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« Realities of illusion »

Introduction

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By repositioning the words building up the expression “the illusion of reality,” starting point to many enchanted or disenchanting worlds, this second issue of *Hybrid* sends a belated invitation to question the reality lying behind all illusions. For illusion, far from being devoid of any of it, does have a reality or rather several realities, fact to which the perceptive and aesthetic effects induced by the arts testify to. But, what kind of illusion are we referring to? —The illusion created by a mere resemblance or the illusion as the result of a conscious imitation, either one triggering perceptions close to our apprehension of “reality”? The arts, literature and media have always resorted to such devices. —The illusion as an effect for a conflicting, ambiguous, paradoxical or fictitious¹ perception and resulting from a technico-aesthetic virtuosity? Experimental, pictorial, cinematographic, kinetic and musical arts increasingly call upon such resources. —Or a mixed, in other words, hybrid illusion? Either of these illusion categories combine into aesthetic games mixing the pleasures of mimesis to those of sensory disturbance. This is why at each stage of the history of technology, the most innovative of inventions were experimented through forms of illusion. Far from being modern innovations, these constitute a dynamic element of history and of aesthetic forms.

Illusion as experience

The issue of illusions is indeed at the heart of the occidental approach of arts ever since the Antiquity. Associated with the misleading connotations of representation—another polysemous term the content of which seems to have been depleted—, mimetic illusion is often linked to moral values, as if it were expecting to be uncovered. Yet, the benefits of Gombrich’s ideas allow us to leave the misleading connotations associated with illusion aside. From the beginning of the 1960s, the theorist noted that aesthetics, by getting rid of an appreciation or assessment of works depending on their analogy with reality, and by dissociating the idea of artistic excellency and realism, had thrown away for good the problem raised by illusion:

Aesthetics, in other words, gave up on feeling concerned in a direct way by the issue of a convincing resemblance, the problem of artistic illusion. In some connections, it is indeed a liberation, and nobody now wishes to go back to the former confusion. But the neglected and forgotten problem about the fact that neither critics nor specialists in art history now wish to deal with it, still exists.²

In an era that he already describes as one of trivialization of images (that monopolize the attention in advertisements, media, etc.), Gombrich takes an interest in the astonishment of those who, by watching a set of signs and forms, will all of a sudden perceive “the mysterious phantoms of visual reality that we call ‘images.’”³

In the same while, artists born from such aesthetic movements as kinetic art or Op art, exploit the various possibilities of “perceptive illusions”, studied by experimental psychology to question the eye-object relationship. Thus Franck Popper, quoting “the lines interference phenomenon, [...] the shimmering effect in Soto’s, Malina’s, Cruz-Diez’, Asis’, Yvaral’s, Oster’s works, the sparkling effect and the double meaning interpretation game between black and white in Vasarely’s, Riley’s, Steele’s, Nusberg’s, etc. work,”⁴ show that the aesthetic basics of these artists were closely linked to the main visual psychological illusions.

1 Richard L. Gregory, *L’Œil et le Cerveau [Eye and Brain, The Psychology of Seeing]*, New York, Mc Graw Hill, 1966], Bruxelles, De Boeck Université, 2000, p. 256.

2 Ernst H. Gombrich, *L’Art et l’Illusion. Psychologie de la représentation picturale* [1960], translated by G. Durand, Paris, Gallimard, 1971, p. 23.

3 Ernst H. Gombrich, *L’Art et l’Illusion. Psychologie de la représentation picturale* [1960], translated by G. Durand, Paris, Gallimard, 1971, p. 27.

4 Frank Popper, *Naissance de l’art cinétique*, Paris, Gauthier-Villars, 1967, p. 99.

And this is how illusion, relieved from any moral connotations, takes away into an astound fascination process. Every new illusionist device intrigues, attracts, seduces as soon as it is no longer about questioning the legitimacy of a process, but rather about getting carried away through an experience, through which spectator, listener, reader are confronted to another perception of reality, or to their own self questioning.

But let us not be fooled by illusionist virtuosity: beyond the sole window-dressing issue, is it not the image itself that triggers the illusionist process? The image is indeed the result of techniques and skills, the apprehension and reading of which rely on a form of illusion. This is how it dazzles, and creates, as underlined by Judith Guez in this issue, this one and only “amazement” that can only make one dream. Also, and without pretending to be a “Gombrich 2.0,” this issue of *Hybrid* questions the experience of illusionist devices and creations without stopping at the sole effects produced by the image, which too often focalized attention. It widens the investigation to the domains of sound, digital, museum devices, art validation strategies and to all the forms that require a diversity of the senses and articulate complex perceptions and interpretations. For the expressivity of paradoxical forms is not solely reserved to the visual dimension, even though the latter is the most apprehended, and thus the better known. François-Xavier Féron is here taking an interest in sonic illusions and offers a typology of audio illusions and their paradoxes, and especially in their uses in electronic composition. Moreover, for a third of a century, a mutation seems to be occurring through immersive and interactive arts, and the hybridizations with reality that they make possible. Within the visual, audio and haptic spaces produced with the technologic know-how, it no longer is towards the perfect imitation that we tend, but rather towards a form of copresence of virtuality and reality. It is not only about triggering within the spectator (listener, reader, visitor...) a feeling of extreme reality, but rather an augmented reality effect of all their faculties.

The former impressions (admiration, shock, confusion, vertigo...), which kept the subject at a distance in illusion effects, are enriched with a new impulsion, being able to act. To transform the virtual product by the illusion, to interact with the intangible, to create reality within virtuality... all of this becomes possible. These worlds before unattainable, are now a desire away. A lightness unused before rises from these new creation spaces. Thus, free gestures are invented with the *Funambule virtuelle*. Unnoticeable, the illusion is increased by this infinite mediation that appears to spread and take root in reality. Center of our modern times, illusion is at the heart of reality. They have now become permeable to one another. We are now led from illusion to immersion—to quote Oliver Grau.⁵

And the word fades away

The digital era brings back to life the illusion principle in numerous creations or mediation devices (installations, exhibitions), and yet the word itself does not necessarily invade the theoretical front stage. Thus, in Pierre Bayard’s latest works, critical construct is done through creations that are not that different from that of augmented reality and interactive artists, without any use of the word “illusion.” Troublesome, for it is misleading or too polysemous (what is an illusion? A result, an effect, or a process?), the term paradoxically fades away, taking with it its slightly quaint scent, and letting the space dangerously voided from its unusual uses, and most of the time unthought of. Thus, the illusion acquires a reality that goes unnamed, whether it is in arts or in the world. It goes from the work itself and its reception to the methods of its production, diffusion and exploitation. Not only can the devices be misleading, but the mechanism of their revelation, always differing, can cast a doubt on the illusion itself. Unplaceable, mobile, impossible to outline, the illusion soars in a self-generative movement. And it thus

⁵ Oliver Grau, *Virtual Art. From Illusion To Immersion*, Cambridge (MA)/London, MIT Press, 2003.

becomes an “illusion of illusion,” as explained by Éliane Beaufile through certain modern performances.

Also, let’s take a moment to have a look at the cognitive function of the illusion.

Sensitive error or cognitive game?

Highly complex process, the illusion puts into play the brain reactions in front of a phenomenon, by involving both perceptive and cognitive mechanisms. These are particularly rich and varied, as underlined by neuropsychologist Richard Gregory who offers a way to classify them—all the while stating the difficulty and limits of such an approach.⁶ The construction of the illusion in arts is first and foremost a knowledge of the human perception and cognition. Thus, representations calling upon illusions imply various forms of consent: the acceptance or refusal of our perceptions; the more widely spread, adherence to representations, and which can be linked to a sort of pact. The perception/cognition relationship is all the more complex that, according to Richard Gregory, it is not without any conflictual dimensions. Through the example of a video showing the rotation of a Charlie Chaplin mask,⁷ Gregory explains that the brain refuses to see the hollowness of the mask because it is used to process the human nose as a protruding element: hence the incorrect perception of the concave back of the mask as a protruding surface. Commanding this type of illusion not only testifies to a knowledge of perceptions, but of their interpretations by the brain. Yet, such a knowledge is needed in various lines of work: magician, trick creator, decorator, prop master...

In the cinema as well as in the theater, taking these reading mistakes into account grants access to singular universes, that determine the kind of representation and realism offered to the spectator. Taking here an interest in *matte painting*—one of the oldest and most constant of practices in the history of the cinema through its technological changes—, Réjane Hamus-Vallée analyzes the articulation of all these elements. Beyond the perception mistake, “organized” by the artists, *matte painting* puts in order the “selection” of visual information by the spectator, by resorting to “authenticating details.” Here, the profession (of decorator, trick creator...) consists in predicting whether the signal will be accepted as is (as the details in *matte painting*) or if it will be reinterpreted by the brain (as Chaplin’s nose in the example above).

Mastering the illusion implies, among other things, to be able to graduate perceptibility. *Matte painting* does not aim at wavering the spectators’ faith, although it enables to amaze them through the unexpected, unlikely or fantastic spaces it allows to create. In this case, the illusion aims at remaining discreet—yet less than through other techniques to which the cinema regularly resorts to, like doubling and post-synchronization, where it is about rendering the illusion as imperceptible as possible. On the contrary, there are creation practices that fully rely on the double effect of blurriness and the perception of blurriness: ghost appearance games, magic shows, science-fiction...

In a significant manner, in the history of arts and representations, these practices have often been narrative “grooming” of theoretical or experimental investigations on illusions, and particularly optical illusions. This is the same in Judith Guez’ creation-research process, whose approach denotes both the important construction of a cognitive pact with the spectator and the role played by the grooming and the narrativity of the illusion application.

⁶ For Gregory’s typology, see entry “Illusions” in Richard L. Gregory (ed.), *The Oxford Companion to the Mind*, Oxford, Oxford University Press, 1987.

⁷ [Online] <http://www.richardgregory.org/experiments/video/chaplin.htm> [accessed 22 July 2015]. See also the comments to this example in Richard L. Gregory, “Knowledge in perception and Illusion,” *Phil. Trans. R. Soc. Lond. B*, vol. 352, no. 1358, August 29, 1997, p. 1121-1128. [Online] http://www.richardgregory.org/papers/knowl_illusion/knowledge-in-perception.pdf [accessed 22 July 2015].

History of technologies and media

If the technology of each era allowed it to develop its own illusions, one must remain cautious regarding a teleological reading that would give digital creations the greatest illusion capacity. For the feeling of illusion and reality, far from being immovable absolutes, are like all other things, subject to history. They evolve. Nothing is less stable than these volatile feelings created by the illusions of art, to which one gets used so swiftly. Media archeology and, more widely, the history of spectacular techniques, domains that have today reached their full maturity, invite us to reconsider the evolution of arts, and through this, the metamorphoses of our imagination. The forms of illusion reinvented themselves with the history of techniques. Each new, incredible, illusion feeling is crushed by more “efficient” devices. Yet, our apprehension of past illusions must lead us to imagine the sense of novelty of feelings triggered by each technique at the moment of its release. Tracing back century by century a history of perception and illusions, Nicholas Wade questions the fact itself that perception has been created as a temporal constant. He invites not to forget that the fundamental structure that is perception was very differently understood through the history of sciences. He describes the scientific approach to the 19th century perception as marked in its whole by the “fragmentation of the senses” (analysis of perception functioning, invention of more and more efficient made-to-measure tools), whilst this approach of perception will, in the next century, be placed under the sign of a “multiplication of illusion.”⁸

In sciences as well as in arts, the second half of the 19th century was undoubtedly the era of illusions. Is it really that astonishing that the fascination for illusions was among the factors of the development of experimental psychology as an independent domain? If the discovery and development of optical illusions have been a privileged moment during the dialogue between science and magic?⁹ If cinema emerged from this fertile ground, at the crossroads of several technological, aesthetic and cultural aspirations?

The cinema of the early ages is a good observation point for illusion. From its birth, the seventh art put into play a double form of illusion: on the one hand as a media depending on the illusion of movement to be triggered through stroboscopic effect and the fusion of sparkling that allows to see movement and its continuity through a succession of fixed images; and on the other hand as an art of representation playing on illusionist figures, of which Méliès was one of the most eminent specialists. Dominique Willoughby revisits here the history of experimental cinema as a reflection on the double illusion of cinema, the perceptive illusion of apparent movement and the mimetic illusion leading to cinematographic realism, pointing out two successive stages: the “illusion of vision” and the “illusion of life.” He shows how some experimental movies have, in a way, resisted the cinematographic trivialization of a movement conceived as an imitation, by offering the experience of an invented movement. And we understand how the cinema, beyond its first steps, managed to create specific illusions with expressive aims.

But the formal games and experimentations are not the only goals of illusionist practices. Or else, how would it have created so much passion? In a symptomatic fashion, the strength of the illusion effect has often triggered the defiance of critics and history towards the representations that used them: moral disapproval regarding the promethean nature of the artistic gesture, fear of the influence of the representations on spectators

⁸ Nicholas J. Wade, *Perception and Illusion. Historical Perspectives*, New York, Springer, 2005. These expressions are the titles to chapters 7 and 8: “The Fragmentation of the Senses in the Nineteenth Century” and “The Twentieth Century – The Multiplication of Illusion.”

⁹ Nicholas J. Wade, *Perception and Illusion. Historical Perspectives*, New York, Springer, 2005, p. 126. These subjects are dealt with by two of the Labex Arts-H2H projects: Media/Medium [online] <http://www.labex-arts-h2h.fr/en/media-mediums-447.html> [accessed 22 July 2015] and deceptive arts [online] http://www.lesartstrompeurs.labex-arts-h2h.fr/sites/lesartstrompeurs.labex-arts-h2h.fr/files/PROJETDeceptiveArts.DEC2014.doc_.pdf [accessed 22 July 2015].

lacking critical distance, denunciation of mockeries, suspicion of reuse, dread in front of generated hybridizations, etc. Such reproaches were expressed in such virulent manners that the affected representations were inscribed in the culture of show business or attraction, specifically targeting certain genres (opera, popular theater, magic...). Other characteristics, undoubtedly, come with illusionist processes, the use of which could not content itself to curious or trifling aesthetic games.

Putting illusion to a critical use

The claimed incapability for the spectator to differentiate reality from illusion has indeed been a recurring political argument in the history of arts and mediations. To the heterogeneity produced by the illusion would be added a distressing dispossession of the subject, despoiled in a way from their capacity to comprehend and master emotions.¹⁰

American cinema has widely exploited this latest theme in the 1990s, by sometimes claiming to be of Braudrillard's family of thought. Some movies by David Lynch, *Fight Club* for instance, or the archetype that is *The Matrix* were described by Aurélie Ledoux as *trompe-l'œil* movies marking the return of a skeptical posture.¹¹ Her meticulous examination of these movies relies on the radical opposition between two tendencies of skeptical philosophy: one that supposes an ontologically radical distinction between reality and illusion; and another that rather relies on a fundamental doubt not defending the stability of "reality." Aurélie Ledoux demonstrates that the first model, which is widely represented in "twist" movies, supposes that appearances hide a violent reality and an arbitrary exercise of power over individuals, which inscribes itself in a defense ideology of reality through the updating of illusion in a rather simplistic vision. According to the author, this type of movies promotes a conspiracy ideology which will find an echo after the 9/11 attacks in online video creators, negating the attacks through the questioning of the proof value of the images.¹² The second tendency, represented by movies such as *Barton Fink*, bring out the instability of the mere notion of reality. It resists all types of binary system for the world conception, and liberates the illusion from a definitive explicative function.

This latest tendency in the cinema echoes the "distrust" mentioned by Éliane Beaufils in performing shows, or the "paranoia" claimed by Pierre Bayard who invites to (re)read literary texts by supposing they might not tell the truth, even on themselves. To the complete opposite of conspiracy theories, these points of view underline the virtues both critical and soothing of illusion, which allow to think and to welcome the real world. Eliane Beaufils thus shows the complex games of illusion of the Gob Squad collective, developing themselves by showing the impossible immediacy/authenticity of the performance, all the while playing on "immediacy, authenticity, risky and honest research, despite everything, by putting themselves into play *hic et nunc*." When it is not at the service of a specific thesis, but rather aims at developing critical skills, the illusion can be used to show other manipulations, more dangerous ones, for these are less visible or ostentatious. This is what Wendy Bellion suggested for instance through a research linking the *trompe-l'œil* figure in painting to the emergence of citizenship in America.¹³ This

10 Cf. Isabelle Moindrot (ed.), *Le Spectaculaire dans les arts de la scène du Romantisme à la Belle-Epoque*, texts combined by Olivier Goetz, Sylvie Humbert-Mougin and Isabelle Moindrot, Paris, CNRS Éditions, 2006.

11 Aurélie Ledoux, *L'Ombre d'un doute : le cinéma américain et ses trompe-l'œil*, Rennes, Presses Universitaires de Rennes, "Le Spectaculaire," 2012.

12 Aurélie Ledoux, "Vidéos en ligne : la preuve par l'image ? L'exemple des théories conspirationnistes sur le 11 septembre," *Esprit*, March-April 2009, p. 95-106. Can also be found here: [online] http://www.conspiracywatch.info/Videos-en-ligne-la-preuve-par-l-image-L-exemple-des-theories-conspirationnistes-sur-le-11-Septembre_a1225.html [accessed 22 July 2015].

13 Wendy Bellion, *Citizen Spectator: Art, Illusion, and Visual Perception in Early National America*, Williamsburg (VA), The University of North Carolina Press, 2011.

pictorial wave is notably manifested in Philadelphia, city of the enlightened and birth place to American democracy, and genuine “laboratory for looking”¹⁴ according to the author, thus linking the casual culture of the era to principles aiming at encouraging citizens to discernment and to “participatory experiences of looking.”¹⁵

In a completely different historical perspective, Caroline Renouard’s interpretation of Rohmer’s *The Lady and The Duke* can be compared in the same light. If Rohmer’s movie is not a *trompe-l’œil* in the strict sense of the word (it rather creates unlikely truth effects), the study of the technical construction of the “composite” image and its multiple levels, helps to understand the critical process used by the filmmaker through the illusion. Rohmer resorts on the one side to a painting effect, inspired by a revolution era pictorial style and in this way creates a distance, and on the other to a depth illusion, by inlaying the two filmic images with identical perspectives, those of the characters onto that of the painted setting—so that the characters seem like getting in and out of the painting within the movie. The filmmaker thus invites to the perception of an idealistic space with a “false bottom.”

It is obvious, the diversity and wealth of the realities to which illusionist constructions give access forbid to confuse them with simple manipulation effects. Even though illusions can be used to that end, it is not in itself a form of propaganda.

This is what Erkki Huhtamo explains. Tracing back through the history of certain image projecting technologies and describing the truth of the effects resulting from illusionist devices during the invention effervescence of the 19th century,¹⁶ he underlines how crucial such researches have been to media archeology and also to the understanding of the “new media” phenomenon. Taking as an example the technology of animated panoramas, used during the second half of the 19th century to represent modern events, he shed a light on cases where this technology was associated with satirical theater: new forms thus appear preventing the spectator from completely enjoying the illusionist show.¹⁷ Beyond this specific example, the analysis suggests that if the modernity of technologies in fact inscribes the representation in the modern era, always attractive, fascinating and desirable, the presence of a technological device leading to a never-seen-before degree of realism reveals itself to be particularly adapted to tell an eminently complex modern reality,¹⁸ and thus also to serve critical purposes.

A little over a century later, the modern world is still prone to technophile fascinations and illusionist aspirations, and remains in quest of representation for its social and cultural complexities. Martial Poirson here tackles one of the most emblematic of objects of these facts, one of the rarest studied: economy. Source to powerful ideological frictions, economy not only underlies the goods production system, and especially that of cultural goods, today it also lends itself to other forms of illusion, by becoming a museum subject, mediation object and source of friction and creation. Literally taking the issue of “value,”

14 “A laboratory for looking.” Wendy Bellion, *Citizen Spectator: Art, Illusion, and Visual Perception in Early National America*, Williamsburg (VA), The University of North Carolina Press, 2011, p. 8.

15 “Participatory experiences of looking.” Wendy Bellion, *Citizen Spectator: Art, Illusion, and Visual Perception in Early National America*, Williamsburg [VA], The University of North Carolina Press, 2011, p. 7.

16 Erkki Huhtamo, *Illusions in Motion. Media Archeology of the Moving Panorama and Related Spectacles*, Cambridge (MA)/London, MIT Press, 2013. One of Huhtamo’s first examples, *Panorama of Bunyan’s Pilgrim’s Progress*, is subject to the presentation video: [online] <http://sacomuseum.org/panorama/backlot.shtml> [accessed 22 July 2015]. We can underline that the principle of illusion is not always obvious, when in the 19th century, presenting these panoramas is conceived as illusionist. There various degrees of illusion depending on the technologies of the time, the diorama specifically being one of the most powerful.

17 Erkki Huhtamo, *Illusions in Motion. Media Archeology of the Moving Panorama and Related Spectacles*, Cambridge (MA)/London, MIT Press, 2013, p. 106.

18 Erkki Huhtamo, *Illusions in Motion. Media Archeology of the Moving Panorama and Related Spectacles*, Cambridge (MA)/London, MIT Press, 2013, p. 303.

he describes some modern postures and strategies for art “validation,” more or less impertinent and critical, the effect of which might be of questioning our apprehension of reality and its illusions.

De facto, at each stage of history, technologies for illusion, stimulation and immersion put to the service of shows have been privileged forms of representation of one’s consciousness of a society. Rather than putting it radically into question, or even reversing it, illusionist devices mostly hold the capacity to question reality as in *Projet Miroir* by Sophie Daste, Karleen Grouppierre and Adrien Mazaud. It is not the lesser of the illusionist techniques paradoxes to enable such effects.

The possible worlds/“stages of reality”

Far from creating a world based on a binary system (true/false; real/virtual; hidden/shown...), the two polarities of reality and illusion rather constitute points of reference in continuum in which they hybridize according to variable proportions or methods, thus producing infinite possibilities. This is how the “era of illusions” opens up to a new apprehension of the world, and allows to contemplate the “era of the multiple.” As claimed by Pierre Bayard: “The main illusion is precisely that of our [...] uniqueness.” For, in no easier manner than illusion, could reality be apprehended in a unique way.

In a very significant manner with respect to our reflection, Nicholas Wade reminded that illusion has often been perceived as soon as a consensus existed on the definition of reality and its physical characteristics:

The modern definition of illusions applies to differences between the perception of figures and their physical characteristics. Consensus concerning an external reality did not exist in Antiquity, and so attention was directed to those instances in which changes in perception occurred.¹⁹

The state of knowledge thus contributes to that of illusions. Wade underlines that a significant evolution of history, consecrating the advent of the modern era, consisted in assigning categories and an assumption of stability to things. Perhaps the digital era, with the appearance of these multiple virtual vicarious and in-shaping worlds, have contributed to the reintroduction of a relativity of the point of view, for a long time associated with the Antiquity?

In any case, illusion is a dynamic of opening for reality that transfers back to the idea of possible worlds and to the consideration of reality not as one and complete, but as displaying different degrees. A recently released book on the effects of theatricality in cinema—a phenomenon often perceived as linked to the process of illusion—has the equivocal title of *Stages of Reality*.²⁰ The authors wish to examine the “stages of reality” with which cinema plays by borrowing to theater. But one could also think about the different “stages (steps) of reality,” to give an account of the inspiration that the cinema displays through theatricality for the exploration of all possibilities. The aim of the book is indeed to reflect upon the supposed transparency of the cinema as a realistic representation (“to dispute the ‘reality’ of films and their characters”²¹) and to show how theater is a recourse to question this illusion. But one could prolong these propositions by underlining that these are indeed different levels that theater produces in the movie, rather than a binary system which would oppose true and false. Cinema would thus no longer be a recording, but a trace, an “aftershock” (like an earth quake), or an image “circuit,”²² which the presence of another media puts in light, putting reality and illusion back to back. Hybridization between techniques and media is for Olivier Grau as well one of the

19 Nicholas J. Wade, *Perception and Illusion. Historical Perspectives*, New York, Springer, 2005, p. 29.

20 André Loiselle and Jeremy Baron, *Stages of Reality. Theatricality in Cinema*, Toronto, University of Toronto Press, 2012.

21 André Loiselle and Jeremy Baron, “Introduction,” *Stages of Reality. Theatricality in Cinema*, Toronto, University of Toronto Press, 2012, p. 5.

22 Gilles Deleuze, *L’image-Temps*, Paris, Minuit, 1985, p. 69-70.

elements that contributed to complexification of the reflection on illusion and the preparation of the immersive devices of virtual reality.²³

In this issue, Pierre Bayard as well as Alain Berthoz put reality in the plural form by showing the wealth that can substitute to a unique approach of the phenomenon. The creative hypothesis of psychic reality is offered by psychoanalysis but also, in a different manner, in neuroscience researches. We are two, says Alain Berthoz when mentioning our inner double, the “Doppelgänger”; this same hypothesis is linked by Pierre Bayard to that of the plurality of the multiple parallel worlds in which live “the shadows of our personalities.” The plurality of worlds is not a literary extrapolation that gave birth to wonderful works ever since the Antiquity. It is a physics hypothesis (as the multiverse theory) and even a biology theory (like the “*Umwelt*” concept, an environment specific to each species from which emerges a reality of the world that surrounds it, specific and yet different, with which the species interact according to the capacities that evolution granted it). Alain Berthoz’ thesis, developed in his essay on vicariance,²⁴ is that the “originality of Man is to be able get out of this determinism, that encloses him in a reality linked to his needs and sensorial tools, thanks to the remarkable capacity of his brain to use vicarious processes²⁵ that he can put in place to escape reality or his reality.” To him, it is “this play between functional flexibility provided by vicariance and the desire and capacity of our brain to reorganize these different synergies [...] that is the hinge of the relationship between reality and illusion.” The appearance of numerous virtual, interactive worlds, hybridized to the real one, and in which we can immerse ourselves and act as if we were in them through avatars, our vicarious doubles, testify to this.

Thus in multiple situations, illusion possesses the performative value of “solution” and can open to an appeased comprehension of the real world. Erkki Huhtamo showed to what extent the journey was a core subject for 19th century illusionist devices,²⁶ whether it is a journey towards the outside, or a journey towards the inside (for instance the experience of the dividing the American soil in frontiers). In all these examples, illusion was also an experience of alterity. This is what the jubilee course of *The Tunnel Under the Atlantic* by Maurice Benayoun offered, since transformed into *Tunnels Around the World*. The playful dimension of the interaction is quickly transformed into memorial and time progression processes, through which one is allowed to play to over the historical cultural dialogue between France and Quebec. If the interactivity is in certain cases a sheer illusion, an artifice, a trick—see for instance Philippe Bootz’ plane-poet, that plays on the vanity of interaction created by the “planing” of a virtual surface—, the renewal of sensitive experiments brought by through modern devices can shape the spectator/citizen/amateur/player/reader... while active and in total awareness.

In order to serenely comprehend the multiple realities of the illusion, certainly the reader will need to familiarize with the still mysterious functions of the human brain, but also with the works, protocols, theoretical fictions and devices of the arts of our era, that can sometimes reveal confusing. It is to this wonderful adventure that the second issue of *Hybrid* is inviting you.

BELLION Wendy, *Citizen Spectator: Art, Illusion, and Visual Perception in Early National America*, Williamsburg (VA), The University of North Carolina Press, 2011.

BERTHOZ Alain, *La Vicariance. Le cerveau créateur de mondes*, Paris, Odile Jacob, 2013.

²³ Oliver Grau, *Virtual Art. From Illusion To Immersion*, Cambridge (MA)/London, MIT Press, 2003. Chapter 4 is entitled: “Intermedia Stages of Virtual Reality in the Twentieth Century.”

²⁴ Alain Berthoz, *La Vicariance. Le cerveau créateur de mondes*, Paris, Odile Jacob, 2013.

²⁵ “Processes through which we can do the same thing with different mechanisms, solutions or behaviours.” Translated from: Alain Berthoz, *La Vicariance. Le cerveau créateur de mondes*, Paris, Odile Jacob, 2013.

²⁶ Erkki Huhtamo, *Illusions in Motion. Media Archeology of the Moving Panorama and Related Spectacles*, Cambridge (MA)/London, MIT Press, 2013, p. 245.

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