

ZANURZENIE NAZNACZENIE INTERPOLACJE

IMMERSION – MARKING – INTERPOLATIONS

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CYKL WYSTAW LAUREACI W CENTRUM UWAGI 2019
SERIES OF EXHIBITIONS LAUREATES IN THE CENTRE OF ATTENTION 2019



SMTG W KRAKOWIE



ASP W KRAKOWIE

KRAKÓW 2019

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Generating of a form: streams, variations and complementations. Computer animation by Marcin Pazera

Exploring and developing artistic skills often result in original author's solutions and individualized artistic works. Sensitive to an experiment seem to be those artistic practices that have been only to a small extent explored by the artists, and which are still in a process of change due to the development of technology. Such is the case of Marcin Pazera, who is consistently developing his interests in methods of computer animation. This manifests itself in the systematic introduction of increasingly autonomous procedures to the creative process, which is a reason for conducting a part of activity by a computer program. Today, this approach to artistic creation raises a number of questions related to the nature of the creative process as well as the adaptation new artistic formulas to the artistic practice. Marcin Pazera's undertakings are accomplished thanks to gaining significant knowledge of computer graphics and animation and their progressive use in art, which is of a special importance today, as this field of art has evolved significantly in recent years. It is enough to mention the use of partially generated forms in the films of Boris Labbé, such as *Rhizome* (2015) or *La Chute / The Fall* (2018), in which techniques of transformation and generation of motifs from previously created ink paintings were used to obtain the appropriate form that later on were collected in database¹. This process is related to the philosophical vision of a self-ordering and evolving world, where differentiation is included in the history of *becoming*², and the artist found inspiration to such an approach in the philosophy of Gilles Deleuze and Félix Guattari³.

Pazera's artistic development results from subsequent transformations of creative proposals, which can be seen e.g. in the *Artefacts* animation cycle (2012-15 and 2017) and the series of digital graphics entitled *Strumieniowanie / Streaming* (2015). In both cycles, Pazera proposed his own techniques, such as the generative technique of a *spontaneous variable*⁴ that was developed in his doctoral dissertation. The form of movable 3D computer graphics processed in time was emphasised, which is largely created by running an algorithm that automatically determines the shape of a form of the generated object. This was presented in four animations of the later *Artifact* series (2017). This cycle consists of animated 3D films, two of them are displayed as two-screen projections: *Seducer I* and *Seducer II*, and two as single-screen projections: *Absolute* and *Intrower*. Pazera writes about these works that 'they are independent entities created using 3D animation and a programming language. They are sensitive to the viewer's presence. The way of interaction defines both their individual characteristics and the viewer. Human and digital being are linked by a special bond, perhaps even an intimate one'⁵. In the case of the first two animations, the shape of the textured solid is created as a result of programmed parameters, which with time change and are constantly covered with new textures. The viewer is situ-

ated in an interactive space, which is controlled by Kinect, and by moving in it, he or she affects the program. As a result, it introduces changes in the displayed images. He / she conducts a kind of dialogue with the image, where two media – different in their nature – jointly settled the status quo of a work of art. The spontaneous variable becomes a partner of the viewer with whom it co-creates work, proposing its own images and form, influencing the viewer's intentions and urging him to respond to these suggestions.

Pazera writes about the spontaneous variable: 'The purpose of my research was to develop a method that would enable to create a form capable of self-regulation in the process of both formation and self-correction, and which causes the shape and structure are a result directly from the process and the nature of the primary environment'⁶. Pazera explores the possibilities of the procedures – he releases algorithms that can determine the final form of graphics. On the one hand, someone can see deep reflection and the use of the computer graphics medium, including programming skills. On the other one, the obsessive need to create and observe self-acting creative processes. I.e. quasi-intelligent algorithms operating in an indeterministic way, without imposing on them any controlled restrictions during the creative process. As Pazera writes, the source of these interests are reflections related to a form, present in Andrzej Pawłowski's thoughts. They express the intention of returning to the natural shaping piece of art. It is about a theory of a naturally shaped form, which results are series entitled *Kineformy / Kineforms* (1957) and several cycles of works by Pawłowski created in the 60s and 70s. The best known is a series of paintings entitled *Natural shaped surfaces*⁷. This idea refers to the creative process, in which the prime mover of nature is restored, emphasizing the value of human coexistence with it and the role of using natural forces in the creative process.

The use of the spontaneous variable was also reflected in the works created in 2018: *Calf* – animation that received the Main Award at the *transgrafia 2018* exhibition (an exhibition organized as part of the International Print Triennial in Kraków) – *Into the now* and *StRest*. The films used the three-dimensional models of the artist's dog sitting on the sofa, a person lying on the moss on the shore of the lake, and a woman and a dog lying on the bed. All films have implemented a spontaneous variable that has resulted in unusual, self-transforming, painterly effects. It was among other influenced by slow, omnidirectional camera movement with small close-ups and zoom-outs. Due to recording was carried out by hand, the generated part of the graphics meanders, finding at the same time imperfections created during the 3D scan. A spontaneous variable transforms these missing or empty image spaces into hollows, emerging and disappearing bubbles or tissue-like or fractal structures. The colors are intense, but not glaring, and this arouses great interest.

The movie entitled *Calf* received well deserved award. This documentation is an inspirational multi-level story in which the viewer deals with a scanned 3D image of a dog that creates the original solid for textures. As a result of imperfections included in the documentation, the spontaneous variable transforms it either into a shiny, blue-white, unfinished dog pedestal (sometimes reminiscent of the title-calf, which is associated with the inspiration for this work, taken from Jeffrey Shaw's interactive *Golden Calf* installation), or creates a picturesque, snowy-like landscape. As the journey continues, thanks to the movement of the camera, the viewer trans-

¹ The similar example of partly use the autonomous computer techniques a video game created by David O'Reilly, *Everything* (2017), in which the automatic generation and space is used depending on the direction of viewer's activity.

² Michał Herer, *Gilles Deleuze. Struktury – maszyny – kreacje*, Universitas, Kraków 2006.

³ 'We talk only about the sizes, lines, layers, segmentation of estuary and intensity, machinery system and their types, bodies with no organs and their constructions and selection, degree of coherence, the unit of measurement in each case. Stratometers, detectors, CbO units of density and confluence not only quantify the script but they always identify a measure of something else'. (Gilles Deleuze, Felix Guattari, *Thousands of plateau*, Foundation „Bęc Zmiana”, Warsaw 2015, pp. 4-5).

⁴ Marcin Pazera, *Animation of a spontaneous variable – looking for naturally shaped forms*, Kraków 2016: <https://docplayer.pl/56696646-Animacja-zmiennej-spontanicznej-poszukiwanie-formy-naturalnie-ukształtowanej.html> [URL: 30.11.2019].

⁵ Citation comes from the Marcin Pazera's website: <https://pazera.pl/artefakty> [URL: 30.11.2019].

⁶ Marcin Pazera, *Interpolations. Synthetical Immersion*: artist's statement accompanying his individual exhibition in the International Centre for Graphic Arts in Krakow in 2019.

⁷ Janusz Krupiński, *Intencja i interpretacja Genesis Andrzeja Pawłowskiego*, Academy of Fine Arts in Kraków, 2001, p. 34. Text accessible on-line: https://krupinski.asp.krakow.pl/pdf/janusz_krupinski_intencja_%20i_interpretacja_genesis_andrzeja_pawlowskiego.pdf [URL: 30.11.2019].

fers attention from the dog initially shown in the frame to the snowy hills and the sea shore. This is accompanied by somewhat disturbing noise music, also created by Marcin Pazera. Animation is like a magical journey to a space created from the imperfections of a scanning technique that another technique wants to use at all costs.

The second animation, *Into the now*, begins with the camera zoom-out, repeated in later shots, which reminded me of Ulf Langheinrich's work entitled *Drift* (2005), in which for several minutes the camera moving away from the object being filmed, still transforms the viewer's perception of what is being filmed. Here, as in some *Drift* sequences, we deal with biological forms that appear sticky and wet. The spontaneous variable affects the shape change and gloss of the texture, affecting the whole screen or focusing on a part of the image, sometimes powerlessly generating mosaic triangles and rhombuses. It is because the program uses absence, 'tears' and 'cracks' of the texture. The lying figure is immersed in the surroundings of glazing, fancifully formed vegetation, created and still 'alive' thanks to the endless work carried by undetermined, spontaneous technology. The film exudes calm and a desire to rest, as Pazera writes: 'The work refers to the prosaic aspects of existence at the moment. It appeals to the nature, focuses on the conscious experiencing of the present as a state of going beyond the past and future, both so present in our everyday consciousness. It urges you to celebrate the current moment by dismissing an uninterrupted stream of thoughts. This gallop of thoughts interferes with the noise of perception'⁸. While watching this proscenium animation, it is easy to feel the desire to steer the camera and look at the world created by Pazera in one's own way. The music here is double-layered, just like in the movie *Calf*. Even though the background is disturbing, the foreground sounds moody and resembles the buzzing of insects with single singing of birds and murmuring water. The last of the cycle and at the same time the shortest one, two and a half minute animation of *StRest* is again a 'water world'. This time presented in silver and gold colors. The music is similar to the previous ones, except the monotonous noise replaced in the initial rhythmic murmur, having in the background a quietly sounding like didgeridoo, which after a few moments is turning into the sound of water.

The next step in Marcin Pazera's scientific and creative research was the development of the interpolation technique⁹ used in subsequent works. This is an algorithm that helps the artist to specify, fill and unify the animated image. Thus it gives clarity and completeness of the original scan. This is done thanks to the decisions of the program analyzing and comparing the boundary fragments of graphics. It complements 'white spots', removes or averages noise resulting from imperfections of the scanned 3D output material. As Pazera writes, interpolation 'is something like a bridge, a fill built by algorithms between successive end areas specified by the user. For similar and related data, the whole process runs smoothly and predictably. However, in the case of combinations of diverse and incompatible environments the algorithm wants to generate at all costs a connection although generates additional interference instead'¹⁰. This process was even more clearly expressed in the animations created in 2019: *Wunderlust VR*, *Synthetical Storm I* and *Synthetical Storm II*. These films use more modern technology than in previous works. That is Virtual Reality, an omnidirectional immersive interface, in this case HTC Vive. Thanks to this technology, the viewer is surrounded by a panoramic image, practically he or she resides inside the

⁸ Marcin Pazera, *Interpolations. Synthetical Immersion*: artist's statement accompanying his individual exhibition in the International Centre for Graphic Arts in Krakow in 2019.

⁹ Steven M. LaValle, S., *Virtual Reality*, University of Illinois, Cambridge, 2017, pp. 194-195. The book accessible on-line: <http://vr.cs.uiuc.edu/book.html> [URL: 30.11.2019].

¹⁰ Marcin Pazera, *Interpolations. Synthetical Immersion*: artist's statement accompanying his individual exhibition in the International Centre for Graphic Arts in Krakow in 2019.

film, which being three-dimensional can also have interactive elements.

Wanderlust VR is a partially interactive animation, with dark colors and elements of intense violet and navy blue, which creates a sense of endless space. At the beginning it is accompanied by calm and moody music, which with the immersion into this space by viewer, turns into sounds similar to cracking ice. In the second part of the film, we can see that the viewer can enter the interaction with the animation, thanks to the possibility of teleporting him- or herself into selected parts of the graphics using controllers held in hands. Two movies over 6 and 11-minutes: *Synthetical Storm I* and *Synthetical Storm II* are kept in a minimalistic tone, which shows perfectly the artistry used by Marcin Pazera. They clearly show the operation of an algorithm, which is trying to keep up with texturing the rotating silhouette of the image. This is particularly evident in the first of the mentioned animations, in which water cascades rise and fall, mainly due to interpolation. This is manifested in the crested fragments of graphics that give the impression of being stretched up and down in the process of texturing. Although, *Synthetical Storm II* acts in a horizontal plane. A similar process of stretching and squeezing textures takes place here, which can remind the architectural motifs of block buildings. Both animations are subdued in color. There is a lot of gray in them, which contrasts with Pazera's previous films, in which he used expressive and saturated colors. The storms have a kind of a deep inertia, behaving like a kaleidoscope. They serve both to show the procedures and to introduce the viewer into a light trance inducing to contemplation. We can see an excellent sense of reduced, monochromatic color and delicately enveloping the initially split scanned body, which together with the music – similar in both films – creates excellent expression. The third animation in this series, entitled *Wanderlust VR*, prompts you to search a galactic-like space, which applies to both proscenium mode and the use of controllers. The color is vivid and deep, and the viewer moves in space using controllers. In all three films, the viewer is surrounded by the space which is still interpolated and thus a bit amazing. However, if someone is carefully watching the animation can reveal the original structure of the scanned prototype.

A spontaneous variable is a released stream of pixels ruled by its own parameters and variables, which creates graphics limited only by the boundary conditions of the image transformation imposed by the artist. The artistically given form is used here and developed in an endless dance of a stream of variables defining the shape of the solid. Interpolation is a process of merging a digital image, and the creator's intentions are reduced to the pre-programming of this process, which only gives general shape and scope to future modifications. Interpolation tries to eliminate or fill in incomprehensible parts of textures, translate into the language of the image which a given form implies by itself, but what was lost in the registration process. The scope of prearranged program autonomy is important here, and it is an indispensable condition of the process of creation liberated by the computer. These two graphic techniques are complementary at some point: the spontaneous variable creates the form without interfering with its structure, interpolation tries to merge the form and in this sense understand it holistically.

Both the spontaneous variable and interpolation refer to the area of the vagueness of the work of art. It is a vision of the human being and machine coexistence in the name of a common creating an art work. An interesting tension arises here, it is based on release the self-agency of something devoid of creative intentionality, but integrally involved in the creation process. Also here the visual finish of the work is taken into account, by assigning the last 'brushstrokes' to the computer. This combination of human being and technology is in the spirit of posthumanist compromise, in which to varying degrees the human and the natural interchange with

the technological. This process seems to be impossible to stop but possible to understand and assimilate. Both animation techniques are convincing because the final effect results from the participation of the machine in the creation of what has an intentional beginning in the willingness expressed by a man. This dependence creates a sense of partial independence from one's own limitations, following the path outlined by a quasi intelligent machine on which one can and wants to rely – to trust it by partially delegating the task for creation.

Two levels of analysis result from this. First of all, Marcin Pazera's scientific and creative activity, which consists in reflecting of these two graphic techniques, and secondly, the very effect of the program, i.e. the animations resulting from the creative process. The creative intention is partly directed towards the creation of an *apparatus* for creating art, in which the role of the artist is limited by definition. In Pazera's implied meaning, he asks the question related to the scope of the autonomy of the creative process, while he perversely focuses on the mechanism of creation: 'My goal was to free the artist from the restrictively planned activity and to apply the principle of minimizing of intervention formulated by Tadeusz Kotarbiński. Managing matters in such a way that the natural course of events leads to the achievement of the goal – without the necessity or with the minimum possible interference from the operating subject. As a result, I based the creative process on improvisation, following the tool without losing control over the whole process'¹¹. Considering the principle of minimizing of intervention¹², the fundamental questions about the independence of the creative process and the autonomy of artistic programs come back¹³. It is primarily about answering to the question: does using automatic and / or intelligent creative procedures is only the artist's work or is a shared one if we shift our attention to the process of generating the work? Do the procedures, which automating the creative process, allow treating a computer only as a tool or do they relate in some way to true artistic creation, e.g. in the aspect of subsequent iterations of a certain form? Is there originality or innovation within the creative possibilities of such machines, or is it just the variation of repetitions? Finally, isn't it that the most important thing is the sense of creating art that a human possesses, instead of carrying a work simply imposed by an algorithm that has no effect on the sense of creation¹⁴?

In all of Marcin Pazera's works presented above, there is a sound that – apart from *Synthetical Storm I* and *Synthetical Storm II*, featuring great compositions by Piotr Madej – was created by the artist and deserves a separate comment. Pazera has a great sense of sound in harmony with the image, which at some moments causes the simultaneous transfer of the viewer's attention from the image to the sound. It is mainly murmur music with outstanding accents. At the same time, these two sensory bands: image and sound, complement each other well, creating a whole. Although the sound sometimes becomes a 'guide' for the viewer, as is the case in the *Calf* or *Into the now* animations, in which the effect of traveling through alleys of 3D image is underlined. In the case of *Seducer I*, the sound surprises in places with accents that draw the attention of the viewer from the monotony of ambient, or as in the case of *Intrower* it is a sound similar to the loud buzzing of a broken coil. Music is not the background here, but it coexists with abstract three-dimensional forms: VR or screen-based. I believe that the three components combine

¹¹ Marcin Pazera, *Interpolations. Synthetical Immersion*: artist's statement accompanying his individual exhibition in the International Centre for Graphic Arts in Kraków in 2019.

¹² Tadeusz Kotarbiński, *Traktat o dobrej robocie*, Ossolineum, Wrocław 1965.

¹³ The above-mentioned issues are found in a number of theoretical studies on artistic works based on artificial intelligence. The example is: AARON, an artistic and programmed robot from 70s or a robot – a follower of e-David. Nowadays, these issues are mentioned at Ars Electronica – Festival for Art, Technology, and Society. Cf. Gerfried Stocker, Christine Schopf, Hannes Leopold-seder, *Artificial Intelligence – Ars Electronica 2017 – Festival for Art, Technology, and Society*, Hatje Cants Verlag, Berlin 2017.

¹⁴ A contemporary composer Kevin Pollard leads a similar discussion on his blog. Exactly, with the help of professor from University of California – David Cope, they focused on a computer program 'Emily Howell' that is generating music.

the above-mentioned works, regardless of the engaged technology of image creation, as well as the display method: color, abstraction and music. Even if the output in the creative process is a specific object, Marcin Pazera breaks its specific, original form in the process of technical processing while releasing the abstraction that has a genesis in the automatic operation of the program. The films are painterly, nostalgic, moody – they are personal etudes presenting the emotional nuances and genre of artist's perception of reality. The camera is not in a hurry, there are no simple 'knocking down' endeavors, and the dynamics if it appears, is the result of the expressive independent evolution of the image. The skillful use of camera and 3D scanning at the beginning of the creative process gives the final effect of plasticity and depth. The slow movement of the camera, combined with the almost animal, vibrating movement of the spontaneous variable and / or with the action of determining form by interpolation, result in intrigue and surprise, that is visible e.g. in *StRest* or *Into the now*.

Marcin Pazera is a searching artist, he doesn't stop his creative path. I am more than sure based on our conversations full of artist's modesty that he is preparing himself for the next step, i.e. putting the artificial intelligence to the creative process, so I am looking forward to see his next movies.

Sidey Myoo