

On The Interdisciplinary in Art

*Contrary to the current presumption,
if there is any man
who has no right to solitude,
it is the artist.
Art cannot be a monologue.*

Albert Camus, *Create Dangerously*

What do I, an artist, want to learn from the art of another?

At the time of this writing, I am captivated by a phenomenon resembling Karl Popper's *paradox of freedom*.¹ On the one hand, artists today are free to do absolutely anything: any question or action from any discipline or practice can be appropriated into the art space and legitimately turned into an artwork. On the other hand, the number of artists who choose to use this freedom by not specializing — not committing their art to any particular tool, subject or medium — is scarce. Being a practitioner of art, rather than a theorist or historian, the question I am interested in is not how and why this paradox occurs, but how I can myself avoid it. When I meet an artist who has succeeded in remaining free, I want to learn why and how he has done this.

¹ Karl Raimund Popper, *The Open Society and Its Enemies*, Princeton University Press, 1966.

How do I learn from the art of another?

This essay is, in part, a response to the accounts of art in many art history and theory books. I have found these accounts to be fall short as sources of knowledge that might be applied to art making itself: while they taught me a great deal *about* art, there was little in them that I could apply in my own practice. Anthropologist Tim Ingold suggests that the problem with this bridge between art history and art making might be with the very mindset of the “study *of* art”,² which detaches the scholarship of artistic practices from the practices themselves. The “study *of* art”, he suggests, must be replaced by “study *with* art”. Such an approach takes art to be a discipline that creates knowledge with consequences in the world, a process of correspondence with the world in which making, learning and knowing become one. For me, as an artist, Ingold’s approach of “studying *with*” means projecting the logic of someone else’s art onto my own, and onto the practices of the institutions I am, or willing to be, a part of.

The question this essay draws from the liberating possibilities of art, now: *how can art-making be approached independently of any disciplinary conventions?* The artist I am learning *with* is Robert Irwin. I am applying what I have learned on the artistic practice of engagement with disciplines outside of the art domain. I refer to these practices, for the lack of a better recognizable term, as *interdisciplinary*.

One of these practices, known under the blanket term *Art and Science*,³ stands for what is perhaps the largest effort ever made to integrate art with other disciplines. It has spawned financial, logistical, administrative and creative efforts ranging from personal and collaborative initiatives to large-scale national and international projects by major research, art and philanthropic institutions. What began in the 1960s-70s as a few individual artists responding to the introduction of science and technology into popular culture, has since exploded in the 2010s into the surge of

2 Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture*, Routledge, 2013 (Kindle edition).

3 Throughout the text, by *art-science* I refer to practices involving artists’ communication with scientists — as opposed to, for instance, artists mastering technological or scientific tools in order to create art (e.g. artists using tools of biotechnology).

labs, books, journals, conferences, funding programs, open calls, theses and academic departments, all geared towards a single goal: to encourage collaborations of artists and scientists. The catchy image of an artist in a scientific lab came to represent the metaphorical bridge over the metaphorical gap between C.P. Snow's proverbial "two cultures"⁴ of sciences and humanities in the Western tradition.

Despite the significant surge in artists working with science, very little has changed in the discussion of art and science in the last decades. The same arguments for and against them, which were made in the past, are also being heard now. Advocates stress the infinite creative possibilities made accessible to artists by new scientific technologies and concepts. They mention the similarities between scientific and artistic creative thinking, warn against the damages of epistemological and institutional divide, reference precedents in recent and distant art history and make analogies between artists' studios and labs. Critics, on the other hand, note that new technologies are nothing but new tools, denounce art-science initiatives as mostly grants generation engines with little content to offer, point out how the technique takes priority over content and flattens aesthetics, denounce the instrumentalization of art at the service of corporate and scientific public relations, express concerns over loss of artistic autonomy and stress the differences between intuitive feeling and logical reasoning.

The stagnation of this discourse is astonishing. Nonetheless, the sheer growth in activity has had a dramatic effect on professionalization in the field. There are growing numbers of artists who specialize in making art-science, galleries that display and sell art-science, institutions that fund art-science and publications that disseminate its theory and practice. Half a century of integrating art with other disciplines has created yet another discipline: a highly specialized, self-contained branch of art with its own institutions and milieu and characterized by its own aesthetics and rhetoric. "Art & Science" has arguably become, though, just another manifestation of the *Paradox of Freedom*: the

⁴ P. S. Snow, *The Two Cultures and the Scientific Revolution*, Cambridge University Press, 1959.

attempt to open the art's borders has led to creation of more borders; expansion of the notion of what art can be established just another art genre.

My question, then, is what alternative to the present state of interdisciplinary art might there be? And to be potentially useful, this alternative must be based on premises that would bring the discussion's stagnation to an end.

One new premise is that the word 'science' in the expression "art-science" is incidental, and can be replaced by any other discipline or activity. In the western culture, the arts and the sciences are commonly viewed as hermetic and opposing categories. These persistent stereotypes are the only reason for the appearance of the expression in the first place. In fact, "art" and "science" are each extremely heterogeneous fields, including an enormous variety of practices that are only loosely connected by common codes. Having said this, the epistemological divide between most practices of art and other research disciplines, sciences and humanities alike, does exist. This epistemological divide needs to be addressed, while considering the extreme heterogeneity of all practices.

Another premise is that collaborations between artists and scientists — or, for that matter, representatives of any two disciplines — are not inherently beneficial. Rather, there should be a specific, practical reason to collaborate. Researchers from different disciplines may seek collaborations when they realize that their disciplinary tools and methodologies are insufficient for answering the questions at hand, and when resources in other disciplines show the potential of addressing these questions. The "bridge the gap" rhetoric, that replaces practical reasoning with stereotyping, must be obliterated. The importance of interdisciplinary work is in the value it creates for its participants rather than in the mere fact of its existence.

The third premise is that there is something utterly unique in the nature of the resources, kinds of interactions and forms of knowledge that art can offer to other disciplines. All these are fundamentally different from what scientific or humanistic disciplines may offer to each other. Understanding, in specific terms, just what constitutes this uniqueness is instrumental for formulating a meaningful position on the subject.

The last premise is that any proposition of integration of art practice within other disciplines will have to suggest an operational model specifying the structure of collaborations. Over the years, the dominant model remained pretty much the same: fixed-term projects in which artists are placed in a scientific environment for a predetermined period of time, and are withdrawn from it when the time is out. This predetermined duration of engagement is, in my view, one of the factors that limit the evolution of interdisciplinary art practices.

Three conceptual strands, developed in three different disciplines in recent years, provide the basis for the hypothesis I will develop here. One is Alva Noë's⁵ characterization of art as a practice whose purpose is to expose the ways in which life is organized and offer models for reorganizing it. Another is Tim Ingold's idea⁶ of art as correspondence with materials, and of the artwork as both the process and the product of this correspondence. The third is Pablo Helguera's definition⁷ of socially engaged art as temporal attachment to other disciplines with the purpose of creating new insights into disciplinary questions.

These three strands lead to the understanding of art as a meta-discipline,⁸ and of an artist as a meta-scholar whose function is, in essence, political: to act as a free agent in culture, constantly seeking engagements with life and proposing ways to reorganize it. In the case of artists' engagement with practitioners of other disciplines this translates to proposing ways to reorganize their disciplinary discourse.

I will propose the practical inference from these conceptual strands: the only operational model that can support the work of an artist-as-meta-scholar in a sustainable way is the model of academic research, in which the artist engages with the research structures outside of the art domain while having the art department as his home base. This model assumes that art departments must re-

5 Alva Noë, *Strange Tools: Art and human Nature*, Hill and Wang, 2015 (Kindle edition).

6 Ingold, *Making: Anthropology, Archaeology, Art and Architecture*, 2013 (Kindle edition).

7 Pablo Helguera, *Education for Socially Engaged Art*, Jorge Pinto Books, 2011

8 I borrow the expression from Luis Camnitzer, but use it in a slightly different meaning. In *An Artist, a Leader, and a Dean Were on a Boat...*, e-flux, 2014, <http://bit.do/artist-leader-dean>

evaluate their goals and practices. Instead of functioning as closed structures focusing on subjects internal to art, they must cultivate approaches to learning that are not limited by any disciplinary conventions. In addition to preparing artists for careers confined to the art world and to art discourse, they must also train artists as researchers capable of engaging with any academic discipline by becoming *specialists in not specializing*.⁹

I develop these propositions by using the career of Robert Irwin as a case study. Here, the aesthetic of art-making takes precedence over the aesthetic of art-objects, and the issues that are usually discussed in relation to Irwin's art — the phenomenological, the site-specific, the minimal, the environmental — all blur away to become the basis for his main achievement: a working model for the artist-as-meta-scholar. In this text, Irwin's career is treated as a theory of sorts; a body of knowledge unified, to paraphrase Karl Popper, by the logic of artistic discovery;¹⁰ a progression of statements about the world that follow a self-contained logic. Irwin's artistic evolution from painting to conditional art encapsulates the development of the model of non-specialization from the inner logic of an art practice. His project within the Art and Technology Program (A&T) of Los Angeles County Museum demonstrates how this model is implemented in the practice of interdisciplinary engagement. The First National Symposium on Habitability, which concluded Irwin's part in A&T in 1971, shows how the same model naturally leads to a form of political engagement aimed at reorganizing the discourse of another discipline.

While my review of Irwin's career and my critical analysis of his artworks take up a considerable part of this essay, neither reflects the primary aim of the essay. Rather, the aim is to generalize from his art: to extract the logic of a practice by viewing an artist's career through the prism of the premises and the conceptual strands detailed above: to establish conditions that increase the probability of a dialogue between artists and non-art disciplines that lead to a change in disciplinary discourses. Therefore, the episodes of Irwin's career are described only schematically. I focus

⁹ I borrow this expression from Helguera, *ibid*.

¹⁰ Karl Raimund Popper, *The Logic of Scientific Discovery*, 1959.

instead on the details that are relevant to this aim of moving from specific to general. This is also the reason that no images of his artworks accompany this essay: the aesthetics that concern me here are of the *system*¹¹ kind rather than the visual kind. A reader interested in detailed accounts of Irwin's artworks is referred to a number of comprehensive publications, referenced throughout the text.

¹¹ Jack Burnham, *System Esthetic*, Artforum , September 1968.

The logic of artistic discovery

An exhibition of his paintings from the 1960s concludes with a short video of a 46-year-old Robert Irwin, smiling and confident, responding to the questions of the invisible and almost inaudible interviewer.¹² Many of his responses are cut before he manages to get to the point, partly because of the lost footage, partly because of his own abrupt speech which fails to contain all he is trying to communicate. There is not a word almost about the artworks; every response is generalized; every statement is a sign of an intellectual struggle, bringing forth a worldview thesis that seems to oppose the very premise of the exhibition: what he has learned is paramount over what he has made; his knowledge, not his paintings, is the legacy he wants to leave behind. This legacy is of an art that is given meaning only by its consequences in the world, a discipline in dialogue whose purpose is an

12 *Unedited interview with Robert Irwin*, exhibition *Robert Irwin: All the Rules Will Change*, Hirshhorn Museum and Sculpture Garden, Washington, DC, US, 2016.

*assault on the taken for granted*¹³ in all human practices; of an artist who is available to the world, in the constant search for new connections with it.

“Cursed” with a drawing skill, 21-year-old Irwin enrolled at the Otis Art Institute¹⁴ in Los Angeles in 1949, right after he returned from military service in Germany. After the onset of the Korean war and being re-drafted in 1950, Irwin attempted to pick up his art studies at Jepson Art Institute, moving three months later to Chouinard Art Institute, where he dropped out shortly after, never attempting formal studies again. He then made several trips to Europe, continued his painting, and attracted attention from gallerists and dealers so that, in 1957, he was able to show a series of abstract landscapes in the Felix Landau Gallery, a major LA art space at the time. The story has it that half an hour before the opening Irwin realized how bad the paintings were and, unable to point at just what was wrong with them, quit Felix Landau and stopped painting the way he used to.

The story of Irwin’s art from this moment onwards is told and retold in many publications, including the popular biography¹⁵ by Lawrence Weschler published in 1982, and Matthew Simms’ extensive historical account of *Conditional Art*,¹⁶ published at the time of this writing. His story is an evolution of decisions that lead from one step to another in a way that retrospectively makes perfect sense, as if carefully planned in advance. In real time, of course, no such planning took place. What did, however, change from step to step was the artist’s awareness of his motivation for taking it.

A decade and a half after the Felix Landau episode, Irwin’s response to the question “what is your motivation for doing art?”¹⁷ was that motivations are not static: what it is now has nothing to do with what it was in the beginning. Motivations are not intents; they evolve according to the logic

13 Lawrence Weschler, *Seeing is Forgetting the Name of the Thing One Sees*, University of California Press, 1982.

14 Today Otis College of Art and Design.

15 Weschler, *Seeing is Forgetting the Name of the Thing One Sees*, 1982.

16 Matthew Simms, *Robert Irwin: A Conditional Art*, Yale University Press, 2016.

17 *Unedited interview with Robert Irwin*, exhibition *Robert Irwin: All the Rules Will Change*, 2016.

of practice that develops through an artist's awareness of one's own experience. The experience of 1957 was of unsatisfying landscapes, and Irwin's decision was to stop painting them. The obvious, taken for granted decision might have been to learn how to paint better landscapes. The radicalism of Irwin's approach, already apparent in this early stage, is in the seriousness with which he took his experiences while disregarding what is expected of him as a painter. At the most basic, intuitive level, Irwin rejected the idea of painting as a homogeneous field governed by fixed conventions, thus laying the grounds for the logic of a practice that is interdisciplinary in its core.

He moved down the street to Ferus Gallery, at the time a shelter for unknown artists who couldn't find their place anywhere else, but soon to become one of the prime sources of radical art in the country. Following his peers, Irwin experimented with abstract expressionism, perfected his gestures and composition skills and exercised attention skills, in the process making two "discoveries". First was that his abstract paintings were not abstract at all: his mind arranged the marks he had put on the canvas into meaningful patterns that resembled things in the world. Second was his own emotional response to seeing an image in the "abstract" painting: the moment this happened, the painting, as he put it, *went flat*: uninteresting, boring.

This dissatisfaction with the *rorschachability*¹⁸ of his work motivated his next step. Unlike the Landau show, in this instance he was aware of what went wrong with the paintings: against his will, they were not abstract. The question that presented itself to him was how to eliminate all traces of representation. Will a group of lines represent anything to anyone? Irwin intuited that the answer was 'no', and spent a year working on heavily textured paintings of lines which — he concluded in the end — were still *haunted by the possibility of the pictorial*.¹⁹ The solution to that was reducing the number of lines, straightening them up, covering the painting's field with uniform color. The following two years — in which Irwin spent 12-15 hours a day covering the canvas with

18 From Rorschach inkblot tests

19 Weschler, *ibid.*

monochromatic ground, placing lines, observing, slightly moving the lines, noticing the change, starting over again — yielded ten paintings, two lines in each.

It is during this time that the art of Irwin stopped being about painting. Technically, he produced large stretched canvases covered with paint. Motivationally, the whole process dealt with something entirely different. He wanted now to find a solution to a problem, follow a line of inquiry. The actual physical objects — the canvases — were the means of this inquiry, the tools; the product was the knowledge he gained while making them.

This way of working marked the next stage in Irwin's progression. Instead of conceiving and realizing a design in painting, Irwin expected the painting to "tell" him what it wanted for itself. This involved time and attention, weeks of observation, minor adjustments, intuitive responses and re-adjustments, until the outcome felt satisfying. His art became, more and more consciously so, about the process of communication that Ingold calls *correspondence with the material*: a relation to the world where

[...] conduct of thought goes along with, and continually answers to, the fluxes and flows of the materials with which we work.²⁰

From this point onward, Irwin's practice turns into a continuous physical and conceptual expansion of the scope of his subject of correspondence, a constant redefinition of the material of his art.

This expansion began with the line paintings: staring at the canvas for hours in a row made him aware of anything in the studio that affected his perception. He would plaster the wall, repaint, clean up the studio — and the painting appeared differently. Everything in the surroundings became important, so that by the end of the series Irwin was attending to the studio as much as he did to the canvases. At this early stage the effort was to control the environment, to clean it up, to

20 Ingold, *ibid.*.

eliminate distractions, dictating to it, as it were, his conditions. But fairly soon dictation will turn to mutual correspondence, turning the entire environment into a material.

Meanwhile, the problem with the lines persisted: they still read as paintings *of* two lines. As, in fact, any painting with visible marks could be read as the painting *of* marks. Hence the new question of 1964 was: how to paint a painting that possesses visual energy, but without visible marks? The coming two years yielded an answer: a grid of small red and green dots, about 1/25 inch apart, covering a large (about 8'×8') canvas, dense in the middle, sparse at the edges, with the center of the canvas slightly protruding towards the viewer. From a distance these canvases seemed blank white, but as the viewer approached, her visual system struggled to make sense of the conflicting signals sent by the opponent-colored dots, and the painting would seem to flicker. Thus the problem was solved: a square field with no visible marks emitting visual energy.

But why was the field square? Why was it limited by a frame?

For the art world, paintings with few marks and no recognizable imagery safely fall into the category of “minimalist abstraction”. But for Irwin who, by that time, made an enormous effort to divorce his actions from influences external to the actual act of painting, the categories imposed on his art by the art world were irrelevant. What he intended to accomplish was entirely distinct from what the audience and the critics expected to see. An anecdote that illustrates this distinction is his response to the invitation by the curator Clement Greenberg to take part in his “Post-Painterly Abstraction” show in LACMA in 1964. After reading the catalogue essay, Irwin refused, explaining that:

*I didn't know who he was. I just wrote him a letter and told him how dumb I thought his ideas were.*²¹

After the Felix Landau show, Irwin intuitively refused the default possibility of learning how to paint better landscapes, breaking from the conventional expectation of him as a painter. In the same manner, after the dots paintings, the possibility of continuing, developing and improving his

21 Weschler, *ibid.* For Irwin's response letter to Greenberg in full: Robert Irwin, *Notes Toward a Conditional Art*, Getty Publications, 2011; p. 20.

“minimal abstractions” was not an option, simply because, within the logic of his practice, this category did not exist. But neither did this logic presume an opposition to the art world conventions for the opposition’s sake. Rather, Irwin treated the conventions as case studies: what happens if a certain convention is suspended?

With the line paintings, Irwin began to attend to the surroundings of the painting. With the question “why is the canvas limited by its frame?”, the very distinction between the surrounding and the painting was to be challenged, and so the next convention to be suspended was the frame. The problem, the last one in his practice to be confined to the medium of painting, was articulated as *how to paint a painting that is not limited by edges?* The answer took the shape of large, white²² convex-shaped disks, with a black stripe in the center gradually dissolving to the sides. When lit properly, these disks seemed to be integral to the wall they hung on. They remain what most art consumers associate with Irwin. Technically they were still paint applied onto a surface, so they addressed the question of the frame: they were paintings without edges.

The lighting setup of the disks was so nuanced that Irwin had to install them by himself. In every new exhibition he was trying to recreate the conditions of his studio, meticulously attending to every detail of the space: the illumination, the color and texture of the walls, the perceptual relations with the exhibition as a whole. For Irwin, the problem was not merely logistical. If the aesthetics of the disks was only preserved in the studio conditions, what should be said about their value when the conditions change? Do they have any value of their own, or is the value “given” to them by their environment? Irwin’s conclusion was that, if art is presumed to have intrinsic value, the disks — as artworks designed to become one with their environment — were, so to speak, not generalizable as art.

A medium-specific question — “why should paintings have edges?” — eventually led Irwin to reconsider one of the most common presumptions of the art world: that artworks can be moved

22 The first disks were made of aluminum and are opaque white, later ones were cast from acrylic and are translucent.

around, between studios, museums, galleries and collections, and can be shown at different times, while preserving their meaning and value. The achievement of dissolving the painting's edges resulted in a fundamental conceptual shift in Irwin's art: from now on, the term *aesthetics* was not bound by the frame, but included the relationship of the artwork with the world in its entirety. This question of the relationship between artwork and world — a recurring subject in philosophical and theoretical treatises — was far from being merely philosophical-theoretical for Irwin. It must have had practical, operational consequences for him, for from this moment onward, he could only consider making art as the form of engagement with the world.

If the painting and the environment are of equal importance, what reason is there to paint at all? If any artwork is inseparable from its environment, then nothing made in the studio can be meaningfully transported anywhere else, so why make it in the studio? As the disks were selling out to collections and museums, Irwin was already past painting. Within the logic of his inquiry, the disks had to be the dead end. He has exhausted the questions within his medium: dissolving into the environment, the disks had to become not just the last paintings he would ever make, but the last objects he would make in the studio. Studio work had been, for Irwin, the way to pursue questions. And the disks marked an end to the answers that could be found there. Remaining in the studio would mean that anything created there would simply repeat and expand on what he had already done, if perhaps in a fuller and richer way. That this is what most artists in the world pursue was of no concern to Irwin — the termination of an ever-developing inquiry was unacceptable.

Irwin's realization that, whatever he had been doing so far could not continue, reappears, then, as a central trope of his biography. Irwin's solution was just as simple and radical: to quit whatever he was doing.²³ The only way not to work in the studio was not to work in the studio. But now the familiar medium of painting was not there to fall back on: the painter's tools that he had known so

23 He did make one other studio object following the disks, the prism column, which I omit here because it did not contribute significantly to the development.

well were inapplicable. Leaving the studio behind meant not just changing locations, but *losing a way of thinking*.²⁴ As tactile, sensual and perceptive an artist as Irwin was, left without materials to touch or space to observe or objects to perceive, he had to reinvent his craft and learn, as he put it, *how to continue thinking without the use of physical means*. Or, rather, how to get access to physical means that were not part of the traditional artists' toolbox in the studio.

The achievement of Irwin's practice thus far was not his series of paintings, commercially successful and aesthetically appreciated as they were, but his painstaking development of correspondence skills with materials. He learned to wait for the material to "tell" him what it wants for itself, to lead him through steps of inquiry. Without the painting in front of him, Irwin generalized this logic: he decided to wait for the world to tell him what it wanted for itself. He turned the world into both his studio and his material, by *making himself available*.²⁵

... I said I would go anywhere, anytime, for anybody, for anything. I made myself very available, and I made it for free.

Making himself available to go anywhere was just a part of his new approach, and a fairly easy one at that: Irwin was well known by that time, and was constantly receiving invitations for shows. The other part was more complicated. He needed the world to become the means of material thinking, the object of correspondence that would tell him what it wanted for itself. And this is what *being available* really meant: not the physical availability of his body to be moved around, but his mental availability of feeling the world — without having preconceptions for what it should be or become. In practice, this simply meant that Irwin did not know in advance what he was going to do when he responded to invitations: with every new place, he had to suspend all habits, intentions and conventions, to learn anew and let the circumstances lead. All aspects of the work — material, methodological and conceptual — were to be informed by this learning. The result could be an exhibition, a lecture, a conversation with students, or anything else — or nothing at all. Later on

²⁴ Weschler, *ibid.*

²⁵ *Ibid.*

he would call this *Conditional Art*: art that draws all reasons for its existence from the immediate physical, institutional and social circumstances of its environment.²⁶ In other words, art that is the product of direct, unmediated correspondence between the artist and the world.

It was this part of Irwin's proposition that didn't make sense: curators expected concrete proposals and specific budgets. But slowly and surely, within a few years, the volume of invitations became so high that Irwin was on the road most of his time. Early on in the period, in 1968, even before his notions of *being available* and *conditional art* were formulated, an invitation came from Maurice Tuchman, the curator of the Los Angeles County Museum of Contemporary Art, to participate in its Art and Technology Program.

26 Robert Irwin, *Notes Toward a Conditional Art*, Getty Publications, 2011.

Art and Technology Project at Los Angeles County Museum

The 1960s-1970s were unique both in the magnitude of technological and scientific breakthroughs and in the expanded presence of those breakthroughs in popular culture. Telecommunications, computers, space exploration — all moved from labs to public consciousness. They affected politics and created new aesthetics. This shift fueled a renewed wave of artists' interest in science, although the motivations for that interest varied wildly: from uncompromising criticisms on ideological anti-capitalist and anti-militarist grounds to complete integration of new technologies in artistic processes and adoption of science-inspired (or, often, science-fiction inspired) aesthetics. The two large scale art and technology initiatives on the two US coasts — Experiments in Art and Technology (EAT) in New York and Art and Technology Project (A&T) at the Los Angeles County Museum (LACMA) — generated a discourse polarized to a similar degree, and along similar lines. This discourse, however, was of little interest to Irwin who, by the end of the 1960s, was completing the disks series.

Maurice Tuchman, LACMA curator of modern art, came up with the idea for A&T as a means for making the technological capacities of the Californian industry accessible to artists.²⁷ He envisioned them producing new work while using the companies as their studios. He had heard about the technical challenges Irwin encountered producing his disks and decided to approach him, suggesting that Irwin might use some technological assistance in developing the work. By then, Irwin was almost past making objects of art and about to leave the studio for good. In this sense, the premise of the project wouldn't have meant much to him :²⁸ coming to a place, be it a gallery or a technology corporation, with a predetermined idea of what was to be made there, seemed meaningless even. He was intrigued, however, by the idea of exploring the possibilities of an intellectual exchange with scientists on the topics he was preoccupied with: environment, perception and energy.

The first company introduced to Irwin by Tuchman was the aerospace technology giant Lockheed Martin, for which Irwin prepared a list of possible topics he wished to explore: ²⁹

Space craft cabin/support environment:

investigations necessary to determine what perceptual awarenences are necessary for basic orientation and stability.

sound—what kind, how much, interrupted? natural environment noises for attention, sleep, etc.

visual stimulus for attention, orientation, space, sitting

tactile—touch orientation to instruments, space of capsule

what kind of equipment was used to gather this information? Ganzfield sphere, anechoic chamber, etc.

About the same time, Irwin became aquatinted with the young artist and a recent psychology graduate James Turrell. The two — Irwin, an experienced and well-known artist who had spent

27 Maurice Tuchman, *A Report on Art and Technology Program of the Los Angeles County Museum, 1969-1971*.

28 Irwin later referred to the Art and Technology Program as *a red herring*. Robert Irwin, Artforum International, September 2012.

29 Tuchman, *ibid*.

the last decade exploring his own perception, and Turrell, a young and ambitious artist with an academic background in the psychology of perception — seemed to complete each other. And so, Irwin invited Turrell to collaborate on the A&T project. Much of the psychological terminology in the Lockheed proposal was undoubtedly contributed by Turrell.

Eventually, the connection with Lockheed did not materialize, and the curators arranged for the two to visit The Garrett Corporation — an aerospace engineering company contracted by NASA for the development of inhabitable space capsules, and characterized by the Time Magazine as *the U.S.'s foremost specialist in keeping men alive in the yonder beyond their familiar surroundings*.³⁰ The Garrett contact person was Edward (Ed) Wortz, a psychologist studying the effects of outer space conditions on humans and, at the time of the A&T program, heavily involved with the moon landing program. Busy as he was, he had no interest in art whatsoever, but nevertheless responded to the call from the PR department and attended the meeting with the artists. That meeting, later described by Wortz as *love from the first sight* and by Tuchman as *one of the most exciting and spontaneously productive occasions of its kind we attended during the entire course of A&T*,³¹ debuted the collaboration between Turrell, Irwin and Wortz, and a life-long friendship.³²

The notes made by the three men describe a rollercoaster of thoughts and developments. The sketchy ideas for the LACMA museum piece included a series of precisely controlled environments involving anechoic chamber,³³ ganzfeld³⁴ dome, subliminal³⁵ auditory stimuli and tachistoscopic³⁶ visual exposures. To that end, Turrell drafted plans for a dozen experiments that included, among others, subjects being kept in chambers for prolonged periods of time while being exposed to

30 Time Magazine, *Built on Thin Air*, November 16, 1962.

31 Tuchman, *ibid.*

32 About a year into the project Wortz moved home with his family to be nearer the artists.

33 A room providing complete sensory isolation: no sound, light or vibration enter from the outside.

34 A completely uniform, textureless field of light filling the entire field of view like infinitely dense fog.

35 Very weak, below the perceptual threshold.

36 Displayed for a controlled, usually very brief, time duration.

varying levels of light and sound, inter-sensory influences and word-spaces.³⁷ Some 30-40 subjects took part in the experiments, each spending 4-10 minutes inside and reporting their experiences afterwards. The three researchers themselves spent much longer periods inside, lasting up to eight hours at a time. The effect of such a prolonged and complete stilling of the senses is described by Irwin in a way that is reminiscent of William Blake's proverbial *cleansing the doors of perception*:³⁸

... the most dramatic [thing] had to do with how the world appeared once you stepped out. [...] the trees were still the trees, and the street still a street, and the houses were still houses, but the world did not look the same; it was very, very noticeably altered.

[...]

You noted each individual leaf, each individual tree. You picked up things which you normally blocked out.

Later, in discussing the development of the project, Wortz pointed to the similarity between Irwin's experience of painting lines and the experience in the anechoic chambers: both were forms of sensory deprivation, and both had similar effects on Irwin. In the first instance, the effect was a heightened awareness of his own sensory responses in real time. Later, he extrapolated his experiences beyond the immediate, reconsidering how the extended realities were structured. In the case of the line paintings, those "realities" were the environment of the studio. After the time spent at the anechoic chambers, the "realities" expanded to include the entire experience of the world, as he began to concern himself with the way perceptions and attitudes were conditioned by experiences.

The collaborators proceeded to experiment with a visual variant of anechoic experience, the ganzfeld,³⁴ and played with alpha conditioning: an early version of the biofeedback system developed by Wortz that allowed a person to enter meditative states by monitoring and reacting

37 Texts aimed to prime the subjects to certain expectations.

38 *If the doors of perception were cleansed everything would appear to man as it is, infinite.* Quoted by Turrell in LACMA A&T report, from *The Marriage of Heaven and Hell* by William Blake, 1790.

to one's own brainwaves. These projects were to develop into lifelong occupations for Turrell and Wortz. About half a year into the project, Turrell abruptly left to create ganzfeld-based artworks. Wortz himself left the Garrett Corporation shortly after the end of the A&T project to work as a therapist in the Los Angeles Buddhist Meditation Center.

First National Symposium on Habitability

Wortz was asked by NASA to compile a body of knowledge concerning *habitability* — the new area of research on establishing habitable places in outer space. He invited Irwin and Turrell to the initial meeting on the topic with Garrett’s engineers. The artists ended up *corrupting the meeting*³⁹ by questioning the very basic premises upon which the engineers operated. The problem with NASA engineers’ approach, as Irwin saw it, was the absence of the subjective view of the very person who would inhabit this new space. Their quantitative approach had obliterated the human perspective. Irwin believed that art, as a discipline dedicated to subjective experiences, was in a unique position to restore that perspective.

This experience provided him with his next epistemological-aesthetic move. Having thrown himself out of the studio, detaching himself from the familiar tools of enquiry and habits of painting, Irwin finally managed to articulate his next question: how to expand NASA’s perspective on

39 As Irwin put it. Weschler, *ibid.*

habitability to include the human? He broke down this question into environmental components, suggesting how each might be thought of in the overall context:⁴⁰

Color (color in relation to tactile surface is most gratifying);

Light/Sound (Consider the man as the light source);

Tactile (Reinforced identification);

Time (... identification to your own imperceptible growth and change);

Movement (physical grace is a sensate pleasure);

Confinement (a man given a chance to concentrate/contemplate on this unique position in the universe could conceivably extend man's consciousness in ways unknown to us).

Turrell, who up to this point was taking the project notes, abandoned the collaboration immediately after the first meeting on habitability. Now there was no one to document the process, and there seems to be no record of how exactly the National Symposium on Habitability was conceived, except that it was a joint idea of Irwin and Wortz. They made two important decisions. Their first decision was to open the discussion to disciplines not immediately related to space travel, but that might contribute to the topic: architecture, education, political sciences, ecology, psychology, psychiatry, biotechnology, medicine and city planning. The second decision was to design the symposium's environment in a way that would make the participants aware of their own subjective experience of the event, thus naturally integrating the human perspective into discussion. The symposium took place in Venice, at the time a troubled neighborhood of LA, home to surfers, oil rigs and artists' studios. Irwin recruited other artists who had studios in the area: artists Larry Bell, Ed Moses, Jack Brogan and DeWain Valentine, and architect Frank Gehry. The main session took place in Irwin's own modified studio. Group discussions were hosted in his second studio nearby, in Bell's, Moses' and Valentine's studios, as well as on the adjacent beach.

40 *Notes on Habitability*, in R. Irwin, *Notes Toward a Conditional Art*, 2011, pp. 42-48.

On the first day of the symposium, participants arrived on the bus from LA's International Hotel and disembarked at the end of a narrow run-down alley. They wandered down to the freshly made hole in the brick wall, and entered through a small corridor that led them to a white rectangular space with two skylights in its ceiling, white columns at one end, folding red chairs in the panel area, and sitting pillows spread on the uneven floor: Irwin's studio. On the second day, they took the same path and arrived at the same studio, but the columns were gone, replaced by a translucent film that covered a large opening, letting the light and sound of the street into the space. On the third day the film was gone as well, and the entire room was open to the street — with people (*drunks and beach bums and young kids*⁴¹) occasionally drifting inside.

The spaces dedicated to afternoon discussions were also far from the typical conference rooms. Irwin designed one with edge-less white walls, strong light and absolutely nothing to fix the gaze onto. Bell designed a black-painted small room with one bare incandescent bulb hanging in the middle; people found it so oppressive that they would leave immediately. Another of Bell's rooms had angled walls creating acoustics so reverberant that speech became unintelligible.

The idea that participants in the symposium must experience their subject, first-hand, was natural in the context of Irwin's art. What in the beginning had centered on the canvas, and later expanded to include the surroundings of the canvas and the exhibition space, had now become the discourse of habitability. What in the beginning explored the material and perceptual properties of paint, and later proceeded to the phenomenology of space and time, now encompassed the conditions of discourse production. If painting cannot be isolated from the wall on which it is hung, and artwork cannot be isolated from the rest of the world, then a discussion of habitable human environments cannot be isolated from human environments. The logic guiding Irwin's design for the symposium space belonged to conditional art — even if the method had yet to be named. All the decisions regarding the conceptual, methodological and material aspects of the project were the direct

41 Weschler, *ibid.*

consequence of the physical, social and institutional conditions of the site; only now the term “site” had expanded beyond the physical to include a discourse of habitability.

The effect of the symposium environment on the discussions is reflected in the published proceedings⁴² — such as in the remarks of Dave Martin, one of the panelists:

Many of the people here are the type who are most concerned with watching, and studying other people, but are very often aloof from the problems themselves. There are those who in their approach to life are essentially observatory and those who are participatory. The interesting thing is that the environment, the milieu here, has been designed by those who are more participatory. And this environment makes those who want to observe very uncomfortable.

This physical and psychological discomfort, a feature least associated with Irwin’s art, ultimately enhanced participant’s awareness of their environment, and by extension brought problems hitherto unseen, into the light. In the main session space, for example, the audience sat on the floor. This created an immediate informal atmosphere among them, as did the bleacher seats for the panelists (Gehry’s idea): the physical impossibility to relax focused the panelists’ attention on the discussion. In the afternoon small-group sessions, Bell’s reverberant room’s acoustics made people sit close to each other; and his oppressive black room scared off participants altogether — they had to take charge of their working conditions and find another place to work. Irwin’s edgeless blank-white space focused discussants’ attention on their fellow participants, as there was literally nothing else to look at.

A number of participants were particularly keen to the (surprisingly) humanizing effect of their own lack of comfort. This was especially well characterized by NASA psychologist Richard Haines:⁴³

The way in which these afternoon environments tend to produce some insecurity and unease may also provide us with a common bond mutually shared experience. And perhaps it is this common bond that

42 First National Symposium on Habitability, Volume IV: *What Happened in Part*, p. 122

43 Ibid, p. 126.

is one of the elements of our humanity. At the meeting last night someone remarked that the stark, white walls that surround him kept him from visually focusing on them; he was almost forced to look at the people in his group. Perhaps this kind of response is also a part of our humanity. The artists who have planned each of these environments are to be congratulated for communicating with us — nonverbally — about how the environment can affect one's behavior.

The environments apparently presented real challenges, and deliberately so — as evident in this remark by Wortz:⁴⁴

I have just a brief comment because I want to hear from our speakers.

One of the objectives of the symposium was to bring together people who deal with factual knowledge and people who deal with intuitive knowledge. The two live in very distinct and different realities. Unfortunately in our society their realities are seldom integrated. Simply stated one of our symposium objectives was to attempt to bring our realities together.

The designers and planners have a great deal of impatience with the people who are intuitive, and the people who are intuitive have a great deal of despair with respect to the planners and designers. I think neither position is appropriate. We need neither despair nor impatience.

Whatever was the magnitude of despair and impatience between these two groups, discussions at the symposium were evidently affected by the heterogeneous backgrounds of the participants. From the proceedings alone it is hard to tell whether this effect was constructive. It is easy to imagine that the realities of the two groups of professionals were not integrated within the scope of a single event.

The humanists who attended took a largely critical, even moralizing stance, as the problem of quantitatively characterizing a habitable environment attracted their special attention. Architect Kiyoshi Izumi called the problem *the abstraction of man*;⁴⁵ psychiatrist Shashi Pande warned against

44 Ibid, p. 150.

45 Ibid, p. 48.

*the process and products of abstraction beginning to have an energy of their own;*⁴⁶ and psychologist William Soskin wished the engineers would start asking unanswerable questions, because *precisely in the asking, man prepares himself to continuously invent new solutions to ancient problems.*⁴⁷

The engineers, on their side, responded mostly in a defensive tone, explaining that building a functional environment for humans is impossible without measurable criteria. George Rand of Columbia University tellingly remarked:⁴⁸

I don't know if I want to tell too much about what I'm doing. I'm a little embarrassed about it because it is scientific.

System engineer Seymour Schwartz and political scientist Ronald Loveridge concluded by stressing that whether or not the participants arrived at an agreement on a further course of action, none of it would matter unless it was brought to the attention of decision makers in political structures:

*Can decision making be humanized? [...] We're too often able to see dangerous trends or unfortunate consequences of certain courses of action while we remain impotent to change the institutions which create those trends and consequences. What I would try to do is to set down possibilities as to how can we go about organizing knowledge and power to bring on the institutions which are capable of effecting the change which people want after they comprehend the present trends.*⁴⁹

[...]

If a habitable environment is to be anything more than rhetoric or the concern of a few, we cannot be reluctant to engage in a dialogue with the political system. [...] If the issues of this symposium do not attract the attention of the political participants, we should not expect that political decisions will weigh

46 Ibid, p. 65.

47 Ibid, p. 141.

48 Ibid, p. 146

49 Ibid, p. 153.

*habitability criteria. Instead, the result will be more of what many of us seem so alarmed and critical about in our respective urban environments.*⁵⁰

Schwartz's and Loveridge's remarks indicate two antithetical approaches to what it means to be critical of something. One approach involves expressing the position of the critic, without attempting to pursue the consequences of the critique. Another states that mere expression is insufficient: one has to transform the critical view into an act of organization of knowledge and power through active engagement with the political structures. By the end of the symposium Irwin was clearly involved up to his neck with the latter.

In one of his interviews with Weschler, Irwin insists, in a rather defensive tone, on the apolitical nature of his art, as he consciously refrains from involvement with the burning social issues of the day. His defensiveness also suggests, I believe, either his lack of awareness, or a conscious refusal to acknowledge the political potential of his actions during the Symposium on Habitability, as the development of a method for *thinking without physical means* led to a head-on engagement with the institutional discourse of NASA. The logic of his aesthetic inquiry led him, over a little more than a decade, from abstract-expressionist painting to a seat at the table with the US space program — thus devising a vision of the artist as a meta-scholar whose task is to organize discourses.

50 Ibid, p. 152.

The Symposium on Habitability as Socially Engaged Art

There has been quite an effort on the rooms. In respect to money, the monies for this Symposium were provided by NASA, the Public Health Service, and also The Garrett Corporation. In addition a great deal of personal money and effort have been extended by the artists who are involved in the symposium. You might ask yourselves what they expect to get out of this.⁵¹

What, indeed, did Irwin expect to get out of the symposium? Where does his effort fit within the logic of his practice?

One way to view Irwin's career is as a progression of artworks *from small-scale paintings in an Abstract Expressionist style to ephemeral installations*,⁵² exemplified by his recent retrospective at the Hirshhorn Museum.⁵³ Such assessments will necessarily include Irwin's contemplative skills, references to phenomenology, the development of his painting technique, links to preceding and concurrent

51 Ibid, p. 75.

52 Evelyn C. Hankins (ed.) Robert Irwin: *All the Rules Will Change*, Prestel Books, 2016.

53 *Robert Irwin: All the Rules Will Change*; exhibition, Hirshhorn Museum and Sculpture Garden, Washington DC, USA, 2016.

artistic developments alongside an attempt to describe the experience of his artworks (or, rather often, statements that any attempt to describe them will fall short). These discussions might focus on the specificity of his art to its time and location — linking it to developments in the Los Angeles art scene of the time⁵⁴ or to the loosely defined “Light and Space Movement”.⁵⁵ In all those accounts, the A&T project might be noted as an early precursor to the Art & Science initiatives of the 2000s, and the Symposium on Habitability is mostly cited as an event worth mentioning but insignificant within the main scope of his art.

What these ways of discussing Irwin’s art — and art in general for that matter — have in common is a third-person perspective that addresses the artist’s practice as an expression of his intent to produce works of art. This creates a body of knowledge that has no implications outside of the internal art discourse. When discussing the interdisciplinary potential of art, we must accept that works of art can have consequences outside of the art domain, and thus we must widen the perspective of our analysis to include other human practices.

I suggest making this change with the aid of two complementary theories that I have already briefly discussed. One is a *practice of correspondence with material*, authored by anthropologist Tim Ingold,⁵⁶ which conceptualizes the logic of practices⁵⁷ from the practitioner’s perspective. Another is *art as a practice of organization*, authored by philosopher Alva Noë,⁵⁸ which places art within the larger context of human activities. Both theories can help us to externalize, so to speak, the practice of art: Ingold explains the relationship between the artist and the world, while Noë proposes an understanding for why the world needs art at all. The two theories make it possible to see Irwin’s

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- 54 Rachel Rivenc, *Made in Los Angeles: Materials, Processes, and the Birth of West Coast Minimalism*, Getty publications, 2016.
- 55 Jan Butterfield, Jim McHugh, *The Art of Light and Space*, Abbeville Press, 1996.
- 56 Ingold, *Making: Anthropology, Archaeology, Art and Architecture*, Routledge, 2013. Italic in original.
- 57 Ingold (ibid) refers to the practices of what he calls “four As”: Art, Architecture, Archaeology and Anthropology.
- 58 Noë, *Strange Tools: Art and human Nature*, 2015 (Kindle edition).

art as a generic model that can be directly applicable to contemporary interdisciplinary art practices.

In the theory of *correspondence*, art is viewed as an act of communication with the material, where artworks are acts of engagement and instances of inquiry:⁵⁹

In the art of inquiry, the conduct of thought goes along with, and continually answers to, the fluxes and flows of the materials with which we work. These materials think in us, as we think through them. Here, every work is an experiment: not in the natural scientific sense of testing a preconceived hypothesis, or of engineering a confrontation between ideas 'in the head' and facts 'on the ground', but in the sense of prising an opening and following where it leads.

Correspondence implies that *making* is inseparable from *being*, *learning* and *knowing*: knowledge about the world is not constructed from outside, as if by an external observer, but by actively participating in it. In this way the inconsistency between the processes of making art and the study of art is resolved: artists make work *with* the world rather than *about* the world. By extension, scholars of art can learn *from* art and *with* art inasmuch as *about* art. Thus an artist's logic or practice is situated within the spectrum of other human practices, and is in constant communication with them. Such an approach shifts our critical methodology from analyzing artworks as isolated instances of individual creativity to learning from artists' practices as acts of correspondence with the world.

The core of Noë's view on art as a means of reorganization⁶⁰ is that our life is structured by organization at all scales, from private to social. Most life activities happen at the level of daily routine, as we communicate, perceive, learn, govern and are being governed. At this routine level, organizational structures are largely taken for granted. At the next, meta-level, life's organization is analyzed, put on display and challenged. This is enacted in many practices, but there are only

⁵⁹ Ingold, *ibid.*

⁶⁰ Noë, *Ibid.*

two disciplines whose sole purpose is to question and make visible the organization of life: art and philosophy.⁶¹

Art, really, is an engagement with the ways our practices, techniques, and technologies organize us, and it is, finally, a way to understand our organization and, inevitably, to reorganize ourselves.

Being an organized activity, art itself is one of the systems artists traditionally challenge and reorganize. In this sense, artists do not produce artworks, but rather engage with art as a phenomenon. The same can be said about any human practice an artist engages: the purpose of involvement is not to turn that practice into art or vice versa, but to engage with the practice as such. Artworks are, no doubt, made — but they are made as a means of engagement that aims to expose organizational structures and imagine ways to re-organize them.

By drawing on these two theories, we can recognize Irwin's career as the evolution of skills of *correspondence with the material*, and the expansion of *organizational practices*. His painting skills, his contemplative abilities and his interest in perception are of crucial importance here, not as resources of producing artworks but rather as means of correspondence. Each step in his career, each radical change, was not the consequence of a will to change his style or negate some existing trends or genres (of which he was often oblivious), but of the seriousness with which he treated the responses of his materials. Each step has led to redefinition of just what his materials constitute, and to the subsequent expansion of his practice. At first, the scope of his practice included his own perceptions, habits and skills; and his materials were the tools of painting: marks, canvases, oils. He challenged the organization of his perceptions and how he experienced his art and put these both on display in his canvases. Later, by erasing the paintings' edges, the scope of his work expanded to the organization of art as a phenomenon, thus preparing the ground for a re-examination of role of art in society.

⁶¹ Ibid.

This expansion of inquiry beyond the personal made the invitation to the A&T project serendipitous, as it came exactly at a time when Irwin's practice could no longer be confined within the studio. It enabled him to further expand his practice of organization into the social domain and beyond art discourse, and provided him with new material to work with: a relationship with a scientist. This relationship might have resulted in his designing an object for the space craft, or consulting on the aesthetics of the space capsule — which he did;⁶² but settling for just these products would have meant terminating the evolution of his correspondence skills. Instead, he further expanded the scope of his material, from a relationship with a scientist to the research field of creating a habitable environment for humans. With this material at hand, the means of correspondence coincided with the means of organization of discourse, and materialized into the Symposium on Habitability.

Beyond the quantitative expansion of his material, Irwin's engagement with the NASA space travel program marked a qualitative shift in ambition. The objective —challenging NASA's organized practices through direct engagement with its discourse — shifted Irwin's practice into the realm of politics. With the Symposium on Habitability, Irwin was attempting to engage with a discourse, change its course, and disengage from it. His art became a form of social and political activism — whether he admitted or not;⁶³ precisely the kind that Pablo Helguera refers to as “socially engaged art”:⁶⁴

Socially engaged art functions by attaching itself to subjects and problems that normally belong to other disciplines, moving them temporarily into a space of ambiguity. It is this temporary snatching away of

62 Irwin's consultation is acknowledged in the report by Garrett Corporation for NASA, which also includes the image of the mockup for an infrared oven design for a spacecraft. C. E. Righter et al., *Habitability Guidelines and Criteria*, Air research Manufacturing Company, a division of Garrett Corporation, 1971: p. iii and fig. 5-1 and 5-2.

63 Irwin himself tends to avoid the term “political” with reference to his art. Mathew Simms, private communication.

64 Helguera, *Education for Socially Engaged Art*, 2011, p. 5.

subjects into the realm of art-making that brings new insights to a particular problem or condition and in turn makes it visible to other disciplines.

About twenty years after the symposium, the ‘social turn’⁶⁵ shifted art’s attention from the formal and phenomenological to the social and became one of the most significant developments in contemporary art. Referred to as ‘new public art’, ‘socially engaged art’, ‘participatory art’ and many other titles, it is associated mostly with artists’ engagement with socially charged issues in troubled places, often in the context of left-wing activism and in opposition to capitalist-driven structures. None of this seems to apply to Irwin’s art, with its explicit disinterest in politics. And yet it does; the key difference being that the social context of Irwin’s engagement is scientific and technological discourse. His form of social engagement takes its motivation from a need to humanize this discourse. Put into a larger historical framework, this echoes the way socially engaged artists of the 1990s aimed to humanize the social and political discourses of their time. For Irwin it was about turning research about human environments in space into research that is actually concerned with humans. Just as in many instances of contemporary socially engaged art, Irwin instrumentalized his practice in an attempt to solve a social problem.

Even though Irwin had not fully formulated his ideas of conditional art at the time of the A&T project, the Symposium on Habitability marked the high point of his conditional art practice with respect to engagement with discourses outside of art. It was the high point, but also the dead end — the termination of an evolution. Correspondence requires a reciprocal relationship with materials. Engaging with an organizational structure, with the goal of reorganizing it, requires the willful participation of that structure. From that point on, without an institution as his partner, there was nowhere for Irwin to go: in order to scale up and expand, he could no longer act as a single artist — his practice had to become institutionalized.

⁶⁵ Claire Bishop, *The Social Turn: Collaboration and its discontents*, Artforum, February 2006, pp. 178-183.

Notes toward a model:⁶⁶ academy as the object of social engagement

I really feel that there is a kind of dialogue of immanence, that certain questions become demanding and potentially answerable at a certain point in time, and that everyone involved on a particular level of asking questions, whether he's a physicist or a philosopher or an artist, is essentially involved in the same questions. They are universal in that sense. And although we might use different methods to come at them, even different thought forms in terms of how we deal with them — and we will eventually use a different methodology in terms of how we innovate them — still, really those questions are happening at the same moment in time. So that when we find these so-called accidental interrelationships between art and science, I don't think they're accidental at all.⁶⁷

Practitioners of various disciplines create knowledge using their unique tools and methodologies, and develop highly specialized intuitions. These tools and intuitions are often taken for granted

66 *Notes Toward a Model* is a title of Irwin's essay published in the exhibition catalogue for his exhibition in Whitney Museum. Whitney Museum of American Art, New York, 1977: p. 23-31.

67 Robert Irwin in interview with Weschler, *Seeing is Forgetting the Name of the Thing One Sees*, 1982, p. 141.

within disciplines, but can be completely unknown and inaccessible outside of them. Collaboration takes place when practitioners from different disciplines discover common questions that can be addressed by joining their tools together. This intersection of common questions and discipline-specific tools is at the heart of interdisciplinary dialogue.

But the existence of shared questions only marks a potential for a “dialogue of immanence”. A “dialogue” requires at least two more conditions. The first is that practitioners of different disciplines actually arrive at a place of conversation, as they attempt to discover these common questions. Once these questions are formulated, the second condition that must exist is a system to support their dialogue.

From the perspective of this system neither the identity of the disciplines nor the questions themselves — or even the certainty of the questions’ existence — are known in advance. This uncertainty becomes greater when we consider that, at the end of the day, collaborations do not happen between disciplines, but between people — who, for whatever reasons, might or might not want to engage in a conversation. The personal connection between Irwin and Wortz — a painter and a psychologist of space travel — presents perhaps an extreme case study. Whatever common questions could have existed, neither of them could have guessed in advance, even if they wanted to (and they evidently did not). In every sense, their successful professional and personal connection early on in the project was a stroke of luck, a ‘happy accident’ that, with a slight change in circumstances might never have happened. I would further argue that any discovery of shared questions by practitioners with such different interests is a stroke of luck. When the discovery of common questions is unforeseeable, a system interested in such discoveries can act to increase the probability of their occurrence.

Consider a thought experiment in which Wortz does not respond to the call from the corporate PR department and does not meet Irwin on his first day in Garrett. Having decided, as Irwin in fact did, that his aim was to explore the potential of a relationship with a researcher, he might have installed himself at Garrett and attempted to establish as many relationships as possible. He might

have begun by meeting as many researchers as were willing to meet him, and had conversations about each other's work. Most meetings would have ended up in a mere pleasant exchange, some with misunderstandings, and very few leading to discovering shared interest on both sides, and to extended dialogue. Few of these might actually develop to discovery of common questions, and even a smaller fraction — to an actual collaboration. One of the researchers he'd met could have been Wortz.

So far, this thought experiment describes conditions that are common to any interdisciplinary exchange, whether it involves art or not. Yet, as I noted in the introduction, there is something unique in the combination of art with other disciplines that sets it apart from all other interdisciplinary encounters. As I have shown through the case study of Irwin's career, this uniqueness stems from the nature of art as the practice of organization through correspondence with material. Art is a unique practice whose practitioners find value in the very act of correspondence, and their most fundamental goal is exposing and challenging the world's organizational structures — including the structures of art itself. This leads to the reorganization of art, and in some cases to the exposure of art to other practices and their subsequent temporal inclusion in art. When another discipline is included in art, its tools and discourses become the artist's material and the subject of correspondence. Thus, a meaningful artistic act can constitute a proposal for the reorganization of that other discipline's discourse.

The uniqueness of artists' engagements with other disciplines is in this *ambition of reorganization* and in the inherent critical attitude that accompanies it. An operational model that is geared towards motivating meaningful engagements of artists with other disciplines must make room for this ambition.

Let's continue our thought experiment. As the hypothetical Irwin meets more and more researchers, he perfects his skill as an interlocutor with NASA contracted scientists and his intuition for the discovery of shared questions, thus improving the chances of a follow-up after each encounter. In Ingold's terms, Irwin would be gradually establishing a *correspondence* with Garrett,

expanding the scope of his material to include the corporation. In Noë's terms, this would account for a *reorganization* of his art practice and subsequent inclusion of some of Garrett's discourses in it. In Helguera's terms, Irwin would become a *free agent*, a randomly moving body that bounces around Garrett Corporation in a search for a match:⁶⁸

[...] artists — free agents — insert themselves into the most unexpected social environments in ways that break away from disciplinary boundaries, hoping to discover something in the process. It may take many years of this kind of work to find a true method to the madness of intruding upon and affecting environments whose populations do not always expect us; [...]

The fortuitous initial encounter with Wortz saved Irwin the *madness of intruding*. Without it, he would indeed have had to spend a much longer time in search of an engagement. In this latter case, other parts to the madness would have needed to be in place. Garrett Corporation would have needed to be interested in and allowed for the prolonged intrusion — as well as be prepared for its reorganizational consequences. LACMA would have had to support it in terms of funding and curatorial support. But for just for how long would they have allowed an artist to 'randomly bounce around'? stay around? The A&T agreement specified several months. Helguera suggests that this process may take years.⁶⁹ But how long is enough?

Enough for what?

Given the initial conditions — the high motivation of the artist and the nearly complete ignorance of all potential collaborators of each other's practices — the single most important factor for establishing a correspondence and increasing the probability of arriving to a common question is time. The more time the artist can spend moving around and meeting people, the higher the probability he will arrive at fruitful collaborations. So, if the task is to generate meaningful relationships between artists and researchers, without defining in advance the nature of the

⁶⁸ Helguera, *Education for Socially Engaged Art*, 2011, p. 43.

⁶⁹ *Ibid.*

relationship and what “meaningful” implies, the answer must be — let the artist stay around indefinitely.

At the most fundamental operational level, the system that aims to encourage relationships between art and other disciplines must see value in the very act of correspondence. This system must be open at all levels. First, at the level of the artists, who must practice *availability* — a completely open approach to the way one’s personal interests, drives and knowledge can fit into other disciplines; who act in a continuous process of correspondence with the environment — in this case the research environment. Second, at the level of the practitioners who engage with the artists, as they must in turn be open to the possibility that the disciplinary discourse they take for granted can be challenged. Finally, it must be open at the level of the institution, which must not limit the artist’s engagement by time, subject, or form, and must accept the possibility that its own organizational structure, as well as the structure and content of its discourses, will be challenged.

At the time of this writing, there is still no system I can think of that supports meaningful relationships between artists and researchers of other disciplines in this way, science-related or not: there is no institutional structure that answers to the criteria I just described. Most of the structures that currently exist limit their engagement with artists both in terms of research subjects and time — restrictions that prevent the formation of an open-ended engagement, and establishing a *project* instead. If an institution recognizes the value of an open-ended engagement between itself and the artist, then that relationship must be allowed to develop over time, and the model of a project has to be done away with.

I have no knowledge of Irwin’s intentions, whether he wanted to continue working with Garrett Corporation or NASA, but they are irrelevant for my argument. As far as interdisciplinary engagement is considered, the Symposium on Habitability was the peak, and the termination, of Irwin’s expansion of practices of reorganization. The reason for this lies in the very model of practice he offered — a model in which an artist engages full-force with the discourse of another discipline, with the purpose of reorganizing it. Once the scope of art expands beyond the area of

an artist's direct control — the canvas, the studio, the exhibition — and into complex organizational structures, it must be openly supported by the institutions that own these structures. When the Symposium on Habitability ended, it marked the end of the model. No such continuing support was made available. Unfortunately it is still not available today.

I wish to return now to the question I opened with: what can I learn from Irwin's art? If I, as an artist, want to develop my interdisciplinary practice from the point of Symposium on Habitability — how should I go about it, where would I start? Market-driven art economy is clearly not the place; but what is?

The conditions necessary for interdisciplinary collaborations in art are: Artists who are willing to engage in relationships with researchers of other disciplines, but have no idea what forms these relationships might take and what their products might be; institutions that are interested in supporting such artistic operations while giving their researchers full and indefinite support to work with an artist and dedicate their time to as yet unknown projects; research structures that allow for constant reexamination and reorganization of their own discourses; researchers who are open to the possibility of engaging in an open-ended relationship with practitioners from other disciplines of which they know little to nothing. This scenario seems to be utopic, improbable in the real world.

However, there is, in fact, an institution that fits this description: The University. Surely, the fit is very far from perfect, but it is the closest we have: its conditions for academic research involve the gift of time — the most important resource for developing skills of correspondence, along with unqualified support for open-ended research. The professional position Irwin might best take, if he was willing to continue expanding the scope of his practice, would be the position of an academic researcher. The institution that might realistically employ such artists-researchers is the university, and the natural place to accommodate these artists-researchers within the university, as faculty members and students, is the department of art practice. The art-methodological and the art-theoretical substrate for this are already in place — these are the methods and theories of

socially engaged art. Such mutation of the socially engaged practice would have to become institutionalized within the university, and its object of engagement will be the university itself.

What is the model for an art department that engages open-endedly with its home university? This *true method to the madness of intruding* has yet to be researched. Such research might begin with a few fundamental revaluations. One would involve a reorientation of academic hierarchies in art: rethinking, namely, the way academic research stands at the center of the university, while free-market exhibition art practice hovers on the margins. It would also necessitate abandoning the model of specialization in favor of an open-ended, *non-disciplinary* practice: the *method of intruding* must not turn into a discipline. More specifically, art departments must learn how not to specialize, and teach their students how not to specialize. This includes, paradoxically, not specializing in the “interdisciplinary” practices that go by such names as “art and science/technology”, “inter/multidisciplinary art”, “artistic research” and others. If we have learned anything from the last fifty years of “art and science”, it is that labels such as these turn very quickly into working paradigms; metaphors that shape narrow operational agendas. Instead, the art departments must learn to become, to quote Helguera again, *specialists in not specializing*.⁷⁰

Squaring this circle — dedicating one’s practice to a method while avoiding specialization — is the greatest challenge. Irwin’s career shows, however, that this challenge can be addressed: an artist’s scope of material and his organizational ambition can develop and expand from within the logic of his own practice, with no need to extraneously impose a disciplinary agenda. Just what these art practices constitute in the first place, whether they operate through some “traditional” medium or a “new” one, and whether the artists are interested in other disciplines to begin with or not, is insignificant. What is significant, and has to be fostered by art education, is that artists constantly seek where in the world their art fits, where their knowledge can apply, and who else in the world asks questions similar to theirs.

⁷⁰ Ibid.

These issues are relevant for many art practices, whether or not they see academic research as their subject matter. However, the academy is the place where the skills needed to address them are best acquired and, just like any other artistic skill, they have to be acquired through practice — the practice of artistic engagement with the academy. Through the practice of their faculty members and students, art departments need to begin attending to their natural social environments and to the academic research that surrounds them. This implies that at least some of the faculty, the long-term carriers of the *method of intrusion*, will focus their art practice on an engagement with the university; not dissimilar from researchers in other academic departments.

As Noë noted,⁷¹ art and philosophy are two unique disciplines whose sole purpose is the exposure of organization and re-organization of life. Of the two, only art has the ability to take any form, allowing its practitioners absolute freedom in what is done and how. This freedom is what allows art to become a meta-discipline: art can correspond with any practice; art can challenge any discourse. Artists have to begin realizing this potential and to actually use this freedom.

71 Noë, *ibid.*

Excerpts from notes by Irwin, Turrell and Wortz, made in the Art and Technology Project

Technology is merely a means—not an end. Technological instruments are extensions of ideas, i.e.: they measure what you already think is there, what you have decided to measure.

Allowing people to perceive their perceptions—making them aware of their perceptions—We've decided to investigate this and to make people conscious of their consciousness. We're concerned with manipulating the conscious state.

Sense of sensing: awareness of perceptions, a reflexive act.

This project, we believe, is an extension of our work, just as our work is an extension of some mainstream of modern art. A problem may arise with this project in the minds of the art community who may regard it as 'non-art'—as theatrical, or more scientific than artistic, or as being just outside the arena of art. Although it is a strong alteration as far as methods, means, and intent, we believe in it as art, and yet recognize the possibility of a redefinition needed to incorporate it into the 'arena.'

The necessity for this statement stems from the fact that this project will ultimately be dealt with by the art world, not so much the scientific world, though this might not be unwarranted, and therefore we are held to the dialogue of the art community and are subject to its reviews and criticisms. Thus we feel we must make our position clear, that we feel our project is not inconsistent with what has come before. (How can it be?)

If we define art as part of the realm of experience, we can assume that after a viewer looks at a piece he 'leaves' with the art, because the 'art' had been experienced.

We are dealing with the limits of an experience— not for instance with the limits of painting. We have chosen that experience out of the realm of experience to be defined as 'art,' because having this label it is given special attention. Perhaps this is all 'art' means— this Frame of Mind.

The object of art may be to seek an elimination of the necessity for it.

The viewers must assume the responsibility, they get into the experience, and they make the art— they are the actuality.

The experience is the 'thing, 'thing,' the experiencing is the 'object.'

Time is illusionary, events make the time.

There is no such thing as modern art, there was art that was done then, and art that is done now, art is equal.

All art-world distinctions are meaningless.