

# The Incertitude of Forms

by *Olivier Perriquet*

It's snowing. The radio tells me that, as a result, we're in a state of orange alert. Meaning: "Some dangerous phenomena can be foreseen; keep up to date about how the situation develops; and follow the public authorities' safety recommendations." These words filter through me, and I pay almost no attention to them; they just irritate my neurones for an instant. When it comes to dangerous phenomena what springs to my mind is the image of an American senator, holding a snowball in a transparent plastic bag, as though it were a piece of incriminating evidence, which he then waved at the President of the assembly, while affirming: "Look, this is proof that global warming is a sham!" Another image also comes to mind, opposing the first one: that of the glaciologist Claude Lorius who, during an Antarctic expedition in the 1950s, grasped the connection between the concentration of greenhouse gases in the atmosphere and climate evolution. When compared to the former's ignorance and stupidity, the latter had been in possession of quite a different piece of evidence, half a century earlier. We are clearly in a situation of incertitude, on several levels—in this case, ecological and geopolitical—and the media make no bones about reminding us of this fact on a daily basis, pointing to a society that is protecting itself by taking refuge in either drifts towards nationalism and security, or the frivolity of spectacle. As heirs to post-modernity, in this uncertain period, during which the *grand narratives* guiding our activities have been diluted into many small ones, we are witnessing, on the human scale, a considerable force embodied by all the individuals constituting it, while it is hard to see what shared intention put it into motion, given that our multiple knowledges and forms no longer have any stable reference points.

When, three years ago, Alain Fleischer asked me to pilot at Le Fresnoy – Studio National a research group, bringing together scientists and artists, I accepted this invitation enthusiastically, because it was a chance to take action, by placing on an institutional scale the preoccupations that had been mine for many years. Before turning to art, I had in fact started out as a researcher in what is called the "hard" sciences (mathematics, bioinformatics and artificial intelligence) and I had long wondered about what might connect these two practices, for which I felt an identical attraction. Alain Fleischer wanted the group to work on a question related to the notion of form. So I suggested: "the incertitude of forms." To begin with, for me, this notion of incertitude was bound up with a certain way of apprehending images, inherited from my experiences in experimental cinema. This is a conception that also speaks to the scientific community, thanks to its rational connotations. Then, over time, it started to resonate more and more clearly with the current state of the world. The idea that incertitude might be a quality or an attribute of forms, just as much as a feeling that we have about them, is appealing, because it is accompanied by an unease about where this incertitude comes from.

For about ten years now, initiatives aimed at bringing closer artists and scientists have multiplied, to such an extent that the term "art and science"—or even "art / science / technology" (the third element reminding us that we are dealing with the techno-sciences) has become rather banal. So, what today is at stake when it comes to such a rapprochement?

When thinking about an encounter between art and science, we might start dreaming about the great historical figures of the Renaissance, such as Leonardo da Vinci, and hope for the return of an era during which intellectuals were at once mathematicians, astronomers, philosophers, alchemists, inventors and artists... But, since then, the sciences have developed greatly, becoming specialised into disciplines and sub-disciplines; they have been given norms by institutions since the 19<sup>th</sup>-century, codified by nomenclatures and submitted to constant evaluations, until the scientific disciplines have difficulties even in communicating with each other. What is more, artistic creation and scientific research are quite distinct activities in social terms. While an artist strives to develop a personal practice, science is a collective concern. This dimension is particularly striking in the exact sciences: the objects of research are shared by a community—they are a *common good*, as it were—and objectivity is the posture that consists in maintaining the cohesion of an object that has been placed in the middle. The instrument they use is proof: in science, we prove one another, as peers. The products of scientific research are above all productions of the mind, they are articles, assessed by other scientists and published in specialised reviews, targeted at other experts in the same field.

The language of mathematics (which is my mother tongue) designates a reality which is quite strange to those humans who have never stayed on that distant planet... How can these productions of the mind which, in the experimental sciences are often accompanied by perceptible forms—schemas, photographs, models, simulations, scientific imagery—be shared outside a circle of experts?

Alongside the rapprochements between the scientific and artistic communities, a real reflection has developed, especially in art schools, about what can be called "research in art," which is a kind of migration of scientific methodologies into the field of art. This thinking, as conducted in the world of art, is enlightening when applied to the equivalent notion in science, and invites us to wonder, in turn: is there an authorial practice in science? What are the elements of subjectivity or personality that scientists bring to their research?

In the spring of 1959, the chemist and writer Charles Percy Snow gave a lecture at the Senate House of the University of Cambridge, England, entitled "The Two Cultures," whose thesis was to mark the world of English-speaking universities for several decades. Although Snow's main aim was to criticise the British educational system, which he blamed for giving more prestige to literary studies than to a scientific education, what came down to posterity was more generally this existence of two distinct cultures. Today, the expression "two cultures" has become common in certain academic milieus for qualifying the division that exists between two families which, according to Snow, both ignore and are ignorant of one another: the natural and formal sciences on the one hand, and the arts and human sciences on the other. These debates, which are little-known in continental Europe because they occurred mainly in the English-speaking world, provide a useful illumination of the cultural heritage in which the relations between these two communities have developed, and in particular between the arts and techno-sciences.

Isolating these two cultures quite so clearly can seem exaggerated or schematic. However, by emphasising this cultural dimension, the distinction made by Snow does have the virtue of unveiling the existence of tacit forms of knowledge in the two communities. And yet, when possible encounters between different fields of knowledge are mentioned, it is common to sum up the resulting difficulties in terms



of language: a single word standing for different realities in each of the attendant communities. But, far from this boiling down to a translation from one language to another, the entire culture is different, each discipline, each field of creation and investigation having a distinct culture of its own, like that of a people or civilisation, speaking a shared tongue, but also possessing its own history, heroes, taboos, preoccupations, customs, traditions, protocols, and ways of being or presenting oneself.

It was under the sign of this rapprochement between cultures that we put together the research group in the autumn of 2014, by inviting researchers in the formal sciences (mathematics, computing) and the natural sciences (biology, physics, astrophysics), most of them being specialists in morphogenesis or complexity science: David Chavalarias, Jean-Paul Delahaye, Annick Lesne, Alain Prochiantz, Jean-Philippe Uzan; researchers in the human sciences (philosophy and art history): Ada Ackerman, Joseph Cohen and Raphaël Zagury-Orly; and artists from various disciplines: Jean-François Peyret, author, stage director and Alain Prochiantz's longstanding collaborator, composers and sound artists (Julien Clauss, Arnaud Petit), artists working in the fields of photography, video, cinema, the conception of objects and installations, most of whom being former students of Le Fresnoy (Hicham Berrada, Jonathan Pêpe, SMITH and myself), as well as Alain Fleischer, artist and director of Le Fresnoy, Daniel Dobbels, dancer and choreographer, Ramy Fischler, designer, and Emmanuel Guez, artist and media theorist.

The idea was then to invent the rules of the game and to conceive a format for this group. Bearing in mind the name we had given it, it occurred to me that it could organise itself, with the rules governing it only being set in part at the beginning; we should even understand "organising itself" in very literal terms: the group should be able to resemble, metaphorically, a body made up of organs, and order itself like a living organism. As there was no vocation for it to become a collective, which would express itself in a single voice under the same banner, it should instead reflect the variety of viewpoints that a society may have regarding a given question or subject. Apart from those moments when the entire group met up, it was possible to suppose that more specific alliances might form between the participants, with each person being free to follow their elective affinities, while favouring a mixture (artist / theorist), in order to form smaller units of creation, which would become the constituent parts or organs of the group. Just as organs, during morphogenesis, become diversified via their forms and functions, each of the associations, which was born within the overall group, was destined to stand out distinctly thanks to a participation which, in a quest for its own organicity, would thus become the living embodiment of the questions that were driving it.

Periodic meetings were held at Le Fresnoy, each one lasting for several days, during which all the members presented various aspects of their research or creations. These regular get-togethers also provided the opportunity to share the progress made by the smaller creative teams. These sessions were intense and joyous, the conversations often going on late into the evening or night, and they were extended beyond the meetings for those of us who had been actively producing joint work, thus giving real meaning to our initiative. It would require a lengthy excursion to give an idea of the richness and density of these encounters... but what has been included in this magazine and the exhibition will doubtlessly provide the best demonstration.

Despite the differences of regime between the arts and sciences mentioned above, it is delightful to see how an encounter can occur quite simply, from the same curiosity which we experience when learning something that was previously unknown to us, with the need to let our imagination run free, while taking inspiration from what we can perceive about other people's research and what motivates them. The imagination, literally the *capacity to form images* could, if we take *image* in its broadest sense, become intransitive and be shortened into a "capacity to form," that is to say to produce either physical or mental forms. By regularly frequenting others, their imaginaries nourish ours, making them closer to us, more familiar, while an invisible bond gradually forms from the meeting of these imaginaries. In this respect, it is quite similar to friendship.

I put down my electronic pen. The snow, my transistor tells me, has put us in a state of alert. Isn't that worrying? I mean, even *snow* no longer makes us dream. I turn off the radio and savour the silence while thinking about the characteristic sound that the snow makes when we walk over it and our feet sink in while meeting resistance. It sounds rather like CRK CRCHCH. I let my gaze fade into the flakes, my eyes are unsure where to settle. I do not try to make out a form, just to re-establish contact with my body, to sense its points of support. Then I am the one who recovers a form, as if I were entering into empathy with the snow. It reminds me of my childhood games. I imagine that this is where the origin of all our desires lies. While my mind begins to wander, patterns consisting of capital letters appear as mysterious forms, doubtlessly drawn from my memory, becoming simplified until only a few fragments remain... CRISPR CAS9, TRAPPIST, ALPHA GO, ADAMS, SYNAPSE, HIK, EF, ORQZH... Was it a dream? I don't know... My eyes widen and before me I can see a book which has remained open on my desk, with little hand-drawn starry, floral patterns. When Descartes drew these snowflakes, in a book entitled *Meteors*, wasn't he letting the child that survived within him express itself?



Translated by Ian Monk