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© edition, Andrés Galeano

Numbered edition of 150 copies in English

Printed in Berlin in May of 2021

ISBN: 978-84-09-30523-0

This book was published on the occasion of the exhibition

*Fons perdut de núvols* by Andrés Galeano

at MIAIC of Mataró (June 12–October 3, 2021)

and at the Rocío SantaCruz gallery of Barcelona (June 22–September 10, 2021)

With the support of:



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**ANDRÉS GALEANO**

**FONS PERDUT DE NÚVOLS**



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to the metaphysical one  
through photography

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From the  
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ANDRÉS GALEANO

IT ALL STARTED ONE DAY at the end of February 2018 in Madrid, when in the bookstore Blanquerna I discovered the book *1939: The Confiscated Clouds* by Josep Batlló and Montserrat Busto, and the fascinating story of the archive of the old Meteorological Service of Catalonia (SMC), abducted by Francoism in 1939 and returned to the Catalan government in 1984 in a deplorable state of conservation. In little time I managed to visit this archive at the Cartographic and Geological Institute of Catalonia in Barcelona, and right away they introduced me to the person who classified and best knows the archive, Josep Batlló, so that he might guide me through all the documents. Upon seeing the endless photos of clouds, records and notebooks with meteorological observations, I was so awed that immediately I felt I should dedicate a project to all those unpublished materials and that this story, one so genuine, had to be told through the images themselves, and the documents that accompanied them.

Interested in the relationships between the photographic medium and the celestial, I knew it was only a matter of time before I would end up involved in a project directly related to meteorology, and the archive from the SMC offered me the perfect excuse to open a dialogue between photography and meteorology, my photograph collections and official archives, image atlases and cloud atlases, the physical sky of meteorology and the metaphysical sky of photography, and finally, the photographic practices of the beginning of the 20th century with current post-photographic ones.

*Lost Clouds Archive* departs then from the SMC archive to undertake research on different Catalan archives following the trail of its protagonists: the patron and passionate meteorologist Rafael Patxot i Jubert, the photographer Josep Pons i Girbau, the Campo family that lived in the Fabra Observatory of Barcelona and the then director of the SMC Eduard Fontserè. It is an investigation that in turn traces a journey through Catalan geography: from Barcelona to Sant Feliu de Guíxol, passing through Blanes and Mataró.



The project plays with the semantic ambiguity present in our Latin languages of the words “tiempo” and “temps”, which can be both time and weather, and “fondo” and “fons”, which can be both archive or background. It is this point where the materials of the archive of the SMC intertwine with the studio photography of that time and its ethereal, weightless and celestial staging.

*Lost Clouds Background* opens, therefore, a dialogue between said archives of Catalan nephology (which was lost and of unknown whereabouts during 45 years) and the painted cloud backgrounds used in portrait photography as a visual trick (of which barely any originals are preserved). Both phenomena are personified in the figure of Josep Pons, the studio photographer in Blanes who for economic reasons moved to Barcelona to be the cloud photographer of the SMC, until its forced closure in 1939.

This artist publication analyses the role that meteorology plays in photography and vice versa, the one photography plays in meteorology. Its structure is inspired by the mythic International Atlas of Clouds and of States of the Sky of 1932, with a part that is textual and another comprised of plates with images. Its 13 × 18 cm format cites the most common format of the glass plate negatives that were used to photograph clouds daily. And the box alludes as much to the boxes of photographic material (positives and negatives), as it does to the boxes of archives and to wooden crates—that, for certain, we never built given the scarcity of wood during the Spanish Civil War, and would have served to exile the entire SMC archive to Norway, that way saving them from possible destruction and plunder.

This publication then is a box that contains framing and re-framing, rectangular fragments that, given it could not be any other way, leave much outside the field of view. These pages are an atlas of images holding a certain order that can be modified, and are presented so they may be unfolded and give hints about this history of fragile glass negatives. *FPN* links the languages of meteorology, art restoration and photography as to reflect on time as an artistic agent

and the aesthetic of degradation which it produces. The publication shows a small collection of images—one of several possible collections—to rehearse yet another chapter in the study on the metaphysical sky of the photographic medium.

# Between Sky and Earth

ALEXANDRA LAUDO

[Heroínas de la Cultura]

THE AIR IS FULL OF SUSPENDED, INVISIBLE WATER, turned into steam. It sometimes condenses into tiny droplets, only then becoming perceptible to the eyes, shaping the fog and the clouds. Unlike fog, most of the clouds never touch the earth's surface, but are made up of water that evaporates from it: lakes, ponds, rivers, seas, and also leaves. Without touching the earth, the clouds form from the liquid that it releases—after retaining it in the sky for a period of time—in the form of rain, snow or hail. Between sky and earth, then, are the clouds, connecting these two instances, linking them through an upward movement in which all the liquid matter of the Earth is reformulated, subtly transformed in the elevated and celestial sphere, and then returned to the Earth's surface as precipitation, over and over again, in an endless cycle.

According to Andrés Galeano, photography operates in a similar way to clouds: it connects the Earth with the celestial, channels the human desire for transcendence, their will to project and ascend, and produces images that aspire to represent a meaning and depth that transcends worldly life. Galeano, who identifies his artistic practice as post-photography and manifests his work in publications, installations, photographic collages, videos and performances, has been interested in exploring these connections between photography and the celestial for years, with a special interest in how the photographic medium has analysed these two elements.

This has led him to collect numerous photographs of skies, mostly taken by amateurs and acquired in flea markets, to classify them according to different types, and to develop various projects from these pre-existing images. Different series of his project *Unknown Photographers*, ongoing since 2012, in which we find compositions consisting of different analogue photos of clouds or collages made from photos of skies with different shades, are largely part of this research. But in addition to studying and tracing this preoccupation with capturing and recording the sky with a camera, Galeano

has also paid attention to certain uses of photography that are related to the celestial in a more symbolic sense. These are both collective and individual photographic habits and practices that respond more or less explicitly to the desire to affirm our own existence and record it beyond the temporality of human life, in some cases closely linked to death or religiosity. In *Unknown Photographers* we also find pieces that show us a symbol of infinity made up of photographic images of various skies partially superimposed; compositions created from photos of crosses on rocks cut against the blue sky, or collages formed from the contrast of two photographs in which a tension is established between what is mundane, outdated and ephemeral, and what could be divine, heavenly and eternal: the torso of a person and fireworks, a set of funeral flowers and a couple making love, or a circular concatenation of portraits of people with hidden faces and a large round void between them.

In the projects *Al sol* [Under the Sun] and *La foto eterna* [The Eternal Picture], as well as in *Patologies de la imatge* [Pathologies of the Image], these tensions between mortality and the search for a perennial image unfold in relation to the materiality of the photographic medium itself. *Al sol* (ongoing since 2014), is a procedural work in which Galeano exposes a vast selection of photographs in which people appear sunbathing, either on the beach, in the pool or in other places, to solar radiation. This gesture activates a meta-referentiality, generating a coincidence between the circumstance of the photographic material and its content. Exposure of photographic images to the effect of the sun discolours them, chromatically homogenises them and ends up burning them, in a process reminiscent of what photographs in the niches of cemeteries suffer. Thus, the same sunlight that has made the existence of these photos possible is also the agent that destroys them, showing, in a broader sense, that the possibility of existing is inexorably linked to the condition of dying, that life and death are opposite poles of the same process.



*Patologies de la imatge*, which can be presented in installation format or as a performance, is a musical piece in three movements—a requiem for works of art, which lists all the pathologies that can affect an image, both digital and analogue, and destroy it, damage it, or make it disappear. It is a work that shows how artistic images, supposedly made with the desire to remain and outlive us, also have a materiality, a body—whether physical or computational—and are also subject to damage or degradation.

In *La foto eterna*, the artist investigates the uses of photography in funerary contexts, focusing in this case on porcelain medallions with portraits of deceased people, which are placed on tombstones and niches. These photographs, extremely resistant to inclement weather and the passage of time, denote the desire to perpetuate the image of the deceased beyond their death, and make intensely evident the drive of transcendence and permanence that is present in the act of photographing any person, moment or place. The photographic practice thus reconciles two paradoxical and seemingly opposite effects that interest Galeano: when capturing a situation or an entity, one fixes it in time and immortalises it, but in doing so, one also separates it from the course of life.

The performance *Indexical*, which does not address these issues in so direct a manner, and which seems to move away from the reflection on the tensions between the perpetuation and the expiration of the photographic medium, also addresses connections between photography and the celestial. In this work the artist selects photographs in which a figure appears pointing at something with the index finger from his archive of anonymous photographs taken from family albums. In this project the images are projected randomly on a screen on a stage, while the artist imitates onstage the positions represented. The human gesture of pointing at something resonates with the almighty and creative finger of the Christian God, and thus evokes the relationships

between what is earthly and what is eternal and divine. *Indexical*, then, also investigates through this iconographic motif the connections between photography and the celestial and establishes an analogy between the performative nature of the pointing finger—which enhances, distinguishes and, in a way, creates—and the performative and creative nature of photography, which also singularises fragments of reality and gives them a new entity, giving them existence as images.

It appears to be somewhat inevitable, then, that the coherence of this artistic investigation has now led Galeano to place clouds at the centre of his latest project, and to relate nephology to the studio portrait. By establishing this connection, the artist continues to explore the relations between photography and the celestial, in this case to speculate on the relationship between the physical and the metaphysical sky in relation to photography.

*Fons perdut de núvols* [Lost Clouds Archive] is a project that takes as starting point two photographic practices that have clouds as a central element of study. One of them is the background of cloudy and foggy skies, repeatedly used as scenery in photographic studios, especially during the second half of the 19th century. These backgrounds were used in order to place subjects in an abstract frame that enhanced their figures. They are, then, a forerunner to today's digital wallpapers and photocalls, as well as the other filters and effects used in digital photography. Interestingly, most of these contemporary digital self-portraits are published on the web, that is, in what is known as *the cloud*, a terminology that again insists upon these connections between photographic practice and the celestial imaginary. With his idealised representation of the sky, Galeano also reads these backgrounds as manifestations of an aspiration to immortality and transcendence that is inherent in the practice of photography. In *Fons perdut de núvols* Galeano references the archives used in the Barcelona photographic studios of Aníbal Baró, Napoleón,



Audouard and Daguerre, among others. Galeano's project, then, is also a valuable exercise in reviewing the history of photography in Catalonia, and an activation, from the place of contemporary visual arts, of our historical photographic heritage.

The other practice that the artist takes as a starting point are photographs of clouds taken by meteorologists for the purpose of studying them, working specifically around two archives. The first is the collection of cloud photographs of the old Meteorological Service of Catalonia (active between 1921 and 1939), which was confiscated in 1939 by the Franco regime. This heritage archive, which contains photographs taken by Josep Pons i Girbau, and which was funded by the patron of the arts and sciences Rafael Patxot i Jubert, was not returned to Barcelona until 1984 in a severely damaged state, with many of its photographs and glass plate negatives damaged. However, Pons i Girbau was able to provide a number of images for the edition of the *International Atlas of Clouds and of States of the Sky* which was translated into several languages, and of which editions were published between 1925 and 1935.

The other archive is that of the Royal Academy of Sciences and Arts of Barcelona (RACAB), an institution that still exists and which played a relevant and pioneering role in the development of photography in Catalonia, as well as the sciences linked to sky observation, such as meteorology and astronomy. The RACAB was also—and still is—the institution responsible for the management of the Fabra Observatory, where the Campo family lived for years. This family's photographic archive is also used by Galeano and referenced in this work, establishing a link between vernacular photography, more closely linked to everyday life and family customs, and nephrological scientific photography, connecting again the earthly realm with the celestial, ordinary life with the evocation of the afterlife.



The publication of *Fons perdut de núvols* includes photographs from these archives, as well as other images of documents, publications, and objects related to meteorology and the history of photography. Visual reproductions of damaged glass negatives and photographs from the collection of the old Meteorological Service of Catalonia play a key role, in which the images appear distorted and corrupted by moisture, fungi and other substances. Although in an archival sense these accidents and incidences reduce the value of these materials, Galeano is interested in the aesthetic effect they produce in the images and interprets them as traces and testimony of the vicissitudes experienced by the archive, as the material evidence of a trauma which is deep and political, that of repression and cultural dispossession caused by the Franco regime. These accidents, paradoxically, are harmoniously integrated into the images to complement what is represented: the fungi and moisture that have damaged the photographic paper seem to become clouds, fog or rain, and the impacts on the glass evoke the electric explosions of lightning and storms. It is as if the random evolution of these incidents suggests that the poetic and artistic sense can perhaps redeem the harm and violence, or at least make it more bearable.

With all these materials from various sources, Galeano constructs a visual essay that takes as a reference the already canonical project of Aby Warburg, the *Mnemosyne Atlas*, though it is also a tribute to another collection of images, the *International Atlas of Clouds and of States of the Sky* published thanks to the Patxot Institution of Catalonia. Galeano constructs a visual essay in which the history of science and that of art are interrelated, and in which distinctions are challenged between images made for an aesthetic and artistic purpose and those produced with an informative functionality oriented to scientific analysis and study. With this approach, the artist shows how the action of looking and observing is intrinsic and equally relevant both in the development of scientific knowledge and in artistic practice. The images of laboratories and those of photographic development, telescopes and



photographic lenses, magnifying glasses and cameras all participate in the will to broaden and enhance the vision and ability to observe, and express a shared desire to retain and record the world for a better understanding, not just of its nature, but the meaning of human existence and all that happens between the surface of the earth and the sky; as well as, perhaps, that which lies further beyond.

# The Origin of a Collection of Glass Plate Negatives<sup>1</sup>

JOSEP BATLLÓ

CLOUDS HAVE ALWAYS ACCOMPANIED HUMANS. And, surely, when we began to wonder about the world around us, one of the first questions must have been why clouds appear and disappear and why they change. Their connection to weather is obvious, and weather lore used them to predict it. Even when we didn't have the current technical devices, meteorologists based a large part of their forecasts on the type and behaviour of the clouds observed.

But the structured and scientific description of clouds is not very old. Their changing, ephemeral forms have resisted attempts at rationalisation. The first person to develop a classification of clouds with some success was Lamarck (1744-1829), better known for his naturalist work, at the turn of the 19th century. Shortly afterwards, in December 1802, Luke Howard (1772-1864) presented his thesis on the shapes and classification of clouds in a conference in London. His insight proved correct, and since then the world has had a valid tool for describing and studying the clouds. From that moment on, it became possible to exchange information about the state of the sky—useful for forecasting—without the need to look at the clouds. Howard's classification (which, with few variations, has survived to this day) spread rapidly.

In 1873, the International Meteorological Organization (IMO) was set up to coordinate meteorological work in different countries. At the same time, the development of photography made it possible to photograph clouds. And soon enough they developed a technique to obtain real images of clouds that would serve as an example. Thus, the IMO promoted the publication of an International Atlas of Clouds that would facilitate their reference and that arranged and systematised the knowledge of clouds that were discovered. The result was the Atlas of Hildebranson et al. (1896).<sup>2</sup> Concurrently, IMO organised an 'International Year of the Clouds', from May 1, 1896 to August 1, 1897. This project was created as a way to complete the knowledge of clouds that had been accumulated, as an extension of the results obtained during the elaboration of the first International Atlas of Clouds and to get the most out of photography, the latest tool incorporated into cloud watching. Hildebranson's

Atlas was for many years the standard work of reference. But by the end of the First World War meteorology had made an exceptional leap and the old Atlas of 1896 had become outdated, both in content and presentation. It was necessary to prepare a new Atlas. Sir Napier Shaw (1854-1945), the IMO's President, began the process and in 1921, an 'International Commission for the Study of Clouds' was set up within the IMO with the aim of making a new Atlas, which was eventually published in the 1930s. It is at this point that we can link general history with the history of the collection of cloud photographic negatives of the old Meteorological Service of Catalonia.

#### THE STUDY OF CLOUDS IN CATALONIA

The first scholar of clouds in Catalonia of whom we have evidence is Rafael Patxot (1872-1964). He belonged to a rich family and his economic situation and personal predilections for science and culture (in a really broad sense) led him to dedicate an important part of his life to science, culture and patronage and, as we will see, he was key in the later development of the studies of clouds in Catalonia and, even, in the edition of the new Atlas of Clouds published in the thirties.

In 1896, Patxot set up a meteorological and astronomical observatory at his home in Sant Feliu de Guíxols, which he called the 'Catalan Observatory'. The observatory was equipped with all of the best meteorological instruments available at that time. From the outset he gave great importance to the observations of clouds. Coinciding with the International Year of Clouds of 1896 (perhaps intentionally) he began to record, twice a day, the type, direction, quantity and other characteristics of the clouds observed in Sant Feliu de Guíxols. The observations were recorded independently for low, medium and high clouds and were kept in specially designed books that he filled in uninterruptedly from 1896 to 1911, when he moved to Barcelona with his family. He summarised the main results of this



series of observations in his publication ‘Observations of Sant Feliu de Guíxols. Results from 1896 (partial) to 1905’ (Patxot, 1908). It is very interesting to see how at that time Patxot was already able to fathom the presence of a disturbance in the Gulf of Genoa from the observation of cirrus clouds that spread from the Northeast.

Patxot was the first in Catalonia, but not the first Catalan, to study the clouds. Catalan Jesuits who worked in Cuba and the Philippines set up meteorological observatories that made important contributions. Benet Viñes (1837-1893) directed the Bethlehem Observatory (Havana) since 1870 and is internationally known for his contribution to the knowledge of the nature of cyclonic circulation, admirably condensed into a posthumous publication (Viñes, 1895).<sup>3</sup> The observation of clouds was fundamental to his studies of tropical cyclones and was the basis for the forecast of these phenomena. The accurate observation of the structure and direction of cirrus clouds was the key.

Frederic Faura (1840-1897) emulated Viñes’ work for the forecast of tropical cyclones in the Far East, and the Manila observatory was known and appreciated throughout the Eastern countries for the reliability of his predictions, like the Bethlehem Observatory in the Caribbean.

Josep Algué (1856-1930) succeeded Faura as director of the Manila Observatory (1897-1926). With him, the Manila Observatory also contributed to the aforementioned ‘International Year of the Clouds’ project. It was decided that they would use the recently developed photogrammetric methods for topographical surveys and apply them to measure the height, dimensions and shape of the clouds. Only 18 observatories around the world showed an interest (and the ability) in applying such methods, and the Manila Observatory was the only one in the East. In order to make observations, the observatory acquired two pairs of photographic theodolites. The results were published in 1898 in a book entitled *Las nubes en el archipiélago Filipino* (Algué, 1989)<sup>4</sup> [The Clouds in the Philippine Archipelago], which presents the results of the methodical observation of clouds and their evolution in Manila for a whole year.

## THE INSTITUTIONALISATION OF METEOROLOGY IN CATALONIA AND THE STUDY OF THE CLOUDS

In 1921, the ‘Meteorological Service of Catalonia’ (SMC) was officially set up, and Eduard Fontserè (1870-1970), who had much experience in the meteorological field (Roca et al., 2004), was its appointed director. The creation of the SMC meant the institutionalisation of meteorological observation and research in Catalonia. For the first time, staff were hired to devote themselves exclusively to meteorological analysis.

Shortly after the creation of the SMC, Patxot went to find Fontserè (they had been friends for a long time) to show him his interest in the new service. This contact happened at the same time as Sir Napier Shaw handed in a proposal for the revision and updating of the classification of clouds.

Although Catalonia as a country is rather small, its complex topography and the presence of the Mediterranean generates a handful of local meteorological phenomena and microclimates. These factors make it a land of clouds. Our climates are basically bright, and we don’t have many days with fully overcast and grey skies as are common in winters further north; but we can see many and very different clouds. These features, in those days, made the observations of clouds, their formation and evolution, key to weather forecasting.

Thus, the coincidence of technical advantages, personal interests and the desire to project the newly created Service internationally were brought together, and in 1922 a section dedicated to the study of clouds was created within the SMC. The budget for this section was fully covered by Rafel Patxot through a foundation called «Concepció Rabell, section of Nephological Studies».<sup>5</sup>

An extensive programme of observations was designed. Visual observations of the clouds were made every three hours in the SMC offices, on Carrer Urgell, in the clocktower of the industrial school. A photographer (Josep Pons, 1889-1966) was also hired to photograph the appearance of the clouds whenever necessary, while a pair of phototheodolites were acquired from Italy, which were then



installed on a 400m long permanent base, to obtain photogrammetric images of the clouds. One of the devices was installed in the south tower of the industrial school and the other on the roof of a house located on Casanoves Street.

In a short period of time a very important collection of cloud photographic negatives was gathered. These studies were carried out, when necessary, in coordination with the international initiatives on this subject and in 1923 the SMC and also the Ebro Observatory took part, between 15 and 21 January, in the 'Preliminary Week of the Clouds' and, between 24 and 30 September, in the 'Week of the Clouds', both promoted by the French National Meteorological Office to collect basic material for the study of the clouds (García Mollà, 1923). That same year, at the IMO meeting in Utrecht, Fontserè and Patxot were elected members of the 'International Commission for the Study of Clouds'. In 1925, as a result of the work already carried out, a small Atlas of Clouds was published (Fontserè, 1925), which aimed to provide observers with reference material that would allow them to make more accurate observations. More particular studies on aspects of clouds in Catalonia were also published (Patxot, 1922; Fontserè, 1927). By this time, then, the studies of the clouds undertaken by the SMC had reached maturity.

#### THE SMC AND THE INTERNATIONAL CLOUD ATLAS OF 1930

In mid-1926 work on the new International Atlas of Clouds, first proposed by Napier Shaw and then continued under the direction of E. Delcambre (1871-1957), was very advanced. The International Commission met in Zurich in September to write up their findings. At the meeting of the International Meteorological Committee, held a few days later in Vienna, it was decided that by the next meeting of the committee, which was to be held in Copenhagen in 1929, the project should be fully completed and submitted to the approval of the International Committee to be sent to the press.



The previous meeting of the International Commission for the Study of Clouds had been held in Barcelona on June 11 and 12, 1929. It was part of the programme of the International Exhibition that was held in Barcelona at that time. On the occasion of this meeting, the SMC organised an international exhibition of clouds. Photographs of clouds that would be reproduced in the Atlas and many others were on display. The exhibition was used for the members of the commission to have all the photographs available for the edition of the Atlas at hand, so that the final selection of those that would be included could be made, greatly simplifying the work of the commission. From this meeting came the final version of the contents of the Atlas of Clouds, which was sent to the International Meteorological Committee for final approval. Of the 174 sheets of clouds that make up the Atlas, 23 engravings, with a total of 30 photographs, belonged to the SMC archives. This is a spectacular contribution if we consider that the work included images from all over the world. Only the French National Meteorological Office, the Meteorological-Magnetic Observatory in Potsdam, and the private collections of G. A. Clarke of Aberdeen and Cave in Petersfield were comparable to the contribution of the SMC.

But the problems with the publication of the new Atlas were not over. The IMO ran into serious trouble funding the edition. These were the moments of the world economic crises of 1929 and governments, moreover, were rearming. Thus, the governments responsible for the different meteorological services were not fit for the job or didn't want to take over the edition of the new Atlas. Rafel Patxot, aware of the problem, took the initiative and offered 150,000 French francs for its publication; an amount that covered the printing costs of all the lithographic prints. The only condition that Patxot set was that, together with the official editions in French, English and German, a fourth edition should be made in Catalan that he would personally defray. The international committee immediately accepted, and this is the origin of this publication. This initiative caused a great deal of anger in the Spanish National Meteorological Service (SMN), described by Iglesias (1983: 77-81) and Patxot



himself (1952), because they didn't fully understand that a 'regional service' could take initiatives more far-reaching than their own.

Once the financial problem was solved, the publishing process was accelerated. In 1930, the four editions of a reduced version for the use of observers were published simultaneously (Committee, 1930). Then, between 1932 and 1935, the full versions were published, with the Catalan version being the last to be published (Committee, 1935).<sup>6</sup> The prints of the Atlas (in the reduced and complete versions) were all stamped in the same printing press in Paris to guarantee the same high quality of printing in all editions and they were later distributed to the different countries involved. The meteorological services of each country took responsibility for printing the texts on the distributed sheets.

On May 28, 1934, in a solemn ceremony, the President of the Generalitat, Lluís Companys, presented Rafel Patxot with a luxury copy of the French edition of the International Cloud Atlas, sent through diplomatic channels by the French Minister of Foreign Affairs. It was the tribute of the French government to one of the architects of the edition of this Atlas.

## EPILOGUE

Following their collaboration in the publication of the International Atlas, the SMC continued the study of clouds. On the occasion of the Second International Polar Year, in 1932, the SMC established two mountain stations, Turó de l'Home in Montseny and Sant Jeroni in Montserrat. A special programme was designed for the observation of clouds by the new stations (Fontserè, 1933). Regular and methodical observations of clouds and photography campaigns were made. Thus, at the beginning of the Spanish Civil War, the Concepció Rabell Foundation's photographic archive of clouds contained more than 5,000 conventional glass plate negatives and 1,600 pairs of photogrammetric glass plate negatives conveniently catalogued and classified, apart from numerous notebooks with annotations of

regular observations, all prepared for future studies on the subject. But the scheduled studies would never be conducted. In 1939, a few days after Franco's army entered Barcelona, they occupied the premises of the SMC and seized all the material, including the archive of cloud photographs (Castellet, 2017).

The confiscated documentation remained in the possession of the SMN.<sup>7</sup> It seems that, shortly after the confiscation, all this material was taken to Madrid. Dr. Fontserè believed that an important part of the confiscated material was sold at the price of old paper to various draperies. We have no independent confirmation of this fact; it could be true that some of the documentation owned by the SMC was lost, but also, as we shall see, it could still exist, albeit ignored.

The clear fact is that all, or a significant part, of the confiscated documentation arrived at SMN headquarters, then located in Retiro Park in Madrid, not long after its looting. The person in charge of the custody of this material was José María Lorente Pérez (1891-1983), who was in charge of the library and archive of the SMN from 1941 until his retirement in 1961. Later, Alfonso Ascaso Liria (1936-1995), head of the SMN Ebro region, requested the transfer of an important part of the fund to Zaragoza. He made a selection and sent what did not interest him back to Barcelona, where it remained under the responsibility of Juan Bautista López Cayetano (1910-1982), director of the Catalan archive. Here it made a pilgrimage to various warehouses of the State Administration. It has not yet been confirmed whether SMC's material exists in the AEMET centres in Madrid and Zaragoza or whether it was all transferred to Barcelona.

Since the restoration of the Generalitat of Catalonia, various steps have been taken to recover this heritage. It was not an immediate success, but in the 1980s the goal was achieved and all this documentation, which was in the possession of the Instituto Nacional de Meteorología (INM),<sup>8</sup> was returned to the Generalitat, following a government protocol. Personnel from the Generalitat and the INM, during the months of September and October 1983, jointly searched for the material in the warehouses where it was thought



to be located. An initial on-site inventory was made. As material was found, it was packaged with a rather superficial record card. A total of 215 batches (some consisting of more than one package) numbered in correlative order (as they came out) left the warehouses. Subsequently, the returned material was transferred and deposited at the Cartographic Institute of Catalonia (ICC). On December 12, 1984, in a public ceremony, the INM officially transferred this archive to the Generalitat of Catalonia. Since then, all this material has been in the ICC's Map Library (currently the Cartographic and Geological Institute of Catalonia, ICGC).

The condition of the whole set was quite deplorable; the material was untidy, very dirty and part in very poor condition, due to having suffered dampness and disorganisation with successive relocations over the years. The lots were collected by subject and made available to the public in a first catalogue organised by different subjects in the ICC Map Library. As it was very difficult to consult, this inventory was revised and catalogued again in 2002 (Batlló, 2003). The collection contains meteorological data, administrative documents, correspondence and abundant graphic documentation. It covers a period from the end of the 19<sup>th</sup> century to 1939.

The second inventory revealed the presence of material from the Catalan Nephology Section and also from the old Catalan Observatory. The bulk of the preserved nephology materials consist of glass plate negatives, measuring  $180 \times 130$  mm, numbered from 1 to 4063, corresponding to conventional cloud photographs, and pairs of glass negatives, numbered from 1 to 1675, size  $150 \times 100$  mm, corresponding to stereoscopic photographs. The negatives are complemented by notebooks and files, which document the details of obtaining them. There are also many photographs on paper, developed from the negatives. In 2014 the Library of Catalunya transferred several thousand cloud files to the ICGC, with the photographs obtained by contact with the negatives, which we assume correspond to the material that Fontserè claims he had at his home at the time of the destruction.

This collection is now available to the public at the Cartoteca de

Catalunya. The most fragile part is made up of thousands of glass negatives and, to ensure their preservation, all the negatives have been scanned. In the near future we hope to be able to scan all the documents.

The current scientific value of the negatives is almost non-existent. The methods of meteorology and photography have come a long way and, although there is still a cloud atlas of reference, it is already in digital format.<sup>9</sup> They show us, however, the work of an era, which is why they have great historical and, of course, cultural value, as proven by this publication and exhibition by the artist Andrés Galeano which addresses these materials extensively.

<sup>1</sup> This text is a rewording of Batlló (2005)

<sup>2</sup> It can be downloaded freely from <https://library.ucsd.edu/dc/object/bb8913214f>

<sup>3</sup> It can be found at [https://babel.hathitrust.org/cgi/pt?id=uc1.\\$b611993&view=1up&seq=1](https://babel.hathitrust.org/cgi/pt?id=uc1.$b611993&view=1up&seq=1)

<sup>4</sup> It can be downloaded freely from <http://bdh-rd.bne.es/viewer.vm?id=0000046942&page=1>

<sup>5</sup> This Foundation was born from the fortune of Patxot's sister-in-law, Concepció Rabell, who died childless in 1919, for whom Patxot was appointed executor. He dedicated her fortune to the funding of various cultural and scientific projects.

<sup>6</sup> It can be downloaded freely from <http://biblioteca.icc.cat/pdfctc/ctegeo116952.pdf>

<sup>7</sup> Servicio Meteorológico Nacional, the current Agencia Estatal de Meteorología (AEMET)

<sup>8</sup> Instituto Nacional de Meteorología (INM) was the official name given to the state meteorological service between 1978 and 2008, now known as Agencia Estatal de Meteorología (AEMET)

<sup>9</sup> It can be found at <https://cloudatlas.wmo.int/en/home.html>



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# Approaches to a Narrative on Celestial Photography

MARTÍ LLORENS

“The invention of photography is an example of how great events that after having been magnified by the culture of the 19<sup>th</sup> century, later have lost all educational value, including their legibility even. This invention presents itself in the 20<sup>th</sup> century as a fact of a civilization so global, that the explanation of its emerging conditions seems almost secondary today. It matters little, in truth, the details of the genesis of the procedures if, as Walter Benjamin admits, “the time had arrived” for photography in the first third of the 19<sup>th</sup> century, that is to say, in the context of the Industrial Revolution and of the advent of a bourgeoisie hungry for exactitude and speed”

François Brunet<sup>1</sup>

For the immense majority, it is now currently quite difficult to be aware that light is the only *working material* with which we create our photographs. And in the same line, we can likewise suppose unawareness in the moment we would take into account whether the sky is clear or completely covered with grey clouds upon taking a *selfie*... And it is those poor light conditions in which today a simple iPhone can be employed, *freehand*, all entirely unthinkable until very few years ago. Of course, this was not always the case, and much less during the first five decades of the history of photography.

In the following text we will sketch just four stories concerning the photographers of those first years when not only solar light, as far as its quality, quantity and direction configured and set the technical process to follow, but also other factors, such as temperature and humidity, decisively influenced the moment of preparing and developing a photographic emulsion. As well other elements, which could be the wind, became decisive at the time of setting up and using a large format camera—always on a tripod—in which the exposure times could vary between seconds and several minutes. Therefore, at the hour of looking at and comprehending the photographs of that period, we must take into account as much the physical, as the conceptual relationship the photographer established with the world through his camera, in short, through the technique which could be disposed of at the time.



The project *Lost Clouds Archive* presented by Andrés Galeano, proposes us with a reflection on the metaphysical links of the photographic medium with the celestial and its temporal transcendence. As an introduction to discuss this complex and intangible relationship that, through an optical instrument, goes beyond what is proximate and evident, it might serve us to remember this phrase from Walter Benjamin:

“What makes the first photographers so incomparable is perhaps this: that they show the first image of the encounter between man and machine.”<sup>2</sup>

#### BEGINNINGS ARE NEVER EASY

In a letter that in May 1826 Joseph Nicéphore Niépce (1765-1833) wrote to his son Isidore and daughter-in-law Eugénie, this ingenious Burgundian inventor employed for the first time the word *heliography*. In Greek mythology, *Helios* was the personification of the sun who later on, the Romans identified as Apollo, the god of light.

Interested in lithography, a new invention at that time, Niépce began to investigate the possibility of reproducing prints by means of solar light. For that he employed a solution made of lavender essential oil and Bitumen of Judea. This substance, that functions in the way of a photopolymer, hardens upon exposure to ultraviolet light, namely, upon exposure to sunlight. Later on, his experiments spurred him on to search for a method of mounting images formed in camera obscuras; he took some years to achieve definitive results that he called points of *view from nature*. Obviously, the word *photography* still didn't exist and Niépce considered various options. In the end he chose a lovely word for his invention: *heliograph*, that is to say, a drawing or image made by the sun. This was the first photographic process through which an image produced by the action of solar light could be mounted successfully:

“The discovery that I have made and that I designate under the name of heliography, consists of spontaneously reproducing, under the effect of light, with a tone range of black to white, the images received in a camera obscura.”<sup>3</sup>

The name became popular although not so the procedure, which disappeared alongside its inventor, who passed away suddenly in the summer of 1833. Currently, in the Harry Ramson Humanities Research Center at the University of Texas at Austin, the oldest photograph conserved until today is held: a pewter plate thinly coated with Bitumen of Judea, made by Niépce in 1826. It is a view from one of the windows of his country house in the village of Saint-Loup de Varennes. After insistent and intricate investigations, this historic plate was *rediscovered* in Great Britain by the North American photo-historian couple Helmut and Alison Gernsheim in 1952.<sup>4</sup>

Due to the extreme lack of photosensitivity of the solution of lavender oil and Bitumen of Judea that Niépce employed in his tests, the exposure times for his points of view through the camera obscura ranged from two to three days, provided that the sky was sunny and clear.<sup>5</sup> For this reason, his trials were limited to only the months of summer and autumn. In a letter he wrote to his brother Claude at the beginning of November 1826, he commented:

“This time my habitual worries did not oblige me to postpone my answer as long; because since the last, only one or two more trials on the points of view that also have met my expectations with respect to the general effect, the rain, the fog and the cold did not allow me to continue investigating. I tried in vain other experiments of this type to no success, which I believe I can attribute to the lower intensity of luminous fluid and principally, to the temperature drop that condensing the air humidity in my glasses, left them as if they were covered in emery, producing in my pewter plates an even more bothersome result.”<sup>6</sup>

Three months later, Niépce continued lamenting the bad weather in a letter addressed to his friend and technical advisor, the Parisian engraver François Lemaître:

“Since the last two months of autumn, I have suspended my work which I cannot resume until the return of summer. Then, sir, I will occupy myself principally with engraving points of view of nature, using the perfected camera obscura.”<sup>7</sup>

It wasn't only the scarce solar light available during autumn and winter that worried Niépce. He needed a sky free of clouds with a brilliant sun, that, on one hand, would produce shadows in the *heliographed* scene and, on the other, during the long time in which the plate was exposed to light, these shadows would disperse. In this way he referred to the issue to Lemaître:

“But you are not incorrect, sir, upon attributing to the too prolonged action of light, one of the most striking defects that you have noted. Unfortunately, it is impossible for me to avoid in an arrangement in which what is in view is poorly illuminated, and which takes considerable time for it to be able to be printed, although it only might be a little bit; hence these contrasts and this confusion produced by the change of direction, at times oblique and at times opposed, of the rays of sun. As of such, to achieve a decisive success, it is essential that the effect take place as promptly as possible, which supposes a great clarity and sharpness in the representation of the objects; however, for that, it is necessary a camera obscura as perfect as that of Mr. Daguerre, because otherwise I will be condemned to draw more or less closer to the goal, but without ever being able to reach it.”<sup>8</sup>

Niépce used the landscape that one of the windows of his house offered as the subject for his *heliographic trials*; due to using the most dilated exposure times where the camera had to remain completely immobile, it needed to be shielded from wind and other weather inclemencies. Possibly, the creation and stubborn repetition of the same photograph with similar exposure times, today would be motive for a dense theoretical talk in which the artist, the curator, or both at once, would submerge us in intricate and axiomatic arguments of temporality and perception of place and non-place.<sup>9</sup> But Niépce did not have time, nor quality optics, nor a photosensitive emulsion fast enough to think of that. And even more, neither had he money left over, because a great part of his fortune had

disappeared due to the difficult political and economic situation in France, and the costs generated by his investigation on the *Pyréolophore*, a revolutionary internal combustion motor ununderstood in its time. This project brought him to constantly send money to his brother Claude, who after years of fruitless attempts to sell this motor to the English, ended his days in England, sick, alone and absolutely tormented by his futile search to construct a *perpetual movement machine*. But that, is another story.

### A HOUSE WITH LARGE WINDOWS

“During the brilliant summer of 1835, in England, I made new attempts to obtain pictures of buildings with the Camera Obscura; and having devised a process which gave additional sensitivity to the paper, viz. by giving it repeated alternate washes of salt and silver and using it in a moist state, I succeeded in reducing the time necessary for obtaining an image with the Camera Obscura on a bright to ten minutes. But these pictures, were very small, being quite miniatures.”

W. H. Fox Talbot <sup>40</sup>

In the introduction to his book of photographs *The Pencil of Nature*,<sup>41</sup> the well-educated and ingenious English landowner William Henry Fox Talbot (1800-1877) relayed to us the beginnings of his investigations that led him to the invention of the calotype, a process for obtaining negative images on paper that would trace the essence of the modern photographic process up until the adoption of the digital medium. From Lacock Abbey, his great country estate that originally had been a monastery constructed in the 13<sup>th</sup> century, he carried out his first photographic trials during the second half of the 1830s. Of his first photograms on paper made with plants—his fondness for botany had accompanied him since childhood—he came to carry out his tests, just like Niépce did, with images formed in the camera obscura. However, these papers were sensitized with silver chloride and while they worked flawlessly when they were exposed directly to solar light, given their limited photosensitivity,

they left much to be desired if they were employed as photosensitive material in the interior of a camera obscura.

Simply by considering the location of Lacock Abbey—in the county of Wilshire, in the southeast of England— and thinking of the meteorology of that territory, we will understand perfectly the reason for which Talbot referred, specifically, to the “brilliant summer of 1835”. In this regard, it is curious to know that since the 17th century, a tax had been implemented in England with the purpose of levying the use of windows in homes.<sup>12</sup> Talbot himself began renovations with the objective of constructing enormous neo-Gothic picture windows to procure the entrance of light into the large and gloomy dependencies of the old abbey, a reform that for certain, his mother, Lady Elisabeth Theresa Fox-Strangways, adored. On many occasions, these picture windows were the subject of photographic trials and in fact, the oldest negative that we preserve of all his extensive production is the one corresponding to a known window—View of the South Gallery at Lacock Abbey.<sup>13</sup>

## OF THE SEA AND THE SKY

“Photography is called to play a great role in the progress of art, and its immediate result will be that of destroying inferiorities and elevating artists with talent.”

Gustave Le Gray<sup>14</sup>

In October 1999, an original photograph titled *The Great Wave*, was sold at a Sotheby’s London auction for half a million sterling. It was taken around 1857 by the then very young French painter and photographer Gustave Le Gray (1820-1884), in Sète, a small costal locality in French Occitania.<sup>15</sup> The sale of this albumen print, approximately 34 × 42 cm, and belonging to the collection of Marie-Thérèse and André Jammes at that time, marked the highest price paid up until that moment for a single photograph.<sup>16</sup> This image formed part of a large series of marine photographs that Le Gray took between



1856 and 1858 in various localities on the coast of Normandy, like Le Havre and Cherbourg, and also on the Mediterranean coast, like the one already mentioned in Sète. In their time they were widely advertised for sale in publications like *The Times* or *The Athenaeum* and at the same time, they were as much the object of the sharpest criticisms as they were of the greatest accolades.<sup>17</sup>

It is important to take into account the period in which these photographs were taken. It seems almost metaphorical the fact that the death of Daguerre, inventor of the daguerreotype, in 1851, coincided with the creation of the *Société Héliographique*, the first association dedicated to photography that moreover, edited *La Lumière*, the first European weekly dedicated entirely to this medium. Also, with the creation of the first photographic printing workshop headed by the chemist and printer Louis-Desiré Blanquart Evrard. As well, that year the Universal Exposition was inaugurated in the *Crystal Palace* in London where photography, for the first time, occupied a relevant place and the French government, through the Commission of Historic Monuments—whose general inspector was the writer Prosper Mérimée—granted what was the first photographic commission of a public nature to five photographers, amongst which Le Gray was found. With respect to the technical process, in March 1851, the British sculptor and calotypist Frederick Scott Archer published in the magazine *The Chemist* the wet collodion process that soon definitively overtook the daguerreotype, the calotype and albumen on glass, enduring until the beginning of the 1880s.

We find ourselves then in a key moment of expansion and progress of photography, as much as on a technical level as it was with respect to its diffusion amongst the public, although at the same time, as Ken Jacobson notes, *photography was often perceived as technically precarious and esthetically suspect*.<sup>18</sup> And certainly, the motive of such suspicion was somewhat grounded.

Despite the continuous advances that had started in the photographic medium since its public announcement in 1839, the scarce photosensitivity of the processes then available in general did not permit the taking of snapshots which, made everything in movement very difficult to photograph. Secondly, these processes were not equally photosensitive to all colours; the emulsions were insensitive to red and orange and although to a lesser extent, also to green. As such, to photograph landscapes full of trees or plants required a longer exposure time and in the photograph of a forest with a blue sky, the forest might appear as a black mass without detail. This technical limitation caused a critic, faced with the great contrasts of light and shadow that these scenes might present, to ask himself with certain irony:

“Was not nature very bright when the photograph indicates obscurity?”<sup>19</sup>

Therefore, the first problem to resolve in photographs like those of the marine photographs of Le Gray—all created through the wet-plate collodion process—resided in achieving a correctly exposed sky with clouds and detail appearing upon the great mass of water of a sea in motion. Ultimately, the sky required a shorter exposure time than that of the sea, which all at once, would require less time if we also wanted to detain the movement of a wave...The methodology that Le Gray employed to resolve this problem is not entirely clear. However, in his series of marine photographs, it is possible to discern two categories: that of photographs obtained as genuine snapshots of the sky and of the sea, in which shortening the exposure time must have implicated a special developing process; and that of the photographs that are the result of the combination of at least two negatives, that is to say, of one exposed to obtain texture with detail of the clouded sky, and the other exposed for the sea. In this case, both negatives—upon a glass plate—were developed through successive masking, upon the same page. Le Gray was not, in the least bit, the only photographer that employed this procedure of multiple developing; amongst others, Charles Nègre and Camille Silvy utilized it for

some of their landscapes and of course, Henry Peach Robinson to *construct* his baroque scenes in a pictorialist style.

Whether they be resolved through one manner or the other, as the marine official and French photographer Albert Liébert said, with respect to the ways to include clouds in photographic landscapes;

“These operations, all of them of good taste, require great care, and above all, artistic sense.”<sup>20</sup>

Thus, we can think that the desire of Le Gray upon taking his marine photographs, was possibly that of capturing the essence of the ephemeral and the ethereal through vaporous and changing clouds above a sea in movement, representing nature in all its splendor for a public which still had a lot to see, understand and marvel at through photography.

#### PAINTING CLOUDS FOR GLASS HOUSES

“The chemical action of light varies a lot according to the state of the atmosphere. On a beautiful and clear day, it will be faster than on a dark and cloudy day, and before the sun passes the meridian, it will be superior to that of the afternoon, which will accelerate operations. On a very dark day, the model posing will require more time than when they are submerged in a beautiful, brilliant and clear light. On occasions, the details in the shadows will not turn out so well, but if lighting as much as possible and if it is necessary, using a reflector and adapting the exposure to the intensity of light, even in the worst of cases we will manage to obtain an acceptable test.”

Albert Liébert<sup>21</sup>

During the first decades of the invention of photography, the dependency of the photographer with respect to solar light was absolute, no longer just for taking portraits and landscape photos, but also for developing the negatives, whether these be on paper or on glass. In



this way it remained up until well entering into the 20<sup>th</sup> century, when truly effective systems of electric lighting could be employed in studios and photographic workshops. Ernest Lacan, art critic and editor of *La Lumière* and *Le Moniteur de la Photographie*, upon talking about photographers and their studios rightly pointed out:

“It results entirely naturally that the collaborator of the sun lodges as close as possible to the sky.”<sup>22</sup>

And it was entirely true, because at the beginning of the 1840s, the low photosensitivity of the Daguerreian plates and the scarce luminosity of the available optics obliged the photographer to seek out not only quality of light, but rather also its quantity. In this way, the rooftops and the terraces of buildings quickly became the ideal place where the *portrait photographer* submitted his clientele to an inclement solar light with the purpose of being able to shorten, as much as possible, the exposure time, during which the portrait subject should remain completely immobile. It is easy to imagine how those first portraits left much to be desired; harsh shadows upon the face, eyes partially closed and contracted expressions that naturally, were fast the object of satire. An article published at the end of 1841 in the magazine *L'Artiste, journal de la littérature et des beaux-arts* described in this manner the first attempts at portrait photography:

“From that moment on the portrait, or rather the attempt to reproduce living nature was possible; there were fearless amateurs that had sufficient courage to expose themselves, with their eyes open, to the light of the sun, maintaining the indispensable immobility, during the time the sunning of the plate lasted. But if from time to time a sufficiently satisfactory image was obtained, in the majority of cases, in place of portraits, in the mirror of metal, one could recognize figures making faces with the muscles of the face contracted and eyes without eyelashes or with a blurry effect, because these patient subjects were forced to close them at frequent intervals to protect them from the pain the sun produced.”<sup>23</sup>

In order to mitigate however possible these effects, one of the



solutions was to *protect* the client by means of screens of blue glass since this colour not only allowed the indispensable ultraviolet rays to pass through which reacted with photographic emulsion rather than as well, it softened the intensity of light that illuminated the face of the model. Although the photographic technique advanced very rapidly with respect to increasing the sensitivity of the emulsions and the luminosity of the optics with the objective of shortening exposure times, the gallery with glass walls and glass roof, as well as the use of a headrest for the portrait studio, maintained throughout all of photography in the 19<sup>th</sup> century. The aeronaut and scientific figure Gaston Tissandier, described in this manner the construction of a photography studio:

“The posing room is the most important one of a good photographic establishment; it should be constructed in a place very accessible to light and lit in a very special manner. The manner in which light is distributed in the posing room, contributes to bestowing the images taken in it with the harmony that characterizes truly artistic photographs. [...]

The first condition for a good posing room is to be on the north side; if it is located on the rooftop of a house, it will be illuminated from one of its sides and from above, opening the roof to construct an encasing like it is in greenhouses. The clear blue glass screens, coloured with cobalt, should be chosen above all others; they have the property of sieving the light, allowing the chemical rays to pass through and producing a harmonious and diffuse light. Above the room large blue curtains are hung, which slide easily along the rods with the help of rings, as to make it possible to diminish, if necessary, the intensity of the lighting.”<sup>24</sup>

These genuine *glass houses*, aside from containing the large format cameras mounted on their respective tripods and the elements to control the entrance and direction of solar light like tarpaulins and reflectors, soon filled with never ending accessories for posing the models. In this manner, columns, balustrades and curtains were an inherent part of the *mise-en-scene* of the portrait in the photographic studio in the 1860s, during the Second Empire. In the following decade, they began to impose painted backgrounds on this staging,

of *outdoor views* to what amounted to a varied *repertory of décor*; benches and rustic bridges, birch balustrades and stairs and wood furniture were placed upon sumptuous carpets that on occasion, also appeared to be replete with tormented rocky forms and exuberant plants. From 1880 onward, the *décor* became even more sophisticated, with the inclusion of hammocks, swinging chairs and carts to which palm trees, coconut trees and bicycles were added... This *attrezzo* in combination with the painted scenes, comprised a true *mise-en-scene* that with greater or lesser fortune and a large dose of naivety and fantasy, tried to bring depth of field to a scene that was constructed and totally flat. In his known essay *Short History of Photography*, Walter Benjamin accurately ironized thereon:

“If at the beginning one made do with headrests or kneesupports, other accessories soon followed, such as were to be found in famous paintings and which therefore had to be artistic. At first it was the pillar or curtain. Already in the 1860s the abler men felt moved to protest against this nonsense. In a contemporary specialized English journal it says: ' In painted pictures the pillar had the appearance of possibility, but the manner in which it is used in photography is absurd, for it usually stands on a carpet. There is no one, however, who has to be convinced that marble or stone pillars do not require a carpet as foundation. It was the time when those studios appeared with draperies and palm trees, tapestries and easels, looking like a cross between an execution and a representation, between a torture chamber and a throne room, and of which shattering testimony is provided by an early photograph of Kafka.’”<sup>25</sup>

Companies specialized in the construction of painted backgrounds, some of them in very large format, that on one hand resolved the technical difficulty to work outside the photographic studio and on another, tried to offer to the client the *possibility* of moving and traveling to exotic places. As the photo-historian Jean Sagne pointed out with respect to many photographic studios at the end of the 19<sup>th</sup> century:

“The second-rate exoticism soon will become an advertising story for the portrait studios that want to maintain a clientele demobilized by amateur practice.”<sup>26</sup>

And even so, it was also at the end of the 19<sup>th</sup> century, when all this complicated and baroque staging began to refine itself, with the intention of locating the model in a simpler and fresher space, as an idealized summer garden. In this way, in the search to obtain more delicate portraits, white began to inundate the photographic image, granting it a rich and subtle scale of greys.<sup>27</sup> At the beginning of the 20<sup>th</sup> century, the use of painted backgrounds of all of the typologies was now very systemized and progressively, these backgrounds were adopting an ever more misty and unfocused aspect, evoking scenes of parks and romantic gardens. In this way, the leaves of the trees, and also the clouds, began to unite in a desire to suggest and create a lighter and more immaterial space where to photograph the model.<sup>28</sup> On this subject, a manual from the beginning of the 20<sup>th</sup> century dedicated to the construction of posing accessories, provides us instructions on how to paint our own cloud background:

“For the posing of children and also for that of adults, the cloudy background is quite appreciated, and it is easier to paint than the gradient background. Only good taste directs its execution.

[...] To achieve some lovely clouds, observe exactly the place that makes them superimpose amongst themselves, because here is an indication that without doubt, will help you in their execution; any that may be the shape of a cloud, whether natural, whether round or aesthetic, an uninterrupted protrusion is created, or preceded by a hollow part in which, begins the protrusion of the following cloud and so on and so forth. This need not be followed to the T, it is more or less optional, but it is often like that.”<sup>29</sup>

In fact, not only the *scenography* of photographic studios began to lighten; photographic equipment also had *lightened*. The weight and volume of the cameras had diminished and they could be managed without tripods, bringing them with one's self from one place to another. Equipped with more luminous optics and emulsions of greater photosensitivity, any person, without being a photographer, could obtain instant views of the world that surrounded them, a world that moved faster and faster.

At the beginning of the 20<sup>th</sup> century, in the painted backgrounds of photographs—that on many occasions were taken by photographers from fairs—there began to appear not only automobiles, but rather, also aeroplanes. Of course, for the great majority of people who posed before this decor, owning an automobile or much more, traveling by plane, was no more than an out of reach fantasy. From that moment onward, thanks to photography, and for more than a reasonable price, the whole world could travel or even pilot an aeroplane, though this one would fly through a sky replete with painted clouds.

#### BRINGING PHOTOGRAPHY TO NEW HEIGHTS

“Take with you in the nacelle of a balloon, as I have done various times, a sparrow or a wood pigeon, and when you have reached a few hundred feet of altitude, open the cage: so fearful of man in other places, so quick to escape always from him, there, the bird remains immobile before his half-opened door. Because he feels that the air at this height no longer has the necessary density to withstand his flight and the help of his insignificant wings, will no longer protect him from the law of gravity.”

Felix Gaspar Tournachon, Nadar<sup>30</sup>

Caricaturist, writer, aeronaut and photographer, Nadar (1820-1910) is recognized for having photographed many personalities from the second half of the 19<sup>th</sup> century; Édouard Manet, Jules Verne, Eugene Delacroix, Honoré Daumier, Sarah Bernhardt, Charles Baudelaire and Emile Zola, amongst many others, passed through the studio of this great character. He was not only the first to photograph the catacombs and the sewage system employing a complex and heavy system of arc lamps and batteries, but he was also the first to photograph *from the air*.

Nadar was very interested in flight and was a staunch proponent that the future was held in *heavier-than-air* flying machines and not in *lighter ones*, as hot-air balloons are. Convinced of the uselessness

of trying to direct the flight of a balloon, his purpose was to raise the necessary funds to create an *aerial locomotion society* destined specifically to the study and the construction of flying machines equipped with a propeller moved by a vapour motor. For this reason he requested that the largest balloon in the world at the time be constructed: *Le Géant*. It possessed a wicker car with two floors, a cabin, and even a small printing press and a photographic laboratory. The objective, then, was to promote and publicize the flights of *Le Géant* to obtain money and invest it in *The Society for the Encouragement of Aerial Locomotion by Means of Heavier-Than-Air Machines* of which his friend Jules Verne was the secretary, and he himself, the honorary president. In fact, in the novels of Verne *From the Earth to the Moon* and *Around the Moon* the character Michel Ardan is inspired by Nadar, from whom he uses the anagram of his name. But things didn't turn out as he planned. With *The Giant*, Nadar not only ruined himself rather also on his second and last flight, just close to Hannover, he was on the brink of emolliating himself and all his guests, including his wife; the balloon made a violent landing and was dragged by the wind for a half hour, over the course of seven leagues... We are in 1873. Given everything, Nadar condensed his argument in favour of *heavier-than-air machines* in his opusculé *The Right to Fly* and his aerostatic experiences in *A Giant's Memoirs*. Finally, this great balloon was sold in order to face a debt of 200,000 francs.

A few years earlier, in 1858, Nadar had deposited a patent related to the use of photography to establish topographical plans as for their use in military operations. In his book *When I Was a Photographer*, Nadar described the very special sensation that flying in a balloon provoked, of distancing one's self, and of peace with respect to the earthly, ultimately, of being on top of everything, distant, as if from the air, everything would transform into small toys taken out of an inexhaustible box and spread out upon the earth; small houses with red rooves, a church, a jail, a train that whistles and advances rapidly as if it had a crest of white smoke:

“And what is that other whitish flake that I see floating down there in space? The smoke of a cigar? No, a cloud.”<sup>21</sup>

He speaks to us as well of the sensation of flattening, without perception of the different altitudes, that the particular vision of land from the air provokes. *Everything is in focus*, he ends up saying. And of course, it only remains to add:

“The invitation to the lens was, more than formal, imperative, and for the very intense our absorption was, almost to the extreme of daydreaming, in truth it would have never been necessary for us to have even half-opened the door of a darkroom for the idea not to immediately enter our minds of photographing these marvels. And as chance apparently wanted that I be the first photographer to rise in a balloon, like that it happened to be my luck to receive priority that could have belonged to any other.”

When in 1909 Louis Blériot was the first to cross the English Channel by plane, an elderly Nadar, nearly ninety years old, sent him the following telegram:

“Felt gratitude for the joy with which your triumph has filled this antediluvian campaigner for heavier-than-air-flight, before his 89 years are underground.”

And in the same way as had occurred 70 years before with the invention of photography, with the machines that began to score the skies, the world seen from the clouds would become something smaller and more trivial, because the way of seeing it, understanding it, and representing it would change forever.

- <sup>1</sup> Brunet, 2000. 27.
- <sup>2</sup> Benjamin, Tiedman. 2005, 689.
- <sup>3</sup> This text is the beginning of the Note on Heliography written by N.Niépce on November 24, 1829. It was an annex to the agreement that at the end of that year, he signed with L. J. M. Daguerre, the painter and entrepreneur who years later, would invent the photographic process named *daguerreotype*. Bonnet, Marignier, 2003. 922
- <sup>4</sup> For more information, consult: <http://www.hrc.utexas.edu/exhibitions/permanent/wfp/>
- <sup>5</sup> These exposure times are those argued by the researcher Jean Louis Marignier after recreating in practice the heliographic process described by Niépce. Marignier, 1999. pg. 532-536.
- <sup>6</sup> Bonnet, Marignier, 2003. 745.
- <sup>7</sup> Bonnet, Marignier, 2003. 751.
- <sup>8</sup> Letter from Niépce to F. Lemaître, October 25, 1829. Bonnet, Marignier, 2003. 913.
- <sup>9</sup> See the work of the German artist and photographer Michael Wesely who in some of his projects, has employed exposure times of up to two years. See: <https://wesely.org/>
- <sup>10</sup> Fragment from the text “Brief Historical Note on the Invention of This Art” that Talbot included in his publication “The Pencil of Nature”. Oliva, Talbot, 2019. 94-95.
- <sup>11</sup> “The Pencil of Nature” was published in installments between 1844 and 1846. It contained 24 photographs of diverse subject matter, pasted on the sheets <https://archive.org/details/thepencilofnatur33447gut/page/n25/mode/2up>
- <sup>12</sup> Gray, Ollman, Mccusker, 2002. 13.
- <sup>13</sup> Can be seen at: <https://talbot.bodleian.ox.ac.uk/search/catalog/schaaf-1383>
- <sup>14</sup> Le Gray, 1851. 6.
- <sup>15</sup> The marine photographs of Le Gray can be seen at: <http://www.vam.ac.uk/content/articles/s/gustave-le-grey-exhibition/>
- <sup>16</sup> The article by Marning Young titled; “Photography and the Philosophy of Time: on Gustave Le Gray’s Wave, Sète” (2016) can be seen at: <https://nonsite.org/photography-and-the-philosophy-of-time/>
- <sup>17</sup> On this point, see: Jakobson, 2011. 5-11.
- <sup>18</sup> Jakobson, 2011. 6
- <sup>19</sup> The phrase proceeds from a critique included in the Art Journal of 1857 relative to the 4th Annual Exhibition of the Photographic Society and possibly, was written by the British scientist Robert Hunt in reference to the marine photographs of Le Gray. Cited in: Jakobson, 2011. p 10
- <sup>20</sup> Liébert. A. 1864. 38
- <sup>21</sup> Liébert. A. 1864. 34
- <sup>22</sup> Sagne. J. 1984. 21
- <sup>23</sup> Rouillé. A. 1989. 81
- <sup>24</sup> Tissandier. G. 1874. 88-91
- <sup>25</sup> Benjamin. W. 2004. 55
- <sup>26</sup> Sagne. J. 1984. 225
- <sup>27</sup> Sagne. J. 1984. 216-217
- <sup>28</sup> Sagne. J. 1984. 227
- <sup>29</sup> Fines. H. 1906. 25-26
- <sup>30</sup> Nadar, 1865. 13-14
- <sup>31</sup> Nadar, Bory, 1994. 1049
- <sup>32</sup> Nadar, Bory, 1994. 1050
- <sup>33</sup> Aubenas, Lacoste, 2018. 239



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This project has been made possible thanks to several individual and institutional contributions. Each and every one of them have been very valuable for its development, and from here I wish to extend my sincere gratitude to:

Josep Batlló and Montserrat Busto for having inspired me with your book and given considerable support from the ICGC and the Meteocat respectively

Gisel Noè and Rocío Santa Cruz for having believed in the project since the beginning

Laura Corvasí, Luís Pavão and Ángela Gallego for their counsel on the restauration and conservation of cultural heritage

Martí Llorens and Rebeca Mutell of the Factoría Heliogràfica (Heliographic Factory) for our unending photographic chats

Iván Rodas and Josefina Fortuny of the RACAB Library for their trust and availability

Alfons Puertas for receiving me at the Fabra Observatory and sharing with me his world as a meteorological observer

Josep Lluís Pons for opening his family photo album with me and sharing memories of his grandfather

Santi Carreras for inviting me to his house in Mataró and showing me his archive of three generations of photographers

Jordi Via, Isabel Martínez, Anna Checa and Toni Escoda from Meteocat

David Torres from Meteoplay

Mataró Art Contemporani  
Institut Cartogràfic i Geològic de Catalunya  
Real Academia de las Artes y Ciencias de Barcelona  
Arxiu Municipal de Sant Feliu de Guíxols  
Arxiu Municipal de Blanes  
Arxius Comarcal del Maresme i Municipal de Mataró  
Arxiu Santa Maria de Mataró  
Institut Estudis Catalans  
Institut Estudis fotogràfics de Catalunya  
Meteocat

Research grant OSIC of Catalonia for the innovation in the visual arts

To my parents for always being able to count on them  
To Marisa for always helping me to chase the storm clouds away  
To Cleo for being so radiant.



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