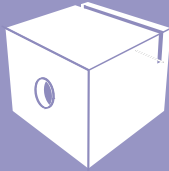


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C I C A N T

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THE FBS COLLECTION OF STEREOSCOPIC PHOTOGRAPHY: A TREASURE TROVE FOSTERING RESEARCH

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The FBS Collection is establishing the FBS Foundation to foster the interdisciplinary scientific study of photography history. In this article, we will trace the collection's evolution between 1978 and 2023 by examining it in periods. These periods are: The Thrill of Stereoscopy (1978 to 1985), The Universe of Suppliers and Collectors (1985 to 1996), Immersion in the World of Stereoscopy (1996 to 2008), New, Increasingly Immersive 3D (2008 to 2015), Utility and Preservation of the Collection as a Whole (2015 to 2020), and Viability of the Foundation and Formation of Multidisciplinary Research Groups (2020 to 2023). The second part of the article will discuss the various elements and subcategories within the collection. The third and final part will focus on new activities and applications for the collection in different disciplines. We will explore activities already undertaken and those we hope to develop in the field of neuroscience, among others.

Keywords: FBS Collection, stereoscopic photography, holistic and unspoiled collection, Order-ing Chaos, promote research, interdisciplinary approach, photo-sculptures,

THE FBS COLLECTION¹ OF STEREOSCOPIC PHOTOGRAPHY: A TREASURE TROVE FOSTERING RESEARCH

Collecting often amounts to a consummately twisty path. It is an activity whose impulse should be Order in Chaos – I would argue: **Order-ing Chaos**. And it sinks to hidebound prosaicness when its chief impulse is material value. The lesson of collecting is as much about metaphysical things, such as Order and Interrelationships as it is about the items themselves or the quantity of them (Lee Fontanella, 2021).²

A Chronological Tale About Collecting

It is winter 1978 in Madrid. Juan José Sánchez García, a young architecture student walks along Magdalena Street and stops in front of the showcase of an old-paper shop named *Utopia*. His eyes are set on an old Holmes visor, which triggers his curiosity. He buys it without hesitation. Along with the device comes a set of old stereocards. He takes it home and shows it to Yolanda Fernández-Barredo Sevilla. These two architecture students succumb to the beauty and magic of the 19th-century 3D world. This is the beginning of a life devoted to collecting stereoscopic photography and all the devices needed before,

during and after the moment of the creation of a stereoscopic photograph.

Three years go by. It is a Sunday morning in 1981 in El Rastro, the most popular flea market in Madrid. Juanjo acquires the first stereoscopic camera of ‚paso universal‘, with possibilities of using 35 mm or 120 mm film. As Santiago Sáenz Samaniego explains, with the acquisition of the stereoscopic camera, the whole stereoscopy process was represented: they had the images, the viewers and finally the cameras.³

Sáenz Samaniego argues that, after acquiring the first stereoscope, the stereocards, and the camera, their restlessness almost turned into obsession. The search for other objects in old libraries, antiquarian shops and flea markets became a race against time. The *modus operandi* was that Juanjo would search for the objects (the *hunter*), and Yolanda would take care of searching for primary sources of text for documenting them, aiming at paving the way for future research.⁴ It's without a doubt that this collaborative effort resulted in the creation of a unique and comprehensive collection. The objects were obtained through Juanjo's hunting skills, followed by Yolanda's extensive research of primary and secondary sources of literature. And finally, as Samaniego explains further, the third and definitive milestone that consolidated (and

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1. The FBS Collection is owned by Dr. Yolanda Fernández-Barredo Sevilla and Juan José Sánchez García. The acronym FBS stands for **F**ernández-**B**arredo **S**ánchez.
 2. Unpublished text of the lecture given by Lee Fontanella at the Texas A&M University on September 2021 entitled: 'Collecting: Its relation to a broad academic context. Texas A&M University: A case in point', 12.
 3. Sáenz Samaniego, S. (2011). Klumpcol. La colección de fotografía estereoscópica de Yolanda Fernández-Barredo Sevilla y Juan José Sánchez García, 112.
 4. Sáenz Samaniego 2011, 113.

justified) the collection was Yolanda's PhD thesis on the stereoscopic photography of Madrid.⁵

A full 45 years since their first acquisition, the magical Holmes stereoscope, their fascination for stereoscopy has only grown, along with their collection. It holds more than 350,000 photographs,⁶ including some extraordinary daguerreotypes (Figs. 1 and 2) and autochromes (Fig. 3), more than 1,000 viewers, 30 cameras, more than 1,000 different devices and apparatuses, and even 19th-century furniture to keep, preserve, and organise stereoscopic plates. Next to that, all the walls of their flat are covered by shelves full of more than 10,000 publications, which were gathered in order to contextualise the collection.

In this almost half-century, the FBS Collection has gone through different stages. The first stage, which we will call the excitement of stereoscopy (1978 to 1985), started in a passionate and disorderly manner, but soon was also associated with a professional objective: to study the urban evolution of cities, especially Madrid (Figs. 4 and 5), the effects of demographic growth and the influence of scientific advances applied to everyday life (vehicles and their effect on the

redesigning and dimensions of streets, mechanical belts to transport the public on their visits to the Universal Exhibition, etc.).

The first contacts with other collectors were linked to the world of the postcard, and opened a new phase in their activities as collectors. At the same time, the creation of the Acha Urioste Scholarship to organise the photographic collections at the Department of Aesthetics and Composition of the Escuela Técnica Superior de Arquitectura de Madrid (ETSAM) of the Polytechnic University of Madrid, enabled the collectors to work in-depth on the topic of urbanisation, which culminated in Yolanda's PhD thesis. In this phase, the researcher-collectors were inspired by photohistorian Germán Baschwitz (birth and death dates not known) and his articles written for the journal *Arte Fotográfico*.⁷

In 1987 the collectors met Rafael Bernís (born 1945) and, through him, they got in touch with several photographic associations. He introduced them to a person who played a key role in their trajectory: Tomás Mallol i Deulofeu (1923–2013) a charismatic and wise collector, the founder of the Museu del Cinema in Girona.⁸ This is the beginning of the second period

5. PhD Thesis *cum laude*, Escuela Técnica Superior de Arquitectura, Madrid. A resume of it was published later on: Fernández-Barredo Sevilla, Y. (1995). Imagen estereoscópica del Antiguo Madrid. Madrid: La Cámara de Comercio e Industria de Madrid. This is a didactic resume of her thesis with a selection of stereoscopic images and a viewer, all presented in a carefully designed box. Lee Fontanella took an active part in co-supervising her thesis.

6. 80% of them are stereoscopic photographs. Some of the most important photographers whose work is represented in this collection include Charles Clifford (1820–1863), Jean Laurent (1816–1886), Alfonso Begué (1834–1865), Jean-Baptiste André Godin (1817–1888), and Andrew Joseph Russell (1829–1902). Some leading scientists and photographers of early scientific photography are also represented in the collection, like Warren de la Rue (1815–1889), Edward Emerson Barnard (1857–1923), or Carl Störmer (1874–1957). Important publishers in the collection include Ferrier & Soulier, Adolphe Block, Jules Marinier, Jules Richard, etc.

7. Baschwitz, G. (c.1960s). Apuntes sobre fotografía estereoscópica I, II, III, IV. *Arte Fotográfico*. Madrid.

8. https://museudelcinema.girona.cat/eng/museu_fundacio.php



Fig 1 H. Negretti & Zambra, Photographers to the Crystal Exhibition Palace Company, La Alhambra, c. 1851, daguerreotype, 8,5 x 17 cm, FBS Collection



Fig 2 Bastien, untitled, date unknown, daguerreotype, 8,5 x 17 cm, FBS Collection

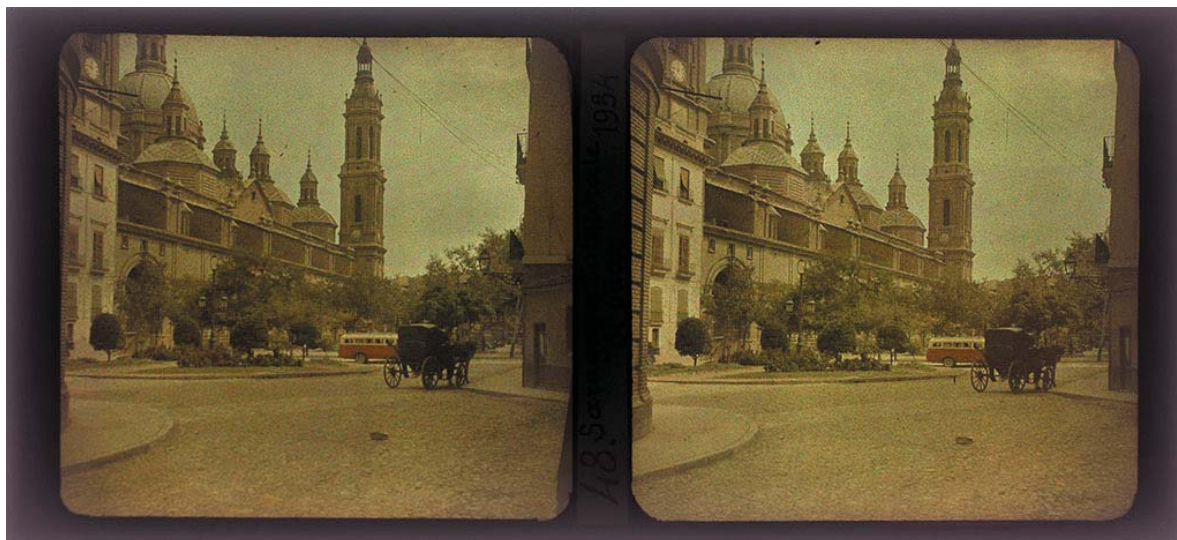


Fig 3 Unknown photographer, Zaragoza, 1927, stereo-autochrome, 8,5 x 17 cm, FBS Collection

of the collection (1985 to 1996). They also met a leading photo historian, an authority in Spanish photo history, Lee Fontanella, a mentor and loyal collaborator for them since then. Lee Fontanella's first book on the history of Spanish photography, *La historia de la fotografía en España desde sus orígenes hasta 1900*,⁹ won one national award (Barcelona Graphic Arts), and it was named one of the four best publications in the world in the field of photography in the annual photographic congress in Arles in 1982.¹⁰

Having access to a universe of suppliers and collectors, definitely revolutionised all previous approaches and enriched the collectors' vision as a result of having connected with

different ways of collecting and different objectives behind the various collections. This second stage was also characterised by the objective of a teaching career that was cut short, like so many others, for non-academic reasons. While Yolanda worked on the PhD thesis, between 1991 and 1994, they realised the need to describe an analytical method that could be explained to professionals interested in researching in the field of architectural and urban graphics using stereoscopic photographs. This also influenced the kind of objects and literature they were searching for. With the conscious abandonment of a teaching career, the collectors began another type of professional work, that of appraisals for insurance companies in the technical branches. They discovered a

9. Lee Fontanella (1981). *La historia de la fotografía en España desde sus orígenes hasta 1900*, El Viso, Madrid.

10. Lee Fontanella has been professor for over 50 years in different universities around the world: University of Texas (1970–1993), Worcester University (1993–2002), Universidad Politécnica de Valencia (2004–2009), and he was named Andrew Carnegie Centenary Professor for the Scottish System (2009). In the FBS Foundation's webpage, there is a section devoted to him and his work under the name 'Lee Fontanella's Corner': www.fbsfundacion.org



Fig 4 Alfonso Begué, La Cibeles Fountain, Madrid, 1864, stereocard, albumen print, 8,5 x17 cm, from the FBS Collection



Fig 5 Alfonso Begué, Circo del Príncipe, Madrid, 1864, stereocard, albumen print, 8,5 x 17 cm, FBS Collection



Fig 6 Carl Zeiss, Jena, Spiegelstereoskop, c.1910, 75 cm (when opened), FBS Collection

new dimension of photography as this was not only used for scenes or situations but also to analyse materials (microstereoscopy) in defective joints, films, documenting accidents, making comparisons of situations prior to the accidents (collapse of bridges and tunnels, the production of chimneys in excavations at depth that affected the surface, etc.).

The importance of stereoscopy in these fields was obvious, but they were also aware that the general lack of knowledge of the public, and of senior officials in particular, was an impediment to introducing this photographic system in that professional activity. This did not deter them from carrying out some experiments in specific cases.

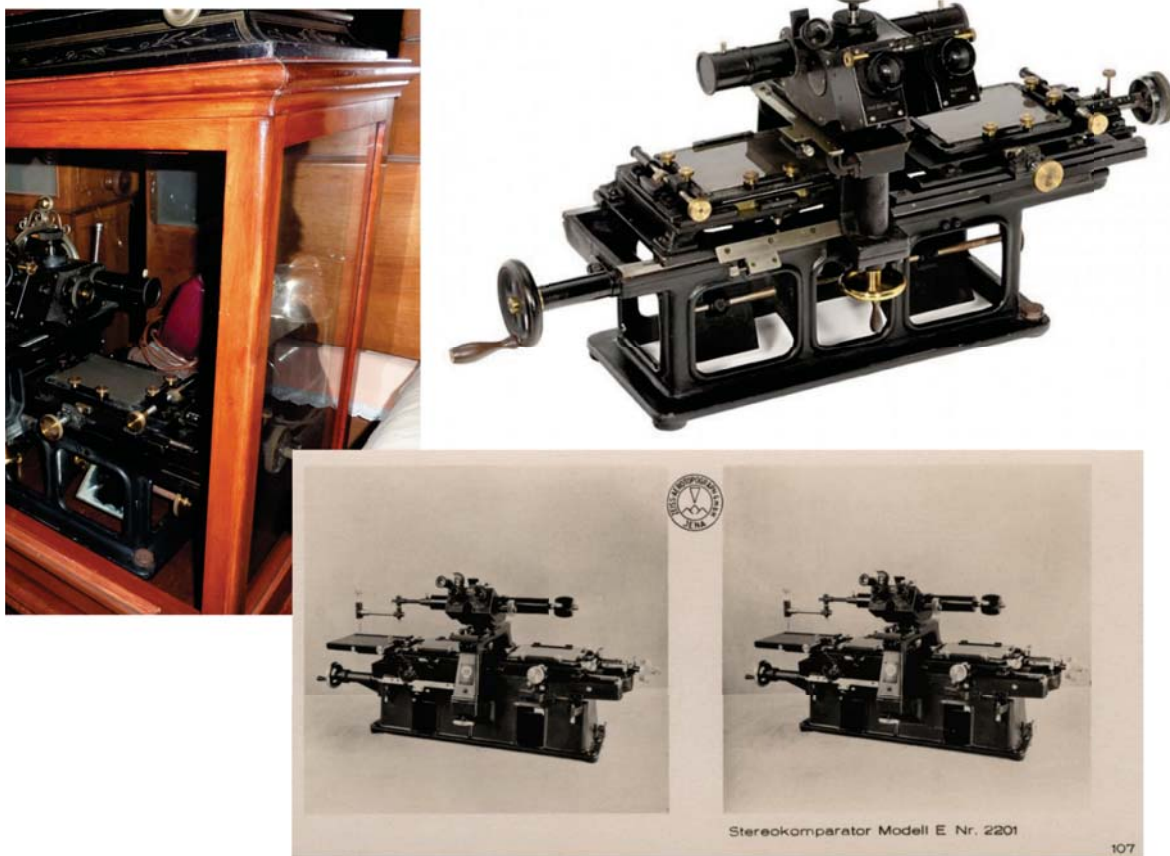


Fig 7 Carl Zeiss, Jena, Pulfrich Stereo comparator, c. 1901, 38 x 20 x 50 cm (H x W x D), and stereocard of the Pulfrich Stereokomparator Modell E Nr. 2201, Zeiss Aerotopograph GmbH, Jena, c. 1910, 8,5 x 17 cm, FBS Collection

The third phase came when the deep immersion in stereoscopy took place (1996 to 2008). Different paths were explored to see the fields in which stereoscopy was being successfully applied and in which it had historically been used as a basis for research, and as a means of support for specific studies

and disciplines:¹¹ ophthalmology, military strategy, archaeology, topography, cartography (Fig. 6), astronomy (Figs. 7 and 8), medicine (Figs. 9, 10 and 11), biology (Fig. 12), etc., as well as an artistic element to support diverse fine arts (sculpture (Figs. 13, 14 and 15), scenography, among others. In this

11. Santiago Sáenz Samaniego's already mentioned article was the first article about the FBS Collection and summarises the first three phases of creating this collection: Sáenz Samaniego 2011.



Fig 8 Marmand, Group of 6 x-ray stereocards, As de Trefel, c. 1910, c. 8,5 x 17 cm, FBS Collection

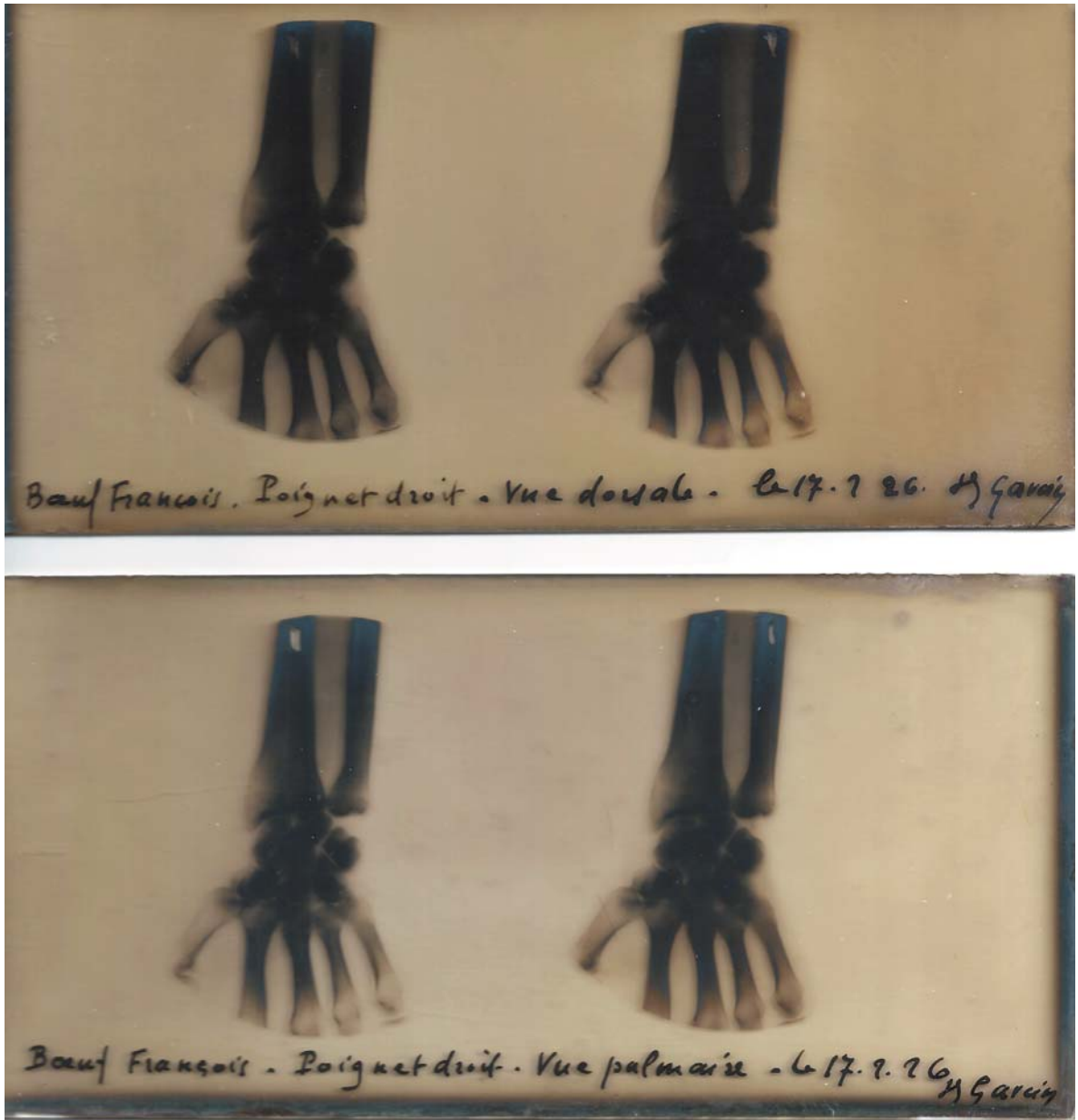


Fig 9 1st one: X-ray stereography on glass, Bauf François. Poignet droit. Vue dorsale. Le 17.2.26. H Gavay, 8,5 x 17 cm, FBS Collection.
2nd one: X-ray stereography on glass, Bauf François. Poignet droit. Vue palmaire. Le 17.2.26. H Gavay, 8,5 x 17 cm, FBS Collection



Fig 10 Photographer unknown, Man taking a radiography of his own hand, with a Radiguet and Röntgen device, stereography on glass, after 1895, 8,5 x 17 cm, FBS Collection



Fig 11 M. J., Head of a male mosquito, microstereoscopy, c. 1900-1910, 8,5 x 17 cm, FBS Collection



Fig 12 Several photo sculptures on wood



Fig 13 Willy Selke, photo sculpture in Bronze of the duc d'Arenberg, Engelbert-Marie Arenberg, 1901, Diameter: 29 cm, weight: 1,4 Kg, FBS Collection

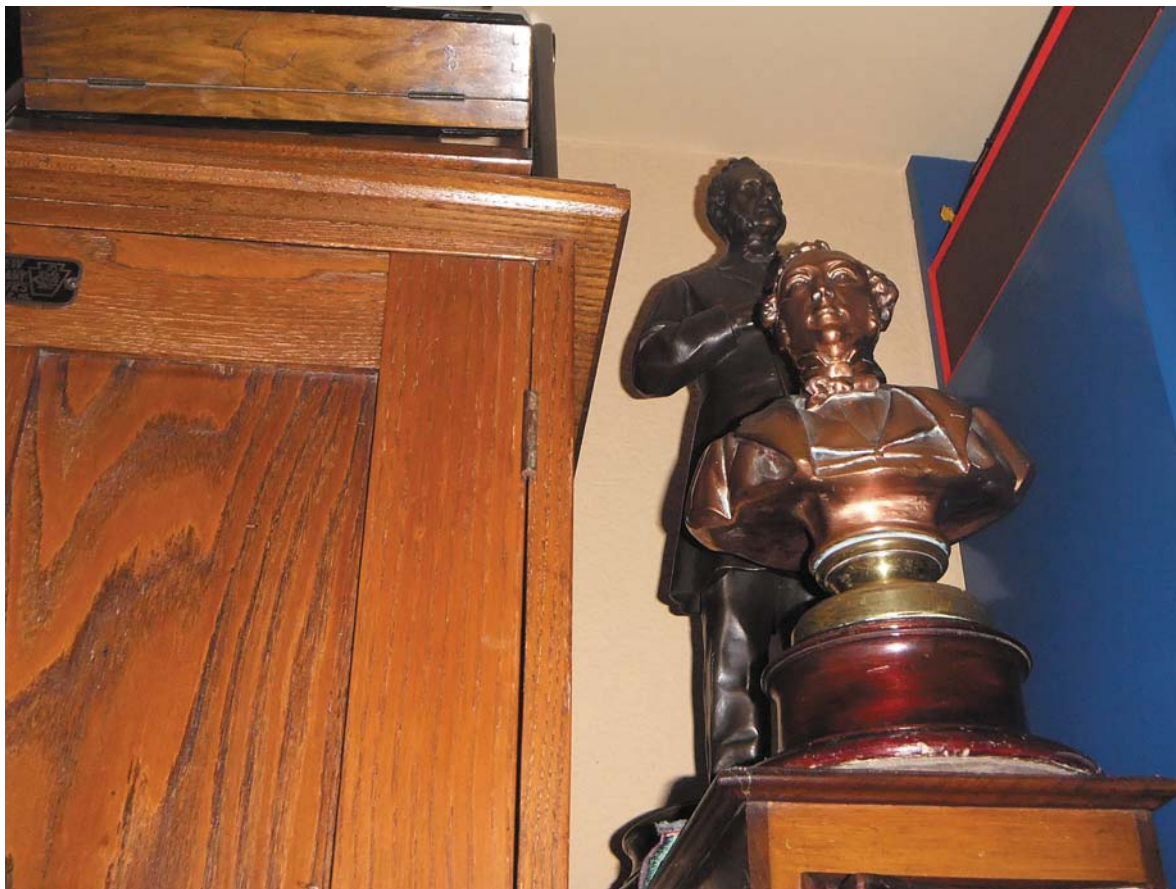


Fig 14 Willème & Co., French bronze photosculpture, between 1859 and 1868, 50 cm (H), FBS Collection



Fig 15 Hand and table stereoscopes, together with a stereographoscope. Complementary furniture, FBS Collection

phase the task of researching to acquire supportive literature related to each of these objects became fully established, and the library that comes with this collection is beyond doubt a treasure trove for any researcher willing to study any object from this collection: such is the case with the Pulfrich Stereo comparator¹² and the photo-sculptures¹³ shown here.

The wide range of diversity in the collection, coupled with the collectors' individual success, allowed them to explore new avenues and discover new forms of diversity within the collection. The universe of stereoscopic technology expanded rapidly, offering a wide range of content that linked science and the arts, as well as practical applications that evolved into more immersive three-dimensional techniques. Due to this growth, the collectors soon realised that the volume and variety of their collection had surpassed their capacity to manage it (2008 to 2015).

The realisation that they were not going to be able to research all the elements of the collection, even if they were fully dedicated to it from the first moment of their retirement, in addition to their witnessing the fate of other collections when their owners had passed away, forced them to rethink the future of their collection (2015 to 2020).

Rejecting the possibility that the collection could disintegrate with them, the collectors explored the feasibility of creating a non-profit foundation devoted to promoting research, with the intention of establishing multidisciplinary teams (2020 to 2023) to ensure the survival of all those constituent parts of the history of photography that make up the collection.

They are currently, and finally, realising their dream of creating the FBS Foundation. The aim of this foundation is primarily to promote research among much younger generations, with and within their holistic collection. To relocate the collection, they have acquired a three-storey building, 620 m²) in La Granja de San Ildefonso. The showplace and storage area for the FBS Foundation will be installed on this building on the town's Plaza de España, which forms part of the original constructions of La Granja, as the collectors have been able to verify in the plans that form part of the collection. It is a building that formed part of a group of non-detached buildings. During demolition, workers uncovered 18th-century brick walls intersected by wooden structures, as well as niches and bricked-up openings.¹⁴

12. Pulfrich Stereo-Comparators (c.1901). 1st ed Jena: Carl Zeiss Verlag, optische Werkstaette.

13. The collectors found also all the patents that were registered by Willy Selke, the creator of the photo-sculpture of the bronze profile coin of the duc d'Arenberg, Engelbert-Marie Arenberg (1872–1949): N° 18.799, accepted, 12th Nov. 1898, Improved Process and Apparatus for the Plastic Representation of Solid Bodies by the Aid of Photography; N° 21.245, A.D. 1901, accepted, 4th Sept. 1902, An Improved Process of Photo-Sculpture; a, United States Patent Office, Willy Alfred Carl Selke, of Berlin, Germany, Photosculpture apparatus, application filed January 20, 1898; N° 9197, A.D. 1909, accepted 19th Apr. 1910, Process for Plastic Reproduction of any Bodily Objects; etc.

14. To learn more about preparations for the building to receive the collection, refer to the section 'Headquarters' of the FBS Foundation's webpage: <https://fbsfundacion.org/en/headquarters/>

Order-ing Chaos – Elements and Parts of the Collection

Although the collection began with postcards and drifted towards photography, the reality is that the collectors made parallel incursions into all the instrumentation they needed to carry out their own photography. This led them to acquire the photographic equipment that allowed them to capture images from chemical processes (Leicas, Hasselblad, among others), the projection equipment for slides and the necessary chemical developing equipment (enlargers, magnifying glasses, presses, cutters, etc) as well as the reproduction columns. The irruption of stereoscopy led them first to the instruments for viewing (hand-held and table stereoscopes, Figs. 16 and 17) and then for capturing, acquiring the Verascope f40 Stereorealist and some other cameras.

The books, which were initially specialised in art and architecture, began to focus on the history of photography (generic, old magazines, etc.), to gradually broaden their objectives in the direction of catalogues, monographs, biographies, books with photographs, etc. (Figs. 18 and 19).

When the collectors speak of the whole and its parts, they are doing so from the current perspective of a rather arduous task of classification, in which the elements to be ordered are very diverse. Their preliminary compilation has been done following a unifying philosophy aimed at generating the thread of a history that will *never* be unique as it has diverse origins, depending on the starting point of the study: the photographic

supports, the chemicals that favour sensitisation to light, those that allow fixing the images, the toners, the colour, etc. As the collectors argue, the starting points for the history of photography, even if they are generally centred on the final result and its authors, cannot be separated from the image-capturing instruments (whether monoscopic, stereoscopic, etc.) and their manufacturers, nor from the restitution tools, whether for developing or viewing, as well as their distributors or publishers. Thus, the parts of the collection constitute an indivisible whole, which is what is intended to be protected by setting up a foundation: to establish service companies and multidisciplinary teams that will ultimately make use of each of the parts of the whole, but without losing the global sense of its objective. Promoting the study of the history of stereoscopic photography from an interdisciplinary standpoint is the final goal of the creation of this institution.

As the collectors argued in an article written in 2017, if they were to schematise the way in which their collection is configured, they would do so in five large groups that can be subdivided and expanded. Just as a starting point, and understanding that history itself generates interrelationships between them, they have proposed the following classification:¹⁵

- **Documentation / Information.** This group includes books, magazines, catalogues, posters, manuscripts, verbal information (as transmitted by researchers or other sources) and, more recently, information obtained from reliable online sources.
- **Photographs / Images.** They distinguish on the basis of the

15. Sánchez García, J.J. & Fernández-Barredo Sevilla, Y (2017). Interiores de una colección. Cuadros y recuerdos en 3D. I Jornadas sobre Investigación en Historia de la Fotografía 1839-1939, un siglo de fotografía. Zaragoza, 258–274.



Fig 16 Cail-O-Scope portable produced by the Caille Bros. Co., dedicated to the 1906 San Francisco Earthquake, 183 x 42 x 50 cm (H x W x D), FBS Collection

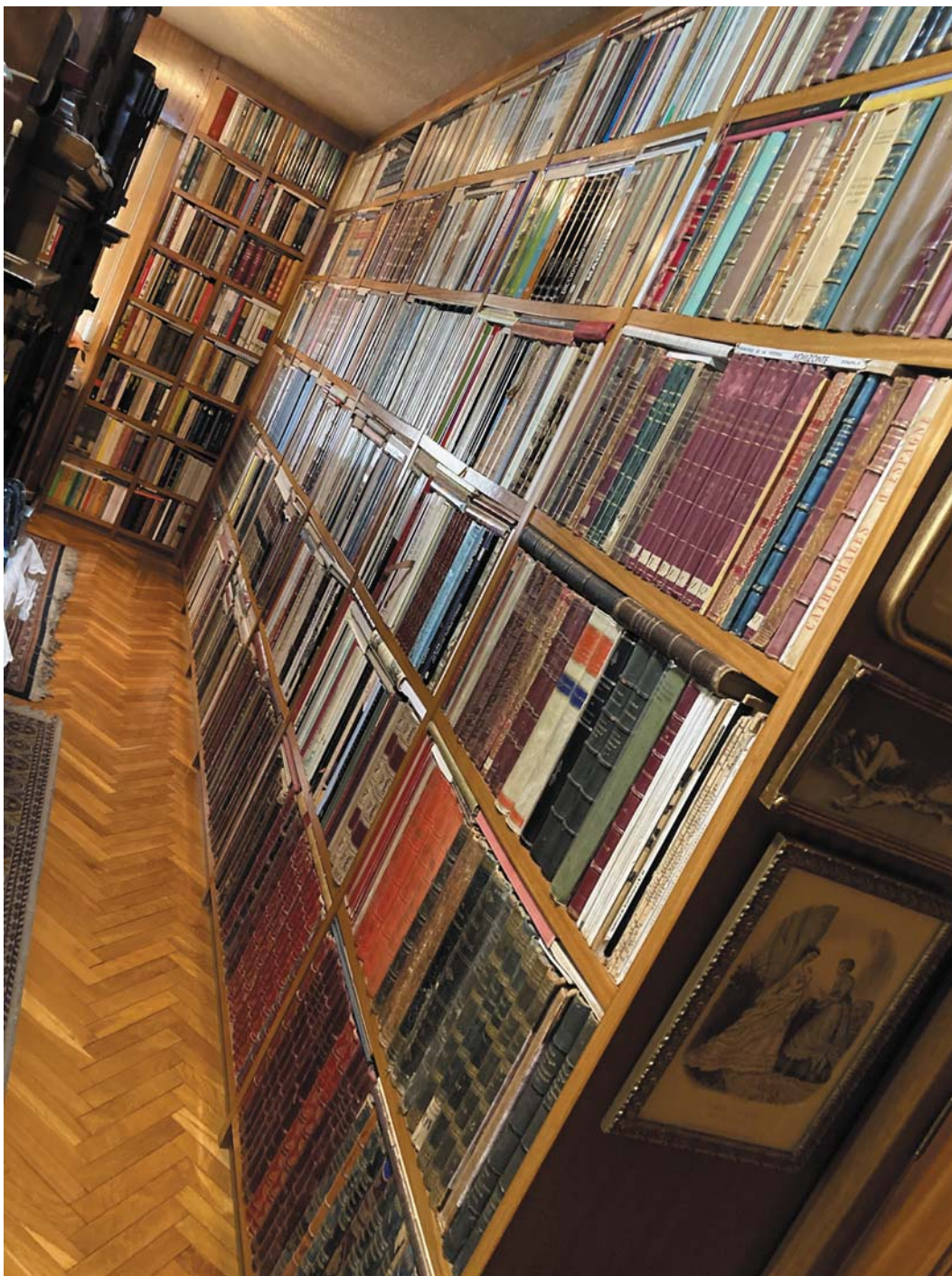


Fig 17 FBS Collection's Library



Fig 18 FBS Collection's Library



Fig 19 Showcase with handheld viewers, cameras and diverse photographic material, FBS Collection

techniques (monoscopic, stereoscopic, reliefs, round bulk, etc.), formats, typologies, authors, publishers, as well as the connections with different sciences as generated through these documents.

- **Viewing devices.** This group includes hand-held, table and column viewing devices, as well as specific devices for a specific purpose such as advertising, didactic, journalistic and others. Roughly speaking, they can be classified according to the formats of the images for which they have been manufactured and the way in which they provide us with the viewing of photographs by means of: direct vision, reproduction, projection, reproduction and graphics.
- **Instruments for the capturing and interpretation of images.** As the collectors have broadened the spectrum of stereoscopy applications, they have also been interested in obtaining items that serve various sciences in their respective developments – both for carrying out technical and precision operations and for the recording and control of specific spaces or objects – and for measuring them; for example, a topographic restitution and measurement (stereophotogrammetry), those for military use and those used to check vision pathologies and correct them, among others.
- **Complements.** This is a very heterogeneous section because it ranges from small posters, toys, miniatures and classifiers, to more complex storage elements such as furniture, viewing columns and American type stereoscopic table-top viewers with drawer bases. They also consider within this group everything that affects other arts/sciences and their related accessories.

In an attempt to start ordering the chaos, they elaborated the following scheme, by grouping together apparently disperse items (Graphic 1).

To summarise, this collection is made up of photographs as well as devices or documents related to them, such as the process of taking, developing and preserving them: apparatus, instruments, accessories and reproduction systems (Fig. 20), albums (Fig. 21), furniture for classifying photographs and photographic plates, and accessories in general that are closely linked to the classifications made for specific collections, such as Richard's classifying cabinets, or in private collections such as the sideboards that had numbered drawers to contain up to 4 trays of 45x107mm glass (Figs. 22 and 23).

The collection also includes dolls intended for advertising, such as Klumpe, Roldan or Nistis dolls (Fig. 24). The collectors have been collecting not only photographic classification systems used by manufacturers to market their products, but also the way in which they were used to compose scenes for the publishing of advertising postcards, their usefulness as cinema furniture (films such as *Citizen Kane* had this type of doll in their props).¹⁶

It is evident that the three-dimensional characteristics of the aforementioned dolls were an added value, insofar as they established their usefulness for being photographed in three dimensions, forming scenes capable of emulating, in a caricature-like way, those generated within the theatres and operas photographed in the 1860s for the series of *actualitiés*

16. Fernández-Barredo Sevilla, Y. & Sánchez García, J.J. (2010). Muñecos de cine y publicidad. Son mucho más que muñecos de trapo – Unpublished article.



Fig 20 Nacar album, Recuerdo a mi Sra. Tía, 1864, 21,5 x 30 x 95 cm (H x W x D), FBS Collection



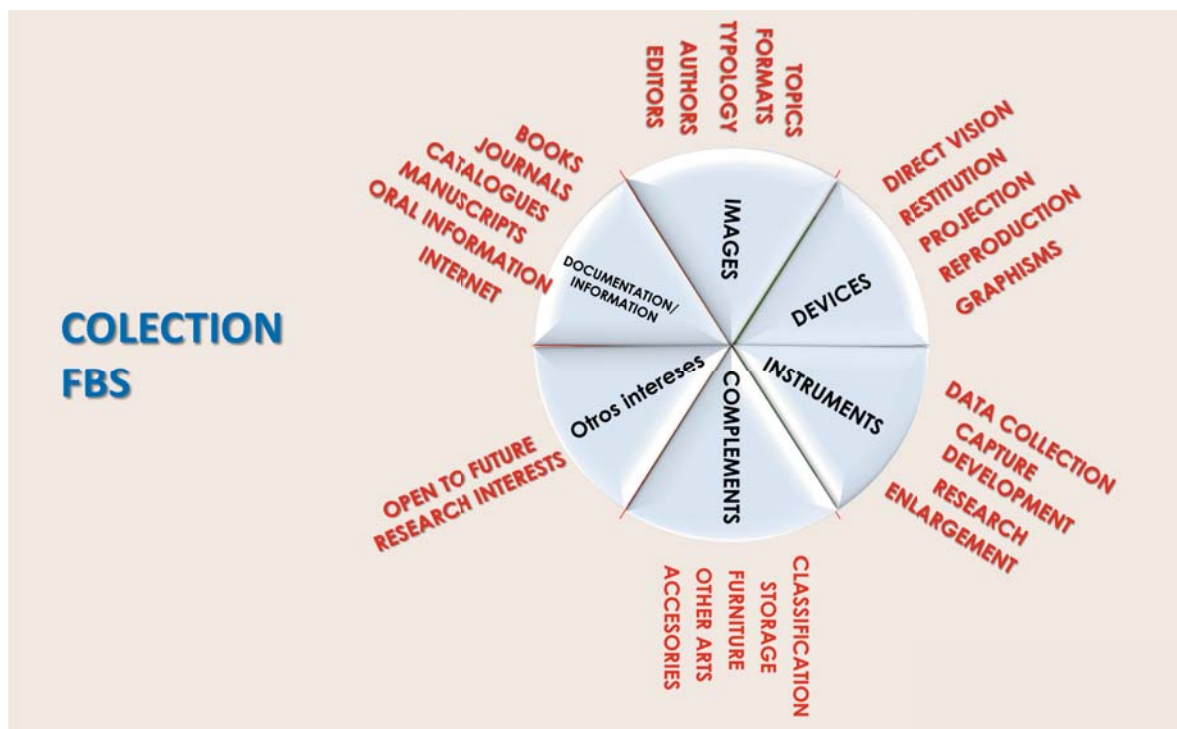
Fig 21 Classifying cabinets, 219 x 50 x 125 (H, W, L) cm, FBS Collection



Fig 22 Sorting cabinet Steréoscope Breveté S.G.D.G. For views of Verascope Richard. Among series of tabletop stereoscopes, c. 1890, 180 x 30 x 71 cm (H, W, L), FBS Collection



Fig 23 Doll with a camera, ROLDAN, c. late 1950s – early 1960s, 22 cm (H), FBS Collection



Graphic 1

théâtrales by Jules Alexandre Marinier (1823–1896?) and *les théâtres de Paris* by Adolphe Block (1829 –1903), in which both drawn backgrounds and characters/sculptures, occasionally photo-sculptures,¹⁷ were used.

A Certain Poetry of Chaos – New Activities and Applications of the Collection

Lee Fontanellas’s reflections on collecting, collections, research potential in collections and how to approach this,

17. This is a topic in which the collectors have worked for a couple of decades. After having made geometrical analyses of the faces, bodies, postures and clothing of some of the characters that appear in the stereocards (for example, operetta ‘La africana’), they have concluded, using the technique of transposition, that they are photo-sculptures. This has been the working hypothesis of the collectors, but it is a research topic on which they are still working.

describe well the collectors' openness and curiosity to what could be done with and within their collection:

The collector has already, by implication, indicated a path or a pattern to an end. This is helpful, and to a degree the Academy¹⁸ may do the same. But the real richness of archived items rests in their *potential for interconnection...and* in their potential to belie what had been presumed of them. Implicitly, a collector should not be satisfying fads, although a collector might naturally tend toward righting a chaotic world.¹⁹

Given the evidence of the lack of space to house the collection in an orderly manner, as a necessary starting point in attempting to order its chaos, the collectors have acquired a building in La Granja de San Ildefonso, that they are fitting it out both to house the collection and to facilitate research work, in a very specific and controlled manner. They will also fulfill their dream of continuing to live within their collection. Having temporarily solved the problem of space, but with the foresight

of years ahead, the next challenge is that of time: the latter is the one that ends for some, continues for others and begins for some. At the moment they are putting together a group of professionals who will be working with the foundation, both doing and promoting research within the collection.

To this end, there are several projects already in progress: research for pre-cataloguing the German part of the collection, at the Interdisciplinary Centre for Science and Technology Studies (IZWT) at the University of Wuppertal (an ongoing student pilot project, which began in October 2022),²⁰ exhibitions and publications,²¹ conferences²² and collaborations with specific projects such as the non-profit Tablet App *Golden Memories*, which offers photographic games personalised with family and historical photographs to retrain memory for people with memory loss.²³ The author of this article is the brainchild of the App Golden Memories and, as director of the FBS Foundation, will keep managing this research project for the Foundation. We have a special interest in supporting research directed at studying the examination of cognitive

18. We could change here the word *Academy* for *researchers*.

19. Fontanella 2021, 15.

20. We are working on cataloguing the German part of the collection, and so far twenty students have taken part in this pioneering project, and twenty different objects have been studied.

21. 'Semana Santa. La Pasión. Una visión estereoscópica', at the Real Fábrica de Cristales de La Granja, La Granja de San Ildefonso, Segovia, from 1st April to 31st August 2022; the curators were Lee Fontanella and Juantxo Egaña. A catalogue containing its own viewer was published as well. Also, 'La Técnica y el Tiempo', at Galería de Arte ZACA, from 29th April to 25th June 2023; the curator was Yolanda Fernández-Barredo Sevilla.

22. First conference and workshop organised by Asensio Martínez Jódar in collaboration with Yolanda Fernández-Barredo Sevilla and Juan José Sánchez García: 'Introducción a la estereoscopia y a su evolución'. Workshop of stereoscopic daguerreotypes: 'Taller de daguerreotipos estereoscópicos (técnicas antiguas)', by Joaquín Paredes, from 13th to 16th October 2022, in La Casa de la Cultura, La Granja de San Ildefonso, Segovia: <http://klumpcol.com/jornada-y-taller-fotografia-estereoscopica-13-al-16-de-octubre-de-2022>.

23. This tablet app was created following research carried out by the author of this article from 2019 to 2022 in the field of photo reminiscence therapy (pRT): www.golden-memories.de

activities such as visual attention and memory in viewing stereoscopic images, as it is an important and promising field, as recent pioneering research has shown.²⁴

As for the ongoing project cataloguing the German part of the collection, it does go well beyond its obvious useful results. It intends to define a method, which can therefore be applied to other countries, to train university students to take part in the cataloguing of the different parts of the collection. Starting in October 2022, a pilot course to study the German part of the FBS Collection was started: *Stereoskopische Fotografie im Wandel: Deutsche Pioniere in der FBS Sammlung*. Seven advanced students studied in-depth seven different objects (or groups of objects) from an interdisciplinary standpoint: three stereo-books published by the Raumbild-Verlag,²⁵ with 100 stereocards per book; Pulfrich's Stereo comparator, the

Carl-Zeiss Spiegel stereoscope, a box of 100 stereocards published by the Raumbild-Verlag, and a group of loose stereocards of views of Germany issued by different publishers:

- A box of 100 stereocards, with viewer, published by the Raumbild Verlag.²⁶
- The Stereocomparator by Pulfrich, and the Mirror-Stereoscope by Carl Zeiss.²⁷
- A box with 47 stereocards from the 1937 Paris Exhibition.²⁸
- A group of 120 loose German stereocards, from different publishers, some of them German publishers, such as the Neu Photographische Gesellschaft and the Chromoplast-Bild.²⁹
- A stereobook with 100 stereocards and viewer: *Die Olympische Spiele, 1936*.³⁰
- A stereobook with 100 stereocards and viewer: *Der erste Großdeutsche Kriegertag*.³¹

24. Cho, H., Kang, M., Ahn, S., Kwon, M., Yoon, K., Kim, K. y Jun, S.C. (2016). Cortical responses and shape complexity of stereoscopic image: a simultaneous EEG/MEG study. *Neurosignals*, 24, 102–112. <https://doi.org/10.1159/000442617>

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Yang, J., Jiang, B., Wang, Y., Lu, W., Meng, Q. (2018). Sparse representation based stereoscopic image quality assessment accounting for perceptual cognitive process. *Information Sciences*, 430–431, 1–16. <https://doi-org.usal.idm.oclc.org/10.1016/j.ins.2017.10.053>

25. The FBS Collection has 26 stereo-books published by the Raumbild Verlag. The Raumbild Verlag founded in 1935 focused its entire production on stereo-books, including astounding propaganda books, with photographs taken by Henrich Hoffmann (1885–1957), Adolf Hitler's photographer. For detailed information about the publishing house, the photographer and the book see: Lorenz, D. (2012). *Ein Leben für die Stereoskopie. Otto Schönstein und sein Raumbild-Verlag. Fotografie und Raum. Beiträge zur Geschichte der Stereoskopie*. Berlin: Waxmann. And: Irrgang, C. (2020). *Hitlers Fotograf. Heinrich Hoffmann und die nationalsozialistische Bildpolitik*. Transkript. Edition Medienwissenschaft.

26. Philipp Roling: *Deutschland im Raumbild. 100 Raumbilder mit einem Betrachter*.

27. Niklas Tönnies: *Die (Luftbild) – Stereofotogrammetrie. Stereokarten zur Anwendung bei Messmethoden*.

28. Niklas Forstreuter: *Auf stereoskopischer Spurensuche: Paris 1937*.

29. Lukas Schievelbusch: *Stereomix*.

30. Kai Selbach: *Raumbild Verlag: Die Olympische Spiele, 1936–1952*.

31. Magnus Sklomeit: *Der erste Großdeutsche Kriegertag*.

- A stereobook with 100 stereocards and viewer: *Reichspartei der Ehre*, 1936.³²

At the end of the semester a student conference was organised where the students delivered a talk about the object or group of objects that they had chosen and researched. The collectors, Yolanda and Juanjo, came to Wuppertal to attend the conference.

The course was offered again in the Spring term 2023, and thirteen students took part in it, and studied in-depth twenty objects or groups of objects: five stereo-books published by Raumbild-Verlag; one stereo-book published by Carl Röhrig Verlag; a photosculpture by Willy A.C. Selke from Engelbert-Maria Herzog von Arenberg; one Kriegsdiorama from 1914–15 with a viewer and 350 photographic glass slides; a portable viewer with a series of stereocards, a series of stereocards of the Zeppelin; three different series of scientific instruments (for photogrammetry) by Aerotopograph GmbH Dresden, Zeiss Aerotopograph GmbH Jena, and Zeiss Aerotopograph GmbH München; three different sets of nude

stereoscopic photographs; and a stereoscopic book about hernias:

- Five stereo-books published by the Raumbild-Verlag, with 100 stereocards and viewer: *U.S. Occupied Zone of Germany* (c. 1946); *Deutsche Gaue* (1938); *Großdeutschlands Wiedergeburt. Weltgeschichtliche Stunden an der Donau* (1938); *Stereo-Book Bavaria* and *Reichsparteitag der Ehre* (1936).³³
- Stereo-book published by the Carl Röhrig Verlag, *Danzig. Werden und Behauptung einer Deutschen Stadt* (1940).³⁴
- Photosculpture (1901) by Willy Selke.³⁵
- Kriegsdiorama 1914–1915: this set includes a viewer and 34 boxes with 340 glass dias.³⁶
- Serie E (incomplete: 2351, 2352, 2358, 2362, 2365, 2366, 2368, 2371, 2380, 2381) and fold-viewer.³⁷
- Zeppelin Series (incomplete) and Zeppelin viewer.³⁸
- Three Aerotopograph Series (incomplete): Aerotopograph GmbH Dresden (S1–S10; S12–S23), Zeiss Aerotopograph GmbH Jena (102–108; 201–202; 204–205; 207–208; 210–213) and Zeiss Aerotopograph GmbH München (305, 307, 319, 321, 322, 327).³⁹
- Book *Stereoskopbilder zur Lehre von den Hernien* (1906).⁴⁰

32. Torben Klebert: *Reichspartei der Ehre*, 1936.

33. All researched by Thea Schneider: Entideologisiertes Recycling? Wie der Raumbild-Verlag Fotografien aus frühen Büchern für spätere Werke wiederverwendet.

34. Helena Hecker: *Danzig. Werden und Behauptung einer deutschen Stadt*.

35. Barbara Große. *Die Photoskulptur des Engelbert-Maria Herzog von Arenberg von Willy A.C. Selke*.

36. Torben Klebert. *Kriegsdiorama 1914–15*.

37. Jonathan Karkutsch. *Serie E*.

38. The student who decided to research this series contacted and visited the Archive of the Luftschiffbau Zeppelin GmbH, which is the world's largest collection on the history of Zeppelin aviation, and found a wealth of material to complement the FBS series. Niklas Forstreuter. *Auf Spurensuche- Teil 2. Stereoskopie & Zeppeline*.

39. Kai Selbach. *(Zeiss-)Aerotopograph und deren Stereoskopien*.

40. Lara Jordan. *Stereoskopbilder zur Lehre von den Hernien*.

- Pulfrich Stereokomparator.⁴¹

One of the students from the first semester, Philipp Roling, kept researching his subject (note 25) and indulged his idea to take exactly the same 100 photographs of different places in Germany that appear in the box. His work has already merited great attention at Wuppertal University.⁴² Additionally, the first bachelor's thesis for this project will be presented by the end of December 2023, with the title ‚Welche Rolle spielen die Publikation des Raumbild-Verlags Otto Schönstein und die unter Heinrich Hoffmann veröffentlichten stereoskopischen Fotografien für die nationalsozialistische Propaganda?‘⁴³

In October 2023 we started this course for the third time, and we keep researching more objects. Meanwhile we have selected sixty *photographic objects*⁴⁴ to study. We are also pre-cataloguing the primary sources written in German, to be found in the vast FBS Collection Library, which were meant to become, and have become, an aid for researching the German photo objects.

As result of these two pilot courses, I have designed a five-year collaborative project between the IZWT at Bergische Universität Wuppertal and the FBS Foundation to catalogue and research in-depth the German photographic objects in

the collection. The objectives and desired outcomes of this project are:

- **Catalogue** of the German part of the collection – prepare the online version for the FBS Foundation webpage.
- **Education:** ongoing course with an internship of three months at the FBS Foundation for two students each semester (advanced students, preferably writing their BA thesis or MA thesis) – starting as soon as the collection is in the FBS Foundation's headquarters.
- **Exhibition** about the German part of the collection, with an exhibition catalogue, to be opened at the FBS Foundation's exhibition halls, and later on in a museum or the university's exhibition hall in Wuppertal.
- **Short visits** for research for students preparing a BA, MA, or PhD thesis.
- **Networking** with other private and institutional collections. So far we have already contacted a few private collectors and excellent stereo-photographers of the Deutsche Gesellschaft für Stereoskopie e.V., and a couple of museums that house collections of stereoscopic photographic objects. The students are encouraged to contact museums and collections to search for stereocards of incomplete series, and to complement their research with other resources outside of the FBS Collection.

41. Niklas Tönnies.

42. <https://www.uni-wuppertal.de/de/transfer/wissenschaftskommunikation/transfergeschichten/2023/philipp-roling/>

43. Translation into English: What role did the publication of the Raumbild-Verlag Otto Schönstein and the stereoscopic photographs published under Heinrich Hoffmann play in National Socialist propaganda? Magnus Sklomeit (2023).

44. The term *photographic objects* is used here to describe all the different kinds of items that we are studying: individual stereoscopic photographs in many different supports and formats; series of stereocards; stereo-books, and all the devices used to produce them and to visualise them.

Since this is an ongoing project, we will be updating the German portion of the collection at the FBS Foundation's webpage regularly.⁴⁵

This pilot project is the first attempt at *order-ing* the chaos in the German portion of the FBS collection. In doing so, we believe that we have already accepted a certain 'poetry of chaos' as a work field, as Lee Fontanella suggested in his lecture mentioned above:

Maybe the arts should parallel most modern science, insofar as modern science is skeptical about narratives that try to explain everything about the world. Maybe we should accept more readily, as a work-field, a 'poetry of chaos'. Perhaps that work-field matches what scientists now believe: that 'the vast majority of scientific ideas are a) wrong and b) useless' and that 'the true challenge posed by the runaway growth in information is to unearth useful bits from this mountain of dross [where] heavy shoveling is required to unearth good results'. The Academy should not ignore even a disorganized accumulation of items, *which is where* the potential rests, and it must provide 'shovels' of multiple sorts for the 'unearthing of good results'. (Fontanella, 2021, p. 16)

Some Closing Thoughts

The study of the German part of the FBS Collection is, on a very small scale, but already represents an attempt to start

developing a strategy to: firstly, move the collection from a private home to the headquarters of the FBS Foundation; secondly, work on cataloguing the collection; and thirdly, digitalise the collection. In preparing such a strategy, the work done by others with huge collections must be a source of inspiration to us. The case of the Alinari Archive, Italy's most important photo archive, is especially relevant. The collection, which keeps more than five million photographic objects, had to be moved from a building in Via Nazionale (Florence), where the company and its archives had been headquartered since 1863, to Villa Fabricotti in the same city.⁴⁶ Moving such a collection is an act that should be carefully planned, as it is the most dramatic change, and as Constanza Caraffa observed in the middle of this process of relocation:

In some ways, the mass of apparently anonymous boxes could suggest that an environmental catastrophe is taking place: an abrupt and violent change of the habitat where the five million photographic items of the Alinari Archive flourished until quite recently. The Alinari ecosystem – which like all ecosystems is unstable and dynamic – had certainly undergone many changes over the years, but not one was as drastic and traumatic as the move from the historic headquarters at Largo Alinari 1 in Florence. (Caraffa, 2021, p.22)

We are currently developing a strategy to carefully relocate, catalogue, and digitise our collection. Our goal is to be fully prepared for when the move takes place and ensure the

45. <https://fbsfundacion.org/en/project/german-part-of-the-fbs-collection/>

46. To read about this important project, see: Caraffa, C. (ed.). 2021). *On Alinari: Archive in Transition*. A+mbookstore. Milan.

safety of this valuable treasure trove. As the FBS Foundation prepares to host their collection, they are carefully implementing plans for their headquarters building that will house the collection. They are focusing on sustainability in both the design and construction process, as well as the final results. To achieve this, the collectors have chosen to use 'Passive House technology' in their rehabilitation efforts. It has been discovered that the newly applied refurbishment technique has the potential to create stable conditions within the showplace and storage area. This not only indicates care for the environment but also ensures that all the stored collections remain in a stable environment.

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