, dedicated to the interwar period, and the third *Time giants: 1945 to 1990*. In addition to the exhibitions, the project organized a professional conference on the topic of industrial heritage. Besides this two major project, there was some initiative in Zagreb and other cities trying to organized some cultural manifestation in abandoned industrial spaces, trying to point out the problems of industrial legacy and its importance for the future urban development of cities.

But the existence of strong factions in professional circles was not enough. The evidence for that is demolishing almost all parts of most significant cultural monument of industrial heritage in Zagreb. It is an industrial complex *Paromlin*, which dates from 1862, and because of its architectural values, the complex was on the list of protected cultural monuments and one of the symbols of the beginning of industrialization and urban development in Zagreb.

The constant lack of understanding between professionals, such as architects, art historians, and historians, on one side, and the government and local authority on another side, has been occurring since the independence of Croatia. The real issue here

is if we lost the most important monument of industrial heritage, what is going to happen with others.

4.6. Why a museum of photography in Croatia and why in industrial building?

The purpose of this chapter is to show the state of photography medium and show in what is the present state of industrial heritage in Croatia.

In spite of a long tradition and heritage that was finally created after many years, there is still no institution dedicated just to photography. In an interview, Petar Dabac, gave an interesting fact why it is important to have a museum of photography. He told me: *'What is going to happen with my legacy? Who is going to take care of it? From my experience, taking care of 40 years work of Tošo, I need two more lives to manage to do everything, because everything what I done, I have done it alone'*¹¹⁸. This is a perspective of a photographer who has a long photo career and big experience of taking care of a photo collection. In his proposed plan for a museum he emphasized that it was very important to have an institution in way of museum or center of photography because we need professional staff to manage it. Photography is not neglected in Croatia, as can be seen in museums such as *Museum of Art and Crafts* or *Museum of Contemporary Art in Zagreb*. But despite collections in other museums, if we have a big collection as the case is with Petar Dabac, a collection that includes negatives, vintage master prints, photo equipment, and a collection of another authors, the logical conclusion is to have a space that would be used only for photography. The same problem occurs with the legacy of Marija Braut, who unfortunately passed away last year. For her heirs, the problem is institutions and their way of handling her collection.. If there was a museum of photography, the problem would be solved. Another issue is that without a central institution for photography there is no space for developing new generation of photographers; there is no center point of gathering, practicing and exhibiting new works of photography.

¹¹⁸ Interview with Petar Dabac, 25.7.2016, done by Nevena Ilić

At the same time, Croatia had a factory *Fotokemika* which over the sixteen years produced all equipment for analog technique photography. Just a few years ago, it stood as a very rare example of analog photo industry that was still in business, but in the era of digitalization, and low demand on the market, it closed its doors in 2012. Fotokemika, like Kodak and other photo giants, is going to oblivion very fast.

In the overview about the state of industrial heritage in Croatia, it is obvious that it is neglected with no improvement of protection and not enough examples of reuse. The question that I am raising here is what is going to happen with the closed factory *Fotokemika*. Just recently, I find out that the property with the factory building is in private ownership. Now, the situation for its protection is even more complicated, because by the *The Law on the Protection of Croatian cultural monuments* the first step for protection is that the owner should give request for the protection of monument.

My proposal in this thesis is to make a conceptual plan for the adaptation of closed industrial unit to museum of photography. Why a museum of photography in Croatia and why in industrial building?

If we look at the global prospective, analog technique and process are in the phase of disappearing but cultural institution still do not recognize this as a heritage in danger. In Chapter II, I tried to emphasize why it is important at this time to put analog photography in the process of safeguarding. From another point of view, after a new definition museums are going through the process of change. Concept of *Fotokemika as a museum of photography* should combine the form of industrial museum with a 'live' museum based on *Fojo project* and in that view create a new concept of museum of photography.

On the national level in Croatia there is a problematic lack of the institution dedicated to photography on one side, and on the other side there is a problem of industrial heritage and the tools for its protection. In the concept of factory reuse by converting it into a museum this is a solution for saving the tangible and intangible heritage of Fotokemika factory and creating a central point for developing the new photography scene.

In the next chapter I will give a historical overview of the factory and give points of valorisation why legacy of the factory should be announced as heritage.

CHAPTER V - HISTORY AND HERITAGE OF FOTOKEMIKA

Le chapitre cinq s'applique à une histoire de l'usine de Fotokemika et détaille son patrimoine matériel et immatériel. Le but est de présenter l'usine dans le contexte régional et de voir son influence sur le développement de la photographie dans toute la Croatie.

5.1. History and chronology development of Fotokemika

In former Yugoslavia, after the Second World War and on wings of major renovation changes in all aspects of society occurred. The strongest part of renewal was the development of new industry which had been a pillar support and example of new progress.

Industrialization of the country became the leading branch of economy. In that period new industries developed, unknown before the war: the production of machinery and equipment, shipbuilding, radio industry, oil refining and production of cars. In categories of new industry Yugoslavia got a photo industry *Fotokemika* factory.

In the first edition of the magazine *Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira* (*Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper*) in 1954, in the introduction part, they wrote: *'Photochemistry industry, as the industry of plastic materials, is now in line with those industries whose development in our country begins just after World War II. Production of photo material is sensitive complicated chemical and physical-chemical processes with the use of fine and expensive inorganic and organic chemicals. Production risk is therefore great so it becomes clear that only a small number of countries, whose industry is on high level, boast a developed photographic industry. Developed photo industry only existed in Germany, Belgium, England, France, Italy, the USSR, USA and Japan.'*¹¹⁹

¹¹⁹ *Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira* (*Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper*), broj 1, Zagreb, 1954, p. 2

Despite the fact that almost all listed countries had a photo industry before the war, there were rumours in history that *Josip Broz Tito*, a long time president of Yugoslavia, pushed the idea of founding the photo factory because he was very interested in the field of photography, and was a very passionate photo amateur. Two years ago, the exhibition, *Tito, photo amateur* was held in Croatia and Serbia, since around 30,000 photos on a Leica-format and two hundred Polaroid photos done by Tito have been found recently.

Gossip or not, in 1947 Croatia got *Fotokemika* factory by merging the companies *Foto* and *Ozachel*. With the affirmation of Photo Club Zagreb in 1930s and the development of photography manufactures, increased of traffic and expenditure of film for photography, photo paper and chemicals for processing, the idea of starting the industry for production of photo materials in Croatia emerged.¹²⁰ Already in 1936, company *Ozachel* produced *diazo* paper, photo sensitive paper, made by diazo emulsion. Because of the big interest on the market, especially after the war time, it was hard to get photo materials. Because of that reason another company was established called *Foto*, in 1945. Besides papers and experiments in film production, in description of their mission was the production of other equipment required for photography – made out of wood, leather, resin and other materials and, furthermore, the company would make enlarged photographs and postcards.¹²¹

After the war time in former Yugoslavia, all private companies had gone through the process of nationalization in 1946, so both companies at this point were state ownership. By the proposition and the decree of the Ministry of Industry and the main direction of the chemical industry of NRH¹²², the merge of companies *Foto* and *Ozachel* occurred, and it was then called *Fotokemika*. The opening ceremony of the new factory of photo paper *Fotokemika* happened on November the 10th 1947 in Zagreb. All facilities and

¹²⁰ Croatia photography of the nineteen fifties to the present. Development *Fotokemika* from 1947 until today, catalog of exhibition, Muzej Suvremene Umjetnosti, Zagreb, 1993, p. 6

¹²¹ Ibidem

¹²² NRH is short name of Narodna Republika Hrvatska, official name of Croatia, when was a part of former Yugoslavia

equipment had been constructed by the employees of Fotokemika, and the emulsion recipe had been provided by *Dr. Plotnikov*.¹²³

An idea of creating a larger company started as an initiative of the group of photographers and professional in the field of photography, and was led by *Viktor Riedl*, who was to become the first director of Fotokemika. Beside Riedel, who was enthusiastically pushing the project, engineer *Maks Plotnikov* and his chemistry knowledge was a base on which factory started with production. It is interesting that both of them published books about photography in 1946. Ridel published *Foto priručnik (Photo manual)* and in the introduction part there was an interesting text which described the level on which he was promoting photography. He said: '*This book is intended for all those who deal with the photo shooting. Especially beginners will find there everything they need to do it without major difficulties. And advanced amateurs will also find there are many things that they previously known. Even the professional photographers, can took this book for advice.*'¹²⁴

To continue the philosophy of *Foto* company, Fotokemika was still continuous making progress in work on producing photo equipment. In 1947, first domestic camera was made – *Tehna I*. During that time Fotokemika is also producing photo equipment, such as stands, retouching desks, photo presses, frames, boxes for negatives and other.¹²⁵ Even it was opened a special part of company which workshop was in Ilica 61, in center of Zagreb. Finalizing of the previously started work on the construction of the first *FK box* camera 6x9 cm has happened and its production began. In just one year, in 1949, 5961 of these cameras have been produced.¹²⁶

Soon after the first factory was opened in Zagreb, success was guaranteed. Because of the very big interest and the lack of materials, factory started to produce a lot of photo

¹²³ Croatia photography of the nineteen fifties to the present. Development Fotokemika from 1947 until today, Op. cit., p. 6

¹²⁴ Riedl V., *Foto priručnik*, Nakladni zavod Hrvatske, Zagreb, 1946, p. 8

¹²⁵ Croatia photography of the nineteen fifties to the present. Development Fotokemika from 1947 until today, catalog of exhibition, Muzej Suvremene Umjetnosti, Zagreb, 1993, p. 7

¹²⁶ *Ibidem*

papers, for example just in 1948, 334323 square meter of photo paper and 145.156 roles of *diazo* paper was produced.¹²⁷

Once it had been clear that the photo paper industry was successful, the idea of film production factory started to emerge since film was the second assortment in deficit for photography in that period in Yugoslavia. Already in 1948 the management of the chemical industry in NRH decided to establish the *Office for Construction of the Film Factory*. The management of the factory and technical management were located in Heizelova Street in Zagreb, in the offices of the chemical industry *Iskra*. That same year the construction of the film factory began in Granešina, Zagrebačka Dubrava. Due to some legal issues regarding the land, the construction of film factory had stopped in Zagreb, and new factory started construction in Samobor, a town only 25 kilometers from Zagreb. In the interview published in *Fotokemika* magazine from 1994, *Ivan Jerman*, who was the General Director of *Fotokemika* from 1952 to 1964, explained that the factories of photo paper and film could not be in the same building since the flammability of nitrocellulose substrate, which was then used in production of films, would be a major issue. But the interesting fact, mentioned in the same interview, was that they had done an experimental facility inside a photo paper factory since it was required for the testing for the future industrial plant in Samobor. He mentioned that machines for the testing were done by German engineer *Bartsch*, who was a prisoner after the war, and stayed in Croatia after he got released.¹²⁸ This was the probable connection, how was done the first machines in Samobor's plant. It has to be emphasized that each factory of photo industry had unique machines made by engineers in the field of mechanics. And this information is very important in the history of *Fotokemika* because in archives material there is not any specific piece of information on how the first machines were done. This information opened the field for further research.

In 1952 the industrial plant specialized for the film production was opened in Samobor. Workers and experts who worked and educated themselves in *Fotokemika* Zagreb

¹²⁷ *Ibidem*

¹²⁸ *Efke*, list dioničkog društva *Fotokemika* (*Efke*, magazine joint stock company *Fotokemika*), broj 2, Zagreb, 1994, p.9; Interview with Ivan Jerman done by Leon Kauzlarić

started to work in the facilities in Samobor. Within this major industrial facilities *Photo optical department of the Institute for industrial research* existed which was going to be separated from Fotokemika in the later years, and with this separation the production of photo cameras had ended, and *Research institute*, later *Institute for research and development*, would play a big role in further development of the domestic production of photo materials.

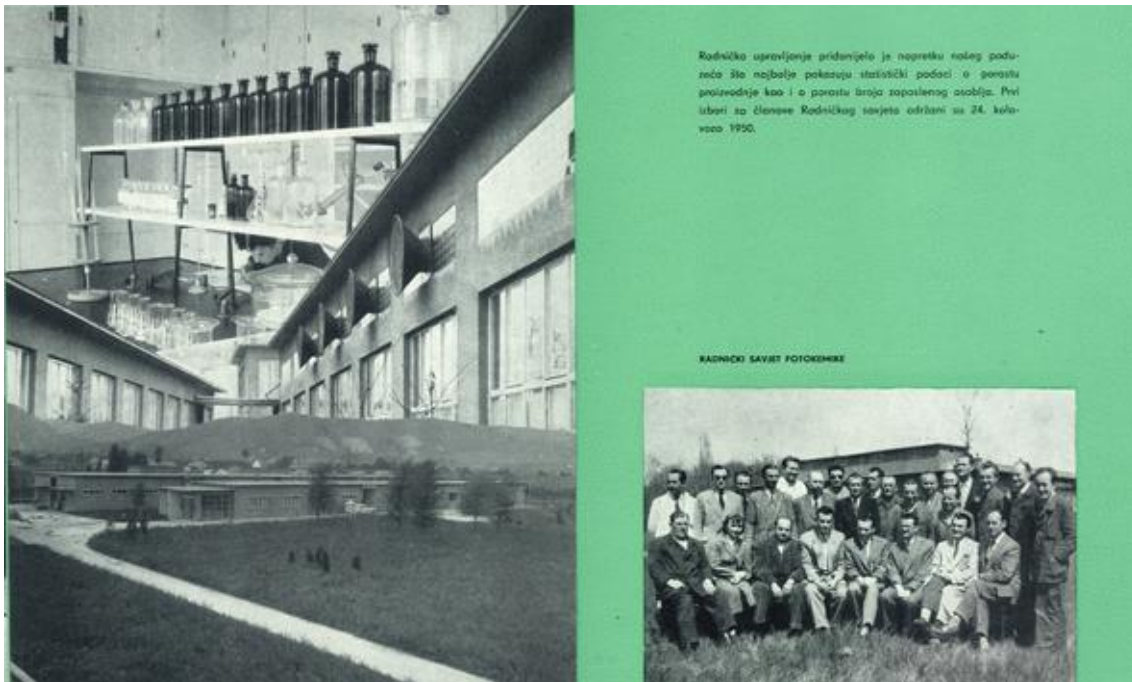


Fig. 18. New building in Samobor and works council 1950

Source: www.thefotokemikaproject.com

Something that was started from an idea of creating a small production, needed for development of photography in Zagreb and the territory of Croatia, became in just a few years a large industry that supplied first the Balkan countries and later expanded to an international supplier. In the years, after the opening, the number of workers grown up from 41 in 1947 until 627 in 1957.¹²⁹ In the magazine number 3 from 1955, *Milan Pavić*, well known photographer, was writing a report from Turkey in which he was talking about the two biggest photo agency that were using on a daily basis

¹²⁹ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 11, Zagreb, 1957, p. 15

Fotokemika paper *Fokembrom-Extra*.¹³⁰ This information is important if we look at the time frame and the fact that Fotokemika was producing paper for just a few years.

There were some of the leading names from the chemistry world working in Fotokoemika such as *Maks Plotnikov (1909-1954)* and *Ivan Jerman (??-??)*, and Ivan Jerman was, in the period of 1950s, the director of chemistry industry in Croatia and later director of Fotokemika and him, and a team of experts, improved photo materials on a world level and created a brand *Efke*, that had a famous campaign done by *Josip Sudar (1923-2004)*, who was considered a pioneer of marketing in former Yugoslavia. Thanks to him and designer *Dušan Bekar (??-??)*, it was made a public image of factory, with the logo of the factory nicknamed *Efkić*, like a personalized name of the brand. In that period Sudar invited a lot of names from the art world to cooperate in visual branding of Fotokemika, from which the most important was *Alaksandar Srnec (1924-2010)*, an *avant-garde* artist and a member of EXAT51 group.

Period of 1950s and 1960s was marked as a '*golden era*' of Fotokemika, since the company could compete with the big names from the photo world like Kodak, Ilford and Adox, with which it is going to collaborate in the later years. After the war in Croatia in 1994, Fotokemika was privatized and continued working until 2012.¹³¹

5.2. Fotokemika - story of one place, story of one time

It should be emphasized that for the processes in photo industry it is important to have professionals in the field of chemistry and engineers in mechanics who could construct machines for the process of producing film and paper. The leading name in chemistry at that time was *dr. Maks Plotnikov* who had done major experiments with photo emulsion in a company Foto, and later continued his work in Fotokemika. Also, company Ozacel started the production of diazo paper already in 1936 in Zagreb. In that period the company was owned by German experts, and later the know-how was passed through to the workers from Croatia. The mechanism of the machines from that time was company

¹³⁰ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 3, Zagreb, 1955, p.15

¹³¹ The chronology of Fotokemika factory from 1947-1990 is in a part of annex.

unique, for example Kodak or Ilford had machines that could produce only their own material. When those types of machines were developed in the factory in Samobor, which was specialized in the field of film production, the machines were constructed in mechanical workshop in the factory, which was a part of the factory, the same as a research laboratory in chemistry.

Because of this 'secret' knowledge that was characteristic for the photo industry, from the very start of the company, Fotokemika was sending people to training outside Yugoslavia, but also immediately after the construction of the film factory in Samobor formed a special school for the training of professional staff. In the second edition of the factory magazine, it was written: *'Since the production of films is an unusually sensitive and the quality depends on many factors, in addition that most of the production takes place in an entirely dark, ignorance, carelessness, negligence, etc., can cause enormous damage, or waste materials, which largely cannot regenerate. Therefore already in 1949, immediately after the start of construction of the film factory, a special school for the training of professional staff was formed. After three years of learning and practicing of one-year ended 22 participants out of 45. Those workers with the other experts of the company make up the core of professional staff of our factory.'*¹³²

As seen from the above mentioned report, the management of the factory was fully aware of the importance of quality and that this quality depended on the education of all workers, the management as well as workers in the plant. From year to year, Fotokemika educated new generations, and it was quite common that entire families, such as father, son and daughter, worked in the factory. In one of interviews that I had with ex workers, it was a case of wife and husband, *Anastazija and Zlatko Jelečki* worked in period of 1960s until 1990.¹³³

Due to frequent changes in the photo industry, that period was marked with constant education of skilled and highly-skilled employees. Most courses in 1950s were held in *Radničko Sveučilište Zagreb (Workers University Zagreb)* that was formed after the

¹³² Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 2, Zagreb, 1955, p. 12

¹³³ Interview with Anastazija and Zlatko Jelečki, 1 August 2016, done by Nevena Ilić

Second World War as an institution in which people could be trained in many areas from art to economy. It was an alternative solution for short term courses designed to offer an educational upgrade instead of university education. On one of such courses workers from Fotokemika factory, in 1954, 30 of the skilled workers, were listening to classes on Croatian language, constitutional, economic and labor law, base chemistry and inorganic chemistry, organic chemistry, mathematics, technology and industrial systems. Parallel, seven workers on the level of highly-skilled went to specialized classes in chemistry.¹³⁴ Next step in educational direction was an organization of professional colloquium that was held once a week in the lecture hall of *Institute for research and development* within the factory in Samobor. It was obligatory for all engineers and included professors who worked in factory that presented their work research, and sometimes it technicians would present their work, guests from similar professions, students from universities, and even departments of account and legal offices depending on the theme of the colloquium. The Content of weekly colloquiums was always divided into three directions: lectures about research works with discussions, lectures of higher positioned professionals in the field of chemistry, and analysis of articles in other professional magazines in the field of photo industry and photography. The evidence of such research can be found in the magazine of the factory. In every issue, with the title *Interesting news about photography* there were news from the photo world, with subtitles like: *Photography on long distances, Largest negative in the world, How can one make a three-dimensional image, Mechanical retouching negatives, Color photography, History of photography, Report from photography Biennial Paris, 1955, etc.* Sometimes in magazine chemistry engineers Fotokemika wrote about the technique improvements and presentation of some problems in the field of chemistry, like a result of Institute of research. That t direction includes articles like: *The development of the department for the production of chemicals, Developers, fixers and other photographic chemicals, Research in the field of sensitizers, Barite-raw material in the production of photographic paper, etc.*

¹³⁴ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 3, Zagreb, 1955, p. 17



Fig. 19. Research laboratory in Fotokemika, 1950s

Source: www.thefotokemikaproject.com

Educational character of the company resulted in the creation of a library with scripts for professional examinations of photochemical profession, usually done by professors who worked in Fotokemika Research Department. After some period, the library expended in a so called syndical library with roman and novel editions, and for example in 1954, a library received 179 new books, with statistics that 248 persons used books in that very year, so it was proposed that the library should employ one full time worker that could be available to all workers at any time.¹³⁵

Besides professional education, the factory was providing workers with many activities for their free time. There were different sports clubs. One of the biggest was a table tennis club, which had a hall inside the factory for training. Other sports activities included football, basketball and volleyball with playgrounds inside the factory yard. Outside the factory there were cycling and bowling teams which represented Fotokemika in competitions. It was common practice to have competitions between teams from factory units in Samobor and Zagreb. The hiking section was quite strong, Maks Plotnikov was a hiking lover until his tragic death on an expedition in the Swiss

¹³⁵ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 2, Zagreb, 1955, p. 23

Alps in 1954. Today, one of the biggest mountaineering association in Croatia is named after him.

Also, many different classes were organized, like for example in foreign languages. In magazine number 3, from 1955, there was an article about language classes, and it said: *'As for learning foreign languages, especially English was very popular among our colleagues, syndicated subsidiary of our company, organized an English course in two groups, for beginners and advanced, and it's free. There is a lot of interest in the courses, and the number of participants has been increasing, and now these two courses are based on 25 participants. Classes are held separately for each group and for two hours a week. There is also in a course of the international language Esperanto for which there is also great interest.'*¹³⁶

To actually see the whole story of Fotokemika the best source of information, and the only one that exist today, is magazine *Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper)* which was publish each month from 1954 until 1994. The magazine featured various topics from the field of photography and a newsletter featuring news from the factory. The editors and authors of articles were employees of the factory, and among them a lot of texts were written by *Josip Sudar*.

To see how the editorial of the magazine was thinking, here is one proclamation of magazine in which the editor is inviting all members of Fotokemika to write, and why is that important.

'A few words about cooperation in factory magazine

In previous issues of our magazine, we invited all the members of our staff to cooperate in our magazine. We must recognize that the response was large, but not so big to be completely satisfied.

¹³⁶ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 3, Zagreb, 1955, p. 10

Many colleagues have promised cooperation, which will be visible in the next issue of the magazine. Some, however, were reluctant to cooperate on the grounds that they are not educated enough for writing. For those who cannot decide to write, we recommend the following: writing for our magazine does not mean to write thesis, PhD thesis or scientific work. We are seeking simple collaboration, writing in a way that can write any employee of our community. Anyone may write according to their knowledge and abilities. Everyone can cooperate: not only employees with university education, but also workers with primary education.

We expect engineers and technicians to cooperate in the field of production, product control, and research in the field of chemistry, photochemistry and photography. From economists, salesmen, accountants we expect cooperation in the field of financial and commercial expertise. From workers we expect their views on various issues of our company, the union and our social organizations. Of all the members of our collective we expect articles on social and economic thematic. Everybody can write, short news and information, or articles and discussions.

In our magazine it is permitted to state criticism, expressing your own views and proposals. Therefore, we accept cooperation in this direction as well.

It is our wish that the magazine becomes newsletter of entire work collective, and therefore we expect the cooperation of the entire team.¹³⁷

In the end, everybody was writing, even sometimes in the direction of criticism. With this kind of thinking they created a magazine in which it was possible to read between the lines. They give the reader from today's perspective a whole story. Fotokemika wasn't just a factory that produced equipment for analog photography. They lived that photography, as seen from magazines, were writing about new developments, they lived in that enthusiastic way, writing about history and the meaning of photography, and in the end, they lived and practiced it. In number 5 magazine from 1955, there was a

¹³⁷ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 3, Zagreb, 1955, p. 4

very interesting article about that topic, even a little bit funny. The title of the article was *All Fotokemičari have to learn to do photography*. To make it a little more clear *Fotokemičari* was a Croatian nickname for the persons that worked in Fotokemika. In that article, the workers who were members of *Amateur Photo Club Fotokemika* wrote a little bit of an angry notification to all workers in which they said that they have classes for beginners in photography, and that is very sad that after four months of lectures and even then there were workers working in photo industry that did not know how to take photos. By the end of the article they strongly emphasized that their mission and goal was to teach all employees to be great photo amateurs.¹³⁸

Photo Club was working the magazine a lot with, both by contributing texts and, of course, almost each photograph was done by the members. Every monthly cover was a photograph that was done by one member, and was even paid for with a small amount, something like a reward, but it was also quite prestigious to be published in the magazine.

The work of Amateur Photo Club Fotokemika in the context of other amateur clubs in Yugoslavia, and the influence of factory on the developing field of amateur photography is the subject of the next title.

¹³⁸ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 5, Zagreb, 1955, p. 24

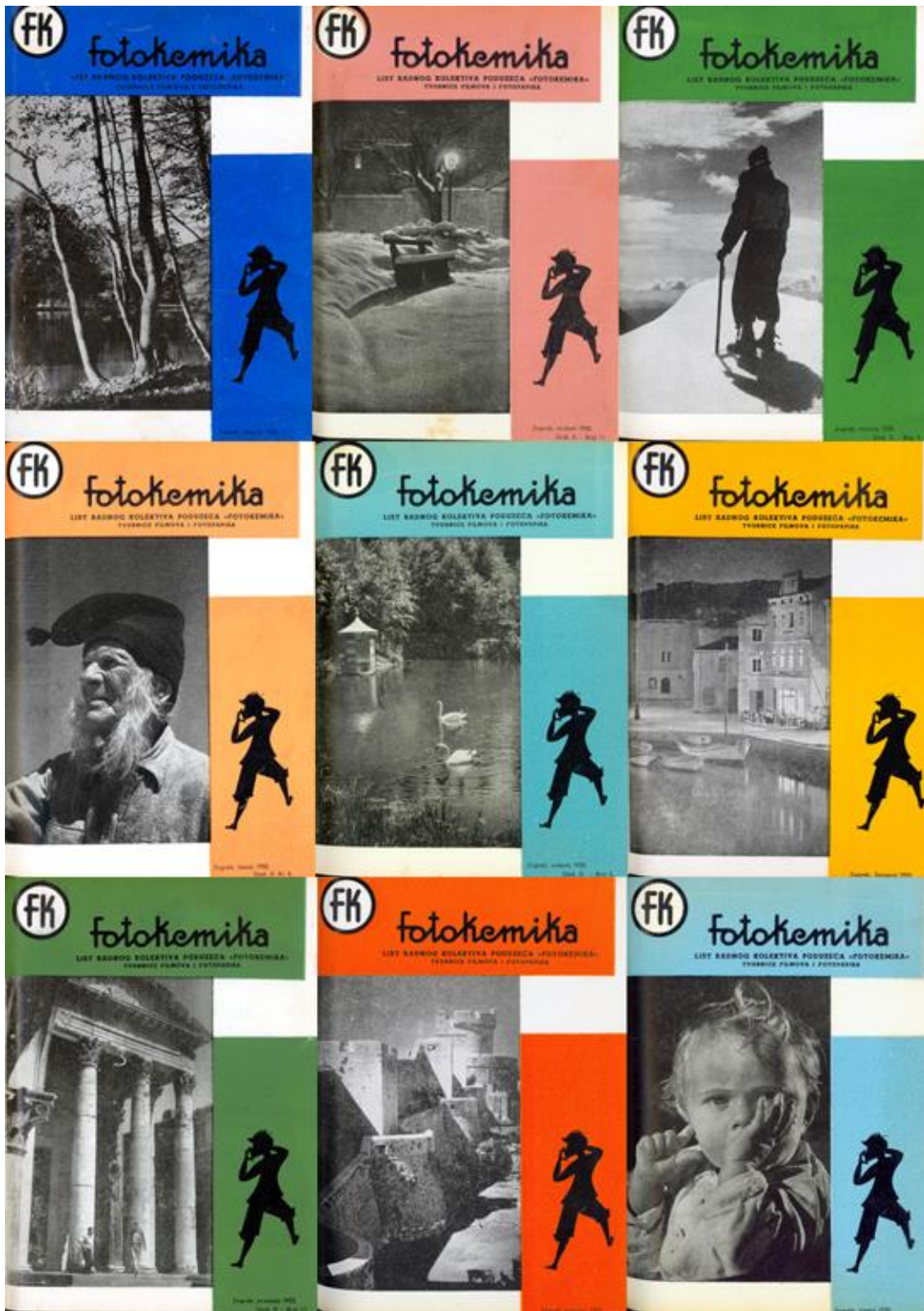


Fig. 20. Covers of Fotokemika magazines 1954-55

Source: Private collection

5.3. Fotokemika's impact on the development of amateur photography in former Yugoslavia

When Fotokemika was formed, the leading persons were aware that the part of their market was going to be amateur photographs; they were even aware that they needed to promote amateur photography through education that can bring them new customers and new market.

In 1955 *XI International Exhibition of Photography was held in Zagreb* with works from 28 countries from all around the world. This event, in the context of that time, was the biggest event in all Yugoslavia in the field of photography. Fotokemika was a part of that exhibition, in a way of giving papers for prints for domestic authors and giving rewards in materials (this was the first official collaboration with Photo Club Zagreb), but, what was more important, Fotokemika had a promotional booth with materials. It is important to quote this sentence from the magazine number 5: *'Our company has set up a promotional booth in the central part of the exhibition in order to get in touch with the direct consumer-photo amateurs.'*¹³⁹

For that occasion they prepared a booklet called *Tips for photo amateurs*, which was free, including the editions of the factory magazine. Every 200th visitor received a present - EFKA film 6x9, and every visitor received a free postcard with the inscription: *'Greetings from the XI International Exhibition of Photography'*. For the exhibition day they enlarged photography to dimensions 3x3 meters, what was very rare for that time. They evoked a lot of attention and started to build the network with provincial amateur photo clubs, which was very important for promoting factory materials from one side, but also spreading photography to become a daily habit, what will be show through marketing campaigns done by Josip Sudar.

Fotokemika achieved another step in promoting amateur photography by connecting with clubs in different cities in former Yugoslavia. Just as a remainder, it is important to say that clubs had long tradition and that they were central points for the development

¹³⁹ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 5, Zagreb, 1955, p. 15

of photography. After the Second World War, amateur clubs were still the places and big centers that spread photography and made it available and affordable for anybody who wanted to do it. It should not be forgotten that this is the period after the war time, when there was a great repression on the global level, and photography was still an expensive 'sport'. There was lack of materials, cameras, places for developing with dark rooms, and also a lack of knowledge.

In the period of 1950s, the roof institution for amateur photography was *Union of photo and film amateurs Yugoslavia*. In first congress held in 1955 in Novi Sad, they elected *Josip Bosnar* as the president and *Ivan Jerman* as the vice president, at that time the director of *Fotokemika*. In one letter Bosnar wrote to Jerman: '*Congratulations on your selection, we are convinced that your cooperation will be significant benefit for the work of the Union, because it will represent strengthening of our photo industry with appropriate community organizations.*'¹⁴⁰

After that the direction of collaboration was going in that direction. *Fotokemika* was providing materials, sometimes for free, and sometimes with very low prices for practicing in shooting and developing in dark rooms. They also published *Tips for good photography*, along with the booklet *Tips for photo amateurs*, which they gave to amateur photo clubs and their members for the purpose for promoting photography. In the bulletin of the *Union of photo and movie amateur club of Croatia* number 6 it was written: '*Cooperation of Fotokemika and our Union was felt in giving aid in a form of various scrap materials at lower prices, in which our organization benefits in training courses for members, for what we felt the need before because our organization stood bad in terms of materials...Fotokemika will in short time publish Manual for photography, which will be available at a minimum price to all our members, and it's going to be very useful for practical work, and courses for beginners and advance photographers.*'¹⁴¹

¹⁴⁰ *Fotokemika*, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 2, Zagreb, 1955, p. 8

¹⁴¹ *Fotokemika*, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 11, Zagreb, 1955, p. 16

Another step in promoting amateur photography was the formation of *Club of Photo and Kino Amateurs Fotokemika* within of the company. Their mission from the beginning of their work was to promote photography in the field of practice, but in theoretical approaches as well. To manage that the goal was to organize many courses for beginners, amateurs, but even for advanced photographers. They considered that knowledge of photography medium would help every employee to understand the nature of their work in photo industry better.

The first club was inside the Zagreb factory, and was later in Samobor as well. The club had all the equipment required for doing photography, from cameras to all needed materials for developing in dark rooms. The activities of the club can be seen through the organization of exhibition. In 1955, they organized big exhibition with members of both factories. To see the significance of this exhibition, it is important to say that the jury had two very famous names of Croatian photography at that time; *Tošo Dabac* and *Milan Pavić*. One of the members of the jury was also *Josip Sudar*. The exhibition had a competing character, and the reward was best Fotokemika papers. For a small photo club this was a great event. The evidence is the presence of representatives of leading figures from the photographic field, such as the president of the Photo Club Zagreb, representatives of the photo shop in Zagreb, and the representatives of the photo department of the *School of Fine Arts*. Even some great photographer names like *Mladen Grčević* came, and wrote a comment in the book of impressions. He wrote: *'Congratulations to the collective Fotokemika on a successful exhibition. The exhibition documents the love and proper attitude towards photography and I believe that now the road is paved for the progress of Photo Club Fotokemika, of which we will certainly hear more in public. I recommend, that in future exhibitions organized by the Union of photo and cinema amateurs, Fotokemika competes with best authors.'*¹⁴²

Soon after members of Fotokemika club started to exhibit on another exhibition, organized by clubs in different towns in former Yugoslavia.

It is important to note that in the period of analog photography, and especially after the war when on a global level the photo industry was still developing, to be a photographer

¹⁴² Idem, p. 12

was not just to take a camera and shoot. Even so called '*idiot cameras*' of analog photography started to be in popular from the seventies of the last century, and those cameras are most similar to cameras we are using today. That was the time when someone who wanted to take the photos needed the knowledge how to take it, even how to put the film and how to reroll it. In the period of 1950s it was like that for a lot of people, since photography was still just for the professionals or for the rich that could afford everything for the process. This is why amateur photo clubs were so important.

Because of all of these reasons, it is important to emphasize the role of Fotokemika in that period. Obviously, the leaders wanted to make photography closer to 'ordinary' people. They did it by publishing simple guides that would help people to understand photography. Also, in that period, there was a lack of literature about photography. One issue of the magazine featured a request from one student asking if he could get Fotokemika publication, booklet and magazines, because he found them very interesting for upgrading his knowledge about photography. He emphasized that he was sending this letter to the since there was a lack of literature about photography in that period.

Fotokemika found the channels for the promotion of photographic values and knowledge in amateurs clubs, central points of spreading photography. It can be said that Fotokemika came in an important period for developing amateur photography; in the after war crises they made it available for everybody. The influence of the existence of the photo industry on amateur and even artistic photography in former Yugoslavia requires more research. But from my perspective, a person who grew up in 1990s, as a part of the last generation that used analog photography and learning black and white technique in dark room, the only place we could do it for free, what was very important for a teenager, were amateur clubs that used Fotokemika materials. Sometimes we wanted Ilford, but only because we were spoiled and thought that it was better because it was expensive, but we all grew up on Efke films and papers. From today's point of view, I think that without Fotokemika I couldn't do photography in that period. I was in high school, without income, and all I could afford from parental pocket money was Efke film which I was developing in a club. And there were a lot of people like that in the period from 1950s to 1990s.

5.4. Avant-garde design and marketing strategy of Fotokemika

For many years on the main square in Zagreb stood a big neon sign, a logo of Fotokemika as people called it *Efkić*, a personalized name derivated from the Efke brand. This sign of a person who holds the camera ready for shooting became the symbol of the city's main square. When the factory was closed, the sign, the trademark of square, was left to oblivion.



Fig. 21. Efkić on Zagreb main square, 1965

Source: Private collection

The recognizable logo was created by Josip Sudar and Dušan Bekar, a team of a propaganda expert and a designer. This team was responsible for many propaganda campaigns, and they created a public image of Fotokemika in 1950s.

Josip Sudar graduated on the *Faculty of Economy in Zagreb*, at he is considered a pioneer of advertising not just in Croatia, even on the territory of former Yugoslavia. As a top propaganda expert he had created campaigns for many enterprises, and among

them was a Fotokemika in which he stayed from 1953 until 1966 when he dedicated his life to a career of a university professor. Besides economy, he studied acting and directing. He directed one of first cartoons within famous *Zagreb School of Animation*. Probably this artistic line inside of him marked the propaganda campaign that he had done for Fotokemika. Also, he was much more than just an employee of Fotokemika building his career in photo industry. He was a passionate photographer always involved in other factory activities. He was a common member of the jury in the exhibition of Fotokemika amateur club, and was a part of jury for *XI International Exhibition of Photography*, back to back with most known Croatian photographers of that time *Tošo Dabac*, *Mladen Grčević* and *Milan Pavić*. He invested efforts for Fotokemika to amateur clubs and art exhibitions. In the bulletin of *Union of photo and film amateurs*, they wrote a special thanks to him, because of their good collaboration. This was the path of his propaganda, in that way his propaganda was going, with a hidden motto, but yet distinguishable, *'photography for everybody'*. In an interview in Fotokemika magazine from 1995, he explained how he came to idea of Fotokemika logo and what the logo should represent. He said: *'My basic idea was to show, through visual presentations, a little boy (but it is not define whether it is male or female character), that taking photos is a simple thing, that anyone can do it'*.¹⁴³



Fig. 22. Fotokemika logo

Source: Fotokemika magazine, 1954-1955

¹⁴³ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 2, Zagreb, 1995, p. 9

In Fotokemika magazine he wrote a lot of articles on the subject of advertisement. In the second number he explained why it was important to have a logotype and what that means, even doing analysis of Efke brand. He wrote: *'Due to rapid development of industrial production was created the need that each item have to be marked either by name or trademark for the purpose: to protect producers and a consumer from possible forgery, the distinction of the same or similar products, quality assurance, guarantee for the marked quantity and quality'*¹⁴⁴ In further text he explains that trademark or logo should be short or, in case of logotypes, visually strong. He further explains that the name Efke was good, like a name of the factory Fotokemika. But compared with other brands in photo industry like Kodak, Agfa, or Ilford, it was better because it represented the name of the factory and the brand together.

In creating a public image he wanted, in the first phase, to create an image that photography was available for everybody. Many of his propaganda slogans were playing on a family card, with titles like: *Photos are one of the best memories in life, and therefore shoot everything that you want to save!, Today, tomorrow-you will be glad to find an image from childhood in an album, In the summer and in the winter, with EFKA film shoot your baby, Shoot, because shooting is giving you joy and happiness, Enjoy life, shoot! Stop the time... Shoot!*¹⁴⁵

Radoslav Putar, in a catalog *100 years of photography in Croatia (1840-1940): 20 years of Fotokemika* from 1967, made a very interesting conclusion about the advertisement policy in Fotokemika, he wrote: *'Advertising in Fotokemika is done with very careful attention. Printed propaganda media: posters, display cartons, catalogs and similar elements in the first row are clearly legible and addressed in that way that determines their meaning. Message tone that radiates from posters is tuned so that it acts on the emotional parts of the sensitivity of eventual consumers, and that the tone in terms of contemporary needs and understanding is painted with good measure of humor.'*¹⁴⁶

Exactly that was Sudar doing in his messages, playing with humor, memories, joy, happiness and life; formula that guaranteed success.

¹⁴⁴ Idem, p. 11

¹⁴⁵ Collected slogans from the magazine Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), from 1954-1955

¹⁴⁶ Putar R., 100 godina fotografije u Hrvatskoj - 20 godina Fotokemike", MUO, Zagreb, 1966, p. 15

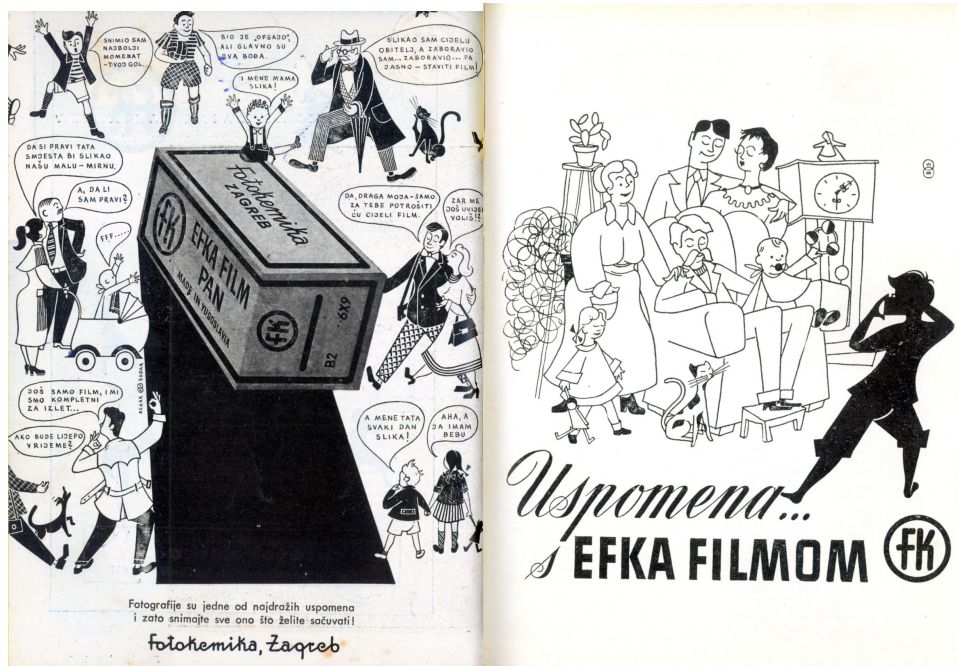


Fig. 23. Advertisement campaigns done by Josip Sudar and Dušan Bekar, 1955

Source: *Fotokemika magazine*

One of that evidence is creating a game similar Don't be angry!, with the subject of photography. On a cube instead number six was a simbol of Fotokemika, Efkić. This Sudars idea amazed even marketing experts from Kodak.¹⁴⁷



Fig. 24. Fotokemika game done by Josip Sudar and Velimir Vrbos

Source: *Museum of Arts and Crafts, Zagreb*

¹⁴⁷ Efke, list dioničkog društva Fotokemika (Efke, magazine joint stock company Fotokemika), broj 2, Zagreb, 1994, p.9

Beside the fact that he was the brain behind the public image of Efke, in magazine number 3, he wrote a text about commercial photography and how to use it in propaganda. Considering the time when he worked, the 1950s, he was in fact right when he was saying that photography was a strong tool for propaganda; with quoting the phrase 'image is speaking a thousand words'. He was also criticizing the current situation in domestic companies by saying that photography didn't have enough space in advertisement campaigns. What is interesting, he was advising on the use of collage photography.¹⁴⁸ In later cases of commercial posters of Fotokemika, this is going to be a distinguishing mark of Fotokemika's visual aesthetic, graphic design and photography in one.

Another important figure in the branding of Efke was *Dušan Bekar* who was responsible for the visual part. First of all, he made a logotype, a distinctive vision of a young man holding a camera. This logo had not change from the period when it was invented, from 1950s, until the closing of the factory. He and Sudar did all the visuals for the propaganda in 1950s, and almost all in 1960s. Along with his advertising work, he created all the graphic design for the production of articles. In that case the visual was done a little bit different than in the propaganda design, which was more like logans, made more with the aesthetic of comics and cartoons, to invoke human sympathy. Bekar graphic design for products was more in aesthetic of geometric abstraction, which was very dominant in the field of painting at that time.



Fig. 25. Dušan Bekar design for commercial poster, 1960

Source: Museum of Arts and Crafts, Zagreb

¹⁴⁸ Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 3, Zagreb, 1955, p. 5

That was concluded by *Andrija Mohorovičić* in *The Tourist Poster in Croatia, 1925-1988*: ‘*Graphic layout of the time was very surprising regarding its quality. The public audience received a very lively communicating with visual propaganda. Although modern painting was very difficult in finding their way, the graphics was a lot less painful launches contemporary currents. It was a new medium that was not treated with traditionalist approach to the public, and it was allowed and expected innovation in every way. Thus, in 1950s, graphic design was present as a carrier of current art currents from pop art to abstraction.*’¹⁴⁹

In that direction the work of *Aleksandar Srnec*, avant-garde artist, for *Fotokemika* should be mentioned. *Srnec* was one of the members of group EXAT 51, with aesthetic was marked with pure geometric abstraction and in manifesto they proclaimed the idea that there was no difference between so the called pure and the so called applied art. One of the key guidelines of the group’s activates was the notion of ‘synthesis’, which not only criticized the semantic field of the political introduced notion and practice of ‘applied art’ from the late forties, but also introduced an encompassing practice of shaping the environment, reaching from gallery art to visual communication.¹⁵⁰

In the spirit of the manifesto, other members of the group, such as *Ivan Picelj*, *Vladimir Kristl* and *Boždira Rašica*, synthesized their artistic expression in both directions, so their work includes a vast production of posters and artistic expression in the direction of visual communication. *Srnec* in the period of 1950s until the 1970s did a lot of work in the domain of graphic design. He created a large number of posters for museums, galleries, concerts, films, book covers, covers of magazines and visual identities for many companies. It has to be emphasized that his gallery work and work for mass production have the same level of aesthetics; in line with the manifesto of the group he created his style in visual communication on base of experimental processes.

For *Fotokemika*, *Aleksandar Srnec* did three advertising posters and a few drafts for New Year's cards in period from 1960 to 1961. Today one of the posters is in the

¹⁴⁹ Mohorovičić A., *Turistički plakat u Hrvatskoj 1925-1988-Kabinet grafike JAZU*, 1988, p. 12

¹⁵⁰ Vukić F., *Aleksandar Srnec, Present Absence*, catalog of exhibition, Edicija Sudac 2008, p. 578

collection of Museum of Art and Crafts, and the rest is in private collection of *Marinko Sudac*, collector of progressive avant-garde, neo-avant-garde, and post-avant-garde art.



Fig. 26. Aleksandar Srnec graphic design for Fotokemika, 1960

Source: Marinko Sudac Collection

To understand the aesthetics of Srnec's work for Fotokemika more, his expression in art work has to be mentioned. What determined his visual expression in work were lines and geometrical shapes. This was the aesthetic which dominated through his entire oeuvre, and, as said by the artist himself, it all began with the experimental drawing of lines from 1950 called X2-6(Lines). The line, omnipresent, in this drawing, is in the artist's words the main visual factory in his entire opus. Between 1950 and 1956 Srnec made several similar but in details always different black and white, colored variation of this drawing, fundamental in the artist's opus.¹⁵¹ With this kind of works Srnec, together with the Picelj and Rašica, other members of group EXAT 51, exhibited on *Salon des réalités nouvelles*, in Paris in 1952. This was a large exhibition, dedicated to abstraction

¹⁵¹ Denegri J., Aleksandar Srnec, Present Absence, catalog of exhibition, Edicija Sudac 2008, p. 575

in art, and it was the first appearance aboard for Croatian artists after the Second World War.

If the exhibited work is compared with the work he had done for Fotokemika advertisement posters, the same visual language appears, lines and geometric shapes, with the elements of photography connotation.

To understand the development of avant-garde tendencies in design it's important to emphasize that the development of design in former Yugoslavia began with the development of industry after the Second World War. The key point for national development of industry was termination of the *Tito-Stalin* collaboration, leaders of two countries, or the split of Yugoslavia and the USSR in 1948. After Yugoslavia exited the Eastern Bloc, Soviet policy closed the border to Yugoslavia and imposed economic sanctions. With the help of loans of Western countries in period of 1950s, the industry development in former Yugoslavia started. Even Yugoslavia was a communist country, with the socialist organization of society, creation of market started in the middle of 1950s. One of the major reasons was exiting the Eastern Bloc market.

Parallel with the industry and market, the need for propaganda, marketing and design was created. Although initially the state institutions, such as the federal, state and city Chambers of Commerce, supported efforts in the promotion and introduction of design and also organized didactic exhibitions such as *Art and Industry* (Belgrade, 1956), *Apartment for our needs* (Ljubljana, 1956), *Family and Household* (Zagreb, 1957), and were the founders of the *Zagreb Centre for Industrial Design* (Zagreb, 1964) and the *Belgrade School of Industrial Design* and later the *Centre for Design*, and since the end of the 1950s the prevailing concept was the one of advertising, which is in late 1960s developed in modern marketing.¹⁵²

Josip Sudar in that period was one of the key figures in creating the field of advertising in Croatia. He wrote a first book on that topic called *Advertising in Theory and Practice*, published in 1958 with a edition of 20,000 copies, and later released two

¹⁵² Kršić D., *Socijalizam i modernost; umjetnost, kultura, politika 1950 – 1974*, catalog of exhibition, 2012, p. 279

editions. Development of propaganda created modern marketing and marketing agencies; just in Zagreb there were propaganda agencies *OZEHA* (1945), *Interpublic* (founded in 1954), *Vjesnik- marketing agency* (1965), *Apeal* (1968), *Marketing bureau*, founded in 1973 as a sister company *Export-press*, Belgrade (founded in 1953).¹⁵³

Because of the lack of school of design in that era, many artists did graphic design for the purpose of advertisement. In one case they were working inside of agencies, and in one case as free-lance artist doing graphic design from project to project. In any case, it was a big influence on painting movements, such us neo avant-garde movements in the field of graphic design for commercial purposes.

In that environment, Fotokemika found its place. Thanks to Josip Sudar and his vision of very modern public image Efke brand was born. By employing the leading artist of that time, Fotokemika created avant-garde design of posters and products, and from today's point of view it should be announced as a piece of art.

5.5. The Fotokemika Project - local initiative for saving Fotokemika heritage

Fotokemika project is an initiative for saving Fotokemika tangible and intangible heritage. Project started in 2012, immediately after closing the factory in Samobor and it is an idea of *Ana Cvetković* and *Sanja Harris* whose family members worked in both facilities, in Samobor and in Zagreb. On official internet page they said: *'We are two young women who have decided to make it our quest to save Fotokemika's heritage. Sanja Harris is a photographer living in The Netherlands and Ana Cvetković is a journalist and pr marketer living in Croatia. In the past both our families have put heart and soul into their work at the Fotokemika factory in the Croatian town of Samobor. This probably formed the root of our passion to save it.'*¹⁵⁴

When talking about the reasons why it is important to save the Fotokemika heritage, they are starting from the most global point and that is that eFKe brand was a world known brand that influenced many aspects of life. It has allowed us to capture

¹⁵³ Idem.

¹⁵⁴ Available at: <https://thefotokemikaproject.wordpress.com/> (Accessed at 31 July 2016)

everything that we hold dear or value as important. It gave photojournalists a voice and commerce a new tool to help companies flourish. In medical applications the film helped many people, and eFKe film offered artists new ways to enrich our culture.¹⁵⁵

On another level, they are talking about how the factory was significant to workers that worked there. Fotokemika was much more than merely a place where the employees worked, it also played a big part in their private lives; the company provided housing, education, recreation (vacation house on one of Croatian's islands, a swimming pool for the employees and their children to enjoy, a hiking club) and sport events.¹⁵⁶

Within the goals of the project they created phases for the realization of the plan. In phase one the factory, the interior and all the archive should be saved. Phase two includes converting the building into a museum. Phase three is expanding the archives by documenting as much information as possible. Phase four is telling the history of the company and employees with exhibitions. And in phase five it is important collaborate with the local and international artist terms of events and manifestations.

Unfortunately, since Fotokemika building is in private ownership, the project was stopped. But the real question is, if its legacy will finally be recognized as a heritage in the eyes of local community, why cultural institution in Croatia didn't do anything in the direction of the valorization of Fotokemika heritage.

¹⁵⁵ Idem.

¹⁵⁶ Idem.

CHAPTER VI - PROPOSAL PLAN FOR FOTOKEMIKA-MUSEUM OF PHOTOGRAPHY

Dans le sixième chapitre, le projet Fotokemika-musée de la photographie est expliqué. En partant de la description de son état actuel, des critères de valorisation de son patrimoine sont étudiés pour aboutir à un concept muséologique Fotokemika-musée de la photographie. De plus, le but est de montrer comment la reconversion du bâtiment industriel peut renforcer le rayonnement culturel de la ville, en s'appuyant sur des exemples présentés dans le chapitre trois.

6.1. Fotokemika today - analysis of the situation

To see the possibilities for the process of conversion and reuse of an industrial building into a museum, property relations and legal aspects of the former Fotokemika factory have to be mentioned.

The Fotokemika property today is in the private ownership. The process of changing the status of the company begins in the period when Croatia declared independence from Yugoslavia in 1991. With independence, change the structure of society, from socialism to parliamentary democracy, and from economic point of view there has been a transition from a planned economy to a market economy. At the era of former Yugoslavia all companies were in state ownership.. With the new regime in Croatia, some companies stayed under the state jurisdiction, but a lot of them went from social enterprise into a corporation. Fotokemika was not in the interests of national economy and became a joint stock company. *Based on the decision of the Commercial Court in Zagreb, No. Fi-16664/92 of 23 October 1992, under the registration number of the cartridge 1-844, entered into the court registry changes forms of organization of social enterprise into a corporation Fotokemika, for the production and sale of photographic equipment.*¹⁵⁷

¹⁵⁷ Legal document about transformation and privatization Fotokemika made by State Audit Office, Republic of Croatia in 2003. Available at: <http://www.revizija.hr/izvjesca/2007/revizije-pretvorbe-i-privatizacije/203-fotokemika-zagreb.pdf> (Accessed at 1 August 2016)

This was a first step in changing the business structure of Fotokemika. In this point it was not still a private company, and the capital was divided into stock divided between all employees, with the governing body was made up of the management, supervisory boards and assembly.

The characteristics of transformation and privatization were: a drastic decline in industrial production, loss of markets, slowly opening up new markets and participation in global flows of goods and services, a sharp rise in unemployment and the impoverishment of the majority of the population, victims of a too slow affirmation polycentric urban development.¹⁵⁸

In these circumstances, especial after the war time, when waves of privatization were so big; Fotokemika went into bankruptcy process in 2003. Despite this company was working until that year, they sold all the industrial properties from 1997 until 2003. The factory space and offices in Samobor were sold in 1997. *The Fotokemika company at 10 December 1997 concluded with a legal person from Bregana contract of sale commercial buildings in Samobor, N.S. Zrinskog number 14 size 181.22 m2. The Fotokemika company at 29 December 1997 concluded with a legal person from Sveta Nedjelja contract on the sale of commercial buildings in Samobor area of 1 482 m2 with land and area of 27,533 m2.*¹⁵⁹

After the liquidation of Fotokemika in 2003, *Josip Ćuk*, graphic engineer founded the company *Fotokemika Nova*, and they continued to produce eFKe films. The production continued in the same buildings and on the old machines. The new company managed to produce just a few models of film, because in a big wave of digitalization in the world of photography, demand for analog photography in new millennium was less and less. In a wave of factory closures of photo industry over the world, Fotokemika stopped production in 2012.¹⁶⁰

¹⁵⁸ Available at: https://hr.wikipedia.org/wiki/Pretvorba_i_privatizacija_u_Hrvatskoj (Accessed at 1 August 2016)

¹⁵⁹ Idem.

¹⁶⁰ Describe in Chapter II, title *The disappearing art of analog photography*

By the closing the factory units, all equipment and furniture stayed inside factory. In my recently visit to the factory, I found that the entire inventory has been thrown out, including the precious machines for film production.



Fig. 27. Fotokemika machines for production of films, 2016 Photo by Veronika Gamulin



Fig. 28. Fotokemika machines for production of films, 2012 Source: www.jutarnjilist.hr

In this situation it is impossible to complete a list of material components of the factory, like an archive of. At this point it is important to save machines, and to find some of former employee of Fotokemika to see if it is possible to make it work again probably in another place.

In this point of research, I don't have sufficient information about the future plans of the empty buildings. But as they have removed the machines it doesn't seem that the proprietor intends to preserve the building for the same activity. Even if they intend not to demolish it, and maintain the building, it will probably be given some other function. Despite the great legacy that Fotokemika left after the more than sixty years of working, its heritage is not still under the protection and the first obstacle for the process is question of ownership. *The Ministry of Culture of Croatia* is the roof institution that by the *Law on the Protection of Croatian Cultural Monuments* declares by the criteria of valorization cultural goods and give a tools for its protection. The problem with this law is that the owner of property should apply to the Ministry for the designation of the property as cultural property. In many cases property is in private ownership and many times they don't claim the file for its protection. In cases like that, Ministry of the Culture has authority to put it under the protection, by the paragraph in the law called *Preventive protection* which lasts for three years.

In case of Fotokemika units in Samobor, this is the only way to put the protection on its property. Therefore, it is necessary to draw up a detailed report with the criteria points for its valorization which I'm going to present in the next section.

6.2. Valorization of Fotokemika heritage

Still, until today, Fotokemika heritage hasn't been in the process of valorization. *Fotokemika project*, had clear objectivities and goals, and gave reasons why Fotokemika heritage should be recognize and protected. Unfortunately, the plan stopped, because of the legal law problematic in a field of ownership. Because of that today, after three years, we have a situation like this. All inventory, thrown away, left to decay.

The problem in protecting industrial heritage in Croatia is not clearly defining criteria of its valorization. Some movement forward towards this goal was done by the *Zagreb City Office for Protection of Cultural Monuments and Nature*, which strongly engaged in recent years in the production of evaluation study or revaluation, categorization and protection of Zagreb's industrial archeology. Thanks to committed work of this office, at least it made basic list categories for valorization, and they are:

- a) architectural, cultural, historical and art history value
- b) the significance of the building or assembly within the picture city or street image moves
- c) preservation purposes
- d) building a state in terms of construction, volume, details, materials and other¹⁶¹

But, with these criteria it is hard to valorize Fotokemika heritage, because this is more valuable criteria, if we see it from the specter of architectural legacy and all protected industrial heritage in Zagreb is protected on architectural and historical value. On the list from 2010, there are eleven objects of industrial heritage, six industrial complexes and five individual factory buildings.

The Fotokemika heritage needs to be viewed in a context of industrial heritage. In the Nizhny Tagil Charter, industrial heritage consists of the remains of industrial culture which have historical, technological, social, architectural or scientific value.¹⁶² Legacy of Fotokemika should be categorized by the values in achievement of science, technology, technique, advertisement and design. All these components have to be placed in a time frame when the factory was active, and its relationship with the environment.

¹⁶¹ Paladino Z., *Zaštita zagrebačke industrijske baštine izradbom konzervatorskih elaborata* Gradskoga zavoda za zaštitu spomenika kulture i prirode u Zagrebu Godišnjak zaštite spomenika kulture Hrvatske, 2009-2010, p. 148

¹⁶² Available at: <http://www.icomos.org/18thapril/2006/nizhny-tagil-charter-e.pdf> (Accessed at 3 August 2016)

1. Valorization in science research and application to industry of photography¹⁶³

Chemistry is a field that was crucial in analog photo industry. Film based photography for the process of recording light on material need a photographic emulsion, light-sensitive colloid. Each company that produced film and papers had their own formulas for photographic emulsion. It was the same in Fotokemika factory. Special kinds of formulas for photo emulsions are made by employees of company, engineers and professors of chemistry. For early development it is important work of Maks Plotnikov, on which knowledge is made first films and eFKe brand. Beside him, for improving quality and education of new professionals Ivan Jerman, at that time director of *Chemistry industry* in Croatia and general director of Fotokemika company is important. This knowledge was ‘secret’ and it was transmitting from generation to generation of employees in factory. Even today, the only people that know the formulas are former workers. The same thing with the machines, to make a machine which could roll thousand and thousands of meters per day, first it would need a construction of drafts. Fotokemika engineers made machines based on knowledge transmitted from German experts in 1930s. Like in the chemistry field, knowledge needed to be in circulation from generation to generation.

2. Valorization in advertisement and design¹⁶⁴

In 1950s when Fotokemika started a production, there was a need to make marketing campaigns. That period was a beginning of advertising profession in Yugoslavia. The person in charge for public image of Fotokemika was Josip Sudar, who is considered a pioneer of advertisement and marketing in Yugoslavia. Together with designer Dušan Bekar, they created a brand eFKe. Sudar was collaborating with other artists too, like Aleksandar Srnec, from the *avant-garde* milieu of that time. Srnec did commercial posters for Fotokemika, and with the visual analysis it can give us a view of a period when art, especially painting influenced the aesthetic of commercial design. Fotokemika advertisement posters and other graphic design products of that time today are

¹⁶³ Describe in Chapter V, title: *Fotokemika - story of one place, story of one time*

¹⁶⁴ Describe in Chapter V, title: *Avant-garde design and strategy for marketing of Fotokemika*

important evidence of an era of the beginning of commercial design and advertisement in Croatia.

3. Valorization in technique and in empirical and technical immaterial knowledge¹⁶⁵

And, at the end - technique. For the analog process of taking photos, there needs to be knowledge of analog technique, that means how to put film in a camera, how to set the parameters of the light source and the shutter speed, how to develop film, and how in the dark room to enlarge negatives onto photo paper. In the period after the Second World War, photography was still dedicated almost just for professionals. Fotokemika encouraged the development of amateur photography. The philosophy of the company was '*photography for everybody*', and they educated many people how to use analog technique by publishing guidelines and manuals, doing courses and helping amateurs clubs with material. For this point of view, we can speak about intangible Fotokemika heritage, transmission of the knowledge at crucial moments for spreading photography.

The industrial heritage is the evidence of activities which had and continue to have profound historical consequences. The motives for protecting the industrial heritage are based on the universal value of this evidence¹⁶⁶, in the case of Fotokemika, the universal value is developing and spreading analog photography technique. We can't forget the fact that the technique of analog process marked last, throughout which photography in everyday use spread and accelerated. Analog photography has profound historical consequences showing changes of society and its visual communication. And Fotokemika, like one example of analog photo industry was part of that story.

6.3. The concept of the Fotokemika-museum of photography

The plan of this project is the conversion of the former Fotokemika building into a museum of photography. Because of the private ownership, and not obtaining permits I

¹⁶⁵ Describe in Chapter V, title: *Fotokemika impact on the development of amateur photography in the former Yugoslavia*

¹⁶⁶ Available at: <http://www.icomos.org/18thapril/2006/nizhny-tagil-charter-e.pdf> (Accessed 3 August 2016)

couldn't do a plan for valorization of the building, strategies and criteria to establish the new functions of building and do the plans for the adaptation of the building. This concept, at this phase is orientated in the museological concept and how best to present the heritage in this direction.

Musealization of the industrial legacy is a way of preservation of heritage. Taking into consideration the state and the condition of the Fotokemika factory, my concept for the photography museum largely relies on Fotokemika's tangible and intangible heritage, research of the Fotokemika factory, new interpretation of its heritage together with the idea for continuation of the analogue photography technique in today's practice in a new form of museum of photography. The concept of this museum would be separated in three main parts.

The first one is dedicated to the heritage of Fotokemika, the second dedicated to the work of transmission of knowledge of analog technique and the third one is an exhibit space for works of photographers from Croatia and abroad..

Permanent collections at Fotokemika would be compiled on the principle of collecting every relevant material heritage like factory machinery, photo films, photo paper, Fotokemika packaging, factory magazines, books made in the factory, professional and amateur photography done by Fotokemika, products donated by the photographic community. Intangible heritage would be done on a base of ethnological research, interviews with history protagonists, former workers and photographers who used Fotokemika materials in their work, all together creating narratives of oral history. There would be a permanent collection of historical artefacts together with a research of literature and archive work to present a new interpretation of Fotokemika. In collecting all tangible and intangible heritages, memorabilia of the factory would be presented. Some of these objects, like graphic design and photographs, beside classical museum collecting and storage, could be used like motives in application on postcards, T-shirts, bags, etc. In this way heritage can be preserved too.

Continuation of the analogue photography technique, its transmission and safeguard would be one of the objectives of the museum. Knowledge of the professional *know how*,

could go in two directions. Legacy based on technique secrets preserved by the former Fotokemika community should be continued in a way of small production of films and papers in a goal for creating a future community of users. For this reason it is very important to save machines for production. Other steps in the continuation of analog photography practice is involving Fojo project¹⁶⁷ inside a museum. Through educational workshops developing in dark rooms, knowledge from the last century would transmit into the 21st century the use of new device Enfojer which combines digital technology with the analog technique of developing. The main goal is the safeguarding of analog technique in this way. With the activation of production and involving a new project, this museum would be 'live', serving for the present and future generations a tradition based on analog processes.

The idea for this concept came from observing the situation in which analog photography finds itself in this period. In this phase it almost disappeared from daily base used technique, and we should be acting for its safeguarding. At this moment museums are going through a time of change, especially after the new definition of 2007, where emphasis is on tangible and intangible heritage, not just material culture.

In this proposal is created a 'post-museum' concept which author Eilean Hooper-Greenhill defines in her book *Museums and the Interpretation of Visual Culture*. In book she said: *'The post museum will hold and care of objects, but will concentrate more on their use rather on their accumulation. In addition, the post-museum will be equally interested in intangible heritage. Where the tangible material objects of a cultural group have largely been destroyed, it is the memories, songs, cultural traditions that embody that culture's past and future'*¹⁶⁸

This book is written in 2000, clearly with the vision where museums mission statement should go in future time, and at the end, the change happened few years later. In this quotation, I would like to talk more about the last sentence. The story about intangible heritage started due to threat of losing traditions in local communities, emphasis on the anthropologist and ethological characteristic, what is readable from this last sentences of

¹⁶⁷ Describe in Chapter II, title The disappearing art of analog photography

¹⁶⁸ Hooper-Greenhill E., *Museums and the Interpretation of Visual Culture*, Routledge, 2000, p. 152

quotation too. With the new millennium, and with the process of globalization some old tradition, knowledge started to be lost or in a process of disappearing. By the act of *Convention for the Safeguarding of the Intangible Cultural Heritage* made by UNESCO, cultural institution, many of them museums, started taking care for heritage in threat.

Here, I want to raise a question, why still does no institution recognize the field of analog photography? Why isn't photographic industrial heritage still not recognized like a heritage?

Analog photography technique is disappearing. Because of this reason, I created the concept of *Fotokemika-museum of photography*, on the basis of a post-museum. Post-museum is a new generation of museums, not based just on a display as the only way of communication. The exhibition will form part of a nucleus of events which will take place both before and after the display is mounted. These events might involve the establishments and community and organizational partnership; the production of objects during educational programs which may then entered the collection.¹⁶⁹

The most significant part of this concept is transmission of the knowledge. Fotokemika like a photo-industry left a heritage behind it self, not just material, it left the tradition of analog photography which need to transmit to generation in future. Import thing that concept of post-museum don't excludes collecting the tangible heritage. In the permanent collection of *Fotokemika-museum of photography*, there is a part dedicated for material traces of the factory, on aspect of an industrial museum. But in another way, if the machines could be put again into a process of production, that museum would became live, directly transmitting intangible heritage, knowledge for the next generation.

Fotokemika-museum of photography concept is a hybrid concept, based on principles of industrial museum and eco museums, creating post-museum, which is a new concept of museum for the 21st century. As I said before, museums are entering into a new and

¹⁶⁹ Idem.

have to be responsible institutions which reflect the changing society around us. They need to change the forms and shapes, because society is changing.

6.4. Fotokemika-museum of photography and cultural development of the city of Samobor

The city of Samobor is a part of Zagreb County and twenty kilometers away from Zagreb, the capital of Croatia. Because of its long history and many historical monuments it is a destination of many tourists, from Croatia and from abroad.

Photography and Samobor have got connection on many levels and their history goes back to the 19th century. Samobor has a great icon of Croatian photography and his name is Franjo Bahovec (1851–1924), who was an entrepreneur, world traveler and passionate amateur photographer. Recently discovered is his valuable legacy, showing an incredible opus with many photos of the Samobor, but with motives from the rest of the world, like photographs from New York from the beginning of 20th century. Tošo Dabac grew up in Samobor, and his first photography from 1925 was taken there. In Samobor from 2002 is opened gallery Lang, the only specialized gallery for the photography in Croatia, and under the supervision of curator Želimir Košćević, one of the biggest experts in a field of photography. At the end, Samobor until the recently had a photo-industry for analog photography, Fotokemika, which makes it famous in photographic circles.

Fotokemika for a long time marked the city of Samobor with the '*photography*', Samobor became a symbol of photography in Croatia. With the shutting down of the factory, the connection between the city and photography started to vanish a little bit. With the transformation of factory buildings into a museum of photography a legacy could be continued, not only industrial heritage, but analog photography too.

When we are considering the values of a certain building, according to Feilden, we can divide them into three categories: emotional, cultural and use.¹⁷⁰ The emotional depends on wonder, identity, continuity, respect and symbolic. The cultural values can be

¹⁷⁰ Feilden, B.M. (2003) Conservation of historic buildings. 3rd edn. Amsterdam: Architectural Press., p.7

documentary, historic, archeological, townscape, landscape and technological. Finally from use values we distinguish functional, economic, social, educational and political. After the analysis of all these factors we can see what this historical building represents to the community.

From all this categories, in a process of reutilization, the city of Samobor could profit on a scale that cultural and touristic attractions has to offer. As has been said before, Samobor is a destination of many tourists, but for redeveloping of the city, they should follow the trends from other cities in a view of investing and reuse of industrial heritage, if it has opportunity to do this. In Chapter III, in analysing two examples of reuse of industrial heritage in Lisbon, *LXFACTORY* case and *Electricity Museum*, it is shown that from reutilization in direction of form in industrial museums and adaptive reuse, Lisbon enriches its cultural-touristic attraction and benefits in the economical development of city.

In a talk with the citizens of Samobor, reactions to my questions about what they think about the transforming of former Fotokemika into a museum of was really positive. I would like to emphasize, that from these answers it can be notice that the legacy of Fotokemika can be recognized in the minds of citizens. One of the answers was: *'It is great idea, considering the importance of Fotokemika company in a field of photo-industry in this part of Europe, and considering the importance that had on life and economy of Samobor and the surrounding area, especially with regard to the generation of workers who have worked there in excellent conditions. Samobor urgently needs something new, we need to see examples in other cities, even in Croatia, we have a positive trend of new, modern, themed museums such as the Museum of Broken Relationships and the Museum of Illusion in Zagreb. This is definitely the future and trends to follow, if we still want to call Samobor a tourist town.'* (A.V. Samobor). Another answer I would like to quote is: *'It is great idea, museum of photography would enrich the range and quality of the city, county, and probably the entire region, since museum dedicated only photograph does not exist.'* (I.B. Samobor)

The last answer is emphasized a lack of institution of institution just dedicated to photography in Croatia. With creating a new center for photography located in

Samobor, it could be de-centralized museum offer that is strongly presence in city of Zagreb, in capital, and give Samobor a place on cultural map. Trough the examples of reutilization of industrial heritage it has been created term '*factories of cultural tourism*' creating a sustainable developments of cites and communities. With the reutilization former factory into Fotokemika-museum of photography Samobor could develop new/old trademark like a city of photography. At the end 'culture is identity' and can be a strongest trademark of city.

CONCLUSION

La dernière partie est dédiée à la conclusion de la recherche effectuée. Elle comprend des analyses de données et du projet de musée de la photographie.

Society is currently going through extreme changes, due to a period of rapid technological advancement. Sometimes we aren't completely conscious of the fact that we are quickly adapting to using new pieces of technology. New technologies are making our lives easier on a day to day basis and continually changing our habits and ways of doing things. There are many examples of this impact in different fields, especially after entering into the new millennium in which digital technology culminates. If we look at the case of telephones, only more than twenty years ago it was normal for every house to still have wire/landline devices. However today, phones have become 'smart', with everything required for our needs for today. Even with quality digital photo cameras inside. In a way, the technological changes are erasing the older technologies and ways of doing things/processes, from everyday use.

The same has happened with photography. Improving technology, in the way we have captured light to create images, from the chemical process to the digital process, has changed many things beyond just creating photographs - these changes range from habits, customs to industry. More than one hundred years ago, George Eastman, as a result of his invention to capture light on photo sensitive material (celluloid film), created the photographic industry, based on chemical processes – what is called, from today's perspective, analog photography. The prefix analog, in the case of photography, means that it is a mechanical process for capturing an image. In the first step, film is exposed to light in a camera. For the next step, after the film was exposed, it needed to develop images on photo sensitive paper with a chemical process.¹⁷¹ All of these phases, created a branch of the photographic industry with the standardization of products, which has remained dominant in society for more than a hundred years. With the

¹⁷¹ Process of analog photography technique described in article *Introduction to digital photography: Differences between analogue and digital*

Available at: http://cpn.canon-europe.com/content/education/infobank/introduction_to_digital_photography/differences_between_analogue_and_digital.do (Accessed 10 August 2016)

invention of digital photography, the process of getting an image started to become much shorter. In the case of digital recorded light, we have the possibility to see photos immediately. This is the key factor that has pushed analog photography from global use, because with each year improvements in digital photography technology, made the prices of devices get cheaper and cheaper and analog process becomes unnecessary. This caused a decline in markets related to analog photography, which caused, like a domino effect, the closure of factories related to the photo industry. The process was so rapid that in less than ten years, almost all factories across the world stopped production for good.

The effects of the closure of analog photo factories led to the disappearance of the equipment required for the analog process, such as films, papers and chemicals. Without materials, it has become harder and harder to manage to undertake the process of analog photography. At one point, it started to become clear that analog photography is going to disappear for good because of lack of materials. The new millennium would then mark the end of analog photography if not for the new project aimed to salvage it, such as Fojo and the Impossible project.

These examples show us that started in the new century in order to rejuvenate the analog photography technique are indicators that, from their perspective, it is viewed as a heritage. It's is important to emphasize that they gather followers all across the world creating a community, which through their products is nursing an analog legacy. Despite all these facts, if it is seen from a global perspective, in comparison between digital and analog users, analog constitutes a very small minority. Digital photography is the future, but the analog photography technique should be safeguarded, because at this point of time it becoming a heritage.

If we revisit the simple definition of heritage by Merriam-Webster dictionary, heritage is the *traditions, achievements, beliefs, etc., that are part of the history of a group or nation.*¹⁷² Considering definition, the invention of analog process photography spread a use of photography on everyday use and made the achievements in a field of culture,

¹⁷² Definition of HERITAGE. Available at: http://www.merriam-webster.com/dictionary/heritage?utm_campaign=sd&utm_medium=serp&utm_source=jsonld (Accessed: 10 August 2016).

art, medicine and sciences. Process of global standization was a result of an incredible success of analogue photography. Because of that analog photography heritage needs to be seen in the context of industrial heritage.

The case study of this thesis was Fotokemika factory, one of the examples of photo industry that existed on territory of Croatia. Fotokemika stopped to produce few years ago, which was the story similar to the rest of the factories in the same industry. Being part of analog photo industry, which is very specific industry, (in a field of chemistry and mechanics), after the 65 years of working, left priceless legacies behind. In the point when some industry stop working, always is rising question, what to do with building and all inventory, preserve it or not. The criteria for it valorization it has to be in relationship of time when it was functioning and what historical consequences left. Problematic of industrial heritage in Croatia is not clearly defined criteria for it valorization. Most of industrial monuments are protected in criteria of historical-architectural value. Building of Fotokemika factory belongs in category of industrial architecture done after the period of Second World War and doesn't have any extraordinary architectural-aesthetic value, but points of its valorization go in technological and scientific value in the history of engineering and construction. Next value is aesthetic value for the quality of its design of products and graphic design. The last and most important value is intangible records of industry contained in human memories and customs which in Fotokemika case is reference on technique of analog photography.

These criteria were drawn according to the instructions of criteria values of industrial heritage defined in *Nizhny Tagil Charter*. Like a final conclusion valorization of Fotokemika heritage is determinate in a few directions, and they are: valorization in science research and application to industry of photography, valorization in advertisement and design and valorization in technique and in empirical and technical immaterial knowledge.

When the criteria is define, and heritage is valorized, to maintain industrial heritage alive one of the solution is reutilization of the industrial building and creating a museum. In the case of Fotokemika, I proposed a conceptual plan for its conversion into

a museum, called *Fotokemika-museum of photography*. The main idea is to create a hybrid museum, partly dedicated to the photographic industry and partly to become a museum, center for developing photography in every field, on strong emphasize on fostering the analog tradition.

The main idea of this plan is saving the machines for production of film and involving the Fojo project. With this concept the core of museum would be transmission of the knowledge and Enfojer would serve like a bridge between analog technique and digital devices. Beside the classic collecting material and immaterial heritage, that is core of every museum, this concept would transmit the knowledge of the analog technique. If we see in UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage*, the transmission of knowledge with universal value from generation to generation should be one of the things that we safeguard.

The Fotokemika-museum of photography concept stemmed from the principles of new tendencies in museology, which are creating a post-museum, a museum adopted to serve society in the time of changing. Considering the new definition, museums, like institutions, should be responsible for maintaining heritage, both tangible and intangible, not just material evidences of humanity and its environment. The concept of a post-museum, doesn't exclude traditional acquisitions and conservation of material objects and their exhibits to public, but goes in direction to maintain alive intangible heritage.

The final goal of the Fotokemika-museum of photography is to make a museum in which the analog process can be brought to life again, to create a center which will promote photography in every aspect, giving space to a younger generation of photographers and to create a core which will combine tradition and a future vision of museums of photography.

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Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 5, Zagreb, 1955

Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 6, Zagreb, 1955

Fotokemika, list radnog kolektivnog poduzeća, 'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 7, Zagreb, 1955

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Fotokemika, list radnog kolektivnog poduzeća,'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 10, Zagreb, 1955

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Fotokemika, list radnog kolektivnog poduzeća,'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 3, Zagreb, 1957

Fotokemika, list radnog kolektivnog poduzeća,'Fotokemika' tvornice filmova i fotopapira (Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper), broj 6, Zagreb, 1957

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Anastazija Jelečki, 1949, female, former worker Fotokemika, Interview with the author
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I.B., 1983, female, Interview with the author, 19 August 2016, Samobor

Marina Benažić, 1957, female, curator, Interview with the author, Archive Tošo Dabac,
26 July 2016, Zagreb

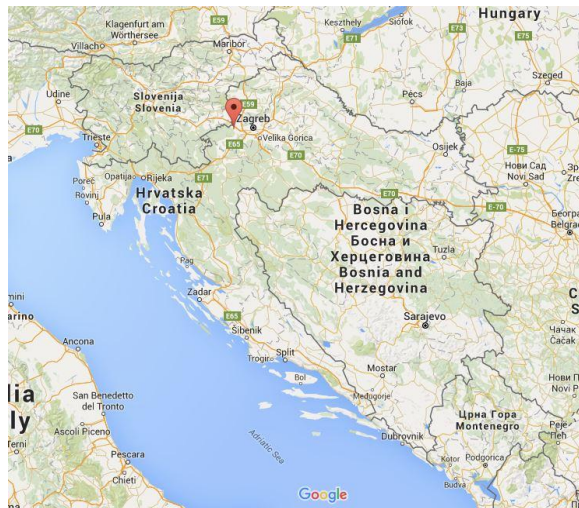
Petar Dabac, 1942, male, photographer, Interview with the author, 25 July 2016, Zagreb

Vanda Voloder Stjepić, 1979, female, photographer, Interview with the author, 29 July
2016, Zagreb

Zlatko Jelečki, 1944, male, former worker Fotokemika, Interview with the author, 19
August 2016, Samobor

ANNEXES

1. Map of Croatia, map and images of city of Samobor



Source: Google maps, internet

2. Chronology of Fotokemika factory

17. 12. 1945. – Company 'Foto' has been established in Zagreb. In the registration documents it is stated that the company will produce photo materials and film, other equipment needed for photography – made out of wood, leather, resin and other materials and, furthermore, the company will make enlarged photographs and postcards.

1946/1947. – Management of the company 'Foto' has employed dr. Maks Plotnikov, who started with lab experiments for emulsion recipe for photo paper.

26. 2. 1946. – The company 'Foto' has got some land in Maksimir county of Zagreb to build a factory for photo paper.

25.5. 1946. – Foundations for the factory of photo paper are done.

26.9. 1946. – 'Foto' and all other companies of private funds have been nationalized and from this moment it is run by state.

1.7. 1947. – By the proposition and the decree of the Ministry of industry and the main direction of the chemical industry of NRH, merging of companies 'Foto' and 'Ozachel' occurred, and it is now called 'Fotokemika'. The opening ceremony of the new factory of photo paper 'Fotokemika' happened on November the 10th 1947. All facilities and equipment has been constructed by the employees of 'Fotokemika' and the emulsion recipe has been provided by dr. Plotnikov.

1947. – A workshop for photography equipment has been opened in Ilica 61, Zagreb. First domestic camera was made here – 'Tehna I'. During that time 'Fotokemika' is also producing photo equipment, such as stands, retouching desks, photo presses, frames, boxes for negatives and other.

1948. – Department for scientific research of the Committee for Cinematography of FNRJ government has been established in Zagreb with a task to find the basis for producing of black and white movies and to help in the development of the laboratory

for processing in cinematography companies in the country. In this establishment the bases for emulsions and solutions for photo material have been produced.

Continuous production of photo paper and diazo paper in 'Fotokemika' is doing well. Only domestic materials are being used: paper base from Radeča-Vevča, gelatine from Tovarna kleja in Ljubljana, their own silver nitrate and so on and so forth. 334323 square meter of photo paper and 145.156 roles of diazo paper have been produced there.

23.11.1948. – Main management of the chemical industry in NRH has decided to establish the "Office for construction of the film factory". Management of the factory and technical management are located in Heizelova Street in Zagreb, in the offices of the chemical industry "Iskra". That same year the construction of the film factory has begun in Granešina, Zagrebačka Dubrava.

1949. – Workshop RDI in Ilica 61 has merged with "Fotokemika". Finalizing of the previously started work on the construction of the first FK box camera 6x9 cm has happened and its production began. In just one year, 5961 of these cameras have been produced.

June 1949. – Construction of the film factory in Granešina stopped and construction of the factory began in Samobor.

1950. – "Fotokemika" and the film factory, which is still in construction, are producing together first domestic photography sheets and rolled films on coil 120. Furthermore, 457 square meters of photo sheets and 4500 films has been produced.

19. 7. 1950. – Tefa (Film factory) has been established in Samobor.

1951. "Fotokemika" in Zagreb and "Tefa" in Samobor, are cooperating in the production of photo materials, equipment, and also in construction of new facilities. All production takes place in "Fotokemika" in Zagreb.

1. 1. 1952. With the initiative of the main management of the chemical industry of NRH, a fusion between "Fotokemika" and "Tefa" in Samobor took place, and now it

goes by FOTOKEMIKA, film and photo paper factory in Zagreb. Photo optical department of the Institute for industrial research is also a part of the factory. With that, "Fotokemika" gets a Research institute (later Institute for research and development) which will have a big role in further development of the domestic production of photo materials.

10. 12. 1952. – Opening ceremony of the production in the factory in Samobor took place. Workers and experts who worked and educated themselves in "Fotokemika" Zagreb are starting to work in the facilities in Samobor.

1952- 1957- Public image of Fotokemika in the country and abroad is made and the term EFKA, later EFKE.

Whole array of new products are available:

- Rontgen paper, which quickly became roentgen film called Sanix
- roentgen film Dentix
- films Efka 17
- photo papers Fokembrom, Fokemkontakt, Fokem bromkontakt and Fokembromaks in six gradations and on ten different surfaces, on two kinds and two base colors.
- new chemicals for processing – developers and fixers
- filters for dark rooms

1957. – 1967. – Golden age of Fotokemika. The company has made a name and reputation in the country and in the rest of the world. There are some new additions and products:

- movie positive film 35mm and 16mm (1958.),
- graphic films,
- chloral bromine photo paper Bromaks (1963.),
- films for industrial radiography FIR 1 and FIR 2b (1963.),
- high sensitivity amateur films Efka 20 and Efka 25,
- ***first color photography made from laboratory produced Efka color paper in January 28th 1960.***

1964. – The completion of new, modern facilities for photo paper production took place.

1968. – *Service for photo developing in color opened, later called Efke-lab.* Color negative films Efke NM-19 and color slides Efke RD-15 are being made in cooperation with Ferrania (later 3M-Italia), and color photo paper is made domestically.

10. 6. 1970. Fotokemika has signed a license agreement with Du Pont Fotowerke Adox GMBH, and is now a contractor for the production of b/w negative films. Well known Efke KB and Efke R films were introduced then.

1971. – 1975. Improvement of production of professional photo materials for use in medicine, industry, graphic business and so on takes place. Some new products are introduced:

- medicine roentgen film Sanix 210/410,
- industrial rontgen film Fir-10,
- graphic film Reprolith Op-10,
- PE photo paper

1975. – 1985. – World photo industry is rapidly developing and many new products are being introduced. To be able to keep pace with the rest of the world, Fotokemika is starting to cooperate with other big foreign photo material production companies, so that way it is able to supply the domestic market with photo material of the newest generation. Fotokemika was cooperating with these companies: 3M-Italia, Agfa-Gevaert, Du Pont de Nemours, ORWO, Ozalid and other.

1985. -1991. – Fotokemika started to cooperate with the biggest production companies in the world, such as Kodak, Konika, Ilford and others. Products of Fotokemika are being exported to 38 countries an all continents except Australia.

Source: *Croatia photography of the nineteen fifties to the present. Development Fotokemika from 1947 until today, catalog of exhibition*

3. Fotokemika logo done by Jospi Sudar and Dušan Bekar



Source: *Fotokemika*, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper, number 1, Zagreb, 1954

4. Commercial advertisement from Fotokemika magazine 1954-1955



*Upoznajmo prirodu putem
umjetničke fotografije!*



Slogan: 'Get to know the nature through the art photography'



Slogan: *'Etc. let you through life be accompanied by Efka Film'*

SNIMIO SAM NAJBOLJI MOMENT - TVOJ GOL.

BIO JE „OFSAD“, ALI GLAVNO SU DVA BODA.

I MENE MAMA SLIKA!

SLIKAO SAM CIJELU OBITELJ, A ZABORAVIO SAM... ZABORAVIO... PA JASNO - STAVITI FILM!

DA SI PRAVI TATA SMJESTA BI SLIKAO NAŠU MALU - MIRNU.

A, DA LI SAM PRAVI?

FFF.....

DA, DRAGA MOJA - SAMO ZA TEBE POTROŠITI CU CIJELI FILM.

ZAR ME JOŠ UVIJEK VOLIŠ!?

BEKAR © SUDAR

JOŠ SAMO FILM, I MI SMO KOMPLETNI ZA IZLET...

AKO BUDE LIJEPO VRIJEME?

A MENE TATA SVAKI DAN SLIKA!

AHA, A JA IMAM BEBU

Fotografije su jedne od najdražih uspomena i zato snimajte sve ono što želite sačuvati!

fotokemika, Zagreb

Slogan: 'Photos are one of my favorite memories and therefore shoot everything that you want to preserve'

BEKAR  SUDAR

Uspješna prodaja...

... ovisi o kvaliteti proizvoda i dobroj propagandi. Moderna propaganda ne može se ni zamisliti bez dobre komercijalne fotografije. Fotografije daju vjernu sliku Vaših proizvoda i potiču na kupnju. Snimajte Vaše proizvode s EFKA filmovima! Nova produkcija EFKA filmova i FOKEMBROM fotoaparata osigurava Vam uspjeh!



Text: 'Successful sales...depend on quality of product and good propaganda. Modern propaganda can't be imagining without good commercial photography. Photos give true image of your products and encourage for buying. Take a photo of

yours product with EFKA Film! New production of EFKA films and FOKEMBROM photo-paper ensure you success!

Sačuvana za uvijek!

fotokemika
TVORNICA FILMOVA I FOTOPAPIRA
ZAGREB — MAKSIMIR

Slogan: *'Saved forever!'*





Slogan: 'The best way to experience ancient monuments of art and culture is when we are taking photos.'

TATICE...E...E
DAJ SLIKAJ
I MENE...E!

ISPUNITE ŽELJU VAŠE
DJECE NA NJIHOVO
VELIKO VESELJE, A VAŠE
ZADOVOLJSTVO I PONOS

fotokemika 

Text: *'Dady, dady take a photo of me!'*

Slogan: *'Please the wishes of your children on their big joy, and on your pleasure and proud'*



Slogan: 'Shoot with EFKA Film'



Brze i točne diagnoze...

*..... NA FOTOKEMIKA RENTGEN FILMO-
VIMA – NAROČITO KOD SNIMANJA EKSTRE-
MITETA. TRAJITE UZORKE I PROSPEKTE.*



Slogan: 'Fast and exact diagnosis...on Fotokemika rendgen films-especial on shooting extremists. Take a sample and prospects.'

ZA UJIMPTIF 1971
MIAINHAN

propaganda
Vaših
proizvoda

FK

DIAPOZITIV
PLOČE
fotokemika

ZA UJIMPTIF 1971
MIAINHAN

Slogan: 'Propaganda of your products'



Slogan: 'Commercial photography'



Slogan: 'Faitful image of your product give you commercial photography by EFKA Films and FOKEMBROM photo-papers'



Slogan: 'On EFKA Film'



Slogan: 'Memories on EFKA Film'



*Danas, sutra – bit će Vam drago naći
u albumima sliku iz svog djetinjstva.*



FK fotokemika

Slogan: *'Today, tomorrow-you will be glad to find the album from your childhood'*

Source: *Fotokemika, magazine of working collective enterprises, 'Fotokemika' factory of films and photo paper, number 1, Zagreb, 1954*

5. Commercial posters done by Josip Sudar and Dušan Bekar,
1950-1960

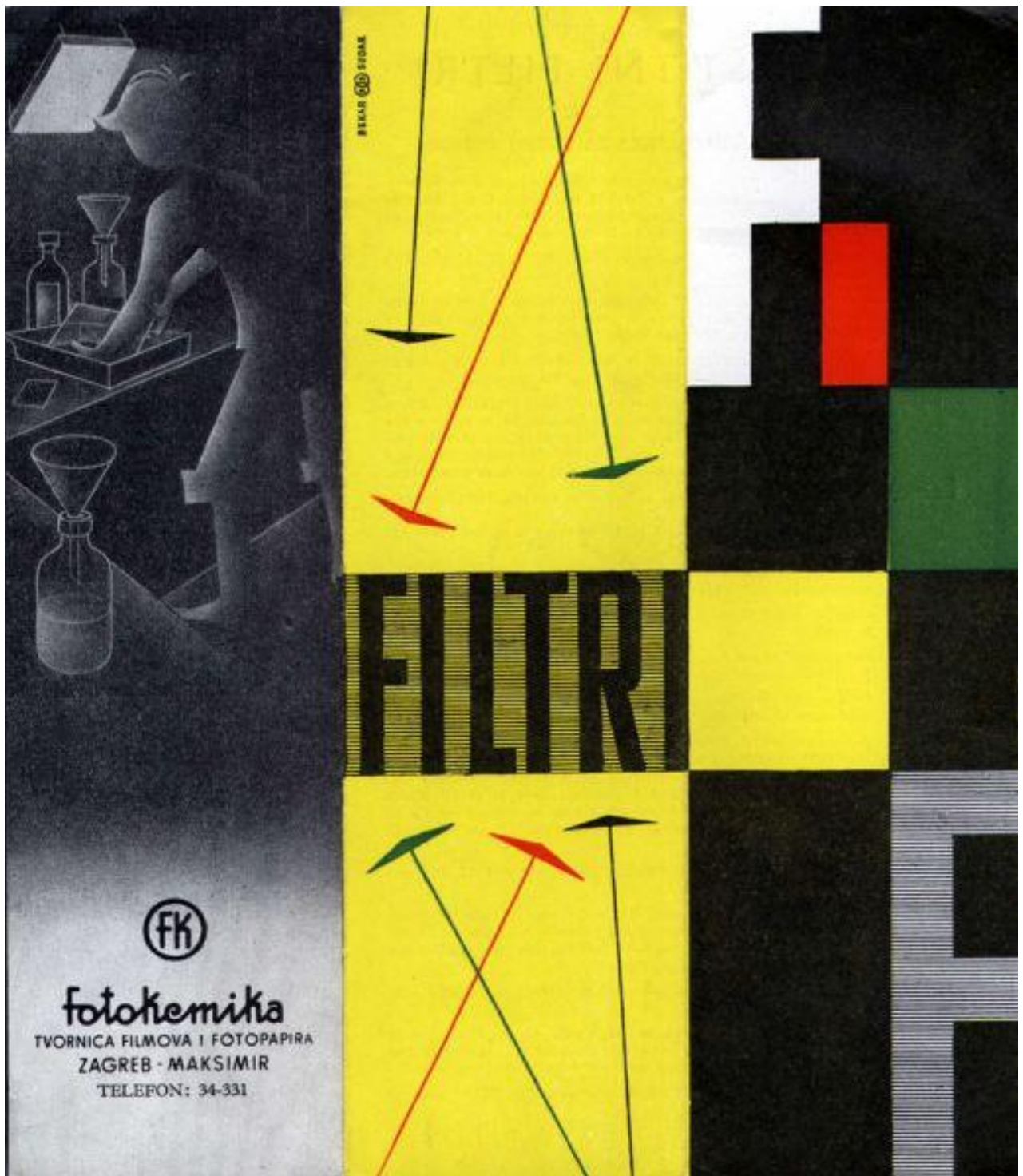


Slogan: *'Enjoy the life...shoot'*



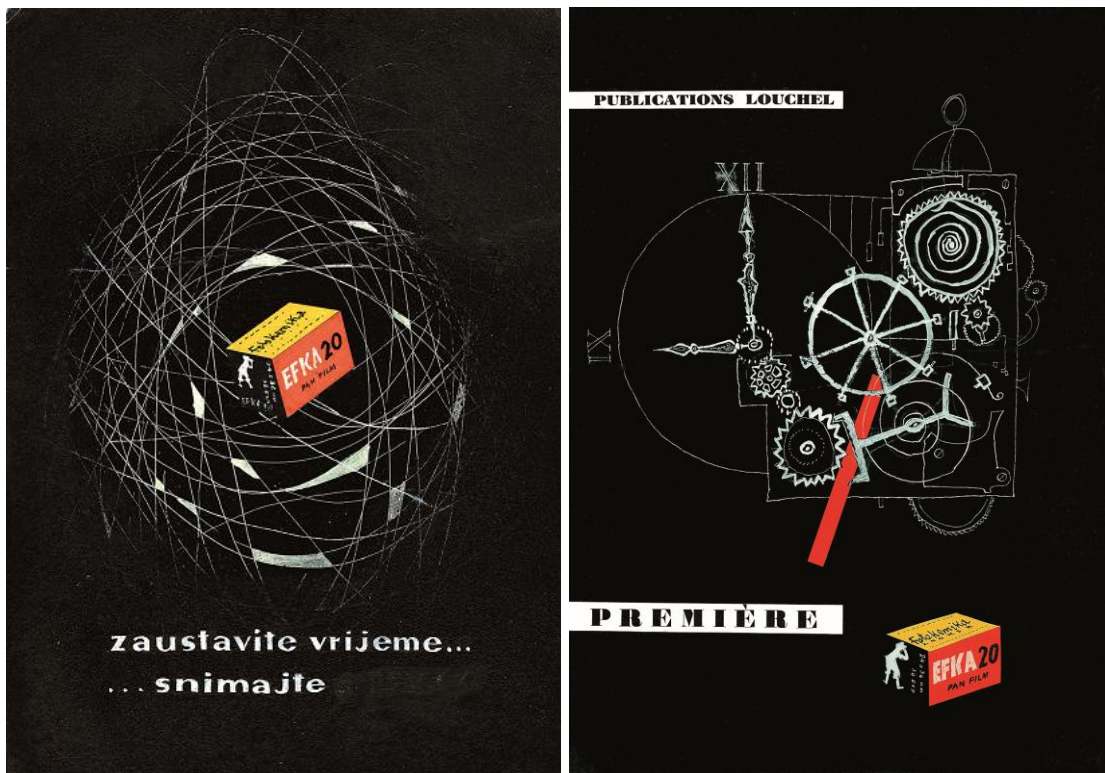
Slogan: *'Photography makes life happier'*





Source: *Museum of Art and Crafts, Zagreb*

6. Commercial poster for Fotokemika factory, Aleksandar Srnec, 1961



Source: Marinko Sudac Collection

7. Fotokemika enlarger design by Đuro Griesbach, 1950



Source: *Museum of Art and Crafts, Zagreb*

8. Images of Fotokemika factory 2016



Photo: *Veronika Gamulin*

9. National museum for photography, concept by Petar Dabac, 1986

The mission of the National museum for photography would be collecting, safekeeping and copying of photographic documents. The second task would be taking care of collecting photography literature and equipment. Furthermore, the museums activities have to consist of exhibitions, one permanent exhibition, library, and it has to enable the distribution of archive materials to interested parties (schools, colleges, journalists, experts, publishing companies...) One of the most important tasks of the National museum of Photography has to be the stimulation for production of photographic works, by way of buying the works or by making specific projects happen. These projects have to be organized with the very best authors who will then create top quality photo documents about the people, environment, events, nature and other things worth of remembering. Current photo documents exist thanks to small number of individuals, professionals and amateurs. Nowadays, such individuals don't exist in that number and the consequences will soon be visible.

Start of the work of the museum should be connected to some other institution (like Museum of Arts and Crafts), in terms of space and administration with additional funding by SIZ. In the first faze there is no need for space, and with the engagement of the associates, following projects are scheduled:

- *Drafting of the project timeline for the Museum of photography*
- *Documenting the current situation in the city, Republic and the whole country – cataloguing, photographing and documenting the photography collections in other institutions or private collections*
- *Making the plans for the permanent exhibition*
- *Finding the adequate space for future Museum of photography*

In the second phase, a curator has to be named and employed, and his tasks would include:

- *Organization of the temporary storage with adequate conditions for storing the works*
- *Collecting the materials*
- *Restauration and conservation of the collected material*
- *Making the plans for adaptation and drafting the financial plan for the space, when one is found*
- *Finding the adequate staff and further education*

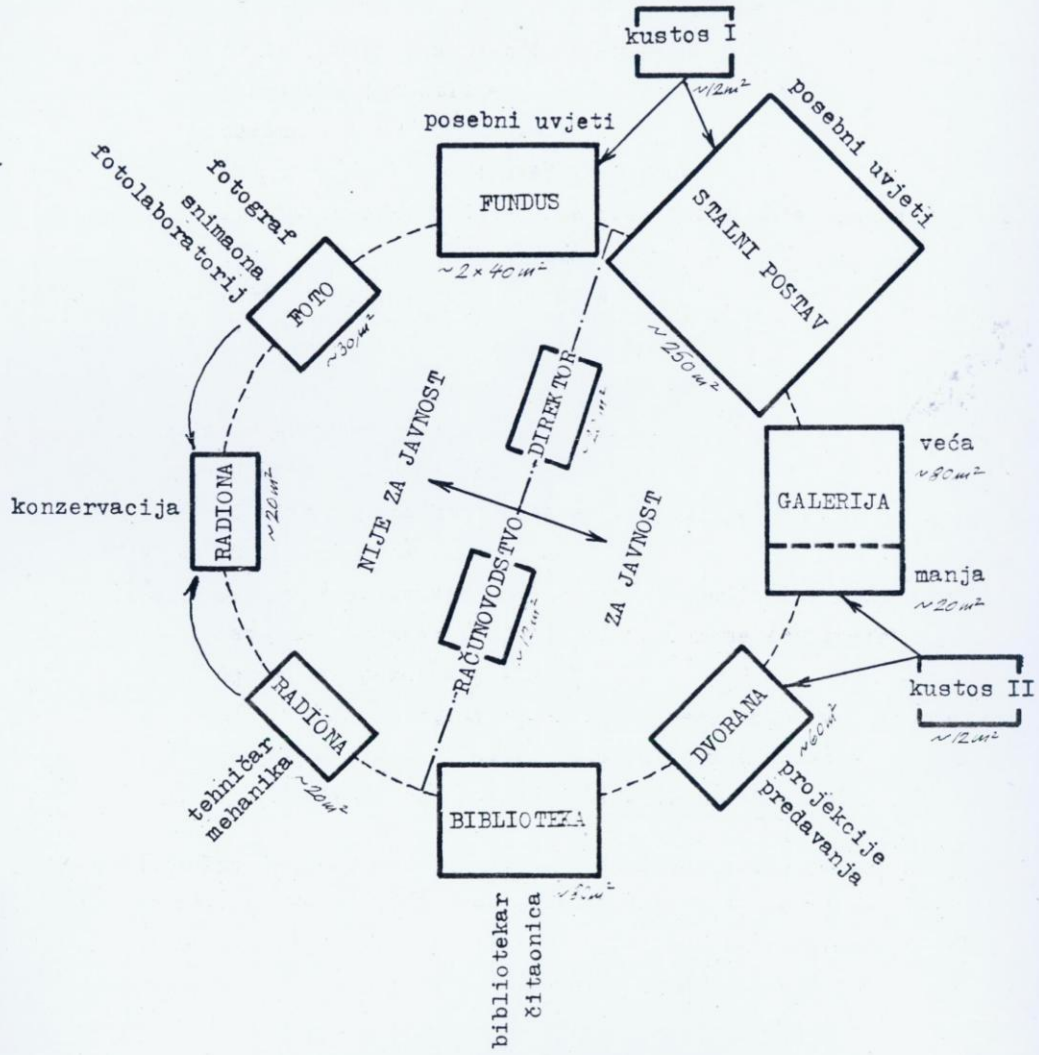
Third phase represents the emancipation of the museum into a separate institution and employing the staff:

- *Director*
- *Secretary*
- *Curator 1 (fundus, permanent exhibition, old photography)*
- *Curator 2 (gallery, the hall, contemporary photography)*
- *Librarian*
- *Photo lab expert*
- *Technician (building maintenance and mechanical work)*
- *Cleaning person*

Sources of funding for the Museum of photography:

1. *Industry and various businesses*
 - *Fotokemika (factory for making of photo materials)*
 - *Industry of paper*
 - *chemical industry*
 - *glass industry*
 - *industry for production of plastic materials*
 - *Textile industry*
 - *publishing houses and journalism agencies*
 - *metal industry*
 - *export/import businesses for photo materials*
 - *tourist agencies*
2. *SIZ*
3. *Private funding*
 - *Museum admission fee*
 - *admission fees for projections*
 - *Admission fees for classes and talks*
 - *Providing service to institutions and individuals – advising, organization and equipment*
 - *auctions – photography, equipment and literature*
 - *sale – books, catalogues, posters and magazines*
 - *work shop for students*

Organizaciona shema Muzeja fotografije:



Σ cca 700 m²

Organisational structure of the museum, Peter Dabac

Source: Documentation of Peter Dabac

10. Tošo Dabac 1907-1970, biography and photos



Biography

1907 born on 18th May in Nova Rača, near Bjelovar, Croatia;

1917 moves with his family to Samobor, a small town near Zagreb; enrolls in the Royal Classical Gymnasium in Zagreb;

1924 his first encounter with photography in the home of his schoolmate Ivica Sudnik in Samobor;

1925 Tošo's oldest surviving photograph: *Panorama of Samobor*; starts reading law at Zagreb University;

1927 leaves the University; starts working at the *Fanamet* film distribution company in Zagreb as press agent and translator;

1928 when *Fanamet* closes down he transfers to the Zagreb *Metro Goldwyn Mayer* office on May 8. He works there until 1937; Edits the magazine *Metro-Megafon*;

1932 first participation at amateur photographic show in Ivanec, a small town in Croatian Zagorje; in 1933 and 1934 the Ivanec Photo Gallery publishes the Croatian edition of *Die Galerie*, an international art photography review which at that time has editions in German, English, Danish and Italian;

1933 Exhibitions:

Prague, Second International Photography Salon (also participating were Frantisek Drtikol and László Moholy - Nagy); Philadelphia, Pennsylvania Museum of Art, Second International Salon of Photography (also participating were Margaret Bourke - White, Henri Cartier - Bresson, László Moholy - Nagy, Paul Outerbridge etc.);

Beaumont Newhall wrote the foreword for the catalogue; Leicester, The Tenth Midland Salon of Photography; Lucerne, II internationale Kunstphotographische Ausstellung;

1934- 1936 exhibits in Vienna, Ljubljana, Tokyo, Frankfurt, Boston, Zagreb; publishes photographic articles in newspapers;

1937 passes the practical and the theoretical part of his matriculation; the municipal authorities issue Dabac the permit to open his own studio; AFI (Assoziazione Fotografica Italiana), Turin, invites Tošo to become their member; marries Julia Grill, an operetta singer;

Exhibitions:

New York, Fourth International Salon, diploma for the photograph Road to the Guillotine (also participating Edward Weston, Margaret Bourke - White etc.); San Francisco, San Francisco Museum of Art, San Francisco Invitational Salon of International Photography (also participating Edward Steichen, Brassai, Man Ray, Alexandar M. Rodchenko and Ansel Adams); Boston, Sixth International Salon, award for Life Philosopher;

1938 recipient of two awards given by Camera Craft / Monthly Photographic Competition; travels in Italy; takes part in international exhibitions in Zagreb, Vienna, Antwerp, Lisbon etc.; reportage for the newspaper Večer on People in the Street;

1939 Camera Craft award;

Exhibitions:

New York, American Museum of Natural History, Sixth International Salon of Photography, Centennial Exhibition (also participating Berenice Abbott, Dorothea Lange, Man Ray, Edward Weston etc.);

1940 Dr Van de Wyer proposes Dabac for corresponding member of CREPSA (Cercle Royal d'Etudes Photographique et Scientifique d'Anvers); rents studio premises in Ilica 17, where his archives are now kept;

1941 his photograph published on the cover of Die Fotografische Rundschau, Berlin, which also includes a series of photographs from Croatia;

1943 becomes member of the People's Liberation Front and sends photographic material to the Partisans;

1946 CREPSA invites him to renew his honorary membership; spends one month working in Istria writing an interesting diary;

1947 becomes a member of ULUH (Association of Croatian Artists);

1948 Boston, First Prize, American Photography;

1950 takes part in international exhibitions (Bern, Rio de Janeiro, etc.); gives lectures for amateurs at Fotoklub Zagreb;

1951 recipient of four Popular Photography awards in New York; Camera magazine diploma, Lucerne; Yugoslav Photo-Union elects him Master of Photography; photographic trip throughout Bosnia and Herzegovina;

1952 Exhibitions:

Lucerne, Welt-Ausstellung der Photographie (also participating were Magnum Photographers, Richard Avedon, Cecil Beaton, Bill Brandt, Henri Cartier - Bresson, Robert Frank, André Kertész etc.); takes part in international exhibitions in Luxembourg, London, Amsterdam, Belgrade etc.;

1953 Exhibitions:

Zagreb, Architect's Society, one-man show to celebrate 25 years of professional activity; Pula, one-man show; First prize in Popular Photography competition, New York; elected active member of Photographic Society of America;

1954-1955 Photographs the sights of Zagreb, Dubrovnik Summer Festival, Montenegro, Macedonia;

1956 nominated member of artistic commission of FIAP (Commission Artistique);

1959 works for Albert Müller Verlag, Zürich and Hanns Reich Verlag, Munich

1960 works for Encyclopaedia Britannica, New York/London;

Exhibitions:

Munich, International Salon of Photography Das menschliche Antlitz Europas (also participating Edward Steichen, Robert Capa, Werner Bischof, Brassai, Edouard Boubat, Ernst Haas, David Seymour etc.);

1961 recipient of the City of Zagreb Award; nominated by FIAP for Honoraire Excellence FIAP;

1962 Belgrade, one-man show;

1963 Karel Pawek invites Dabac to contribute photographs to the World Exhibition of Photography organized by Stern magazine in 1964;

1964 Sofia, one- man show;

1967 receives the annual Vladimir Nazor Award given by the Republic of Croatia for his photographs of Bogumil Tombstones; Annual photography award and Life Achievement Diploma given by Yugoslav Photography Union; photographs of recent post-war architecture;

1968 Zagreb, Arts and Crafts Museum, Retrospective Exhibition (over 300 exhibits); works for Thames & Hudson, Atlantis Verlag etc.;

1969 one-man shows in: Zagreb, Art Pavilion, Umjetnost stećaka (The Art of Bogumil Tombstones), Split, Trogir and Ingelheim;

1970 dies, May 9 in Zagreb;



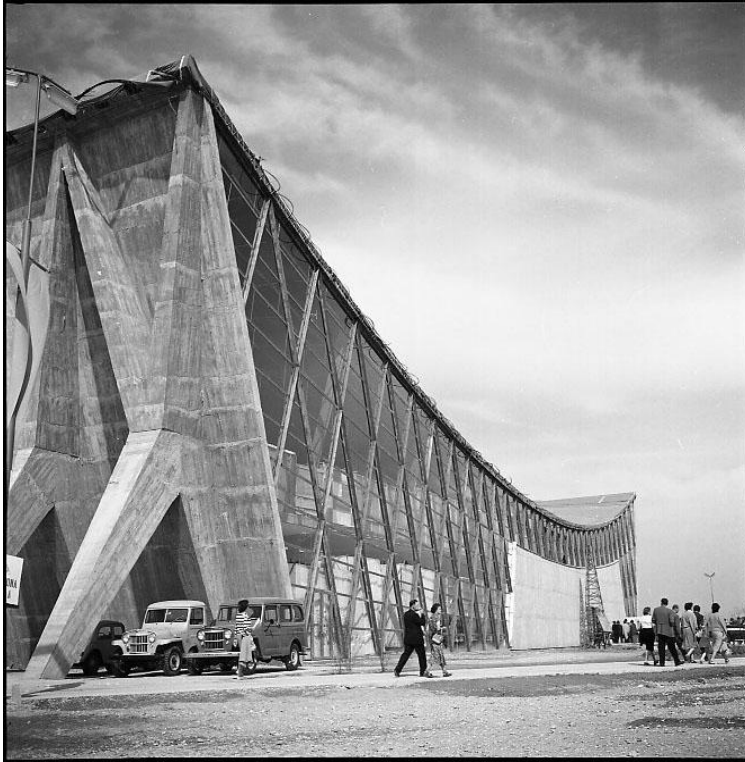
Tošo Dabac, *Childhood*, 1933



Tošo Dabac, *The boy in front window*, 1939



Tošo Dabac, *Stairs*, 1940



Tošo Dabac, *Exhibition pavilion 40, Zagreb Fair, 1957*



Tošo Dabac, *Waterfront Slatina, Opatija, around 1950*

Source: *Archive Toso Dabac*

11. Nevena Ilić photography done with analog camera and film in 2014-2016 during TPTI in Lisbon, Paris and Sfax



REPORT PROJET TUTORÉ



Tošo Dabac, In the Tramway, 1936

Source: Archive Tošo Dabac

Introduction

The *Projet Tutoré* is a part of TPTI Master Erasmus Mundus program, and the main characteristic is to work in a group to create the project with a default theme. The purpose of the group work is the acquisition of additional knowledge and the improvement of one's own abilities and skills, contributing to the success of the team and the project.

At the beginning of first semester, our generation was split into two groups, with the two themes to work on being: *Projet Tutoré: Transformer* and *Tramways*. Dana Salpina, Indira Costa, Suzanne Pulcherie Nnomo Ela and myself got the task to create a tutored project on the subject of tramways with the guidelines and help of mentor Mattia Gusella. Through a period of two years we had two weekly meetings in semester on which we've decided on our work frame with our tutor via web conference.

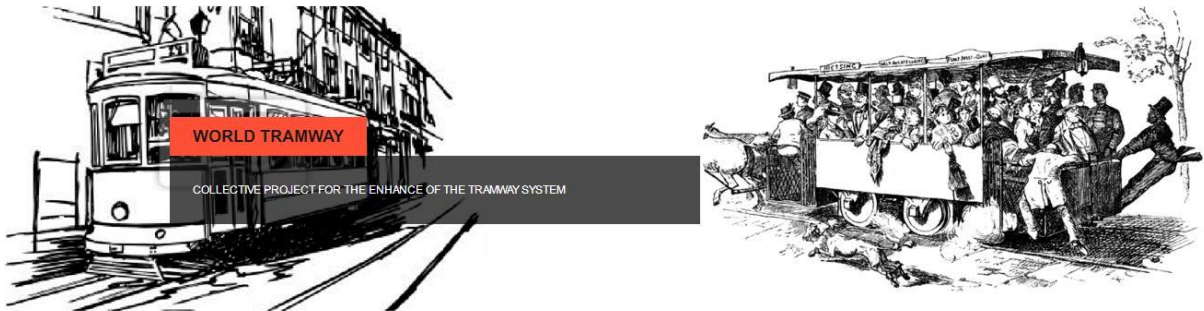
Considering our previous educational background and private interests, after the first meeting we decided to split work in four main categories: *technique*, *tramway & city*, *cultural impact* and *heritage policies*. Part dedicated to technique aimed to show the development of power sources and how technical improvements have been reflected on the design of vehicles. Tramway and city is trying to determine how public transportation and urban development of the cities are connected. The cultural impact field is exploring why and how the subject of tramways is shown in the field of art, in paintings, books, philately and cinema. Heritage policies examine in which period tramway became a heritage, what is the criteria of its heritage and in which shapes tramway heritage exists today.

Despite our four parts, the group decision was to make an internet page with the explanation of our individual work. The goal was to create a virtual museum with exhibition and interactive projects, and to create an archive collection, gallery with sources and actors list.

The results of team work can be seen on internet site:

www.pireh-dev.univ-paris1.fr/TPTI/groupe2_tpti/

TRAMWAY MUSEUM ARCHIVES ACTOR DIRECTORY CONTACT US CREDITS



Source: www.pireh-dev.univ-paris1.fr/TPTI/groupe2_tpti/

We agree decided to take case studies in three European countries where we were situated during our Master program for all our research areas. In the end, we named the tutored project *World Tramway - collective project*.

The main objective is the recognition of the tramway system's significance in the technical, social, and territorial frame and the identification of good practice in tramway enhancement. In this context, supporting objectives are drafted: demonstrating the cultural, technical, social and urban contribution, enhancing the economic value, stimulating the space of cooperation and motivating the society re-appropriation.

This report is structured in two main parts. First, I will present my personal work based on the objectives of collective work, explaining which research methods were used to create a part of heritage policies in the context of the tramway. In the last part, a synthesis of the work that has been done is presented in relation to my individual contribution to the group project.

Personal work

In this work I will research how and when a tramway system becomes a heritage and what were and still are its representation modes.

Cultural Heritage is an expression of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions and values. Cultural Heritage is often expressed as either Intangible or Tangible Cultural Heritage (ICOMOS, 2002). As a part of human activity, Cultural Heritage produces tangible representations of the value systems, beliefs, traditions and lifestyles. As an essential part of culture as a whole, Cultural Heritage contains these visible and tangible traces from antiquity to the recent past.¹⁷³ In this work I propose to call tramway a cultural heritage, more specifically a transport (cultural) heritage.

Heritage streetcars or *heritage trams* are a part of the efforts to preserve rail traffic heritage. In addition to preserving street running rail vehicles, heritage streetcar operations can include upkeep of historic rail infrastructure. Working heritage streetcars are closely related to the growing global heritage railway movement and form a part of the living history of rail transport.¹⁷⁴

As with almost every other cultural heritage, tramway heritage appears once the tram system has lost its functional role in public transportation. Along with the disappearance of tram systems in the cities, first indications to preserve the tramway culture occurred. This happened in the period from 1920 till 1950. First tram associations were founded with the intention to preserve historic vehicles and rail systems. Tangible and intangible tramway heritage once collected by various professional and amateur tram associations form the first known efforts to establish a tramway museums.

¹⁷³ Available at http://www.cultureindevelopment.nl/cultural_heritage/what_is_cultural_heritage (Accessed: 1 August 2016)

¹⁷⁴ Available at: https://en.wikipedia.org/wiki/Heritage_streetcar (Accessed: 1 August 2016)

Because of the lack of scientific literature on topic about a tramway heritage, my research was done on the basis of collecting data from the Internet and by analyzing it in the context of cities, communities, and historical influences of tramway as public transportation in some areas.

From that analysis I found that today tramway heritage is presented in four main groups which show how tramway culture and legacy is recognized, valorized and preserved.

Tramway culture is present today through four types of heritage:

1. *Tramway associations* are the form of the very first heritage policies in the world. Tramway associations are usually non-profit organizations which are dealing with tramway heritage. They organize exhibitions and preserve the vehicles in locations open to individuals or institutions who have interest in tramway history. Most tramway associations were founded in the era of ‘disappearance’ of tramway as a public transport, which happened in the period from 1930 till 1960, depending on the country. Most of the associations were founded by enthusiasts, most of them former employees who have worked in the field of public transport. The main task of these associations is the restoration and maintenance of vehicles and storage in appropriate areas that are often former depots. Realizing that tramway is a form of public transportation that influenced and marked one period in history, they tried to preserve the entire tangible and intangible heritage connected to tramway and light rail.

2. *Tramway museums* are specialized heritage institutions focused on the preservation of historical traces of the tramway transport system: machines, rails and other artifacts. Museums preserve original vehicles or create replicas of historical vehicles to re-create or preserve tramway technology. In addition, they achieve their mission by collecting and exhibiting materials, archives and documents about the history of the tramway. They play an essential role for the conservation and the valorization of the tramway heritage.

3. *Tramway open-air museums* are located in areas where the tramway recently played a major role; where it connected an important location to another one, or where it

strongly improved the quality of life of the local community. These museums recreate the historical settings to simulate past time periods. They provide visitors with an experiential interpretation of history. It recreates to the fullest extent the conditions of specific culture, environment and historical period.

4. ***Historical lines and old trams*** can also be called *working heritage tramways* which are closely related to the growing global heritage railway movement and they represent a relevant part of the living history of the rail way transports. In numerous cities, the tramway has long history as public transport. In these cities, the tramway had great impact on the urban structure of the city. As a result, the Municipalities decided to save and restore the tramway lines and the vehicles used in the past.

Case study in tramway heritage policies can show us how today tramway culture is evaluated and what this evaluation looks like throughout the world. Our TPTI team *World Tramway - collective project* has decided to focus this team works on three European countries where we were situated during our Master program. First of all, it was Paris where we started our first semester, so it was logical and also very interesting to research why this historical and touristic center does not incorporate tramway heritage into its historical transport routes. Milan and Lisbon, both '*tramway cities*', show its transport culture fully incorporated into its everyday life, though on two very different relations to the heritage.

In case study of chosen cities trough the virtual museum we created an exhibition with four time frames (*1750-1850, 1850-1920, 1920-1970, 1970-Nowadays*), and for each individual work we presented the results of our research. Another project that included case studies of cities was creating interactive project taking platform on the social network *Twitter*.

1. Exhibition

a) Paris

Observing the heritage polices in Paris, it can be seen that there is a lack of institution just dedicated to tramway, no museums, specialized associations or historical lines. The

reason for this is laying in the fact that tramway as public transport was moved from the city center not long after it started to work as public transport during the 1930s, which was when dismantling of the network was decided and implemented. Despite that fact the first heritage policies were shown in from *1920 to 1970*.

The first signs of the preservation of Parisian tramway heritage came in the late 1950s on the initiative of Jean Robert, an amateur with the intention of saving Parisian tramcars from systematic destruction. In 1957, together with a few other professionals and his personal interested in the subject, he founded a non-profit association *AMTUIR (Association pour la création du Musée des Transports Urbains Interurbains et Ruraux)* for the purpose of setting up an urban, inter-urban and rural transport museum. It is important to note that at this time there was no interest for the protection of transport heritage even from professional or from the general public. The enthusiastic group started to buy and preserve old vehicles.

Considering the fact that Paris had the longest tradition of tramway legacy, it would logical that the first museum dedicated to urban transportation in France was opened in Paris, but this is not the case here since the first museum was opened in a former tram depot in Malakoff in 1964, before being moved in 1972 to a disused bus depot in Saint-Mandé.

The volunteers of the association learnt how to operate a museum: monitoring, collection representations, temporary activities such as conducting exhibitions or organizing courses in older buses. The value of the collection that now has nearly 180 vehicles, together with the professionalism of the Association, were recognized by the *Direction of the Museum of France (la Direction des Musées de France du Ministère de la Culture)* who granted it with a status of Museum of France in 2003.

The Saint-Mandé Museum was known and enjoyed a high reputation abroad. The AMTUIR is a member of IATM (International Association of the Transport Museums), specialized branch of the International Council of Unesco's museums.

After the Saint-Mande Museum was closed, the result of a real estate transaction, the collection has been stored since 2001 on the former Navy site in Colombes. In 2008 a part was transferred to the new site in Chelles, the rest being stored in premises lent by RATP. AMTUIR members continue to volunteer to maintain the collection, the development of historical knowledge on public transport. They devote their time to the preparation of the future museum of urban transport so it can be reopened for the general public.

In the period of *1970-Nowadays* the only recognition of tramway heritage in Paris was shown in an interesting exhibition '*Tramway – une école française*' on the subject of French tramway culture in Paris in 2014, curated by *Yo Kaminagai*.

As it was pointed in the press kit of the catalogue, the exhibition showed the specificities of French-style tramways and the design processes that exist in these projects. The word « *design* » means the usual disciplines of graphic or product design, together with the environments and landscape design, city planning and architecture.

French new tram lines first opened in 1985 in Nantes and were quickly followed by 30 other new tram lines throughout France which marked the revival of tramway culture in the country. *The French trams have an added value that heavily relies on creative professionals: designers, urban planners, landscape designers, architects and artists. Thus, the transport project (vehicles, rails, power lines, stations) is enhanced by the following components: an innovative and personalized design for the rolling stock; an arrangement of the public space around the lines, with cityscapes that are sometimes transfigured (the Cours des 50 Otages in Nantes, the Boulevards des Maréchaux in Paris, the Garonne Banks in Bordeaux,...); the creation of iconic stations (Homme de fer in Strasbourg, Doua and Part-Dieu in Lyon, Mosson in Montpellier,...); the design of urban furniture collections in Nantes, Lyon, Orléans, Rouen, Bordeaux, Mulhouse, Paris Ile-de-France; artistic and cultural side projects; new visual identity and passenger information systems.*¹⁷⁵

The exhibition showed how the return of the tram in French cities and its enhanced character was made possible by the decisive contribution of design and other creative

¹⁷⁵ Press kit , Available at: <http://www.llelieududesign.com/en/tramway> (Accessed: 1 August 2016)

disciplines, and that trams marked the history of urban planning of French cities in recent decades. Therefore the author of the exhibition proposed a term *French Tram School*.

The exhibition's scenography (by Eloi Lemétayer from La Fabrique de l'Est) was divided in 5 main sections: *Urban design, Urban furniture, Vehicles design, Artworks and architecture, Passengers information and visual identity*. A special section was dedicated to the foreign tramway projects done by French design management professionals, China and other countries in North Africa and the Middle East.

In the late 1990s, the tramway became a symbol of sustainable mobility in France. It met the objectives of traffic security, preservation of air quality and solidarity since it also served isolated neighborhoods. It also offered an opportunity for manufacturers and operators to offer their skills to other countries around the world.

b) Milan

The Milan tramway network is an important part of the public transport network of Milan. It arrived as public transportation very early and throughout history has worked continuously until the present day. Because of that it became one of the symbols of the town, and today the legacy of past time is still visible in old vehicles that run in the city.

Milan tramway network, *Rete tranviaria di Milan*, has 18 urban and 2 interurban lines. From the very first Milan tramway in 1876 operated by animal traction, and then a year later first steam tramway, Milan got its first tram network in 1881, with completed electrification in 1901. The urban tramway network was damaged but very soon repaired after the Second World War. In the late fifties Milan was preparing for its first Metro lines and most of the tramway lines were removed from the streets. Although reduced, Milan tram network was still running. In 1994 the revival of Milan trams began with the implementation of fast trams and new tramway lines. In Milan today still some of the famous historical lines still operate such as like *Series 1500, Series 4600, Series 4700, Series 4900*.

Public transportation in a form of tramway never stopped working, and even today it is a part of urban transportation, but there is no specialized institution, like a museum or association, for preserving its heritage. Some vehicles from the 19th century form part of the collection *Museo Nazionale della Scienza e della Tecnologia 'Leonardo da Vinci'* in a department of rail transport.

Tramway heritage is incorporated today in Milan in aspects of promotion and tourism of the city. The company ATM (Azienda Trasporti Milanesi) promotes the heritage of trams in two aspects. One is to rent restored vehicles and ride in them for 3 hours through downtown, and second one is to dine in special edition tramways called *ATMosfera*. *ATMosfera 1* and *2* are two historical 'Milan 1928'-style trams, completely restored and transformed in ATM workshops into retrò restaurants. *ATMosfera* waits every evening in Piazza Castello on the corner with Via Beltrami and makes a visit of both the historical and contemporary areas of the city.

The second aspect was shown on last year's Expo 2015 in Milan. The theme of all Expo 2015 was marked by food, and all aspects and habits of gastronomy of many countries across the world. In this case the initiation of Japan in Milan should be pointed out. The idea was to connect sushi and tramway, two important things that denote the two cities Tokyo and Milan. This was done by placing a restaurant in heritage tramway that served sushi and sake.

Besides the main function, like a part of public transportation in Milan, tramway in a period of Expo 2015, covered with the advertisement of most important world exhibition, became something like an art installation, connecting the heritage in a form of old vehicles and contemporary event.

c) Exhibition-Lisbon

As in Milan, in Lisbon still has operating trams as one of the most popular public city transports.

The first tramway in Lisbon entered service in 1873 as a horse car line. In 1901, Lisbon's first electric tramway commenced operations. Until 1959, the network of lines was further developed, and in that year it reached its greatest extent. At that time, there were a total of 27 tram lines in Lisbon. The construction and the expansion of the bus system and the Lisbon Metro began the slow decline of the network. The current lines still running are:

- 12 - Praça da Figueira - Miradouro de Santa Luzia circular route
- 15 - Praça da Figueira - Algés
- 18 - Cais do Sodré railway station - Cemitério Ajuda
- 25 - R. Alfândega - Campo de Ourique
- 28 - Praça Martim Moniz - Chiado - Campo de Ourique

This five tramway lines still operate in the south center and west of the city. They not only serve as tourist attractions, but are very important public transport system due to the Lisbon peculiar topography that can be passed only by small trams.

Lisbon is the one of the rare cities in the world with more old tramways than new ones. Because of that, the tramway has become a trademark of the city, something that no visitors will miss in town. Besides historical monuments, the legacy and heritage of tramway strongly creates the urban landscape of Lisbon. The reason is that Lisbon has one of the most spectacular tramway systems in Europe, which totaled 108 route km in 1924, when it incorporated nine funiculars, of which four remain. The system is managed by the *Companhia Carris de Ferro de Lisboa*, which had its origins in Brazil in 1872. In 1924 *Carris* - the Lisbon operator - commenced constructing its own bodies, which did not change shape until the present day. In 1995, with a contracted system of coastal route 15 for which new cars arrived and the remaining hilly routes, *Carris* decided to upgrade 45 of its four wheel cars, recognizing their iconic status and tourist appeal.

Beside nurturing the 'live heritage' in still running old vehicles, *Carris* company opened a museum in 1999 which is dedicated to all kind of public transportation heritage, in which tramways have a big role.

2. Interactive project – Twitter

As a part of the project, we also decided to do an interactive project on our internet site. We took a platform of social networks Facebook and Twitter to see in which way and how the term tramway is showing up on them.

My research was based our case study cities on Twitter, a social network known in the world. The criteria that were used in this research were time frame and the word for *hashtag*. I used the '*hashtag*' #tramway with various names of our case study cities #paris, #milano, #lisbon in the period from 1 May until the 22 July 2016.

The sample constitutes 274 posts from all cities. In that period there are just 26 posts from Paris, 104 for Milan and 140 for Lisbon. What is very interesting in this research is how posts are shown. Twitter is a platform whose philosophy is social network based on text. A few years ago, Twitter incorporated the ability of posting photography in posts. Despite that, a majority of twitter community user writes textual tweets. When the results are compared between our case study cities, Paris has only little photography with tramways, Milan posts are in majority textual, but in the case of Lisbon 90 percent of twitter posts are with photography of a tramway. Another observation is the content. In Paris case, there are no posts with heritage connotations and in Milan a lot of posts are connected with the news of traffic that involved tramway. In Lisbon, almost every post is showing the photography with old vehicles inside a city urban landscape.

Synthesis and conclusion

Through the examples and analysis in our case studies it is shown that the valorization of heritage is going from the relationship how the object is connected with the community, in the past but also in present times. The point when something is defined as a heritage is when it has profound historical consequences. The universal standard of a heritage object or site is that it has to be kept in its original location and that it embodies a characteristic or a specific way of acting of a given community.

In this research it is clear that Paris has lost the '*original location*'. Tramway system was completely extracted from the urban center, so today there are no visably traces of its existence in the past. It refleced on the heritage in a way, that traway legacey vanished from Paris. In the case of Milan and Lisbon it is different since their communities never lost the connection with the object. In Milan, tramway is a part of transport heritage, but not as strongly emphasized as in Lisbon. This is visiblewithin the research done on Twitter that shows that almost all post regarding Lisbon have photos with tipcall Lisbon Remodelados. The reason for this is that Lisbon is one of the few cities in the world that has a continuous history of trams in the service of public transport. In Lisbon today the tramway is an icon, a symbol of the city, the same as any other cultural monument.

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