In this particular volume the issue of art as interference and the strategies that it should adopt have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science and media. What sort of interference should be chosen, if one at all, remains a personal choice for each artist, curator, critic and historian.
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Interference Strategies: Is Art in the Middle?

If we look at the etymological structure of the word interference, we would have to get back to its root to construct that interference is a sum of two Latin words: inter (in between) and ferre (to bring). But with a particular attention to the meaning of all the word’s components, inter means to pierce (principally, to go through). Alberti perhaps is etymologically incorrect to say that interference is a sum of two arguments, two ideas, two constructs.

It is important to acknowledge the etymological root of a word not in order to develop a sterile academic exercise, but in order to clarify the ideological underpinnings of arguments that are then summered and interpreted principally as logical incorrect, it may be preferable to think of interference as a composite of representations of these interference, as well as a series of questions on what is possible, for me, when analyzing the issue of interference, artistic interference and modalities of engagement. It should be both: a form of censorship as well as interference with Michelangelo’s vision.

Interference is a word that assembles a multitude of meanings: interpreted according to its perspective anti-intellectual, anti-aesthetic, anti-philosophical, and anti-literature, and an amalgamation of impossibilities of interconnection between two parties. In this book, there are series of representations of these interferences, as well as a series of questions on what is possible, for me, when analyzing: the existing form(s) of interference - digital, scientific and aesthetic - and what are the strategies that could be adopted in order to act lively interfere.

The complexity of these strategies of interference within contemporary political and aesthetic discourses appears to be summed up by the perception that interference is a necessity, not just a gesture. This perception appears to exclude the fact that sometimes the very existence of an artwork is based on an interfering nature, or on an interfering aesthetic that has come to be considered as an accessory to art (Hence, interfering with a political project.

Interfering artworks, which by their own nature challenge systems, were the artworks chosen to be shown at the exhibition (Entartete Kunst) (Degenerate Art) exhibitions.” To the many images of apparently contrasting corporate paraphernalia and billboards in museums and art fairs around the globe, glistening with pride over the propagandists, one could cover the blindness that they have commissioned artists to produce.

Today, contemporary art should interfere more and more with art itself. It should not be the corrupted art interfering, degenerate art in degenerating. It should be like prolonging, what currently is not art and it should create a artwork with art itself, able to interfere current thinking and unravel the possibilities of engagement. It should be like: to quote Robert Rauschenberg – an instrument of warfare and defense against the enemy.

Artists should like to strike a time-bomb, something else is part of what has been a long aesthetic conversation that presented the avant-garde movement as a destructive fury of the early Futurists. In this particular volume, there is a series of interferences and the strategies that it is possible to have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science, and media.

What sort of interference should be chosen? Is a frame at all? It remains a personal choice for each artist, curator, critic, and historian.

If I had to choose, personally, if I find myself increasingly favoring art that does not deliver what is expected, what is obvious, what can be hung on a wall and can therefore lose its ‘interference value.’ In this case, interference is something that corrupts, degrades and threatens to collapse the vision of the Baby-Logic.

In thinking about the validity of interference as a strategy, it was impossible not to revisit and compare the image of Paul Joseph Goebbels viewing the (Entartete Kunst) (Degenerate Art) exhibition. To the many images of supposedly contrasting corporate paraphernalia and billboards in museums and art fairs around the globe, glistening with pride over the propagandists, one could cover the blindness that they have commissioned artists to produce.

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Interference Strategies: Is Art in the Middle?

If we look at the etymological structure of the word interference, we would have to go back to a construct that defines it as a sum of the two Latin words inter (in between) and ferio (to strike), but with a particular attention to the meaning of the word ferio being interpreted principally as to wound. Albeit perhaps etymologically incorrect, it may be preferable to think of the word interference as a composite of inter (in between) and the Latin verb ferio (to carry), which would bring forward the idea of interference as a contribution brought in the middle of two arguments, two ideas, two constructs.

It is important to acknowledge the etymological root of a word not in order to develop a sterile academic exercise, but in order to clarify the ideological underpinnings of arguments that are then summed up and characterized by a word.

This book, titled Interference Strategies, does not (and in all honesty could not) provide a resolution to a complex interaction - that of artistic interferences - that has a complex historical tradition. In fact, it is impossible, for me, when analyzing the issue of interference, not to think of the Breeches Maker (also known as Daniele da Volterra) and the coverings that he painted following a 1559 commission from Pope Paul IV to ‘render decent’ the naked bodies of Michelangelo Buonarroti’s frescoes in the Sistine Chapel. That act, in the eyes of a contemporary viewer, was a wound inflicted in between the relationship created by the artwork and the artist with the viewer (intentio operis and intenio auctoris with intenio lectoris), as Umereto Eco would put it. Those famous breeches appear to be both: a form of censorship as well as interference with Michelangelo’s vision.

Interference is a word that assembles a multitude of meanings interpreted according to one’s perspective and ideological constructs as a meddling, a disturbance, and an alteration of modalities of interaction between two parties. In this book, there are a series of representations of these interferences, as well as a series of questions on what are the possible contemporary forms of interference - digital, scientific and aesthetic - and what are the strategies that could be adopted in order to actively interfere.

The complexity of the strategies of interference within contemporary political and aesthetic discourses appears to be summed up by the perception that interference is a necessarily active gesture. This perception appears to exclude the fact that sometimes the very existence of an artwork is based on an interfering nature, or on an aesthetic that has come to be as non-consonant to and, hence, interfering with a political project.

Interfering artworks, which by their own nature challenge a system, were the artworks chosen for the exhibition Entartete Kunst (Degenerate Art) exhibitions to the many images of pompously strutting corporate tycoons and billionaires in museums and art fairs around the globe, glancing with pride over the propaganda, or - better - over the breeches that they have commissioned artists to produce.

Today’s contemporary art should be interfering more and more with art itself, it should be corrupted and corrupting, degenerate and degenerating. It should be producing what currently it is not and it should create a wound within art itself, able to alter current thinking and modalities of engagement. It should be - to quote Pablo Picasso - an instrument of war able to interfere: “No, painting is not done to decorate apartments. It is an instrument of war for attack and defense against the enemy.”

If art should either strike or bring something is part of what has been a long aesthetic conversation that preceded the Avant-garde movement or the destructive fury of the early Futurists. In this particular volume the issue of art as interference and the strategies that it should adopt have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science and media.

What sort of interference should be chosen, if one at all, remains a personal choice for each artist, curator, critic and historian.

If I had to choose, personally I find myself increasingly favoring art that does not deliver what is expected, what is obvious, what can be hung on a wall and can be matched to tasteries. Nor can I find myself able to favor art that shrouds propaganda or business under a veil with the name of art repeatedly written in capital letters all over it. That does not leave very much choice in a world where interference is no longer acceptable, or if it is acceptable, it is so only within pre-established contractual operative frameworks, therefore losing its ‘interference value.’

This leaves the great conundrum - are interferences still possible? There are still spaces and opportunities for interference, and this volume is one of these remaining areas, but they are interstitial spaces and are shrinking fast, leaving an overwhelming Baudrillardian desert produced by the conspirators of art and made of a multitude of breeches.
In this introduction I cannot touch upon all the different aspects of interference analyzed, like in the case of data and waves presented by Adam Nash, who argues that the digital is in itself and per se a form of interference: at least a form of interference with behavioral systems and with what can be defined as the illusory realm of everyday’s "real.'

Transversal interference, as in the case of Anna Munster, is a socio-political divide where heterogeneity is the monster, the wound, the interfering and dreaded element that threatens the ‘homologation’ of scientific thought.

With Brogan Bunt comes obfuscation as a form of blurring that interferes with the ordered lines of neatly defined social taxonomies; within which I can only perceive the role of the thinker as that of the taxidermist operating on living fields of study that are in the process of being rendered dead and obfuscated by the very process and people who should be unveiling and revealing them.

With Darren Tofts and Lisa Gye it is the perusal of the image that can be an act of interference and a disruption if it operates outside rigid interpretative frameworks and interaction parameters firmly set via intentio operis, intentio auctoris and intentio lectores.

It is the fear of the unexpected remix and mash-up that interferes with and threatens the ‘purity’ and sanctimonious fascist interpretations of the aura of the artwork, its buyers, consumers and aesthetic priests. The orthodoxical, fanatic and terroristic aesthetic hierarchies that were disrupted by laughter in the Middle Ages might be disrupted today by viral, amorphological and uncontrollable bodily functions.

My very personal thanks go to Paul Thomas and the authors in this book who have endeavored to comply with our guidelines to deliver a new milestone in the history of LEA.

As always I wish to thank my team at LEA who made it possible to deliver these academic interferences: my gratitude is as always for Ozden Sahin, Caglar Celik and Deniz Cem Onduyu.

Lanfranco Aceti
Editor in Chief, Leonardo Electronic Almanac
Director, Kasa Gallery

REFERENCE AND NOTES


Interference Strategies

The theme of ‘interference strategies for art’ reflects a literal merging of sources, an interplay between factors, and acts as a metaphor for the interaction of art and science, the essence of transdisciplinary study. The revealing of metaphors for interference “that equates different and even ‘incommensurable’ concepts can, therefore, be a very fruitful source of insight.”

The role of the publication, as a vehicle to promote and encourage transdisciplinary research, is to question what fine art image-making is contributing to the current discourse on images. The publication brings together researchers, artists and cultural thinkers to speculate, contest and share their thoughts on the strategies for interference, at the intersection between art, science and culture, that form new dialogues.

In October 1927 the Fifth Solvay International Conference marked a point in time that created a unifying seepage between art and science and opened the gateway to uncertainty and therefore the parallels of artistic and scientific research. This famous conference announced the genesis of quantum theory and, with that, Werner Heisenberg’s uncertainty principle. These events are linked historically and inform interesting experimental art practices to reveal the subtle shift that can ensue from a moment in time.

The simple yet highly developed double slit experiment identifies the problem of measurement in the quantum world. If you are measuring the position of a particle you cannot measure its momentum. This is one of the main theories that have been constantly tested and still remains persistent. The double slit experiment, first initiated by Thomas Young, exposes a quintessential quantum phenomenon, which, through Heisenberg theory, demonstrates the quantum universe as a series of probabilities that enabled the Newtonian view of the world to be seriously challenged.

If the measurement intra-action plays a constitutive role in what is measured, then it matters how something is explored. In fact, this is born out empirically in experiments with matter (and energy): when electrons (or light) are measured using one kind of apparatus, they are waves; if they are measured in a complementary way, they are particles. Notice that what we’re talking about here is not simply some object reacting differently to different prods but being differently.

In the double slit experiment particles that travel through the slits interfere with themselves enabling each particle to create a wave-like interference pattern.

The underlying concepts upon which this publication is based see the potential for art to interfere, affect and obstruct in order to question what is indefinable. This can only be demonstrated by a closer look at the double slit experiment and the art that is revealed through phenomena of improbability.
INTRODUCTION

Diagram of the double slit experiment that was first performed by Thomas Young in the early 1800s displays the probabilistic characteristics of quantum mechanical phenomena.

When particles go through the slits they act as waves and create the famous interference pattern. The concept is that one particle going through the slit must behave like a wave and interfere with itself to create the band image on the rear receptor.

Interference Strategies looks at the phenomenon of interference and places art at the very centre of the wave/particle dilemma. Can art still find a way in today's dense world where we are saturated with images from all disciplines, whether it's the creation of 'beautiful visualisations' for science, the torrent of visual data archives such as Google Images? The questions posed in this volume, include whether art can interfere with the chaotic storms of data visualisation and information processing, or is it merely reinforcing the noxious nature of contemporary media? Can we think of 'interference' as a key tactic for the contemporary image in disrupting and critiquing the continual flood of constructed imagery? Are contemporary forms and strategies of interference the same as historical ones? What kinds of similarities and differences exist?

Application of a process to a medium, or a wave to a particle, for example, the sorting of pixel data, literature interferes with the state of an image, and directly gives new materiality and meaning, allowing interference to be utilised as a conceptual framework for interpretation, and critical reflection.

Interference is not merely combining. Interference is an active process of negotiating between different forces. The artist in this context is a mediator, facilitating the meeting of competitive elements, bringing together and setting up a situation of probabilities.

In response to the questions posed by the conference theme, presentations traversed varied notions of interference in defining image space, the decoding and interpretation of images, the interference between different streams of digital data, and how this knowledge might redefine art and art practice. Within that scope lies the discourse about interference that arises when normal approaches or processes fail, with unanticipated results, the accidental discovery, and its potential in the development of new strategies of investigation.

In "The case of Biophilia: a collective composition of goals and distributed action," Mark Cypher highlights the interference in negotiations between exhibit organisers and space requirements, and the requirements for artist/artworks, resulting in an outcome that is a combination generated by the competition of two or more interests. As part of the final appearance of Biophilia, the artwork itself contained elements of both interests, an interference of competing interests, comprising a system in which the artist and the artwork are components, and the display a negotiated outcome. Each element interferes with itself as it negotiates the many factors that contribute to the presentation of art. In this sense the creation of the final appearance of Biophilia is the result of the distributed action of many “actors” in a “network.”


Ibid.

REFERENCES AND NOTES


ACKNOWLEDGEMENTS

Special thanks to researcher Jan Andruszkiewicz.

The publication aims to demonstrate a combined eclecticism and to extend the discussion by addressing the current state of the image through a multitude of lenses. Through the theme of interference strategies this publication will embrace error and transdisciplinarity as a new vision of how to think, theorise and critique the image, the real and thought itself.

Paul Thomas
THE ART OF DECODING

n-folded, n-visioned, n-cultured

by

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Artificial life (A-Life) originates, so the accepted narrative goes, from the domain of science. In this discursive orientation much is underwritten by cybernetics and information theory to generate (evolve) computationally lifelike behaviour and the emergence of life, irrespective of material form and to locate “life-as-we-know-it within the larger picture of life-as-it-could-be.” In this undertaking scientists simulate “biological life to evolve patterns, images, programs and more generally to formulate new strategies of control which are more adequate to the liquid space of informational capitalism.”

The complexity of life is measured not by the metaphorical and material relays through which humans are being redefined as posthuman but by observing “abstract mathematical musings” and complex mathematical patterns as they are seen to self-organise and emerge in images.

Notwithstanding this scientific account of artificial life, there are multiple dimensions to examine artificial life. I explore artificial life itself as constituent of the moving image specifically as visualised in three-dimensional computer generated space (3D space). Of particular interest in this examination is the view or

DECODING: THE NATURAL ORDER

ABSTRACT

Scientific modelling requires us to suspend disbelief, nowhere is this more palpable than in artificial life, an area of computational research investigating the principles that constitute a living system “without making reference to the materials that constitute it.”

This paper investigates artificial life visualisation as both a scientific concern and in relation to media arts. Of interest in this examination is the normative protocol of looking at an artificial life simulation or ‘world.’ Analogous to looking through a telescope or microscope, the view into the artificial life world is monocular and often fixed; in this regime we look at ‘organisms.’ This strategy of looking through the scientific lens to observe a ‘natural world’ enfolds other forms of cultural tactics that require decoding including but not exclusive to Bazin’s ontology of the photographic image, Disney nature films and other “apparatus-based universes which robotize the human being and society.”

Subsequent to identifying these protocols in artificial life visualisation I describe a number of works which exploit normative computational procedures to align artificial life image making into optical consistency with other forms of contemporary culture and to celebrate the ‘ocular madness’ found in art forms such as neo-baroque image making and Islamic art.
chal life visualisation is dependent on observing ‘lifelike behaviour’ within the image and deciphering emergent patterns in, the ‘world,’ what is perceived in the ‘world’ or on the screen is what there is to perceive.

The coded generators of this lifelike behaviour are often referred to as ‘creatures,’ ‘cyberbeasts,’ and ‘virtual organisms.’ These creatures, often ‘live,’ ‘fight,’ ‘breed,’ ‘trade’ and ‘die’ in the virtual world; that said, rarely do they ‘work,’ ‘shop,’ ‘shit,’ ‘fuck’ or afford a ‘point of view’; sticky messy descriptions that rarely pervade the imaginative and iterative loop of pattern generation. The anthropomorphic machinations of an A-Life ‘world’ are described through the discursive framework and nomenclature of science and economics, more so than from a personal intimate perspective of life.

This institutionalised orientation is not exclusive to the nomenclature of artificial life as a journalistic enterprise for scientific journals, academic publications and as filter for the artist’s press release, but extends to other taxonomies of A-Life such as the interpretive enterprise for scientific journals, academic publications and as filter for the artist’s press release, but extends to other taxonomies of A-Life such as the interpretive framework and nomenclature of science and economic.

The window into artificial life worlds evokes nine centuries ‘scientific’ studies or early twentieth-century photoplays than is suggestive of either Fried’s “long take’ in cinema and documentary filmmaking, specifically, the nature film (to simulate life as we know it vis-à-vis moral and political refractions) and Disney animation, which, as lead Disney animator Art Babbitt observed, “follows the laws of physics – unless it is funnier otherwise.” Artificial life ‘world building’ is formed in the shadow of Disney nature storytelling: cyberbeasts, virtual organisms and agents are organised, optimised and then observed, like the Disney animal kingdom, to trade, fight, breed and die. Moreover, similar to Disney stories that do “something far more than reveal ‘nature’s mysteries’: they [speak] to us of a living and intelligible world beyond the fence of civilization, a world we [can] enter at will and experience in something like human time.” Artificial life is of its essence a dramatization of the fitness landscape.

n-FOLDED, n-VISIONED, n-CULTURED

A high degree of artifice is involved in scientific visualisation in general, more so in artificial life ‘worlds.’ Take for example the virtual camera that frames the view into the artificial life world. The term virtual camera itself is shorthand to describe an array of algorithmic functions, some of which are mapped to functions that have equivalence in digital cameras. The virtual camera is also host to a large range of algorithms
The project explores the tensions inherent in employing the mathematical rationalisation of pictorial space as a model through which to filter my emotionally and biologically mediated experience of the physical environment. By encoding the virtual camera to reorder the visual field of the 3D scene to ‘what I find interesting’, what I like most about the Artspace – the filmmaker. This merging of discursive practices frames an examination into artificial life, including themes of ‘emergence,’ self-organisation and “lifelike behavior” as de rigueur, into the longer genealogy of the human endeavour. Though much has been made of these themes in artificial life, including themes of ‘emergence,’ self-organisation and “lifelike behavior” as de rigueur, into the longer genealogy of the human endeavour.

Travologue: A recording of Minute Expressions (Travelogue) is a generative work that explores this theme. The central motif of the work draws inspiration from Islamic art and Persian carpet making. The metaphor of the Persian carpet orients both Travologue and artificial life, including themes of ‘emergence,’ self-organisation and “lifelike behavior” as de rigueur, into the longer genealogy of the human endeavour. Though much has been made of these themes in artificial life, including themes of ‘emergence,’ self-organisation and “lifelike behavior” as de rigueur, into the longer genealogy of the human endeavour.

The Persian carpet is a metaphor to describe the intercultural traffic in both Islamic art and the overarching research into artificial life and generative art. This seems appropriate given the trade in and migration of epistemological, institutional, financial, re-

religious and scientific discourse and artefacts in Islamic culture. In other words, Travelogue explores the trade in cultural artefacts, including the migration of encoded grammars and interpretative regimes and the production of knowing subjects in “an unstill centre of a turning world.”

The ‘world’ in Travelogue is seeded or initialised with statistical census data on tourism in Turkey, September 2010. Data from the “monthly number of arriving foreigner visitors” provides the initial resources to populate the work. Other data, such as “$ spent per foreigner” and “number of foreigners of nationality and group of age-gender” populate other variables in the system, which are used to mathematically describe the drawing ‘agents’ (expressions). During ‘runtime’, the expressions exchange data with other expressions, but this ‘interaction’ is not visualised. The exchange of data between expressions provides various mathematical resources to other expressions, which enable the expressions to change scale, colour, location and number; similar functions enacted in other generative systems without personifying the expressions with slippery terms like ‘fight,’ ‘breed’ and ‘die.’

The work is displayed across multiple screens. One screen displays an orthographic view of the ‘world’, which references Persian carpet design and provides context to the overall system. This visualisation might be described as a re-imagination of the potential enfolding tourist trade in Turkey but just as well as an expression of the system. See Figure 4.

A second screen displays a view as expressed from the virtual camera in the ‘world.’ The virtual camera draws from a variety of grammars from the moving image, such as zoom and pan but also reorganises other grammars such as the z-buffer. The virtual camera/filmmaker shoots or frames what is ‘interesting’ to it – whatever that ‘interesting’ is, of course, immeasurable. See Figure 5. These views into the world render non-perspectival and non-optical images of the world, that is, images that do not favour or analogize the camera. See Figure 6.

In this light, the ‘virtual camera’ is, at best, an impoverished metaphor to describe the expressive potential for an array of visual representations into and of 3D space. A more appropriate idiom for the interrelated algorithms that give rise to the view into 3D space might be “cameraless camera” but this also evades the obvious, there is no camera; software mediates the view into virtual space.

CONCLUSION

Stan Brakhage understood what is at stake perhaps better than most writing:

the increased programming potential of the IBM and other electronic machines now capable of inventing imagery from scratch. Considering then the camera eye as almost obsolete, it can at last be viewed objectively and, perhaps, view-pointed with subjective depth as never before. Its life is truly all before it. The future fabricating machine in performance will invent images as patterned after cliché vision as those of the camera, and its results will suffer a similar claim to ‘realism’, IBM being no more God nor even a Thinking machine than the camera eye all seeing or capable of creative selectivity, both essentially restricted to ‘yes-no’, ‘stop-go’, ‘on-off’, and instrumentally dedicated to communication of the simplest sort. Yet increased human intervention and control renders any process more capable of balance between sub-and-objective expression, and between those two concepts, somewhere, soul.

In digital media image making, there is an array of potential to reorganise the visual field. From this array, I examine two, apparently disparate, research fields – artificial life and 3D simulation – both of which employ the virtual camera as the interface to 3D virtual worlds or visualisations. If artificial life is to truly generate lifelike behaviour and emergence, what could be more lifelike than organising both the visual field and scopic regime/s, whatever they may be. After all, aligning the interpretive regime of artificial life image making into optical consistency with other forms of contemporary visual culture does no more, or less, than align competencies expressed in artificial life after the human endeavour.
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