Studia de Arte et Educatione

Error in Art

Introduction

Technical errors that occur when a medium is used, as well as logical or cognitive errors, are commonly seen as challenges and obstacles in a creative process. Technical proficiency has been an indispensable and celebrated aspect of artistic practice from the very beginning of its modern history, indeed, its very essence, persistently inhabiting the language used to describe popular and admired artworks. Terms such as "masterpiece" and "Kunstwerk", although fully meaningful when used in the context of the master-apprentice guild system of the pre-modern times, when repetition and imitation were prevailing methods of education, still define the linguistic and mental universe of values through which art is perceived and assessed.

Meanwhile, the history of 20th-century art, but also a broader history of human progress, the advancement of science and developments in technology, have shown us that to attain proficiency or mastery one must follow established criteria. But to make a breakthrough, to push the boundaries forward, one must take a path previously untrodden, by conscious choice but also by sheer mistake. Numerous achievements are made incidentally, that is, by accident, on the margin of conducted research and investigations, along the route taken to reach a different goal.

In visual art, errors can also offer a source of inspiration and an insight into otherwise unknown reality. Very often, they are made outside the author's awareness, yet with the support of the viewer, who shows the courage to act against traditions or established rules. The artist's certainty about his or her intentions, and the viewer's openness, seem necessary for their communication to succeed. But the way art is experienced often runs against the author's concept and contrary to the viewer's expectations.

In the 20th and 21st century, the reliance of art on the criteria of mastery and technical perfection have been called into question on numerous occasions and from a variety of perspectives, from the postulates of de-professionalisation advanced by Jean Dubuffet and the Art Brut movement and the notion of "de-skilling" recurrent in recent practices, through the Post-Structuralist investigations of slips, omissions, and unconscious errors, to the queer politics that favours failure over perfection and indeterminacy over clear-cut categories. To a large degree, the dynamics of the development of contemporary art has relied on moments when the very logic of success and failure, hit and miss, was called into question. Moments when artists refused to let artistic practice be swallowed up by the overriding pressure of success, quantifiable in the capitalist categories such as profit and progress and – instead – allowed themselves to fail, err, or disappoint.

In this volume, authors are interested in the discrepancies that occur between the intention and effect of actions undertaken by artists and researchers. Thus

described approach determines the illusion and uncertainty that reveal themselves en route to experience and intellectual cognition. They examine the anxiety or even true fear of making a mistake, which makes an impact on immediate and distant future, but also the pleasure that errors may bring. The notion of error and its economy is analysed in a broad theoretical context (historical, cultural, philosophical, sociological, and political), as something as yet unrecognised – potential obstacle or side effect that will bring unexpected results.

Karolina Kolenda

Camilla Wilkinson

Distortion, Illusion and Transformation: the Evolution of Dazzle Painting, a Camouflage System to Protect Allied Shipping from Unrestricted Submarine Warfare, 1917–1918

In October 1917 the War Cabinet was notified in Admiralty Memorandum 2256 "Dazzle Scheme of painting ships" that artist Norman Wilkinson's camouflage proposal to paint the entire external surfaces of vessels in highly contrasting asymmetric patterns would be applied to merchant and some naval vessels with the aim of disrupting the crippling effects on British commerce from Unrestricted Submarine Warfare waged by Germany in January of that year.

This paper, based on close reading of the surviving archives of design material and documentation concerning the 14–18 War Dazzle camouflage scheme, provides a means to re-interpret the visual language of the designs that have been read (or misread) and popularised through contextualisation in art history and association with notions of avant-garde spatial practice since 1919. Testing and representing this argument has been achieved through drawing research methodologies as well as textual and archival research.

Dazzle Painting was developed in response to a major offensive during the 14–18 War by the U-boat section of the Imperial German Navy. Frustrated by British naval blockade of its ports, Germany declared the sea around Britain a war zone and waged Unrestricted Submarine Warfare on British and neutral merchant shipping. This resulted in enormous numbers of ships being sunk, causing considerable loss of life and loss of vital supplies to Britain and Allied nations.[1] The huge losses destabilised finance in the United Kingdom and were reported to be an attack on the civilian population. In response to the number of ships being sunk, by September 1917 the Admiralty had deployed a number of tactics simultaneously to counter submarine attack that included Dazzle Camouflage.[2]

---

[1] Between February and April 1917, U-boats sank more than 500 merchant ships. In the second half of April, an average of 13 ships were sunk each day. See: Mason, 2018.

[2] The use of naval convoy to escort merchant ships was believed to be the most successful tactic, for ships travelling alone, zig-zagging was recommended to prevent the submarine tracking a ship's course. The introduction of different tactics simultaneously has made gauging the success of Dazzle Camouflage more complex.

It was the marine artist and graphic illustrator Norman Wilkinson who invented the Dazzle Camouflage system and persuaded the Admiralty to let him set up the Naval Camouflage Dazzle Section, giving priority to the protection of merchant shipping. Dazzle camouflage was a system based on carefully tested designs applied in paint to the entire external surfaces of a ship to create an illusion of distortion. Both hull and superstructure were painted with bold monochrome geometric shapes in highly contrasting tones of black, white, blue, grey and green. The juxtaposition of the shapes, sometimes figurative, mostly abstract, was designed to distort the outward appearance of the ship viewed from the low perspective of submarine periscope. The aim was to confuse U-boat commanders as they tried to calculate their position in relation to Allied and neutral ships in order to fire a torpedo.

In order to calculate the trajectory of a torpedo, the U-boat commander used his telescopic eye to calculate the relative course of the target ship as well as its speed and size. The illusory patterns were designed to falsify the angle on the bow and frustrate the use of the graticule, which required measurement of vertical elements of the superstructure, poop deck or masts. The visual confusion wrought by Dazzle Camouflage sought to lengthen the time a submarine was exposed at the surface of the sea, making it vulnerable to sighting and attack by enemy ships. It could also result in firing the torpedo on a false course resulting in wasted torpedoes.

As well as confusing the U-boat commanders there is evidence to show that the classified status of Dazzle-painting resulted in confusion among the foreman painters, merchant seamen and naval commanders as to how Dazzle should work. The term camouflage, which was otherwise understood to mean rendering an object less visible, was now reversed as Dazzle patterns appeared vibrant and dynamic at close range. As late as September 1918 a circular was issued to ship owners and masters titled *An Explanation of the Objects of "Dazzle" by the Admiralty*: "The designs for painting Merchant ships are not haphazard arrangements of colours, but are made after careful experiments on models of ships carried out from a Submarine's periscope with a view to obtaining the maximum distortion."

A century later, the narrative for Dazzle Camouflage is still one of misconceptions, misinterpretation and misappropriation. The artifacts and surviving material from Dazzle-painting have been open to interpretation by art, maritime and cultural historians, artists, designers and musicians. From Armistice in October 1918 onwards, the rich body of artwork that recorded the 14-18 War was exhibited in public exhibitions. The paintings of Dazzle Camouflage produced by modernist artists such as John Everett and Edward Wadsworth have influenced how the scheme has been understood and interpreted (or misinterpreted) by journalists, critics and art historians. This paper attempts to reconstruct the ideas and working practices, which drove the actual development of Dazzle, within the art-historical narratives and interpretations, which developed around it.

This process began following the end of the war, with a number of exhibitions of the work of Official Artists, whose work had been commissioned or acquired by the newly formed Imperial War Museum; artist camoufleurs were given the opportunity

to exhibit their work at the Royal Academy of Arts.[3] Ships in Dazzle camouflage were represented by a number of artists, marine artists and camoufleurs including the inventor of the scheme Norman Wilkinson.

Wilkinson's paintings, unlike those of his contemporaries, did not represent the heraldic quality of Dazzle evidenced in John Everett's *A Convoy* of 1919 or the deliberate confusion of Wadsworth's monochrome woodcuts such as *Dry Docked for Scaling and Painting,* 1919. Wilkinson's paintings of Dazzle Camouflage generally record a naval or merchant shipping event and often appear awkward in their execution. His *Convoy* of 1919 represents the narrative of the convoy, the black and white striped Dazzle Ships painted as though viewed from the distance of another ship. As the 14-18 War ended Wilkinson was re-establishing himself as a serious maritime artist and was, possibly, disengaging himself from the more exuberant appearance of Dazzle.

Journalists from British national newspapers could not resist observing the similarities between Dazzle Camouflage and the avant-garde art that had attracted attention before the war. An article in the *The Times* dated 6th December 1918 began:

> There is a department of Burlington House, now closing, which is called the Dazzle Section. A stranger who should come there by chance might suppose that the New Art, Futurism, and Cubism and what not, had penetrated the Royal Academy. But the hundreds of little model ships, which line the walls in a strange decoration of waving lines, stars, and streaks, indicate this is the home of marine camouflage.

The occasion for Norman Wilkinson's major commentary on Dazzle Camouflage was a speech he gave to the North East Coast Institution of Engineers and Shipbuilders, in which he described the process of Dazzle-painting applied to ships in Great Britain, the United States of America, France, Italy and Japan. The transcription of this talk, communicating to marine engineers, was the text he chose to submit to a number of other publications (Wilkinson, 1920: 263–273). Public accounts of Dazzle Camouflage by the camoufleurs (perhaps still deeply engaged in the process of Dazzle-painting) focused on explaining the development and implementation of the scheme, confident of its success in the protection of merchant shipping. They did not refer to the context of artistic practice, even though the Dazzle Section was based in the Royal Academy of Arts.[4]

The books and articles that have been published on Dazzle Camouflage repeatedly describe Norman Wilkinson as a conventional marine painter. Yet there is a general acceptance (with exceptions: notably Paul Atterbury in his article *Dazzle Painting in the First World War* of 1975) that the wide publicity Futurist and Cubists

---

3 Wilkinson was on the committee of the *Exhibition of Camoufleur Artists with Examples of Camouflage* organised by the Imperial War Museum, on show at the galleries of the Royal Academy of Arts, and would have had a strong influence over which of is his were paintings exhibited.

4 Dazzle Camoufleur Jan Gordon wrote an article on Dazzle Camouflage, *The Art of Dazzle Painting*, published in the journal Land and Sea, 12 December 1918, and Cecil King produced an author's note to *General Directions for Dazzle Painting* (Illustrated), a technical manual to be provided to foremen and painters at dockyards.

artists received, as well as the employment of Edward Wadsworth in the Dazzle Section, suggests an influence of avant-garde works on Dazzle Camouflage. In his early writing on Dazzle Camouflage (1974), Richard Cork questioned whether a conventional marine painter could have conceived the spatial qualities that dense multiple perspectives produced without the influence of the early modernist artists.

It is now generally accepted by writers on Dazzle Camouflage that these divisions were less clear-cut. Wilkinson was working for the *Illustrated London News*, from 1901 to 1915, during which time avant-garde artworks of the Futurists and Cubists were published. On the 17th February 1912 a full page of the *Illustrated London News* featured nine futurist paintings exhibited in Paris under the title *States-of-Mind Pictures: Italian "Futurist" Paintings* and accompanied by P.G. Konody's article *Futurism The Latest Art Sensation*. Whilst it is impossible to find both avant-garde works and Wilkinson's illustrative work appearing in the same issue, it is highly likely his close ties to the *Illustrated London News*, his role as regular contributor and reader would almost certainly have brought the images of this major shift in artistic practices to his notice, here if not elsewhere.

Yet this theory alone does not explain how Wilkinson could have developed a spatial autonomy for ships that was essentially modernist in function as well as form. Wilkinson had extensive experience as a sailor and his knowledge of naval and ship technology has yet to be acknowledged as a significant factor in the development of Dazzle painting.

The similarities between Dazzle Camouflage and Vorticism are well documented by Richard Cork in *Vorticism and Its Allies* (1974: 22) catalogue to an exhibition he curated in the Hayward Gallery, London: "Typical Vorticist design shoots out in iconoclastic shafts, zig-zags or diagonally oriented fragments, and at the same time asserts the need for solidly impacted, almost sculptural order." This description could as easily describe the Dazzle design for the liner turned troop transport RMS Aquitania that has been linked with Edward Wadsworth.[5] However, the Aquitania, sister ship to RMS Lusitania, was much favoured by Norman Wilkinson and the design for her pattern is a very rare example of a plan signed by him. The Dazzle design for Aquitania appears to have been produced at speed (a clue to the urgency is the date 31st December 2017) and is painted directly over a copy of the naval architect's elevation drawing. The record copy, kept at the Imperial War Museum archive, is one of very few Dazzle patterns to be signed by Wilkinson. The plan appears to be well worn and water marked suggesting it travelled to the dockyard before being returned as a record copy. In this plan Wilkinson has assimilated a number of figurative elements, ship and dockyard motifs, placing them strategically over the elevation of the ship. On the starboard elevation a black painted image of a funnel breaks the outline of the backward slope of the ship's funnel. This device was used to try and falsify the direction of raked funnels, which easily identified the direction of movement.

---

5   A newspaper caption *A Cubist who disguised the Aquitania* linked to a photograph of Wadsworth at work on *Dazzle-ships in Dry-dock at Liverpool* 1919. From *Edward Wadsworth: A Painter's Life* by Barbara Wadsworth.

The imploding funnel image appears in Wilkinson's illustration of the sinking of HMS Amphion (the first ship of the Royal Navy to be sunk in the 14–18 War). For the Aquitania, a stern appears at her bow and behind this a striped radial device used in many dazzle patterns to distort perspective is very similar to structure of a dock-side-dredging crane. The saw tooth motif, also found in Wadsworth's artworks, is the jagged profile of the bucket dredger. Each element is used to confuse and distort. Edward Wadsworth was captivated by the repetitive elements of dockyard architecture, the visual complexity it created, the scale of ship technology. So too were the conventional marine artists of the Dazzle Section, namely Frank Mason and Norman Wilkinson. The flat planes of colour in Wadsworth's prints appear to be replicated in his Dazzle camouflage designs. In fact, the requirement for flat patterns was dictated by the Admiralty as patterns had to be applied quickly to ships to prevent extended time in dock.
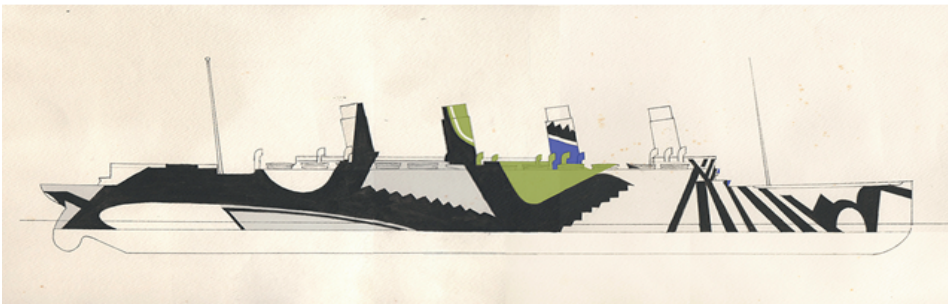
Author's copy of the first starboard Dazzle pattern for RMS Aquitania, original held by the IWM and signed by Norman Wilkinson. ©camillawilkinson

It is fair to conjecture that in placing elements together, creating different perspectival spaces within the same picture plane, the creation of an autonomous space is common to modernist artworks of the avant-garde and Dazzle Camouflage. There are differences in the placing of one perspectival space against the other. In Dazzle Camouflage, a line or shape such as a false bow is juxtaposed with another set of perpendicular lines or shapes. In the paintings of the avant-gardes, the juxtaposition of non-perspectival planes is more nuanced.

The world of Naval and merchant shipping was the subject of a prolific body of Wilkinson's artwork as for fifteen years prior to the outbreak of the Great War Wilkinson had worked for the *Illustrated London News* and become their 'Special

Naval Artist.' Since 1901 Wilkinson had recorded the naval arms race between nations. For the newspaper he had illustrated comparative schedules of the Navies of world – ships drawn in long elevation, short elevation and section. Wilkinson had become a respected marine artist in his own right. In 1911 his painting of dreadnoughts titled *National Insurance* exhibited in the Royal Academy Summer Exhibition put his support for Sea Power in the public sphere. The painting was reproduced in the *Illustrated London News* under the headline: 'An Object-lesson at the Royal Academy: A Canvas Whose Title is Causing Much Comment.'

Wilkinson's illustrations of dreadnoughts showed them cutting through walls of water at accelerated speeds of 21 knots[6] creating enormous bow waves. His black and white graphics convey the feverish atmosphere of nations preparing for war, at times bolstering British confidence with the illustrated series *Standards of Strength*, reminding Britain of her Naval superiority, at times anticipating fear of the invisible through illustrations of the enemy U-boat viewed beneath the waves from the aerial perspective of an aeroplane. These black and white illustrations pre-date, and perhaps anticipate the writing of Paul Virilio on military space. It is significant that the constant act of scanning, and the introduction of vertical space – the view from the air – was already a demonstrable feature of Wilkinson's pre-war consciousness.

Wilkinson's illustrations changed at the start of war; their dynamic energy shifted from the scale and speed of the dreadnoughts to the force of explosions and the distorted forms of wreckage. In 1915 he illustrated the sinking of the Lusitania, her stern thrust high out of the water. It has not yet been recognised that the repetitive stripes of black funnels from this illustration are found in a number of Dazzle designs, or that the graphical images of real wrecks would play such a direct role in the development of Dazzle.

Yet this is visible from the start, and from Wilkinson's own account. In Wilkinson's chapter on Dazzle Painting of ships, 1917–1918 from his autobiography *A Brush With Life* (1969: 80), he has included the original sketch for *The Store Ship Industry* and labelled it: "the first rough sketch made in the Commander's room at Devonport Barracks."

This concept drawing of two starboard elevations of the Store Ship Industry is depicted by a pencilled outline. Over this, within the perimeter line, the solid black silhouette is a sinking ship. The first elevation (labelled starboard) appears to have been torpedoed amidships and is beginning to break in two and roll over into capsize. The ship (labelled port) has the silhouette of a ship that has been hit close to the bow, is split and sinking. Both ships demonstrate a roll as they begin to capsize into the water, waves surging up the hull.

Wilkinson's working method was traditional – he made observational drawings from life. His sketchbooks show multiple pages of shipping, clouds, and the sea, sketched and annotated with notes on colour and action. He made small watercolour paintings and oil sketches to observe colour and movement. In the style of

---

6   21 knots is equivalent to 40 km/h, Merchant ships travelled at approximately 10–12 knots, U-boats 16 knots surface, and a slow 9 knots submerged.

maritime artists before him, he had ship models in his studio to ensure accuracy of rigging. With this information he devised compositions for his paintings in his studio. Wilkinson's experience as illustrator of war, drawing images of destruction, and his experience on a minesweeper in the English Channel prior to his work on Dazzle Camouflage would have provided him with visual material for the dazzle plans.

In his book, *Dazzle, Disguise and Disruption in War and Art*, James Taylor has published a drawing from Frank Mason's sketch book, a fellow marine artist and camoufleur, depicting a harbour with ship, smoke and warehouses, which is framed by the outline of a ship, suggesting this could have been a common method of devising plans.

As a designer and artist myself, I interpret the sketches as suggesting a clear and direct working methodology in action. Watching films of ships being torpedoed and sunk from this era, and through my own redrawing of Wilkinson's sketches, it is clear how distortion could be achieved through false perspectives painted on the hull.

On the reverse side of Wilkinson's sketch, further drawings depict stages of capsize applied to the elevation of a ship. The sketches feature not only the breaking up of the form of the hull and superstructure, but perspectival foreshortening. The aspect of distortion has been re-enforced by the process of drawing animations that imagine the time before and after the sinking of the ship recorded on the hull of Industry. Through reading and redrawing the drawings of Dazzle Camouflage I have tested and developed an animation *Dazzle Camouflage: War and Space*, 2017 (vimeo.com/287048415) as part of my own working interpretation of the scheme, leading to a different argument as to how and why it took this remarkable form.

In early plans, drawn as port and starboard ship elevations at scale 1:16, Norman Wilkinson and artist and fellow camoufleur Captain Cecil King used both figurative and abstract patterns to distort the appearance of ships. It is notable that both lead figures were themselves used to the actual processes of navigation and assessing the progress of other ships from the point of view of those commanding a ship. Through their art production they understood the speed with which transformations of colour, atmosphere and movement of the sea occur and how its variations change the environment, so that invisibility was deemed impossible.

At the start of the scheme, plans were given order numbers, so that the full chronology of the plans held at the Imperial War Museum (when fully archived) can be read. In early plans such as order number 11, SS Glenart Castle, has dynamic ship motifs echoing Wilkinson's original concept sketch. Order 22 SS War Shamrock clearly shows a gun turret painted on the hull (Wilkinson's painting of this Dazzled ship was reproduced in *The Studio* 1919). SS Port Darwin has an upturned stern frame at her bow. Patterns, whether directly representational or not, have a function. The distortion patterns are best understood by studying the small models used to create them. In the models the distortion at bow and stern renders the ship unrecognisable from either end. This aspect of disguising the identity of the ship was important because U-boat commanders were familiar with details of individual ships (size and length) or would refer to ship schedules for this information. The ship's elevations were painted differently port to starboard and larger

ships, such as Aquitania, given two or three changes of Dazzle pattern for reasons of disguise.

From the perspective of the submariner's periscope the presence of a ship at sea could be identified by its smoke from up to 50 miles away or tracked by hydrophone. This would give the submarine time to observe and position itself in preparation for attack. From the low perspective of the periscope the outline of a ship could be sighted first (depending on the weather) at 5 miles, the ship picked out against the horizon line. The large scale of broken and highly contrasting shapes was designed to work between 5 miles and 400 yards, at the distance the submarine commander was trying to calculate the range (distance from the ship), speed and course of the ship. The large diagonal shapes, with curved or straight edges, worked to create maximum distortion of the form of the ship so that it was difficult to calculate its relative position. A number of devices were used to prevent submarine commanders calculating the speed of the ship. Painting a false bow wave on the hull could give the impression of increased speed. Using strong blocks of tone to break up the masts was key as calculating the height of the mast was used in range finding (distance of submarine from ship) Masts were located away from the centre line of the ship to prevent alignment. Strong contrasts of tone between the blacks, greys and white were necessary (although highly visible) to achieve a volumetric twist of the hull, and this distortion aimed to delude the commander at the periscope.

By the end of the war, two different illusory effects had been developed; in the United Kingdom Wilkinson and his Dazzle Section developed illusory effects using highly contrasting stripes to confuse the submariner to create rapid eye movement now referred to in the science of perception as gamma oscillation. In the US, the artist and naval camoufleur Everett Warner analysed the most effective distortion patterns provided by the British and realised that solid geometry created the strongest illusory effects. In the exchange of ideas across the Atlantic both approaches were combined to create some of the most striking and memorable designs. A photograph of SS West Mahomet, one of the final ships in the US to be Dazzle painted during the war, represents the final phase of this development and has become a popular example of Dazzle Camouflage. She was painted at the time of Armistice, her pattern never tested.

Conclusion

In Barbara Wadsworth's biography of her father *Edward Wadsworth: A Painter's Life* (1989: 77) she quotes a critic from *The Evening Standard* writing about the *Exhibition of Camoufleur Artists with Examples of Camouflage* of 1919 held at the Royal Academy of Arts: "The 'dazzle' section illustrates amusingly an inversion of some of the principles of Post-Impressionism – how to destroy form instead of emphasizing it – and the woodcuts of ships by Mr Edward Wadsworth, are by far the best things artistically in the exhibition."

The cultural success of Dazzle Camouflage may be attributed to the extraordinary visual similarities between certain Dazzle patterns and early modernist

artworks, but looking at the working practices and direct naval intentions provides a different interpretation, in which the similarities are part of the wider context of the relationship of culture and war.[7]

The employment of Edward Wadsworth as a port officer and the extraordinary similarities between Dazzle camouflage and early modernist movements, particularly Vorticism has encouraged connections to be drawn as to the level of influence and porosity between them. That anti-establishment avant-garde art should be applied to establishment vessels wholesale has been an irresistible and engaging narrative to both art historians and journalists of the press, which continues today.[8]

It can be argued that the contextualisation of Dazzle Camouflage in art history (and design) has maintained Dazzle Camouflage remains in the public realm. Edward Wadsworth's post-war paintings and prints of docks harbouring Dazzled ships have drawn attention to Dazzle Camouflage from the end of the closing of the Great War until today. Vorticism, the lone avant-garde movement in Britain, although limited in output, has been the focus of exhibitions and writing on early modernist movements. Dazzle Camouflage has an awkward tangential relation to the cultural context of these exhibitions, the functional role of the patterned ships limiting its high art status. The Dazzle Ships project by public arts commissioning body 14–18 NOW, which commissioned art works applied to ships, is a further example of its legacy.

This paper forms part of a longer study that seeks to acknowledge Dazzle Camouflage as a live design experiment originally conceived by making drawings of war casualties at sea. The aim is not to exclude other influences such as early ship camouflage[9] or the popularisation of avant-garde works in the press, but to address the question of its conception by re-visiting and analysing the work produced by the Dazzle Section. The paper seeks to expand interpretations of the spatial concerns of the maritime artists of the Dazzle Section, whose wealth of knowledge and experience in relation to challenges of perception in the environment of the sea,

---

7   In his article, *Technicities of Deception: Dazzle Camouflage, Avant-Gardes and Sensory Augmentation in the First World War*, Eric White argues that avant-garde artists responded to the enhanced technologies of the early 20th Century and that Dazzle designs "serve as a crucial metonym" (2017: 39).

8   In his article, *Dazzle Ships and the Art of Confusion*, the BBC Arts Editor Will Gompertz comments: "There was nothing conventional about Wilkinson's dazzle ship concept. It was an eccentric idea inspired by the most cutting-edge contemporary art of the time; namely Cubism, Futurism and Vorticism" https://www.bbc.co.uk/news/entertainment-arts-27818134 Dazzle Ships and the art of confusion (12.06.2014). In relation to the Dazzle installation by Pentagram at the Victoria and Albert Museum, London, its website states: "Drawing on avant-garde artistic movements such as Cubism and Vorticism, as well as animal camouflage, these bewildering shapes and angles were designed to confuse the enemy as they struggled to make out the dazzle ships against shifting waves and clouds" https://www.vam.ac.uk/event/A8wymWVn/ldf-2018-dazzle

Dazzle (Design Festival) at the V&A Museum, London, 15–23 September 2018.

9   In his book, *Disguise and Disruption in War and Art*, James Taylor claims that a drawing of a camouflaged ship for Henry Newbolt's book of 1918 Submarine and Antisubmarine (Longmans, Green & Co) is an early form of camouflage aiming at disruption.

their experience of the technologies of modern warfare in addition to their graphic skills resulted in the dense multi-perspectival distortion patterns for Dazzle Ships. It argues that working practices shaped the development of Dazzle, more directly than the contemporaneous artworks which surrounded it, and the changing wider consciousness of the space and its representation of the age naturally shaped both.

The methodologies I have used in developing the body of work from which this paper is drawn comes, like my grandfather's, from my own experience as a designer, working through iterative versions of trial and error in reading and comparing drawings alongside archival research; through using drawing itself as a testing methodology to reconstruct the workings of Dazzle, and through the testing of these ideas at various forums both historical, naval and academic. Dazzle did not emerge as a critical or art historical practice, but as a creative, working response to a critical and drastic event.

Bibliography

Assendorf C. (1998). The Innervation of Space: the Artistic Avant-garde and Military Strategy 1909–1935. *Daidalos*. No. 67, pp. 86–93.

Atterbury P. (1975). Dazzle Painting in the First World War. *Antique Collector*. No. 46, pp. 25–29.

Behrens R. (1987). The Art of Dazzle Painting. *Defence Analysis 3.* No. 3, pp. 233–243.

Behrens R. (Ed.). (2012). *Ship Shape A Dazzle Camouflage Sourcebook*. Iowa: Bobolink Books.

Black J. (Ed) (2006). *Taking Heaven by Violence Futurism and Vorticism as seen by the British Press c. 1912–20*. In: *Blasting the Future! Vorticism in Britain 1919–1920*. London: Philip Wilson Publishers.

Bustard J. (Ed.) (1988). *Camouflage.* Edinburgh: Scottish Arts Council.

Chipp H. (1968). *Theories of Modern Art.* London: University of California Press.

Corbett D.P. (Ed.). (1998). *Wyndham Lewis and the Art of Modern War*. Cambridge: Cambridge University Press.

Cork R. (1974). *Vorticism and its Allies.* London: Hayward Gallery.

Cork R. (1976). *Vorticism and Abstract Art in the First Machine Age Volume 2*. London: Gordon Fraser.

Cork R. (1994). *A Bitter Truth: Avant-Garde Art and the Great War.* New Haven: Yale University Press.

Dewar M. (1989). *The Art of Deception in Warfare*. UK: David & Charles.

Forbes P. (2011). *Dazzled and Deceived: Mimicry and Camouflage.* Totton: Yale University Press.

Goodden H. (2007). *Camouflage and Art Design for Deception in World War 2*. London: Unicorn Press.

Gordon J. (1918). The Art of Dazzle Painting. *Land and Sea*. pp. 11–12.

Gregory R.L. (1998). *Eye and Brain: the Psychology of Seeing.* Oxford: Oxford University Press.

Hartcup G. (2008). *Camouflage: A History of Concealment and Deception in Warfare.* Barnsley: Pen & Sword Military.

Howlet J., Mengham R. (1994). *The Violent Muse Violence and the Artistic Imagination in Europe 1910–1939.* Manchester: Manchester University Press.

Kern S. (2003). *The Culture of Time and Space: 1880–1918.* Cambridge: Harvard University Press.

Leon E., Asmussen J. (2015). *German Naval Camouflage, Volume 2 1942–1945.* Barnsley: Pen & Sword Publishing.

Mason A. (2018). *The U-boat Campaign that almost broke Britain*. Imperial War Museum. www.iwm.org.uk access: 06.09.2018.

Newark T. (2007). *Camouflage.* London: Thames and Hudson.

Redford D. (2010). *The Submarine: A Cultural History from the Great War to Nuclear Combat.* London: I B Tauris & Co Ltd.

Roskam. A (1994). Camouflage as Art, Art as Camouflage. *Daidalos*. pp. 110–115.

Roskam A. (1987) *Dazzle Painting: Kunst als Camouflage, Camouflage als Kunst.* Rotterdam: Martitem Museum ‚Prins Hendrik'.

Solomon S. J. (1920). *Strategic Camouflage*. London: J. Murray.

Stein G. (1938). *Picasso.* London: B T Batsford.

Taylor J. (2016). *Disguise and Disruption in War and Art.* Oxford: Pool of London Press.

Tillyard S.K. (1988). *The Impact of Modernism – The Visual Arts in Edwardian England.* London: Routledge.

Virilio P. (1994). *Bunker Archeology*. New York: Princeton Architectural Press.

Wadsworth B. (1989). *Edward Wadsworth: A Painter's Life.* Salisbury: Michael Russell.

White E. (2017). Technicities of Deception: Dazzle Camouflage, Avant-Gardes and Sensory Augmentation in the First World War. *Modernist Cultures.* 12.1, pp. 36–58.

Wilkinson N. (1919). *Victory Meeting of the North East Coast Institution of Engineers and Shipbuilders.* Newcastle-upon-Tyne.

Wilkinson N. (1920). Speech to the North East Coast Institution of Engineers and Shipbuilders. *Journal of the Royal Society of Arts.* Vol. 68, No. 3512, pp. 263–273.

Wilkinson N. (1969). *A Brush with Life.* London: Seeley Service and Company.

Williams D. (1989). *Liners in Battledress: Wartime Camouflage and Colour Schemes for Passenger Ships.* St Catherines: Vanwell Publishing.

Wyndham Lewis P. (Ed.) (1914). *BLAST no 1.* London.

Wyndham Lewis P. (Ed.) (1914). *BLAST War Number.* London.

(1918) Dazzled Ships. How Artists Cheated the U-boat Commander Wilkinson's scheme. *The Times* London.

Ella Morrison

From Rust: Growth, Decay and the Unknown in the Prints of Petr Herel

When we think of the terms 'mistake', 'error', and 'accident', it is usually in the sense of their conventional dictionary definitions—such descriptions evoke the image of something wrong, of something misguided, of something related to delusion or an inappropriate action. And yet, these terms can also be considered not just as static terms but as larger theoretical concepts related to ideas of knowing and not knowing, which in turn open up the notion of error and its economy into a new and productive way to think about creative practice. Indeed, examining the work of Czech-born Australian artist Petr Herel (1943-) demonstrates the interpretive possibilities of focusing upon ideas of mistake, error, accident, and chance. With two prints from Herel's *Borges Sequel* (1982) and *Tardieu Sequel* (2009) series as case study, this paper will use the presence of rust as an entry point to demonstrate that ideas of error and chance play a large role in Herel's creative process—from the fateful development of concepts, to the material and techniques effecting the printed image, to the artist's interest in Surrealism and choice of exquisite corpse subject matter, and finally the artist's use of automatic letterforms throughout his compositions. In addition, in embracing the role that mistake, chance, known and unknown have had in Herel's process, we too as interpreters can make these ideas central to our own process of interpretation. As Herel comments that the "question/topic of 'Error', or as I'll say '…deliberate error/chance'…was always important in my work" (2019), so must analysis of Herel's prints be informed by the incidental.

The use of Petr Herel's work as case study throughout this paper is justified by the artist's seminal presence in Australian and international printmaking, not only through his practice of making prints and artists' books but also through his teaching. Under the directorship of Udo Sellbach (1927–2006), Herel was founding head of the Graphic Investigation Workshop at the Canberra School of Art from 1979 to 1998 (Grishin, 1999: 50). The Workshop was created in response to a developing attitude of drawing as an autonomous activity, celebrating the technique's ambiguity (Gilmour, 1988: 7). From this, students experimented with response to literary inspiration, and developed an "outstanding record for the production of artists' books" (Gilmour, 1988: 7), leading the Workshop to become an internationally

recognised endeavour (Grishin, 1999: 50). Herel actively encouraged students to extend drawing beyond conventional illustration, using it to instead engage with larger metaphysical issues of being (Gilmour, 1988: 7). By avoiding the literal nature of illustration, students were able to experiment, indeed investigate, affective experience, and therefore the incidental (Gilmour, 1988: 9). The book form was appropriately temporal, experiential, and personal—a format ripe for subjective, accidental occurrences through individual responses to literary inspiration and a simultaneous engagement with the literary and the visual. The artist comments that through his teaching he was deliberately suggesting to students a creative process that not only related to technical skill but also focussed on "seeking in chance another world of [the] unexpected" (2019). Acknowledging Herel's seminal presence in Australian printmaking, as well as his dedicated interest in chance, justifies the use of his work as exemplary case study when examining ideas of mistake, error and the incidental in creative practice and art historical interpretation.

First, a brief discussion of knowing and not knowing in the context of error, mistake, accident, and chance. With roots in classical philosophy, the use of knowing and not knowing as a framework to write art history is gaining momentum. To engage with not knowing is to engage with processes out of one's control, often dancing with chance, mistake and drawing from the incidental. This play with the unknown acts in the face of conventional teleological thought, focused on the final result from the very beginning, thus stripping away any opportunity for unexpected interventions—it sees progress as a "one-way passage, the move from what is known to the goal of knowing, more and more" (Cocker, 2013: 127). Emma Cocker writes of not knowing as "an experience easily squandered, for it is hard to override those habits which usher uncertainty into the indeterminate scene" (2013: 128). Yet, once this conventional, linear way of approaching knowledge is overcome, the possibilities when engaging with the unknown—that is error, chance, and accident—are refreshingly endless. Hence unknowingness, and in turn ideas of accident, error, and chance, should be framed in the positive, an exciting space in which conventional comprehension is stalled to allow for new interpretation. Cocker again writes: "Stalling thought disturbs its habitual rhythm, creating the spacing of a missed beat within which to consider things differently to what they already are" (2013: 128). It is within this missed beat, this reframing of thought and interpretation, that this paper will examine Herel's practice, unknowingness at the forefront to discuss the ways in which the artist's work overtly and more subtly plays with accident and chance.

At its fundamental core, Herel's broader ethos is one that weaves deliberate intention with an open-mindedness to embrace and adapt to accidental occurrences. As Gary Peters writes: "What does knowingness know? It knows of its own unknowingness" (2009: 1). Herel's ongoing preoccupation with the concepts of 'Growth' and 'Decay' is undeniably related to an engagement with the unexpected and unplanned (April 2017). In writing about his practice, the artist repeatedly and deliberately capitalises these terms, promoting their presence as central concerns in both his conceptualisation and technical execution of projects. Growth and Decay—both terms evoke organic processes that cannot be entirely tamed or controlled by the

human hand. These terms are inextricably linked to happenstance—they are processes that depend on individual contexts and circumstances, of which the result can be hypothesised but is ultimately in the hands of nature. These are both terms of the unknown. It is important to note that Herel treats these terms as a pair—he is interested in the generative possibilities of Growth, but equally interested in the degenerative possibilities of Decay. Like some might think of mistakes and errors as wrongs, they may also assume Decay to be a negative phenomenon, a breakdown or rotting of matter. Yet for Herel, in his embrace of chance, Decay is a fruitful site for creation and contemplation. Decay is not an ending but a beginning, a beginning equal to Growth. Both Growth and Decay directly inform Herel's quest for "seeking in chance another world of [the] unexpected" (2019), and the art historian can use these terms to focus interpretation of the artist's work and process. An example of the interpretation to result from this kind of focussed attention upon chance, Growth and Decay is examining the artist's conscious re-use of plates to encourage unexpected results.

A concrete reference to Growth and Decay, and therefore chance and the incidental, in Herel's broader practice can be found in his continued use of the one plate throughout a work. This repetition engages with memory as the relationship between past, present, and future prints is emphasised through particularly subtle changes that happen intentionally and unintentionally over time. This reuse establishes a sense of movement throughout Herel's artists' books and print series, and create a sense of specific space. The repeated prints engage with time to slow down the pace of viewing, "asking [the] reader to go back and to think about the particular order of images, their transformations…" (April 2017). The reprinting of the same plate gives each print a sense of individual life—the subtle development of the imagery over time mimics organic growth, and in some cases incorporates unavoidable and unintentional changes to the physical surface of the plate as it is repeatedly used over time. Herel articulates the 'Time' emphasised by this repetition is not related to dynamic animation, like turning the changing pages of a flipbook, but instead a 'Time' that touches on 'Growth' and 'Decay' (April 2017). Rather than creating a fast-paced movement throughout the work, the repetitive imagery makes the viewer aware of the subtle development of the compositions at the turn of each page. Herel's choice of plate repetition reflects the nostalgia the artist feels for a slower paced interaction (2015), and clearly marks the artist's invitation to the viewer to consider the impact of time and change upon the printed image and the printing plate. Herel's works can be considered living creatures, evoking a sense that these compositions evolve in an individual way not entirely controlled by the artist's hand—this sense of chance and the unknown is encouraged by the artist's repeated use of the gradually wearing plate. This process is especially influential upon the creation of *Borges Sequel* and *Tardieu Sequel*, as an explanation of the circumstances of their creation will demonstrate—the deterioration of the artist's plates in this circumstance was extraordinary.

The prints from the *Borges Sequel* and *Tardieu Sequel* series relate to chance, error and the incidental from their very conception, to their technical qualities, and to the subject matter and letterforms that inhabit the compositions. In aiming to

demonstrate the extent to which analysis using a paradigm of chance generates a fruitful interpretive angle, it is logical to begin with an outline of how these prints came to be. In 1980, the avant-garde French poet and dramatist Jean Tardieu (1903–1995) published a text in the literary magazine *La Nouvelle Revue Française*. This text was part of an ongoing series of "art transpositions" written by Tardieu and was titled *La Vérité sur les Monstres (Lettre a un Graveur Visionnaire)* [The Truth about Monsters (Letter to a Visionary Engraver)] (Martin-Scherrer, 1993). Written in letter form and addressed to the hand that made them, Tardieu expressed his admiration for a particular group of etchings. Indeed, so enamoured was the writer with the prints that he spent an extended amount of time looking at both the images and the plates from which they were printed, taking notes (Martin-Scherrer, 1993). In his published text, Tardieu wrote: "Breathless and marvelling, I feel a pernicious pleasure as I study your inimitable vision…" (Martin-Scherrer, 1993). The writer was evidently very taken with the works, which he found surprising and graceful (Martin-Scherrer, 1993).

While readers had become used to Tardieu's regular feature, *La vérité sur les monstres (lettre a un graveur visionnaire)* was particularly intriguing as the identity of the artist about whom Tardieu spoke so compellingly was never revealed (Martin-Scherrer, 1993). As academic and Tardieu specialist Frédérique Martin-Scherrer comments:

> …in this case there was a total mystery; and the 'Letter to a visionary engraver' left the identity of its addressee undivulged. Not only does the reader not know who he is but the author himself states that he doesn't know either: 'You whom I do not know,' he says, 'but whose surprising images I admire, set down with a cruel and accurate burin.'(1993)

It was not until 1991, 11 years after Tardieu's piece was published, that Martin-Scherrer undertook dedicated research to reveal the artist responsible for the engravings: Petr Herel (Martin-Scherrer, 1993). All this time, Herel had not read Tardieu's piece, and so had no idea it was indeed written about his work—which the writer had come across, before forgetting Herel's name, during plans for a collaborative project that fell through when Herel had suddenly moved to Australia (Martin-Scherrer, 1993). And so these prints marked a mysterious and fateful connection, one seemingly guided by fate and shaped by the unexpected, in which a connection was formed between Tarideu and Herel, that spanned both continents, individual consciousnesses, and time.

After Herel's move to Australia, he had published the prints in question through dealer Rudy Komon under the title *Borges Sequel* (they had been inspired by a reading of Borges' *Ficciones*, originally published in 1944, see Figs. 1a and 1b for the print used as example throughout this article). In linking Tardieu and Herel together through her research, Martin-Scherrer suggested a project that would eventuate in the *Tardieu Sequel* prints: she asked Herel if he was interested in re-printing the *Borges Sequel* plates so that they may be reunited with, and compared to, Tardieu's text describing his fascination with them (Martin-Scherrer, 2004). In their discussions, Martin-Scherrer and Herel developed a variety of responses to the unification of the prints and Tardieu's text, however for the purpose of this paper only the

Tardieu Sequel prints will be the focus. Upon re-printing the *Borges Sequel* plates, Herel found them to have unexpectedly and accidentally rusted, thus transforming the images in a way that was out of the artist's control and of direct consequence to their appearance (see Figs. 2a and 3a for the print used as example throughout this article). Herel, rather than seeing this rusting as a technical error, pushed on with the printing and embraced the changes in the plates. Just as the plates had transformed from known to unknown entities, so had a simple re-printing of the *Borges Sequel* prints transformed into another respective work, the aptly titled *Tardieu Sequel*. To tell the story of how both these series came about is to tell a story undeniably characterised by chance, accident, and the unknown.

The unintentional presence of rust in the *Tardieu* prints is an exemplary entry point for examining the complexities of Herel's play with chance and the unknown through its explicit visual impact. The artist is clear that the rusting process was out of his control: "the rusting was <u>not</u> a conscious decision, it just happened because of the humidity under the house where [the] plates were stored…" (2019). Upon retrieving the plates to re-print at Martin-Scherrer's request, Herel found value in the changes the rust made to the printed image, in both physical and philosophical ways: "I was surprised not only [by] how [the] rust printed like the finest aquatint but also by the strange way…[the] plates rusted somewhere and somewhere not— and all this just 'by themselves'" (2019).

Not only had the accidental rusting process changed the aesthetic of the prints, but the erratic and seemingly random places in which the rusting effected the plate was further left to nature. The background of the prints was transformed from a clear expanse of negative space to one filled with dark, cloudy masses that threated to consume the exquisite corpses inhabiting the compositions. Martin-Scherrer saw these changed prints as having the potential to make viewers contemplate the passing of time when displayed together in the exhibition, commenting "the random hand of matter itself had reworked the plate…" (Martin-Scherrer, 2004: 25). The plates' decomposition was also relevant to Tardieu's writing, his preoccupation with "the universal law of devouring" (Martin-Scherrer, 2004). The re-printed proofs conjured, and continue to conjure, a sense of the ripe richesse of Decay. Here, accident transformed a simple re-printing into a new work in itself, and a new extension of Herel's metaphysical questioning of chance, the unknown, and the uncontrollable. The rust also invites both the art historian and general viewer to do the same, explicitly evoking the generative possibilities of the incidental.

In comparing the two prints made from the same plate in *Borges Sequel* and *Tardieu Sequel*, the impact of the rust upon the composition is immediately obvious. The rusted areas transform what was once a clean composition with an abundance of negative space into one that is overwhelmed by pooling darkness. The darkened background of the *Tardieu Sequel* print is nearly all-consuming, and threatens to envelop all of Herel's consciously depicted forms. This case study is particularly valuable as the viewer is able to see the original print alongside the result of Herel's later embrace of the accidental. In this sense, one is given insight into Herel's process, given a clear idea of just how much the rust has impacted the *Tardieu Sequel* print. The rusted background both eliminates parts of the composition and highlights

untouched areas, as well as transforming some patches into new entities as they sit in a liminal space affected by the rust but not consumed by it. For example, at the bottom of the composition rests an island of mottled lines created by the rust, not present in the first *Borges Sequel* print. This is similar to several areas along the right side of the print, in which the rust-affected areas create a pooling aesthetic that resembles the ripples of a stone thrown into water or a line drawn in the sand. The impact of the rust gives the print an additional organic quality, a chanceful quality, and a feeling of randomness. This, along with the exquisite corpses and unreadable text included in the compositions, acts as a doorway into analysing the impact of Surrealism upon Herel's practice, emphasising the artist's intentional play with the unintentional and its aesthetic and interpretive possibilities.

In examining the *Borges Sequel* and *Tardieu Sequel* prints, rust acts as portal into an investigation of Herel's work in relation to error, chance and the unknown not only terms of the immediate visual impact of embracing chance but also its relevance to larger influences upon Herel's practice. That is, the influence of Surrealism upon his compositions, and how Surrealist approaches to the exquisite corpse and automatic response tie into ideas of the incidental in Herel's *oeuvre*. As the artist himself identifies the significant influence of Surrealism upon his work, an examination of the *Borges* and *Tardieu* prints in relation to the movement is relevant and fruitful.

The Surrealist concepts referred to throughout this paper should not be considered a uniquely French preoccupation; Surrealism was also the passionate interest of a group of Czech artists in the 1930s, who under the initiation of poet Vítězslav Nezval (1900–1958) formed the Surrealist Group of Czechoslovakia in March 1934 (Bydžovská, 2005: 1). Like their French counterparts, with whom the group undertook creative exchange through collaboration, visits, and publications, the Czech Surrealists were interested in exploring ideas of eroticism, the dream state, and ideas of beauty in their art (Bydžovská, 2005: 3–4). Due to this largely shared attitude towards creative practice, interpretation and experimentation, the fortuitous Surrealist concepts used to discuss Herel's work in this paper should be considered foundational ideas that relate to both French and Czech contexts—such ideas were clearly not restricted by borders, and Herel's time spent in both France and the now Czech Republic allows for a larger, inclusive application of the Surrealist paradigm to his work. Analysing the artist's work in relation to chance and accident through the lens of Surrealism is an approach that dynamically crosses borders and moves through time.

In their embrace of automatism and subversion of previous academic approaches to creativity, the Surrealists came to invent a game called *cadavre exquis* ('exquisite cadaver' or 'exquisite corpse') (Museum of Modern Art, New York, 2016). Examining the game's parameters, effect upon players, and links to chance, accident and error demonstrates the value of interpreting *Borges Sequel* and *Tardieu Sequel* in relation to the exquisite corpse. Exquisite corpse was a parlour game in which players would each draw a part of an image in secret, fold the paper to hide most of this image from the other participants, and hand it on to the next for their contribution (Museum of Modern Art, New York, 2016). The result was an often

confusing, illogical composite figure or phrase. The term was coined following an early game that resulted in the phrase: *le cadaver exquis boira le vin nouveau* ('the exquisite corpse will drink the new wine') (Museum of Modern Art, New York, 2016). It was nonsensical, and embodied surreal goals of disruption and destabilisation. Collaboration was key, as the creation of the final composite required different minds (Kahmen, 1972: 66). Louis Aragon's writing describes the exquisite corpse using phrases such as "an extraordinary displacement" and "a surprising disproportion", referencing the small-scale revolution being played out upon a single piece of paper (Kahmen, 1972: 66).

The exquisite corpse influenced those creating the discombobulated figure as well as those interpreting it. It was uncanny, uncomfortable, and unsettling. By creating an exquisite corpse, players were further opening themselves to the possibility of the subverted object, of incorporating chance into the act of creation in such a manner that the creator(s) were not in complete control of the finished product. An exquisite corpse visually represented the disruption of preconceived ideas of the image, especially the idea that an image need be carefully planned or considered by its creator before being made (Balakian, 1972: 193). The exquisite corpse challenged viewers and interpreters to associate forms they previously would not have naturally combined, thus giving themselves over to the creative possibilities of incorporating accident and the incidental into making art. Martin-Scherrer comments specifically upon this in relation to Herel and Tardieu's monsters: "Since Descartes, it has been a commonplace to say that monsters in art are the result of an unfamiliar combination of familiar elements and that the painter does not really invent so much as he deconstructs to reconstruct differently" (1993). This malleability generates a new freedom of association and understanding—one that is infinite. One small parlour game became a metaphor for the Surrealist way of life and creative process, with ongoing ramifications in contemporary art practice (Breton, 1972: 44). By interpreting the exquisite corpse, by simply being exposed to it, both the artist and the viewer are required to challenge preconceived ideas of order, form and meaning. They need to embrace the possibilities thrown up by an embrace of chance and the unknown.

The exquisite corpses inhabiting the sheets from *Borges* and *Tardieu Sequel* immediately evoke the feeling of wrongness. These characters are nonsensical, composed of limbs and recognisable human features stitched together in seemingly random, illogical ways. These are demented, venerable beings. By looking at them, the viewer worships the aberrant. At the upper right of the composition rests a figure almost entirely composed of feet, enclosed within a fine line that acts as a kind of cage. Only two of this figure's feet rest firmly on the ground, the other six arranged in a bouquet of ankles, soles and toes pointing upwards. This creature defies logic, it is surely erroneous in its impracticality. Below this many-footed creature stands a sagging, hairy being, its naked corporeal and dermatological features emphasised by the practical pair of shoes on its feet. This creature is similarly random, a fateful combination of features composed in Herel's mind with no logical foundation in reality. This exquisite corpse references Growth and Decay explicitly—its head is composed of a stretching skull, yet the fine hairs on its legs appear to be growing and

shedding onto the floor around it. The creature's sagging torso evokes aging flaps of skin, parts usually covered. This creature is unreservedly and unapologetically wrong, its textured body parts evoking an uncomfortable corporeal response in the viewer. Finally, to the left of the composition dances a form that combines bird, leg and vulva that strengthens the overwhelming atmosphere of unpredictability and chance. The viewer is left unsure of whether the eyes that are tucked in across this body are, in fact, eyes or vulvas. With their seemingly direct eye contact, these features make the viewer disconcertingly aware of their voyeuristic gaze upon a form so illogical, simultaneously erotic and repulsive.

It is valuable to compare viewing these creatures, these visual manifestations of error and chance, between the untarnished *Borges Sequel* and rusted *Tardieu Sequel* prints. Each context, clean and rusted, has its own impact on the presentation of Herel's exquisite corpses—the clean plate results in an image in which the creatures are unapologetically bold, with no rest for the viewer's eye from the monstrous forms. In viewing the clean composition first, one might assume the rusted plate and its darkened areas will provide some visual respite from these creatures. Yet this is not the case—the accidentally rusted background instead creates an appropriately sinister environment for these creatures to inhabit, and the areas in which the rust has started to eat away at the characters only further serves the overwhelming feeling of uncertainty and decay. The viewer is left to complete these forms themselves, invited to contribute their own extensions to the exquisite corpse form. The sense of accident and chance in these compositions is not just limited to Herel's process, but bleeds into the viewer's subjective interpretation of the prints, making one concrete understanding of the works wonderfully impossible.

Littered throughout the prints of the *Borges* and *Tardieu Sequel* are letterforms that are undeniably the result of Herel's adoption of chance and accident through automatic response. These letterforms produce a kind of self-created language that emphasises conventional preoccupation with positive knowledge and the limits it presents, as these letters are unreadable—unknowable. In their sense of error, in being unreadable, they represent a ripe site for wide-reaching and subjective interpretation. With his starry letterforms that dynamically move across the page, Herel's language and use of incomprehensible automatic text proposes a visual reading. These text forms arguably have their foundation in Herel's early art education, which encouraged developing forms instinctively. Herel comments:

> There was an important lesson given to us by our professor Svolinsky: "never to use rubber" but to alter, to develop or to take drawing in the other direction…But there is another strategy altogether: to make on a bigger plate deliberately little drawings, doodles on the margins of an "intended image"—if you look carefully at [the] Borges images – in the centre there is [the] "intended image" which was "preprepared" in [a] little sketch; but around on the margins, there are all [kinds of] improvised doodles…(2019)

These letterforms, or 'doodles' as Herel calls them, reflect the artist's ongoing interest in automatic response; the development of his own language, his own iconography. Sasha Grishin writes of Herel's dancing, nonsensical letterforms as having "the appearance of a graphic language, a mystical calligraphy which is not

immediately decipherable to the uninitiated eye" (1999: 5). Here, Grishin's "uninitiated eye" is one that does not consider the aesthetic impact of Herel's semantically ambiguous language; its conceptual engagement with unknowingness and the infinite possibilities of error and accident.

Herel's constructed language acts in the face of concrete, semantic understanding. Umberto Eco writes: "the informal sign does not mark the death of form in the visual arts, but proposes instead [...] a field of possibilities. The gestural marks and spatters [...] stimulate the viewer to make their own connections with the work" (Crown, 2010: 52). The letterforms in the *Borges* and *Tardieu Sequel* prints not only stimulate subjective connections, but by maintaining familiar formats of standard text also allow for reflection upon the act of reading itself. In his letter to the visionary engraver, Tardieu writes of Herel's use of a highly personal language: "I envy [...] the inventor of forms who has your power to imagine, for instance, an expressive sign that exists in no alphabet, a character with a meaning and a key known to none but you [...]" (Martin-Scherrer, 2004). Herel interrogates what it means to communicate and understand, and his language is not simply a message but a direct outcome of his personal exploration of meaning, his power to create expressive signs that exist autonomously, outside of conventional understanding. There is a sense of both immediacy and intimacy achieved by Herel sharing with the viewer a self-created visual text that is open to infinite interpretations. The viewer is explicitly invited to engage with Herel's other world of the "unexpected" (2019).

Herel acknowledges that the inspiration for his letterforms comes from Max Ernst's book *Maximiliana or the Illegal Practice of Astronomy* (1964). Ernst's letterforms simultaneously appear as crude tribal markings, astrological symbols, alien text, and incomprehensible diagrams—his own composite language. They are a visible representation of the unknown other, and Herel's own forms quote these cosmic shapes. *Maximiliana* also features a typographical concept invented by publisher Iliazd (1894–1975), *"la construction en carré"* ("construction in squares"), by which each of the letterforms in the book falls into an invisible geometric grid running over the page (Greet, 1982: 10). This is relevant to Herel's work as the artist himself experiments with presenting his own language using typical textual conventions. Writing of Ernst's letterforms, Anne Hyde Greet articulates: "The invisible design [spreads]... across the page and beyond the sky as we see it and also [references]... the mystical ideas of a cosmic structure—[it is] arbitrary, secret, and divine" (Greet, 1982: 10).

The presentation of the unknowable in a deliberately conventional format creates an aberrant page as it feels so tantalisingly close to a semantic message, yet rests intentionally out of reach. Both Herel and Ernst present viewers with a finished product that keeps secrets. The presence of these semantically untranslatable texts emphasises the conventional need to understand. These texts, intended to suggest semantic significance by their marked presence on the page and close resemblance to alphabetical characters, are loudly secretive. The artists have deliberately included them and deliberately left them unknown.

The letterforms Herel has developed are partly a graphic manifestation of the sustained influence that Borges' writing has had upon the artist's practice (March

Petr Herel, [a print from] *Borges Sequel* (Sydney: Rudy Komon, 1982), private collection, Canberra, Australia.

Petr Herel, [a print from] *Tardieu Sequel* (Paris: Librairie Nicaise, 2004), private collection, Canberra, Australia.

2017). In the short story *The Immortal* (1947), the narrator observes a unique script he describes as the "letters in our dreams, [that] seem on the verge of being understood and then dissolve" (Borges, 1962: 142). He notes the letters do not appear to form a cohesive code (Borges, 1962: 142). Instead, these symbols embody individual character, and are wholly visual due to their immediate semantic inaccessibility. Herel's forms reference this text as a visual response to reading this literary description, and magical text is a recurrent theme throughout Borges' *oeuvre*. As Herel engages with his new textual forms, he challenges the conventional reality of the reader. Like the challenge Herel's work presents for habitual reading, Borges too addresses the influence between text and feeling grounded or unstable, asserting: "a language is a tradition, a way of grasping reality, not an arbitrary assemblage of symbols" (Borges, 1979: 98). Herel's own text, to be demonstrated by the analysis of the appropriately Borges-inspired *Borges Sequel* and *Tardieu Sequel*, presents a new reality and suggests a new way of grasping it. His letterforms are cosmological, hieroglyphic, alchemical, and ultimately alien forms. Herel's personal code, an untranslatable language, interrogates ideas of communication, reception and understanding through a lens of chance, accident and error.

A formal, visual analysis of these letterforms demonstrates the ways in which their engagement with the unknowable, of the presumed erroneous, generates meaning. First, the un-rusted *Borges Sequel* composition. In this print, the viewer is presented with several areas of text. Rather than acting as focal point of the sheet, as one might expect when reading a page of conventional text, Herel has placed and scaled his textual forms around the exquisite corpse characters. Further instilling a sense of error is the artist's ironic play with traditional literary formatting. At the top of the composition rests text seemingly in the place of a heading or title, yet it is composed of unreadable characters. To the upper left of the composition is a small block of text that is so cramped that the viewer, after straining to consider the word forms within it, is again presented with unfamiliar, unknowable letters. These letters create a sense of density as their unequal spacing creates darkened, knotted areas that become sparsely articulated before tangling amongst themselves once more. Finally, though conventionally composed along a guiding line as one might see in a notebook or journal, a line of text at the bottom of the sheet yet again presents illegible text. Upon closer consideration, these lines do not provide a resting point for the text, as Herel's letterforms are pierced by the line, rather than resting on top of it. The line here is not to organise the text, instead dynamically becoming a part of the writing itself—this is not a line of elimination, rather a form the artist tempts to interact with the text surrounding it by shaking it from its traditional, literary function. Throughout this *Borges Sequel* print, across all three areas of text, Herel's use of repetitive characters and symbols suggest a code or a pattern. They present as a language, yet are unknowable both literarily and literally. Herel presents the viewer with a language of visuals, a language that is conventionally erroneous and illogical through its illegibility, yet is a ripe site for interpretation.

In the *Tardieu Sequel* print, the effect of the rust upon the image has all but eaten away Herel's text, leaving just the lines at the upper right of the image, thus demanding the viewer's focus upon that area. This accidental impact of the rust invites

an interpretation of these letters framed by ideas of Growth and Decay. As the darkened rust areas pool around the edges of the text and begin to flow over and across its edges, so the letterforms are given a liveliness, their frantic, tightly knotted forms transformed into creatures desperate to escape impending elimination. The forms become frantic, their diagonal swooping lines extending to resemble limbs attempting to break free of their clumping together. Not only are they untranslatable, the textual forms of this rusted print adopt the qualities of a living creature, as the viewer is presented with a visual manifestation of a cycle between birth, growth and decay. Such interpretation would not be possible without the visual effects of the rust upon the print, not a deliberate decision by the artist but instead a demonstrably valuable embrace of the accidental.

Petr Herel's work engages with accident, chance, and the unknown from macrocosm to microcosm. As this paper has demonstrated, interpreting the artist's work with an emphasis on these concepts is particularly fruitful, as one must consider Herel's larger interactions with Surrealism, along with the exquisite corpse creatures and unknowable letterforms inhabiting his prints. Unpacking the economy of error in the artist's work, specifically using prints from the *Borges Sequel* and *Tardieu Sequel* plates as case study, not only highlights the ways in which the maker interacts with these ideas, but demonstrates that so too can the art historian. After all, the impetus to study these prints came from rust—both the artist's embrace of the incidental and uncontrollable in going on with his project, and this art historian's willingness to use as entry point what might superficially be considered an accident to delve into Herel's "world of the unexpected".

Bibliography

Balakian, A. (1972). *Surrealism: The Road to the Absolute*. London: Unwin Books.

Borges, J. (1962). *Ficciones*. New York: Grove Press, Inc.

———. (1979). *The Book of Sand*. Middlesex: Penguin Books Ltd.

Breton, A. (1972). *Surrealism and Painting*. Translated by Simon Watson Taylor. London: Macdonald and Co.

Bydžovská, L. (2005). Against the Current: The Story of the Surrealist Group of Czechoslovakia. *Papers of Surrealism: Centre for the Study of Surrealism and Its Legacies*. No. 3, pp. 1–10.

Chapman, C. (1993). *Surrealism in Australia*. Canberra: National Gallery of Australia.

Crow, D. (2010). *Visible Signs: An Introduction to Semiotics in the Visual Arts*. Lausanne: AVA Publishing SA.

Finkelstein, H. (1979). *Surrealism and the Crisis of the Object*. Ann Arbor, Mich.: UMI Research Press.

Graphic Investigation Workshop 1978-1988. (1988). Canberra: CITA.

Greet, A. (1982). Iliazd and Max Ernst: 65 Maximiliana or the Illegal Practice of Astronomy. *World Literature Today*, 56 No. 1, pp. 10–18.

Herel, P. Interview with the Artist, May 2015.

———. Petr Herel to Ella Morrison. March 20, 2017.

———. Petr Herel to Ella Morrison. April 13, 2017.

———. Petr Herel to Ella Morrison. February 21, 2019.

Kahmen, V. (1972). *Erotic Art Today*. Translated by Peter Newmark. Greenwich, Conn.: New York Graphic Society.

Martin-Scherrer, F. (2004). Borges, Herel, Tardieu: The Story of an 'Imaginary Book'. *Textes, Recherches, Diffusion.* No. 4, page numbers unknown.

———. (1993). Jean Tardieu and the 'visionary engraver' an experiment in language teratology. *LA SAPE*. No 32, page numbers unknown.

Museum of Modern Art (2016). Nude: Cadavre Exquis with Yves Tanguy, Joan Miró, Max Morise, Man Ray (Emmanuel Radnitzky). http://www.moma.org/learn/moma_learning/max-ernst-levade-the-fugitive. Accessed 5 March 2019.

Petr Herel : Písmo Duše : A Retrospective. (1999). Canberra: Drill Hall Gallery.

Abstract

This paper explores the work of Czech-born Australian artist Petr Herel (1943-), and the ongoing focus in his practice upon, in his words, 'seeking in chance another world of the unexpected'. Specifically, it will examine the artist's decision to reprint proofs of his *Borges Sequel* (1982) portfolio twenty years later to create *Tardieu Sequel* (2004), despite the plates having rusted. This rusting was not a conscious decision, having occurred while the plates were stored in damp and humid conditions. For many, this rusting would be seen as a disappointing reality, an unintentional and unwelcome disruption of the original compositions. However, upon seeing if reprinting the rusted plates would be a physical possibility, Herel found himself surprised by the way the rust printed 'like the finest aquatint', and was fascinated by the erratic and irregular patterns formed by the organic process which had been entirely out of his control—'and all this just 'by themselves'. Suddenly, the exquisite corpse monsters that inhabited the compositions were situated within a new environment, an environment that complemented their aberrant grotesque forms but also threatened their very existence on the page.

Inspired by Herel's observation that the interplay between conscious decision making, error, and chance has always had a presence in his work, this paper draws upon Herel's decision to print the rusted plates as a portal to interrogate how the artist's embrace of chance and 'error' impacts the way viewers might interpret the imagery in question today. This paper reveals and explores the ripe space for new interpretation facilitated by Herel's printing of the damaged plates, specifically discussing the ways in the notion of 'error' can be used to re-frame examinations of the subject matter, composition and themes contained within the *Borges Sequel* and *Tardieu Sequel* prints. Herel's preoccupation with the concepts of 'Growth' and 'Decay' works in the face of the notion that printing plates should be a reliable source of repeatedly consistent imagery, instead engaging with the nebulous nature of unknowingness. Like the very biological process of rust itself, the artist's choice to print the rusted plates breaks down convention and creates new matter. This paper proves that, in the case of the *Borges Sequel* and *Tardieu Sequel* prints, there is a wealth of growth to be found in decay.

Dr. Ella Morrison is a writer and curator based in Canberra, Australia. She recently completed a Doctor of Philosophy at the Australian National University, her dissertation titled 'Petr Herel: the Artist's Book as Aberrant Object' (2018). In 2018 she was appointed Assistant Curator of the Kenneth E. Tyler Collection at the National Gallery of Australia, having previously worked as Curatorial Assistant and Acting Gordon Darling Graduate Intern in the Australian Prints and Drawings Department. Her research interests include the artist's book, the aberrant object, and experiential methodologies. Affiliation: Independent researcher.

Sidey Myoo

Creative Robots

> One of the merits of creativity is that it has become a focal point, and thus a point of access, for transdisciplinary research in fields including cognitive psychology, design science, and artificial intelligence. Contemporary AI recognizes creativity as an attribute that is highly desirable in artificial systems yet poorly defined and poorly understood.
>
> Mitchell Whitelaw, *Metacreation. Art and Artificial Life*[1]

> Is it possible to come from that position and still believe in the possibility of machine creativity? Certainly! I believe that my dialog with AARON is an example of machine creativity, albeit a small one.
>
> Harold Cohen, *Driving the Creative Machine*[2]

Innovation and imitation

Any discussion of creativity[3] in relation to artificial intelligence and robotics must involve an important issue of how to define creativity in this type of analysis. This also raises questions whether intelligent robots are capable, in any way, even a very un-human way, to understand the nature of art and creativity, and can we expect anything like creativity from intelligent but non-biological beings? Moreover, is this phenomenon an exclusive property of human beings, while intelligent robots are merely able to imitate creative process through human agency? Let us imagine a computer software designed to paint pictures in the style of Jackson Pollock (Zheng et al., 2014) or Pablo Picasso.[4] There are no obstacles for an algorithm to learn painting in their styles. Yet, this activity would not be creative in the sense of being innovative, since the software was designed to imitate and apply the features of Ab-

---

1 Whitelaw, 2004: 229.

2 Cohen, 2010:16.

3 On the one hand, the use of the term "creative" refers to intelligent artistic robots, but on the other hand, it may raise doubts arising from the defence of such traits on the basis of humanism, stating that such behaviour is overinterpreted. My thesis is that intelligent, artistic robots are creative, but not in the sense that applies to man.

4 A film in which artificial intelligence analyses cubism and on this basis paints subsequent images in this style: *Analyzing Picasso's cubism using Human Level Artificial Intelligence*, https://www.youtube.com/watch?v=GepzHAWrEHU, access: 21.11.2016.

stract Expressionism or Cubism and is unable to create a new style in painting, even though it is able to make new works in the style of Pollock or Picasso. In this sense, the software is "dead," since it lacks certain quality or structure that would allow it to cross the limits of imitation and recreation in favour of innovation and novelty.

First, I distinguish creativity in terms of creating new forms only on the basis of a learned or programmed artistic style, or imitating or copying particular artistic work. Intelligent, artistic robots are creative in the sense that they make pictures that differ one from another; this involves adapting created artistic form to some general, but quite concrete model, defined on the basis of possibilities input into the data base and the software's algorithms.

Second, I distinguish creativity in terms of originality and innovation. This form of creativity I associate with something more sophisticated, i.e. with making something completely new for art history. This would entail solving an artistic problem: be it formal, i.e. creating new style, or conceptual, i.e. investing the artwork with some general information about reality in an original way. This type of creativity allows us to expect breakthroughs in art that develop the nature of art through deeper changes of what art is, but I doubt this could ever be possible for an intelligent robot.

I share an opinion that intelligent robots are creative in the first sense of the word and I call this type of creativity *secondary creativity*, but they are not creative in the latter sense, which I refer to as *innovative creativity.* The difference between the two may translate into what distinguishes intelligent robots from humans. However, this situation changes when we point to the possibility of there existing a kind of creative structure: *creativity algorithm*, which originates in a creative human. If such structure existed and was isolated in a human mind, we would achieve a metaphysical foundation for its non-biological existence as well – for making creativity algorithm and implementing it into artificial intelligence.

My question is also whether artificial intelligence actually needs creativity and art? Perhaps it is the sign of our homo-centrism in reference to the non-biological, intelligent beings, which could perhaps have other behaviours and needs. The answer to this question gives rise to various opinions encountered in contemporary cognitivism, which stem from the question about the consciousness of artificial intelligence. Opinions vary in this respect and they are primarily based on taking up a thesis rather than justifying it. If we assume that artificial intelligence creates its own mental world, which might not be easily accessible to humans, then perhaps therein would be the space for some form of creation – perhaps not the kind we imagine in artistic categories, but, for instance, characterised by an ability to create new intelligent beings or create new problem solutions.[5] Meanwhile, if we stand by the opinion that artificial intelligence has nothing in common with any form of

---

5 I discuss creativity only in relation to art. I do not analyse this issue in a broader, though probably important perspective, i.e. whether the original solution to a problem by artificial intelligence – e.g. an unexpected chess move – is creative. Interesting is Kasparov's statement after losing a game of chess to Deep Blue, that the chess computer made a move which, according to his assessment, only a man could make. This statement shows that in this case the computer's behaviour could indicate innovation. I take into account only the fact of creation of, for example, paintings created by intelligent robots, which are difficult to dismiss:

consciousness, then we are left exclusively with secondary creativity – artistic permutation, producing a series of similar artworks.

Art made by robots

In this time and age, it is difficult to find an example of an intelligent robot who would be able to create an innovative artwork or propose a new definition of art. Equally difficult is it to deny that these robots do indeed create art. Let us take a closer look at the robots whose creative behaviour raised some commotion in the artworld.

One of the best known among them is AARON,[6] an art robot programmed since the 1970s by Harold Cohen. It is a robot that paints pictures, while its maker comments on its actions in the following way:

> With respect to the composition as a whole, for example, the program has the option of placing dark figures against a light ground or light figures against a dark ground. And since some colour choices are mandated by subject matter – AARON will never choose to paint faces green or purple, for example – it may choose to generate a separate chord to deal exclusively with flesh tones. [...] Program does things in the same way that human beings do them. In functional terms AARON does what human artists do: it paints pictures. (Cohen, 1999)

AARON has no visual system at its disposal, such as cameras that would link it with the outside world. Everything it knows about the world is programmed and internalised, in the sense that, as Cohen writes, AARON devotes the largest amount of time to analyse its own inside, its own database, which allows it to understand the relationships in the physical world, e.g. between the shoulder and the torso. AARON is capable of creating a human figure surrounded by trees and this will be a unique picture, yet it cannot paint a human figure in such a way that this figure would be abstract:

> Let me begin by reflecting that AARON is able to do what expert human beings do, and do it to a significant level of expertise, without the visual system upon which human beings rely and without the full range of experiential knowledge which they bring to bear, in this case to colouring. It is noteworthy also that the response its work is capable of evoking in the viewer appears not to be too badly constrained by the program's own lack of an emotional life. (Cohen, 1999)

AARON paints interesting abstract pictures as well, but not in terms of an innovative approach to content, but through its ability and freedom to paint in given style. It will never come up with Surrealist "soft clocks," but it might paint them as similar to those by Salvador Dali. Moreover, it is unclear whether AARON distinguishes in its creative process whether it paints portraits or abstract works. Perhaps

they are works of art. A more general analysis of creativity in other areas of life is different in comparison to an analysis in the field of art, where the effects are visible to the "naked eye."

6   AARON's homepage: http://www.aaronshome.com/aaron/index.html, access: 6.12.2016.

it is a "craftsman" whose electronic *techné* allows only for a mechanical, unreflective process of image making. Neither is it known whether AARON has a linear or holistic vision of the picture, yet it is more probable that it assembles an image from fragments in a non-linear fashion, seeing the whole in its inside. It is creative in its own way, since its nature is to paint pictures, but not developing art – in this respect, it is most possibly limited. It paints pictures, but it is doubtful if it understands the nature of artistic creation the same way humans do.

Perhaps it is for the better that AARON cannot move beyond the programme implemented by the human artist, yet Cohen's speculations about what AARON really is in its inside raise considerable interest, specifically in a futurologist perspective, in respect to the development of this type of robots and their activity. In AARON's case, for now, innovative type of creation should be seen as exclusively human domain that finds no equivalent in artificial intelligence.

Another example of a painting robot is *e-David* (2009),[7] yet this case is easier to comprehend since it is a copying robot. *E-David* has a camera, it uses one of its five brushes, paints with dashes or dots and has a palette of 24 colours at its disposal. At the start of its creative process it might have a declared or non-declared scope of determination, that is, it may be completely subject to the operations of the programme or free from its control in some respect and extent, which offers it a choice of how to paint. *E-David* is interesting for two reasons: first, it is a good copyist, secondly, if offered some space for interpretation, it paints differently from when it is controlled.[8] When discussing the robot-copyist we can pose a direct question: how are its actions different from the work of a human copyist? From cognitive perspective, both cases involve the working of a biological or technological Optical Character Recognition system, even though this technical term seems more applicable to robots than humans. As far as copying is concerned, the same situation applies to human artists and robot artists, that is, the process involves copying rather than creating. Since the goal is to produce the best copy of given image, this type of action leaves no space for individual creativity, merely imitation. Copying does not seem to trigger emotions as intense as when creativity understood as novelty or originality is discussed. In this case, we could even go further and claim that it is a human artist that resembles a robot, since nothing related to creativity is involved in the process, which requires, instead, a robot-like perfection. A detailed physical analysis of produced copies shows no significant difference between cop-

---

7   A film documentation of *e-David*'s activities: , (https://vimeo.com/68859229, access: 6.12.2016), *e-David*'s homepage: *eDavid the robot painter excels in numerous styles* (https://newatlas.com/edavid-robot-artist-painter/28310/, access: 6.08.2019).

8   "The whole eDavid experiment aims at approximating the manual painting processes by a machine, we want to find out to what extent we are able to produce artistically looking paintings. In art history it is also well known that physical limitations, e.g. interactions between ink and canvas, influence the formation of styles. We are looking for new forms of visual representations that are especially suited for painting machines; also we want to find out how to introduce high-level semantic information into the process. In recent years methods for image understanding developed a lot, so painting machines of the future could 'know' what they draw and automatically adapt their painting strategy." (Deussen et al., 2012).

ies made by robots and those made by humans. Certainly, pictures may differ one from another, but an intentional genesis remains the same – the copy is supposed to provide a faithful reflection of the original. There is also an additional aspect – a homocentric attachment to such a definition of art that puts emphasis on the very origin of artworks. For some reason, copies made with human hand may be more valued than those made by a robot. Meanwhile, the possibility of developing the algorithm and improving systems, in the future, means that robots might become better copyists than humans. This resembles the process of passing the knowledge down from master to student, but here the knowledge is accumulated and enriched in a continuous way, and then passed on in its entirety, in the moment of copying the file to the next generation robot – thus, mimesis can reach perfection. Even if we agree that intelligent, creative robots are not able to create a new style or artistic trend, they still can become outstanding copyists with whom no human will be able to compete.

Another example is *Paul* installation (2011), by the painter Patrick Tresset.[9] It is an interactive work, operating through several portrait-making robots, who make use of two types of feedback.[10] The sitter is placed in front of a group of robots in a way that resembles drawing workshops at art academies. Robots "awoken" by knocking, for instance, on the tabletop on which they are positioned, become activated and look at the model through the cameras. They use the camera to compare the model's appearance with what they are drawing, this way orchestrating the creative process. This is not about copying, but about making a portrait, which involves their own interpretation. Robots both recreate and create, yet most probably they are not equipped with the human-type creative intuition. Nevertheless, their actions produce portraits very much like those a human could make. If we move aside such features of creativity as human emotion, then what is the difference between a portrait made by Patrick Tresset's robot and other portraits made by a human? According to Tresset, this is a matter of social contract, which invests artistic objects made by humans with special meaning – what matters is the origin of a painting rather than its artistic value. It would be enough to change our approach and look at a robot-made artwork in such a way to see that its features resemble those that are products of the human creative process. Such an approach could mark the beginning of understanding of ontological aspects of artworks in the context of its artistic genesis: human- or robot-made, and then to recognise artworks made by robots.

> Our aim is to develop autonomous systems that are capable of conceiving and producing artifacts that have a range of qualities and characteristics that enable their status as a

---

9   A film documenting the operation of the installation: *5 Robots Named Paul*, https://www.youtube.com/watch?v=EH0WFkcZNDg, access: 6.12.2016.

10   In the article *Portrait Drawing by Paul the Robot*, the authors describe two types of feedback. The first serves the general scheme of drawing, i.e. comparing the current state of drawing with a database (computational or internal feedback) related e.g. to a given fragment of the drawing (arrangement of parts forming the face). The second feedback serves to compare what is drawn with the person portrayed (physical or external feedback) (Tresset and Leymarie, 2013: 354–357).

work of art. Objects, to be considered as having such status, must be exhibited–evaluated–appreciated–acquired in a contemporary art context, and in the same manner as artist-made artworks. (Tresset and Deussen, 2014)

Tresset's robots are subject to randomness that stems from differences between the pens they use, the way cameras are positioned (distance, angle from which the sitter is seen), and lighting. It is not about the perfect conditions for robots, but about varying conditions that make them draw differently. Their creative process is determined by various physical conditions, which invite diversity between works. The robot creates by considering the rules of portraiture and, much like a biological artist, it analyses the distance between lips and eyes, as well as the position of the face. However, because it lacks semantic knowledge on what it is drawing, it is defined by its maker as a naïve drawer.

Other examples of creative robots are two music-making robots. The first is *Shimon* (2008), a music robot made by Guy Hoffman,[11] the second is *Emily Howell* (1980), made by David Cope.[12]

Particularly interesting behaviour is manifested by *Shimon*, who interprets the sounds it can hear, which makes the way it plays the marimba subject to external and changeable circumstances that determine each single note. *Shimon* improvises by drawing from the harmony and melody line of a piece played by a human at the piano at particular moment. Its ability to recognise harmony is programmed in such a way that its improvisation is compatible with the accompanying piano and melodically diversified. Improvisation changes particularly when there is a live concert, because the human performer is emotionally affected by the audience's reaction which, in turn, affects the robot's expression.

The latter robot – *Emily Howell* – composes music on the basis of previously uploaded music material. *Emily*'s improvisation is on-going, continuous, and autonomous. The robot's memory contains a series of musical pieces, which are transformed by the software. The type of transformation is pre-determined by a human operative (e.g. sadder or more joyful), but the musical piece composed in real time is determined by nothing else but the robot's intention. The emotional response of the audience present, for instance, in the cafe where *Emily* is playing resembles the one triggered by the human-made performance. *Emily*'s maker claims:

> Nobody's original. We are what we eat, and in music, we are what we hear. What we do is look through history and listen to music. Everybody copies from everybody. The skill is in how large a fragment you choose to copy and how elegantly you can put them together.[13]

---

11 See: G. Hoffman's homepage with a film documentation of a joint concert with Shimon: *Human-Robot Jazz Improvisation* (http://guyhoffman.com/category/topvideo/, access: 2.11.2016) and Ness et al. 2011: 586.

12 D. Cope's homepage: http://artsites.ucsc.edu/faculty/cope/, access: 21.11.2016.

13 D. Cope's statement quoted on K. Pollard's blog, http://www.kevinpollard.com/blog/?p=467, access: 21.11.2016.

Emily's music is not pre-determined, because it selects the sounds from its database in a coherent way, which is, however, not continuously variable by its co-performer. *Shimon* is more of an improviser, while *Emily* more of an interpreter.

Both aforementioned cases concern music made by computers in accordance with the human way of sensing melody and harmony, virtually unrecognisable in terms of who plays this music: a human or a computer. With respect to *Emily Howell,* an interesting stance was expressed by Kevin Pollard on his blog. He claims that the difference between computer-made music and human-made music lies in the music's semantics, that is, something like a musical Chinese Room, as conceived by John Searle:

> The one thing that I would say is missing is *why*. Humans can now program a computer to know *what* a Mozart chorale sounds like and *how* to make one, or to combine the styles of Mozart and Scott Joplin, but the computer doesn't know *why* it's doing it. Only David Cope knows. And it's that understanding of "why" that allows humans to make value judgements about which mistakes are worth pursuing and which ones go in the bin. Humans have the advantage of understanding context and a bigger picture which inform their decisions. Once Emily can do that, she would be truly creative. Until then she's more just a proxy for David's compositions. The thing about music is that it is ruled by emotion, not just logic, so it's harder to predict where it's going to go. It's also why you don't necessarily need degrees and a formal education to succeed in music. I'd have thought that Mozart / Beethoven / The Beatles / Elvis / Michael Jackson didn't know why they were making a new type of music, it just felt right to them, and that was their "why."[14]

A hybrid artist and the creativity algorithm

The final example I would like to discuss is an intriguing case of a hybrid being: *Meart – The Semi-Living Artist*, funded by SymbioticA (The Art and Science Collaborative Research Laboratory) and the Institute of Technology in Atlanta. This robot is different from the ones described above in that this installation contains biologically processed information. The ideological difference is that robots discussed earlier are merely non-biological *devices*, while this one is a hybrid, in part similar to biological beings. It contains fragments of rat tissue, stored at the Institute of Technology in Atlanta, which connect with the Internet to process information involved in the creative process. This extraordinary being possesses the mystery of transformation that occurs in biological beings so that it cannot be easily dismissed as merely a more complex "coffee machine."

> MEART has the ability to sense the outside world through a camera that acts as its eyes. It has the ability to process what it sees through the neurons that act as its brain. It has the ability to react accordingly through the robotic drawing arm that acts as its body.

---

14   K. Pollard's statement on his blog about Emily Howell, http://www.kevinpollard. com/blog/?p=467, access: 21.11.2016.

The Internet functions as its nervous system. MEART is a geographically detached entity ubiquitous on many levels.[15]

In this case, when a hybrid being is considered, our interpretation of the type of information processing we are dealing with becomes much more complicated than in the case of strictly non-biological artificial intelligence. The term "nervous system" brings justified concern if some form of boundary was crossed that stemmed from our definition of life, whose crossing should raise questions about the nature of this hybrid being. We cannot reject the possibility that the being's biological parts are home to tiny processes typical for all biological beings, perhaps the ones that determine what we refer to as creativity.

This work explores questions such as: What is creativity? What creates value in art? One way of looking at these issues might be by thinking about creativity along a spectrum, from a reductionist mechanical device, to an artistic genius. What is it that makes a person a genius? Perhaps it is the ability to link together diverse inputs. We hope that our cultured neurons will have the potential to show signs of very basic "learning" or "creativity."[16]

Despite all the questions raised by authors of this artistic project, we may assume that *Meart*'s expression is different from the ones discussed previously in that the matter where this expression is born is different. Perhaps for this reason *Meart* may strike us as more human. However, in this respect, we encounter another difficulty caused by the work of non-coordinated biological processes, which might distort the workings of the algorithm responsible for drawing – *Meart* has an electromechanical arm with which it seeks to imitate reality observed by its camera. In this situation, the hybrid *Meart* would have little in common with the process of creation, while its behaviour is merely a biological feedback to received information, quite problematic for the drawing artificial intelligence that struggles with it. In this case, biological nature does not have to define creativity, but common chaotic behaviour, which distorts the working of artificial intelligence. Its behaviour is random more than creatively intentional. Through the lack of internal complexity, a qualitatively defined biological nature and its connection with artificial intelligence, what we are dealing with here is merely behavioural connectivity. As far as creative abilities are concerned, this is an anti-example; still, it is interesting since it offers an opportunity to investigate creativity with respect to both natures: biological and non-biological. *Meart* is an example of a consistent, imitating, creative artificial intelligence, which struggles with its own double nature. The roles were reversed: it is artificial intelligence that tries to draw a portrait, while biological nature is disturbing this process. Most probably, in this case, the process at work in *Meart*'s biological part has nothing to do with creativity.

---

15   The *Meart* project's homepage: http://www.fishandchips.uwa.edu.au/project.html, access: 21.11.2016; short film about the *Meart*: *Is This Art? – Volume 4: Meart The Semi Living Artist* (https://www.youtube.com/watch?v=g2P66RV1Ovc, access: 21.11.2016).

16   The *Meart* project's homepage: http://www.fishandchips.uwa.edu.au/project.html, access: 21.11.2016.

What is it, then, that demands a definition in terms of innovative creation: made by humans or by artificial intelligence?

By comparing the above-discussed art projects I postulate the existence of *creativity algorithm* as originated by a creative human. This way, I seek to identify the metaphysical foundation and explain the nature of innovative creation.

If we assume that, in a general sense, creativity is a kind of algorithm shared by different beings, then the ontological difference between the substance in which they exist would lead us to consider the innovative nature of humans and to examine it in search of metaphysical sources of creativity. Innovative creation comes from the creative structure in human brain: *creativity algorithm.* If identified and implemented to artificial intelligence unit, it would possibly be able to exist therein and retain its essence, or even develop. This way, we would even possibly postulate that it is easier to be a creative, innovative robot than a creative human.

If all this is true, then we might expect that the greatest art in the future art history will come not from humans, but from intelligent robots, even though the very genesis of creation would still be located within the human brain.

Conclusion

The above-discussed examples of creative robots were meant to suggest that programmed robots can be creative, but only in a limited way. If the metaphysics of the human-born *creativity algorithm* is applied to robots, their innovative creativity is altogether possible. The most important aspect of the above-presented analysis of creativity is its ontological genesis, rather than ontological difference. Let us imagine that we are dealing with a human being on a primary stage of evolution, e.g. from the period of the cave paintings in Lascaux. Human nature is of this kind that it released the creative act on its own – we are not dealing here with some human "external software," but with human's natural evolution and thus construed "software" of the brain. In reference to what was discussed here, intelligent robots can only be independently creative inasmuch as they are equipped with this human quality. Perhaps then, they could understand the nature of art.[17] Maybe then, they could express a quality comparable to artists from Lascaux.

Most probably it is safest to discuss artistic creation in the context of humans rather than intelligent robots, at least for now, even though machines do possess qualities that are not shared by humans, e.g. they solve problems that humans cannot solve. Perhaps it is the difference between these two disparate natures which makes genetic ability to make and understand art what distinguishes humans from other, even more intelligent beings.

Bibliography

Cohen H. (1999). *Colouring Without Seeing: a Problem in Machine Creativity*. http://www.kurzweilcyberart.com/aaron/pdf/colouringwithoutseeing.pdf, access: 6.12.2016.

---

17   See: Lim et al., 2012 in reference to the statement about music created by computers.

Cohen H. (2010). *Driving the Creative Machine*. Orcas Center, Crossroads Lecture Series, September. http://www. kurzweilcyberart.com/aaron/pdf/colouringwithoutseeing.pdf, access: 5.05.2016.

Deussen O. and T. Lindemeier, S. Pirk, M. Tautzenberger (2012). *Feedback-guided Stroke Placement for a Painting Machine*. In: D. Cunningham and D. House (Eds.). *Computational Aesthetics in Graphics, Visualization, and Imaging. Proceedings of the Eight Annual Symposium on Computational Aesthetics in Graphics*. Aire-la-Ville: Eurographics Association. https:// kops.uni-konstanz.de/bitstream/handle/123456789/23636/Deussen_236363.pdf?sequence=2, access: 6.12.2016.

Lim A. and T. Ogata, H. Okuno (2012). Towards Expressive Musical Robots: a Cross-modal Framework for Emotional Gesture, Voice and Music. *EURASIP Journal on Audio, Speech, and Music Processing*. No. 3. https://link.springer.com/article/10.1186/1687-4722-2012-3, access: 6.12.2016.

Ness S. and S. Trail, P. Driessen, A. Schloss, G. Tzanetakis (2011). *Music Information Robotics: Coping Strategies for Musically Challenged Robots*. In: A. Klapuri, C. Leider (Eds.). *Proceedings of the 12th International Society for Music Information Retrieval Conference. ISMIR 2011*. Miami: University of Miami. http://ismir2011.ismir.net/papers/PS4-16.pdf, access: 6.12.2016.

Tresset P. and F. Leymarie (2013). Portrait Drawing by Paul the Robot. *Computers & Graphics*. Vol. 37, pp. 354–357.

Tresset P. and O. Deussen (2014). *Artistically Skilled Embodied Agents*. The Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB), 1st–4th April, Goldsmiths, University of London.

Whitelaw M. (2004). *Metacreation: Art and Artificial Life*. Cambridge MA, London: MIT Press.

Zheng Y. and X. Nie, Z. Meng, W. Feng, K. Zhang (2014). *Layered Modelling and Generation of Pollock's Drip Style*. Berlin-Heidelberg: Springer-Verlag.

Abstract

We live in an era that witnesses an increasing significance of artificial intelligence and anticipates increasingly intelligent systems. With artificial intelligence and intelligent robots taking over some of the functions previously performed by humans, there are raised questions about the type and scope of their activity in relation to human abilities. This process raises a number of questions about the possibility of identifying those spheres of human activity that cannot be imitated by intelligent programmes or robots. At first sight, such human qualities include emotionality, feelings, and creativity. In this paper, I examine whether intelligent robots could potentially be artistically creative and supplant humans in these processes? Its thesis is that while it is difficult to find innovative and creative robots at this particular moment, it is equally difficult to deny that robots do create art on some level. This invites a perspective that emphasises that while in this respect, at present, human nature is not imitated by robots and artificial intelligence, yet, at the same time, the homo-centric approach is questioned by the assumption that creativity is merely a temporary human quality rather than its permanent property, and that some form of creativity is indeed performed by artificial intelligence.

Rafał Solewski

The Demeaned Avant-Garde and the Art of Cognition[1]

Attori pittori

In 1979, at the exhibition *L'avanguardia polacca 1910–1978. S.I. Witkiewicz, costruttiv-ismo. artisti contemporanei* [Polish Avant-Garde 1910–1978. S.I. Witkiewicz, Construc-tivists, Contemporary Artists] staged at the Palazzo delle Esposizioni in Rome, Tadeusz Kantor's works were displayed alongside pieces by Stanisław Witkiewicz (also known as Witkacy), constructivists, and young Polish avant-garde. On being juxtaposed with the latter, the artist decided on an addition to his part of the show with the aim of "com-pleting" it *(L'avanguardia*, 1979) – the adjoining rooms were to host an exposition of artworks by Cricot 2 Theatre actors (*Le opere*, 1979: 94–95). Upset about the limited space in the Palazzo put at his disposal by curator Ryszard Stanisławski (The transcrip-tion, 2013: 1), he still managed to provide a selection of avant-garde works that were bold, numerous and manifold, while demonstrating a distinctive style that tended to be odd, pitiful and astounding. A visit to the sections arranged by Kantor encouraged re-flection on the role he himself, as well as the circles gathered around the Krakow Group and the Foksal Gallery in Warsaw occupied in the Polish world of art.

The white walls and grid panels were brimming with paintings, drawings and photographs delineating Kantor's artistic career; here and there they were grouped in dense clusters. Displayed in close proximity to each other were emballages, "em-ballaged" figures from the 1960s and 70s, umbrellas dating from the poetic period attached to uniformly painted stretchers, works from the *Multipart* cycle related to Kantor's campaign that involved "lending" his pieces to friends who were then supposed to creatively contribute to them, held at the Foksal Gallery in 1970 (the exhibited pieces were not original), a "wrapped" board or wheelbarrow in a paint-ing or next to it, from the cycle *Everything Hangs by a Thread* (1973) – a series that adopted an ironic approach to minimalism and conceptual art. Accumulated works turned the exposition into a peculiar assemblage, an aggregation, bringing to mind the Popular Exhibition of 1963 (or, according to Kantor, the *Anti-Exhibition*). This

---

1 The text was previously published in the exhibition catalog: *Biel kolorem śniegu. Ta-deusz Kantor i artyści z kręgu Cricot 2. Rzym 1979 / Art as the Colour of Snow. Tadeusz Kantor and the Artists from the Cricot 2 Circle. Rome 1979*), Cricoteka, Kraków 2017, ISBN 978-83-61213-02-4, p. 119–138.

model of exposition connoted the question of the imposed and covert world order, presumably consistent with the artist's intention. Ubiquitous drawings transformed the place into a studio of the director who continued sketching ongoing ideas, designs, rehearsals and performances. Theatrical objects – a coalescence of a wanderer and his luggage from the happening-based production of *The Water Hen* (1967) or a boy at a desk from *The Dead Class* (1975) – visualised the final results of the sketches. They elucidated the process in which the artist's creative will, operating in the "poor small room of the imagination," overstepped the boundary between drawing, painting, theatre, literature and his own memory. They showed that "poor" matter could be of service to paradoxes and the kind of art that upheld Dadaist and Surrealist tradition as well as that which disregarded the principles of irony, akin to the wit of Fluxus founders. Photographs were hung in rows, secured to cords with clothes pegs like a line of washing, across the central room, reminiscent of Rauschenberg's or Oldenburg's pop-art pieces, like "memory negative" drying in the darkroom. Or, perhaps, Craig's theatrical screens? It was indeed the theatre that was immortalised in those photographs, ever true to its poor Kantorian condition – at once violating the static nature of the photo and exhibited as a work of art. Theatricality, irony-stricken poetic mood and features typical of art installation pervaded one another.

Kantor's work was obviously overrepresented and yet, by a curious paradox, the abundance of exhibits only consolidated the impression that the viewer was confronted with destitution of the "lowest rank," disguising the artist's mastery of diverse experiences. This included traumatic episodes related to the absence of the artist's father and the wartime, evoked in a fashion that affirmed degradation, humiliation and deprivation, but also episodes that fostered freedom and thus enabled boundless art to appropriate and utilise the potential of degradation and poverty[2]. Finally, there was also the joy of travelling and learning, both inspiring and provoking ironic distance. Noise, impermanence, constructed illusion (seemingly measurable, orderable and packable), futile effort, oscillation between laughter and sadness, the simplicity of whiteness, the randomness of daily life, and tragic fate in the cricotage *Where are the Snows of Yesteryear*,[3] performed at the Palazzo delle Esposizioni as an accompanying event, united the sense of confusion and destructive nonsense occurring in the world with the mysterious suggestion of the unimaginable. Alluding to Surrealism and, slightly ironically, evoking the Bauhaus and constructivism, the

---

2 Dating from the 1960s, works from the cycle titled *Realność najniższej rangi* [Reality of the Lowest Rank], were listed at the beginning of the index of artworks as the earliest in terms of chronology, which was possibly also meant to indicate the origins of Kantor's style, cf. *Le opere*, 1979: p. 94)

3 There were three performances of the ca. 30 min cricotage in Rome (27–29 Jan 1979). The title originated from François Villon's *Ballad of the Ladies of Bygone Times*. The spectacle featured figures clad in white who pulled on a rope separating life from death. They included Geometrician metamorphosing into Rabbi, Big-Bellied Man wrapping a box, Individual with Newspapers commenting on headlines, This Well-Known Man wearing a uniform and the Last Judgment Machine. Bridegroom was "dragging" Bride, the tune of the Song of the Warsaw Ghetto was blending into a tango to which Cardinals danced, the sound of ripping a sheet of white paper turned out to be the sound of marching soldiers (Work – Where Are the Snows of Yesteryear, 2016).

play spotlighted the peculiar otherness of Kantor's avant-garde, determined by the force of its creator's personality. The avant-garde that was both Polish and Central European – strange, poor, extraordinary, and employed its own symbols to explore the notions of cognition, liberty, order and system in its own fashion, one that was truly unique and influenced by its history and experience.

An alternative and original approach to crucial avant-garde concepts manifested itself as a distinctive trait when Kantorian accumulation and the appearance of triviality gave way to *attori pittori*, or "actors-painters" as they were referred to by the maestro (*Kantor racconta*, 1979). In a detailed plan prepared by Tadeusz Kantor, works by the artists associated with the Cricot 2 Theatre were to be exhibited in rooms immediately adjacent to the one housing his own oeuvre, connected by a separate passage as though one "entered them from Kantor" (eventually the viewers stepped from one room directly into another)[4]. The *Le opere di Tadeusz Kantor. I pittori di Cricot 2. Il teatro Cricot 2* [The Work of Tadeusz Kantor. Cricot 2 Painters. Cricot 2 Theatre] exhibition, which took place within the framework of the *Polish Avant-Garde 1910–1978* show, was curated by Konstanty Węgrzyn and Achille Perilli. It was intended to be presented in Milan later that same year.

Our stifled revolution

Maria Jarema always occupied an important position in Tadeusz Kantor's memory and it was only natural that her pieces were included in the show[5]. Deceased long before 1979, Jarema nevertheless continued to be seen by Kantor as an intelligent, critical, uncompromising and vigorous artist with an inclination to flout conventions and well acquainted with the French Avant-Garde, highly skilled in creative techniques, and quite ingenious in developing them. Represented by monotypes and a theatre costume, her work distinctly marked its presence at the show (*Le opere*, 1979: 95; Blum, 1965).

In the exhibition catalogue published for the Milan display, the reproduction of a grinning multi-eyed head from the *Ekspresje* [Expressions] cycle (1955) serves as a visual introduction to Jaremianka's (as she was called) oeuvre (Eventually the work was only featured in the catalogue, Le opere, 1979: 35). Although it is drawn with thick, bold lines, the head seems to be quivering and thus multiplying itself in the Cubist fashion, to be seen at different times, from various perspectives, and on diverse planes. Is this caused by the memory of the omnipresence of soldiers and the related,

---

4 This is the most probable version, according to what can be seen in the mentioned film. It may be that Kantor successfully insisted on separate rooms for the artists from his circle, which would be inconsistent with curator Stanisławski's intentions (in exhibition plans, stored in Achille Perille's archive, rooms adjacent to those devoted to Kantor's work bear the names of the artists participating in the show L'avanguardia polacca 1910–1978). The artists recall that Maria Stangret-Kantor, Maria Jarema and Kazimierz Mikulski had separate rooms or room sections at their disposal (Kantor recconta, 1979; The transcription, 2013: 3).

5 Maria Jarema (1908–1958) graduated from the Academy of Fine Arts in Kraków, a sculptor and painter employing the techniques of tempera, gouache, watercolour, and monotyping in her work; she also designed theatre costumes. She co-created the Cricot 2 Theatre from the very beginning in 1955 (The transcription, 2013: 3; Blum, 1965)

not only wartime, circumstances? Or might this be the head of Henryk Wiciński who suffered from tuberculosis and died in pain, like many friends of the artist, during the occupation? (Blum, 1965:13) Or is this a manifestation of the "spirit of the age" as a similar head can be seen, for instance, in one of Henry Moore's sculptures from the 1950s (e.g. *Openwork Head No. 2*, 1950)? Or, perhaps, an expression of the uncompromising nature of the artist and all the things she had lived through that provided her with sufficient reason to feel frustration and humiliation, pain, loneliness, strain, aggression and anger? Perhaps they converted into an assault on motion, lines and matter, forcing the grinning into a dance of forms, splitting identity into a multitude of roles and images interpretable in countless ways?

In a photograph taken at the exhibition, stored in Achille Perille's archive, there are five other works visible on the wall. Are these more soldiers? The small figures proliferated in *Kompozycja nieokreślona II* [Indefinite Composition II] (1958) as five "tentacle-like" heads upon spindly torsos/stems? They are striding, jumping and dancing on a slanting plinth that looks like a black building with an opening where the door should be. Or is this a stage? The background takes the form of a yellow rectangle… Light, perhaps? So, could this be a theatre or dance performance? After all, there are also small "tulle" screens/veils/skirts that somehow appear mobile… Or, perhaps, the whole thing is a biting mouth once again? Ambiguous symbols or abstraction? There will be more heads, for instance in the *Wyrazy* [Demonstrations] cycle, similar to splayed trees.

Already at that time, similarly to *Rytm I* [Rhythm I] (1957) and *Rytm II* [Rhythm II] (1957), the artist is increasingly keen on multiplying and uniting un- expected figures only to dismantle them again and create mosaic- or cutout-like fragments, incorporated into the background or extracted from it. She investigates shapes, replicating and piling them, moving them around in a variety of ways to finally cut through a form in an attempt to avert the danger of exaggeration. She recreates it anew and opens the space upon a plane with a rhythmical gesture. She breaks space-time like a composer, a choreographer or a conductor dictating dance-like fluid spatial relations between shapes. She juxtaposes, overlays, grades or leaves space empty and examines its relationships with an object. This is why in *Rytmy* [Rhythms] blots shiver, vibrate and hollow the surface of the background. Perhaps, this is the unceasing turmoil of the revolution Jaremianka sympathised with? Even though she was not able to give it proper expression in her work? In a way that would resolve all established orders?

The motif of taking or tearing apart will reappear in costumes designed by Maria Jarema as she applied her experimental technique to the theatrical/sculptural realm, for instance in the work prepared for the play titled *Circus* (1957) [6], displayed on a frame. Costume was meant to impose discipline on the actor – to direct gestures and behaviour on stage, and abolish everyday order or to imitate it.

Colour was another instrument for breaking a shape. Initially, colour was scarcely present in the artist's work: in the form of two yellow patches against a black-and-white figure, or disconnected red, yellow, blue or grey excerpts/planes placed

---

6   A play by Kazimierz Mikulski, directed by Tadeusz Kantor, costumes and make-up by Maria Jarema. The production was a continuation of Kantor's concept of emballages, first introduced in the 1956 production of *Cuttle-Fish*, (T. Kantor, 2005: p. 295)

against a white background. The painting in question is *Penetracje VII* [Penetrations VII] (1958), a study of colour, motion and space but, to search deeper, perhaps also a sign of the revolution which, although stifled, was still smouldering, or certain erotic associations. At the same time, Jarema continued to experiment with lying monotypes, transferred onto the back of the pressed surface with a draw- ing gesture from above, from the outside (Blum, 1965: 87). The final result was unpredictable. In the synthetic perfection for which the artist was known, a play with incertitude was going on, testing the border between symbolism and abstraction.

Maria Jarema's strongly accentuated presence at the exhibition was not only the result of Kantor's predilection for the artist or the fact that she had been a co-founder of the Cricot 2 Theatre. According to Helena Blum, "her work was the centre of attraction for two generations" of Polish artists, and she stood out from the global art world by being "distinctly Polish" (Blum, 1965: 90, 98) Tadeusz Kantor intuited that Maria Jarema was in fact a co-creator of the individual Kantorian landscape of the Polish Avant-Garde. An avant-garde whose energy, just like Maria Jarema's, was repeatedly stifled, suppressed and subjected to rules which twisted its essence; it was demeaned and pushed even below the status of the "lowest rank."

What a beautiful degradation…

A scene in the film *Kantor racconta Kantor* shows the actors/painters and Tadeusz Kantor sitting at a table and conversing under *Niebieskie niebo* [Blue Skies] (1970) and *Szare niebo* [Grey Skies] (1970) by Maria Stangret-Kantor (Stangret-Kantor, 2016: 105; Le opere 1979: 38–43)[7], two paintings alternatively called *Niebo z rynną I* [Skies with Gutter I] and *Niebo z rynną II* [Skies with Gutter II]. Gutters filled with paints consistent with the colours named in the titles have been placed below the canvases on which pigments of matter are blurred by patches of light into an illusion of space in the Informel or Pictorialist style. As though clouds were penetrated by sunlight dispersing the mist and parting the filters of seeing applied to spatiality. This could be the culmi- nation of the period devoted to *Pejzaże kontynentalne* [Continental Landscapes], created by the artist in the 1960s. Could it be them, once "confronted with a painted and a real wall," (M. Stangret-Kantor, 2016: 91, 105) that have evolved and – united with the matter of paint that is a means of creating illusion – seek ways to explore reality and inquire how reliable these ways are?

---

7   Maria Stangret was Tadeusz Kantor's wife from 1961. She participated in the following Cricot 2 Theatre productions: *Studnia, czyli głębia myśli* [Well, or the Depth of Thought] (pantomime, 1956), *W małym dworku* [Country House] (1961), *Wariat i zakonnica* [The Madman and the Nun] (1963), *Kurka wodna* [The Water Hen (1967), *Szewcy* [The Shoemakers] (1972), *Nadobnisie i koczkodany* [Lovelies and Dowdies] (1973), *Umarła klasa* [The Dead Class] (1975), *Gdzie są niegdysiejsze śniegi* [Where are the Snows of Yesteryear] (1979), *Wielopole, Wielopole* (1980), *Niech sczczną artyści* [Let the Artists Die] (1985), as well as in all happenings staged by Tadeusz Kantor: *Cricotage* (1965), *Linia podziału* [The Dividing Line] (1966), *Wielki Ambalaż* [La Grand Emballage] (1966), *List* [The Letter] (1967), *Panoramiczny happening morski* [Panoramic Sea Happening] (1968), *Rozmowa z nosorożcem* [Conversation with a Rhinoceros] (1968), *Hommage à Maria Jarema* (1968), *Lekcja anatomii wedle Rembrand*ta [Rembrandt's Anatomy Lesson] (1968, 1969, 1970, 1971).

Filters that control seeing may also be seen as imposed orders that seem to present a challenge to the creator's "artistic and research" paintings from the 1970s. A hopscotch diagram (*Gra w klasy* [Hopscotch], 1970), drawn in black upon a white surface and descending from the vertical picture to the horizontal floor, or lines setting even rows to organise a picture reminiscent of a magnified concertinaed page from a notebook (*Kartka z zeszytu [składana]* [Page from a Notebook (folded)], 1976) wanted to know the rules and whether they were conventional, violable, suspensible… Was there a possibility of formulating new ones? "When I set out to paint new *Pages from a Notebook*, when I face an empty canvas, I always have the feeling that this time I have to start anew and do everything with better care as though I were about to re-write in calligraphy the content of an old notebook in a new one" (Gorządek, 2007) – the artist later commented.

The question about what hides behind reality with its ordering regulations kept reappearing in her work. This mysterious space that cannot be fathomed, presumably of the "lowest rank" (as Kantor would put it). This is the rank of the pawn positioned on a fragment of a chessboard, also sinking – on folded and broken steps – from a vertical plane to the floor (*Szachy* [Chess], 1974).

In Maria Stangret-Kantor's oeuvre truth is sought constantly. This is the kind of truth that falls beyond all rules, bright and pure, that may turn out to be nothing but an illusion when it chances upon human cognitive apparatus (in the reproduction published in the catalogue, a naked boy jumps through the spaces of a hopscotch diagram in a symbolic gesture; this, however, is merely a photograph…) (*Le opere*, 1979: 39). The tone she uses to ask about truth suggests simultaneously how it should be reached and uncovered. It was perhaps guaranteed by the poetic nature of her pieces, present not only in ambiguous and potential symbols, but also in Maria Jarema's output. By using ironic metaphors (broken rules, a pawn escaping power, measuring the infinity of a white plane with the finite metre [*Metr* (Metre), ca. 1974]), Stangret-Kantor applied zeugma amongst others. She also employed hyperbole, plainly pointing at the order governing everyday life. She violated, broke and bent it with the intention of battling and relativising. But she did all this gently, or even beautifully, dressing irony in a poetic and painter's costume. This girly/pupil's attire and its childlike tenderness often masked the tendency to cross boundaries. A wave may delicately flow around the frame – the threshold connecting the surface of the picture with the gallery floor – but it may also hijack and sink… Nevertheless, ambiguous symbols were unavoidable in visual poetry.

The symbolic/metaphoric type of sensitivity will be developed by the artist in her later work. A rolled up piece of paper with smudged letters will reappear in the future as a torn, crumpled, stained and partly burnt sheet in *Kartki zapisane gestem* [Pages Written by Gesture]. It will take the form of a new painter's homage (presumably containing traces of *Landscapes* "blurring" into *Skies*?) to figures whose lives were cruelly interrupted by history such as, for instance, Sergei Yesenin (Stangret-Kantor, 2016: 147, 189). Degraded, humiliated and eliminated, their artwork will nonetheless remain as a poetic reminder of beauty which was always present in their lives regardless of externally imposed orders.

A ceaselessly undermined system

The investigation of artistic orders and meanings, though less poetical and more sci-ence-related, also proved appealing to Zbigniew Gostomski, a pioneer of conceptual art in Poland and a Cricot 2 actor[8]. Invited to take part in the Rome show and perform in the cricotage, he contributed to the exposition a cycle titled *10 obrazów* [10 Paint-ings] (also known as *1 2 3 4 5 6 7 8 9 /10/*), dating back to 1974, as well as a series of ten slightly smaller drawings. Gostomski created the cycle in response to the ex-tremely strict principles of "mixing and applying paint to achieve colour harmony in the painting," taught at the Academy of Fine Arts in Warsaw" (Stangret L., 2012: 12). Using acrylic paints, the artist blended eight pigments which he then spread on equal-ly-sized canvases (100 × 100 cm); in the middle of each painting he added a square contour in a pure colour, the ninth pigment that was not included in the mixture. The final result revealed a red square outline on a green background, a yellow one on a brown background, or a blue one on a different shade of brown. The tenth painting was covered by all pigments mixed in equal proportions; its dark green was turning into black. The rule, which could come across as obscure at times (for instance, re-productions printed in catalogues may fail to provide an adequate representation of colours), was explained by plates of the same size as the paintings, bearing numbers. "In plates divided into 360 small squares," the artist "rendered the colour system into a numeral system where the numbers 1–9 corresponded with particular pigments" (Stangret L., 2012: 12). The repetition of a number formed a square contour on the surface of small squares bearing the other numbers in the decimal system with the exception of the number in the contour. The catalogue from the 1979 Milan exhibition contained only the plates with numbers (the Rome show comprised both paintings and drawings), along with the list of colours correlated with the digits, translated into Italian ("1. lemon yellow, 2. cadmium yellow, 3. lemon orange, […] 8. Coeruleum, 9. ultramarine"), and the following note: "The choice of pigments in a given case has no particular meaning" (Stangret L., 2012: 12; Le opere, 1979: 45–47). All the plates were reproduced, including *10* in which the row of 1–6 repeated above the row of 7–9 connects with the next one starting with 1 and eventually causes confusion in the order of numbers. *Rozprawa o kolorze* [Treatise on Colour], as the artist referred to this practice (Matuszkiewicz, 2008), provides conclusive proof that painting with all its colours defies any systematic/linguistic rules. Its mystery, like the mystery of art itself, cannot be captured in a closed and finite system. Philosophical, logical and mathematical attempts have proven insuffi- cient to explain the mysterious order of the world. Consecutive endeavours and discoveries reveal nothing but infinity.

After all, this was what Gostomski's artistic experiments were about, including the numeral/logical/harmonious Fibonacci sequence increasing *ad infinitum*,

---

8   Zbigniew Gostomski co-created the Foksal Gallery circle and worked together with Tadeusz Kantor in the 1960s, taking part in *Cricotage* as well as the happenings *The Letter and Panoramic Sea Happening*. From 1971 Gostomski was a Cricot 2 actor (Repeater and Woman in the Window in the *Dead Class*; Grand Geometrician and Rabbi in *Where are the Snows of Yesteryear*; Soldier in *Wielopole, Wielopole*; General, Card Player, Kantor's Mother in *Let the Artists Die*; Priest in *Nigdy tu już nie powrócę* [I Shall Never Return] (Stangret L., 2012: 13, 198)

seemingly "reduced" by Pascal's triangle, but also musical references or allusions to James Joyce's *Ulysses* (Stangret L., 2012: 10-12).

Infinity is almost directly indicated by Gostomski when he questions post-modern concept of the "end of the text" or, perhaps, comments on the experiment displayed in Rome and Milan: "I don't think painting will come to an end as long as there is pigment" (*Nie przewiduję*, 2004: 150). The phenomenon of art extends beyond scientific logic, and the poetic quality (after all!) in the painter's paradox reveals, beneath the strict order, what escapes it with its limitlessness.

Stripped mystery

The theatrical and poetic aspect was brought up again by Kazimierz Mikulski, another Cricot 2 actor,[9] whose presence at the exhibition had already been denoted by the costume designed by Maria Jarema for his play *Circus*. Yet Mikulski was principally a painter and the exhibition featured works from his cycle *Wizje końca* świata *przy czarnej kawie* [Visions of the End of the World over Black Coffee], created in the 1970s. With a few straight, horizontal and vertical lines drawn with various degrees of delicacy on flat backgrounds – uniform (white, emerald green) or divided into several basic planes (e.g. black and yellow applied upon a surface painted over with alizarin crimson) – the artist hinted at a vague stage space. It is upon this stage – or rather in it as interpreters saw it as a space of imagination or surreal consciousness (Such suggestions can be found in numerous texts in the bibliography to this article) – that various objects appeared in a divere range of positions: upright, horizontal, mounted on stands or suspended, as though they had been pasted like a collage onto the flat picture of the stage, although they also brought theatrical props to mind. There was a cross section of a cow with a distinctly marked skeleton in the middle, against a black and yellow background. There was also the horizontal line of a counter atop the back of the animal; both its ends were adorned with male busts "cut out" from prints. Were those scientists? The corners of the painting reveal sketched mechanisms, also "cut out". Above the counter/stage was the triangle of the Eye of Providence, not without irony inquiring about the actual power of rational models of cognition and modern (avant-garde?) inventions. Was this "dream logic" typical of Mikulski's work (Kitowska-Łysiak, 2002)? Or a metaphor of the powerlessness of scientific understanding? The powerlessness that becomes perfectly evident in the face of romantic imagination, surreal consciousness or, last but not least, metaphysics.

Birds and beetles shimmer with hues of yellow, red, brown, grey and sepia against a green background. Although they appear to be stuffed or cut out from an encyclopedia of biology, their lives are more intense, multicoloured, extreme and genuine than the life of high art represented by classic paintings. The type of art that imposes on space the geometry of linear perspective camouflaged by architecture, also employing a modern mechanism... Yet it is precisely in art – although not before Kazimierz Mikulski's work – that the vanitas perspective, the skull, finally

---

9 In Cricot 2 productions Kazimierz Mikulski, the actor, appeared as an "obsessive trumpet player conjoined with his prop" and a "chronic suicide" in *The Water Hen* and *Lovelies and Dowdies* (Czartoryska, 2004 (1976): 15)

overshadows Florence or even the *Miracles of Saint Zenobius*.[10] Poetic imagination triggers surreal, paradoxical and astonishing associations and it is these kinds of associations that open the subconscious mind. Is it this imagination that has been depicted metaphorically and almost directly in the painting of the torn and parted head from the portrait of Giuliano de' Medici, whose face has been replaced by the image of a bee? Is this a surrealist zeugma according to Mikulski? Others will call it appropriation art or Postmodernism with its tendency to combine all kinds of order in an unrestricted fashion...(*Sztuka zawłaszczania*, 2015)

Or perhaps Mikulski's universe of collage paintings is emblematic of the will to break free of any kind of order, of a hidden system (e.g. social roles which tend to be exposed in theatre and in painting) by means of naïve dreams, melancholic fantasies, merciful grotesques, quiet and subtle poetising (Żakiewicz, 2004: 8) The term "emblematic" entails ambiguity as the world of "free" birds and insects can equally turn out to be predatory. Is this not another attempt to show the impossibility of unravelling the Mystery the paintings venture to talk about – works displayed on-stage or pinned up onto something like on a school bulletin board; and yet the "surprises and riddles" expressed in painting draw from the remarkably rich "artistic and literary refinement of the creator." (Czartoryska, 2004 [1976]: 13)

Although highly specific, this "distinctly Polish version of allusive abstraction appreciative of Surrealism and showing a unique sense of space and poetic quality," (Czartoryska, 2004 [1976]: 14) which features made it akin to Maria Jarema's work, proves to be a separate phenomenon also as regards theoretical reflection.

Perhaps, all these lofty and scientific associations will be obscured by the very sensual woman that is so often found in Mikulski's work? Her figure is present here as well as in the work reproduced in the catalogue from the Milan exhibition; she has large naked breasts and a suspender belt on, her classic head has been "cut out" and "pasted" (*Le opere*, 1979: 53). Is she the allegory of liberty? She is charming and titillating, and equally dangerous; her pose is not so much triumphant in relation to mechanical devices (once again!) placed in the picture as outright triumphal in all her glory. Dominating the centre and pointed to by all arrows, she is the focus of attention. Or maybe this scene provides a setting for the emergence of the Mystery itself, emancipated from all rules, orders, costumes and roles, "stripped" of them and bare? The beautiful and terrible, liberated and naked truth?

Powerlessness of the painting...

Representing the younger generation of artists, Roman Siwulak[11] is known for his explorations of the weakness of seeing and image, as well as cognitive reliance on

---

10   In Mikulski's work a fragment of the reproduction of Sandro Botticelli's *Three Miracles of Saint Zenobius* (ca. 1500–1510) was used. The next work described here contains elements of Giuliano de' Medici's portrait by the same artist, 1478.

11   Roman Siwulak graduated from the Academy of Fine Arts in Kraków; a Cricot 2 actor, from 1970 he participated in all of its productions, a painter and director. Thanks to Kantor he was an honorary laureate of the Rembrandt Award (when Kantor received the

conventions. In future, he is to write that these features of painting become uncovered when a picture turns out to be a work of art. It is this type of painting that Siwulak "knocks from its pedestal" and compromises by "manipulating" it and using "poor materials" or the sort of art that deliberately shuns "paltry perfection" (Siwulak, 2010).

The fact that the "picture is not really what it should be," (Siwulak, 2010) stimulated discussion and inspired in-depth interpretations already during the Rome and Milan shows, despite the seeming simplicity of representation or even against it. It was a paradox that the simpler a work appeared the more it called for intellectual effort on the part of the interpreting individual. As a matter of fact, paradox was to become one of the key elements in Siwulak's work. For instance, the work titled *Obraz i obraz* [Painting with Painting] (1978) consisted of frames filled in by an indefinite plane as though there had been nothing on or in the painting. However, other frames "forced" their way into the bend of the rectangle of imagined frames. They were smaller but thick and, above all, they contained a small picture made up of shapes reminiscent of hills against overcast skies – a landscape, some sort of content which is, after all, expected in a painting. Satisfying viewers' expectations, the smaller picture deformed the contours, frames and surface of the larger one, presumably seeking information as to how far conventions of representation and display define the picture as a work of art, and whether this definition is in keeping with the actual operation of the senses and mind.

Frames could also be disfigured by a "real window" – again, framed glass "forced" its way into the upper part of the frame of the painting; it revealed a view while the space enclosed in the larger deformed frame was filled with a black-painted surface, literally nothing (*Obraz i okno* [Painting with Window], 1978). Resembling a cuboidal chimney from a distance, a segment of wall made from concrete, "real," yellowish-brown bricks brought from Poland, this time "clipping" a bottom corner of the painting with an empty grey and white back- ground in *Obraz i cegły* [Painting with Bricks] (1978). Although the wall was conspicuously present at the exposition as a tangible piece of reality, the work as a whole was still a painting. Not only because the artwork annexed and used reality but also because all objects were perceived with the power of sight and passed through the filter of the viewers' knowledge of the world, always producing images/texts in their mind.

Thus Siwulak's works intuitively generated reflections that tend to be identified nowadays with the so-called visual turn in the theory of art (Zeidler, 2006). However, in *Obraz i cegły* it was the artwork itself, which we would today catagorise as an installation, rather than the theory that investigated the limits of cognition, illusions of perception, reliance on conventions (especially in relation to the reception of the painting) and yielding to visual delusions.

The collage/installation-like compositions and painted/constructed multiplications outlined above contained poetical tautologies, repetitions and gradations. Consequently, the works also seemed to revolve around the secret

---

Rembrandt Award in 1978 he chose Roman Siwulak and Andrzej Wełmiński to be the honorary laureates of the award) (Roman Siwulak's bio).

logic of paradox, which may bring the cognitive machinery to a halt to expose its limitations and search for poetic ways of reaching both the subconscious and metaphysics.

All these interpretations were plausible although the artist was to say later on: "My intentions are rather unclear. As if I were trying to hide my true designs and, by lending this kind of form to my paintings, saying: »what is this about?«" (Siwulak, 2010). Suspending authorial interpretation could simply be another poetical retardant means used with hindsight. After all, within the context of the mystery of things "bared by belittling transformation into an image" the philosophical, conceptual question "what is this about?" essentially ruled out the "omission of the painting." This provided space for the return of more precise philosophical questions: does transformation into an image entail loss of the features of being? Can this apply only to some of them or to the complete "act" of being, when all that remains is its exhibited potential? Is this the kind of question the painting is asking? One containing the representation of an ordinary object found in the painting, a regular piece of wall made present as an object built from transported bricks that cast light on various perspectives of existence, diverse approaches to "being" and examine its many meanings, ultimately reducing everything to the metaphysical "Is" (Krąpiec)? Confronted with metaphysics the picture appears weak, while the "Is" is strong. Even though it cannot be ultimately known and is always obscured by Mystery.

…and the weakness of cognition

Another artwork, jointly created by Roman Siwulak and Andrzej Wełmiński,[12] features a door painted/installed by the entrance to the room that also "is". Is it to hide something, for example a broom in a box according to the drawing called *Za drzwiami* [Behind the Door] (1973)? Or, perhaps, its chief purpose is to lead to the "small room of the imagination," stimulating the cognitive process with poetry and theatre? In this process the door, the wall fragment and the picture turn out to be the symbolic objects Tadeusz Kantor liked so much.

Kantor also "liked" windows. The emblematic *Okno* [Window] (1971), also by the Siwulak–Wełmiński duo, was displayed at the exhibition in Rome. An authentic wooden frame with glass panes was mounted on a special construction; it was white and divided into four sections. Next to it there was a painting of the same size with a black-painted frame and a "view" of buildings on the corner of a square and street. To some extent, the piece dispelled the notion that, behind the window there is a picture of the real world. What there is the truth about how the cognitive processes we use are influenced by the abilities of our senses, our habits and expectations;

---

12 Andrzej Wełmiński – graduated in graphic arts from the Academy of Fine Arts in Krakow, an actor who performed in all Cricot 2 productions from 1970, a painter, photographer and installation artist. Selected by Tadeusz Kantor to be the laureate of the Rembrandt Award – together with Roman Siwulak. A collector of the maestro's drawings (*Teresa + Andrzej Wełmińscy*; *Tadeusz Kantor. Rysunki*, 2007: 8–14; *Le opere*, 1979: 57–60 and sketches in the Cricoteka Archive.

the painted image provides an almost direct comment on this. In fact, we have no knowledge as to what is real and what is merely viewed. There is no way of knowing whether the broom behind the wardrobe, visible in the reproduction published in the catalogue, is a real object, a painting, or a photo (*Za szafą* [Behind the Wardrobe], 1973). There is no way of finding out what is *behind the door* or under an ordinary but torn straw doormat.

What is behind, underneath, inside…? What is the real purpose? Or perhaps the question once again was this: "what is a subject of cognition, and what simply Is?" Conspicuously positioned in the middle of the room at the Palazzo delle Esposizioni was a box of unseasoned boards nailed together, with a walking stick stuck in an opening (a joint work of the two artists, also presented in the form of a sketch). Might it be that the stick is carrying out a reconnaissance of the inside for security reasons, so it can later use this limited and ever so dubious knowledge to gain "support"? In the photograph depicting the *Pielgrzym* [Pilgrim] installation (Siwulak–Wełmiński, 1975) that seems to be dominating the exposition, a "bowed" figure, "down on its knees" in an elegant suit, with its head in a box (the original box with the opening for the head was placed underneath the photograph) sees whatever can be seen in the confined space. It might be willing to see a lot but it cannot; it cannot see anything but the box, incapable of accessing vaster space… Its face remains unknown; he can neither see nor be seen. In a humiliating fashion his status was lowered accordingly – "down to its knees" into anonymity.

Again, the cognitive impotence of the picture is almost like philosophical phenomenology here, testing the limits and habits of perception. And, perhaps, it is another suggestion that a metaphor (even of a "being hiding in humiliation, in a humble rank" or the "cognitive impotence of the picture" itself) implies questions of metaphysical cognition. Anyway, are we truly "strong" enough to be part of such cognition? Would it not be better to shed our illusion of power and accept humiliation just to be able to learn as much as we can about ourselves and the world as we see it from an individual perspective?

The reflective quality of art continued as Andrzej Wełmiński presented his solo work from the 1970s in Rome and Milan. That had been a period corresponding with Kantor's "lowest rank" by its scarcity and economy; the artist himself referred to those works as "temporary" (Baranowa, 1992). He had worked with pre-existing packaging, found objects, cardboard, craft paper, wooden boxes… Boxes in Wełmiński's drawings tend to have a life of their own, jumping or belching out smoke. A cigarette or tube may be sticking out of them. They are annoyed by walking sticks that go through peculiar variations, e.g. attached to a wheel or dividing themselves into pieces… *Pudełka* [Boxes], 1972, and numerous untitled drawings dating from 1972–1975). Why the sticks are there actually remains to be revealed. To act as instruments of support and testing, or to trigger indecent associations when combined with a female nude…?

Wełmiński's drawings can be specific. Often, from underneath a seemingly dull, petty and impermanent surface a drop of dark pigment arises, rubbing the surface and metamorphosing into a simple line – wobbly, uncertain, providing merely the appearance of shape, pretending and hiding, fading away. The sketches

show a creative process that can be described as full of mistrust, characterised by predation disguised in the soft lines of drawn contours, reminiscent of Kantor's theatrical designs and so affected by the maestro… But they carry on along the path of riddles springing from the very process of looking, seeing and remembering, cognitive errors and the loneliness of figures and persons that experience the world, unexpectedly united from time to time. It was already at that time that the mixed collage-based technique allowed for the combination of an outlined male profile and a tube/telescope arising from cardboard matter, leading to an optical/mirror/ periscope mechanism concealed under the surface of the work, making it possible to "secretly view" Tadeusz Kantor's output. Wełmiński called himself a "peeper" (Baranowa, 1992).

Inherent in peeping is the acceptance of the role of a viewer separated by the threshold of the picture frame or stage (Wełmiński would never give up the notion that "theatre and painting are complementary, performing mutual permeation and confirmation") (Baranowa, 1992). It is also a metaphor of observation from a hidden place, from beneath, from an inferior position (an idea already present in *Pielgrzym*), while at once paradoxically elevated by the exclusivity of secrecy. Besides, it evokes the figure of the student who learns as he looks but also learns to look, becoming aware of the imperfection of the sense of sight and the multitude of secrets inaccessible to senses. It was surely no accident that the series of "ontological paintings," possibly dedicated to the search for the essence of things, for instance by means of exposing the craft of woven matter (*Kunst*, 1972), was created in the 1970s. A craft that, nevertheless, fails to guarantee indestructibility; the matter is easily unravelled, unfastened and unrolled; it is so easy to stick something into it… So perhaps this is only an illusion of essence? Impossible to capture?

Still, what could be captured were metaphors and symbols. They made it clear that even though uncertainty, mystery, appearances, illusion, convention and weakness, inferiority and impotency, appeared to be the key words in the work of Roman Siwulak and Andrzej Wełmiński, the poetic nature of their outputs hinted at another way of cognition that went beyond looking and understanding. Characteristically, in the film Tadeusz Kantor talks openly about "poetic quality" in the room housing pieces by the two artists (*Kantor racconta*, 1979). Perhaps, it is this quality that is the "permanent revolution" that pushes one off the regular path of habits and simplifications, allowing a discovery of something more in "reality"? And a transgression of the reality of theatrical roles and illusory spaces to reach for the Mystery?

The avant-garde theatre…

The Exhibition by the Cricot 2 artists was part of the show called *L'avanguar- dia polacca 1910–1978*. In his studies on the avant-garde, Stefan Morawski named Tadeusz Kantor in the section devoted to the aleatoric-ludic trend (Morawski, 1975: 63). When he explored the tendency that consisted in "initiating accidental events" or "the interrupted spectacle," he also analysed the possibility of overcoming alienation and returning to oneself, both of which reached beyond enjoyment and

entertainment. It was indeed in the "Cricot 2 circle," which could at first seem "derisive" as it continued the Dada and Surrealist traditions, where "going beyond" could happen, a phenomenon constantly encouraged by the transdisciplinary character of the Cricot 2 Theatre.

The most obvious thought triggered by the exhibition is that Tadeusz Kantor invited the co-creators of his own theatre, whom he referred to as *attori pittori*, to take part. The show thus confirmed the notion that Cricot 2 was the artistic theatre of Kantor, Jaremianka, Mikulski, "who wished to achieve a unity of the literary and visual idea in the spectacle, advocated by the twentieth-century avant-garde theatre (…) the choice of text, director, gesture and word, costume and prop all formed a unity" (Czartoryska, 2004 (1976): 14; Baranowa, 1995: 83–97). The exhibition could prove the existence of a theatrical *Gesamtkunstwerk* in Kantor's environment.

The invited artists seem to have successfully demonstrated that they were more than merely actors and painters in this "collective" work in the broad sense. If not in the Cricot 2 Theatre itself, then in its circle, determined precisely by various practices of the artists who would act as playwrights, stage designers, directors, poets… Artists who, like Tadeusz Kantor, made an attempt to perform an artistic exploration of the world, its elements, the process of its creation, development and order, differentiation and establishing of rules, as well as unlimited progress and existence that keeps restarting, over and over again. To study first and foremost its perceptible and remembered image. They transformed and broadened this image, disturbed its boundaries and stirred into motion the recurrent and enriching process of creation, becoming, life, existence, and questioning any limitations as to the image itself. And that was when they could turn into directors. Most of all, they were Tadeusz Kantor's actors. Consciously at times, intuitively at times, they learned from the maestro and utilised the possibilities he offered them. In every "actor/painter" Kantor opened new expanses and he grew bigger himself, through their creativity. In this way, he contributed to their artistic development, opening up. And "going beyond."

…and the art of cognition

For instance, leaving the well-trodden paths of the avant-gardes. Tadeusz Kantor and the representatives of the Circot 2 circle stand for the rejection of the conformism of the avant-garde, which was in a state of degradation and destruction of its meaning; in grotesque humiliation. Perhaps it was precisely owing to the specific style and aura, bluntly exposing the conventionality of pictures, realities and systems, that Kantor's circle brought about an artistic revolution (so desired by all avant-gardes)? It was a "small" one as the circle was small as well as seemingly marginal, and a "poor" one in terms of style but it went on and on in a little, constantly humiliated, deprived, poor and miserable world in the middle of Europe. In the avant-garde of the lowest rank there were still extraor- dinary levels of sensitivity to poetry and philosophy that made it possible for the theatrical "going beyond" to become a cognitive act of going beyond oneself.

What the creative outputs of most of the artists discussed earlier in this essay, otherwise so diverse, had in common was the investigation of orders, exposing and emphasising them. The very observation that systems do work. Perhaps this is why the association with the work of a scriptwriter/playwright and stage designer – who study and imitate the world – seems appropriate here. However, in terms of directing, the observation relates to how new orders are imposed upon pre-existing ones (which was a common tendency among avant-garde artists) but also decomposed, dismantled, questioned and overruled in artworks.

The reason for this may be, for example, the will to reveal the energy stifled by enforced rules and regulations. Enforced in order to prevent changes – both revolutionary and subtle…

Or to release the constantly escaping subconscious…

Or to show that underneath understandable orders, rules, rhetoric, and narratives hides unattainable logic of which art can be part for a little while. It is then that art draws closer to Mystery. The Mystery that is neither amusing, funny, nor ludic, and not always nice, gentle or Arcadian. It seems that the attempt to unravel the Mystery might have been a major challenge responded to more or less intuitively by the artists. Although or in spite of the fact that resolving this Mystery is a task that can never be fully completed…

Ironic humiliation, belittling, stifling, mistrusting, liberating and demonstrating that we are incapable of knowing what we want to set free found their expression in the work of "Kantorian" artists. These artists were not so much modernistically avant-garde or postmodernist (although many would presumably apply these names to some of them) but primarily "Kantorian" and unique in this quality. Odd, disgraced, deprived, and for all these reasons not less than universal. Just like Kantor as he set out to perform an artistic exploration of the world and himself in order to reach beyond the world and himself, thus approaching metaphysical revelation.

Translated by Monika Ujma

Bibliography

A. Baranowa, Gesamtkunstwerk *Tadeusza Kantora – między awangardą a mitem*, "Prace z Historii Sztuki", z. 21, "Zeszyty Naukowe Uniwersytetu Jagiellońskiego" mclxxiii, Kraków 1995, pp. 83–97.

A. Baranowa, *Tablice wotywne Andrzeja Wełmińskiego*, "Dekada Literacka" 1992, no. 4 (40), [reprinted in:] Teresa + Andrzej Wełmińscy, http://www.welminski.pl/ pl/ plastyka/teksty [retrieved 17 Dec 2016].

H. Blum, *Maria Jarema. Życie i twórczość*, Wydawnictwo Literackie, Kraków 1965.

U. Czartoryska, essay reprinted from the exhibition catalogue *Kazimierz Mikulski. Malarstwo*, Salon Sztuki Współczesnej, Łódź, April 1976, [in:] *Kazimierz Mikulsk*i, texts by: A. Żakiewicz, U. Czartoryska, Biblioteka Narodowa, Warszawa 2004

E. Gorządek, *Maria Stangret-Kantor*, September 2007; updated: November 2009, http:// culture.pl/ pl/tworca/maria-stangret-kantor [retrieved 18 Nov 2019].

T. Kantor, *Pierwszy ambalaż* [in:] idem, *Pisma. Metamorfozy. Teksty o latach 1934–1974*, vol. 1, selected and edited by K. Pleśniarowicz, Ossolineum, Cricoteka, Wrocław–Kraków 2005.

Tadeusz Kantor. Rysunki z kolekcji Teresy i Andrzeja Wełmińskich, Akademia Pedagogiczna w Krakowie, Kraków 2007.

Kantor racconta Kantor [Kantor recounts Kantor], dir. M. Bosio, N. Garrone, film shown on the RAI channel, Italy 1979.

M. Kitowska-Łysiak, *Kazimierz Mikulski*, June 2002, http://culture.pl/pl/tworca/ kazimierz-mikulski [retrieved 18 Nov 2016].

M.A. Krąpiec, *Metafizyczne poznanie*,[in:] *Powszechna Encyklopedia Filozofii*, http://www.ptta.pl/pef/pdf/m/ metafizycznep.pdf [retrieved 16 Jun 2013].

L'avanguardia polacca 1910–1978. S.I. Witkiewicz, costruttivismo, artisti contemporanei, ed. R. Stanisławski, Electa Editrice, Milano 1979.

Le opere di Tadeusz Kantor. I pittori di Cricot 2: Maria Jarema, Maria Stangret, Zbigniew Gostomski, Kazimierz Mikulski, Andrzej Wełmiński, Roman Siwulak. Il teatro Cricot 2, La Tipografica, Roma 1979.

M. Matuszkiewicz, *Zbigniew Gostomski*, December 2008, http://culture.pl/pl/ tworca/ zbigniew-gostomski [retrieved 19 Nov 2016].

S. Morawski, *Awangardy XX wieku,* "Miesięcznik Literacki" 1975, no. 3, p. 63.

Nie przewiduję końca malarstwa, skoro istnieje pigment. Rozmowa ze Zbigniewem Gostomskim [in:] Z. Taranienko, *Dialogi o sztuce*, Warszawa 2004

R. Siwulak, *Pomimo obrazu*, http://www.otwartapracownia.com/wystawy/2010/01- siwulak/siwulak.pdf [retrieved 19 Nov 2016].

Roman Siwulak's bio at the Foksal Gallery's website, http://www.galeriafoksal.pl/old/ kod/siwulak/nota-bio.htm [retrieved 21 Dec 2016].

L. Stangret, *Zbigniew Gostomski. Ad rem*, Mazowieckie Centrum Sztuki Współczesnej „Elektrownia" w Radomiu Radom 2012

M. Stangret-Kantor*, Malując progi. Maria Stangret-Kantor o swoim życiu i twórczości. Spisał i zredagował Lech Stangret*, Cricoteka and Tadeusz Kantor Foundation, Kraków 2016

Sztuka zawłaszczania w Zachęcie, 25 Feb 2015, http://culture.pl/pl/artykul/ sztuka-zawlaszczania-w-zachecie [retrieved 27 Dec 2016].

Teresa + Andrzej Wełmińscy, http://www.welminski.pl/pl/plastyka/teksty [retrieved 17 Dec 2016].

The transcription of the recorded meeting accompanying the show Gdzie są niegdysiejsze śniegi – obiekty i archiwalia ze zbiorów Cricoteki [Where are the Snows of Yesteryear – Objects and Archival Materials at Cricoteka] (Cricoteka, ul. Kanonicza 5, 11 Oct 2013), Cricoteka Archive.

Work – Where Are the Snows of Yesteryear, www.tadeuszkantor.com.pl [retrieved 21 Dec 2016].

A. Zeidler-Janiszewska, "Visual Culture Studies" czy antropologicznie zorientowana „Bildwissenschaft"? O kierunkach zwrotu ikonicznego w naukach o kulturze, "Teksty Drugie" 2006, no. 4, pp. 9–29.

A. Żakiewicz, *O rysunkach Kazimierza Mikulskiego*, [in:] *Kazimierz Mikulski*, texts by: A. Żakiewicz, U. Czartoryska, Biblioteka Narodowa, Warszawa 2004

Zsolt Gyenes
Against the Apparatus

Vilém Flusser, the well-known philosopher wrote: "experimental photographers (…) are playing against the camera" (Flusser, 2000: 81).[1] With the permanent emergence of new techniques, this presents a growing challenge and an increasing state of excitement. Coming to the conclusion; the experimental artist is consciously looking for possibilities to make the program fail. Their aim in doing so is to highlight the significant features; to ask the fundamental questions.

(Making a short detour.) Gene Youngblood wrote: "All art is experimental or it isn't art. Art is research, (...) catalyst to change" (Youngblood, 1970: 65).[2] It is true; essentially.

Jump to the development of video art! Magnet TV (1965) is an early example of Nam June Paik's "prepared televisions." The magnet distorts the TV image into an abstract form.[3] The original meaning disappears. We can say: most of video art is

---

1   "(…) so-called experimental photographers (…) know they are playing against the camera. They are not aware that they are attempting to address the question of freedom in the context of apparatus in general" (Flusser, 2000: 81). Apparatus: (…) e.g. the camera, the computer (…); organization or system that enables something to function. (Lexicon of Vilém Flusser in: *Towards a Philosophy of Photography*).

2   "The notion of experimental art, therefore, is meaningless. All art is experimental or it isn't art. Art is research, whereas entertainment is a game or conflict. We have learned from cybernetics that in research one's work is governed by one's strongest points, whereas in conflicts or games one's work is governed by its weakest moments. We have defined the difference between art and entertainment in scientific terms and have found entertainment to be inherently entropic, opposed to change, and art to be inherently negentropic, a catalyst to change. The artist is always an anarchist, a revolutionary, a creator of new worlds imperceptibly gaining on reality. He can do this because we live in a cosmos in which there's always something more to be seen. When finally we erase the difference between art and entertainment —as we must to survive— we shall find that our community is no longer a community, and we shall begin to understand radical evolution" (Youngblood, 1970: 65).

3   Paik. N. J. (1965). *Magnet TV*. [Modified black-and-white television set and magnet]. "Magnet TV is an early example of Nam June Paik's ‚prepared televisions', in which he altered the television image or its physical casing. This work, which was featured in Paik's first solo exhibition in New York, consists of a seventeen-inch black-and-white set on which an

equal to the failure of electricity. The video-synthesizer is based upon this operation.[4] This is the essence of video art...[5] So, video art, which is based on electricity, opened the possibility of new "audio-vision" (Chion, 1994); altering easily audio and video.

Very unusual uses of applications or software open new horizons as well. Not knowing the real functions of software may surprise us with visual depictions of which programmer has not even dreamed. Artists enlarge; moreover, they stop the original capacity of the media. For an (experimental) artist, there is no bad, abandoned raw material. The "aesthetics of failure" and/or effect of destroying may become yet more accentuated nowadays. Tools have become flexible, easy and 'colorful' in ways never seen.

Error and chance/accident are not far from each other. Error/failure is a transcendent strength. We do not know the components of chance; in this way, it appears as an error for us.

What about the loop? The endless loop is a clumsy moment of hesitation; a kind of stumbling – as Saverio Verini writes in his study (Verini, 2016).[6]

I would like to introduce an example of my works of art in connection with our theme; "against the apparatus."[7]

I make Computed Tomography (CT) animations. Computed tomography is an X-ray-based examining method applied in medical service. Applying such a scientific picture-analysing technique in art by itself is quite unusual. I place objects in the CT-capsule which are totally alien from the normal use of this technology, including a TV, a fragment/part of an old computer or sometimes I apply a wire-composition. All these works of art were supported by the Health Centre of Kaposvár University. Metal causes disturbances of the magnetic field. It is considered to be a failure in CT-technology. At the same time, their aesthetic aspect proved interesting too. I did not attempt to eliminate the disturbance, but on the contrary, I strengthened it. I composed an animation strip from the picture slides. The whole work of art is presented as an installation.

It is worth-while to write some sentences about the sound, too, which is connected to the above-mentioned work of art. The chance and the "dislocated apparatus" created in this case a particular expression of form. The sound-environments/textures set out from text. The editing mode of TextEdit Speech does

industrial-sized magnet rests. The magnetic field interferes with the television's electronic signals, distorting the broadcast image into an abstract form that changes when the magnet is moved." (Whitney.org. [online] Available at: http://collection.whitney.org/object/6139 [Accessed 12 Nov. 2016].)

4 Paik, N. J. and Abe, Sh. (1969/92). *Video-Synthesize*r.

5 E.g.: Paik, N. J. (1973). *Global Groove*. [Audio-video, color, 28:30 min.].

6 "...the endless loop that soon becomes an obsessive repetition... (...) ...the automatism of the loop that, while evoking a process of industrial production, is actually a parody of this very process, as it appears to be an assembly line deprived of any function or purpose, so that the images it transmits become an end unto themselves. GIFs are even clumsy and awkward, usually with a short, almost imperceptible, moment of hesitation – a kind of stumbling – at the end of the sequence before it starts its next repetition." (Verini, 2016: 24-25)

7 Gyenes, Zs. (2015). *Synchrony Opus 104 (CT)*. [Audio-video, MPEG-2, 1280x720 px, 00:36 min., loop] Pécs: property of the artist.

not know what to do with the frequently repeated sounds, with the unarticulated forms. The apparatus begins to stammer, misses vowels and consonants. It results in a music-like, polyphonic expression due to a repetitive structure. Synchrony is the name of my audio-video series which consists of more than one hundred opuses. Here a sound event and a visual event meet in synchrony.[8]

As we mentioned earlier; video art equals a failure of electricity. The classic video-artists often produced abstract visual appearances. It was, above all, due to the capacity of electricity. The double characteristic of techno-media, which means that every medium is a reproduction, but at the same time it is also manipulation, have brought us to the present moment. First of all, the artists apply the manipulative characteristics of the media. The artist is especially conscious when committing an error. One makes it therefore to surpass the reproductive character of the media.

Abstraction passes for error in the territory of techno-media. These are, after all, typical reproductive media (e.g. photography, film, video, xerox, X-ray, fax). Abstraction goes against the apparatus. Abstract art, "is either completely non-representational, or [...] converts forms observed in reality into patterns which are read by the spectator primarily as independent relationships, rather than with reference to the original source" (Lucie-Smith, 1995).[9] We use the term abstract art according to the second part of this definition. We would initiate a new term, concrete video art for the seeing distinctly, but we think that it would cause much complication (Lucie-Smith, 1995).[10] "Abstraction proceeds in a reductive manner. (...) Abstraction transforms matter into something intellectual (it abstracts and idealizes an object); Concretion transforms something intellectual into matter (it concretizes and objectifies an idea)" (Jäger, 2005: 19).

Meanwhile, the definition of video art would be: "television and video-recording technology used in works of art" (Lucie-Smith, 1995). I would like to introduce an extension of this definition of video art: video is electronic/digital motion photography for which the technique serves as a basis by not only television and video-recording, but other reproductive techno-media like fax, xerox, X-Ray, CT and MRI. In case of techno-media, which is based on still pictures, the motion picture is created by frame by frame. This type of electronic motion picture could be

---

8   "A *point of synchronization*, or synch point, is a salient moment of an audiovisual sequence during which a sound event and a visual event meet in synchrony. It is point where the effect of synchresis (see below) is particularly prominent, rather like an accented chord in music. (...) Synchresis (a word I have forged by combining *synchronism* and *synthesis*) is the spontaneous and irresistible weld produced between a particular auditory phenomenon and visual phenomenon when they occur at the same time. This join results independently of any rational logic." (Chion, 1994: 58, 63)

9   See also: figurative art, non-objective, non-representational.

10   Concrete Art is: "Art composed of simple, non-representational visual forms, linked to the notion of structure as a continuous organizing principle (see Theo van Doesburg, *Manifesto of Concrete Art*, 1930). The name was chosen in preference to abstract art on the grounds that the artist's activity is the reverse of a process of abstraction. Max Bill defined Concrete Art as the effort 'to represent abstract thoughts in a sensuous and tangible form.'" (Lucie-Smith, 1995)
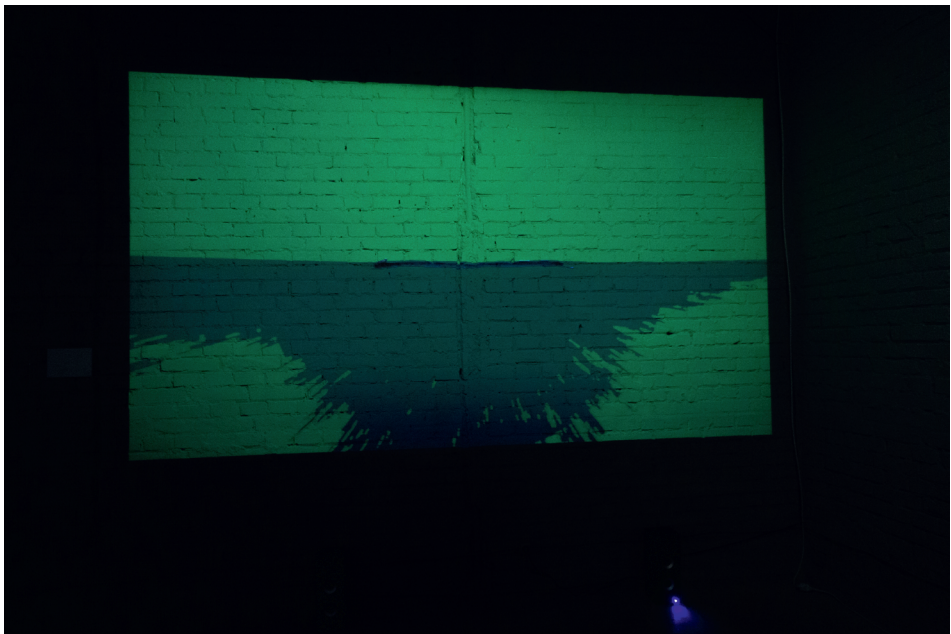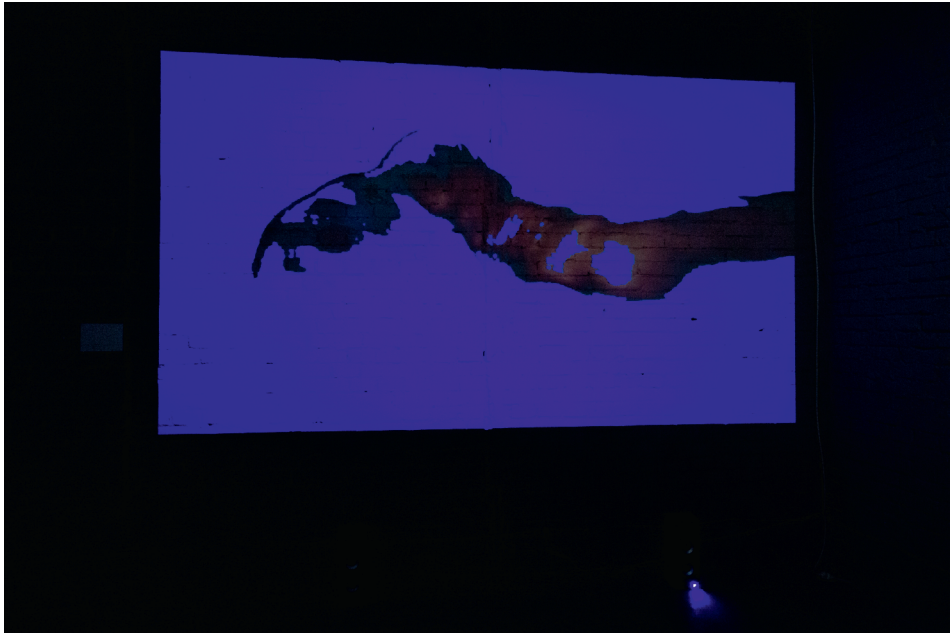
Zsolt Gyenes, *Make No Mistake* exhibition, Fuga Budapest Centre of Architecture, view of the exhibition, fot. Krzysztof Siatka

also named video-animation. So, abstract video art is a result of reductive processes, manners.

As we hinted above, it is more complicated when we talk about techno-media, like film, photography or video. These media have reproduction and manipulation characteristics. Reproductive character means a non-breakable automatism based on "physical" connection to the outside reality, where automatism is indicated by the machine (apparatus). On the other hand, all forms of such pictures additionally have a manipulative character: are being "made." This character is connected to the creator, the maker, the person. If it was not "manipulative," we would not talk about arts in this respect. The two characters always occur together and at times the former, at other times the latter grows stronger. Furthermore, this medium is characterized by the reproductive nature in most cases "hiding" manipulation, the "made product." In case of an abstract video the manipulative nature dominates and may take over so strongly that nearly nothing of the reproductive character is left.

The fact that a medium like photography or video, taking its objects exclusively from the outside reality and the question whether such an art can have the justification of taking distance, moreover, deviate from this inevitable physical relation – can be regarded as a fundamental topic in the field of photographic abstraction. Photography has to build an automatic, immediate, analogue physical contact with the outside reality that is essential to become tangible in the process of exposure – otherwise we cannot talk of photography. This automatism is the creator of photographic character.

Every kind of photography where the illusion of recognisable vision is visibly transposed, where it becomes "distorted" and modified, can be called abstract. The "umbilical cord" to the reality seen on the outside does not disappear, however, the change is recognisable and so even the viewer is forced to become conscious of it. Whenever it is not quite clear what a photograph shows, we grow accustomed to posing the question: "what is it?" because we know that it has to represent something known, something recognisable. We are a little bit abashed if left without enough reference point. Abstract photography/video includes a particularly wide range of photography, from close-ups to solarisation and to almost entirely distorted, unrecognisable expression forms (Gyenes, 2010).

Abstract techno-media can be divided into two separate modes: abstracting the visible (by reducing complex visual information); and visualising the invisible (by intensifying information through image-given methods) (Jäger, Krauss and Reese, 2005: 252). While images of these modes contain extra-pictorial references, the concrete (techno-media) art renounces all such obligations (Jäger, Krauss and Reese, 2005: 252).[11]

---

11 Concrete Photography: "Photography, which produces 'reality' and turns her own fundamental principles and laws into its very subject: it is photography of photography. Its works are characterized by their self-referentiality and autopoiesis: they exclusively thematize their own pictorial conditions. External 'reality' is ignored (iconoclasm, symbolism). Concrete photographs are objects of themselves, as signs they are indices, symptoms. They are generated by fusion of her very pure and own media: light, photosensitive material and the photograph's 'apparatus'. Like other concrete arts (in painting, music, poetry, film) concrete

In his book, *Vision in Motion* (1947), László Moholy-Nagy listed and systematised the eight varieties of photographic vision. Different systems, like Jäger's and Moholy-Nagy's can be synchronised. E.g. the "abstraction of the visible" (Jäger, Krauss and Reese, 2005: 252) is harmonised with "distorted seeing" (e.g. solarisation). The "visualisation of the invisible" corresponds to Moholy's "slow" (e.g. long exposure), "intensified" (e.g. macrophoto) and "penetrative seeing" (e.g. X-ray) (Moholy-Nagy, 1947: 207-208).[12]

Examples of abstract video works include, for instance, the work of Takeshi Murata. The American artist "vibrates" his expressive forms on the verge of still and motion picture (e. g. *Untitled – Silver*, 2006). His "distorted seeing" builds upon the characteristics of digital processes; generates records with "codec-failure," which is an interesting example of the recurrent territory tagged "the aesthetics of mistakes." In his works, sound and picture are involved inseparably. The special remixes of old movie fragments come back to life in utterly new, unprecedented ways. Murata's works of art are "glitch-alikes"; deliberate, planned, created, designed and artificial opuses. The "pure glitch" is accidental, coincidental, appropriated, found and real (Moradi, 2004).[13]

Also the writer of these lines has prepared numerous works "oscillating" on the verge of still and motion picture where photographic image is the basis (e.g. I do not feel any nostalgia, 2009-2010). The works reach their final form in course of multiple modification stages. Penetrating seeing has its roots in CT and MRI (Magnetic Resonance Imaging) pictures. Distorted seeing is being shaped by effects and software "skills." Here, too, the aesthetics of mistake do gain importance; by utilising programs originally designed for different reasons and thus their real function unknown to the creator (e.g. in medicine), but this is exactly what makes it all exciting. Rapid and slow seeing become reality by setting the process apart into still images, in order to then "slow them down" and melt them together ("new time management"). The space of sound and picture strengthen each other.

Montage and remix are related notions, solutions. If we are looking for the preliminaries of motion picture that led to today's widespread, hybrid-like solutions, we have to mention the extraordinary works of the pope and creator of video-art, Nam June Paik (see mentioned earlier). The characteristics of video, as the first electronic medium, can be recognised mainly in its new type of time management and electronic modifications – in relation to that occurring previously to film. Electro-magnetic interference makes an immediate depiction of synthetic colours with their possible distortion forms. Paik's video-synthesiser was the basis for each electronic

---

photographs opens a specific form of art" (Jäger, Krauss and Reese, 2005: 252). "Abstract Photography idealizes an object; Concrete Photography objectifies an idea" (Jäger, 2005: 19).

12   Eight varieties of photographic vision: Abstract, Exact, Rapid, Slow, Intensified, Penetrative, Simultaneous and Distorted seeing (Moholy-Nagy, 1947: 207-208).

13   "*Pure glitch* is only the one that emerges unexpectedly, due to a malfunction or change of voltage that inhibits electrical flow. Therefore, it is not intentional but it appears accidentally, as it is triggered by machine-made errors. *Glitch-alike*, on the other hand, is referring to a 'constructed' glitch, or a man-made 'error' that is being re-appropriated as a creative practice" (Moradi, 2004). References to Moradi in: Menkman (2011) and Sotiraki (2014).

mixer to come. An emblematic realisation of this new type of time management was first executed in the "tunnel effect" and other, similar "circuit, closed solutions." Video is a transition to computer. In his work Beatles Electroniques from 1966-69, Paik electronically modified a live television broadcast previously recorded (with camera). Sequences – together with the sound material Four Loops by Ken Werner – do not underline the heroism of pop icons but present the four Beatles as media victims. Similarly, Paik is also a reformer who sensed and advanced today's solutions in a genius way in relation to his works such as Global Groove (1973), or Good Morning Mr. Orwell (1984). He mixes television and satellite live broadcasts, thus creating a specific – rather chaotic – remix on the basis of neo-avantgarde, pop culture and television expression, as their medley.

The division into elements, succeeded by their reediting (by adding, subtracting, modifying, changing, superimposing, 'melting' etc.) may lead to a new style, a new sound, a new design etc. Technique plays a crucial role in this; it defines quality. Basic technology of remix is editing and thinking in stripes (sound) and layers (image). A unique polyphony is born where – besides the horizontal – also the vertical relation between individual elements gains power. In relation to movies, the connection (montage) of individual images (shots) to each other results in a horizontal (linearly depicted) relation. A new dimension is created by a collective upturn of images "settled behind each other" (layers), and their transition into each other. An example for the former: The Eye is Never Filled (2005) by Ken Nordine; for the latter: the art of Jeremy Blake.

In conclusion we can state that in the world of photographic image-based techno-media the artist is bound to play against the apparatus. They do it to create a real work of art. What is artificial is constantly laden with errors, which create an indispensable part of the creative method. In this aspect, errors include the loop, a video with an abstract world of images, or rather unorthodox uses of software.

Bibliography

Chion, M. (1994). *Audio-Vision – Sound on Screen*. New York: Columbia University Press.

Flusser, V. (2000). *Towards a Philosophy of Photography*. London: Reaktion Books.

Gyenes, Zs. (2010). *Fotográfia mozgásban/Photography in Motion*. Pécs: Alexandra.

Jäger, G. (2005). Concrete Photography. In: Jäger, G., Krauss, R. H. and Reese, B. *Concrete Photography/Konkrete Fotografie*, Bielefeld: Kerber Verlag, pp. 15–41.

Jäger, G., Krauss, R. H. and Reese, B. (2005). *Concrete Photography/Konkrete Fotografie*. Bielefeld: Kerber Verlag.

Lucie-Smith, E. (1995). *The Thames and Hudson Dictionary of Art Terms*. First paperback edition 1988, Reprinted, London: Thames and Hudson Ltd.

Menkman, R. (2011). *Glitch Studies Manifesto*. [online] Available at: https://docs.google.com/file/d/1dOgWbOzeUHuLfS3S7Cynh4RYsM3KbqY0OzbqnKk_g-KfY-6C0LAl05uO-gSLJ/view [Accessed 19 Oct. 2016].

Moholy-Nagy, L. (1947). *Vision in Motion*. Chicago: Paul Theobald.

Moradi, I. (2004). *Glitch Aesthetics.* unpublished bachelor thesis, University of Huddersfield.

Sotiraki, V. (2014). *Glitch Art Narratives – An investigation of the relation between noise and meaning*. [online] Available at: http://lup.lub.lu.se/luur/download?func=down-loadFile&recordOId=4446947&fileOId=4611259 [Accessed 29 Nov. 2016].

Verini, S. (2016). How to Go Loopy for Loops. In: *Stop and Go, The Art of Animated GIFs*, Rome: smART – polo per l'arte, pp. 24-25.

Whitney.org. [online] Available at: http://collection.whitney.org/object/6139 [Accessed 12 Nov. 2016].

Youngblood, G. (1970). *Expanded Cinema*. New York: P. Dutton & Co., Inc.

Illustrations

1. Gyenes, Zs. (2015). *Synchrony Opus 104 (CT)*. [Audio-video, MPEG-2, 1280x720 px, 00:36 min., loop] Pécs: property of the artist, stills.

2. Gyenes, Zs. (2016). *Synchrony Opus 118 (Equivalent)*. [Digital frame, audio-video, MPEG2, 01:25 min., loop] Pécs: property of the artist, stills.

3. Gyenes, Zs. (2016). *Synchrony Opus 122 (Decollage)*. [Digital frame, audio-video, MPEG2, 00:38 min., loop] Pécs: property of the artist, stills.

Appendix

Short descriptions of my exhibited works of art in the #error_in.art:

Gyenes, Zs. (2016). *Synchrony Opus 118 (Equivalent)*.

As the basement of this work of art I used an archaic piece of hardware, the Cathode Ray Tube monitor. I made alterations of it. The image and the sound are modified in synchrony, so together.

Gyenes, Zs. (2016). *Synchrony Opus 122 (Decollage)*.

I used different modal way softwares as usually one does. It has been caused random appearing of the visual part of the work. The variant method leads to deconstruction. I created the audio part of it from a geometric form, splitting the square mechanically to produce variations in repetitive way.

Gyenes, Zs. (2016). *Decollage*. [Mixed media, 70x100 cm] Pécs: property of the artist.

This work connects with the two audio-video works of art. Homage to Wolf Vostel's Tv dé-coll/age, 1959-1963.

Abstract

Permanently emerging new techniques present a growing challenge and an increasing state of excitement. The experimenting artist works against the apparatus; he or she is looking for possibilities to make the program fail. Their aim in doing so is to highlight the significant features; to ask the fundamental questions. There is no such thing as bad, abandoned raw material. The "aesthetics of failure" and/or effect of destroying may become yet more accentuated nowadays. The error is a magical/transcendent strength. The error, the chance work like blood transfusion – they are thrilling. The chance is a coherent mass the components of which are unknown. In this way it appears to us as failure.

Antoni Porczak

Endorphins of Error[1]

To make an error is to fail to meet the requirements set by a commonly accepted mode of conduct, defined rules of behaviour, laws of nature, or methods whereby certain goals are achieved. In the perspective proposed below, error is an unintentional action that arises from the lack of skill, knowledge, lack of attention, or simple accident.[2]

Error in art rarely occurs in the field of visual arts in the sense in which it is commonly understood, i.e. as a diversion from strictly defined practice, like that found for instance in medicine; in artistic practice, it can be made to serve as an accidental effect that is embraced by the author of the work. The artwork is understood here as a set (composition) of stimuli intentionally designed for the mode of perception that typifies art. An example of such useful error, in graphic arts, is an imperfect print from the matrix that diversifies the effect; in painting, it is the accidentally spilled paint; in photography, inadequate choice of parameters of the camera; in digital arts, an accidental decoding of electronic image. This diversion from the norm, or from the author's intention, may lead to formally more attractive results than what was originally planned. An artwork created originally, with formal freedom of its reception, does not need to employ codified rules of its creation and reception. Such an artwork, based on para-information (Mazur, 1976: 137),[3] does not need to be informatively precise, because it is open to individual and personal interpretations by the viewer. The artist's alleged will is paramount here and, as viewers, we are able to approve of and interpret things like torn paper

---

1 "Endorphins" (contracted from "endogenous morphine") – peptide hormones; they cause well-being and self-satisfaction and generally cause all other euphoric states (so-called happiness hormones); they suppress the feeling of numbness and inhibit pain signals; see: https://en.wikipedia.org/wiki/Endorphins, access: 6.12.2016.

2 Error is defined as: a. «Incompatibility with current rules of writing, counting, pronunciation, etc.» b. «Incorrect move» c. «False notion about something», http://sjp.pwn.pl/sjp/b%C5%82%C4%85d;2445263, access: 6.12.2016.

3 "Without para-information, information would only be issued and received. Thanks to para-information, information is understood" (Mazur, 1976: 137).

of contemporary drawing by referring to the code built on historical experience, for instance artworks by old masters, stored in inadequate conditions, whose author (artist) never intended his work to be torn, it was a result of other people's actions, yet our interpretation of this fact is not an error, but rather an act that expands the artwork's meaning by adding something the artist never intended. When we learn about our mistake, we experience a post-error pleasure at the fact that we were able to create a refined interpretation of the work's meaning that grows from and beyond the artist's intention. The author may be embarrassed that his message was seen as too simplistic (although very personal), since the artwork's sense (meaning), created by the viewer, and the para-texts of art criticism alike, are incompatible with his intention.

However, error is not accepted in the sense that it has in the saying "learn from others' mistakes" (meaning: avoid your own), but is it rightfully so, since there is a coincidence between error and the post-error pleasure from something unintended, that is to say, from an unexpected surprise? As a matter of fact, error is unavoidable, and so is the post-error pleasure, which comes as if by itself and without the subject's will, as a gift from the cosmos driven by the energy of planets and galaxies.

Error is also one of the oldest cognitive methods, as proven by the perennial method of *trial and error.* This method confirms the historical importance of this phenomenon also in its positive, cognitive sense. Error, as a deviation from the norm, emphasises the existence of this norm, and its dismissal may prove instructive, creative, or even innovative. Similarly, creative process, which is founded upon the transgression of previous experience, and norms of conduct, rules for how events unravel, is a way of doing something different, interpreting something differently, although it entails a planned action, always seeking predictable results.

These aspects highlight the significance of error both in the practice of everyday life, as well as in logic and philosophy. An error in counting and calculating has strikingly different consequences than in art; error in technology may lead to catastrophic results in house building; error in navigation prevents us from reaching our goal or leads to a discovery of a new continent (the case of America), be it as a mistake in calculations of the route or the lack of knowledge of how to behave during the journey.

My interest is not so much in the error itself, but in the "post-error" effects, that is, events after the error is discovered. When we are lost in the woods and find our way back after several hours of unsuccessful attempts, and the world comes back to us as an intelligible entity, we are consumed by a kind of irrational joy, which comes from endorphins, chemistry, like a self-releasing, unconscious event. The error was unintended, our being lost was not planned, and yet, as a result, we have experienced a distinct pleasure. The bigger the negative emotion that accompanied this event, fear for our lives, the threat of animals etc., the greater the pleasure.

Perhaps this attempt to conceal the consequences of the error with the pleasure at avoiding them erases the painful feeling of discomfort, which makes us ready to make the same mistakes again? Getting lost in a city "forces" us to visit places we never meant to visit: "we got lost, but we are not sorry, for we have discovered a wonderful place that was never on the originally planned route." An error can lead

us outside the routine, rational, and planned behaviour, beyond established spatial and semantic contexts; it appears against our will, but, fortunately, its effects can also be positive. The post-error joy is an unplanned pleasure, and it is difficult to be located within the body, as is an orgasmic pleasure, for instance, but perhaps it is indeed located in the pituitary gland? We receive an unplanned pleasure by accident, and its intensity often outgrows the ones that were planned and sought for. According to the legend, Adam made a mistake for which he was expelled from paradise, but thanks to that he not only populated the earth, but he also experienced orgasmic pleasure, or perhaps even bliss.

We encounter an informed error in a risk situation, when we test if we are able not to make a mistake, for instance in extreme sports, where a mistake might equal death, or like in a saying "a sapper makes only one mistake." Adrenaline and control of the situation push us to repeat purposefully provoked events and risk losing our life or health, but here, the pleasure comes from avoiding the mistake.

Another kind of joy or pleasure comes from other people's mistakes, for instance from slips of the tongue or verbal twists, like when someone says "I prefer a gay foot to an orange," which gives a listener an explosive pleasure, which is difficult to resists, like the one in intentional cabaret jokes.

Error contains cognitive potential; in technological media, e.g. screen distortions, we can recognise whether we are dealing with an analogue or digital image, while effects of such error might often reveal the way given apparatus works, or how things appear in our eyes. Mistakes may also become the axis of philosophical reflection. For instance, Wolfgang Welsch's theory of transversal reason[4] is based on the phenomenon of free navigation around contexts previously unrecognised by the subject who reacts in real time to encountered situations, and thus often makes mistakes. Such reactions turn mistakes into navigation, and wandering into *flâneur*'s walk, yet they do not eliminate erroneous decisions from the assessment of the transversal reason, but rather continuously put it to the test, whose rules are stored in the subject's personal biological memory. In a sense, we follow here the definition of intelligence, seen as an *apt behaviour in a new situation*, assessed *post factum*, but during the course of events, including shifts and repetitions. Norms and goals are not so much observed here, but they are sensed, foreseen or created from encountered events. Philosophy and mass ideologies often encounter false *ideas of something*, which are not always mistakes that can be proven, as they come as results of following different, often contradictory rules; although science knows the notion and act of falsification, it is hardly effective in complex discourses. Error refreshes our excessively routinised experience and tested rules and works as a warning against even more dangerous outcomes; we are happy that a car accident *did not end any worse.*

Post-error pleasures are also typical for religions; error, as sin, is erased through the Catholic act of confession, for instance, bringing joy from resetting one's account and ability to sin again, which is reflected in the folk saying: "if God grants health, sins will come as well." We are bound to make mistakes in various spheres,

---

4   The term is taken from the texts of Wolfgang Welsch (Welsch, 1998).

therefore the post-error pleasure is offered us by "our fate." It is a self-powering mechanism of losing and finding the way, of repetition, of relying on something that does not depend on us. New opportunities for that are offered in great numbers by new technologies, and we often wonder if using all kinds of media gadgets does not lead to situations intended by their manufacturers, whether applications are not purposefully built in such a way that we continually make mistakes, need to search through our data bases and settings to finally switch to factory settings and be joyful that the problem solved itself? So deeply ingrained into our lives, error is then not only a vehicle for development, innovation, creativity, and progress, but also a source of post-error pleasure. Visual art, as a part of fine culture, and even more as a form of creativity, draws all kinds of profits from erroneous practices, finding therein original forms, actions, and emotions freed from typical behaviours. This way, it also reveals the regulatory forces of social life as restraints on imagination, and introduces unconventional solutions that offer the joy of creation.

Error, as a failure to meet commonly accepted standard of conduct, is a guarantee of cognition different from the "proper" view of reality; it opens up other references, contexts, or views that inspire new investigations. There is also certain poetics of error, a pulling depth that differentiates between knowing and being able to, which is clear in the popularity of YouTube videos, where some daredevils try to shoot from a cannon, jump over a highway on their bike, etc. They fail more often than not but give joy to their viewers.

There is also the pressure of error, understood as an attempt to get out of a random situation, which gives rise to previously unpredicted solutions; examples of those include various unplanned scientific revolutions and inventions, such as gunpowder, atom, penicillin, arcuate rack, and many others. In this sense, the inevitability of error, though variously understood and defined, makes it a driving force of inventiveness and creative effort. Error invests actions with a unique, singular character; it is bound to particular environment and a particular, unique situation.

However, in this text, I do not wish to propose reflections that are, in fact, merely indexing the types and categories of error, academic comparisons, and historical quotations, and, in this context, whatever was written on errors by Socrates, Descartes, Derrida, Baudrillard, Foucault, Barthes, and Nietzsche, to name but a few. I am interested in errors, but only as sources of the post-error pleasure from discovering a thinking different from the unmistaken and rigorously correct thinking. In artistic practice, errors have a complex nature, because original works, formed as packages of impressions of intentional nature, open to viewers' interpretations (typically for art), do not refer to clear-cut norms, and potential errors do not bring consequences as grave as those in medicine or construction. Error may be seen as a failure to meet a requirement of a single aspect of interpretation, which has particular context, history or established way of doing something. A badly made print from a matrix is a technical error, but as a means of artistic expression it is a rightful effect, accepted by artistic practice. It is also obvious that there exists some form of scientific historicity of the philosophical understanding of error, according to which Umberto Eco would possibly write about openness to error, Baudrillard

about the simulacra of errors, Foucault about the pendulum of error, or about social oppression. What is important for me is the post-error discovery and creation of a new perspective on reality, development forced and pushed by error, and the post-error pleasure.

In its suggestion made to the perceiving subject to participate in art creation, interactive art does not dictate the rules of conduct, but it inspires the participant to undertake creation understood as operational activity, rather than as interpretation of others' works. This way, errors in art are of potential nature, in the way works are being created and "consumed," when the artist makes a conscious use of the technical error as a means of expression; then, his action ceases to be erroneous. Fashionable in the 1990s, acoustic noises, conglomerates, and interferences of waves, erroneous in the eyes of earlier music, became new means of expression rather than mistakes generated by technical devices. The use of such effects in media art becomes common in interactive installations, musical film scores, and musical experiments. The emergence of technological, temporal, and interactive art raised an interest in the transformation of the original work in the user's operational perception,[5] together with inherent disturbances in the course of creation in the presence of viewers. Both the interactive viewer and the artwork's author consider the possibility of emerging unpredicted effects, stemming from a behaviour that is accidental, difficult or impossible to foresee. Therefore, it is difficult, or altogether impossible, to tell whether in his operations the interactive viewer makes mistakes. Although we can observe his operations by means of trial and error, it is full of continuous repetitions and sudden changes of course, manifesting the personal nature of the dialogue between the user and technical devices.

In its form, an interactive artwork[6] is unfinished by its author, it is a structure open to be reformulated by the interactive user, without any strict limits imposed by the author, who usually indicates merely the possible choice and procedures of transformation, without giving any set rules for creating the work as a predictable final result. The interacting viewer's post-error pleasure is greater when the rules of conduct are more rigorous and more defined, while their transgression has a strong potential for difference. The blurring of rules, boundaries, disciplines, and habits, although it boosts the sense of authorial freedom, it diminishes the power of satisfaction coming from crossing the boundaries and the pleasure of moving around a flexibly structured world, which makes it different from the post-error pleasure defined above. The freedom of blurred, fluid, undefined borders deprives the interacting viewer of the experience of change, suddenness, difference, and shift into a different situational context than norm; in this sense, error is much like the sense of shock, art's favourite means of expression. Scandal in art consists in transgressing

---

5 "An operational perception", unlike conceptual-contemplative, is characterized by multi-sensory contact with the artefact, including bodily (tactile, kinaesthetic); the perceiving subject (interactor) is usually inside the artefact, but most importantly, it can also transform the existing state of the environment, i.e. the structure of the artefact. For more see: Porczak, 2003: 130.

6 Interactivity is understood here as media (mediated) interrelationships between units and devices.

established social norms, but when we leave behind rational discourse, we need to agree that in the artistic context the meaning of slogans or expressions is merely a casual suggestion in directing the viewer's interpretation, just like the painting's title does not constitute its basic meaning. In the art world, many exhibitions, competitions, or shows, organised *under a slogan* in no apparent way refer to that slogan; what is more, works or actions more remote from the slogan's semantic scope are considered more interesting. Openness of interpretation often leads to the situation when the author's intended meaning is banal and primitive in comparison to the refined associations made by the viewer, who invests the art form with his own content (associations). The author's motivation is quite straightforward; the author knows he is considered a creative agent, he is not worried and knows that the viewer-given meaning "will do the job." He can even afford to be ignorant. If the meaning extracted by the viewer will be significantly different from the author's intended meaning, the author will still profit from it, because it is commonly acknowledged that the artwork has inherent meanings (inherent in their form), which the viewer can merely try to uncover. One of the authors of an exhibited work could not contain his joy at the fact that he created something with such refined meaning without even knowing (or suspecting) that this meaning was possible to express by such simple form. The error of the belief that the author makes meaning and the viewer deciphers it may lead to the author's euphoric post-error pleasure at learning the viewer's rightful interpretation.

A condition experienced before an erroneous interpretation is made is hesitation about which interpretive code to choose in a situation when we have an imprecisely marked intention, scarcity of information about the context, and a pressure of effective action, which leads to a drama of indecision, as exemplified by Hamlet, Konrad, or other classic literary figures. This way, all rational choices produce equally dramatic result, yet they entail considerations of error. This kind of consideration is different from a stock market game, when "to be or not to be" is supplanted by "to buy or to sell," where the aim is the pleasure of profit. This kind of pleasure is anticipated, and only in the final result do we recognise the relevance of our decision; this kind of pleasure stems from an intuitive or calculated, but always conscious action. The post-error pleasure comes from an unintended action; it is an error that gives us (chemical) shivers of pleasure, which seems absurd, but it is real. What can art, with its "freedom of creation," gain from error, when it purposefully invalidates all boundaries between fields and disciplines, techniques, aesthetics, meanings, and messages? If everything is permitted, instead of rules, we get an infinite number of equally rightful stances and artistic practices; error is a contradiction of thus understood freedom: if there are no rules, there are no errors. The goal of error (if such a phrasing is possible) is to reveal the working of social regulators, as well as of nature's practices and actions. However, error-free activity is not among the objectives of society, the collective, or individuals. Error highlights the norm and we are never free from its power; it can result from a multiplicity and diversity of norms, for it is the difference between the norms that produces errors. *Faux pas* is an erroneous behaviour in particular circumstances of someone who adheres to different norms and habits to those required in this situation.

I omit the intentional misleading of others to achieve some goal, an action that is one of more efficient tactics used in war and competition, particularly now, when wars are often fought through information. Disinformation is a means of political, economic, and technological warfare, as well as all other types of warfare based on provoking mistakes that are profitable for the agent of disinformation. We could point to a similar activity in art, when a refined strategy of informative impact of the work on viewers assumes its so-called hidden message, that is, a double or multi-layered meaning. This strategy is quite efficient in fighting censorship, for instance, when the work's official guise of acceptable meanings hides other, concealed meanings that are deciphered by the viewers who know the secret code. However, this is also an intentional action which concerns not so much art but its social role in informing viewers about the difference between the rejected official norm and the desired but politically or socially prohibited one. Since such actions are intentional and do not entail a post-error pleasure in the sense specified in the opening parts of this text, where pleasure comes from unplanned events, I merely mention but do not analyse them in detail.

Bibliography

Mazur M. (1976). *Cybernetyka i charakter.* Warszawa: Państwowy Instytut Wydawniczy.

Porczak A. (2003). *An Operational Perception*. In: *Katalog 10-lecia Pracowni Działań Medialnych ASP Kraków 2003 „Media Sztuki"*. Kraków: Wydawnictwo ASP.

Welsch W. (1998). *Nasza postmodernistyczna moderna*. Transl. R. Kubicki. Warszawa: Oficyna Naukowa.

Contents