Technophobia and Italian Film Theory in the Interwar Period

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> Cinema would not change in any way its character, if specialized miniaturists painted the whole film in miniature, instead of it being photographed. [...] Image origins are indifferent to film art, since film "matter" lies only in internal relations between image series creating a unity, and so forth.
> – Eugenio Giovannetti, 1933

Somehow, Italian theorists of the interwar period, who were very suspicious of technology and of theoretical discourses concerning cinema technologies in particular, often explicitly disassociated themselves from technology. They were in some respect *technophobic*, meaning that they feared "the effects of technological developments on society."[1] In some ways, the attitude of Italian theorists toward technology is somewhat surprising as it stands in sharp contrast to Italy's own cultural heritage handed down by the Futurists, who, from the 1910s on, celebrated technology in art; it also stands in sharp contrast to the interest in cinema's technological newness within early European film theory (certainly in the 1920s) at large. To name but two particularly prominent theoretical debates of the period: the reflections on the power of the photographic image within French theorizing on so-called *photogénie*[2] by Delluc, Dulac, Epstein, and others; and the predominant role of scientific thinking on the (envisioned) effects of cinema technologies by Eisenstein, Pudovkin, Kuleshov, and others within the Soviet debate on the cinema.[3] Notably, many of the terms belonging to a transnational theoretical debate made their way into Italian discussion, which was coming into its own between the 1920s and the 1930s.[4]

Italian Theorizing in the Interwar Period

Italian film theory followed two main trends. On the one hand, it sought an aesthetic acknowledgment for cinema and related critical and theoretical discourses; in order to accomplish this task, Italian film theory needed to set some boundaries for the discussion by detaching it from practical and professional needs and placing it within the realm of philosophical speculation. To reach this

ultimate goal, film theory demanded to borrow philosophical conceptual tools,[5] forged by the prominent national philosophers of the time. On the other hand, film theory started to define and examine cinema within a media system as an apparatus belonging to modern life.[6] Following these two trends, a good deal of research has been done in Italy in previous decades.[7] In addition to previous research, my aim is to provide a description of the ways institutional, philosophical, and political frames determined film theory in its relation to technology and in its social action. This influence was not exclusively limited to highbrow, academic discussion. Even among intellectuals familiar with the European debate and film production, idealism affected many terms of the discussion. For instance, this was also the case with Enzo Ferrieri (1890-1969). Ferrieri was an active intellectual who played an instrumental role in the then recently created state radio broadcasting system. He was also a leading organizer of cultural journals and film clubs. Nonetheless, by examining his private archive, which contain the texts of his film lectures and correspondence, the influence of idealistic philosophical ideas on Ferrieri emerges rather clearly. I would consider this example as quite telling of a widespread condition of the national cultural debate.

Finally, recent historical research, as developed mostly in Italy and in the United States, focused on modernization processes taking place during the Fascist era, and more specifically during the 1930s.[8] It is certainly not my purpose to deny or challenge these assumptions, which I share for the greater part, specifically concerning production and reception processes. Nonetheless, I would like to partially reconsider these general assumptions by tracing the lineage of theoretical reflection and its idealistic sources, since idealism was quite at odds with modernization. By choosing such a line of inquiry, it is my intention to add some features to Italian film culture identity, which might partly explain the outburst of Italian film humanism in the post-war era as the underdevelopment of a high-tech industry, even though a huge industrial context was surrounding film production and the film market.

Idealist Legacies and the Attitude toward Technology and Science

The theoretical discussion of the technological apparatus of the cinema (*l'appareil de base*) was frequently dominated by accepted philosophical frameworks. This was not very conducive, as Collins and Pinch already indicated.[9] One might say that to Italian film theory the technological base of cinema was a black box. As Bruno Latour explains: "The word *black box* is used by cyberneticians whenever a piece of machinery or a set of commands is too complex. In its place they draw a little box about which they need to know nothing but its input and output."[10] Cinema was mostly discussed in terms of its (aesthetic) effects, barely taking into account its machinery – a word that was disdained itself.

Nevertheless, Italian film theory and the very few remaining traces of technology should be pondered for several reasons, if only because technological progress does not happen as a separated, one-way development, but as a multi-faceted process, where material components, scientific speculation, economic and industrial factors, and social needs continuously overlap. To quote Rick Altman,

> What is utmost needed is instead a theoretical approach that, although fully recognizing cinema's material and commercial nature, could also consider how film art responded in different ways to specific and relevant social functions as needs related to self-representation. [...] In fact, a full understanding of cinema's material and industrial basis implies considering both the existing technological multiple differences (cinematic or not) and their artistic, financial and social ends.[11]

Therefore, I will pay attention to these theoretical discourses because they were part of the collective knowledge concerning cinema and its technology. From this standpoint, dismissing the technology of cinema comprised a major part in this knowledge-building process, leading to peculiar outcomes. As a matter of fact, any scientific discourse in social as in semiotic terms implies a system of presuppositions,[12] i.e., its co-text.[13] I consider Italian film theory and its neglect of technology as a co-text for technological discourses in Italy, or for the lack of their full development in the interwar period.

Early-20th-century Italian philosophy, and specifically Italian idealism, played a significant role within this field in two different ways. On the one hand, two of the utmost influential philosophers, Benedetto Croce and Giovanni Gentile, openly rejected scientific knowledge as partial or false. For instance, Benedetto Croce examined and dismissed scientific concepts as pseudo-concepts, be they empirical (as those elaborated in natural sciences) or abstract (as those produced by mathematics). Pseudo-concepts, he argued, lack the duplicitous quality of real concepts that philosophical knowledge produces: universality and concreteness.[14] Giovanni Gentile in this respect was quite close to his elder colleague, for he, too, saw science as a particular (and limited) sort of knowledge. Both philosophers placed the humanities, i.e., philosophy and art (and history, in Croce's case), at the top of the knowledge processes: philosophy and art unified the spirit as a non-empirical knowledge. This antiscientific attitude originated in a reaction to positivism and the rise of new scientific methods, endangering the legacy of Western European thinking. By taking such a clear stance in early-20th-century national and European culture, Italian idealism determined a specific "knowledge" apparatus, producing elements of knowledge, in the sense of Foucault, as something that must conform to the rules and constraints belonging to a certain type of scientific discourse in a certain epoch.[15] Italian idealistic philosophy, I would argue, is a hegemonic scientific discourse, validating what is to be

admitted and acknowledged. The main reasons for my standpoint are twofold: firstly, philosophical concepts stemming from Croce's and Gentile's works are blatantly present in Italian film theory; secondly, and most significantly, the institutional influence exerted by both philosophers, through cultural institutions and governmental processes, led to an overall reform of school teaching. Giovanni Gentile was a prominent intellectual during the Fascist era; furthermore, he was also Minister of Education in 1922, realizing the school reform that Benedetto Croce fostered. As philosopher Pietro Rossi describes,

> The main polemic target upon which Croce and Gentile agreed was positivist culture, mostly the Italian one. But the battle against positivism also implied refusing scientific culture, or more specifically, refusing a culture in which science played a relevant role. [...] From the very start of the century Gentile was mostly engaged in transforming the Italian school system by declaring the role classical culture was to have in spiritual education, to which school itself must tend, and its supremacy on scientific culture. [...] The school reform was actually not so much "Fascist" – as the regime presented it – as it was inspired by idealistic principles.[16]

The school reform was among the main actions the new political regime imposed on the nation, and contributed in establishing a set of cultural and knowledge values that would endure in the following decades.[17] Among these values were the hegemony of classical culture and the humanities, and the pedagogical role assigned to the state. Fascist cultural politics also appointed intellectuals as mediators between highbrow and popular culture (for instance, cinema), and as educators.[18] In order to instruct the future ruling class, intellectuals ratified and disseminated the main cultural trends implied in the school reform and idealistic culture overall. This is why a new cultural institution, established in 1935 and devoted to the training of film industry personnel such as the people studying at Centro Sperimentale di Cinematografia (National Film Academy), imposed common topics for all students: universal humanities such as history of literature, art history, music history, *and* film history and film aesthetics, these latter two based on the previously established humanities model.[19] Thus, even in professional training technology was conditioned by the humanities, although the national film school and related publishing did contribute to the dissemination of technological knowledge through a series of handbooks.[20] In fact, Italian film theory and critical discourse built a hierarchy of knowledge, placing humanities at the very top, and science and technology underneath, as a necessary evil. To resume a wide range of positions, let us consider Gentile's authoritative statement, which he made in the preface to *Cinematografo* (an influential book in the field of film theory by Luigi Chiarini, who was soon to become the head of Centro Sperimentale di Cinematografia):

> In creation, the universe as an antecedent disappears or, if you prefer, is transfigured: it becomes the artist's world, infinite. *Technique dies down, art begins.* [...] *The problem is solved by overcoming or annihilating technique*; i.e., in representation, as the audience does not see any more the mechanism producing it; and *the man* that the audience sees before its eyes, is alive, not on the screen, but in the world.[21]

As this brief passage shows, *man and life* (as perceived of by humanism, and allegedly classical culture) prevail over technology, which is canceled out and merged in mere art. Technophobia in Italian film theory defines in paradigmatic terms a certain state of interwar Italian culture – in its relation to scientific knowledge and its application – a certain institutional order, and a set of actions spanning two decades.

The Sound of Theory

Regarding the interval of technophobia in Italian film theory between the 1920s and the 1930s two main areas of interest were constitutive: theoretical discourse itself (as explained above); and the transition to sound. Rick Altman already explained how much a specific epistemology – a *crisis historiography* as he called it – may help to understand the way a medium is shaped.[22] It seems to me that the Italian transition to sound may help to understand the contemporary attitude toward technology: 1) the shift draws observers to look at cinema from a historical perspective, forcing them to associate it to different states of being;[23] 2) this incites commentators to ask questions about the medium's technological nature and invites them to include technology itself as a medium's component; and 3) by significantly changing the apparatus's basic technology, the transition to sound in itself enhances cinema's material and technological basis.

The Italian transition to sound certainly created a very prolific and intense period both in terms of theoretical discourse and production. In the early 1930s, experimentation with sound technology in film production flourished, producing very peculiar films such as Resurrectio (Alessandro Blasetti, 1931), La canzone dell'amore (Gennaro Righelli, 1930), or Acciaio (Walter Ruttmann, 1933). Furthermore, technologically recorded and reproduced sound was at the heart of many reflexive films throughout the 1930s, ranging from transnational comedies, such as La telefonista (Nunzio Malasomma, 1932), to international style productions such as La signora di tutti (Max Ophuls, 1934). Nevertheless, these films seldom drew much theoretical attention, and in particular popular comedies were largely neglected, if not overtly despised. Most of the time, theoretical speculation did not directly refer to current national film production, and certainly not at the end of the 1920s, when there was hardly a relevant national film production to speak of. The wide and quite abstract debate

on the rebirth (*Rinascita*) of the national film industry after the bleak crisis of the mid-1920s merged with theoretical speculation.[24] Because of this connection, discourses on technology were very often related to a national issue. For instance, technology became a matter of national primacy in what concerned scientific inventions. To name but one example, in a rarely considered technological treatise popularizing film technology, its author opposes technological Italian imagination to a one-dimensional commercial Anglo-Saxon pragmatism:

> If we cannot be fierce enough merchants in the fight, we would do well to remember that we are Latin: recognizing our infinite genius might be a good idea. Let's draw our competitors into the arena of technique and fight them here, where we also have our weapons and know how to handle them. Let's fight here, where brains are more valuable than dollars. [...] In the name of technique we will be able [...] to win the battle for national film.[25]

In line with this, Fascism financially and politically supported the 40th anniversary of the cinema, and helped to display technology as an outcome of Latin genius.[26] Furthermore, Italian scientific culture seemed reactive to the needs of technological innovation, as a census of patents for color or sound technologies reveals.[27] At the same time, this kind of culture did not get much support, neither in theoretical debate, nor in industrial development policies from the silent era on. As Silvio Alovisio remarks, technology played a marginal role in film discourses, as industrial policies aimed at projecting and producing technology were sporadic.[28] Only rarely did critical and theoretical discourses articulate national issues with regards to industrial research and development: practically, critical reflection did not fully take into account the need for an articulate industrial basis in order to build a national cinema. If they did, they focused on the Hollywood film industry, referring to it with mixed feelings of admiration and despise. For instance, when commenting on THE SINGING FOOL (Lloyd Bacon, 1928), refined intellectual Alberto Cecchi criticized the way technical innovation affected the overall structure by turning film sequences from figuration to representation, from paintings into scenes.[29] On a more positive note, Cecchi also acknowledged the Hollywood film industry's unique achievements, based on the interconnection of industry, technology, and promotion.[30] In Cecchi's seminal view, this combination led to Hollywood's tendency to naturalize representations, narratives, and ethical values.[31] What was at stake was modernity itself, and the social processes that media unleashed. The effects of the cinema were felt everywhere. A quite peculiar intellectual in that era, Eugenio Giovannetti,[32] noted:

> Airplane, automobile, radio, television, cinema, gramophone work altogether in creating and gaining a cosmopolite audience, with an aesthetic and moral

> unity beyond any national boundary. [...] As an effect of mechanical arts, the world is turning into a unitary, limitless artistic democracy.[33]

The effect of technology, eventually feared by the traditional and established cultural organizations, was a loss of inherited privileges. Within this context, Giovannetti's enthusiasm about media induced transformations was largely ignored by his contemporaries.

The advent of sound raised a series of issues concerning technology and its power over aesthetic determination. Italian film theory, as a legacy of philosophical idealism, wanted to see artworks transfigure reality into a renewed form, following the artist's intuition and concept. This (idealist) position was well known and widespread at the time. As Luigi Chiarini observed in the mid-1930s, "cinematic reality, as pictorial or sculptural ones, is not reality, exactly reproduced, but artistic reality, i.e., transfiguration. [...] Every art transfigures in relation to its technique and, therefore, to its expressive means."[34] The most limited this technological capacity remained, the better it was for the expression, as Rudolf Arnheim's influential remarks on sound and cinema outlined.[35] What was at stake was expressive pureness planned by an artist, which sound technology might endanger by adding to representation raw expressive materials. In Italy, Luigi Pirandello was among the first to stigmatize sound cinema, since it dragged the attention of the audience away from representation to technology.[36] But at the heart of the issue is the confrontation between material and ideal elements, and the dismissal of the former, as artist and filmmaker Anton Giulio Bragaglia explained:

> The trouble with sound cinema is the gross spontaneity pertaining to crude sound reproduction of either music or dialogue. [...] The required transmutation and transfiguration of sound images, comparable to visual ones, is lacking here.[37]

Sound technologies led some theoretical accounts to couple sound to stereoscopic technologies. Both technologies were acknowledged for the ways in which they could enhance the resemblance to the real in some ways.[38] Nonetheless, theoretical speculation looked with suspicion at this resemblance, rejecting a key feature of cinematic technology: *mechanical reproduction*.

Reproduction and Animation

Emerging within European theoretical debate in the first half of the 20th century, mechanical reproduction has often served as a rhetorical feature to assess and point out cinema's difference from previous expressive forms, and its belonging to a wider range of media. Furthermore, mechanically produced images often

serve as a *visualization apparatus* in scientific discourse, as Françoise Bastide terms it, meaning that an apparatus's main task is making available to sight what is otherwise concealed.[39] Mechanical reproduction as the technology underlying cinematic representation is a crucial topic to be examined in many theoretical accounts. Nevertheless, Italian film theory systematically overlooked or reduced this fundamental element of cinematic representation. The technological and the mechanical were considered to be sinful qualities that prevented the medium's sanctification as an art in its own right. Italian film theory underestimated the power of photographic reproduction and omitted it from its discursive strategies to the point that most film theory volumes lack illustrations altogether.[40] Photographic illustration, however, dominated the popular film press. The dismissal of the mechanical did not exclusively concern institutional discourses, such as those that took place between the covers of highbrow journals or volumes on aesthetics. Informal discussions on cinema, such as those that took place within film club activity related to the journal *Il Convegno*, also regarded cinematic machinery as a negligible feature. The fact is much more striking if we take into account that the film clubs were screening avant-garde films as well as feature films on a regular basis; films that did not shy away from the technology issue, such as At 3:25 (Paris qui dort, René Clair, 1925), Freedom for Us (A nous la liberté, René Clair, 1931), or Ballet mécanique (Fernand Léger, 1924). At the start of the 1930s, Enzo Ferrieri declared in an unpublished lecture:

> By creating a cinematic rhythm, the director sets himself free from the machine's burden and enters the spiritual realm. Somehow, by being perfectly aware of the machine's value, instead of being subject to his tool, the director dominates it to the extent that he profits from all its possibilities, in order to achieve spiritual architectures of unprecedented beauty.[41]

The films screened in Ferrieri's circle as well as those he referenced consisted of world-famous examples of recent and current film art: French and German avant-garde filmmakers, Georg Wilhelm Pabst, Erich von Stroheim, Rouben Mamoulian, and others. These film choices seem at odds with Ferrieri's idealistic philosophical ideas about film, which provides a clue about the key issue here: the aim was less to enhance and evaluate technology's unprecedented functions in artworks, and much more to dismiss and conceal its role in order to stress cinema's resemblance to the established arts and to include it in their system, within a shared set of values. Such a stance is quite surprising, if we consider that during previous decades the national cultural arena saw the outburst of Futurism and its appraisal of technology, machinery, and new forms of vision. Extensive and in-depth research has been done on the topic of the Futurists and their appreciation of technology, which goes beyond the scope of this chapter and will not be addressed here.[42] However, despite this apparent recognition of

technology that took place prior to the technophobic period under discussion, it seems that Futurism did not truly influence the Italian theoretical debate regarding cinema as it was carried out in cultural journals and treatises; whereas its assumptions were much more influential in other forms of art such as painting and music. Nevertheless, the indirect influence of the Futurists can be traced in film practice, specifically during the sound era. For instance, in terms of motifs, a film such as WHAT SCOUNDRELS MEN ARE! (GLI UOMINI, CHE MASCALZONI!, Mario Camerini, 1932) celebrates movement and the machine: when Bruno's car speeds, it de-figures the landscape and thus emphasizes movement and the machine simultaneously. Similar influence can also be traced through poetic practices, such as sound composing: in O LA BORSA O LA VITA (Carlo Ludovico Bragaglia, 1932) recurring urban noises, as in the opening stock market sequence, foregrounds the technology of sound. Additionally, when film theory in Italy was defined as a discursive field, Futurism was partly institutionalized. If some references to past avant-garde filmmaking survived, this often happened in alternative film practices, such as architecture documentaries or subsidiary films,[43] Cineguf (Fascist university associations) film production, and alternative newsreels (for instance, SETTIMANA CINES).[44] Finally, Futurism itself was often interested in cinema's representational novelty, i.e., its aesthetic and linguistic peculiarity and modernity, however its technological specificity was not necessarily discussed in-depth. In this respect, the discussion on special effects or on slow and fast motion was fully inherited in late 1920s and early 1930s reflection.[45] In this regard, a cynical but interesting note can be found in Ferrieri's remarks, as he discusses the machine in Futurism as a strategy to preserve old mythical structures underneath the surface:

> Considering the "machine" as the only modern source of inspiration, creating the "speed myth," should be nothing but a need to grasp new spiritual contents to replace and banish the old ones.[46]

As with every cultural inheritance traces remain; however, instead of being celebrated as in Futurism, technology was dreaded and molded into a form acceptable to idealistic philosophy. As was the case with mechanical reproduction, technology was seen as an obstacle to the full rise of the film artist, i.e., the film director. The professional role envisioned for the film artist within the constraints of idealistic philosophy and based on the unity of the subject, played a crucial role in Italian theoretical debate.[47] Alberto Consiglio explicitly advocated cinema as an individual art form, and therefore an art in its own right.[48] In order to consider cinema an art according to idealistic philosophy, theoretical debate needed to dismiss technology, specifically the expressive means of technology, and claim an individual creator as a savior. Commentators suggesting that cinema should be considered among the figurative arts[49] were attacked, although

they stayed within the realm of idealistic philosophy: true art does not need any expressive specification.[50]

Photography as a topic was introduced to the debate, but it was barely considered a scientific means to analyze and describe reality beyond the capacities of the human eye. Photography, so closely associated with cinema *did* enter into the Italian debate[51] via the French notion of *photogénie*.[52] Moreover, Béla Balázs's writings, translated into Italian from the early 1930s on, had already spread among contemporary Italian intellectuals. Photography, was understood as a creative resource, a means to realize the artist's intuition by overcoming reality (and its reproduction). Furthermore, photography could grasp the ideals beyond physical appearances. As Bragaglia declared, when describing his Futuristic photographic experiences in the 1910s, known as photo-dynamism (*fotodinamismo*):

> We strived to make photo-dynamism less and less photographic, and to portray more and more dematerialized – and, thus, more and more idealized – moving figures. This is because reality appalls us as a result of its indifference and materiality.[53]

Figuration is privileged over reproduction, as in classical culture and idealism. As Bragaglia declares:

> The more slowly [a gesture] is performed, the less deformed, the more unreal, ideal, lyrical, as extracted from its personality and closer to [a universal] *type* it will be, with the same deforming effect the Greeks sought for their beauty *types*.[54]

Later on Bragaglia opposes photo-dynamism to cinematography (as understood in Marey's scientific research, to whom he expressly refers). One would be hard-pressed to find a more clear-cut opposition between a classical culture, often underlying Futuristic claims, and a scientific one. Figuration appears the best solution available, in order to preserve a subjective creation over the scientific apparatus. And animation fitted perfectly in this frame of thinking. Unsurprisingly, it was praised by some Italian film theorists as the pure essence of cinema.[55] This appraisal concerned early Hollywood animation, such as Pat Sullivan's Felix the Cat cartoons (starting in 1919), but also Europe's first attempts at animation, as in the case of Lotte Reininger's films. As the film critic and future successful screenplay writer Ettore Maria Margadonna wrote:

> I dare to say that pure cinema, the purest, are "cartoon songs." Their main characteristic feature is easy to describe: "cartoon songs" are untranslatable and *non-reproducible*, they are just cinema and nothing else.[56]

Margadonna's words indicate why non-mimetic cinematic models such as "cartoon songs" played a relevant role in the theoretical reflection on the cinema: they were symptomatic of the suspicions and dismissal of the technological basis of film. Nevertheless, after WWII theoretical debate mostly concealed the expressive potential of non-mimetic cinematic models and marginalized them as a subsidiary or minor part in theoretical reflection.[57] Nevertheless, Italian film theory occasionally promoted animation as pure cinema because of its closeness to traditional, non-reproducible art forms, such as miniature, thus proving how much one dreaded the social, cultural and hierarchical shifts film technology could elicit if given free reign. It is by no chance, for instance, that Ferrieri promoted The Adventures of Prince Ahmed (Die Abenteuer des Prinzen Achmed, Lotte Reininger, 1926),[58] a renowned German animation movie based on hand-made silhouettes. The profile of these slim, enchanting figures was decidedly more capable of resembling ephemeral ideals, or miniatures, than any photographed bodily appearance could have been.

tute, 1978), Bernadette Poliwoda, *FEKS – Fabrik des exzentrischen Schauspielers. Vom Exzentrismus zur Poetik des Films in der frühen Sowjetkultur* (München: Verlag Otto Sagner, 1994), and Oksana Bulgakowa, *FEKS. Die Fabrik des exzentrischen Schauspielers* (Berlin: Potemkin Press, 1996).

10. For the significance of the music hall for Italian and Russian futurists as well as some relations between classical avant-garde and popular entertainment media see Wanda Strauven, "The Meaning of the Music-hall: From the Italian Futurism to the Soviet Avant-garde," *Cinéma & Cie* 4 (Spring 2004): 119-134.
11. See Annie van den Oever, ed., *Ostrannenie: On "Strangeness" and the Moving Image – The History, Reception, and Relevance of a Concept* (Amsterdam: Amsterdam University Press, 2010).
12. See Denise J. Youngblood, *Movies for the Masses: Popular Cinema and Soviet Society in the 1920s* (Cambridge: Cambridge University Press, 1993), and Ian Christie and Richard Taylor, eds, *Inside the Film Factory: New Approaches to Russian and Soviet Cinema* (London & New York: Routledge, 1991).
13. See for a wider contextualization David Bordwell, "The Idea of Montage in Soviet Art and Film," *Cinema Journal* 11, no. 2 (Spring 1972): 9-17.
14. Jay Leyda, *Kino: A History of the Russian and Soviet Film* (London: George Allen & Unwin, 1960), 175.
15. See the examples in Evgenij Margolit, "Der sowjetische Stummfilm und der frühe Tonfilm," in *Geschichte des sowjetischen und russischen Films*, ed. Christine Engel (Stuttgart & Weimar: Metzler, 1999), 17-67, here 23f.
16. A film like Vsevolod Pudovkin's MYEKHANIKA GOLOVNOGO MOZGA (MECHANICS OF THE BRAIN, 1926) could be seen as a perfect illustration of this intersection.
17. Vance Kepley, Jr., "Building a National Cinema: Soviet Film Education, 1918-1934," *Wide Angle* 9, no. 3 (1987): 14.
18. Mikhail Yampolski, "Reality at Second Hand," *Historical Journal of Film, Radio and Television* 11, no. 2 (1991): 161-171, here 165.
19. See David Bordwell on "techne-centred aesthetics" in his *The Cinema of Eisenstein* (Cambridge, MA: Harvard University Press, 1993), 35-39.
20. See Laura Vichi, *Henri Storck. De l'avant-garde au documentaire social* (Crisnée: Éditions Yellow Now, 2002), 23ff
21. See Günter Agde et al., eds, *Die rote Traumfabrik. Meschrabpom-Film und Prometheus (1921-1936)* (Berlin: Bertz + Fischer 2012).

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1. *Technophobia*, in *Collins English Dictionary* (London: Harper Collins, 2013), available at http://www.collinsdictionary.com/dictionary/english/technophobia?showCookiePolicy=true.
2. For a extensive account on this debate see Richard Abel, *French Film Theory and Criticism, 1907-1939* (Princeton: Princeton University Press, 1993).

3. For a general framing of these discussions, see Ian Christie and Richard Taylor, eds, *The Film Factory: Russian and Soviet Cinema in Documents, 1896-1939* (London & New York: Routledge, 1988).
4. For a detailed and seminal description of this process see Francesco Casetti, "Nascita della critica," in *Cinema italiano sotto il fascismo*, ed. Riccardo Redi (Padova: Marsilio, 1979), 145-164. See also Gian Piero Brunetta, *Intellettuali, cinema e propaganda tra le due guerre* (Bologna: Patròn, 1972); Gian Piero Brunetta, *Storia del cinema italiano, vol. 1. Il cinema muto: 1895-1929* (Rome: Editori Riuniti, 1993).
5. Some intellectuals explicitly asked for such a theoretical placement. See for instance Alberto Consiglio, "Per un'estetica del cinema," *L'Italia letteraria* 40 (4 October 1931): 5; "Per un'estetica del cinema [2]," *L'Italia letteraria* 41 (11 October 1931): 5; "Per un'estetica del cinema [3]," *L'Italia letteraria* 42 (18 October 1931): 5.
6. See Ruggero Eugeni, "Modelli teorici e critici (1924-1933)," in *Storia del cinema italiano. 1924-1933*, ed. Leonardo Quaresima (Venice: Marsilio, forthcoming), courtesy of the editor.
7. Besides the above mentioned contributions, consider also Fabio Andreazza, *Identificazione di un'arte. Scrittori e cinema nel primo Novecento italiano* (Rome: Bulzoni, 2008); *Bianco e nero* 550/551, special issue *Microteorie: Cinema muto italiano*, eds. Luca Mazzei and Leonardo Quaresima (2004-2005).
8. See the following contributions: James Hay, *Popular Film Culture in Fascist Italy* (Bloomington & Indianapolis: Indiana University Press, 1987); Jacqueline Reich and Piero Garofalo, eds, *Re-viewing Fascism: Italian Cinema, 1922-1943* (Bloomington: Indiana University Press, 2002); Vincenzo Buccheri, *Stile cines: studi sul cinema italiano 1930-1934* (Milan: Vita e Pensiero, 2004); Vito Zagarrio, *Cinema e fascismo. Film, modelli, immaginari* (Venice: Marsilio, 2004); Raffaele De Berti and Massimo Locatelli, eds, *Figure della modernità nel cinema italiano (1900-1940)* (Pisa: ETS, 2008).
9. See Harry Collins and Trevor Pinch, *The Golem: What Everyone Should Know about Science* (Cambridge: Cambridge University Press, 1993).
10. Bruno Latour, *Science in Action* (Cambridge, MA: Harvard University Press, 1987), 2.
11. Rick Altman, "La parola e il silenzio. Teoria e problem generali di storia della tecnica," in *Storia generale del cinema, Teorie, strumenti, memorie*, ed. Gian Piero Brunetta (Turin: Einaudi, 2001), vol. 5, 835 [my translation].
12. See Françoise Bastide, "Essai d'épistémologie à partir d'un texte technique sans prétention: une invention peu connue des frères Lumière," *Fundamenta scientiae* 2 (1985): 127-150.
13. Paolo Fabbri, "Introduzione," in *Una notte con Saturno. Scritti semiotici sul discorso scientifico*, Françoise Bastide, ed. Bruno Latour (Palermo: Meltemi, 2001), 9-23. Fabbri talks about the scientific text in these terms: "The text does not perform a prescribed code. Instead, one proceeds from the code (through dis-implication and re-figuration) to an underlying code's hypothesis. Reading does not happen by merely applying ready-made models, but requires the preliminary definition of an adequate co-text [...], i.e., a pertinent *corpus*" (12-13).
14. See Benedetto Croce, *Logica come scienza del concetto puro* (Bari: Laterza, 1909).
15. See Michel Foucault, *Dits et écrits*, vol. 2., ed. Daniel Defert and François Ewald (Paris: Gallimard, 1994), 54-55.

16. Pietro Rossi, "L'idealismo italiano," in *Storia della filosofia. Il Novecento*, ed. Pietro Rossi and Carlo A. Viano, vol. 1 (Rome & Bari: Laterza, 1999), 130, 132-133.
17. See Alessandra Tarquini, *Il Gentile dei fascisti. Gentiliani e antigentiliani nel regime fascista* (Bologna: Il Mulino, 2009); Alessandra Tarquini, *Storia della cultura fascista* (Bologna: Il Mulino, 2011).
18. See Gabriele Turi, *Lo stato educatore. Politica e intellettuali nell'Italia fascista* (Rome & Bari: Laterza, 2002).
19. See Luigi Freddi, *Il cinema. Il governo dell'immagine* (Rome: C.S.C./Gremese, 1994), 214.
20. See, for instance, Ernesto Cauda, *Il cinema a colori* (Rome: Bianco e nero, 1938); Libero Innamorati and Paolo Uccello, *La registrazione del suono* (Rome: Bianco e nero, 1938); or many contributions appearing in the journal related to Centro Sperimentale di Cinematografia, *Bianco e nero*, from 1937 on.
21. Giovanni Gentile, "Prefazione," in *Cinematografo*, ed. Luigi Chiarini (Rome: Cremonese, 1935), 4-5 [my italics and translation]. The influence of Gentile's philosophy over Chiarini's film theory is described in Ernesto G. Laura, "Luigi Chiarini e il film come assoluta forma," *Bianco e nero* 7-8 (July-August 1962): 18-66. See also Brunetta, *Intellettuali, cinema e propaganda tra le due guerre*.
22. See Altman, "La parola e il silenzio," 839-850. See also Altman's *Silent Film Sound* (New York: Columbia University Press, 2004), 15-23.
23. About this historical building process, see Silvio Alovisio and Luca Mazzei, "'The Star That Never Sets': The Historiographic Canonisation of Silent Italian Cinema," in *Il canone cinematografico/The Film Canon*, ed. Pietro Bianchi, Giulio Bursi and Simone Venturini (Udine: Forum, 2011), 393-404. Just as an example of historical perspective related to technological evolution and style, see Antonio Petrucci, "Cinematografia: dello stile," *Quadrivio* 1 (6 August 1933): 10.
24. For a very detailed and inspiring discussion of Italy's transition to sound, see: Paola Valentini, *Presenze sonore. Il passaggio al sonoro in Italia tra cinema e radio* (Florence: Le Lettere, 2007). For an account focused more specifically on technological issues, see Paola Valentini, "L'ambiente sonoro del film italiano degli anni Trenta. Tecnologia cinematografica e contaminazione del paesaggio mediale," in *Svolte tecnologiche nel cinema italiano. Sonoro e colore, Una felice relazione fratecnica ed estetica*, ed. Sandro Bernardi (Rome: Carocci, 2006), 27-48.
25. A. Nanni, *Tecnica e arte del film. Tra le quinte della cinematografia* (Milan: Vallardi, 1931), 142, 146 [my translation].
26. Besides the volume *40° anniversario della cinematografia (1895-1935)* (Rome: Sottosegretariato di Stato per la Stampa e la Propaganda, 1935), see: Elena Mosconi, "L'invenzione della tradizione. Le celebrazioni per il quarantennale del cinema," in *L'invenzione del film* (Milan: Vita e Pensiero, 2006), 209-226; Luca Mazzei, "Luigi Chiarini alla Mostra e il primato morale, civile e cinematografico degli italiani," *Bianco e nero* 562 (January-April 2009): 9-23.
27. See Alberto Friedemann, "Appendice 1. Brevetti italiani di cinematografia Sonora concessi dal 1900 al 1934," in *Svolte tecnologiche nel cinema italiano*, 181-187; Federico Pierotti, "Appendice 2. Brevetti italiani di cinematografia a colori concessi dal 1930 al 1945," in *Svolte tecnologiche nel cinema italiano*, 188-191. The mentioned volume is

part of a book series, "Cinema/Tecnologia," presenting the results of state-funded research devoted to Italian film technology: "Cinema Technology, Technology in Cinema." Francesco Casetti coordinated the research in the years 2002-2004.

28. Silvio Alovisio, "Lo spoglio delle riviste del cinema muto italiano: il *corpus* e I primi risultati," in *Cinema muto italiano: tecnica e tecnologia. Discorsi, precetti, documenti*, ed. Michele Canosa, Giulia Carluccio and Federica Villa (Rome: Carocci, 2006), 49-57. This book also belongs to the above-mentioned series.
29. Alberto Cecchi, "Cinelandia – Il cantantepazzo," *L'Italialetteraria* 19 (19 May 1930): 5.
30. See, for instance, the brief marginal remarks in Alberto Cecchi, "Cinelandia-Femmine del mare," *L'Italia letteraria* 3 (19 January 1930): 5.
31. Alberto Cecchi, "Cinelandia-Notti di principi," *L'Italia letteraria* 11 (23 March 1930): 5.
32. Eugenio Giovannetti distinguished himself within the national debate for his interest in cinema as a medium itself, radically renewing the production of culture – this peculiar perspective was widely derived from Béla Balázs, whom not many Italian intellectuals knew in the late 1920s.
33. Eugenio Giovannetti, *Il cinema e le arti meccaniche* (Palermo: Sandròn, 1930), 14, 25. An insightful comment on Giovannetti to be found in Francesco Casetti, *Eye of the Century: Film, Experience, Modernity* (New York: Columbia University Press, 2008), 87.
34. Chiarini, *Cinematografo*, 81.
35. See, for instance, Rudolf Arnheim, "Nuovo Laocoonte," *Bianco e nero* 8 (1938): 3-33. Arnheim fled Nazi persecution and went into Italian exile, where he took part in a series of cultural activities concerning cinema. For his Italian activity see Rudolf Arnheim, *I baffi di Charlot. Scritti italiani sul cinema (1932-1938)*, ed. Adriano D'Aloia (Turin: Kaplan, 2009).
36. Luigi Pirandello, "Se il film parlante abolirà il teatro," *Il Corriere della Sera* (16 June 1929); now in Francesco Càllari, *Pirandello e il cinema: con una raccolta completa degli scritti teorici e creativi* (Venice: Marsilio, 1991), 120-125.
37. Anton Giulio Bragaglia, *Film sonoro* (Milan: Corbaccio, 1929), 54 [my translation].
38. See, for instance, Nanni, *Tecnica e arte del film*. Generally speaking, sound was often described as a three-dimensional perception, whereas the image was related to graphics and thus considered bi-dimensional. See Virgilio Lilli, "Problema dell'attor muto e dello spettatore sordo," *L'Italia letteraria* 2 (11 January 1931): 5.
39. Françoise Bastide, "Iconographie des textes scientifiques: principes d'analyse," *Culture technique* 14 (1985): 133-151.
40. One of the few exceptions is Ettore Maria Margadonna, *Cinema ieri e oggi* (Milan: Domus, 1932), which is widely and brightly illustrated. Margadonna, a very lively and eclectic intellectual, was well aware of the European debate, mostly German, and had a specific interest in the film industry itself. He took part in the contemporary theoretical debate by contributing to such highbrow journals such as *Comoedia*, *Il Convegno*, and *Cine-convegno*, but he was not exclusively interested in aesthetically legitimizing cinema. Consider the fact that his book was criticized in Italy as not adequately representing national needs and interests. See Ettore Maria Margadonna, *Letter to Enzo Ferrieri*, unpublished document (28 February 1933 [?]), "Enzo

Ferrieri Archive-Fondazione Arnoldo e Alberto Mondadori," courtesy of the foundation. Therein Margadonna expresses his sorrow for the attacks to his recent publication, and for the fact that *Il Corriere della Sera*'s film critic, Filippo Sacchi, complained about the lack of due attention to Italian cinema.

41. Enzo Ferrieri, *Il cinematografo come fatto estetico*, unpublished and undated lecture [presumably 1933], typescript with hand-made remarks, Class. 1.3, Fasc. 3, "Enzo Ferrieri Archive-Fondazione Arnoldo e Alberto Mondadori," courtesy of the foundation [my translation]. However, Ferrieri was perfectly aware of cinema- and media-induced transformations: as a commentator, as well as a state radio manager, he did not reject such media shifts.
42. For extensive and in-depth research on the topic see, at least: Mario Verdone, *Cinema e letteratura del futurismo* (Rovereto (TN): Manfrini, 1990); Giovanni Lista, *Cinema e letteratura del futurismo* (Milan: Skirà, 2001); Wanda Strauven, *Marinetti e il cinema: tra attrazione e sperimentazione* (Pasian di Prato (UD): Campanotto, 2006); Giovanni Lista, *Il cinema futurista* (Recco (GE): Le Mani, 2010).
43. See Leonardo Quaresima, "Cinéma, rationalisme, modernisation: de la Triennale de Milan à l'E42. Sur deux films de Piero Bottoni et Corrado D'Errico," in *Cinéma, architecture, dispositif*, ed. Elena Biserna and Precious Brown (Pasian di Prato (UD): Campanotto, 2011), 26-35.
44. Luca Mazzei, "Balletto meccanico. Le riviste Cines," *Bianco e nero* 553 (September-December 2005): 81-87.
45. See, for instance, Enzo Ferrieri, "Untitled lecture," unpublished and undated lecture [presumably 1933], typescript with hand-made remarks, Class. 1.3, Fasc. 3, "Enzo Ferrieri Archive-Fondazione Arnoldo e Alberto Mondadori," courtesy of the foundation [my translation].
46. *Ibid*., 15 [my translation].
47. For Croce's legacy in the debates carried out in film journals, see Andreazza, *Identificazione di un'arte*, 146-152.
48. See Alberto Consiglio, *Introduzione a un'estetica del cinema e altri scritti* (Napels: Guida, 1932), 38. See also Enzo Ferrieri, "Cinema," *Cine-convegno* 1 (25 February 1933): 1-4.
49. Carlo Ludovico Ragghianti, "Cinematografo rigoroso," *Cine-convegno* 4 (25 June 1933): 69-92.
50. Alberto Consiglio, "Estetica generale ed estetica del cinema," *Cine-convegno* 6 (25 October 1933): 102-113. This theoretical controversy was expressly intended to defend idealistic tradition, as a private correspondence between Consiglio and *Il Convegno* and *Cine-convegno*'s head, Enzo Ferrieri, proves. Three letters from Consiglio to Ferrieri, dated September 2, September 29, and October 2, 1933 testify to this. See "Enzo Ferrieri Archive-Fondazione Arnoldo e Alberto Mondadori," courtesy of the foundation.
51. See, for instance, Giacomo Debenedetti, "Risorse del cinema (frammento di una conferenza)," *Il Convegno* 6 (25 June 1931): 321-337; now in Giacomo Debenedetti, *Al cinema*, ed. Lino Micciché (Venice: Marsilio, 1983), 23-42.
52. For instance, intellectuals around the film club that *Il Convegno* organized, were aware of the French debate and of the so-called first wave film productions, as the

documents related to the film club's activities show. See "Enzo Ferrieri Archive-Fondazione Arnoldo e Alberto Mondadori," courtesy of the foundation.

53. Bragaglia, *Film sonoro*, 18 [my translation].
54. *Ibid*., 20 [my translation].
55. See, for instance, Enzo Ferrieri, "Il film di silhouettes," unpublished and undated lecture [presumably 1933], typescript with hand-made remarks, Class. 1.3, Fasc. 3, "Enzo Ferrieri Archive-Fondazione Arnoldo e Alberto Mondadori," courtesy of the foundation.
56. Ettore Maria Margadonna, "Felix, Mickey, Oswald and Co. (Cioè la cosa cinematografica vera e propria)," *Il Convegno* 3-4 (25 April 1930): 128-136 [my italics]. See also Alberto Cecchi, "Cinelandia-Cartoni animati," *L'Italia letteraria* 12 (30 March 1930): 5.
57. See Tom Gunning, "Moving away from the Index: Cinema and the Impression of Reality," in *Screen Dynamics: Mapping the Borders of Cinema*, ed. Gertrud Koch, Volker Pantenburg and Simon Rothöler (Vienna: Österreichisches Filmmuseum, 2012), 42-59.
58. See Ferrieri, "Il film di silhouettes."

Jean-Luc Godard's Histoire(s) du Cinéma: *Cogito Ergo Video*

1. Time indications are based on the Japanese edition of Godard's film (Imagica, 2001). This may vary slightly from other editions. For the Gaumont edition (2007), 21 or 22 seconds must be added to the time code indicated here.
2. Jean-Luc Godard and Youssef Ishaghpour, *Cinema: The Archaeology of Film and the Memory of a Century*, trans. John Howe (Oxford & New York: Berg, 2005), 36.
3. Ernst Lubitsch, 1942.
4. Cf. Jacques Aumont, *Amnésies. Fictions du cinéma d'après Jean-Luc Godard* (Paris: P.O.L., 1999), 241-242.
5. Élie Faure, *Fonction du cinéma* (Paris: Denoël-Gonthier, Médiations, 1953), 82.
6. "I like objects. In my editing room, there is a notice on the machines: 'Be gentle with us, we are not human beings'" (Jean-Luc Godard, "Editing, Loneliness and Liberty," comments made at a conference on April 26, 1989, available at http://www.directors.ocatch.com/s/Godard/conference_Godard.htm; French version in Godard, "Le montage, la solitude et la liberté," *Jean-Luc Godard par Jean-Luc Godard, Volume 2: 1984-1998*, ed. Alain Bergala [Paris: Cahiers du cinéma-éd. de l'Étoile, 1998], 243).
7. Béla Balázs, *L'Esprit du cinéma*, trans. J.M. Chavy (Paris: Payot, 1977), 234.
8. Chapter 1b, 0'13''.
9. Chapter 1a, 44'55''. Godard's voice is heard pronouncing those words in figure 2.
10. In "Hiroshima, notre amour," *Cahiers du cinéma* 97 (July 1959): 5.
11. 1b [10'11'', 25'14'', 28'03'', 29'05'', 30'02'']; 2b [9'22''- 9'53'', 10'36'', 23'08''].
12. Ernst Lubitsch, 1942.
13. Chapter 1b, 0'14''.
14. Robert Bresson, *Notes on Cinematography*, trans. Jonathan Griffin (New York: Urizen Books, 1977), 45.