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'Beauty is the Universal Seen': Objectivity as Trained Vision in Alfred Stieglitz's Experimental Aesthetics

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Abstract

A pioneer of avant-garde photography and a former student of the German chemist August Wilhelm Hofmann, Alfred Stieglitz is an instructive example of how artists related to, and challenged, the status of photographic representations at the turn of the 20th century. I examine Stieglitz's contributions to photography in light of his early engagement with experimental science, and claim that his scientific training shaped his experimental aesthetics. I frame my discussion around the theoretical considerations that informed – and still inform – aesthetic debates around the supposed objective status of photography and argue that Stieglitz's approach, in its connection with science, offers a fruitful way of thinking about objectivity as trained vision.

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1. The Challenge of Objectivity

> "The objectivity of photography is the regime of thought, perception and sensation that makes the love of pure forms coincide with the apprehension of the inexhaustible historicity found at every street corner, in every skin fold, and at every moment of time" (Rancière 2013, 224).

It is with an appeal to the objective status of photography that Jacques Rancière closes his brief essay on Alfred Stieglitz in his recent *Aisthesis. Scenes from the Aesthetic Regime of Art* (2013). And it is from his conclusions – that objectivity in Stieglitz's photography is found in the concordance between the universality of form and the historicity of particular observations – that I want to start my discussion. Stieglitz and his circle offer an illuminating example of the conversations and controversies that animated artists and scientists around the contentious ground of 'objective representations'. My claim is that Rancière's account of Stieglitz can – or perhaps it should – be rewritten starting from the end, and that it strongly invites weaving science into its fabric. This move is indispensable to make sense of Stieglitz's account of 'straight photography' and his appeal to objectivity in photography more broadly. Indeed, Rancière's insight that the objective status of Stieglitz's photography amounts to the coincidence of pure forms with the historicity of individual

observed moments finds almost a perfect match in Stieglitz's dictum that 'Beauty is the universal seen' (Frank et al. 1934, 132). The emphasis here is neither on 'beauty', nor on 'universal', but rather on the trained act of *seeing*, which, as I hope to show, forms the core of Stieglitz's aesthetics as well as of his approach to objectivity.

Science figures very little in Rancière's account. This is probably because *Aisthesis* is a more basic and fundamental concept: it is aesthetics temporarily stripped of the transcendental and brought back to bear on the 'sensible fabric of experience' (Rancière 2013, x), within which both artistic and scientific practices are positioned. At the same time, however, Rancière's purpose is to suggest a possible explanation of how new modes of artistic production emerge from changes in the regimes of perception, sensation and emotion that constitute the condition of possibility for new aesthetic genres. It is here that science becomes a particularly important ground for comparison. Looking at the scientific quest for objectivity is especially relevant to explain the shaping of regimes of observation that eventually migrated from science into other domains of the visual, especially photography.

While observation should not be construed as synonymous with objectivity, the pursuit of both practices seems to disclose a significant – and perhaps indispensable – overlapping, at least at a few significant junctions. True, observation does not exhaust the range of practices that, throughout history, participated in the construction of accurate representation. But it is not a coincidence that, especially when studied from the viewpoint of image-making, objectivity has often been construed and understood in close connection with observation, as the quest for an ideal form of 'blind sight' (Daston and Galison, 2007, 17). What follows from this assumption is the trail that I intend to pursue in the rest of my discussion: observation construed as a way of regimenting or disciplining the eye is part and parcel of the broader framing of objectivity. The case of Stieglitz complicates this claim further, as it illustrates that regimes of observation, construed as ways of *training* the eye, do not necessarily culminate in – nor did they unquestioningly endorse – the ideal of 'blind sight' supposedly enforced by scientists from the mid-nineteenth century onwards.

There are broader historiographical reasons behind the choice of considering objectivity as coextensive with regimes of observation. Historians of science have recently begun to pay attention to the status of scientific observation as a practice that deserves to be studied in its own right (Daston and Lunbeck, 2011). Lorraine Daston's (2008, 102) idea of 'collective empiricism', for instance, offers an account of observation as a practice that was highly discussed, theorised and

whose workings and aims were collectively formulated in very precise terms at least since the seventeenth century:

> 'Moreover, at least since the seventeenth century, scientific observers have themselves theorised their practices. They have not only written manuals on how to observe with this or that instrument; they have also written extensively on why observe, what to observe, and who should observe…Far from being a lowly art plied by unlettered artisans and peasants, as it had been regarded earlier, or an inferior substitute for experiment, as it was later viewed, observation had by the early eighteenth century become an essential and ubiquitous scientific practice, an art in the service of science…But even when observation was demoted to the status of handmaiden to experiment in mid-nineteenth century philosophy of science, it continued to be a fundamental scientific practice – and arguably the one most likely to generate novelties, including new ontologies' (ibid., 102) .

This reformulation of observation, construed as an active way of 'furnishing the universe' (ibid., 100) with new ontologies and at the same time as a regimented practice requiring training and self-discipline, is what I want to place at the centre of Stieglitz's approach to photography. This should complete and complement Rancière's considerations on *Aisthesis* as the empirical component of modernity: observation is part and parcel of the regime of experience that Rancière invokes at the basis of his conception of aesthetics. Even more importantly, the emphasis on observation, mapped on the case of Stieglitz, is a way of ascertaining what happens when particular modes of experience are somehow 'disturbed' by the introduction of new instruments and technologies – in this case the camera – that turn observation into a highly mediated affair, and how a new aesthetic order emerges as an answer to these changes.

2. The Challenge of Mechanical Objectivity

Science was the force that set into motion the machinery of objectivity in the first place. Yet, the ways in which objectivity was construed and enforced in scientific practice are themselves historically located, as Lorraine Daston and Peter Galison have shown in their recent work on scientific atlases (Daston and Galison, 2007). Daston and Galison qualify objectivity as an epistemic virtue which is inextricably tied to the modes of observation and 'epistemologies of the eye' (ibid. 17ff) that characterise scientific practice at certain points in time. In this particular sense, their account is at least compatible with Rancière's broader concept of aesthetics as a regime of experience. Epistemic virtues shift through time; and so do those portions of experience that qualify as reliable observations and acceptable ways of seeing. Indeed, epistemic virtues *regiment* experience by pointing the eye in the direction of objects that are worth observing and representing,

in artistic and scientific practice alike. This in turn prompts modes of working that revolve around such regimes of observation – either as direct adoptions or as more or less overt reactions to them.

Photography across science and art is a case in point. Indeed, Daston and Galison place the birth of the notion of objectivity as 'mechanical reproducibility' almost concomitantly with the emergence and diffusion of a broad array of recording instruments in the mid-nineteenth century, among which photography occupied a privileged place:

> 'One type of mechanical image, the photograph, became the emblem for all aspects of noninterventionist objectivity…This was not because the photograph was more obviously faithful to nature than handmade images – many paintings bore a closer resemblance to their subject matter than early photographs, if only because they used color – but because the camera apparently eliminated human agency' (Daston and Galison 2007, p. 187).

Mechanical reproducibility imposed entirely new constraints on what counted as an accurate representation, and in this it contrasted sharply with the ethos that characterised earlier modes of scientific observation and representation. Eighteenth century image-making, Daston and Galison point out, required the wilful intervention of the scientist – indeed, wilful intervention was just what conferred images credibility and scientific reliability. Mechanical objectivity, on the other hand, required an attitude of asceticism toward the objects of scientific inquiry (id., p. 120ff). Letting nature speak for itself became the nineteenth century criterion for accurate representation, human intervention being now replaced by a procedural use of images which would in principle ensure the removal of the scientist's judgment from the process of image-making. This form of objectivity went hand in hand with an increased reliance on recording instruments, which, like the camera, promised the possibility of eliminating human agency altogether.

Contrary to scientists, some artists initially turned to photography especially for the challenges it posed to the idea of letting nature speak for itself. Their quest explicitly pointed to new ways of enhancing wilful intervention, and it led them to engage with the most technical aspects of the photographic process since the earliest stages of its development. In open conflict with scientific photography, artistic photography was initially conceived as a form of aesthetically-motivated resistance to the supposed 'objective' status of the mechanically produced image, and this process saw a relatively conspicuous group of artists treating the expressive possibilities offered by the camera as complementary and comparable to painting. Pictorialism, a movement that became dominant in the 1890s, explicitly pitted artistic photography against scientific photography by treating the former as painting. Pictorialist photographers accomplished this by selecting the content

and the perspective from which photographs were taken, and intervened on the plates by directly retouching them. This practice brought the artist's subjective intervention right at the core of technical photography – indeed, it aimed to stress the impossibility of removing agency from photography, no matter what scientists thought or how they used their photographic equipment.

Mechanical objectivity saw artists overtly discussing amongst themselves over the acceptability of direct intervention on the plates. Manipulation was by no means the exclusive ruling canon in artistic photography. In his essay on Stieglitz, for example, Rancière offers a glimpse of the controversies that saw pictorialist photographers in open contrast with the proponents of photographic naturalism, which preached a form of asceticism not so distant from the one idealised (and rarely achieved) by scientists (Rancière 2013, 210ff). Peter Henry Emerson, the main proponent of naturalism, expressed rather vocally his opposition to pictorialism, and framed it around the necessity of conceiving photography as an artistic form in its own right, whose strength lied just in the possibility of capturing faithfully a particular instant in time. What Emerson was against was the artificial separation between art and its instruments: the status of a poem or a novel would not be diminished if it was found out that it was typed rather than handwritten. In the same way, photographs can aspire to the status of "art" even without presenting any trace of manual execution or artistic intervention. What matters is what the artist intends to convey (Emerson 1889, 285), and how faithfully he achieves this without turning into one of the many "gum splodgers" (Rancière 2013, 215) [1] that presented themselves as pictorialist photographers.

Rancière takes the controversy as an indication of the much broader debate around what counted as "art" at a time in which photography entered aesthetic debates as a new mode of experience (Rancière 2013, 212). His particular concern is to decode and dissect the assumption that photography qualifies as art *just like painting* (Emerson himself was partly guilty of this, having conceived photographic naturalism in analogy with naturalism in painting). This conflict between pictorial traditions was what Stieglitz had to confront since his early steps in the world of photography. Both pictorialist and naturalist photographers remained anchored to the analogy with painting, albeit in very different ways: the former by using photography as a means of free expression through manipulation, the latter by privileging the act of catching an instant in the world and remaining faithful to it (ibid., 213). This is where, according to Rancière, the debates around the status of photography turned to the necessity of proving that the distinguishing trait of the

[1] The reference here is to the notorious use of gum bichromate used by pictorialist photographers to manipulate the plates.

photographer was primarily his particular way of seeing and interpreting. But the implication between the lines appears to be that the identity of the photographer as a trained observer was somehow defined uniquely through this debate: the particular character of photographic observation was shaped against the background of painting as the dominant model for what counted as 'art', and emerged somehow as a reconciliation between the conflicting attitudes that characterised these clashing traditions in photography. Here is where my interpretation begins to depart from Rancière's. Without denying the importance of debates which were central to art at the time, I want to suggest that part of the artistic and aesthetic identity of the photographer hinged very much on the dynamics that characterised the relations between artistic photography and science.

True, the debate around the artistic status of photography animated and divided artists around the contentious issue of 'what is art'. And true, a great part of the debate revolved around the kind of sight, the modes of seeing, that make the photographer an artist. But this debate was not just internal to art. The technical, mechanical nature of photography required artists to look outwards, not just for instruments and methods, but also for a new set of experiences and values to adopt or react to in defining their identity. Science was one of the sources that defined the parameters of this debate: evidence of this is in the very rhetoric underpinning a number of artistic publications on photography. In some cases, the contentious ground was the very status of the photographic image. Some pictorialists, notoriously Robert Demachy, explicitly denounced the extreme technical perfection that characterized photography, which would make it 'docile and reliable for scientists' but utterly incompatible with the values and modes of working underpinning artistic practice (Demachy and Puyo 1906, cit. in Rancière 2013, 214). The active intervention of the pictorialist photographer in this case is legitimised through the contrast with the scientific uses of photography (and not just with painting). The artist does not and should not rely on the self-discipline governing the use of the camera for the purpose of letting nature speak for itself: bringing photography too close to science by denying the active intervention of the photographer would simply deprive artists of their identity.

In other cases, and perhaps more interestingly, the arguments put forward by photographers would revolve even more explicitly around the camera as an instrument, and the supposed objectivity that scientists promised it would afford. Thus, in a 1903 piece entitled 'Ye Fakers', the pictorialist photographer Edouard Steichen explicitly mocked the attitude of asceticism preached by the supporters of objectivity as mechanical reproducibility:

> 'Some day there may be invented a machine that needs but to be wound up and sent roaming o'er the hill and dale, through fields and meadows, by babbling brooks and shady woods – in short, a machine that will discriminatingly select its subject and by means of a skillful arrangement of springs and screws, compose its motif, expose the plate, develop, print, and even mount and frame the result of its excursion, so that there will remain nothing for us to do but send it to the Royal Photographic Society's exhibition and gratefully to receive the Royal Medal' (Steichen 1903, p. 107).

It is no wonder that Steichen's article first appeared in *Camera Work*, the journal founded by Stieglitz with the explicit mission to advance artistic photography and give voice to all its manifestations. Contrary to his pictorialist contemporaries, Stieglitz did not reject objectivity altogether – he somehow embraced the concept, so much so that his works were eventually described by the members of his circle as the embodiment of a genuine scientific spirit in artistic practice. Quite remarkably, for instance, the art critic, caricaturist and amateur mathematician Marius de Zayas, described Stieglitz's practice with tones that strongly echo the rhetoric of noninterventionist objectivity:

> 'The desire of modern plastic expression has been to create for itself an objectivity. The task accomplished by Stieglitz's photography has been to make objectivity understood, for it has given it the true importance of a natural fact…Stieglitz, in America, through photography, has shown us, as far as it is possible, the objectivity of the outer world' (De Zayas 1913, p.13)

De Zayas' comment needs to be taken with a few caveats. While it is true that Stieglitz brought a scientifically-driven concept of objectivity right at the core of photographic practice, it must be stressed that he did so with the awareness that genuinely noninterventionist objectivity was an unattainable ideal. Instead, by proposing his own formulation of the photographer as a trained observer, or in his own terms as a 'seer', Stieglitz challenged both the resistance to mechanical reproducibility pursued by pictorialist photographers and the noninterventionist attitude cultivated by scientists in the mid-nineteenth century. His scientific background, often dismissed by art historians and critics alike, allowed him to become one of the most interesting voices in the history of objectivity.

3. Objectivity as Trained Vision

Before plunging into artistic photography, a career that earned him the title of impresario of modern avant-garde, Stieglitz had the opportunity to be trained in the climate of experimentalism that characterized German science in the 1880s. In 1881, after having moved from America to Berlin, Stieglitz entered the Charlottenburg Polytechnic and began a degree in mechanical engineering. In

the 1880s Berlin hosted a lively scientific community, which attracted the young Stieglitz since his early days at the Polytechnic. In parallel with his initial steps in the field of photography, he attended lectures by prominent figures such as the physicists Hermann von Helmholtz and Heinrich Hertz, the physiologist Emil DuBois- Reymond and the anthropologist and pathologist Rudolf Virchow (Kiefer 1991, pp. 61ff; Lowe 2002, p. 73). But the figure who influenced Stieglitz in the most dramatic way, eventually compelling him to switch from engineering to chemistry, was the chemist August Hofmann.

Hofmann is well known for his work on coal tar and his contribution to the development of aniline dyes, which laid the foundations of the German dye industry. A student of Justus Liebig at the University of Giessen, he had been a pioneer in the transition from analytic to synthetic organic chemistry. Hofmann adopted and extended Liebig's methodology, whose distinctive trait was the integration of teaching and research in the practical setting of the chemical laboratory. Since his early years under Liebig's guidance, Hofmann had structured his laboratory as a research community, in which chemical knowledge was conveyed through practice. Most of the daily learning happened by observing and doing, whereas lectures provided a theoretical background for students who lacked prior chemical training. The concept that practice, far from being subordinate to theory, was constitutive of it,[2] became especially important to Stieglitz. The scientific aesthetics underpinning his practice as a photographer revolved around the idea that photography and science shared the same experimental basis and that in both cases theoretical considerations emerged as generalizations from practical experience. When, in 1905, Stieglitz established the Little Gallery at 291-293 Fifth Avenue, in New York, he characterized it as his 'experimental station' (De Zayas, 1910, p. 47), and organized it as a laboratory that followed Hofmann's (and Liebig's) model. Indeed, his breakthrough as the pioneer of modernist photography and as the impresario of avant-garde art in America consisted in adopting, and adapting, a Liebig-inspired model of laboratory conceived as a social space with its community, collective observational practices, shared representational conventions and tacit ways of conveying knowledge through action. Moreover, just as a scientific research community, Stieglitz and his laboratory group disseminated their findings through the journal *Camera Work* (published between 1903 and 1917), which became one of the most important instruments for the promotion of avant-garde in the 20th century (Eversole, 2005).

[2] On the relation between theory and practice in Hofmann and Liebig's laboratory see Jackson (2009).

Stieglitz's chemical training under Hofmann prevented him from subscribing unconditionally to the widespread attitude of extreme interventionism that characterised pictorialist photography. While pictorialism still maintained a prominent place in *Camera Work* throughout the years of its publication, Stieglitz departed from it to embrace a more complex aesthetic position, which he identified as 'straight photography'. This new approach hinged on trained observation, which Stieglitz considered as the main route to achieve objectivity through experimental inquiry. Indeed, Stieglitz's concept of the 'seer' behind the camera appeals to a scientific view of trained eye, whose active judgment selects and interprets relevant aspects of a complex reality, and transposes them in a 'true' photograph:

> 'It is high time that the stupidity and sham in pictorial photography be struck a solar plexus blow… Claims of art won't do. Let the photographer make a perfect photograph. And if he happens to be a lover of perfection and a seer, the resulting photograph will be straight and beautiful - a true photograph' (Stieglitz, 1910, in Adato, 2001).

'Claims of art won't do', Stieglitz maintains. Freedom of creation and appeals to subjective interpretation are not what legitimises photography as a form of art in its own right. It is rather trained vision, along with a quest for the very technical perfection despised by the pictorialists as belonging to science, that makes a perfect, 'straight' photograph. Trained vision does not betray the reality of individual moments in time; however it validates and sanctions their existence by disclosing the very eye that collected those instants and deemed them important in some respect. It is this aspect of Stieglitz's approach to objectivity as trained vision that, I claim, underpins the account of straight photography at the basis of his experimental aesthetics. Indeed, it would be trivial to say that the aesthetics of the 'straight' photograph resides in its un-manipulated or un-retouched character – a feature that even the most adamant defenders of straight photography deemed unattainable in practice. Instead, as the critic and member of the Stieglitz circle (and adamant defender of Stieglitz's straight approach to photography) Carl Sadakichi Hartmann suggested in his 1903 'A Plea for Straight Photography', 'straight' is heavily dependent on the training and expertise of the photographer-seer:

> 'Rely on your camera, on your eye, on your good taste and knowledge of composition, consider every fluctuation of color, light and shade, study lines and values and space division, patiently wait until the scene or object reveals itself in its supremest moment of beauty. In short, compose the picture which you intend to take *so well that the negative will be absolutely perfect and in need of no or but slight manipulation*'. (Hartmann [1903] 1978, 114, emphasis mine).

The photographer's intervention, in Hartmann's account, consists in maximising his presence as the trained seer behind the camera in order to minimise his interference with the printing process. This does not, however, entail the complete deferral of the final image to the photographic process, divorced from its maker: 'I do not object to retouching, dodging or accentuation, as long as they do not interfere with the natural qualities of photographic technique' (ibid.). It is interesting to notice that the trigger for Hartmann's admiration and critical engagement with straight photography was Stieglitz's 1893 *Winter – Fifth Avenue,* a photograph that well preceded his mature approach to straight photography and was in fact at least heavily cropped, if not retouched, in its various subsequent versions (Bochner 2005, 11-12; Hoffman 2004, 110ff). Yet, for Hartmann, *Winter – Fifth Avenue* remains somehow faithful to the 'natural qualities of photographic technique' in that it stands as an 'expression of an everyday occurrence of metropolitan life under special atmospheric conditions, rendered faithfully and yet with consummate art' (Hartmann [1894] 1978, 164).

It is thus quite obvious that Stieglitz's (and his followers') views of objectivity did not correspond to the strategy of self-restraint and non-interventionism that Daston and Galison place at the core of their definition of mechanical objectivity. Instead, his approach to photography anticipates the transition from the asceticism of mechanical objectivity to the community-informed ethos of inquiry that Daston and Galison (2007, p. 309ff) characterize as 'trained judgment'. Distinctive of twentieth-century image-making, trained judgment was a reaction to the constraints imposed by mechanical reproducibility. This new representational mode incorporated scientists' progressive awareness that trained observation, rather than the 'blind sight' (ibid., 17) of mechanical objectivity, was the primary feature of scientific visualization. Such an ethos of inquiry, which built interpretation in the process of image-making without depriving photographs of their 'straight' character, was just what Stieglitz had cultivated within the experimental setting of his galleries.

Most of Stieglitz' works exemplify the role of judgment as a distinctive feature of straight photography. I will briefly discuss three specific cases, *The Terminal* (1893), *Two Towers* (1913) and *The Steerage* (1907), as particular illustrations of the development of Stieglitz's approach to trained vision. All three examples illustrate how Stieglitz, at various stages in his photographic career, purposefully weaved active judgment into the concept of straight photography.

Fig. 1 Alfred Stieglitz, *The Terminal* (1893). Carbon print (1895), 19.6 x 30 cm. The Alfred Stieglitz Collection, National Gallery of Art, Washington.

The Terminal (fig. 1) is one of Stieglitz's most famous photographs. It was taken in New York, just at the end of a severe snow blizzard in February 1893. The key feature of the image, which renders it particularly memorable, is the sharp contrast between the steaming horses at the terminal and the surroundings covered in snow. Despite the fact that the emphasis on straight photography was going to acquire a prominent role in his experimental aesthetics only years later, the idea of trained observation was already a central feature of his photographic practice. In an article he wrote only a few years later, exalting the virtues of the (then very innovative) hand camera with which *The Terminal* was taken, Stieglitz states:

> 'In order to obtain pictures by means of the hand camera it is well to choose your subject, regardless of figures, and carefully study the lines and lighting. After having determined upon these, watch the passing figures and await the moment in which everything is in balance; that is, satisfies your eye. This often means hours of patient waiting' (Stieglitz 1897, p. 27)

Nature does not speak by itself, and the experienced eye of the photographer cannot and should not be removed from the photographic process (this is incidentally the lesson that Hartmann,

writing only a few years later, learns directly from Stieglitz and raises to the status of a prescriptive definition of what counts as 'straight' in straight photography). Moreover, 'hours of patient waiting' are seen by Stieglitz as the necessary complement to the function of the trained eye. In line with Daston and Galison, it seems that the figure of the photographer outlined by Stieglitz is shaped around specific epistemic virtues. But while discipline and restraint characterize Daston and Galison's nineteenth century image-makers, in the case of Stieglitz training and perseverance are the qualities behind a successful photograph. Rather than deferring agency to the mechanical function of the machine, Stieglitz used his own scientific training to justify the presence of an expert eye behind the camera.

Fig. 2. Alfred Stieglitz, *Two Towers, New York* (1913). Photogravure published in *Camera Work* (October 1913). Friends of the Davidson Art Center Fund 1981.9.1. Davidson Art Centre, Wesleyan University. Copy Photo: R.J. Phil.

Judgment is also prominent in *Two Towers* (fig. 2), where the focus is on the combination of a man in a bowler hat captured mid-ground between the railings leading to the entrance of a building and the branches of a tree covered in snow. This creates a powerful clash with the title of the photograph, which refers to the towers of Madison Square Gardens and the Metropolitan Life Building in the background. Indeed, the very dynamics of the photograph and the interplay with its title suggest that 'focus' here should be understood both metaphorically *and* technically – the branch covered in snow in the foreground and the man in the bowler hat in mid-ground are in explicit contradiction with the title, at the same time equally explicitly pointing toward the discerning role of the photographer-seer behind the image. Once again, Stieglitz is proving that photography, far from offering a faithful reproduction of events, is about training the eye to see form and structure. The idea of straight photography, of which *Two Towers* is a representative instance, condenses the key features of Stieglitz's experimental aesthetics: discernment and choice through trained vision. The photographer's active intervention compels viewers to direct their attention to a detail – the snow-covered branch and the railings just below it – which would have otherwise remained undisclosed. By challenging both naïve photographic realism and the simplistic appeal to subjectivity pursued by pictorialist photographers, Stieglitz stressed that photographic representation relies inevitably on the trained seer's active judgment in selecting salient visual elements and making them visible.

Fig. 3. Alfred Stieglitz, The Steerage (1907). Gelatin silver print (1920s/1930s), 11.3 x 9.2 cm. The Alfred Stieglitz Collection, National Gallery of Art, Washington.

The ultimate, and perhaps most representative example of what Stieglitz meant by 'straight' photography is his seminal 1907 photograph *The Steerage* (fig. 3). The story of the photograph is well known, especially to art historians.[3] Stieglitz was traveling to Europe on board the liner SS Wilhelm II. Despite having a place on the first class deck, he wandered with his camera in the vicinities of the steerage, with the purpose of taking pictures. In his memoirs, he recalls the taking of *The Steerage* as follows:

> 'A round straw hat, the funnel leaning left, the stairway leaning right, the white draw-bridge with its railings made of circular chains—white suspenders crossing on

[3] For a recent overview of the literature on *The Steerage* see Francisco and McCauley 2012.

> the back of a man in the steerage below, round shapes of iron machinery, a mast cutting into the sky, making a triangular shape. I stood spellbound for a while, looking and looking and looking. Could I photograph what I felt, looking, looking and still looking? I saw shapes related to each other. I saw a picture of shapes and underlying that the feeling I had about life' (Stieglitz, in Norman (ed.) 1942-43, 128).

The Steerage is usually regarded by art historians as a photograph whose implications are mainly political and social. Without refuting this interpretation, I would like to suggest that there is more to Stieglitz's photograph. My claim is that the visual effectiveness of *The Steerage* lies primarily in its conceptual nature – what Stieglitz compellingly defines as seeing 'shapes related to each other'. Conceptual relations are what Stieglitz was after in light of his scientific training. By concentrating on the inner relations between forms – the mast, the funnel, the gangway, the stairway and even the circular shape of the straw hat – in *The Steerage* Stieglitz obtained a photographic representation that verged on the conceptual. More importantly, the image condenses Stieglitz's awareness that photography, as any form of representation, entails a process of abstraction and generalization from visual experience that incorporates, nevertheless, the particular viewpoint and agency of the photographer: 'Beauty is the universal seen'. His artistic quest for structure and form, for capturing general properties and making them visible beyond what was mechanically reproducible on the photographic plate, found its ultimate realization in *The Steerage*, and was modelled – I claim – on the ethos of observation that Stieglitz pursued and cultivated throughout his chemical laboratory practice.

Under Hofmann's guidance, Stieglitz had come to appreciate that chemical knowledge proceeds from experiment to general formulae. As the results of practical experimentation, chemical formulae and chemical models (of which Hofmann was particularly fond)[4] are abstractions of the objects they stand for. At the same time, however, they are richer and more informative than their objects, for they capture structural properties of the experimental processes from which they arise. A similar representative function can be found in the *Steerage.* The formal organization of the photograph, with its structured geometric composition, triggers a generative process of tracing back (as opposed to a view of the photograph as merely acting as a *trace of*) and disclosing novel aspects of the events, characters and relations captured in the image. This is the primary reason why the steerage is not primarily, or at least not exclusively, a photograph about class and social dynamics when considered from a formal point of view. The relation between characters and events, between

[4] On Hofmann's chemical models and representations see Meinel 2004.

what happens in the top half of the photograph as opposed and yet inextricably intertwined with what happens in the bottom half, is a relation that is *discovered* and made visible through Stieglitz's own trained eye, and through his discernment of a particular conceptual framing for the actual content of the image itself.

Moreover, by practicing chemistry in Hofmann's laboratory, Stieglitz had become familiar with the view that practice and process are constitutive components of theoretical knowledge. It is only through the extensive laboratory practice, often carried out tacitly by observing and doing, that the chemistry student becomes a chemist. Similarly, it is only by cultivating the practice and ethos of photographic observation that the photographer becomes photographer-seer. Formal organization and conceptual framing are not the result of a fortunate coincidence: they are learned and practiced before turning into more general aesthetic criteria. These basic principles allowed Stieglitz to approach the *Steerage*, and photography more broadly, as a scientific problem to be solved experimentally, and devise a novel approach which ultimately placed observation at the gates of what would count as 'beautiful' and 'true'.

Stieglitz's views on objectivity developed in parallel with his experimental philosophy, and cannot be divorced from the scientific values they reflected and responded to. It is in this sense that beauty counts as the universal *seen* in his approach to photography: the trained eye of the photographer selects, discerns, and generalises, it analyses and synthesises, it frames and justifies the choice of particular moments as worth being captured, framed and presented in particular ways. Trained vision underpins the act of extracting salient structures from nature, and its explicit admission is what legitimises the status of photography as art as well as a form of experimentation more broadly. Rather than framing objectivity as an external justification for the evidential force of the photograph, Stieglitz placed it right at its very core. Objectivity is an *achievement* of judgment and of the experimental processes that make the photographer first and foremost a trained observer.

4. By way of a conclusion

I began with Rancière's description of Stieglitz's photography as the concordance between pure forms and individual experienced instances, and it is to that description that I want to return in closing. We have now fully come to appreciate – partly thanks to Rancière himself – that art does not exist in a vacuum, and that aesthetics is inextricably intertwined with politics and various ways of

imposing social order or criticising its establishment. What still seems to remain in the background is the fact that the very original meaning attributed by Rancière to aesthetics – that of 'regime of experience' – is in fact the common ground that brings artistic and *scientific* experimentation side by side. I have tried to show that the case of Stieglitz's approach to photography offers an insightful example of how looking more broadly at modalities and regimes of experience needs to be complemented with a sharper focus on observation as a way of regimenting our encounters with reality. Stieglitz's scientific training was crucial in this process, and it was an indispensable component of his understanding of objectivity as an aesthetic stance justified by particular modes of observation and experimentation. The objective core of Stieglitz's photography is, indeed, in the concordance between universal and particular, but this concordance can only be found as *seen* through the lens of trained vision.

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