

## **Vino nuevo en odres nuevos: Usos y aplicaciones de la imagen y la memoria para la innovación social**

***New Wine in New Wineskins: Uses and Applications of Image and Memory for Social Innovation***

***Vinho novo em odres novos: usos e aplicações de imagem e memória para inovação social***

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### **Resumen**

Utilizar una técnica de registro visual proveniente del siglo XIX en el siglo XXI en un contexto de investigación social ha sido una tarea que derivó en una estrategia de innovación social para las personas y comunidades con las que hemos trabajado. En un primer apartado se presenta el contexto de la historia de la fotografía química en México. El trabajo pretendió incidir positivamente en el reconocimiento de la memoria y la identidad, individual y colectiva, para la recuperación de espacios en la ciudad contemporánea, así como fortalecer la cohesión social y familiar en grupos minoritarios en el estado de Puebla en México. Dicho trabajo fue realizado con tres grupos sociales: el primero, niños de una casa hogar en condiciones vulnerables; el segundo con estudiantes universitarios de escuela pública, y el tercero con familias de italomexicanos provenientes de una migración del siglo XIX. Mediante estos trabajos se pretendió incidir en la

recuperación de espacios urbanos como estrategia de innovación social, a partir de métodos y técnicas de análisis semiótico de la fotografía y la reconstrucción de la historia oral, utilizando a la fotografía química como centro de los trabajos de la investigación. El trabajo tiene la fortaleza de usar recursos de bajo costo para promover la reflexión de procesos colectivos e identitarios vinculados al reconocimiento social y a fortalecer relaciones e interacciones que, estando debilitadas, producen violencia social. Sin embargo, el impacto real y la cuantificación de los logros alcanzados por el proyecto presentan un reto que solo podrá ser abordado en la evaluación continua en los años posteriores a la realización del estudio, y difícilmente se podrá cuantificar el impacto positivo en indicadores numéricos.

**Palabras clave:** fotografía, imagen, investigación social, memoria, México.

### **Abstract**

Using a visual registration technique from the 19th century in the 21st century in a context of social research has been a task that led to a strategy of social innovation for the people and communities with whom we have worked. In a first section we present the context of the history of chemical photography in Mexico. The work aimed to positively influence the recognition of individual and collective memory and identity for the recovery of spaces in the contemporary city as well as strengthening social and family cohesion in minority groups in the state of Puebla in Mexico. This work was carried out with three social groups: the first, children from a home in vulnerable conditions, the second with university students from public schools, and the third with families of Italians from a 19th century migration. Through these works, it was intended to influence the recovery of urban spaces as a strategy of social innovation, based on the methods and techniques of semiotic analysis of photography and the reconstruction of oral history, using chemical photography as the center of the works of the investigation. The work has the strength to use low-cost resources to promote the reflection of collective processes and identities linked to social recognition and strengthen relationships and interactions that, being weakened, produce social violence. However, the real impact and quantification of the achievements of the project present a challenge that can only be addressed in the continuous evaluation in the years after the study is carried out and it will be difficult to quantify the positive impact on numerical indicators.

**Keywords:** photography, image, social research, memory, Mexico.



## Resumo

Usar uma técnica de registro visual do século XIX no século XXI em um contexto de pesquisa social tem sido uma tarefa que levou a uma estratégia de inovação social para as pessoas e comunidades com as quais trabalhamos. Numa primeira seção, é apresentado o contexto da história da fotografia química no México. O trabalho teve como objetivo influenciar positivamente o reconhecimento da memória e da identidade, individual e coletiva, para a recuperação de espaços na cidade contemporânea, bem como fortalecer a coesão social e familiar em grupos minoritários no estado de Puebla, no México. Este trabalho foi realizado com três grupos sociais: o primeiro, filhos de um lar em condições vulneráveis; o segundo com estudantes universitários de escolas públicas e o terceiro com famílias de italianos de uma migração do século XIX. Com esses trabalhos, pretendeu-se influenciar a recuperação dos espaços urbanos como estratégia de inovação social, baseada em métodos e técnicas de análise semiótica da fotografia e na reconstrução da história oral, utilizando a fotografia química como centro das obras da pesquisa. O trabalho tem força para utilizar recursos de baixo custo para promover a reflexão de processos coletivos e de identidade ligados ao reconhecimento social e fortalecer relacionamentos e interações que, quando enfraquecidos, produzem violência social. No entanto, o impacto real e a quantificação dos resultados alcançados pelo projeto apresentam um desafio que só pode ser enfrentado na avaliação contínua nos anos seguintes à realização do estudo, e o impacto positivo nos indicadores numéricos dificilmente pode ser quantificado.

**Palavras-chave:** fotografia, imagem, pesquisa social, memória, México.

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## Introduction

It seems strange that in the 21st century, in the era of digital technology and at the dawn of quantum computing, we use a handmade technique created in the 19th century to develop our social research work. Chemical photography has represented for us a form of expression, of art, but also a technique for social research, in the register of social phenomena, and a tool for social innovation.

In the academic body BUAP-CA-318 Image, Memory and Social Research of the Benemérita Universidad Autónoma de Puebla (BUAP), chemical photography has been used as a means of recording visual and ethnographic elements of daily life and other elements of the social life of various minorities in our Latin American region since 2000. A large corpus of slides or photographic positives on the uses and customs of the Totonaco indigenous group in Mexico covers



most of the visual work to form a photographic background. However, after the ethnographic works carried out, photography took on a different aspect in social scientific reflections.

In one of these works, for example, in which the camera was given to a group of diverse generations of Totonaco Indians to understand a little of their perception through the photographic objective (Vázquez, 2003, 2015a, 2017a), made an approximation to the visual culture of the ethnic group, and it was possible to elucidate the aesthetic preferences, framing, composition and plans to subsequently apply them to visual public policies, so that they had a more efficient impact in terms of the messages that were They transmit to the mentioned communities.

From there, the participation of social actors in the photographic record became a primary source of information and, better yet, of co-participation in social research.

Without constructing a “participatory photography” methodology, in the manner of participatory action research (IAP), various subjects were included in the construction of knowledge, together with the members of the research team; their participation in the reflection of the social phenomena of study was added starting from chemical photography as a pretext.

From three research experiences where chemical photography becomes essential, the present text was constructed.

At first, a recovery of physicochemical photography is made in Mexico to contextualize the importance of this technique in that country and to present the various moments that different generations have witnessed since the 19th century. Subsequently, the three cases of interest in which the image and memory were used for social innovation from chemical photography were used.

In the first case, photography was used as a tool for reflection on local, family and identity belonging to a boarding school with vulnerable children. There they were accompanied in the manufacture of pinhole cameras,<sup>1</sup> as well as in the exercise of photographic shots with said camera.

In the second case, a group of young university students were given specialized techniques regarding the preservation of family albums for the preservation of generational memory.

In the third case, the family albums of the descendants of immigrants of the nineteenth century were used for the recovery of the social fabric based on the recognition of belonging to the people and the human group.

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<sup>1</sup> Si bien más adelante en el texto se explica a detalle la técnica de la cámara estenopeica (ver nota 12) por el momento basta con mencionar que se trata de una técnica fotográfica histórica que se realiza sin el uso de lentes u objetivos a partir de una cámara oscura con un pequeño orificio llamada *estenopo*.

Finally, we reflect on the achievements and advances that generate the use of image and memory as a strategy for social innovation around the recovery of memory, the recognition of collective and generational participation in the recovery of spaces and the possible reduction of violence based on the strengthening of identity processes and social belonging.

### **A historical tour of photography in Mexico**

Photography in Mexico can be approached from two aspects. One based on the history of the social and political processes of Mexico. And another around the chemical processes of photography. In this section, making a fabric between the two, a brief historical tour of photography in Mexico is presented, and, in turn, the chemical processes that this technique has presented are explained.

The newspaper *El Cosmopolita* of January 15, 1840 (cited in Debroise, 2005, p. 36) includes among its pages information regarding the incorporation of the daguerreotype<sup>2</sup> in Mexico: there the Frenchman Louis Préliier reveals himself as the protagonist, because, in December 1839, he disembarked in the port of Veracruz with this device. Préliier made “a public demonstration registering the port of Veracruz, shortly after the Palace of Squares of Arms, the main buildings of this with its portals, part of the royal street, the Convent of San Francisco, the bay and the Castle of Ulúa” (*The Cosmopolitan*, January 15, 1840; cited in Debroise, 2005, p. 36). In a few days, “on January 26, Préliier repeated this same exercise in the main square of Mexico City and the cathedral.” (*El Cosmopolita*, January 29, 1840; cited in Debroise, 2005, p. 36).

Villela (1998, p. 108) points out that ethnological photography arrived in Mexico in 1841 with the German traveler Emanuel Von Friedrichsthal, who, through a photographic apparatus, took views of the archaeological sites of Uxmal, Chichen Itza and Izamal in the Yucatan Peninsula. Among the pioneering explorers of photography and true precursors of archeology and ethnography are characters such as John L. Stephens and Frederick Catherwood. Both arrived in Yucatán in the same year of 1841.

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<sup>2</sup> El daguerrotipo era una placa rígida de cobre que se procesaba químicamente para dejar en ella una imagen positiva: primero se pulía la placa y se cubría con plata y se sensibilizaba con vapores de yodo. Después de exponer la foto en la cámara, se revelaba con vapores de mercurio y se fijaba con hiposulfito de sodio. El resultado era una imagen única y positiva. El proceso de la daguerrotipia era complicado y costoso, y además requería un estudio, por lo que casi no se utilizó para panoramas, sino para retratos. Estos retratos en daguerrotipo solo estuvieron al alcance de las clases altas (González, 2007, p. 7). El daguerrotipo fue inventado y patentado en 1839 por Louis-Jacques-Mandé Daguerre, quien retomó y prácticamente se apropió del trabajo pionero realizado por Nicéphore Niépce (Valdez, 2001, p. 10).



Subsequently, the chemist Théodore Tiffereau arrived, who “made several portraits that give an idea of the Mexican type” (Villela, 1998, p. 110; cited in Roussin, 1993, p. 99). Tiffereau is considered one of the first daguerreotypes to portray indigenous people; He was in Mexico from 1842 to 1847. Another pioneer of ethnographic photo is Teoberto Maler. This archaeologist came to “Mexico together with the first cadet company of Maximiliano, made a photographic series about the archaeological site of Mitla” (Villela, 1998, p. 113).

It can be said that all the daguerreotypes who worked in Mexico between 1840 and 1855 were foreigners, especially French and Americans. These traveling photographers toured the national territory in search of architectural motifs, urban landscapes and archaeological monuments to describe Mexico.

Laura González (2007) notes:

As a means of representation, daguerreotype was a very precise and therefore unsurpassed technique, but copies could not be made as with negative-positive techniques: the calotype<sup>3</sup> or salted paper<sup>4</sup>. This problem was solved with crystal negatives, collodion<sup>5</sup> and albúmina<sup>6</sup>, which replaced the daguerreotype by the mid-1850s (p. 7).

Also, González (2007) indicates that collodion and albumin had many advantages: they were precise and reproducible, they were characterized by their reproduction of multiple photographs on portraits, this was through multiple lenses where up to twelve business cards were

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<sup>3</sup> Proceso fotográfico con negativo en papel, descubierto por William Henry Fox Talbot en 1840 y patentado en 1841. Es considerado el antecesor directo de la fotografía moderna, ya que fue el primer proceso que utilizó el sistema negativo-positivo (González, 2007, p. 10).

<sup>4</sup> Primer tipo de impresión fotográfica, realizado por contacto generalmente con negativos de papel (calotipos) y ocasionalmente con placas negativas de colodión sobre vidrio. Este proceso fotográfico fue descubierto por Henry Fox Talbot en 1840. Las impresiones en papel salado fueron utilizadas hasta mediados de la década de 1860, aunque su producción fue en descenso a partir de 1851, fecha en la cual surgen las impresiones en albúmina como alternativa técnica. Una característica de las impresiones sobre papel salados es que no dan detalles finos, debido a los efectos de la luz esparcida en las fibras de papel (González, 2007, p. 22).

<sup>5</sup> Coloide aplicado en fotografía en 1848 por Gustave Le Gray; posteriormente Frederick Scott Archer, en 1851, retomó la experiencia y permaneció el método. Este compuesto se empleaba en la elaboración de negativos y de positivos; existían dos variantes conocidas como colodión húmedo y colodión seco. El húmedo fue utilizado en los procesos de ambrotipia, ferrotipia y negativos con soporte de vidrio, mientras que el colodión seco en la elaboración de impresiones de papel y, dependiendo del tipo de superficie que proporcionaba a las impresiones, se le conocía como colodión secomate y colodión seco-brillante. Estas impresiones se les denomina en la actualidad impresiones de colodión, y pertenecen al grupo de papeles denominados de autorrevelado (printing-out papers). En ellas la imagen se obtenía sin la necesidad de un revelado químico (González, 2007, p. 11).

<sup>6</sup> Coloide empleado como sustrato fotográfico extraído de la clara de huevo. La albúmina fue utilizada en el siglo XIX para producir impresiones fotográficas en papel, comúnmente llamadas impresiones de albúmina, así como para la elaboración de negativos con soporte de vidrio (González, 2007, p. 8).

obtained in the same shot . And for being easy and economical to manufacture, its consumption extended to the middle classes (González, 2007, p. 8).

The archaeologist Désiré Charnay, considered a fundamental figure in the development of photography and archeology, carried out photographic work in “Mitla, Palenque, Izamal, Chichen Itza, Uxmal” (Villela, 1998, p. 111). “Between 1858 and 1861, in which, in addition to the urban panoramas, he made the collodions of the American Cities and Ruins album” (González, 2007, p. 16).

In Mexico, from 1860 to 1890, studio photographers announced daguerreotypes, ambrotypes<sup>7</sup>, ferrotypes<sup>8</sup> and copies on paper with the generic name of daguerreotypes. Given this situation, Rosa Casanova (2005) indicates the following:

The Mexican territory was marked by the presence of ephemeral improvised studies by the daguerreotypes and ambrotipists who toured the country, establishing an itinerary governed by the festivities that, entrenched in the viceregal past, conjugated religious rituals and civic life through fairs and national celebrations that assured the congregation of a large number of people and made predictable the sale of portrait, in addition, through the portrait, the photographer's job becomes a stable source of income (p. 7).

Debroise (2005) argues that between 1864 and 1867 there was the first photography boom in Mexico, due to the inauguration of more than 20 studies dedicated to the production of business cards and "imperial" cards in Mexico City (p. 53).

In addition to this, Debroise (2005) specifies the following:

Among other European merchants engaged in luxury activities - tailors, hoteliers, confectioners and chefs - the photographers arrived. The French: Amiel, Mérille and François Aubert, followed by Jean Baptiste Prévost, Adrien Cordiglia and Auguste Péraire; the Spaniards: Julio de María y Campo, José Pedebielle and J. B. Parés (associated in Veracruz with one such Ventura); Americans: J. Tomwang, Vaughan and Company and John Tutrig, who also worked in Mexico during the French

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<sup>7</sup> Proceso realizado con colodión húmedo, el cual produce una imagen positiva directa sobre una placa de vidrio; también es conocido como positivo al colodión o daguerrotipo de los pobres. Este proceso fue patentado por James Ambrose Cutting en 1854 (González, 2007, pp. 8-9).

<sup>8</sup> También llamado tinte en Estados Unidos, es un proceso fotográfico derivado del ambrotipo, sólo que el soporte es una placa de hierro. Su descubrimiento se atribuye al francés Adolphe Alexander Martin en 1852, pero hay quienes aseguran que fue descubierto por Hannibal L. Smith en 1856 (González, 2007, p. 16).

Intervention. In parallel, Mexicans: Francisco Montes de Oca, Lauro Limón, Andrés Martínez, Luis Campa, Antíoco Cruces, Agustín Velasco, Joaquín y Maximino Polo, Luis Veraza, Manuel Rizo y Julio Valletto (p. 53).

And going back to Rosa Casanova (2005):

The photographic portrait served as the basis for the study and identification of behaviors and individuals and became an adjunctive mechanism in crime control that grew inordinately with the instability of the governments themselves and social and economic uncertainty (p. 9).

On the other hand, Laura González (2007) mentions that:

By the mid-1880s, the use of "dry" plates of gelatin that saved the work of sensitizing the plate before taking was spread. Due to its ease of use, dry plates were used for outdoor works, such as registration of works during the Porfiriato. Its high photosensitivity allowed the "instantaneous" capture of moving scenes, a fact that was indispensable during the Revolution. In addition, when revealed in a special way, they produced transparencies that could be projected on devices lit by candles. His themes included tourist sights, architectural monuments or popular shows, such as the Centennial Independence Festival (p. 9).

Debroise (2005) indicates that photographers or owners of photographic companies proposed to their clientele various attractions, for example, multiple ways of using or carrying portraits, such as the known silver or gold reliquaries, which usually used to be placed on the cover of a cigarette case, in a bracelet or even in a ring. Others offered portraits printed on media such as cloth, rubber, wood, plates, trays and porcelain cups (Debroise, 2005, p. 59).

Regarding indigenist photography <sup>9</sup>, Del Castillo (2005) comments:

The Porfiriato regime expanded and deepened a review of Mexican history, which traced a re-reading of pre-Hispanic objects, converted by the art of civic education into national symbols, and displayed them neatly on the shelves of the National Museum of Mexico City (p. 63).

The photograph was used in a documentary sense in order to recreate an inventory of the different ethnic groups spread across the territory of the country.

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<sup>9</sup> "Es tan estandarizada, que la discursividad del fotógrafo individual manifiesta solo la selección de un tipo discursivo con pequeñas inflexiones personales. (...) La diversidad discursiva que encuentro en la fotografía indígena tiene que ver con sus características estético-políticas que se construyen según (...) en el campo científico, el comercial, el artístico y el escolar" (Corona, 2007, p. 80).



Villela (1998) points out that “ethnographic photography<sup>10</sup> He found in Lumholtz one of his first exponents with clear technical and scientific guidance. The process that followed is intermediate between mere illustration and the method of analysis”(p. 114). However, Del Castillo (2005) emphasizes the following about Carl Lumholtz:

He made six study trips between 1890 and 1910, funded by the American Museum of Natural History in New York City, and studied some of the indigenous groups that lived in the Mexican northwest, staying long periods among them, during which he took thousands of photographs on glass plates with an 8 x 10 inch camera (p. 64).

Canales (2005) argues that in 1896 the presses, linotypes and half-tone printing technique were introduced, which prompted the modernization of the press, and images of several journalists began to appear almost always without credit. In the same year, Leon Diguét undertook a mission with ethnographic purposes in the northwest of the country (Canales, 2005, p. 273). Del Castillo (2005, p. 63) clarifies that his central study referred to the Huichol group, although it also covered coras, Yaquis, Tepehuas, Otomies, Cochimíes and Nahuas, and rescued aspects of the flora and fauna that formed Part of your interests.

On the other hand, González (2007, p. 32) indicates that before the Mexican Revolution there were images of war, such as portraits of combatants and their camps, or simply panoramic views of the devastated battlefields, and especially of abandoned corpses . “The emergence of revolutionary violence in 1910 ended the dream of perpetuity of the Porfirian government. Photographers took to the streets to record new facts and events, facing technical challenges and increasingly complex tasks ”(Del Castillo, 2005, p.72).

Finally, González (2007) indicates that:

Sometimes professional, sometimes casual amateur, the photographer was a central protagonist of the armed conflict. Individually or accompanied by other colleagues, the photographer documented the most significant events of the Revolution, by building a recognizable image of it and its leaders (p. 32).

In fact, the photograph of the Revolution, according to González (2007):

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<sup>10</sup> Nombrada también como *fotografía antropológica*. “Es la realizada por antropólogos, como medio de investigación concretando en una metodología específica. (...) Habría que empezar por situar la fotografía antropológica como explica José Muñoz ‘en un lugar propio que sería el de aproximación / interpretación / explicación de la realidad desde una perspectiva científica, entendiéndolo en este caso científica como propia de las ciencias sociales y, más concretamente, de la etnografía” (Sánchez, 2006, p. 54).

Al igual que en la nueva etnología, lo que valida a los fotógrafos es ser testigos. Su certificado de autenticidad es haber estado allí. (Ramírez, 2001, p. 119)

Not only does it make real, complex and contradictory Mexico visible, it also defines a series of representative images that post-revolutionary governments used in their nationalist project. (...) Because of its ability to record how and where events happened, the photography of the Mexican Revolution was intended to be an "objective" documentation, and therefore, many photographs are anonymous: the important thing was to record the event and not who I had documented it. In general, the signature of the images had commercialization reasons and not the assessment of personal authorship (pp. 33-34).

Rebeca Monroy (2005) emphasizes that the post-revolutionary period:

It marked important guidelines for Mexican photography, there were continuities, ruptures and transformations in its forms of realization, as well as innovations in its themes and graphic genres. (...) The photosensitive materials of the plates and films for the camera were improved. The lenses had fewer optical aberrations and had a higher brightness. For their part, the cameras were lighter and more accessible than their predecessors; the flashes were less bulky allowing faster shots indoors or in poor light conditions, where the tripod was also widely used (p. 119).

Before the advance of the revolutionary movement, many women began to take charge of family photographic establishments that could not be attended by men during the year 1914 (Canales, 2005, p. 275).

Alfonso Morales (2005) points out that the photograph made in Mexico between 1940 and 1970:

It significantly expanded its catalog of offers and services, while continuing to fight for its artistic legitimacy. (...) In the course of those three decades, photography reached mass audiences not only because cameras and materials had more accessible prices but, above all, because of their doubling in other means of visual production. In the newspapers it was information, illustration or simple filling. The graphic arts disclosed it as a stamp, postcard, poster or label (pp. 182-183).

However, González (2007) He points out that current photography is distinguished by its built, scenographic or theatrical character, which is also accentuated with the use of color. In this regard, the influence of Manuel Álvarez Bravo must be recognized. While he is best known for his "surreal" photos in black and white, Álvarez Bravo was also an extraordinary color photographer; his experiments of the 60s introduced a different color concept to the folklore with which Mexico



was associated. Already in the 80s, color, as an aesthetic proposal, reappeared with authors such as Lourdes Grobet, Rubén Ortiz, Salvador Lutteroth, Vicente Guijosa and Lourdes Almeida, among others. Close to the forms and concepts of the mass media, the proposals of these photographers promoted new vocabularies in Mexican photography that would be affirmed in postmodernism (González, 2007, p. 43).

Finally, while photography shows its manufacture thanks to digital technology, society itself, in its representative images, exhibits its construction processes. That is to say:

Built by recycling fragments of identity documents of people with diverse cultural backgrounds and citizenships, these images propose an interesting comparison: that of the complex construction of contemporary identity and that of current photography, based on assembly and manufacturing (González, 2007, p. 45).

## **Methods and applications of image and memory for social innovation**

In this work the semiotics of photography was used to describe the photographs used in the three groups with which we worked (the first, children from a boarding school in vulnerable conditions, the second with public school university students and the third with families of Italians from a nineteenth century migration).

It should be noted that the semiotics of photography derives from the semiotics of the image. In this sense, photography belongs to a whole category of signs that the American philosopher and semiotic Charles Sanders Peirce called index by opposition to icon and symbol. In addition, he defined the photographic sign based on its relationship with the object (the sign's secondness): on the one hand as an icon, on the other as an index. Thus, the photos are, in a way, exactly like the objects they represent and, therefore, iconic. On the other hand, they maintain a physical link with their object, which makes them indicative, because the photographic image is physically obliged to correspond point by point with nature. Another aspect of the photo that Peirce interprets semiotically is the possibility of its technical reproduction.

Consequently, Peirce (1974) states that a sign is a thing that allows us to know something else. "The sign, thus, is not the simple representation of a reality, but, thanks to the interpreter, it is also the implicit possibility of saying the other" (Pericot, 2002, p. 22). Now, Morris (1985) distinguishes three dimensions in semiosis: syntax, semantics and pragmatics. The syntax is considered as the study of the syntactic relations of the signs with each other by abstraction of the



relations of the signs with the objects or with the interpreters. The semantics deals with the relation of the signs with their designata and, therefore, with the objects that they can denote or that, in fact, denote. Pragmatics is the relationship of the signs with their interpreters.

For Morris (1985):

The syntax speaks of the rules of formation and transformation, but the rules are possible modes of behavior and imply the notion of interpreter; "Rule" is, therefore, a pragmatic term. The semantics explicitly refers only to the signs as objects or situations they designate, but there is no such relationship without rules of semantic use, and this implies again, implicitly, the notion of interpreter. Pragmatics only deals directly with the interpreted signs, but "interpreter" and "interpreter" cannot be defined without using "sign vehicle" and "designatum", so that all these terms are strictly semiotic terms. (p. 101).

Therefore, these three dimensions of semiosis were necessary and useful in this work. The syntax related to perception, the semantics related to the visual content and the pragmatic in relation to the text and its context.

### **Image and memory with children**

When you think of the smallest of society, you usually imagine smiling faces on the way to school in a traditional family, who in the afternoon receives them eagerly to do their homework and maybe eat together. However, the reality in our Latin American region is plagued by situations that were previously considered atypical: children are in unfavorable conditions surrounded by elements that produce, or are the product, of family disintegration, contexts of violence and in various cases of forced labor and child exploitation.

In the case of work with children, the dynamics of the use of chemical photography was carried out at the Julian Hinojosa Boarding School, with a group of primary school children, children of sex servants of the city of Puebla, Mexico. These children study from Monday to Friday and only on weekends live with their mothers, because they work throughout the week. The objective of the workshop provided to this group of children was to teach them the importance of using the image from the pinhole camera to record part of their daily life.

It should be mentioned that pinhole photography is one that is taken without the use of lenses or lenses. Basically it consists of a dark camera with a small hole called a pinhole, through which the light rays that will affect the photosensitive paper or the photographic film enter. It was



called a pinhole camera for etymological reasons; from the Greek στένω / steno 'narrow', ὀπή / ope 'opening', 'hole'. Through this small hole light travels in a straight line to form a more or less sharp image on paper or photographic film (forgotten image, s. F.).

In our case, pinhole cameras were made by hand, by hand. And for its manufacture we use the following materials: a cardboard box from a match of matches, a roll of photographic film, an empty photographic film magazine, an aluminum foil, the piece that is used to open the cans of carbonated drinks and reels of insulating tape. As arming tools we use fine-pointed tweezers, fine-cut razors, fine sandpaper, scissors and needles.

For the pinhole hole, a perforation was made with a baking needle on a thin sheet of sanded aluminum, which was mounted and adhered to a cut frame on the front wall of the cardboard box. On the opposite side of the pinhole, was the photographic film. As a shutter a sheet of an opaque material was used, which was opened and closed manually, like a window, exposing the film to light for the desired seconds. The film was traversed using the aluminum lever that comes in carbonated drinks; It was deformed with tip tweezers so that it could fit in the travel hole of the photo magazine. For the photographic exhibition ISO 400 color film was used, with a view to favoring the sensitivity of light and increasing the probability of success in photographic shots.

For the development of the general work the following steps were carried out:

a) The school and administrative authorities of the boarding school were contacted to explain the activity of the workshop for the development of pinhole cameras with low-cost elements and obtain as a product a visual narration of the daily life of each participating minor.

b) The workshop was designed according to the indications and particularities of the minors that were indicated to us by the psychological specialist of the boarding school; Some of the indications were based on the character of such a child, the special attention required by some child or the impatience of another. Additionally we were contextualized of the family situation of children, as well as the complexities of social insertion of several of them.

c) The necessary materials were prepared so that the little ones had to perform in the least possible number of steps in the manufacture of the chamber.

d) The explanation of the chemical photography technique, the physicochemical phenomenon involved, as well as some elements of the internal process of the camera and the use of the camera were designed, all with short explanations and according to their age.

e) The application of the elaboration workshop was carried out with the aforementioned specifications, as well as the realization of the first shots and its corresponding written record for

each exhibition, and it was concluded with the necessary indications so that they could record some activities of their daily life precisely, in our absence.

**Figura 1.** Enseñando a elaborar la cámara estenopeica en el Internado Julian Hinojosa



Fuente: Vázquez (2017b)

**Figura 2.** Rostro de una niña elaborando una cámara estenopeica



Fuente: Vázquez (2017c)

An endless number of vicissitudes arose during the camera-making workshop, some related to the condition of being less and others more to the generational condition of preference for immediacy.

In the field of the practical, the small hands of the children often broke or overworked some part of the process, just as at the time of making the pinhole or sanding the aluminum foil where it is located. Similarly, sealing the photographic film with the insulating adhesive tape had several difficulties, which we could confirm by identifying light leaks at the time of development.

In the field of the cognitive, the greatest difficulty arose when making the little ones reflect on the process of obtaining the image. At the time they made the first exhibition, they invariably asked: And now, where does the photo look?

From the above, the children had the opportunity to narrate through the pinhole camera the life they have in a weekend with their mothers. When semiotically analyzing the photographs taken by each boy or girl, it was observed that they syntactically registered the spaces of their houses in general plans, and when they portrayed their mother they always looked for the foreground. Semantically it can be said that they recorded daily life with their mothers on a weekend with the following activities: eating and doing housework. Pragmatically, the use of the pinhole camera was a link between each boy and girl with their mother, as well as an activity of coexistence and family approach. The general conclusions of the exercise are presented at the end of the text.

### **Image and memory with young people**

The second group we worked with was with university students in Puebla, Mexico. They were taught the importance of photographic image as a world heritage site, based on the recommendations of the United Nations Educational, Scientific and Cultural Organization [Unesco] (1992, 2003), using as the center of the reflection photographs of their own family photographic collections, as well as some techniques of material identification, conservation and photographic preservation.

The work performed required the following steps:

a) Presentation of the photographic preservation workshop and its objectives to the academic authorities.

b) Planning of the photographic preservation workshop according to the knowledge of university students. It is worth mentioning that the students belonged to the Degree in Communication Sciences and had previous knowledge of digital photography.

c) Preparation of intervention and photographic conservation packages, as well as explanations for the treatment of photographs. In this step the elaboration of the historical contents, origin of the chemical photography and the physicochemical processes of this technique, as well as the stages of appropriation and use of the photography, from its origin in the 19th century and until the end of the 20th century, to contextualize the different photographic techniques that would intervene in their family photographic collections.

d) Application of the workshop, beginning with the assessment of the conservation status of each family collection to avoid irreparable damage caused by the workshop.

e) Post-workshop teaching on international forms of cataloging and the application to their own collections of the “Mexican Standard Nmx-r-069-scfi-2016”, as well as the “Minimum Cataloging of Digital Objects (CMOD)” of the Laboratory University of Image and Memory (LUIM) of the BUAP.

**Figura 3.** Estudiantes de la Lic. en Comunicación en el Seminario de Fotografía e Imagen para la Investigación Social



Fuente: Vázquez (2015b)

**Figura 4.** Estudiantes de la Lic. en Comunicación en el Seminario de Fotografía e Imagen para la Investigación Social



Fuente: Vázquez (2015c)

Conducting the photographic preservation workshop with university students located within the millennial generation was a highly satisfactory and emotional work.



Knowing the prejudice present especially in the adult population that young people develop "scarce processes of critical reading" and other elements of social criticism that point to the lack of knowledge about adverse international and socio-cultural contexts that we live, the workshop had goal of raising awareness and reflection on the importance of photographic preservation for the recovery of memory and cultural continuity, and at the same time the objective of providing practical tools for the treatment of their family collections, with close care to treatment what a conservation professional would do.

During the workshop, elements of the different techniques presented by the student collections were reviewed, as well as different conservation conditions and the dangers that exist around the factors that involve deterioration for photographic objects. Risks ranging from acidity and temperature to certain harmful fauna were exposed throughout the workshop.

By assessing the conservation status of their own photographs and their cataloging, the identity of each student was strengthened. Syntactically, the photographs with which they decided to work were with general plans; semantically they chose the theme of their birthday festivities, and pragmatically reaffirmed the organization and family participation in each of their birthdays. Likewise, the identity of each student was reaffirmed by remembering family values, as well as the family economic situation that was experienced at that time. The doubts in this regard were clarified by their parents.

In order not to delve into the technical aspects, the learning elements that were exceeded in terms of the perspectives on the workshop will be highlighted.

At the time of the review of materials, one student broke down in tears, which undoubtedly puzzled the teaching exercise, and others were shown in unique emotional conditions. When we noticed the first student mentioned, we tried to calm her down and attend to her apparent crisis.

Once he was able to recover his countenance, he told the story of the separation of his parents at an early age and how for the rest of the years his mother convinced her that his father left "because he didn't love her", "never wanted her" and that "he abandoned them without any explanation." Having in the background the grudge and hatred with which a girl can grow before such a recurring explanation over the years, she separated from her original support a great portrait of her captured during her early childhood where she looked at a hand that held her. When he turned the picture, the student found a dedication written by hand, with certain marks of ink drawn: his father told him how much he loved her and how she had been the greatest illusion in his life and explained that he had to leave the country due to various political and danger circumstances

for his family; that he could not take her with him but that "he would carry her in his heart every day for the rest of his life and even after his death." Once this matter was explained, she plunged into a deep cry mixed with illusion, nervous laughter and a sensation she described as liberating; as if a large sack of stones had accompanied her during all those years and at that time she had been stripped of him.

In this case we will not try more, but derived from the workshop several students decided to complete their thesis, basing their work on photography and memory as the main source of research. Cases like that of a student who, based on her family heritage, traced her mother's life as an Olympic runner and conducted an investigation based on historical hemerography and interviews with her mother's ex-trainers and ex-trainers. Or the case of another student who developed his research from instant photographs, and managed to recreate the spaces with the same technique in his hometown decades later. Thus, investigations based on the recovery of memory from historical family photography began to emerge in the inventory of works.

### **Image and memory with families**

For the third work group, families of Italian immigrants descended in the 19th century in Mexico.

Like many others on the continent and in our own country, the Chipilo population of Francisco Javier Mina, in the state of Puebla, is a product of Italian immigration of the late 19th century. The previous migrations were derived from famines, frost and various political-economic events of the time. Various cases in Mexico, Argentina, Brazil, the United States, to name a few countries, are documented and, at least, identified by academic circles related to these topics.

However, the peculiarity of Chipilo and its population is based on the various elements of cultural continuity that the town presents with its nineteenth-century origins, and perhaps prior to this era. Among the elements that stand out is the daily use of the Veneto language, traditional festivals such as the commemoration of Vecchia Befana, traditional games such as *rigoletto*<sup>11</sup> and the bowls, the traditional food of Veneto and other things that have been addressed in another research work of ours.

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<sup>11</sup> El rigoletto es un juego tradicional que se desarrolla en el tiempo ritual de la pascua católica y que consiste en rodar huevos de gallina, cocidos y adornados, por una teja en desnivel sobre el suelo. Suele jugarse en familia y entre familias, en donde los huevos son rodados para tocarse y "chocar" al recorrer la pendiente de la teja. Se lanza un huevo por turno. Es una tradición de los habitantes de Chipilo, en Francisco Javier Mina, municipio de San Gregorio Atzompa, Puebla, México.

For the work of image and memory with the Cypriot family, a need was expressed by the residents themselves regarding their perception of loss of identity by young people, as well as their detachment from the care of common spaces and a lack of respect for the previous custom. All of the above mentioned in the voice of its inhabitants; It does not in any way represent our perception of young Chipileños.

Based on the above, a memory recovery work was proposed based on the preservation of family photo albums, where some families were visited, the work carried out in the LUIM of the BUAP and the strategies were explained. of conservation, digitalization and preservation that we develop for the study of the memory of daily life in our Latin American region.

The first reception of the proposal was complicated, since many people identify with historical and social value only the oldest photographs, those of “great-grandparents” and “founding fathers” and all the materials associated with the founding period and which are so coveted by researchers from various areas of knowledge, who “have visited them until they are tired”, “have taken the materials” and “have never returned the research work to the community”.

With this imaginary in mind, based on certain really disappointing experiences and others reconstructed with some exaggeration for the collective imaginary, we focus on explaining in family gatherings the importance of registration photography and understanding of the diversity of sociocultural elements present in everyday life, based on the recommendations of Unesco (1992) and the Convention for the Safeguarding of the Intangible Cultural Heritage (Unesco, 2003). Based on the above, we share our vision that the photographs of today will be the story of tomorrow, with which we managed to overcome the prejudice already described.

Once they were all in the same communication channel, the families agreed to collaborate with their family albums, those who portray the daily life of the 20th century, and agreed to participate as long as only the interest is in those photographs, and not in the “ historical jewels that are no longer shown ”. Several people said they did not understand how relevant it would be to study or collectively collect the photos of everyday life, of children playing, of vacations, of family parties, of things that only reflect old fashions and memories for grandparents. It is also fair to mention that various people treasure family albums but only for the memories linked to their own childhood or that of their children, without being attributed social relevance.

Agreed collaboration, the work process was based on the following steps:

a) A visit was made to receive the material and get to know the family's perception about it. On that visit, a document of receipt was signed in which we promised to return the photographs



in equal or better conditions to those delivered, in addition to a high-resolution digital version and its corresponding cataloging at no cost to families. Also in that visit all the materials and their general formats were counted, without going into technical details and only so that the families had the certainty of the quantity of existing photographic objects and could check that amount upon receiving the return materials. Everything they told us about the albums was recorded with their consent.

b) Once in the laboratory, the main risks of conservation of the photographs were identified and those that could be eradicated or at least minimized were addressed. The work with materials, supports, chemicals and other objects in the conservation processes has been described in another of our research works, so we will not delve into it.

c) Stabilized photographic objects and separated the materials at risk, it was passed to the digitalization process, which, like the previous process, deserves in itself a publication that addresses all the steps that this task entails and the complexities that were presented. It is enough to point out that digitizing in high resolution implies highly specialized equipment, considerable infrastructure and enough training and technical knowledge about it. For this work a Nikon D5 digital camera was used on a Kaiser support with 5000k lighting and various Nikkor lenses depending on the object to be digitized. Everything saved in .raw format.

d) After the digitization came the arduous task of cataloging the images. For reasons more practical than academic, the cataloging standards of the National Photo Library System of the National Institute of Anthropology and History, of Paula Barra (2005) were used. Once the process that took several weeks with the collaboration of various students was completed, we returned the materials to each family. On average, each delivered 1000 photographs.

e) Returned the materials ordered chronologically or by themes and with some improvement work added to the digital versions, came the work of memory recovery, identity reappropriation and space recovery. Some recorded sessions were made where family photographs were commented, intervening in what was relevant to us derived from a curating process we did for the corresponding photographic exhibition.

**Figura 5.** Testimonio fotográfico del trabajo realizado con familias descendientes de inmigrantes italianos el siglo XIX en México



Fuente: Vázquez (2017d)

**Figura 6.** Testimonio fotográfico del trabajo realizado con familias descendientes de inmigrantes italianos el siglo XIX en México



Fuente: Vázquez (2017d)

## Conclusions

Based on the three groups worked, the following reflections can be reached:

The work with the minors was extremely gratifying, since the importance of the perception of the image in general, and the photographic one in specific, was observed. It can be said that the knowledge of the processes of registration and photographic elaboration help to slow down the accelerated thought processes of the current era and allow the individual to reflect on their surroundings and their belonging, in a world full of their own and other people's visual stimuli. In addition to the above, the planning that requires a limited number of images, as in the case of the films we use with 12 and 24 exposures, forced the minor to carry out a mandatory creation and organization project so as not to waste the possible shots.

Although the work was very rewarding, several errors were made in the workshop, which have been corrected in subsequent activities. On the one hand, it is not possible to cover in the same session the elements of reflection on the construction of the photographic image and its physicochemical process at the same time as the manufacture of the object of photographic production. The stimulus for manual labor and the expectation of the final product can be so great in boys and girls that it is highly probable that theoretical learning around photography is opaque. Another important element identified is that the realization of the low-cost pinhole camera can be replaced by 3D-printed reusable cameras, as it is currently being implemented. In this way reflection is guaranteed from the construction of visual narratives and the planning it requires, rather than the elaboration of the craft itself.

In the case of working with young university students, training specialists interested in social research based on image and memory brought unexpected results. The theses, papers and publications developed on these topics by the students themselves are testimony to this.

Regarding the conclusions of the work with the families in Chipilo, the reappropriation that the families made from the discussion sessions and the digital materials is highlighted. In many cases people were surprised to learn our opinion about various activities that they found very ordinary, and that in the light of sociocultural reflection were shown as elements worthy of preservation and continuity under the figure of Intangible Cultural Heritage of the UNESCO (2003).

Another element worth noting is the surprise of young people to know the history of objects and spaces of the town, which symbolically belong to them having been built or brought by their grandparents and grandmothers. For example, a young man began to defend a wall of a school that



other young people tried to vandalize with spray paint telling them: "Don't go over, you can't paint that wall, my grandfather built it with his own hands." Or the various cases that were found in which people from different generations of the families with whom they worked began to share digitalized photographs with relatives of the same town, or with those who had migrated in previous years or past decades. True discussion and memory recovery circles began to emerge "autogenously." Another case worth highlighting is that of a person who sent to make "books" at the end of the year to give to relatives, with the photographs digitized in the laboratory. The high resolution of the digitalization allowed to carry out several high quality printed works, in addition to the uses in the network that do not require so much resolution to spread.

In sum, the following objectives achieved can be listed from the perspective of social innovation:

a) Recovery of urban spaces from the methods and techniques of semiotic analysis of photography and the reconstruction of oral history, using chemical photography as the center of research work.

b) Use of low-cost resources to promote the reflection of collective and identity processes linked to social recognition.

c) Strengthening of positive sociocultural relations and interactions that, when weakened, produce social violence.

As a curious fact, none of the applications applied or dissemination derived from the three projects recognize the work done from the LUIM in the BUAP. On the other hand, one of LUIM's policies is not to generate watermarks to digital objects created in this space, since the goals are based on being able to trigger the recovery of memory and the recovery of the social fabric. Achieving it is sufficient recognition for such a laboratory. Whether from oral history, communication for social change or the perspective of photography as a social document, it is known that the various materials and works that are carried out do not belong to anyone specifically, but to all humanity and the objective around these processes is that everyone can access the materials freely, free of charge and with high quality. The concrete goal to achieve this is to consolidate a digital repository in the BUAP that allows access and free download of the images in high resolution, with their professional cataloging, for free use. That a six-year-old child can use images of his region for his school monograph, that a consolidated researcher can use them for his specialized research book, is the main motivation. And that people give feedback on the gaps we have around the information and cataloging of these images is the biggest challenge. Due



to the technical difficulties, costs, equipment, materials and other vicissitudes, the BUAP has generously and forcefully supported the LUIM projects, so our commitment to efficiency around the uses and applications of image and memory for Social innovation, from the public university, has become a way of life.

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