Mediatic Handology?*

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Abstract

A chirocentric model of thinking, an alternative to the notorious oculocentric line which is widely questioned today, appeared in philosophy from the very beginning. The idea of the hand as our major instrument of thinking comes from Anaxagoras and reaches Heidegger and Merleau-Ponty, who reconfigured the philosophical agenda around this organ's qualities. The theme of image making is crucial in this trend of thought, while artists from all ages and cultures have always expressed their sheer fascination for the motif of the hand as the conditioning agent of their creative activity. In the twentieth century, Walter Benjamin set up a philosophy of visual media which did not rely upon the optic qualities of the moving images, but on their haptic ones. The hand, after all, took central stage in the imaginary throughout the previous century: hands in X-rays, palms in modern chiromancy, fingers in the newly born *chirognomonie*, imprints in art, disembodied hands featuring autonomous characters in cinema. Together with these images, another idea of the thinking hand emerged, not only connected with the sense of touch or with craftmanship, but also with expressive gestures, conveying affect, desire as well as imaginative power. Do we need a handology to survey the many lives of the hand in our culture and fully understand the *digital* turn within the so-called deep time of the media?

Jean-Luc Godard, whose films have always featured image manipulations (from Latin *manus*), opens *The Image Book* (*Le Livre d'image*, 2018) with the following affirmation: 'There are the five senses, the five parts of the worlds, the five fingers of the fairy. All together, they compose the hand, and the real condition of Man is to think with his hands'. Godard's statement has to be understood in the light of

* Although this introductory essay is the result of a joint effort between the three authors, the lead authorship responsibility was shared between § 1 *Chirocentrism* (Andrea Pinotti), § 2 *The Artistic Hand* (Ada Ackerman) and § 3 *The Hand as Medium* (Barbara Grespi). This essay is the result of research activities developed within the frame of the project *AN-ICON. An-iconology. History, Theory, and Practices of Environmental images*. AN-ICON has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. [834033 AN-ICON]), hosted by the Department of Philosophy "Piero Martinetti" (Project "Departments of Excellence 2018-2022" awarded by the Ministry of Education, University and Research).

a long tradition, which can be labelled as chirocentric, and which assigns to the hand a core function in the human being's evolution as such and a fundamental role in the constitution of human experience: in respect not only to sensibility (which would be rather obvious), but also to our capacity of thinking. Rooted in ancient Greek philosophy, this 'chirocentric' model underscores the sense of touch in the creation of images as well as in their apprehension and reception, and as such, is influential in various media theories, especially the ones dealing with the moving image, in which the inclusion of a haptic paradigm challenges the presumed supremacy of the visual sense. As Emmanuelle André postulates: 'In films, it is the hands which reconfigure the practices of gaze and which crystallize historical, technical and ideological transformations of our ways to see'.[1] Thus, the 'chirocentric' model enables to shed light on the role of the hand within mediatic apparatuses and economies; that is not only to look at the hand as a medium between the human being and its environment, but also to handle the hand in its connections with various media.

Chirocentrism

The notorious oculocentrism, which would have affected our culture for centuries starting from the Greek *theoria* (a word cognate to the verb *theomai*, view, watch, observe, gaze, contemplate), appears actually besieged from the very beginning by an alternative model, that of chirocentrism.

From pre-Socratic philosophy down to contemporary theorists of enactivism and material engagement,[2] a seemingly uninterrupted line insists on the intimate and deep connection between manual skills, humanity, and rationality: a connection which is also confirmed by the close etymological roots of the terms 'perception' (from the Latin *per*, 'thoroughly' + *capere*, 'to grasp, take') and 'concept' (from the Latin *cum-capio*, 'to gather together'),[3] which refer both to a manual gesture.

The line linking hand and thought is indeed continuous, but far from being one-directional. As Aristotle shows in his *Parts of Animals* (687a), a two-way interpretation of this link is actually possible: 'It is the opinion of Anaxagoras that the possession of these hands is the cause of man being of all animals the most intelligent. But it is more rational to suppose that man has hands because of his superior intelligence'.[4] The Stagirite suggests inverting the cause-effect relation established by his precursor Anaxagoras, calling for a 'spiritualistic'

[1] Emmanuelle André, *L'Œil détourné: Mains et imaginaires tactiles au cinéma* (Paris: De l'incidence, 2020), p. 9 (our translation).
[2] See Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture* (London, UK: Routledge, 2013); Maria Danae Koukouti and Lambros Malafouris, *Material Imagination: An Anthropological Perspective*, ed. by Anna Abraham (Cambridge: Cambridge University Press, 2020), pp. 30–46.
[3] The same can be said for the German *Begriff* (concept), from the verb *greifen* (to grasp).
[4] Aristotle, *The Complete Works*, ed. by Jonathan Barnes (Princeton, New Jersey: Princeton University Press, 1984), p. 2340.

priority of the intelligence over the body. Nowadays, thanks to the achievements in anthropology and evolutionary theory, we are, on the contrary, ready to recognize the brilliant insight of the 'materialist' pre-Socratic: it was through a certain development of the bodily configuration in general, and of the hands in particular, that the human being could become the rational being.

Nevertheless, if we consider his treatise *On the Soul* (432a1), Aristotle's argument seems subtler, since he abandons his preoccupations about the priority to be established between hands and intelligence, coming to a (much more interesting) 'analogical' interpretation of their relation: 'It follows that the soul is analogous (*hosper*) to the hand; for as the hand is a tool of tools, so thought is the form of forms and sense the form of sensible things'.[5] In proposing such a connection, Aristotle at the same time seems to implicitly criticize the identification of thinking as a kind of seeing that had characterized the gnoseology of his master Plato. On the contrary, in Aristotle's treatise it is the hand and touching in general that becomes a sort of meta-*organon*, which explains not only how the soul operates, but also how the other senses function: taste, smell, hearing, even seeing are interpreted as a kind of tactile contact between the stimuli and the correspondent sensory medium.[6]

Fig. 1: Emblema XVI. From Andrea Alciati, *Emblemata* (Paris: Rouille 1566), p. 34.

[5] Ivi, p. 1501.
[6] Stanley H. Rosen, 'Thought and Touch: A Note on Aristotle's "De Anima"', *Phronesis*, 6.2 (1961), 127–37; Christopher P. Long, *On Touch and Life in the De Anima*, in *Phenomenology and the Metaphysics of Sight*, ed. by Antonio Cimino and Pavlos Kontos (Leiden: Brill, 2015), pp. 69–94.

This passage of *On the Soul* identifying the hand as a sort of meta-tool has laid the foundations of a solid tradition[7]: '*organo de gl'organi*' (organ of the organs),[8] as Giordano Bruno would have put it in his *Cabala of Pegasus* (1585). In Aristotle's and Bruno's wake, in his *Encyclopaedia* (1817, 1827[2],1830[3]) Hegel defines the hand as '*absolutes Werkzeug*' (the absolute instrument).[9]

However, such absolute character implies an internal duplicity, that of counter-laterality. According to Kant, the human capacity to find the proper orientation in the world (including reasoning and conceptualizing) ultimately rests on a distinction rooted in the body and in its organic structure, and precisely in being 'able to feel a difference within my own subject, namely that between my right and left hands'.[10] This crucial difference informs the most various aspects of human existence (think of the religious[11] and political symbolism related to the polarity left/right), and also of the extra-human world (if we think of Louis Pasteur's discovery of stereochemical properties of the molecules, what later would have been called 'chirality' — from the Greek *kheir*, hand).[12] A famous fan of Pasteur, Isaac Asimov, went as far as to imagine a 'new world' in which laevorotatory and dextrorotatory are inverted while maintaining the same composition.[13]

In contemporary philosophy, Heidegger transforms the hand into a fundamental ontological category: in § 15 of his *Being and Time* he defines the class of instruments (*Zeug*) precisely with reference to their manipulability and to the dynamic gesture needed to perform the correspondent action: 'The hammering itself uncovers the specific "manipulability" [*Handlichkeit*] of the hammer. The kind of Being which equipment possesses — in which it manifests itself in its own right — we call "readiness-to-hand" [*Zuhandenheit*]'.[14] Later on, in his 1951–52 Freiburg course *What is called Thinking?*, he goes as far as to suggest that 'thinking, too, is just something like building a cabinet. At any rate, it is a craft, a "handicraft" [*Hand-Werk*]. "Craft" literally means the strength and skill in our hands'.[15] In his essay *Heidegger's Hands*, Derrida has effectively exposed the political and ideological implications of this approach.[16]

[7] See the concise reconstruction offered by Maurizio Ferraris, *Estetica razionale* (Milan: Raffaello Cortina, 1997), pp. 288–95 (§ "Lo strumento assoluto").
[8] Giordano Bruno, *The Cabala of Pegasus* (New Haven & London: Yale University Press, 2002), p. 58.
[9] Georg W.Fr. Hegel, *Encyclopedia of the Philosophical Sciences* (Oxford: Clarendon Press, 1971), vol. 3/3, p. 23 (§ 411).
[10] Immanuel Kant, 'What is Orientation in Thinking?' (1786), in Kant: *Political Writings* ed. by Hans S. Reiss (Cambridge: Cambridge University Press, 1991), pp. 237–49 (p. 238).
[11] Robert Hertz, 'The Pre-eminence of the Right Hand: A Study in Religious Polarity' (1909), in *Death and the Right Hand* (London and New York: Routledge, 2004), pp. 89–113.
[12] Louis Pasteur, 'On the Asymmetry of Naturally Occurring Organic Compounds' (1860), in *The Foundations of Stereochemistry: Memoirs by Pasteur*, ed. by George Mann Richardson, Jacobus van't Hoff, Joseph Achille Le Bel and Johannes Wislicenus (New York: American Book Co., 1901), pp. 1–33.
[13] Isaac Asimov, *The Left Hand of the Electron* (Garden City, N.Y.: Doubleday, 1972).
[14] Martin Heidegger, *Being and Time* (1927) (Oxford: Basil Blackwell, 1985), p. 98.
[15] Martin Heidegger, *What Is Called Thinking?* (New York: Harper & Row, 1968), p. 16.
[16] Jacques Derrida, *Psyche: Inventions of the Other*, vol. II (Stanford, CA: Stanford University Press, 2008), pp. 27–62.

In his turn, Merleau-Ponty moves from the major premise that 'consciousness is in the first place not a matter of "I think that" but of "I can"' ('My body is wherever there is something to be done'). In this performative context, hands set once again the model for actability in general: 'I can therefore take my place, through the medium of my body as the potential source of a certain number of familiar actions, in my environment conceived as a set of *manipulanda* and without, moreover, envisaging my body or my surrounding as objects'.[17]

It is therefore no surprise that in recent research on the neural circuits implied in movements and intentions of prehension (particularly the so-called 'canonical neurons' situated in the pre-motor areas and activated in reference to objects that show a potential graspability), neuroscientists like Vittorio Gallese have found a remarkable convergence between the results of their experiments and the conceptualizations offered by Heidegger and Merleau-Ponty.[18]

Hands and touching have received significant attention from philosophers also in the post-phenomenological phase, especially in the context of French theory, which has been engaged in what Martin Jay calls the 'denigration of vision' and of the oculocentric paradigm:[19] to mention only a couple of names, we should not forget here Derrida and Nancy.[20]

It would be nevertheless wrong to unilaterally stress the fundamental importance of the hand by isolating this organ from the whole bodily framework, and particularly from the upright position. In a fascinating essay in philosophical anthropology devoted to the human achievement (both phylogenetically and ontogenetically, for the species and for each newly born child) of the upright posture, phenomenological psychiatrist Erwin Straus has argued that anatomic determinations directly condition spiritual dispositions: the expression 'to be upright' can refer both to physical and to moral properties of a subject. As regards our point here, he remarks in particular that 'in upright posture, the frontal extremities are no longer asked to support and carry the body. Relieved from former duties; they are free for new tasks'.[21]

[17] Maurice Merleau-Ponty, *Phenomenology of Perception* (1945) (New York: Routledge, 2005), pp. 159–291 and 120.
[18] See Vittorio Gallese, 'Mirror Neurons and the Neural Exploitation Hypothesis: From Embodied Simulation to Social Cognition', in *Mirror Neuron Systems*, ed. by Jaime A. Pineda (New York, NY: Humana Press, 2009), pp. 163–190; Vittorio Gallese, Michele Guerra, *The Empathic Screen: Cinema and Neuroscience* (2015) (Oxford: Oxford University Press, 2020), pp. 24–27.
[19] Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley, Los Angeles, London: University of California Press, 1993).
[20] Jacques Derrida, *Touching: Jean-Luc Nancy* (2000) (Stanford, California: Stanford University Press, 2005); Jean-Luc Nancy, *Noli Me Tangere: On the Raising of the Body* (2003) (New York: Fordham University Press, 2008).
[21] Erwin Straus, 'The Upright Posture' (1949), in *Phenomenological Psychology* (London: Tavistock, 1966), pp. 137–65 (p. 149).

Among these new tasks we should certainly number the practices of image production: *Homo sapiens* as *Homo Pictor*, as Hans Jonas would put it.[22] Since ancestral times hands have constituted both the bodily condition of possibility of pictorial representation and one of their favourite subjects. A striking example is provided by the hand stencils realized during the Upper Palaeolithic Period: the oldest (around 37,900 BCE) instances have been found in a cave of the Indonesian island of Sulawesi.[23] Either in the form of positive handprints (obtained by directly painting the hands — mostly in red, white, or black — and then applying the pigment to the rock surface) or in the form of negative hand stencils (by placing the hand on the rock and emphasizing its contours by spraying or spitting the pigment around it), such pictures appear to our eyes as a kind of prehistoric mirror stage (*à la Lacan*) of humanity: partial avatars of the archaic self, allowing self-recognition and at the same time self-duplication. The illumination provided by the flickering lights of the torches must have ensured a veritable cinematic dynamization of the whole: Baudry's analogy between the movie theatre and Plato's cave[24] should therefore be reformulated in Palaeolithic terms.

Not only is the hand the condition of possibility and one of the favourite themes of image *making*; it is also a powerful tool for image *theories.* Long before the contemporary criticism raised against the above-mentioned oculocentric paradigm and the acknowledgment that exclusively 'visual' media do not exist,[25] the conceptualization around images has had recourse to touching hands to understand our relations to pictures. During the second half of the 17th century, the newly born discipline of aesthetics saw the struggle around the aesthetic legitimacy of the sense of touch.

Unlike Kant, who wanted to exclude touching, because beauty of corporeal objects should be 'a thing for the eye only',[26] Herder (not by accident in a treatise devoted to sculpture) called for a kind of 'sense-specific' art system, in which every artistic form is exclusively offered to a single sensory channel: music to hearing, painting to seeing, sculpture to touching. Seeing a statue would mean destroying its experience. However, Herder's apparent radical plea for actual palpation of sculptures — which nowadays is promoted by museums for the blind — ultimately results in a much more attenuated metaphorization of touch,

[22] Hans Jonas, 'Homo Pictor and the Differentia of Man' (1961), *Social Research*, 29.2 (1962), 201–20.
[23] Maxime Aubert et al., 'Pleistocene Cave Art from Sulawesi, Indonesia', *Nature*, 514 (2014), 223–27.
[24] Jean-Louis Baudry, 'The Apparatus: Metapsychological Approaches To the Impression of Reality in Cinema' (1975), in *Narrative, Apparatus, Ideology: A Film Theory Reader*, ed. by Philip Rosen (New York: Columbia University Press, 1986), pp. 299–318.
[25] William J.T. Mitchell, 'There Are No Visual Media', *Journal of Visual Culture*, 4.2 (2005), 257–66.
[26] Immanuel Kant, *Critique of Judgment* (1790) (Oxford: Oxford University Press, 2007), p. 152 (§ 5). Nietzsche sarcastically reacted against Kant's depreciation of touch in his *On the Genealogy of Morality*, ed. by Keith Ansell-Pearson (Cambridge: Cambridge University Press, 2007), p. 74: 'Let us pay tribute to Kant for expounding the peculiarities of the sense of touch with the naïvety of a country parson!'.

which becomes a modality internal to seeing itself, thus surrendering to the 'Look but don't touch' standard museological policy. The art lover contemplating a statue yearns to 'transform his sight into touch, to make his seeing into a form of touching. […] His eye becomes his hand'.[27]

This pivotal passage marks the birth of a perceptological model — that of the touching eye — that would have nourished the theories of visual arts in the following centuries. Another theorist of sculpture (and sculptor himself), Adolf von Hildebrand, provided such metaphor with a scientific base: drawing on Helmholtz's studies on the accommodation of the crystalline lens, he distinguished between two modes of seeing: a vision at a distance (which offers the whole scene at a glance) and a vision in proximity (which develops progressively like in a sort of touching), respectively correlated to a distant image (*Fernbild*) and a near image (*Nahbild*).[28]

Hildebrand's insights offered the perceptological basis for Bernard Berenson's famous theory of 'tactile values', exposed in his study devoted to *The Florentine Painters* (1896): visual artists are truly artists only if they are able — like Giotto — to convey tactile stimuli of volume and tridimensionality through their bidimensional pictures.[29] Berenson's view was critically discussed, among others, by Simmel and Merleau-Ponty.[30]

Other art historians employed Hildebrand's distinction between two general modalities of seeing as a historical and stylistic property. Despite the fact that Wölfflin[31] and Riegl[32] investigated different artistic periods, both employed the couple 'near vision/far vision' to characterize the stylistic change: in the first term of the pair (Wölfflin's Renaissance, Riegl's Egypt), the eye, during the apprehension of the images, is tactily or haptically (from the Greek *hapto*: I touch) led by silhouettes and lines; in the second (Wölfflin's Baroque, Riegl's late Roman), it is guided in an exclusively optical way by the patches of colour and by the chiaroscuro. The idea of a connection between image production and reception on the one side and the sensory response (*aisthesis*) on the other

[27] Johann Gottfried Herder, *Sculpture: Some Observations on Shape and Form from Pygmalion's Creative Dream*, ed. by Jason Gaiger (Chicago: The University of Chicago Press, 2002), p. 41.
[28] Adolf Hildebrand, 'The Problem of Form in the Fine Arts' (1893), in *Empathy, Form, and Space: Problems in German Aesthetics, 1873–1893*, ed. by Harry F. Mallgrave and Eleftherios Ikonomou (Santa Monica, CA: The Getty Center for the History of Art and the Humanities, 1994), pp. 227–29.
[29] See B. Berenson, *The Florentine Painters of the Renaissance* (New York: G.P. Putnam's Sons, 1896), pp. 4–7.
[30] See Georg Simmel, 'On the Third Dimension in Art' (1906), in *The Conflict in Modern Culture and Other Essays*, ed. by K. Peter Etzkorn (New York: Teachers College Press, 1968), pp. 86–90; Maurice Merleau-Ponty, 'Eye and Mind' (1960), in *The Primacy of Perception and Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*, ed. by James M. Edie (Evanston: Northwestern University Press, 1964), pp. 159–90 (p. 166).
[31] Heinrich Wölfflin, *Principles of Art History* (1st ed., 1915) (Los Angeles: The Getty Research Institute, 2015) (chapter 1: 'The Linear and the Painterly').
[32] Alois Riegl, *Late Roman Art Industry* (Rome: Bretschneider, 1985), pp. 19–31.

side points to a sort of iconic pragmatics: pictures that want to be explored closely as if they were offered to a palpation; and pictures that push away the beholder at the right distance.

As a pupil of Wölfflin and a passionate reader of Riegl, Walter Benjamin has famously picked up and relaunched this perceptological couple in his 1935–36 essay on art and reproduction, at the same time inverting the historical passage between the two terms. If for Wölfflin and Riegl the movement occurred from the linear/tactile towards the painterly/optical, Benjamin analysed the transformation in artistic reception as a change from bourgeois nineteenth-century concentration to modern distraction, as embodied in the film spectator. His description of the passage from aura to shock, from an optical contemplation to a tactile manipulation appears truly prophetic: in the thirties, Benjamin was already aware of the process of the progressive tactilisation of the image experience that today we fully recognize in the pervasive diffusion of touch screens: the digital age reveals its being deeply rooted in the *digitus* (Latin for finger).

Either through a direct debt towards Wölfflin and Riegl (it is for instance the case of Deleuze)[33] or through the mediation of Benjamin (as has happened for film theorists of the 'haptic' like Antonia Lant or Laura Marks),[34] the paradigm of touching has proved to be one the most effective tools for the conceptualization of our experience both of static and of moving images. As regards the latter, such effectiveness is eloquently underlined in this volume by Marie Martin's contribution on films referring to sensory handicaps, Filippo Fimiani's insights on the kinaesthetic relation between fingers and dance as represented in *Mad Men*, and Lucia Ruprecht's exploration of Chantal Akerman's documentary work on Pina Bausch's choreography.

In addition to that, chirocentrism does not only affect theories about art and media. It also materializes in the very works of art themselves, through recurrent representations of hands, which have in turn grounded and fuelled the theoretical haptic concerns discussed above. Without pretending to survey exhaustively the gigantic corpus of represented hands within art history, it is necessary to single out some significant examples of this motif as it connects fine arts with cinema and contemporary mediatic practices. A continuous iconographic legacy therefore emerges, in which the hand is invested and celebrated as a crucial mediating agent between the Self and the world.

[33] Gilles Deleuze, *Francis Bacon: The Logic of Sensation* (1981) (London-New York: Continuum, 2004), chapters 14, 15, and 17.

[34] See Antonia Lant, 'Haptical Cinema', *October*, 74 (1995), 45–73. Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham, London: Duke University Press, 2000), p. xii and 22. See also her *Touch. Sensuous Theory and Multisensory Media*, where the haptic is presented as a 'feminist visual *strategy*' (Minneapolis, London: University of Minnesota Press, 2002), p. 7.

The Artistic Hand[35]

According to Aristotle, the hand is the part of the body which singles out the specificity and superiority of humans over other animals, as the hand is endowed with a high plasticity allowing it to become, as we have seen before, a supra-tool:

> For the most intelligent of animals is the one who would put the most organs to good use; and the hand is not to be looked on as one organ but as many; for it is, as it were, an instrument for further instruments. This instrument, therefore, — the hand — of all instruments the most variously serviceable, has been given by nature to man, the animal of all animals the most capable of acquiring the most varied arts. […] For the hand is talon, hoof, and horn, at will. So too it is spear, and sword, and whatsoever other weapon or instrument you please; for all these can it be from its power of grasping and holding them all.[36]

Hands are the tool-organs which turn the human being into a *Homo Faber* able to transform matter and therefore to transcend and to ameliorate his original condition. From this transfiguring power stems the Greek myth of the Dactyls (*Daktyloi*), that is, little fabulous beings established in Phrygia and accredited with the discovery of iron and the art of working it with fire.[37] This myth is important as it highlights the role of hands in craftmanship and in the evolution of civilisation, putting in question the balance between mind and hands in creative processes — an issue at stake in Francesco Clerici's documentary film, *Il gesto delle mani* (*Hand Gestures*, 2015), which relies upon cinema to pay homage to craft. As a matter of fact, if the human being is gifted with a superior intelligence, the latter would be of no use without the ability to affect and to rework his environment in a concrete fashion, thanks to his hands. Hence the inextricable connection between the hands and the mind that Paul Valéry establishes as he inverts the traditional submission of the manual sphere to the intellectual one: 'You must admit that hands are a really extraordinary appliance. […] They're the all-purpose grippers! But what about the mind? It begins and ends in the fingertips.'[38] As such, the hand cannot be reduced to a mere utilitarian tool, no matter its level of refinement; it is also the organ through which the human being can indulge himself in an artistic activity and which can express one's sensitivity and one's worldview (*Weltanschauung*).

[35] As I was working on this part of the introduction, the Lebanese filmmaker and intellectual Lokman Slim was brutally murdered for his political involvement on 4 February 2021. I would like to dedicate him this text, since he was the author of the documentary film *Massacre* (*Massaker*, 2004), dealing with the Sabra and Shatila massacres, and which structure mainly revolves around the hands of the executioners.

[36] Aristotle, pp. 2340–41.

[37] See 'Dactyli' in *A Classical Dictionary of Biography, Mythology and Geography, Based on the larger Dictionaries*, ed. by William Smith (London: John Murray, 1859), p. 205.

[38] Paul Valéry, 'Idée fixe ou deux Hommes à la mer' (1932), in *Idée fixe, The Complete Works of Paul Valéry*, vol. 5, trans. by Daniel Paul (Princeton, N.J.: Princeton University Press, 1956), p. 54.

This is the argument followed by the French art historian Henri Focillon in his *Praise of Hands* (1934), in which he states that the hands and the mind are mutually constitutive of their respective power: 'the mind rules over the hand; hand rules over mind',[39] just as the mankind and its hands helped each other to access a higher stage of evolution : 'Man has created his own hands — by which I mean he has gradually freed them from the animal world, released them from an ancient and innate servitude. But hands have also created man'.[40] It is all the more necessary to keep this reciprocal dynamic in mind, claims the Finnish architect Juhani Pallasmaa, in our contemporary age in which so many practices are operated through virtual tools — be they *digital,* since those induce only an indirect mediation between the hand and the matter it transforms. In *The Thinking Hand* (2009)*,* Pallasmaa advocates for the creative power of the hand and underscores its paramount role in evolution of human skills and conceptual faculties.[41] He promotes the tradition of craftmanship as a remedy for our times against the effects of the increasing loss of the touch of the human hand in mechanically mass-produced products and networked societies. Calling for an 'embodied thinking' in creative practices, Pallasmaa surveys the productive modalities of the collaboration between the eye, the hand and the mind (already at stake in his previous *The Eyes of the Skin*, 1996).

It is no wonder then that, in a reflexive gesture about their practice, creators from all ages and cultures have expressed their sheer fascination and obsession for the motif of the hand as the conditioning organ of their artistic activity. Art history and thus history of visual culture could be unfolded along an exploration of the various types of representations of hands and of the functions they are invested of.

The most obvious type appears to be what could be labelled as the autonomous hand, detached from the rest of the body. Embodying the creative power of the human being, it becomes progressively a creature *per se.* As a matter of fact, many representations stage the hand as their main protagonist and as their exclusive topic. The first testimonies of a human artistic activity include prehistorical parietal handprints whose signification and function remain controversial (be they ornamental, ritual, magical, shamanistic…). They establish for the first time a coincidence between the artistic tool and the produced image, evidencing mankind's discovery of its power to affect its environment.[42] These handprints function as a mark of a subject enunciating 'I have been here', a printed trace which can be read as a personal signature. This gesture has been repeated since then by numerous artists as an affirmation of their status as *creators* — such as, just to name a few, Wassily Kandinsky, Richard

[39] Henri Focillon, 'In Praise of Hands', in *The Life of Forms in Art*, trans. by George Kubler (New York: Zone books, 1992), p. 184.
[40] Ivi, p. 161.
[41] Juhani Pallasmaa, *The Thinking Hand: Existential and Embodied Wisdom in Architecture* (Hoboken, N.J.: Wiley, 2009).
[42] Henri Breuil, Hugo Obermaier, *The Cave of Altamira at Santillana Del Mar* (1906) (Madrid: Tipografia de Archivos, 1935).

Long or Andy Warhol (the latter playing of course on the reproductible aspect of the hand-as-stamp). Robert Filliou and Scott Hyde subverted the artist's handprint as a sign of this presumed elected condition in *Hand Show — The Key to Art?,* an exhibition presented in 1967 in the vitrines of New York's Tiffany store. Formed from an ensemble of twenty-four photolithographies labelled 'Prints of Artists' hands', the series which was published afterwards in a volume, gathered prints from the hands of various contemporary artists such as John Cage, Jasper Johns or Roy Lichtenstein. It was intended as an exploration of what distinguished artists from other people, with the conclusion that in the end, nothing in this collection of handprints would allow one to establish such a difference. Forty-one years earlier, Marcel Duchamp had also derided the tradition of the artistic handprint by including his fingerprint at the end of *Anemic Cinema* (1926). It was not only for him a means to highlight his manual involvement in the making of the film, but also a play with the associations that this index sign carried between artists and criminals. As a matter of fact, the fingerprint replaced the face in criminal investigation, at the turn of the twentieth century, and became thus the new paradigmatic identifying tool, the subject being deciphered in terms of traces, as Carlo Ginzburg has shown in his text dedicated to the 'semiotic paradigm'.[43]

Besides their handprints, artists have also represented hands as a topic *per se* in order to marvel at their creative power. Of that aspect Rodin's work is highly representative, as he has dedicated numerous sculptures to hands in action, and it is no wonder that he labelled one as *God's Hand or The Creation* (*circa* 1896)*,* in which a demiurgic hand holds a piece of marble from which it is forming the figures of Adam and Eve. The power of the artist is thus invested with a demiurgic quality, in a traditional view of the artist pursuing God's Creation. Such an equivalence is also at the stake, for instance, in *The Constructor* (1924)*,* a constructivist photomontage by El Lissitzky, in which the artist's self-portrait revolves around his hand handling a compass and on the center of which stands his eye. In a brilliant visual shortcut Lissitzky equates the power of the hand with that of the eye, while he celebrates the artist-builder as a new rational God. He reinvests here the theme of the demiurgic and almighty hand that he had encountered in the Mogilev synagogue, while he was studying Jewish folklore traditions, and which he had tackled in *Had Gadya* (1919). Contemporary biodesign even allows the artist to perform God-like creations: in *Regenerative Reliquary* (2016), Amy Karle uses cultivated human stem cells and 3D printing technology to give birth to a bioprinted scaffold in the shape of a human hand, which is supposed to evolve in time into bone and tissue. As the title of the piece suggests, Karle therefore fosters a new and paradoxical type of relics, a futurist one, which subverts the polarities between death and birth, between animation and inanimation (fig. 2).

[43] Carlo Ginzburg, 'Morelli, Freud and Sherlock Holmes: Clues and Scientific Method', in *The Sign of Three: Dupin, Holmes, Peirce,* ed. by Umberto Eco and Thomas A. Sebeok (Bloomington: Indiana University Press, 1983), pp. 81–118.

Fig. 2: *Regenerative Reliquary* by Amy Karle, 2016. By courtesy of the author.

Moreover, *Regenerative Reliquary* replays, in the field of design, the associations of science, religion, magic and esotericism which characterized many approaches of the hand in the second half of the nineteenth century, as it will be described below.

In the light of the creative potentialities associated to the hand, it is not surprising that in the realm of the moving image, the hand becomes an autonomous character, separated from the body, able to lead its own journey and to perform its own actions. Fantastic literature had already explored this theme of a corporeal schizophrenia — for instance Gérard de Nerval in *The Enchanted Hand* (*La Main enchantée,* 1832) — but cinema, as an art of animation, will multiply its occurrences. From *The Hands of Orlac* (*Orlacs Hände*, Robert Wiene, 1924), discussed in Karl's article further in this issue, to the 'Thing' in the Addams Family film saga, up to the recent animation movie *I lost my Body (J'ai perdu mon corps*, Jérémy Clapin, 2019) many independent hands have paved the story of film. In that respect, *The Hand* (*Ruka,* 1965) by the Czech animator Jiří Trnka is maybe the film which has exploited at its fullest the narrative and symbolic potential associated to the motif of an autonomous hand — and for this reason the film was subject to censorship in Communist Czechoslovakia: an almighty and terrifying hand of a totalitarian power dictates to a sculptor what he must create; that is, hands in its image. The hands of the creative potter appear as powerless against this all-controlling hand, which is also presented as a Puppeteer-Hand, and the artist has no other alternative than to obey or to die.

Another main function dedicated to hands by artists is linked to their communication potentialities: 'Hands are almost living beings. […] endowed with vigorous free spirit, with a physionomy. Eyeless and voiceless faces that nonetheless see and speak'.[44] This statement by Focillon could perfectly describe the artistic goal pursued by Christophe Loizillon in his film *The Hands* (*Les Mains*, 1996) in which he shoots the hands of five of his friends while they are telling him their life stories. The hands look and behave as if they were the characters themselves, as if the voices that we hear were emanating from them, due to their extreme expressivity. As a matter of fact, gestures function as a paramount tool for expressing emotions and actions and thus translating them into a visible code, as Giovanni Bonifacio details in his treatise *The Art of Signs* [L'Arte de' Cenni, 1616], which surveys 'mute eloquence, that is a talkative silence'. In that respect, Michelangelo's *Creation of Adam* (circa 1512), in which God transmits life to Adam through their index fingers stands as one of the brightest examples of the extreme and powerful narrative concision allowed by the motif of the hands — it is no wonder that as an artist fascinated with hands, Philip Guston would play on associations with Michelangelo's scene in *The Line* (1978). Moreover, in *On Painting* [*De Pictura*, 1435], Alberti describes one of the painters' tasks as 'to express the states of mind with the movements of the limbs'.[45] Hands can convey emotions no less, if no more, than faces, as it is well demonstrated by, just to mention one example, Egon Schiele's convulsed hands. In *Hand Movie* (1966), Yvonne Rainer even removes everything of her body but her hand which she films: recovering from a surgery in a hospital bed and deprived of her usual capacity of movement as a dancer, she focuses on the only remaining parts of her body which are still able to move, that is her fingers. Despite the minimalism and the apparent simplicity of the situation, Rainer's film accounts for her marvelled discovery of the unexpectedly expressive potential of her fingers.

The rhetorical power of hands and of gestures appears to be one valuable expressive resource for artists concerned with political issues, from the solemn raised hands of the Horatii in *The Oath of the Horatii* by Jacques-Louis David (1784) to the desperate hands of the captives to be shot in the *Third of May* by Francisco Goya (1814), up to the workers' hands acclaiming the socialist achievements in Gustav Klutsis' photomontage *Let's fulfil the Plan of Great works* (1931). Cinema will of course unfold this rhetoric in its turn, as crystallised, just to bring one example, in Sergei Eisenstein's raised hands of the striking workers (one of them with a mutilated finger) as they are being repressed at the end of the *Strike* (*Stačka*, 1924). The *pathos* of the scene is enhanced by the framing of the stretched hands through close-ups, which not only highlight their gestures of distress but also sever them from their respective bodies through pure cinematic means, duplicating the mutilation operated on screen by the Cossacks. The

[44] Focillon, p. 157.
[45] Leon Battista Alberti, *Book Two: The Picture*, in *Leon Battista Alberti: On Painting*, ed. by Rocco Sinisgalli (Cambridge: Cambridge University Press, 2011), p. 64.

strong expressivity of hands for the creation of a political cinema could only be acknowledged by the filmmaker, who famously called for a 'cine-fist'.

In addition to that, variations of hand positions and gestures convey expressivity and animation to a representation according to the principle of *varietas,* as, for instance, *The Last Supper* by Leonardo da Vinci (1495–1498) particularly exemplifies or as all the work by Rembrandt could illustrate. Painters do not only use hands in order to express relations and actions between the painted characters, but also between them and the viewer, through the figure of the *admonitor*. As Alberti writes about the latter, 'it seems opportune that in the *historia* there is someone who informs the spectator of the things that unfold; or invites with the hand to show'.[46]

Cinema, as an heir of this pictorial culture, will in turn pursue and develop all these various uses of the hand, multiplying the occurrences of this motif.[47] The attractiveness of filmic images of hands — hands that touch, gesticulate, operate — has led many filmmakers to nurture an obsession with hands, from Robert Bresson to Denis Villeneuve. In some cases, filmmakers would cast their actors, in addition to their interpretation skills, as much for their faces as for their hands, such as Tarkovsky who chose Oleg Yankovsky for the role of Gorchakov in *Nostalghia* (1983), mainly because of the final scene in which he holds a candle and for which eloquent hands were needed.

In turn, the filmic potential of hands has been widely acknowledged by the early film theorists, especially those influenced by modern physiognomics. Béla Balázs, for instance, considers the expression of hands in film as powerful as that of faces, and even more revealing, since their movements are less self-controlled.[48] Balázs absorbed ideas that circulated since the mid-nineteenth century, a period during which the *chirognomonie* by Casimir D'Arpentigny benefitted from an increasing popularity, with its very detailed classification of morphologies, measures and textures of fingers and palm.[49] From this period dates also the attributionist approach coined by the art historian Giovanni Morelli in order to identify the authors of Italian Renaissance paintings on the basis of elements such as ears, nails or hands (fig. 3). Morelli assumed that in those secondary details, the artist would free himself from influences and that their shape would therefore reveal his personal touch much more than any other element of the composition. Morelli established a methodology akin to a detective's by collecting hundreds of these 'traces' left by artists, which he ranged in comparative tables. As in chirognomony, the morphology, the

[46] Alberti, p. 63.
[47] See the collection of hands in film established by Raphaël Nieuwjaer: *Notes pour une histoire du cinema. Annexe 2: Etudes de mains*, <http://debordements.fr/pdf/Etudes_de_mains.pdf> [accessed 9 January 2021].
[48] Béla Bálazs, *Early Film Theory: Visible Man and The Spirit of Film*, ed. by Erica Carter (New York and Oxford: Berghahn Books, 2010).
[49] Casimir S. d'Arpentigny, *La chirognomonie: L'art de reconnaître les tendances de l'intelligence d'après les formes de la main* (Paris: Charles Le Clere Editeur, 1843).

size and the proportions of a represented hand could betray the peculiarities of a subject, here the style and the temper of an artist, literally, his 'hand' at work. The connection between chirognomony and filmmaking is even more directly established by the case of Sergei Eisenstein, who was very familiar from his youth with the ideas of D'Arpentigny and who also expressed his sheer interest for the even more esoteric 'science' of chiromancy (a mixture of medicine, mesmerism, exotericism): he had his hand read by the famous clairvoyant Cheiro and took his prophecy very seriously.[50] The merge of medical knowledge with esoteric considerations which is at stake in chirognomony and chiromancy is characteristic of nineteenth century discourses revolving around the hand, which favor eclectic approaches. Such is the psychology of the hand by Nicolae Vaschide, discussed further in Plaitano's essay.

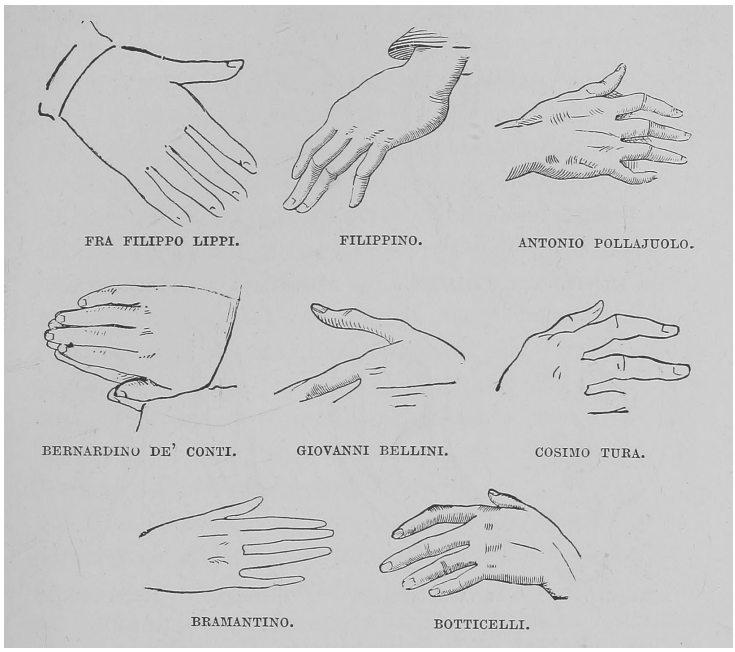

Fig. 3: Giovanni Morelli, *Italian Painters: Critical Studies of Their Works* (London: John Murray, 1892), ill. p. 77.

The Hand as Medium

When the physiognomic perspective declined, the hand in film became, as a synecdoche, the image of the human being, without being solely bound to the

[50] See Ada Ackerman, 'Les préoccupations ésotériques de Sergueï Mikhaïlovitch Eisenstein', *Revue russe*, 29.1 (2007), 125–45.

psychological features of a specific figure on the screen or representing itself an autonomous character. The fascination exerted by the *motif* of the hand on filmmakers, especially in silent cinema, can be partly explained by the universal dimension of many manual gestures, forming a semiotic system which can be easily understood by a worldwide audience. This 'anthropological' hand does not disappear with the emergence of sound film; it survives, though with a different accent, in the work of some modern directors like Robert Bresson, who indulges in a variety of the subtlest material manipulations and in the creation of technical tools. The hands of Bresson's almost prehistorical creatures already 'contain' those prostheses which are about to be externalized, on which Leroi-Gourhan's theory of the technical gesture is based: the pleasure of watching them derives from seeing through, or beyond, the organ. In the same wake, hand gestures operating with media technology foster archaeological reflections on the relationship between the body and optical devices. In fact, all optical devices have always been manual: they have always relied upon a specific articulation of the eyes and the hands (from the telescope to the cinematograph);[51] their visual output cannot, therefore, be accounted for solely through the paradigm of visuality. This is also true in the case of cinema: in addition to the abstract processes of touching with the eyes and seeing with the hands, which we addressed in the first section, it is important to consider also the nature of the moving image as a visual phenomenon displayed through a whole set of operations and movements, therefore challenging the conception of an 'ocular hand' (that is a hand totally subjugated to the eye), inherited from the Renaissance.[52] The twentieth century stands as the era of the concrete manual editing of the filmstrip through gestures of touching, pasting and sensing the 'skin' of the film between the fingers (film or 'pellicle', from the Latin *pellicula* that refers to a small piece of skin); the relevance of this creative practice probably explains why so many directors claimed that cinema is the art of hands not less than of eyes. For instance, this includes Jean-Luc Godard, who believed that handling images in the editing process was more important than the act of framing,[53] or Dziga Vertov, who insisted upon reflexive images showing his (and his wife's) hands at work. Perhaps Harun Farocki is the filmmaker who has grasped and explored to its fullest extent the pivotal role of hands in filmmaking, in the history of film, as well as, more broadly, in the history of culture. This is particularly exemplified in his seminal work *The Expression of Hands* (*Der Ausdruck der Hände*, 1997), in which Farocki claims that 'hands circulate like images', but it is also clearly conceptualized in his idea of montage as 'gestural thinking'. This way of thinking with the hands, that is, to touch the

[51] André, pp. 227–45.
[52] On the concept of 'main oculaire', see André, p. 13.
[53] Godard stated that, in extreme choice, he would prefer to work being blind than having his hands cut off. 'I would be more obstructed by not being able to use my hands when making a film than by not being able to use my eyes'. Quoted in Volker Pantenburg, *Farocki/Godard: Film as Theory* (Amsterdam: Amsterdam University Press, 2015), p. 217.

film in order to understand the image, has not changed in digital culture: the viewer's hands persist as crucial tools which dialogue with machines, especially in the processes of data visualization. As concrete operators of visibility, fingers build and support the gaze; when they touch a screen instead of an analogue image, their power to enable us to see remains unaltered. In the following pages, Löffler's and Puchta's essays question respectively how hands 'manipulate' analogue and digital images.

In reality, the idea of the hands as capable of disclosing a series of liminal dimensions of perception, becoming thus a device for visualization that competes with the eyes, links the different case studies gathered in this volume. Given all we have said in the previous paragraphs, the concept of the hand as a tool that has its own eye, that is, a capacity similar to sight, is nothing new. Indeed, its origin could even be seen as condensed in a late Renaissance image included in the 1543 reprint of the book *Emblemata* (1522), by the Italian academic lawyer Andrea Alciato, the father of this genre of image-text literature. In it, a disembodied horizontal hand floats in the sky in a woodcut landscape and stares at the viewer with its single, Egyptian-style eye placed in its palm (fig. 1). Despite its threatening aspect, this emblem represents only a translation into visual form of the Roman proverb attested in Plautus 'oculatae nostrae sunt manus: credunt quod vident' (Our hands have eyes: they believe what they see).[54] Modern culture reinterpreted the pragmatic value of the *oculatae manus* not only with a specific reflection on tactility, but also discovering the role of gestures as vectors of visibility. Thanks to the crucial focus on the operational hand in its interactions with vision technologies, from pre-cinema onwards, we already know how much the ultimate visual medium is only minimally optical.[55] But expressive gesturality adds paramount points to this thesis as well, and within this field, the hand takes on a specific role. Wilhelm Wundt has identified the gestures produced by the face's mimetic muscles (reflecting the qualities of affect) from those produced by pantomimic muscles of the limbs and especially hands, through which affect is elaborated and transformed into an idea.[56] Modern visual culture captures and displays these liminal gestures at the crossroads between affect and thinking, giving birth to a broad and eclectic imaginary of the hand as medium.

In a segment of nineteenth-century visual culture in which imaginary and theory converged as well as popular culture and science, the hand was invested with three modalities of mediation: between ephemerality and trace (*transcription*), between reality and virtuality (*imagination*) and between different bodies (*transmission*). These properties emerged at their fullest in the years of cinema's birth, derived from its performed gestures and the palm's skin qualities.

[54] See John Manning, *The Emblem* (London: Reaktion Books, 2002), p. 322, who attributes this image to Pierre Vase, illustrator of Andrea Alciato's book of emblems.
[55] We agree on this at least from Strauven's crucial contribution: Wanda Strauven, *The Observer's Dilemma: To Touch or Not to Touch*, in *Media Archaeology*, pp. 148–63.
[56] Wilhelm Wundt, *Outlines of Psychology*, Nalanda Digital Library, 2003, p. 349.

Concerning transcription, the link between gestures and the palmar surface became very precise at the intersections of rhetoric, music and cinema: here the gesture is increasingly conceived as writing and the palm as a place in which this graphic translation is deposited. This connection appears first in ancient rhetoric, due to the perceived coincidence between a mimetic origin of numbers and that of alphabetic letters, which the orators learnt in order to write with their hand whole discourses in the air; in ancient times people 'used gestural figures like the Egyptian hieroglyphics',[57] as the polymath Vincenzo Requeno reports at the end of the eighteenth century. A few years later, Gilbert Austin explores the same phenomenon, though he postulates that gesture doesn't rely upon an alphabetical base, whether abstract or figurative, rather it functions like music:[58] the chain of human gestures is similar to a chain of musical notes, and the model becomes the conductor, who mimics music progression as his hands modulate it. Austin's modern treatise evokes ancient music transcription systems which involved the hand, and not only the hand in motion, but also the palm as an archiving site. The notes' ancestors — so-called neumes, which were the first method for sound transcription — looked like mere graphic traces: straight, curved, ascending or descending, composite or straightforward lines, akin to grammatical accents. Their origin remains uncertain but, according to many experts, it is connected to the gestural phenomenon: they probably derived from the instinctive translations into stylized graphic patterns of the movements of the choir direction performed by the conductor and transcribed by the copyists. Moreover, in the process of transformation of neumes into notes, around the year 1000, hands come into play also on another level: the first staff used to position notes according to the octave scale is indeed constituted by the skin folds of the palm and fingers. The so-called Guidonian Hand — a four-line embodied staff that medieval monks used to learn music — is a device, as even the experts call it,[59] in which the palm works as a *surface for the inscription* of feelings, tones, gestures, intervals: all dimensions which need to be extracted, transformed into a sensorial material that the eye can see and the ear can hear.

The cinema enters this imaginary of manual transcription of gestures above all on a theoretical level. In the twenties, a consistent notion emerges in the theories of Vachel Lindsay, Marcel Jousse and Sergei Eisenstein: film is conceived as the hieroglyphic writing of gestures while the palm is featured as the screen onto which the body figures are inscribed. In 1915, Lindsay wrote that cinematic images are not to be literally construed, but should be 'read' as variants of around twenty

[57] Vincenzo Requeno, *Scoperta della chironomia, ossia, Dell'arte di gestire con le mani* (Parma: Fratelli Gozzi, 1797), which was based on the treatises by the English monk The Venerable Bede, c. 700 AD.
[58] Gilbert Austin, *Chironomia, or a Treatise on Rethorical Delivery* (London: W. Bulmer & Co, 1806).
[59] Stefano Mengozzi, *The Renaissance Reform of Medieval Music Theory: Guido of Arezzo between Myth and History* (Cambridge: Cambridge University Press, 2010), p. 62.

hieroglyphics corresponding to the Roman letters;[60] between 1929 and 1932 Eisenstein acknowledged the same leap from a figurative to an abstract level, from an iconic to a symbolic one, both in the transition from the single frame to the edited sequence (that does not sum up but multiplies the meaning of each image) and in hand lines, which he envisioned as 'the hieroglyphics of the expressive movements made by the hand', and as a material transcription of one's character.[61] A few years later, Marcel Jousse considered film frames as a graph of gestures, an updated version of the mimograms that the Amerindians carved on bark in sequences.[62]

The hand's capacity of translating ephemera into trace, similarly to cinema, is complementary to its second mediatic features, that is its crucial role in supporting imagination. The chiromantic tradition has fuelled the link between the hand and the imagination over the ages, but in modern culture, trace and mental images are interconnected through more rigorous parameters that are very similar to those employed in the theory of memory.[63]

In his fundamental media-archaeological study devoted to Freud as media theorist, Thomas Elsaesser associates the Freudian model of memory, the mystic writing pad, to digital media, both based on a play between material-latent traces and an iconic-phantasmatic phenomenon.[64] What can be added to this is how the imaginary of the hand provided an entirely corporeal version of the same mediatic functionality: the palm archives cipher experiences which can be accessed through particular techniques; not only sound experiences, as we have seen, but also one's entire life in the case of chiromancy, according to which the palm stands as a paradoxical place that archives the future. The imaginary of palmistry was significantly enriched in the years of cinema's birth: methods for visualizing the palm's signs through ink proliferated, sharing many features with the devices that collected fingerprints. The hands of many celebrities started to circulate under that form, from politicians to movie stars. At the end of the nineteenth-century, the hand reached a total and an unprecedented visibility. On one side, its depth was revealed thanks to X-rays, fostering an image in which the inside and the outside were blurred (as in the famous image of Roentgen's wife's wedding ring worn on a phalange). On the other side, the palm in black created by the popular clairvoyant Cheiro was printed in several books about new palmistry. Some decades later, the two images were blended in an Italian doctor's odd experiment that tried to X-ray palm lines (fig. 4).

[60] Vachel Lindsay, *The Art of the Moving Picture* (New York: MacMillan Company, 1915), p. 153.
[61] Sergei M. Eisenstein, 'The Cinematographic Principle and the Ideogram', in *Film Form: Essays in Film Theory,* ed by Jay Leida (New York: Hartcourt, 1949). For Eisenstein's idea of the palm as stenography of gestures, see Ackerman, p. 128.
[62] Marcel Jousse, *L'analyse cinématographique du mimisme* (École d'Anthropologie, 1932), in *Transcription des cours de Marcel Jousse*, 2 CD-ROM (Paris: Association Marcel Jousse, 2002).
[63] See for instance the theory of the wax imprints in George Muchery, *Traité complet de chiromancie déductive et expérimentale* (1931) (Paris: Edition du Chariot, 1958).
[64] Thomas Elsaesser, 'Freud and the Technical Media: The Enduring Magic of the Wunderblock', in *Media Archaeology. Approaches, Applications and Implications*, ed. by Erkki Huhtamo and Jussi Parikka (Berkeley, Los Angeles, London: University of California Press, 2011), pp. 95–115.

Fig. 4: X-ray of a hand's back with metal wires placed along the lines of the palm. From Ludovico Armani, *Chiromanzia e astrologia viste da un medico* (Milano: Fratelli Bocca, 1952)

The black ink used to 'print' palms in modern chiromancy is also the material that turns the palm into a real cinematic screen, as was somehow prefigured in the novel *Moonstone*, by Wilkie Collins (1868). Here, some Indian Brahmins in pursuit of a diamond use a stray to predict the future, and when they need to make forecasts, they pour black ink into the palm of their gifted boy: he freezes, staring at that liquid, inside which the events that are about to happen start to appear.[65] His pose is revealing: the boy is folded into himself, looking into a reflecting surface in which his own image should appear. Thus, this glossy liquid recalls something midway between the mirror and the photographic plate, black also being the colour of the pellicle: the dark and opaque mixture casted on one side of the transparent glass in mirrors, or the silver emulsion used to sensitize paper in analogue photography. In fact, the same *motif* resurfaces in early cinema precisely in the form of a screening of imminent events into a palmar mirror. In *Grandmother's Fables* (*Le fiabe della nonna*, Cines, 1908), a bridesmaid is able to see what is going to happen to her beloved knight by looking into her magic black

[65] I am grateful to Carlotta Santini and Alberto Frigo for drawing my attention to this piece by Collins: 'The Indian took a bottle from his bosom, and poured out of it some black stuff, like ink, into the palm of the boy's hand. The Indian — first touching the boy's head, and making signs over it in the air — then said, "Look". The boy became quite stiff, and stood like a statue, looking into the ink in the hollow of his hand'. From Wilkie Collins, *The Moonstone* (London: J.M. Dent & Sons, 1944), p. 16. Unfortunately, the 1934 filmic adaptation of this novel does not include this passage.

mirror, already a handheld device that permits to travel through space and time, reflecting the interbreeding of their multiple scales. Only some year later, the mirror was removed and these mediatic properties were directly transferred to the palm's skin: in Gance's *The Wheel* (*La roue*, 1923), chiromancy is represented exactly as a projection of a movie fragment on the protagonist's palm. Sisif's hand in close up is not framed as a subjective shot, it appears rather like a visual concept: it becomes our screen, a sort of corporeal frame of the images we are watching and certainly the deepest figurative convergence between the hand and the cinema. Perhaps we may fully understand the density of that image in the light of a frame taken from *Barbaric Land* (*Pays Barbare*, Yervant Gianikian and Angela Ricchi Lucchi, 2013), in which the directors scrutinize newly discovered photographic documents of the Italian fascist colonialism in Ethiopia. They often hold those shocking images in their open palms, and in one of these cases, we can almost touch the lines of the palm being prolonged by the scratches of the photographic print (fig. 5): we see the undug past of a country superimposed with the traces of the future, in a sort of implicit warning, albeit one contained in the sober gesture of offering a 'black' mirror in which we Westerners are asked to reflect ourselves.

Fig. 5: *Pays Barbare* (Yervant Gianikian, Angela Ricchi Lucchi, 2013). By courtesy of the authors.

Finally, if in modern imaginary the palm is the surface of the hand that supports imagination, the fingers acquire the ability to convey and transmit something which is not so much concrete (through the sense of touch and through contagion) than somehow intangible. According to Desbarrolles, the author of

one of the most influent and eclectic treatises of modern chiromancy,[66] palm lines function as traces carved by the passage of electromagnetic fluid, that is, flowing channels of the electricity that propagates from the brain through all the body, before being conveyed outside by the fingers. Between the eighteenth and the nineteenth centuries, many representations of palms attempted to provide a visualization of the electric shocks radiating from the top of the fingers (for instance, the popular hand drawn by the illustrator Eugène Lacoste in 1890) and it is all too easy to recall how much this idea has been exploited by mass culture, up to the most popular blockbuster fantasies of the present era in which it survives. We already know that mesmerism triggered the imagination of the modern media in any way, but the literature has mainly focused on the way it has affected the human eye,[67] while the hand also represented an extremely important model of mediality. Desbarrolles's conception of transceiver fingers, which he also describes as lungs that breath electricity in and out, can be fully inscribed in an archaeology of the 'connection machines'[68] that is soon to come, and perhaps also in that of the *digital* media.

[66] Adolphe Desbarrolles, *Les mystères de la main révélés et expliqués* (Paris: E. Dentu, 1859).
[67] With the relevant exception of: Ruggero Eugeni, 'Imaginary Screens: The Hypnotic Gesture and Early Film', in *Screen Genealogies: From Optical Device to Environmental Medium*, ed. by Craig Buckley, Rüdiger Campe and Francesco Casetti (Amsterdam: Amsterdam University Press, 2019), pp. 269–91.
[68] See *Book of Imaginary Media. Excavating the Dream of the Ultimate Communication Medium*, ed. by Eric Kluitenberg (Amsterdam, Rotterdam: NAI Publishers, 2006), pp. 157–85.