

The overall shift from a period of emergence to a generalized use of digital technologies in the work of Düsseldorf photographers occurs progressively. Yet several new processes and strategies introduced in the late 1990s clearly point to a noticeable change in the approach toward image making. During these years, Thomas Ruff starts to focus on recycled low-resolution images found on the Internet, explicitly addressing the specific visual culture that has arisen alongside the emerging network. He addresses the digital in a much wider context than through capturing or retouching technologies. Like Gerhard Richter or Hans-Peter Feldmann before him, Ruff has already recycled media images in order to explore their formal and semantic construction and to evaluate the role of the viewer perceiving them, notably in the *Zeitungsfotos* series. But the use of images captured on the web, the largest imaginable image database, addresses a global visual economy, the chief vector of knowledge and ubiquitous reference, whose impact on visual culture has yet to be determined. The implications of digital technologies at this point surpass their strict use as tools, addressing visual culture more generally. His *nudes* series, started in 1999, based on pornographic *jpeg*s found on the web, reflects an interrogation of the digital not as a mere retouching device, but as a core mechanism of a visual economy and its consistent visual experience. The year 1999 also marks several important transformations in Andrea Gursky's oeuvre. He generates an image by digitally stretching a photograph realized three years before: *Rhein I* (1996, Fig. 5), severed from contextual elements that disturbed Gursky's view of the river,¹ has been enlarged horizontally, creating an elongated version of the source image: *Rhein II* (1999). This strategy undermines an important optical function of photographic depiction and its common theoretical understanding: the photograph as imprint of reality defined by an indexical bond. The photograph loses its strict referentiality, transgressing a parameter that is often used to define photography. The comparison with the Bechers, whose approach originally aimed at codifying and objectifying that very indexicality within the limits of photographic representation, is particularly revealing of Gursky's position. His predominantly pictorial strategy embodies a new step in the use of digital technologies, the acceptance and increased usage of which produces new types of photographic practices. The relationship with reality that photography supposedly represents and the modalities with which the medium constructs these realities undergoes considerable reconfigurations. Jörg Sasse used these technologies as early as 1993, but 1999 marks a shift in his strategy. His website *c42.de*, created in 1999, reflects upon photographs as part of database systems, defined less by indexicality than by circulation and use. His generic type-images document a visual culture and a habit of spectatorship, rather than any specific content. These new strategies constitute a step onward from the idea of the "credible invention of reality" coined by Matthias Winzen in his commentary on Ruff images of the 1980s

¹ See *supra*, p.172–173.

and 1990s.² The generic photographs of Andreas Gursky, Thomas Ruff and Jörg Sasse operate as images of reality, but not through an indexical, referential system that could be traced back to a specific moment in time or space. They rather address the mnemonic reality of the observer and his visual culture, when confronted to a particular visual impulse. In this process, both digital retouching and digital image circulation systems contribute to the constitution of a generic (picture) world, specific only through its individual perception. Its implications go beyond the strict idea of verisimilitude, suggested earlier to define Ruff and Gursky's production of the 1990s. These new strategies rather enact an increasing autonomization of the photograph and a focus on the photographic apparatus itself.

The visibility of digital retouching, the appropriation of digital material or the analogue approach to digital mechanisms also brings forth a new critical approach toward those objects. While in the Düsseldorf context the period of emergence of digital technologies has often produced the disregard of the used technologies in the critical discourse, the period of generalization rather shows the systematic mention by critics of the role of digital tools – particularly in Ruff's and Gursky's case. The first publications of scientific articles explicitly addressing and solely focusing on those technological changes appear concomitantly. Kai-Uwe Hemken, for example, published in 2000 one of the first articles to discuss the role of these tools in the work process of Ruff and Gursky, while inscribing these practices as much in the history of antecedent self-reflexive approaches (e.g., Gerhard Richter and the Bechers), as in the history of the theoretical debate surrounding the used technologies (e.g., Vilém Flusser or William J. T. Mitchell).³ In the 1990s, the digital work of Ruff, Gursky and Sasse is either read in connection with the unquestioned German documentary paradigm or through a critical rhetoric specific to painting. While this history hardly crosses the theoretical debate surrounding post-photography in the 1990s, the turn of the decade clearly marks a shift in this regard. The role of the digital in their production is increasingly taken into account and its implications interrogated.

As such, this body of work is both confronted by the theoretical framework of the post-photographic corpus and by its relationship with the documentary. The issues raised by the (allegedly) paradoxical concurrency of artistic positions, stemming from the relationship with reality and the potentiality of digital manipulation, are also increasingly made explicit in their respective historiographies. Mirjam Wittmann's quote from the *Objectivités* catalogue, addressing Ruff's large scale *Porträts*, explicitly addresses the (hypothetical) digital "manipulation" and questions its impact on the image's documentary

2 Matthias Winzen, "A Credible Invention of Reality," in Matthias Winzen (ed.), *Thomas Ruff, Fotografien 1979 – heute*, op. cit.

3 Kai-Uwe Hemken, "Von Sehmaschinen und Nominalismen. Anerkennungen zur digitalen Fotografie von Andreas Gursky und Thomas Ruff," in Monika Steinhauser and Ludger Derenthal (ed.), *Ansicht, Aussicht, Einsicht. Andreas Gursky, Candida Höfer, Axel Hütte, Thomas Ruff, Thomas Struth. Architekturphotographie*, exhibition catalogue (Kunstgeschichtliches Institut der Ruhr-Universität Bochum, Museum Bochum, 2000), Düsseldorf, Richter Verlag, 2000.

claim.⁴ The acknowledgement of this parameter not only shows an awareness of technologies used by Düsseldorf photographers. It concomitantly reveals the fact that the existence and use of these new tools are read in a changed understanding of the depiction of reality. Ruff's regular *Porträts* are confronted with their ability to reflect the real, as they could be potentially manipulated. In this context, the increasing use of digital technologies echoes new representational conceptions. In the work of Sasse, Ruff and Gursky of the first decade of the twenty-first century, the digital is increasingly – even exponentially in Gursky's case – used, acknowledging the reality of digital technologies and their impact on society. These technologies have become central in visual culture and in image-making processes of these photographers, and while Thomas Struth and Candida Höfer did not adopt them at the time – Struth will eventually digitally retouch images in 2008⁵ and Candida Höfer will start to use digital cameras in the late 2000s⁶ –, image production without their use is by now hardly conceivable for the aforementioned three.

4 Mirjam Wittmann, "Blow-Up. Grand format et impact visuel," in *Objectivités*, exhibition catalogue, op. cit., p. 78.

5 In his series on complex machinery in research facilities such as the Max Plank Institute of Plasma Physics or space exploration facilities such as NASA's Cape Canaveral center. See Anette Kruszynski, Tobias Bezzola and James Lingwood (ed.), *Thomas Struth. Photographs 1978 – 2010*, Munich, Schirmer/Mosel, 2010.

6 Although Candida Höfer occasionally uses a digital camera, the fact that the images have not been digitally "enhanced" or "altered" is often stressed. See for example the press release of her exhibition at the Ben Brown Gallery, *Candida Höfer. A Return to Italy*, London, 2013. Available at <http://www.benbrownfinearts.com/exhibitions/65/overview>, accessed on August 13, 2018.