## Chapter Four: Setting the Stage: the Precursors and Boundaries for a New Aesthetic Art

To the best of our knowledge, there is not a single sustained instance of critics or commentators using the parameters of the New Aesthetic to identify New Aesthetic objects as examples of art. Writing about the effect of technology on art practices is becoming increasingly sophisticated, but it’s surprising how uneven the progression has been, and this has been especially true of New Aesthetic objects. Often, writings about art and the digital have focused on a limited range of considerations. In many cases, the use value and the impact on our lives is the primary focus, and if any consideration is given towards beauty, taste, impact or evaluative considerations of the objects as objects it’s directed towards the design of the graphic user interface rather than on some underlying notion of an inherent status as art. In other cases, the technological and the digital are superficially acknowledged as merely tools leading to the creation of art objects, and the deeper implications of the use of digital and technological tools is ignored. The recent publications of *Postdigital Aesthetics* (2015), edited by David M. Berry and Michael Dieter, and *Postdigital Artisans* (2015), by Jonathan Openshaw, while excellent books (including Łukasz Mirocha’s own essay in *Postdigital Aesthetics*), are good examples of these different but inadequate strategies at a theoretical level matched by the inadequacy of recent exhibitions such as *Crafted Objects in Flux* (2015-16) at the Museum of Fine Arts in Boston, USA; in the case of the work by the theorists there’s been very little discussion of actual art while in the case of the exhibitions there’s been almost no discussion of the theory.

Perhaps even more importantly, the New Aesthetic has not been treated in an *art historical* fashion but has existed as a topic for discussion and analysis almost solely amongst philosophers, critics, artists, designers and others who are interested in the effects of the digitalization of the world. Certainly art history as a discursive practice has always been a little slow to acknowledge contemporary artistic practices, and we hope that what follows will rectify that at least a little bit. More than just setting out our belief in the timeliness and importance of this book, we believe that our interdisciplinary approach is crucial to understanding the entirety of the effect of the New Aesthetic. An illuminating example is Christian Ulrik Andersen’s and Søren Bro Pold’s treatment of Aram Bartholl’s *Dropping the Internet* (2014). {Fig. 43} Borrowing uncritically from Bartholl’s own website,[[1]](#footnote-2) Andersen and Pold describe the photographic triptych in terms of the security concerns and sense of crisis in the post-Snowden era, placing an emphasis on the work’s presentation of the ‘internet’ as inherently fragile. At the same time Andersen and Pold engage in a little aesthetic analysis that seems to go quickly awry.

Bartholl’s work seems deliberately lightweight, pointing towards the banality through both its form and its iconography. Looking closely, one realizes that the high-teach iconography consists only of cardboard, candlelight and people acting according to strange behavioral scripts: pointing to how the big utopias become banal and mundane, including how they control sharing, communication and perception.[[2]](#footnote-3)

In many ways, this is an illuminating analysis of the effect of the work, reading it as symbolic of the wrenching, almost existential transformation of the internet that occurred after Snowden revealed the extent to which our privacy and the secrets of governments had been compromised; almost immediately the general public’s understanding of the internet as an interactive source of data and method of communication went from a blind acceptance of it as a freely used tool to thinking about it as an adversarial and nefarious intrusion into everyone’s lives. Bartholl intended his work to evoke a sense of violent dislocation and excessive centralization, contrary to the early days of the internet with its engineered decentralization as a means of surviving nuclear war, but returning to Andersen’s and Pold’s description of the work it’s clear that other things are going on, and that Andersen and Pold may be ill-equipped to acknowledge them. Bartholl readily acknowledges his appropriation of Ai Weiwei’s famous work *Dropping a Han Dynasty Urn* (1995)[[3]](#footnote-4) {Fig. 44} but why don’t Andersen and Pold mention it? Ai Weiwei’s work engages with China’s difficult relationship to the past, shattering any expectations of reverence for ancient artifacts that substantiate China’s image of itself as a nation while at the same time setting in motion a deconstructive turn that subverts Ai Weiwei’s own powers as an artist to actuate change in Chinese society. Bartholl’s iconography, though, is itself a subversion of the appropriation process, with what appears to be a digital picture frame symbolically and almost mischievously (despite Bartholl’s saddened statement that the internet as he once knew it is gone) representing computational devices, and with a touch of irony in the color choices and the need to literally spell out ‘internet’. In both Ai Weiwei’s and Bartholl’s works the iconography involves a radical break with the past, Ai Weiwei is ‘post-Chinese’ while Bartholl is ‘postdigital,’ that does far more than Andersen and Pold suggest: Bartholl’s work is participating in a tradition of breaking with the past and is, therefore, less radical of a break than is implied. We will return to Bartholl’s work later in the chapter – he is, after all, one of the most important artists working in in this context – but we wanted to make clear what is revealed through more than just an examination of the postdigital, and that this is only apparent in an interdisciplinary fashion. In this chapter to investigate New Aesthetic art becomes an important means of furthering the definition of this set of phenomena in its entirety.

Importantly, the very term ‘New Aesthetic’ implies a specific relationship to aesthetics as the philosophy of art. For much of its history, at least until recently, aesthetics has been focused on questions regarding such things as the nature and purpose of art, the means of identifying art objects as distinct from everyday objects, the definition of beauty, and the relationship between ‘fine’ art and craft (if there is a distinction between the two). Reading through the literature, however, it’s been apparent that the use of the term ‘aesthetic’ in ‘New Aesthetics’ has been more akin to the way it was used prior to Alexander Gottlieb Baumgarten’s transformation of its meaning. Beginning in 1735 and culminating in Baumgarten’s *Reflections on Poetry* (1750), aesthetics shifted from a philosophical concern with the experience of sense perception to analyses of ideas of taste and beauty and concerns about ontologically driven questions on the nature of art. From our perspective, discussions of the New Aesthetics has a pre-Baumgartenian flavor. Most of the recent discussions of New Aesthetic objects have never been about their nature as art per se, even though this would be a fruitful line of inquiry; focusing on their digital existence, they seem less entangled in the past 250+ years and more concerned with the pre-Baumgartenian notion of aesthetics that focuses on how things are for our perception, how they feel, how they impact our comfort or discomfort in our relationship to the world. In many respects, Baumgarten’s ideas have been taken up in phenomenological investigations but what is particularly valuable in making this connection between primarily 21st century phenomena and an 18th century philosopher’s important but flawed modern interpretation of the term ‘aesthetics’ is Baumgarten’s insistence that aesthetic appreciation functions within the locus of truth and the presentation of perfection, aiming towards an extensive clarity with various affects. The parallels to any discussion of the efficiency of a GUI are striking. Baumgarten writes in his *Meditationes*:

Since affects are more notable degrees of pain and pleasure, their sensible representations are given in representing something to oneself confusedly as good or bad, and thus they determine poetic representations, and *to arouse affects is poetic*.[[4]](#footnote-5)

The effect of these affects is sensible cognition, not only as the physical embodiment of the presentation of ideas but as the aesthetic perfection of those ideas, an obvious driving force in apps like *Waze*. For Baumgarten: ‘The aim of aesthetics is the perfection of sensible cognition as such, that is, beauty, while its imperfection as such, that is, ugliness, is to be avoided.’[[5]](#footnote-6) Colin McQuillian describes Baumgarten’s position nicely.

When the objects of sensible cognition agree with one another, then sensible cognition is perfectly ordered, so it is beautiful. The beauty of signification is also a perfection of sensible cognition, because we cannot represent the beauty of the objects of sensible cognition and their order without signs. When the signs we use to represent sensible perfection agree with one another, then sensible cognition expresses itself eloquently, and it is beautiful.[[6]](#footnote-7)

What is interesting here is how appropriate this is when discussing New Aesthetic objects and, by extension, New Aesthetic art; Baumgarten’s enlightened rationalism is outdated in so many different ways, but the notion that aesthetics is about the analysis of the perfection of the presentation of ideas, making them available for sensible cognition such that their truth is seemingly irrefutable, ties in nicely with New Aesthetic objects’ presentation of their own autonomy and self-sufficient, self-generated and self-perfected state despite inherent and unavoidable glitches, errors and pervasive manipulations of the experiences and understanding of the consumers of the New Aesthetic objects.

Taking a Baumgartenian perspective complicates the very foundations of this chapter. If New Aesthetic objects are the presentation of their own self-determined perfection then the only criteria we could employ when critically engaging with them is the degree to which they achieve that sense of presented perfection, that sense of being natural objects that appear to be natural part of our environments. In fact, the only criteria that we could then use to distinguish between non-New Aesthetic and New Aesthetic objects, to take this line of thought to an absurd conclusion, would be to note that objects seemingly recognizable as the later are, in fact, not such objects, simply because their lack of perfection means that their inherent artificiality is apparent. Of course, that’s ridiculous, but it’s instructive when thinking about them generally in that it is the manifestations, theoretical underpinnings, and the attitude which generates New Aesthetic objects that further a complicated and increasingly complicated reception while confounding our ability to accurately and critically engage with the world. This increasingly complicated means of seeing the world through the New Aesthetic can be seen readily in the digitalization of the art experience.

The Google Art Project states that it has three aims: 1) to provide the experience of art in museums and other cultural institutions digitally so that people can see them from a distance, see objects in greater detail (often in greater detail than they would if they were actually in the museums looking at the objects themselves), and share the experience of art; 2) to provide a means to safeguard and protect history and cultural heritage; 3) to serve as a lab to allow for cross-disciplinary creative activities between curators, historians, artists, designers and educators.[[7]](#footnote-8) In all three cases, as much as it might seem like the Google Art Project is an effort to extend the opportunities to appreciate art in museums, in its narrowing of the aesthetic experience, it is far more an opportunity to appreciate the art at a distance, the objects transformed from their state as physical objects to being merely digital artifacts, to the point that Walter Benjamin’s warnings about the loss of aura seems very much like reality. In particular, the second aim is the most difficult to come to terms with, in that the preservation of the objects cannot, by definition of the efforts as digital, be an actual preservation of the objects but only the preservation of their appearance. Notwithstanding Plato’s admonishment against aesthetic experiences being twice removed as a danger to the very fabric of social structures, this just seems odd, a reification of the collecting impulse extended to the point that the physicality of objects disappears. This is not as absurd as it sounds, as evidenced in the artwork of João Enxuto and Erica Love and their ongoing art project *Anonymous Paintings* (2011-).[[8]](#footnote-9) {Fig. 45} Given the obvious copyright issues involved with the Google Art Project, Enxuto and Love have been producing inkjet prints on stretched canvases of blurred images appropriated from Google’s website. Describing the work, as the artists do, as ‘censored’ might seem extreme but their artworks have a singular and stunning effect:

The censored artworks are like the blurred individuals caught in the path of Google’s omnipresent Street View camera where occlusion denotes an identity and subjecthood. Our Anonymous Paintings use abstraction as a code for autonomy and withdrawal from Google’s comprehensive visual record.[[9]](#footnote-10)

Making the analogy between the paintings and the blurred images of human faces in Google Street View pushes this sense of a complex autonomy to the forefront of aesthetic issues. Such autonomy is now couched almost in nefarious terms, with the press release from the Carriage Trade Gallery’s exhibition of Enxuto’s and Love’s work stating:

With the growth of Internet activity producing previously unimaginable amounts of personal data that has recently been revealed to be freely accessible to government agencies, the convenience associated with online activity has increasingly been shadowed by the surveillance of its users […] Derived from the remnants of pixelated art works that have returned to the world of objects, the *Anonymous Paintings* seem to exist between an artwork as memory, and an assertion of the indispensable nature of a tangible space, where meaning is derived from a conscious encounter between subject and object.[[10]](#footnote-11)

What left’s is nothing but the distortion of a work, perhaps almost an apocalyptic manifestation of Benjamin’s loss of aura. Or perhaps we’re being too drastic here? These are enlarged reproductions of the images found on Google, after all, and further the images are themselves often works on loan or less frequently exhibited pieced of contemporary art, meaning that the legal ramifications of breaking copyright are what drives their manner of presentation. Is negotiating the conceptual space sufficiently valid as art or as the New Aesthetic? In our opinion, absolutely. Enxuto and Love point out that ‘Google is single-handedly redefining the public sphere of art spectatorship in much the same way that it is redefining the mapping of public space.’[[11]](#footnote-12) The unquestionable positive artistic value notwithstanding, we only disagree on an aesthetic level with one thing in this statement, but we disagree with it strongly. For us, it’s not Google that is single-handedly redefining the experience of art but the very parameters, the paradigmatic and almost metaphysical shift that is doing so. The Google Art Project is not the cause but merely one of many symptoms.

Given the strange nature of the New Aesthetic, its products and its objects, it might seem difficult if not impossible to imagine it as more than a category of digital manifestation but as a category of actual instances of art. To that end, we’ve divided our discussion of the related art across two chapters and into four sections: 1) a discussion of artists working in the early history of digital art whose work is a prelude to the development of New Aesthetic art; 2) a detailed presentation of artists whose work is clearly aligned with the principles of New Aesthetic art but which is, in the final analysis, insufficiently autonomous to be full examples; 3) a presentation of artists whose work we do consider examples of the New Aesthetic, often exhibiting autonomous elements and aesthetic strategies and results that are markedly a manifestation of the paradigm; and 4) most controversially, a small set of aesthetic objects that have arisen out of the paradigm without the direction of human agency that we believe can be labeled ‘art’. To this end we’ve decided to take a concentric rather than a linear approach; pure, autonomous, self-generating examples of New Aesthetic art objects are at the center of our exploration, with each section of this chapter shifting from one layer to the next closing in on that target. It’s our belief that the New Aesthetic didn’t just appear as an end result or a product of specific set of necessary technological innovations but that it’s been nascent in the very of idea of the digital for a long time, perhaps even embryonic in the very idea of mathematics and the beauty of mathematics.

### Setting the Stage for New Aesthetic Art: Early Figures in the History of Digital Art

It might seem strange to start with Malcom Morley’s painting *The School of Athens* (1972), if for no other reason that in many ways it appears to be a painting in a very traditional sense and especially because of it’s subject matter, namely a reproduction of Raphael’s *The School of Athens* (1509-11), but we promise there’s a good reason. {Fig. 46} Raphael’s painting is a masterpiece of the Italian Renaissance, the ‘perfect embodiment of the classical spirit of the Renaissance’[[12]](#footnote-13) marking the dialectical relationship between Aristotle’s theories and the ideas of Plato. Malcolm Morley’s painting is a reproduction of photograph of Raphael’s painting; that second step is important – Morley is copying a photograph rather than the actual painting – because it highlights Morley’s career as a photorealist painter, his use of technology in his specific technique of using projected grids of the Raphael in the reproduction process, and the fact that Morley mistakenly shifted the grids one space over thus creating a glitch in the reproduction.

Morley never makes corrections – once it’s done it stays done – and every bit leads to the next. “Even if a mistake gets made, I turn it into something positive. For example, I made a painting of Raphael’s ‘School of Athens’ and I got one grid in the wrong place. So for Plato and Aristotle the skull is over here and the rest of the head here; I said I lobotomised Greek philosophy. The wit comes from the unconscious. As somebody put it to me, you make friends with your unconscious life, as a collaborator.”[[13]](#footnote-14)

It may be a simple point, but it bears repeating that Morley used a glitch in his reproduction of a photograph of Raphael’s painting in an almost teleological fashion, with the subsequent effects generating specific aesthetic impacts. Given Morley’s artistic strategies in a long, fascinating, and masterful but often unjustifiably overlooked career, the fact that he’s embraced ‘mistakes’ as part of the creative process falls in line with both modernist traditions and postmodern assimilations and reconfigurations of modernism. At the same time, we would argue that Morley’s passively embraced concession to the faults produced by the margins of error connected to the technology is evidence of the impact that the New Aesthetic will have in subsequent years.

In a similar fashion, certain recent examples of infographic art also conceptually set the stage for New Aesthetic objects to have a genuine artistic existence and function. In 2014 graphic design artists and illustrators Tom Whalen and Kevin Tong held a joint exhibition at the Phone Booth Gallery in Long Beach, California.[[14]](#footnote-15) {Fig. 47} The content of the work ranged through a disparate set of subjects such as leaf cutter ants, the P-51D Mustang fighter plane, Nikola Tesla and an example of an extravehicular mobility unit or, simply, a spacesuit; the consistent and organizing force of the exhibition was evidently the utilization of broad stylistic similarities that hark back to utopian flavored 1950s science fiction and a clear impetus to utilize the aesthetic potential of infographic methodology. While producing visually very interesting work, Whalen’s and Tong’s prints are nostalgically indebted to an era in the history of graphic design in which high modernism’s impulses to guide and correct social development were themselves understood as fundamental design considerations, practices and aesthetic strategies; Whalen cites Jan Tschichold, Saul Bass and Milton Glaser as influences on his website[[15]](#footnote-16), figures who unquestionably strove to use graphic design in a transformative fashion. A first response – or a second response, since the rich, lush colors and bold layout of Whalen’s and Tong’s work are the first aspects of their images that catch the viewer’s attention – is to think of these designs as evidence of the continuation of postmodern impulses, particularly in light of the evident, if consciously and effectively contrived, nostalgia running through all of the design decisions; regardless of the state of the debate about postmodernism’s definition and continuing existence (if it ever existed at all), a general tendency is to identify the apparent appropriations, quotations and evocations from an earlier era in these works as an active but parenthetical engagement with modernist longings. Still, there’s something different going on here, fitting these works almost into a New Aesthetic status, and that’s the use of infographics as a technology. Infographics is a well-established means of representing complicated information; Charles Minard’s 1861 representation of Napoleon’s invasion of and retreat from Russia is one of the most well known examples, and Otto Neurath’s development of the Vienna Method in the 1920s and 1930s, Edward Tufte’s *The Visual Display of Quantitative Information* (1983), and Peter Sullivan’s use of infographics in the New York Times from the 1970s to the 1990s were instrumental in establishing its viability and shifting its conceptualization towards data visualization. Today, infographics and data visualization have become so diverse and powerfully implemented that we cannot fully discuss their impact here, but one aspect is crucial: the assumption, often made uncritically, that the best presentation of data is an aesthetic presentation. In some respects, that may seem indisputable, in that it seems logical that aesthetic visual content drives, for instance, best practices in the communication of information in the context of social media, but at the same time something else is going on. There’s a fine line between infographics and data visualization, precisely because they are both methods presenting data visually, converging towards the same goals, but in both cases there’s an underlying assumption regarding the veracity of the data sets and the effectiveness of the presentation methods; infographics and data visualization put the viewer into the role of a passive consumer of information, and even more insidiously puts the graphic designer into the role of a passive accomplice. What makes Whalen’s and Tong’s work intriguing in the context of this intertwined perspective on infographics, data visualization and the New Aesthetic is their use of visual nostalgia, which has two effects. First, it eases the presentation and consumption of the information in such a way that the effect becomes less about the actual information per se and more about the process of learning. Second, the visual nostalgia facilitates a historicized context of the data itself, as if the methods of presenting establish a continuity of data, substantiating the methodology’s manifestation much to the expense of the veracity of the data itself. There is a striking conceptual similarity between the work of Otto Neurath and Whalen’s and Tong’s images, despite the glaringly obvious differences in appearance, in that the underlying methodology, the encoded pathways of presentation that are prearranged similarly to programmed instructions, are treated in a fashion that assumes a natural form of appearance. We will return to two projects by Lev Manovich – *Selfiecity* (2015) and *On Broadway* (2014-2016) – later in this chapter to pick up on the pervasive presence of data, its relationship to its own interpretative methodology and how these issues can specifically emerge in artistic production.

If painterly glitches and infographics set the stage for a preliminary consideration of New Aesthetic art, a consideration of artists who have been producing digital art that uses software and hardware, programming and data visualization with a clear aesthetic goal of producing art is even more important. In 1965, Frieder Nake, A. Michael Noll and Georg Nees may have been the first artists exhibiting drawings that were entirely computer-generated in art galleries, and the similarity of their work reveals not only shared working methods and concerns but also the limitations of their aesthetic explorations. Georg Nees is a German pioneer of computer and art and generative graphic, and was probably the first artist to display art that was entirely dependent on digital technology in Stuttgart, where he was educated and had been a student of Max Bense, an important pioneer in the field of information aesthetics and the integration of the humanities and natural sciences. Importantly, Nees served as the scientific advisor for *SEMIOSIS*, an international journal devoted to issues of semiotics, technology and aesthetics, whose title is derived from Charles Sanders Peirce describing a process (potentially artistic) that understands signs as self-referentially operative. Nees’ work began at Siemens:

In 1959, he began to program digital computers. In 1965, he procured for his department at Siemens a table-sized, punched tape-operated drawing automaton constructed by Konrad Zuse, the “Zuse-Graphomat”, which could move a descendible drawing pencil in two right-angled axes over a page of drawing paper. Nees recalls: “There it was, the great temptation for me, for once not to represent something technical with this machine but rather something ‘useless’ – geometrical patterns.”[[16]](#footnote-17)

Nees’ work is innovative simply because of the new medium that he started using, but equally so because it was simple in its visual appearance. {Fig. 48} In part this is because of Nees’ development of generative design, wherein a set of parameters would be provided to the software and the image was created as the software controlled the hardware, a process that in the early 21st century seems rather primitive but in the 1960s would have been astonishing. What’s interesting about generative design is that there are two different sets of aesthetic choices an artist can make when using this method. First, they can choose between providing predetermined values for the software or randomly generated numbers, a choice that firmly places Nees’ ideas in the same context as the types of decisions being made by Jasper Johns and Robert Rauschenberg in the early years of their careers, particularly when they were making art at Black Mountain College in North Carolina when a predetermined and programmatic approach was central to their experimentation deeply influenced by Marcel Duchamp, as well as different aesthetic strategies employed by performance and conceptual artists across the world in the 1960s. In this respect, Nees’ work bears a strong resemblance to Karl Otto Götz, a German artist whose paintings were based on ‘“statistic-metric modulations” with grids filled with black and white rectangles’.[[17]](#footnote-18) Second, and much more importantly for us, Nees’ generative design method sets into place an aesthetic decision, evaluative and judgmental in nature, regarding the output; given that the imagery was produced on a flatbed graphing machine, which at the time had instructions provided by punch card and which was primarily designed for scientific and military purposes, it is without question that some images would be produced with unintended effects, whether through error in the instructions, in the hardware’s implementation of those instructions or simply in a lack of familiarity with the flatbed drawing machine. It’s clear that Nees must have had to choose to accept the possibilities and the limitations of his methods, but it’s also clear that Nees didn’t think of the technology merely as a tool that he could fully control. At the 1965 exhibition in Siemens, he states:

A number of artist-professors from the Stuttgart Staatliche Akademie der Bildenden Künste attended the opening. One of them asked Georg Nees whether he could make his computer (a program) to draw the same manner the artist was drawing (“Duktus”). Nees’ answer is a classic. After a short hesitation he replied: “Yes, of course, I can do this. Under one condition: you must tell me how you draw.” – In the ensuing irritation, Max Bense spontaneously coined the word “Artificial Art”.[[18]](#footnote-19)

This has two implications: Nees is obviously recognizing that an artist’s draughtsmanship could be reproduced through computer technology, but Nees is also implying (or, perhaps, was prompted by Bense) that the programming itself could be taught to draw, in the active sense of the word, in a way that was more than just reproduction. While acknowledging the practical limitations involved with the technology, we also want to strongly disagree with the Victoria & Albert Museum’s explanation for the limited content in Nees’ art:

Many of the earliest practitioners programmed the computer themselves. At this time, there was no “user interface”, such as icons or a mouse, and little pre-existing software. By writing their own programs, artists and computer scientists were able to experiment more freely with the creative potential of the computer.

Early output devices were also limited. One of the main sources of output in the 1960s was the plotter, a mechanical device that holds a pen or brush and is linked to a computer that controls its movements. The computer would guide the pen or brush across the drawing surface, or, alternatively, could move the paper underneath the pen, according to instructions given by the computer program.[[19]](#footnote-20)

Writing about the computer ‘guiding’ the pen, brush or even the paper betrays a subtle, almost unspoken notion that the process was entirely controlled by the artist. To what extent this represents a high modernist faith in an infinite set of capabilities of technology is indeterminable, but that Nees at least seemed to agree with if not advocate for the notion of an artificial art production is without doubt.

A. Michael Noll is an American engineer and professor emeritus with the University of Southern California who has been active in the development of everything from security protocols to the invention of video conferencing, a biography that would make him seem an unlikely candidate to the second computer artist except for the fact that his was the second exhibition of computer art, taking place in New York City just two months after Nees’ exhibition (though he claims, with some evidence, to have produced computer art as early as 1962).[[20]](#footnote-21) Whereas Nees’ work seems to have been focused on the potential of the hardware, Noll’s work was always focused more narrowly on the aesthetic value of the output. {Fig. 49} Consisting of images whose visual appeal is based on contrasting vertical and horizontal relationships or Gaussian-Quadratic equations, Noll’s work is less random and more premeditated but still bears all the hallmarks of an attitude exploring and finding value in art that is distinctively digital in its appearances. Even more than Nees, some of Noll’s art and his writings show a sense of faith in technology as an equivalent source of aesthetic value; in 1964 Noll produced a computer generated image that mimicked closely *Composition with Lines* by Piet Mondrian which was preferred by viewers over the actual paintings as well as mistakenly identified as a drawing by Mondrian himself. This resulted in Noll’s paper ‘Human or Machine: A Subjective Comparison of Piet Mondrian’s “Composition with Lines” and a Computer-Generated Picture’[[21]](#footnote-22) in which he described the methods used to produce the image as well as the psychological experiment gauging the responses of a hundred people, and in which he also asserted that the ‘randomness’ was determinative in the aesthetic response. In short, despite claiming that ‘an indistinguishable pair could be achieved’, there’s the implication that there’s something superior about the art that is computer-generated.

Frieder Nake’s work is derived primarily from his research as a mathematician; a work like *Hommage à Paul Klee 13/9/65 Nr.2* (1965) {Fig. 50} displays concerns and influence similar to Noll’s interest in Mondrian but at the same time it is far more conceptually assertive of the distinct nature and independence of computer art in relation to its inspiration. Continuing to add further levels of complexity to his work, Nake has explored series of matrix multiplications as a means of generating imagery, detailing in his book *Ästhetik als Informationsverarbeitung* (1974) a belief in the inherent aesthetic relationship between aesthetics and mathematics. Nake has also been upfront about trying to find a shared communality amidst the explosion of different art forms in the 1960s; ‘it seems to me what they share is, starting with Marcel Duchamp, going beyond the confines of traditional art. Each one of these movements in some other way denied art as it was known’[[22]](#footnote-23) even if he stopped making art in the 1970s after writing an article titled ‘There Should Be No Computer-Art’[[23]](#footnote-24) for *Page*, the bulletin of the Computer Arts Society, and later accusing other computer artists of being technocratic Dadaists. Such a position places Nake firmly in the realm of the art world, unlike Nees and Noll who seem to have been engineers and programmers first and artists second. His exit from making computer art indicates even further an awareness of the increasingly pervasive nature of the digital realm into artistic practice; Nake, like Nees and Noll, had accepted a research position to use computing devices that were also booked by military and corporate entities, at a time when computing power was expensive and access was limited, and he had decided that it was immoral to participate in a method of art production that paralleled these entities’ destruction of society. The editors of Wikipedia have summarized Nake’s position nicely:

The involvement of computer technology in the Vietnam War and in massive attempts by capital to automate productive processes and, thereby, generate unemployment, should not allow artists to close their eyes and become silent servants of the ruling classes by reconciling high technology with the masses of the poor and suppressed.[[24]](#footnote-25)

Other artists have pioneered computer art in ways that set the stage for New Aesthetic objects. Hiroshi Kawano, who may have been the first programmer to produce computer art in 1964 (though not exhibited, and unrecognized perhaps because he wrote about his work in Japanese) studied aesthetics at the University of Tokyo and later taught it at the Metropolitan College of Air Technology. His first forays into computer art varied in output – lyrics, music, sculpture and two-dimensional visual art – but influenced by Max Bense’s *Programmierung des Schönen* (1960) he began focusing on the use of algorithms, cybernetics and artificial intelligence to develop a position that sought increasing degrees of autonomy in computer art production. {Fig. 51} While the result of this is that Kawano’s work often looked more like facsimiles of Mondrian’s paintings than original work, nevertheless there was an effort to work within the limitations (for the time) of digital creative processes. For Kawano ‘a computer artist should be a programmer who can teach his computer to produce works of art by itself, and furthermore know about the digital computing behavior of his computer in detail. It is never a computer artist, but a computer itself that produces works of art; a computer artist only helps his computer acting as a programmer.’[[25]](#footnote-26) Clearly, for Kawano, the human imagination was still of primary importance as an originating point, but how long could this last when his programmatic abstraction would, inevitably, be susceptible to the internal consistency of the programming?

Jean-Pierre Hébert is our final important figure from these early years. Born in France, and exposed to art at an early age when summering in Vence, Provence where he was given access to the Galerie Alphonse Chave’s collection as well as seeing work there by Matisse, Chagall, Picasso, Man Ray, Léger and many others, Hébert started programming in Fortran in 1959 and worked on some of the first Hewlett-Packard lab computers in the 1970s but he maintained an interest in producing art.[[26]](#footnote-27) Moving to California, Hébert became the founder of the Algorists, a loose association of computer artists and pioneered the use of code to produce images in a range of materials beyond paper such as sand, water and as installations that would be proofed by algorithms. He explains: ‘The principle behind my work has always been pretty simple […] It consists of putting together a process that creates instructions for a tool. It’s all computer-driven motion of a tool on a surface.’[[27]](#footnote-28) {Fig. 52} What’s especially interesting from our perspective, is Hébert’s emphasis on drawing: ‘I draw because I love to draw and always had a passion for drawings […] the seventies, I have been working with the conviction that to gain power and beauty, drawing should become a pure mental activity, rather than a mere gestural skill. I have endeavored to make it so by banning the physical side of drawing.’[[28]](#footnote-29) In essence, Hébert is advocating a rational approach to drawing, a notion that algorithms in and of themselves are sufficiently aesthetically valid, especially if they function as mediators between natural origins and natural output as evidenced in his recent use of spirals as prevalent and, seemingly, independently and universally artistic;[[29]](#footnote-30) while Hébert may not be pushing for the eventual complete expulsion of the physical artist, what he has established is that programming is potentially sufficient at a fundamental level at the cost of drawing as a practice based on direct observation or free association.

Where we’ve ended up is with a group of artists who’ve embraced the use of digital technology but haven’t called it into question, with the exception of Nake, or have utilized it so seamlessly that its presence is subsumed under the primary medium or disregarded in favor of digital output. Over the course of the last fifty years digital art has become increasingly sophisticated but the digital as a medium hasn’t gone through the same reflective evaluation the other mediums have over the course of modernism. There have been a few exceptions. Artists such as Vera Molnár, one of the founders of the Groupe de Recherche d’Art Visuel (GRAV) in 1961, advocated a computational approach based on Victor Vasarely’s notion that the individual artist was outdated. Claude Shannon, Ken Knowlton, Leon Harmon, Lillian Schwartz, Charles Csuri, A. Michael Noll, Edward Zajec, Desmond Paul Henry, Billy Klüver, Paul Brown, Kenneth Snelson, Joseph Nechvatal and James Faure Walker have all taken leading roles in pushing what could be done (often out of Bell Labs, when Klüver and Rauschenberg created E.A.T. (Experiments in Art) in 1967). {Fig 53} The increasingly dominant presence of the digital, however, has started to become naturalized. Along with the digital means of reproducing the appearances of traditional art forms, which has been continually accelerating to the point that handcrafted objects are, in some instances, seen as almost a rebellion against the use of digital technology, digital art has become accepted as normal or equivalent to other art forms. At the same time, as a number of artists have taken digital tools in a different direction, shouldn’t we be questioning the digital’s pervasive presence while at the same time refusing to eschew their usefulness? Frieder Nake’s position is once again illuminating here, particularly his position that

it was not before the first exhibitions of computer produced pictures were held (1965) that a greater public took notice of this threat, as some said, – progress, as others thought. The threat and the progress being the use of an extremely complicated, sophisticated, expensive and rational machine in the arts, i.e. in one of the last refuges of the irrational.[[30]](#footnote-31)

A representative set of these artists were included in the exhibition *Painting After Technology* at the Tate Modern in London in 2015, among them Christopher Wool, Albert Oehlens and Laura Owens.[[31]](#footnote-32) The exhibition takes as its starting point a brief view into the effect of technology on the practice of painting, with the central premise that ‘rather than simply celebrating such technologies, however, the artists in this room are often interested in the errors, glitches and misregistrations that can result from them.’[[32]](#footnote-33) Wool’s *Untitled* (2009) is representative of his use of computer technology. Working with digital photographs of his own paintings, Wool rearranges them and then silkscreens the imagery onto the paper that is then fixed onto canvas. Oehlens’ *Loa* (2007) {Fig. 54} quotes phrases and lyrics from Scooter, a German techno band, and is a good example of his own description of his practice as ‘post-non-representational’. Owens’ *Untitled* (2012) {Fig. 55} is part of her series ‘Pavement Karaoke’, a set of seven ‘paintings’ first created in Photoshop and then projected onto the canvas in a manner similar to the Photorealists but with a continual sense of deconstructing the very process of image making. Described by curator Mark Godfrey as a ‘selection of work [reflecting] one of the urgent conversations around painting today’[[33]](#footnote-34) the exhibition certainly had a sense of urgency about it, albeit a laconic one, that suggested that the intersection between traditional media and digital technology is increasingly becoming an uneasy place. In many respects Godfrey’s curatorial choices, equally reflected in his Artforum article ‘Statements of Intent’[[34]](#footnote-35) that serves as an external curatorial statement for the Tate exhibition, complicates the matter further with its emphasis on abstract art. The artists included in the exhibition and discussed in the article are presented as clearly negotiating a position between the inherent value of pure formal elements in abstraction, vis-à-vis Abstract Expressionism, and the facility that digital technology brings in the production of images; quite simply, it’s almost as if the contemporary shift to abstraction is a regressive, if also revealing, effort against the seduction of technology itself, with these artists trading one set of autonomous aesthetic values for another. We would argue, however, that the autonomy of digital art production is more seductive and stubborn and that regressive strategies have limited efficacy.

### Almost, but not Quite, New Aesthetic Artists and Artworks

Right from the beginning, let us be clear that this second section isn’t about artists who have tried to be New Aesthetic artists and failed. Nothing further could be from our minds, as every one of the artists we will subsequently discuss are ones whose work we admire and appreciate, that we’ve shared with each other through text messaging links and on social media in our efforts to understand these new forms and phenomena as a cultural shift and metaphysical paradigm, and that has given us many an occasion to think about what the New Aesthetic is as both an attitude and a strategy. Rather, each of the artists discussed in this section have been producing work that feels like a New Aesthetic object, which exhibits many of the characteristics of these digital forms, but in the final analysis their artistic output is not sufficient to be considered as actual objects and are, at best, products. This isn’t a failure of the art (far from it) but the implementation of a criterion that involves a multiplicity of necessary elements. In some respects the work of these artists has been setting the stage, with increasing potential, for New Aesthetic art to fully emerge, and for that reason we’ve dealt with these artists in a progressive fashion, with their work getting closer and closer to a New Aesthetic object status. What follows is a presentation of artists whose work is unquestionably worth extended and serious consideration as a valuable or crucial layer in our concentric exploration towards our target.

Kohei Nawa[[35]](#footnote-36) is a professor at Kyoto University of Art and Design, and has been producing fascinating works that are manipulations of the intersection of material and digital means. Nawa’s first appearance in a specific New Aesthetic context emerged out of his association with the *Sandwich* space in Kyoto.[[36]](#footnote-37) *Polygon Double Deer #2* (2011)[[37]](#footnote-38) {Fig. 56} is a work that obviously draws on the growing translation of real world objects into polygonal forms for game design and digital simulations and was featured on Bridle’s blog, but other works by Nawa are even more fascinating and breath-taking. For example, works in his *Pixcell* (2009-2011) series and his *Liquid* (2007-2011) pieces utilize a range of chemical and physical effects to simulate the digital in fascinating ways; his *Trans* (2012-13) work applies surface manipulation techniques to 3D scanned models, resulting in fluid and otherworldly figurative apparitions; and *Biota* (2013) and *Manifold* (2013) {Fig. 57} are massive representations in sculptural form of simulations of evolution, mysticism and gravity. This primacy of the simulation is important because of the inherently seductive nature of simulations; what Nawa’s work does is set up the apparent integration of data across sensuous and embodied forms which are seemingly evolving as an opportunity for aesthetic appreciation but at the same time confounding the viewer’s ability to make a free aesthetic judgment through their coherence as an environmental system. To put it another way, it’s just as much the nature of the systems that Nawa employs that direct the aesthetic experience as are the artistic choices, and it’s the system itself that begins to become aesthetically self-sustaining through Nawa’s aesthetic strategies.

Matthew Plummer-Fernandez[[38]](#footnote-39) is a British-Columbian artist who has also been mentioned in the context of the New Aesthetic. Like some of Nawa’s work, Plummer-Fernandez has been borrowing digital techniques to respond to conditions of the world, particularly the artificiality of the conditions of our experience of the world. One of his most well-known artworks *is* *sekuMoi Mecy* (2012), {Fig. 58} a 3D modeling of the shape of the iconic Mickey Mouse (the title is an anagram) that has been deconstructed randomly so that it has returned to being a digital model merely recollecting its original form. *sekuMoi Mecy*, as a result of the custom software Plummer-Fernandez has created for 3D printers, has been described as a liberator for future work entangled with the complexities of intellectual property law. Stephen Fortune writes:

Matthew Plummer Fernandez holds the honour of firing the first shot at those who would seek to control what files can and can’t be shared. His free software, Disarming Corruptor, is what he terms “circumvention software”. It scrambles a 3D printed file, encrypting it in such a way that the user will be greeted with a glitched-out visual treat if it is loaded into any 3D editing software. If you’ve got the decryption keys, you get to see the object’s true form. It’s hiding in plain sight, thumbing its pixel-bled nose at the Mary Whitehouses of physible culture.[[39]](#footnote-40)

More than just an engagement with a character, this work tears into the notion of intellectual property, copyright and trademark law, suggesting an alignment with the growing perspective that outdated legal structures are broken in the digital age. Plummer-Fernandez notes:

The Disney Corporation fascinates me for paradoxically pioneering remix culture by creating their own versions of public domain characters such as Snow White and Cinderella, and yet the company take a hostile approach against any attempts to copy their own creations. In 1976 Disney and others sued Sony for developing the betamax video tape recorder for being a device that could be used for copyright infringement. Mickey has been trademarked as well as copyrighted to ensure it will never have the freedoms of a public domain character, and the corporation have strongly lobbied and secured the Copyright Term Extension Act (known as the Mickey Mouse Protection Act). A Disney insider also revealed that the design of Mickey is constantly updated (such as the disappearance of the tail) to continually reset the copyright timer.[[40]](#footnote-41)

Plummer-Fernandez’s point is an intriguing one – by noting that there’s a history or an evolution to the form of Mickey Mouse that ‘necessitates’ new intellectual and trademark filings Plummer-Fernandez is elucidating an almost biological set of flowing relations between an outdated legal structure and its mismatched digital encompassment – at the same time the reciprocal, dialectical relationships between legal concepts and digital formatting doesn’t quite achieve New Aesthetic object status but remains a product in its incorporation of various digital transformations of the original subject matter. This is glitch art, and even more so this is glitch with a serious purpose, but it’s not quite New Aesthetic art per se.

The shift towards a heightened awareness of the presence of the digital is clear in the work of both Nawa and Plummer-Fernandez, but there have been many other artists who have brought out this characteristic of their work and made it a defining part of their stylistic strategies. In line with this, Bridle noted in his 2012 presentation at SWSX that:

One of the core themes of the New Aesthetic has been our collaboration with technology, whether that’s bots, digital cameras or satellites (and whether that collaboration is conscious or unconscious), and a useful visual shorthand for that collaboration has been glitchy and pixelated imagery, a way of seeing that seems to reveal a blurring between “the real” and “the digital”, the physical and the virtual, the human and the machine. It should also be clear that this “look” is a metaphor for understanding and communicating the experience of a world in which the New Aesthetic is increasingly pervasive.[[41]](#footnote-42)

As interesting as this was, we find it problematic, excusably so in the context of the early history of the New Aesthetic but still problematic especially when it comes to New Aesthetic art. Bridle is suggesting a few specific things. First, New Aesthetic objects are collaborations with technology; what Bridle means by this is that designers work with the underlying structure of digital tools and methods of analysis as partners, whether consciously or not. Given the propensity of many of the objects we’ve presented so far, it’s clear that the digital is far less collaborative than wished for. Second, Bridle is suggesting that glitchy and pixelated imagery is collaborative while also being a means of productively denoting a blurred distinction between the real and the digital, an experiential breakdown between the two; what’s become increasingly clear is that a complete different process has taken place, whereby the digital assumes the nature of the real rather than being situated in a liminal relationship with the real. Third, Bridle suggests that New Aesthetic objects conform to a ‘look’, apparently meaning that they are simply pixelated and blocky in appearance, like something out of Minecraft; in some cases, this is correct, but Bridle’s other notion of the New Aesthetic as an attitude is even more accurate, in that a style is often insufficient to determine the New Aesthetic nature of an object, particularly an artwork. A number of specific examples illustrate the point we’re trying to make.

The work of Ferruccio Laviani,[[42]](#footnote-43) specifically his cabinet *Good Vibrations* (2013),[[43]](#footnote-44) {Fig. 59} has become a rather famous example of work that stylistically similar to what one might anticipate New Aesthetic objects would appear like, showing up in many print publications and exhibitions over the last few years, being a fascinating example of craft at the highest level. At first glance, as every writer notes, it looks like a distorted photograph, an example of a glitch. It’s only after you recognize that it’s been made to look that way that its artistry really becomes strikingly evident. At a superficial level it seems to be a perfect representation of the New Aesthetic, but we’re inclined to differ with that response at a more critical level; in many ways, perhaps it’s one of the best examples representing Bridle’s theories of New Aesthetic art at a stylistic level, in the way that we’ve described as product, but its inadequacies as a digital artifact (not, we would clarify, its superlative nature as a physical object) or as an example of an autonomous digital process precludes it from being an example the New Aesthetic. Designed for the Italian company Boffi, it’s appearance as a distorted object is merely a simulation of glitch distortions, purposively imitating an apparent breakdown of the object’s integrity, but it’s also a crafted object with the effect that its use value, its practicality, quickly disables the continuation of an appreciation of or interaction with its digital origins. Many pieces by Laviani are amazingly clever, and *Good Vibrations* is a virtuosic masterpiece of woodcarving, craft and design, but its glitchiness is only imitative rather than an engaged response to the digital presence.

This sense of finding a space between the real and the digital is present in an equally interesting fashion in the work of Matthieu Tremblin,[[44]](#footnote-45) a French street artist. Seemingly borrowing certain artistic strategies from a tradition of artists going back to Kurt Schwitters coupled with an acute sense of the functionality of the urban environment, Tremblin’s work can best be described as urban interventions. *Rainwater Popsicles* (2014) uses discarded popsicle sticks and collected rainwater in a lyrical fashion to return the pleasure back to the environment; *Sourires Volés (Stolen Smiles)* (2014) consists of smiles removed from ubiquitous political posters redisplayed in a more congenial fashion; *Copying Van Gogh* (2013) and *Hakim* (2015) are re-appropriations of found graffiti tags that simultaneously question and assert the authenticity of street art. For our purposes, however, Tremblin’s most important work is *Watermark* (2013).[[45]](#footnote-46) {Fig. 60} An initial observation sees the image appearing as a watermarked digital photograph, similar in style to that found in the Getty Images library, but further investigations reveals that the watermark is carefully spray-painted onto the wall of the car park. Tremblin has noted that most of his interventions have had an almost curious banal quality to them, as if any ordinary citizen could have arranged the objects involved in a way that wouldn’t be art at all, but *Watermark* is obviously something different; the image on Tremblin’s website, the appearance of the graffiti in the photograph, all speak to a carefully planned execution that exemplifies what Tremblin refers to as ‘a certain dynamic using photography, graffiti and site-specific installation to end up with this attitude where we’re making forms of art in symbiosis with the context of its creation or diffusion, turning everyday life spaces in experimental art spaces’.[[46]](#footnote-47) Almost every artwork by Tremblin can be understood within the context of this statement, but *Watermark* is something more; as Tremblin noted, the work came out of his criticism of the city of Mons’ attempt to control its imagery in anticipation of its designation as a ‘European Capital of Culture’ in 2015, which Tremblin saw as being contrary to the representation of the identities of its ordinary citizens. The sense that this is close to the New Aesthetic lies readily in this last point: Tremblin’s work not only highlights the growing usurpation and economic colonization of the public sphere (and literally of public spaces) through increasingly draconian interpretations and applications of copyright and intellectual property laws, in the confusion generated by the seeming dichotomy of its appearance there’s a clear sense that the primary means of such encroachment into the lives of ordinary human beings is not only facilitated by the digital but driven by the digital. Therein lies the even greater impact of *Watermark*: Plato’s artist, imitating the world and thereby making art simply by holding up a mirror to everything around him or her, doesn’t just imitate the world but ends up owning the images and, thereby, owning the world; the lyrically horrifying effect of *Watermark* is rooted in a heightened awareness that the digital presence visible here, in an almost ghostly fashion, is a means of taking possession of the world in the same fashion in a way normally unseen but still, as an unseen watermark, very much present in its representation. In effect, everything that can be digitally photographed is now owned by the possibility of those photographs being digitally watermarked by Getty Images.

In contrast to the fascinating work above – fascinatingly contrasting precisely because of its radical sense of reversion to traditional craft, rather than usurpation of craft into the digital – one of the most interesting artists that is a part of this setting of the stage for New Aesthetic art is Faig Ahmed. Coming from Azerbaijan, Ahmed’s education in the Azerbaijan State Academy of Fine Art in Baku exposed him not only to contemporary means of artistic production but also to the rich tradition of Azeri art, most importantly the long history of intricate rugs and other forms of fiber art. Ahmed’s work is a result of the relationship between the past, in a deeply rooted traditional sense that he notes as extending back to the ‘beginning of times’, and the present as an opportunity for poignant fractures and reconfigurations.[[47]](#footnote-48) Looking at Ahmed’s work it’s immediately obvious why it’s relevant here: with work like *Ledge* (2011), *Oiling* (2012), *Liquid* (2014) and, especially, *Tradition in Pixel* (2010), {Fig. 61} the fields of liminality he explores between traditional carpet design and digital effects and patterns are evidently experimental ventures broaching normally opposing forms of art practices. Much of Ahmed’s carpets are woven in a traditional fashion, but the alterations that make them appear as if they were expanded through a digital loupe in a digital photo library organizer, manipulated into a design that looks like it’s been smeared in an image editor on an iPad, expanded and strained to create an object almost sublime in its deconstruction of the traditional carpet format and transformed by reducing sections of the carpets into pixelated fields colors, all speak to the necessity of Ahmed’s artistic practices being situated at the intersection of craft and technology. In many respects, Flusser’s ideas are appropriate as a guide when thinking about Ahmed’s wonderful art, in that it’s clear that technological innovations are driving these crafted manifestations, and Ahmed’s own statements back this up:

I explore ancient traditions, cults and cultures, I make my own research and as I communicate with it, I create art. My carpets, installations and embroideries are the result of this interplay. It is fascinating to observe the process of such an easy transformation of such ancient and stable objects.[[48]](#footnote-49)

It is Ahmed’s assertion of the ease of the transformation that’s just as intriguing as the objects themselves. Why is it easy? Not just because of the evident mark of the digital tools that Ahmed is using in the design of his art but also in their appearance as pixelated rather than pixelized. Pixelated is usually understood as the unwanted appearance of pixels, often betraying the digital nature of the image, while pixelized is the intentional use of pixels to obscure details of the image. *Tradition in Pixel* operates in both processes in a powerful way. Ahmed writes:

The carpet is a symbol of invincible tradition of the East, it’s a visualization of an undestroyable icon. In my art I see the culture differently. This is more of expectation of a reaction because it’s exactly the change of the points of view that changes the world. Slight changes in the form of a carpet dramatically change it’s structure and maybe make it more suitable for the modern life. The Eastern culture is very rich visually. I cover it all in minimalistic forms, destroying the stereotypes of the tradition and creating new modern boundaries. A man can widen the borders and change them but no one has ever dare to break our spirit.[[49]](#footnote-50)

Understanding the carpet as a symbol of invincible tradition, Ahmed’s pixelating reinforces its digital transformation as an alteration, forcing a reconsideration of the original source tradition, while at the same time the pixelization of the work conceptually censors the rigid effect of tradition as a stereotype in a refusal to avoid the modern. What makes Ahmed’s work so interesting is the dialectical interplay between a determinative and reflective position, sourced in the intractable foundations of the history of Azeri carpets and the equally unavoidable transformative power of the digitalization of the world. The influence of the New Aesthetic is clearly affecting the work; the pixels are not slight changes that set into motion the recollection of tradition but activated elements redefining the invincibility of tradition.

The appearance of a glitch aesthetic does not necessarily indicate the use of the New Aesthetic in an artist’s work but certainly represents an attitude or an awareness of the significant shift at an almost epistemic level. One of the best examples of this is the use of glitch effects in the photography of Sabato Visconti, a Brazilian born artist trained and working in the United States. According to Visconti’s website it was a defective memory card that prompted his experimentation with glitch photography in 2011.[[50]](#footnote-51) Visconti’s art puts him at the forefront of glitch photography; using deliberately executed errors which Visconti refers to as ‘breaking the image’, he tries to strike a balance between a complete collapse of the image into digital errors and incomprehensible artifacts and straight photography, ‘trying to find this really fine balance where something doesn’t break fully, but breaks just to the point that you can see it breaking’.[[51]](#footnote-52) {Fig. 62} More than just nostalgia for 8-bit graphics, Visconti’s art clearly takes the glitch as a starting point for manipulating the image almost to the point of surrealism, a connection that is evident in the control that he tries to maintain over the final product. In fact, it’s clear that there is a thread of art historical referentiality, particularly with certain images that show a strong influence from other artists like René Magritte[[52]](#footnote-53) and André Kertész, even if art history permeates only at the most superficial level. {Fig. 63} For Visconti, an awareness of the code that drives image manipulation programs is what sets his parameters.

You get an idea more or less of what you’re going to get, but you can’t really predict it. And that’s part of the charm  –  you don’t have control over what you’re doing, you kind of rely on the machine […] If I wanted to do a lot of squares and fractal squares I’ll probably want to do a ‘cash smash’ glitch, because those tend to produce squares. If you want to have a kind of wavy distortion that’s almost like a super warped-out VHS effect, you’re going to want to use an audio program for that […] It’s definitely more satisfying sometimes when you get down and dirty with the code and kind of just finesse something out.[[53]](#footnote-54)

The balance that Visconti is trying to strike here is clearly twofold: on the one hand his efforts are directed towards producing an image that is aesthetically interesting, with a sufficient level of recognizable references to fix a viewer’s focus, while on the other hand there’s also an effort to encode the visuality of the image precisely to reveal its digital origins through the manipulation, both controlled and uncontrolled, of its appearance.

Visconti’s work, however, isn’t fully New Aesthetic art. Reading through various interviews and articles about his photographs, it becomes clear that his process is a combination of deliberate utilization of various image manipulation tools coupled with a limited degree of randomness, all the while primarily driven by an expressionist and symbolic intent. What’s amazing about Visconti work is the variety of techniques he uses:

In the last few years, Visconti has created static-filled images by editing a photo with audio equipment. He’s opened raw files through WordPad and saved them so the encoding would produce strange characters in the final image. He’s embraced cachemashing, and distorted photos by converting them to vectors then databending the file. The point being: There are plenty of ways to glitch a photo.[[54]](#footnote-55)

At the same time, what brings Visconti’s work back into the realm of normal art production is the virtuosity with which he uses the digital tools he’s familiarized himself with most. In the end, the result is that ‘glitch photography transcends the idea of simply altering something and becomes a medium in its own right, replete with a digital toolbox of tricks and best practices’.[[55]](#footnote-56) Clearly there’s a concern on Visconti’s part to produce the best possible image, the most successful example of art, and to that end he’s quite upfront about continuing to have control over the final images.

I’m not sure if focusing on unpredictability is the most meaningful way to critically engage with glitch art. I think it feeds this misconception that glitch artists simply stumble on these happy accidents without any thought or effort. Creating glitch art can be as labor intensive as any other art form. Glitching is the careful simulation of malfunction. It’s an absurd scheme that requires some finesse, because some glitches will break a file beyond recognition and other glitches will have no effect at all.[[56]](#footnote-57)

Visconti uses Pixel-Drifter,[[57]](#footnote-58) a program written by Dmitriy Krotevich, in much of his work. Pixel-Drifter works by taking the ‘power’ of each pixel, gauged by its luminosity and screen position, and putting it into conflict with its neighboring pixels in parameters set into place by the user. As much as we like Visconti’s art, this need to control the final outcome, to successfully wrestle with the algorithms, and to labor in a productive and ordered fashion towards an intended final product indicates that Visconti’s work is only related to the New Aesthetic. As noted by Margaret Rhodes:

In the beginning, glitch art was the appreciation of how software hiccups can distort an image. Depending on who you asked, glitch art only qualified as glitch art if the aesthetic cracks happened by accident. Then the medium evolved, and some digital artists began to force those errors by editing code and manipulating pixels.[[58]](#footnote-59)

It is here that we draw a distinction between art informed by the New Aesthetic as product and actual New Aesthetic art objects as artistic embodiments.

Antoine Geiger’s work is also heavily dependent on the aesthetic strategy that image manipulation revealing the digital origins of the work transforms our perception of the work itself but also effects reconfigured social awareness. With a quote from Walter Benjamin’s 1935 essay ‘The Work of Art in the Age of Mechanical Reproduction’, Geiger’s series of manipulated photographs *Sur-Fake* (2015) seems to be a flag-bearer for the impending apocalypse. {Fig. 64} Benjamin’s words – ‘Mankind, which in Homer’s time was an object of contemplation for the Olympian gods, is now one for itself. Its self-alienation has reached such a degree that it can experience its own destruction as aesthetic pleasure of the first order’ – bear out in Geiger’s images of people willingly sucked into the screens of their smartphone. {Fig. 65} Geiger notes about the project that it’s a continuation of *Sur-Face* (2014), wherein his images of people with their head covered by mirrors evoked a need for privacy in our ever-present state of facial recognition, but what makes *Sur-Fake* even more interesting is the apparent willingness of the participants to relinquish their identities to their technological mediators.[[59]](#footnote-60) Geiger writes: ‘What interests me in this texture of sucked faces, is that the over-exposure gradually allows a very organic dimension, as well as digital, to render something quite disturbing.’[[60]](#footnote-61)

Ralf Brueck’s work bears some resemblance to that of Geiger, but there are crucial differences that only come out through a closer inspection. A German artist, Brueck trained at the Kunstakademie Düsseldorf and belongs to what has been sometimes referred to as the Düsseldorf School of Photography, a group of artists that includes Andreas Gursky, Candida Höfer, Thomas Ruff and Thomas Struth. These artists not only share similar backgrounds, influences and educations but their work often necessitates an increased sense of participation of the viewer to acknowledge their complicit role in creating a completed aesthetic experience. While the other photographers, particularly Gursky, use digital tools, Brueck includes the presence of the digital to such an extent that it overwhelms the presence of his subjects in his compositions. In 2011 Brueck started his *Distortion* series, a set of photographs whose subjects, ranging from the interior of Gothic cathedrals and urban landscapes to highways and desert vistas, are heavily manipulated through the extraction of tonal elements in order to enhance the presentation of their digital origins by premeditated manipulations; images such as *Golden Cage* (2011) and *Twin Peaks* (2011) {Fig. 66} contain sufficiently recognizable details with specific aspects drawn out to set a dynamic visual contrast that redirects the viewer back to the production and manipulation or editing methods. Often noted as appearing to be bar codes, the work of the *Distortion* series perhaps looks more like extensions of DNA testing markers, which is more in line with some of Brueck’s statements attesting to his consistent interest in the fundamental elements of the photographic medium. By 2015, with his *Dekonstruktion* (2015) series, the level of recognizable elements has been dramatically curtailed, so that images like *Home sweet home* (2014) {Fig. 67} and *Shopping with grandma Elisabeth* (2015) are startling in their evocation of the implied but non-existent presence of the viewer, an obfuscation built into the necessary cooperative aesthetic engagement. Like in so many instances of postdigital analysis, there are often strange interpretations of Brueck’s work, with one article in *Wired* describing the *Distortion* series thus:

IT’S FINALLY HAPPENED – ALIENS are among us.

Ralf Brueck’s images transform daily life into a sci-fi wonderland. Distorted shapes and glitches disrupt otherwise normal landscapes, making it easy to imagine paranormal activity or a good old-fashioned beaming up. In his series Dekonstruktion and Distortion, Brueck brings the unnatural closer to home.[[61]](#footnote-62)

We’re not sure where the aliens are – Brueck notes that there’s been almost a constant tendency to look at this work in a science fiction context[[62]](#footnote-63) – but the disjunctive relationship between the familiar and the otherworldly presses our aesthetic sensibilities into a consideration of the medium. Brueck works with a 4x5 analog camera and is self-taught in the use of digital manipulation software. He notes: ‘One of the ideas behind my work is to manipulate the DNA of the picture, to let it mutate. Every detail you see originates only from the one sole photo.’[[63]](#footnote-64) From this, we would suppose that, despite the initial analog origins, the presence of digital manipulation is almost teleological, a position substantiated by Amani Olu’s and Jon Feinstein’s curated photography website, which states: ‘Ralf Brueck manipulations of images are not geared towards pointing out that contemporary digital photography is deficient in its representation of reality but argues that a photograph constitutes its own reality.’[[64]](#footnote-65)

The use of distortions by digital manipulation software has often been noted as a readily identifiable manifestation of the influence of the New Aesthetic, if not an example in its own right. Artists like Mishka Henner have produced work like *Dutch Landscapes* (2011)[[65]](#footnote-66) {Fig. 68} that explore the concessions that Google makes to government censorship and its ‘need’ for secrecy, and Helmut Smits’ *Dead Pixel in Google Earth* (2008-10)[[66]](#footnote-67) {Fig. 69} borrows from Land Art techniques to aesthetically contrast our expectations and experiences in the digitizing of our landscapes. Similar to the work of Visconti and Geiger is that of Kim Asendorf, though the similarities are set off by the different directions these artists have taken. Asendorf is one of the first digital artists to start using pixel sorting, a technique wherein pixels in an image are sorted along certain parameters, and Asendorf’s release of his own programming code for pixel sorting quickly sparked a wide range of emulators and imitators.[[67]](#footnote-68) With images like those in the series *Mountain Tour* (2010)[[68]](#footnote-69) {Fig. 70} and an example of his work processing source code,[[69]](#footnote-70) Asendorf is clearly subverting the conventions of landscape while at the same articulating divergent aesthetic parameters. More than just glitch art, Asendorf’s artistic efforts explore the assumptions users make when employing digital tools at a level that is more like conceptual art. *KIM ASENDORF* *TTF* (2013) is exactly what it sounds like – a TrueType font family – but with disruptive consequences, since it substitutes ‘Kim Asendorf’ as the only visible characters.

*Sandbox* (2009), by Erwin Driessens & Maria Verstappen, is another example of a powerful and interesting artwork that brings up a sense of the New Aesthetic but is not fully participating in its attitude. {Fig. 71} Installed at *The Power of Things* exhibition at the DEAF (Dutch Electronic Art Festival) in 2012, *Sandbox* is an elaborate skillful recreation of a desert environment, with a diorama enclosing only sand and wind.[[70]](#footnote-71) Looking at the imitation of natural forces as they are mimicked inside of the diorama, a viewer might be inclined to think of this as no more than an elaborate science project or display typically found in a science museum, but this work by Driessens & Verstappen does far more than that; V2, the ‘Institute for Unstable Media’ describes the team of artists as producing ‘e-volved’ imagery based on scientific principles, resulting in an exploration of ‘the possibilities that physical, chemical and computer algorithms offer for the development of image-generating processes’.[[71]](#footnote-72) What differentiates the work by Driessens & Verstappen from a being merely a display of scientific principles is the governing, systematic structure of control digitally implemented in their work; as they note about their own work:

They attempt an art in which spontaneous phenomena are created systematically. Art that is not entirely determined by the subjective choices of a human being, but instead is generated by autonomously operating processes. In addition to working with natural generative processes, the couple develops computer programs for artificial growth and evolution. An important source of inspiration at this are the self-organising processes in our natural surroundings: the complex dynamics of all kinds of physical processes and the genetic-evolutionary system of organic life that continuously creates new and original forms.[[72]](#footnote-73)

The emphasis on natural growth puts their work very close to being New Aesthetic, but at the same time we’re not so certain about the naturalness in that there’s little apparent autonomy to the programming. The series of images *E-volved Cultures* (2005-2011) {Fig. 72} and *Formulae E-volver* (2015)[[73]](#footnote-74) get even closer – perhaps genuinely closer to the New Aesthetic than anything we’ve discussed so far – but their dependency on complex mathematical formulas, with the predetermined pathways of visual development that maintain a viable structure imposed on the objects by the artists, puts them more in parallel (in an updated manner) to the work of 1960s computer artists.

A final consideration in this section appears in two different examples and involves an approach that is more installation-oriented: *Project Blinkenlights* (2001-02) and Ryoji Ikeda’s *supersymmetry* (2015). At first it would seem that the works are very mismatched. *Project Blinkenlights* {Fig. 73} was a project executed by the German Chaos Computer Club, whose members can rightfully be described as hackers in the broadest sense. It started on September 11th 2001 at the Haus des Lehrers in Alexanderplatz, Berlin, and lasted until February 23rd 2002. Consisting of 144 lamps arranged behind the windows of the Haus des Lehrers, it displayed various patterns that increased in complexity over the course of the installation as planned but also incorporated love letters, the classic video game Pong, and submitted patterns from users through the Blinkenpaint software program written specifically for user to participate in and contribute to a growing social occasion as its popularity increased almost nightly. Was *Project Blinkenlights* art? That’s debatable, especially given its hacker origins with an emphasis on engineering rather than artistic success. Nevertheless, the effect of *Project Blinkenlights* clearly was artistic at a very deep level, especially given the title’s origin in the hacker neologism for diagnostic lights used in old computer mainframes and the ironic effect of the lack of failure in the project’s display. Ryoji Ikeda’s *supersymmetry* {Fig. 74} is a project of a very different nature from *Project Blinkenlights*, but certain similarities do exist. Taking as its starting point the theory of particle physics that attempts to reconcile the incompatible models of quantum mechanics and general relativity, Ikeda’s installation, atop the Brewer Street Car Park in London, as part of a series supported by The Vinyl Factory, was a disorienting experience divided into two sections and that is ‘an artistic vision of the reality of nature through an immersive and sensory experience to the visitors’.[[74]](#footnote-75) In the first section of *supersymmetry*, large numbers of balls roll across moving platforms that are sometimes illuminated by strobe lighting and scanned *in situ*; in the second section, the data produced by the balls is projected onto forty computer screens, with correlations and divergences in the data that is mapped and analyzed emphasized visually. {Fig. 75} In an unjustifiably dismissive review, Jonathan Jones provided some a clear starting point to understanding Ikeda’s intentions:

There’s a giveaway when the pulses are replaced by streaming text: the words flowing across batteries of screens are deliberate nonsense. I see this as the artist’s view of physics, just a different language that makes no sense at all.

Art and science, we feel, should have something to say to each other. But perhaps they speak different languages after all. I don’t speak the language of science too well, either, but I do know one thing: it is concerned with the wonder of nature. There is a depressing lack of wonder in this technically sophisticated but intellectually and emotionally empty art.[[75]](#footnote-76)

Regardless of Jones’ inability to see the wonder, his observation that Ikeda is focusing on the language of science and is conflating it with the language of art is quite astute. The theory of supersymmetry is an attempt, still unproven, to explain why particles have mass, and both *Project Blinkenlights* and *supersymmetry* have artistic goals that are very analogous to each other: namely, the visible presentation of the effect of mass, in both social or cultural and physically experimental ways. Both projects visually consist of blinking lights, but it’s more important to recognize that these utterly different projects still retain a faith in the systems that sustain their manifestations; it’s not just that a digital language is necessary to realize the works, but even more so it’s inherent that the pervasiveness of that language be employed while simultaneously going unrecognized. This attitude – uncritically embracing the digital as almost a natural language, thereby giving it an autonomous function determining artistic productivity – is not fully realized in either *Project Blinkenlights, supersymmetry* or any of the other projects mentioned in this section, but we believe that they set the stage for other artists to fully work within the restrictions and opportunities of the New Aesthetic and create New Aesthetics artistic objects.

These last embodiments, delineations and demarcations in their particular form are what mark, for us, examples of art that are so close to being New Aesthetic that they in turn help us define what New Aesthetic art is. Curiously, the common characteristic (the only one, in fact) that unites all of them – Erwin Driessens & Maria Verstappen, *Project Blinkenlights*, and Ryoji Ikeda – is the immersiveness of their projects, the use of installations and the creation of environments that fundamentally alter the experience of the viewer. *Sandbox* creates unseen vistas firmly grounded in our understanding of the world which are continually being renewed as otherworldly, *Project Blinkenlights* took a public space and made it even more public while at the same time transforming participation into an entirely private matter, and Ikeda’s work transforms our understanding of our place in the universe into a sequence of lights and sounds that reduces our ability to differentiate our experiences, our lives and our language into the mathematical and thereby into something immensely depersonalized. Tremblin’s *Watermark* achieves the same effect, though in a lyrical rather than immersive fashion. It’s when these and other examples of art, immersive and all encompassing, affect us that the categorical conditions of existence of New Aesthetic art are revealed.

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