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.
The Leonardo Electronic Almanac acknowledges the institutional support for this book of

The publication of this book is graciously supported by

The book editors Lanfranco Aceti and Paul Thomas would especially like to acknowledge Su Baker for her continual support of this project and Andrew Varano for his work as conference organiser.

We would also like to thank the Transdisciplinary Imaging at the intersection between art, science and culture, Conference Committee: Michele Barker, Brad Buckley, Brogan Bunt, Edward Colless, Vince Dziekan, Donal Fitzpatrick, Petra Gemeinboeck, Julian Goddard, Ross Harley, Martyn Jolly, Daniel Mafe, Leon Marvell and Darren Tofts.
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>INTERFERENCE STRATEGIES: IS ART IN THE MIDDLE?</td>
<td>Lanfranco Aceti</td>
</tr>
<tr>
<td>13</td>
<td>INTERFERENCE STRATEGIES</td>
<td>Paul Thomas</td>
</tr>
<tr>
<td>16</td>
<td>THE ART OF DECODING: n-FOLDED, n-VISIONED, n-CULTURED</td>
<td>Mark Guglielmetti</td>
</tr>
<tr>
<td>26</td>
<td>THE CASE OF BIOPHILIA: A COLLECTIVE COMPOSITION OF GOALS AND DISTRIBUTED ACTION</td>
<td>Mark Cypher</td>
</tr>
<tr>
<td>36</td>
<td>CONTAMINATED IMMERSION AND THOMAS DEMAND: THE DAILIES</td>
<td>David Eastwood</td>
</tr>
<tr>
<td>50</td>
<td>GESTURE IN SEARCH OF A PURPOSE: A PREHISTORY OF MOBILITY</td>
<td>Darren Tofts &amp; Lisa Gye</td>
</tr>
<tr>
<td>60</td>
<td>HEADLESS AND UNBORN, OR THE BAPHOMET RESTORED INTERFERING WITH BATAILLE AND MASSON’S IMAGE OF THE ACEPHALE</td>
<td>Leon Marvell</td>
</tr>
<tr>
<td>72</td>
<td>IMAGES (R)-EVOLUTION: MEDIA ARTS COMPLEX IMAGERY CHALLENGING HUMANITIES AND OUR INSTITUTIONS OF CULTURAL MEMORY</td>
<td>Oliver Grau</td>
</tr>
<tr>
<td>86</td>
<td>INTERFERENCE WAVE DATA AND ART</td>
<td>Adam Nash</td>
</tr>
<tr>
<td>96</td>
<td>INTERFERING WITH THE DEAD</td>
<td>Edward Colless</td>
</tr>
<tr>
<td>114</td>
<td>MERGE/MULTIPLEX</td>
<td>Brogan Bunt</td>
</tr>
<tr>
<td>122</td>
<td>A ROBOT WALKS INTO A ROOM: GOOGLE ART PROJECT, THE NEW AESTHETIC, AND THE ACCIDENT OF ART</td>
<td>Susan Ballard</td>
</tr>
<tr>
<td>132</td>
<td>TOWARDS AN ONTOLOGY OF COLOUR IN THE AGE OF MACHINIC SHINE</td>
<td>Mark Titmarsh</td>
</tr>
<tr>
<td>146</td>
<td>TRANSVERSAL INTERFERENCE</td>
<td>Anna Munster</td>
</tr>
</tbody>
</table>
**Interference Strategies:**

**Its Antim in the Middle?**

If we look at the etymological root of the word interference, we would have to get back to a construct that differs us in a way of the two Latin words: *inter* (in between) and *fero* (to bring). But with a particular attention to the meaning of the word *fero* (to bring), interference is principally an act of war. Alfred Gell refers etymologically to construct: it may be preferable to think of the interference as an act of conflict between (in between) and (in between) the two constructs.

Is it important to talk about the etymological root of a word in order to develop a sterile academic character that defines us as a sum of the two Latin words: *inter* and *fero*? Why? In order to clarify the ideological underpinning of terms used in art, contemporary political and aesthetic discourses appear to exclude the fact that sometimes the very definitions of Québertable (1920) could not be more critical to the many imitations of Teutonic representations, which were endorsed and promoted as the only aesthetics of the National Socialist party. Wilhelm Heinrich Otto Clastres (1992) considered the original rejection of painting, of the Beast Political, of the time, and of war in general, and therefore, the idea of 'degenerate' and the term: ‘Fascism: “No, painting is not done to decorate apartments. It is an instrument of war for attack, and defense against the enemy.”

If art followed the political line, something is apt to tell what has been a long aesthetic conversation that presented the Avant-garde movement as the destruction of the enemy. Thus, the volume of the book *Interference Strategies* stands out as a reflection on the frameworks of contemporary technology as well as within the frameworks of interaction between art, science, and media.

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

If I had to choose, personally, I’d find myself increasingly favoring art that challenges us: that is an instrument of women, that is an instrument of the enemy. I cannot find myself a form of interference. It is a form of censorship as well as interference and therefore had to be classified as ‘degenerate’ and interfering with the ‘Fascist.’

Interference is a word that assembles a multitude of meanings interpreted according to the perspective of the word. In this sense, it can be both a form of interference digital, scientific and aesthetic – and what are the strategies that could be adapted to in order to actively interfere.

The complexity of the strategies of interference within contemporary political and aesthetic discourses appears to be summarized by the perception that interference is a necessary act of gestation. This perception appears to conclude the fact that sometimes there is a very existence of art and war is based on an interference narrative, on a war aesthetic that has come to be considered a natural war, interfering with a political project.

Interfering works, which by its own nature challenge systems, were art works known for the exhibition of Entertainer Kunst (1917). The cultural and etymological underpinnings of the National Socialist German Artists’ Party: thirdly, could only provide an understanding of aesthetics that would necessarily imply, the definition of ‘degenerate’ art, produced by ‘degenerate artists.’

Art that is not produced to destroy the enemy: not the enemy of Germany but the enemy of the Nazi regime, as anything that is interfened and therefore interfered with, the ideal quality of Teutonic representations, which were considered and promoted as the only aesthetics of the National Socialist party. Wilhelm Heinrich Otto Clastres (1992) considered the original rejection of painting, of the Beast Political, of the time, and of war in general, and therefore, the idea of ‘degenerate’ and the consideration to be ‘Fascist.’

Art in this context cannot be maintained due to any interference, either by bringing something in between or by wounding the Beast Political, by placing something in between the perfectly constructed national matrix of humanity and the brutalized viewer. An interference that interferes, obstructs, and disrupts the carefully, unamended, and carefully choreographed history, that it, the viewer, should never be able to follow. In this case, interference in something that disrupts, degenerates, and threatens to collapse the vision of the Beast Political.

If I think about the validity of interference as a strategy, I was impossible just to envisage and compare the image of Paul Joseph Géraldite (1915) to the many images of contemporaries, the destruction of the so-called ‘Degenerate’ art: exhibitions to the many imitations of Teutonic representations, which were endorsed and promoted as the only aesthetics of the National Socialist party. Wilhelm Heinrich Otto Clastres (1992) considered the original rejection of painting, of the Beast Political, of the time, and of war in general, and therefore, the idea of ‘degenerate’ and interfering with the ‘Fascist.’

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 it is extremely difficult spaces, and I am still thinking of it. Leaving an overview of the Interference: the artistic dimension is not produced by the consequences of art and it crumble off as multifarious of themselves.
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 ferro (to strike), but with a particular attention to the meaning of the word ferro 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 ferro (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 interactions - 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 aperis and intento auctoris with intentio lectoris), as Umberto 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) (1937). The cultural and ideological underpinnings of the National Socialist German Workers’ Party could solely provide an understanding of aesthetics that would necessarily imply the definition of ‘degenerate art’ produced by ‘degenerate artists.’ Art that was not a direct hymn to the grandeur of Germany could not be seen by the Nazi regime as anything else but ‘interfering and hence degenerate,’ since it questioned and interfered with the ideal purity of Teutonic representations, which were endorsed and promoted as the only aesthetics of the National Socialist party. Wilhelm Heinrich Otto Dix’s War Cripples (1920) could not be a more critical painting of the Body Politic of the time, and of war in general, and therefore had to be classified as ‘degenerate’ and condemned to be ‘burnt.’

Art in this context cannot be and should not be anything else but interference; either by bringing something in between or by wounding the Body Politic; by placing something in between the perfectly construed rational madness of humanity and the subjugated viewer. An element that interferes, obstructs and disrupts the carefully annotated and carefully choreographed itinerary that the viewers should meekly follow. In this case interference is something that corrupts, degenerates and threatens to collapse the vision of the Body Politic.

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) 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 deconstructive 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 tappetries. 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.
INTRODUCTION

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 interference: at least a form of interference with 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 auctoris and intentio operis.

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 orthodoxy, fanatic and terrorist aesthetic hierarchies that were disrupted by laughter in the Middle Ages might be disrupted today by viral, a-morphological 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 Özden Şahin, Çağlar Çetin and Deniz Cem Öndüygu.

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

REFERENCES 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’s 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 prolegs 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

Leonardo

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 images uploaded to social media services like Instagram and Flickr, or the billions of queries made to vast visual data archives such as Google Images? The concept 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 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” (To put this in another form all actors are particles and interact with each other to create all possible solutions but when observed, create a single state.)

In summing up concepts of the second Transdisciplinary Imaging conference, particularly in reference to the topic of interference strategies, Edward Colless spoke of some of the aspirations for the topic, entertaining the possibilities of transdisciplinary art as being a contested field, in that many of the conference papers were trying to unravel, contextualise and theorise simultaneously.

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

REFERENCES AND NOTES

4. Ibid.

ACKNOWLEDGEMENTS
Special thanks to researcher Jan Andruszkiewicz.
The Case of Biophilia
A Collective Composition of Goals and Distributed Action

by
Mark Cypher
Murdoch University, Western Australia
m.cypher@murdoch.edu.au
www.markcypher.com.au

INTRODUCTION

In an application form addressed to the Siggraph 2006 Intersections Gallery, the artist must describe his interactive artwork. The form states:

The installation Biophilia will enable participants to interact with and generate organic forms based upon the distortion of the user’s shadow. Coined in 1984 by sociobiologist Edward O. Wilson, Biophilia refers to the need of living things to connect with others – even those of different species. On one level, Biophilia critiques Wilson’s notion that western culture desires a connection with nature, even though that same desire belies a deep unconscious fear of all things natural. With these ideas in mind the installation Biophilia attempts to absorb and synthesize users and their contexts, producing unpredictable patterns of propagation and hybridity.

Although short, this simple paragraph, like many others about the work, belies the complexity of relations that have enabled such a reference to be made.

For the moment though, complexity is not important. The statement must have enough impact to catch the attention and interest of Siggraph and the judges who work on its behalf.

The form together with the inscriptions and reference images, imply a desire for a connection to form, or a movement from disinterest to one of interest.

Several months later, the artist receives an email that accepts the proposal.

Now unbeknown to the artist and the judges, they have just formed the first step in translating the artwork Biophilia, and the chain of actors that support it, into a binding sociotechnical relation. Even though the artist is in Australia and Siggraph and its judges are in North America. In the end, the written form and its inscribed references were enough to convince all the actors involved that a relation can be made. The effect will be that the artist’s CV will get bigger, Siggraph will also get greater international participation and Biophilia will be more attractive to other judges, festivals and curators in the future. In a sense, both actor-networks are now able to achieve effects that would not have been possible on their own.

ABSTRACT

Rather than follow the machinations of a singular artist in the production and exhibition of an interactive artwork, this paper uses an actor-network approach to collectively hold to account a whole host of actors that literally make a difference in the production of an interactive artwork, Biophilia (2004-2007). My main argument is that in order for any action to take place both humans and non-humans must on some level collectively work together, or, in actor-network terms translate one another. However, such new relations are predicated and indeed just as dependent on and what these new actors are willing to give up as it is to do with what they can offer. Needless to say that when the negotiations are momentarily over, actors give up individual goals and compel others to collectively form new definitions, new intentions and new goals with each interaction. In other words, the ‘work’ represents neither the beginning nor the end of a particular event, but is described more as a continually shifting and cumulative series of distributed actions.
Several days later the artist receives another email from the Siggraph “Art Show Chair”:

I am concerned about the amount of walk space between your booth and the art walls below it in the plan. […] We need more space so people can stand back and view the art plus the Fire Marshal does not like us to have close passageways.

Several emails later it is clear that some negotiation over space is required, if the embryonic relation between Biophilia and Siggraph is to be sustained.

This description of the trials of strength inherent in the construction and exhibition of an artwork may have started in a rather strange place. But the process demonstrates how actors are co-defined when they begin to form relations. In actor-network terms, the elemental affiliation that enables a network to form is the process called translation. Michel Callon describes translation as:

‘A translates B’. To say this is to say that A defines B. It does not matter, whether B is human or non-human, a collectivity or an individual. Neither does it say anything about B’s status as, an actor. B might be endowed with interests, projects, desires, strategies, reflexes, or afterthoughts. The decision is A’s – though this does not mean that A has total freedom. For how A acts depends on past translations. These may influence what follows to the point of determining them. All the entities and all the relationships between these entities should be described – for together they make up the translator.

The trajectory and relative makeup of a translation can be mapped when we consider the amount of associations and substitutions that go into making a relation stable and thus viable. This process can also be expressed in Figure 1.

So what an actor in translation gains in one area is a result of having lost something in another. It’s in this way that all translation requires a series of transactions. That is, Biophilia will disengage weak or threatening entities whilst incorporating those that are sustaining. It is the nature of these trans-actions, which defines the strength or weakness of a given translation and will contribute to the explicit shaping of the artwork; apart from the intentions of the artist. Therefore, a collective entity like Biophilia cannot be entirely defined by its ‘essence’ or what we see on the surface in a representation at anyone particular time. Rather, translation as observed in Biophilia produces a unique mediating signature of a specific association of entities at work at any given moment, as is shown in Figure 2.

The notion of translation demonstrates that the problem solving involved in art practice, is a deeply intertwined sociotechnical process. When we see the artist take his position at a desk in front of the computer and begin to work on the problem of Siggraph’s lack of space, he will need the desk, the computer and a whole host of other entities to be compelled to solve the problem. But of course in order for this problem-solving process to work it will require that technical components are already socialised for use. Computer vision is socialised, it enables the computer to ‘see’, and the computer and camera can ‘talk’ to each other, just as computer code is compatible with reading. What at first seems like a highly complex objective process with sophisticated technological components is made compatible with social ways of coding and reading. It is in this way that properties are borrowed from the social and inscribed into nonhumans.

At the same time, this process will also extend non-human influence in the social. Whereby, humans will equally absorb nonhuman properties; that is, the position of sitting and using a mouse, submit to the limits of the technical components, follow structured software patterns or read feedback given, in order to establish a working relation. So much so that what the artist will learn from the production process is the result of contact with nonhumans, which is then re-imported back into the social as conceptual and afforded content through the artwork.

![Figure 1. Translation Diagram](image1.png)

*Figure 1. Translation Diagram. Innovation can be traced by both its AND or OR positions that successively define the modification of ingredients that compose a translation it. It is impossible to move in any direction without paying a price in the AND or OR direction. © Bruno Latour, 2013. Used with permission.*

![Figure 2. Mapping the Collective](image2.png)

*Figure 2. Mapping the Collective: Biophilia © Mark Cypher, 2013. Used with permission.*
The computer, code and technical components lend their nonhuman properties to what was previously a scattered and unordered bunch of parts and loose intentions. The intersection of nonhuman influence will allow these actors to align and their relations to harden. So much so that the sociotechnical hybrid Biophilia will eventually submit to the fire laws of Boston, measured by fire wardens, held accountable by the Chair of the art gallery and be granted a social life, worthy of its place in the Siggraph Intersections exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.

When we observe the so called ‘social’ actions of the artist sitting and at work at the computer, trying to solve this problem, it looks as if the human does the ‘work.’ However, when we take into account the vast amount of translation in the construction of Biophilia our observations are undermined. Translation shifts exhibition.
This is represented in diagrammatic form as goal translation in Figure 3.

Goal translation represents a symmetrical example of how, through interaction, competencies, objectives and possible actions are co-constituted. Both the human participant and the artwork’s goals are translated into a collective program of action, in which any number of unintentional consequences could result. In other words, action is shared amongst those in the collective and is in part uncontrollable by any one element, human or otherwise.

This kind of unpredictability is brought to bear by such translations and is used by the artist (whether he recognises it or not) to take advantage of the volatile collective action produced when a multitude of entities come together. It is no wonder then, that Frank Popper conceptualised such phenomena in electronic art works as “neocommunicability [as] an event - full with unaccustomed possibilities...” The uncontrollability of relations in an interactive event is a small articulation of what many artists come into contact with every day. That is, to act means to be perpetually overtaken by the thing you are supposedly building.

In this way goal translation as evidenced in both the construction and interaction with Biophilia demonstrates that there is no prime mover of an action and that a new, distributed, and nested series of practices allows all kinds of unintentional actions, ontological variability and exchanges to develop. The implication then is that action can be redefined as follows:

(*N*)ot a property of humans, but of an association of actants (human or nonhuman agents). [. . .] by] provisional “actorial” roles may be attributed to actants only because actants are in the process of exchanging competencies, offering one another new possibilities, new goals, new functions. This kind of distributed action not only highlights the implausibility of humans and nonhumans acting alone but that the whole process of gaining some kind of competency is undertaken by exchange. As Latour further explains:

Interaction cannot serve as the point of departure, since for humans it is always situated in a framework which is always erased by networks going over in all directions. [. . .] the attribution of a skill to an actant always: follows the realization by that actor of what it can do when others than itself have proceeded to action. Even the everyday usage of ‘action’ cannot serve here, since it presupposes a point of origin [. . .] which is completely improbable.

Action and indeed agency is always shared and distributed amongst other entities. The ability to act is therefore mediated by others’ actions that have come before it. Such cumulative influence can be illustrated in Figures 4 and 5 below.

In Figure 3, the explosion in unintentional goals is a result of different combinations of actors interacting. One can never really know what is going to happen, because we can never really know all the elements activated in a given association or context beforehand. © Bruno Latour, 2013. Used with permission.

In Figure 4, individual sub-programs of action are bent towards a collective goal. © Bruno Latour, 2013. Used with permission.

Figure 3. Goal Translation Figure 3 adapted from Latour. The explosion in unintentional goals is a result of different combinations of actors interacting. One can never really know what is going to happen, because we can never really know all the elements activated in a given association or context beforehand. © Bruno Latour, 2013. Used with permission.

Figure 4. Individual sub-programs of action are bent towards a collective goal. © Bruno Latour, 2013. Used with permission.

Figure 5. Mapping the cumulative influence of the collective. The composition of new goals is made possible by the colonising of many sub-programs which are then cumulatively bent towards the collective goal for Biophilia. © Mark Cypher, 2013. Used with permission.

Figure 5. Mapping the cumulative influence of the collective. The composition of new goals is made possible by the colonising of many sub-programs which are then cumulatively bent towards the collective goal for Biophilia. © Mark Cypher, 2013. Used with permission.
As Figures 4 and 5 illustrate, there is a long chain of events that eventuates. The cost is time, misplaced intentions, and the sacrifice of goals. Nonetheless a new camera rig is collectively or trans-action of one actor, to replace another actor in a collective construction. But an integral ‘taking into account’ is implied in the process of translation and required for a collective goal to be successful.

In this sense translation is important for rethinking production because it usually involves the exchange or trans-action of one actor, to replace another actor to help solve a problem. But as we have seen in Figure 5; these new cumulative problem solving abilities, affordances and skills come at a cost. For example, although the artist spends precious hours rigging the installation, the slightest bump throws out the camera’s set up. Nevertheless, these unfounded probabilities and lost propositions connote a deeper sense of the multitude of sacrifices required for a strong relation to form. As a result intentions and goals are detoured from their initial trajectory and precipitate new alliances and new actions that would not have been originally possible. It is in this manner that the interactions, and indeed the intentions to act in the production, exhibition and interaction with interactive artworks, is considered collective and distributed. 

By examining Biophilia as much more than a discrete artwork in itself we begin to see that the competencies and functions of each actor begin to lose their distinctions in order that the ‘work’ is made.

In this way, the intentions of the artist are significantly translated and thus altered to the extent that all the actors in the development and exhibition of the artwork shape the conceptual and physical aspects of Biophilia. In a sense, the long tail of the sociotechnical translations shape the type of cognitive and functional operations that are possible. As Edwin Hutchins states, “One cannot perform the computations without constructing the setting; thus, in some sense, constructing the setting is part of the computation.” In this way, the Siggraph gallery and the installation space are also dependent on similar sociotechnical systems (bricks, mortar, funding bodies, committees, community support) that sustain the types of movements within it. So too are participants’ actions, intentions and cognition similarly shaped as an effect of the “modes of ordering” implied by the framing aspect of the gallery and indeed the installation itself. Therefore, for the artwork to emerge the individual goals and functions of each actor must merge into a larger if not distributed action.

CONCLUSION

From an actor-network approach, actual interactions with participatory art works (much like still images of the event) are not a departure point, but one point of many in a chain of associative links. As is seen in the various translations in Biophilia, interaction consists of agents that can only act by and through association with others. As these actors associate and thus work together, their initial goals are forcefully exchanged, sacrificed and colonised for the greater good of the collective. Sometimes these goals align with a strong probability that the trajectory of action grows stronger with more associations. Other times they don’t. Nevertheless, these unfounded probabilities and lost propositions connote a deeper sense of the multitude of sacrifices required for a strong relation to form. As a result intentions and goals are detoured from their initial trajectory and precipitate new alliances and new actions that would not have been originally possible. It is in this manner that the interactions, and indeed the intentions to act in the production, exhibition and interaction with interactive artworks, is considered collective and distributed.

REFERENCES AND NOTES

2. Sections of this paper are derived from my PhD dissertation, Mark Cypher, Trans-Action: an actor-network Approach to Interactivity in the Visual Arts (Ph.D. dissertation, University of Western Australia, 2011).
3. Siggraph Art Show Chair, e-mail message to author, March 26, 2008.
9. Ibid., 799.