On Space in Cinema

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Abstract
The relationship between space and cinema is problematic. Cinema can be seen as a spatial art par excellence, but there are good reasons why this view is superficial. This article focuses on geographical films, which aim to increase our understanding of this dimension of the social world by attempting to depict inhabited space and the inhabitance of this space.

The argument is developed in two stages. First, I attempt to show the absence both of space as an environment and of spatiality as an agency in cinematographic production. Both of these contribute to geographicity. Second, I put forward and expand on the idea of opening up new channels between cinema and the social sciences that take space as their object. This approach implies a move away from popular fiction cinema (and its avatar the documentary film) and an establishment of links with aesthetic currents from cinema history that are more likely to resonate with both geography and social science. The article concludes with a “manifesto” comprising ten principles for a scientific cinema of the inhabited space.

Keywords: space, spatiality, cinema, history of cinema, diegetic space, distancing, film music, fiction, documentary, scientific films

Space appears to be everywhere in film, but in fact it is (almost) nowhere. This observation leads us to reflect on the ways in which space is accommodated in films. I will focus in particular on what could be termed “geographical” films in the sense that they aim to increase our understanding of this dimension of the social world by
attempting to depict inhabited space and the inhabitance of this space. In this article, the argument will be developed in two stages. First, I will try to show the uncertainty surrounding not only the presence of space as environment but also spatiality as action—geographicity, in short—in the dominant forms of film language. I will then attempt to argue that new kinds of association between the social sciences of space and the cinema are possible.

Such a plan requires a loosening of the hold that popular fiction film (and its avatar the documentary film) has and an establishment of links with aesthetic currents from cinema history that are more likely to resonate with both geographicity and social science. Since this article sets out to create a coherent intellectual framework within this geographical approach to the social world, which can be used to inform both film and, more broadly, audiovisual languages, it is clear that the first of the two stages above is absolutely essential for the purposes of demonstration. If it were the case that the most common and accessible forms of cinematographic culture provided a solid foundation for a scientific cinema of space, we could skip the critique stage and go straight to the matter in hand. It is immediately clear, however, that this is not the case, and so we must first engage in a re-reading of film history.

1 Cinema from a Geographical Perspective: The Space between the Set and the Character

In *L'espace au cinéma* (1993), Gardiès distinguishes four kinds of space linked to cinema:

1. cinematographic space: this is the “institutional” setting (e.g., the movie theater, various domestic environments containing screens, or mobile screening devices), which viewers are immersed in or exposed to and which enables them to view the film
2. diegetic space: this is what the film constructs as a reality independent of the story (and within which Gardiès uses places to actualize a space that would otherwise remain virtual)
3. narrative space: this is the specific spatiality of the characters, which contributes to giving substance to the story in which they are involved
4. viewer space: this is the spatiality produced by the mode of communication that the film adopts towards the viewer, for example the choice between localization (communication using cinematographic language) and monstration (communication through interpreting what is shown), to use Gardiès’s terminology.

There is a clear difference between the second and third of these. The third, narrative space, is a framework for the action and has no meaning apart from the action. It may be incoherent, or even unbelievable. The elements in shot and out of shot do not form a realistic spatial configuration. They often contradict each other, however that is not important to the director, who is only interested in how the action is perceived. This is demonstrated in Renoir’s 1936 Le Crime de Monsieur Lange (see Séguin 1999), Polanski’s 1968 Rosemary’s Baby, and Tati’s 1967 Play Time. The latter two are the same in this respect. In Rosemary’s Baby, a specific architectural setting seeks to give convincing material form to the movie’s intangible evil (Maniglier 2010). In Play Time, as has been demonstrated in collectif_fact (2004), the layout of the offices, which Tati’s character passes through, lacks the credibility and coherence that the film would have us believe exists. The common element is that these service spaces foreground (both literally and figuratively) the characters’ movements, even when they construct a geometrically nonsensical or simply unrealistic world. The whole aim is to create a universe that is easy for viewers to access because it apparently contains familiar reference points. This dissonance is only possible thanks to the viewers’ great capacity for ellipsis, that is, they are able to feel at ease in a spatial setting even though a large part of it is visually absent.

Conversely, in (2) above, diegetic space poses problems in terms of following the action. A city is a complex geographical system that cannot be reduced to the movements of the characters who use it and pass through it. What happens when you want to show proximity where there is separation, or vice versa? In practice, the logic of the plot often imposes a cavalier attitude toward the city’s geography. The city becomes a variable that can be adjusted and abused wherever the practical constraints of shooting, the means of expression (particularly the choice of how much to leave out), or the economy of the narrative demands it, without undermining the project.
In this sense, the narrative/diegesis duality does not tally with the spatiality/space pairing (Lévy and Lussault 2013). From a geographicity approach centered on actors who make do with the space available, the logic of the spatial environment (whether these are seen as restrictive settings, useful positions, or a transformable context) is always present. However, narrative space ignores this logic and makes the characters evolve as if the environment were determined by the rhythm and function of the action. Diagetic space begins precisely when this geography takes on an organizing function and, by virtue of its very constraints, becomes a resource for the scenario to use. Hence, in Wenders’s “road movies,” such as Alice in the Cities (1974), The American Friend (1977), and Lisbon Story (1994), Wuppertal, Hamburg, and Lisbon impose their own configuration, and the films would be very different if this were not the case. On a different scale, Tanner’s Messidor (1979) and Salles’s Central Station (1998) do not just respect the geographical layout of Switzerland and Brazil, they turn them into a primary resource for the film. The various places passed through are not simply a travelogue; they enter into relationships that are primarily defined by distance.

Gardières’s productive categorization is convincing; all of these categories form part of what is spatial in a film. However, in general, the apparent paradox is that space rarely features in movies. Cinema is, of course, made up of a number of languages that are spatial by definition in that they consist first and foremost of images. However, it is certainly possible to direct messages to our visual apparatus that prove to be fragile. They are fragile, first of all, because they are fleeting. This is one of the differences between a movie (even one that features fixed images) and a photograph. They are also fragile because, as we now understand visual perception, the visual flux relayed through the eye is seen not as a succession of images that can be isolated and identified as such, but as a means of managing our relationship with the environment. When we walk, for example, the information we receive from our eyes is strongly related to movement and, indeed, as neuroscience research has shown, is an inherent part of it (Berthoz 1997). Managing movement requires particular ways of extracting visual information to enable immediate mobilization for action and also ignoring much of what we see, for example, when we look at a landscape. The relative permanence of the data captured by our eyes enables us to interpret what we see both
synchronously (as if we see everything simultaneously, even though this is technically not the case since our gaze sweeps rapidly over a space) and as a configuration (the eye actively constructs the image and organizes its space). Thus, the image is formed by its spatiality, that is, by the relationships of distance between its various elements.

Conversely, the “image” element may be erased by the visual flux. Film privileges the latter primarily because of its technology, which tends to prevent the gaze from fixing itself on anything by presenting an uninterrupted succession of constantly changing visual objects. Another reason why visual flux is favored lies in the specific direction that cinema took after the 1930s. In this sense, in the most common form of spectator/film interaction, the film is watched rather than seen. As we shall see, this technical choice echoes the emphasis on narration and correspondingly removes from the cinematographic language the awareness of anything in the image not directly connected with the story, in particular its geographicity.

1.1 Plot Dictatorship and the Primacy of Genre

In Le Mépris (1963), For Ever Mozart (1996), and Histoire (s) du cinéma (1998), Godard quotes a phrase that he mistakenly attributes to Henri Bazin: “The cinema substitutes for our gaze a world more in keeping with our desires.”¹ There is some semantic incoherence here. What the world in keeping with our desires supplants is not our gaze but another world, which we could look at instead of watching movies. It is a striking statement nevertheless and, in my view, a true one. It sums up cinema history, particularly the post-silent-movie period. As early as 1923, Vertov (1984, 71) warned that “Film-drama is the opium of the people.”

The cinema, in its broadest sense of moving images with sound, soon became the preeminent storytelling language. It eclipsed the rival that had occupied pride of place for centuries, namely literary fiction and, in particular, the novel. By the beginning of the twentieth century, the novel had reached the height of its potential in its capacity to keep an enormous public hanging on its every word. It did so by creating a link between narrativity (meaning the analogy between the temporality of

¹ The exact quotation comes from Michel Mourlet and was published in an article entitled “Sur un art ignore” in Cahiers du cinéma 98, August 1959: “The cinema is a gaze which substitutes itself for our own to give us a world in harmony with our desires.”
history and the sequentiality of discourse) and the reader’s personal identification with the characters. The literature’s limitation—and also its strength—is its mediation between a symbolic language and an imaginary world. This requires the reader’s active participation, which produces a gradual merging of the world of the novel with the reader’s own interior world. By playing on the two senses that provide the most rapid interface with the outside world and, at the same time, speak most directly to our sphere of intimacy, namely sight and hearing, the movie found itself at a powerful advantage.

We should not blame industrialization as the source of the problem, if indeed it is perceived as a problem. Its origins lay in the fact that, provided both viewers and filmmakers subscribed unconditionally to the game of sensory realism rendered possible by technology, there was a potentially infinite public for this kind of spectacle. Hence, the need for these products to stay at the cutting edge of technology in creating believable realities that could be easily and directly perceived by the senses.

The upshot of this was that a movie had to be costly in order to reach the widest public and that this, in turn, reinforced the need to attract large audiences, which would enable it to turn a profit. Creating a reality effect that enabled the viewer to become immersed in the film, as if in a dream, was dependent on ever more sophisticated techniques. Where once viewers had surrendered themselves to the magicians of the camera, montage, and special effects, each new piece of cinematographic “magic” was incorporated into a culture of spectatorship that eventually became aware of these “tricks.” The thrill experienced by the public when the fifty-two-second film Arrivée d'un train dans la gare de la Ciotat (Lumière Brothers 1896) was projected could not happen today. There was constant pressure to do more to overcome the viewer’s vigilance and this is still the same today. When we watch movies made even five or ten years ago, we inevitably find them slow, clumsy, and old-fashioned.

This highly constricting filmmaking logic explains why any film that deviates from the framework of this powerful mechanism is inevitably marginalized. In order to avoid this, there would have to be two completely distinct systems of financing (such
as those that exist for the theater in Europe, for example, where there are two coexisting circuits, private-popular and public-artistic, with little overlap between the two).

It is difficult to imagine any academic research in musicology that would study stage musicals and modern classical music without making any distinction between them. This is, however, exactly what Deleuze (1986; 1989) does—and without anyone taking umbrage at the fact—in his ambitious treatise on cinema. The most innovative filmmakers occasionally achieve impressive popular acclaim and, on the flipside, even the most discerning of movie buffs do not always scorn industrial-scale blockbusters. This continuum between art films and commercial films has its advantages. It avoids excessive dichotomizing and affords some protection against the film creators’ lofty arrogance and the movie tycoons’ vulgar ignorance. This is only true up to a point though because this dialogue between the intellectual and the popular is clearly one-sided. Art films are strongly drawn to the style of commercial films, particularly in terms of their primacy of narrative and the viewers’ identification with the action. In many respects, art films remain “small” films, or just low-budget versions of the “big” films that exert pressure on them. The result is that any aesthetic principles, which are truly independent of those that dominate the market, are not able to emerge. This situation might change in the future, however, as we have seen the recent emergence of quality cinema within the world of contemporary (plastic) arts and also the availability of a different economic model due to the low cost of digital material and direct diffusion over the Internet.

One effect of the cinema system is the strength of genre, in the sense that such classification has a major influence on the organization of discourse and the languages that constitute it. The cinema is the only artistic discipline to categorize its products so strictly, and it continues to do so despite the inherent tendency of aesthetic activity to legitimately defy genres. This kind of categorization in the novel, for example, serves to define sectors (crime novels, science fiction, and so on) that are potentially efficacious but aesthetically marginal. The opposite is true of film, however, where labeling a movie as a comedy, comedy-drama, or thriller does not disadvantage the film in any way in terms of legitimacy. On the contrary, it guarantees the coherence of its trajectory, from the initial pitch to its release in movie
theaters or in DVD form. In fact, every time an effort is made to escape genre, it just results in the creation of a new one. This was the case of the “independent film” movement, which emerged after the creation of the Sundance Film Festival in 1978.

Television has further reinforced this phenomenon by adding a marketing-based system to its existing production system. It has similar targets to meet in order to ensure an optimal return on investment. Television has also institutionalized a genre, the documentary, which is a nonfiction audiovisual text created in the spirit of journalism. The “experimental” documentary occupies a marginal position, similar to that of the art film. This is *a fortiori* the case for the scientific film (see 2 below).

In summary, the history of cinema shows how a certain type of production has risen to dominance among the myriad of possibilities afforded by the language of cinematography. On the whole, this evolution has served to foreground a powerful reality effect that acts against the emergence of any critical reflexivity on the part of the audience as well as the possibility of using the image independently of the plot, particularly in respect of giving a significant role to diachronic space.

### 1.2 Music or Space?

The primacy of narrativity makes it possible for the viewer to identify with the characters and the action. The viewer is plunged into and involved in a story. However, the quotation from Godard above suggests, in contrast, that there is a critical vigilance on the part of the viewer toward what they are being shown. This situation tends to erase all other components of the film they are watching, particular its geographicity (Gardiès’s diegetic space). We can deduce from this that there is a particularly clear relationship between, on the one hand, the possibility of a spatial dimension in film and, on the other, the viewer’s capacity to remain partly detached from identifying with the narrative. Space can only exist in film if the viewer’s subjective immersion in the plot is not total. Sound plays a decisive role in this. It occupies a pivotal position and, depending on how it is used, can either increase the power of viewers’ identification with the story or, in contrast, increase their level of reflexivity. Sound, particularly music, is therefore of interest insofar as it decreases or heightens an awareness of space.
Brecht (1898–1956) developed a highly innovative theory concerning the relationship between the audience and theatrical performance (Brecht 1964). In the wake of other aesthetic reflections emerging particularly from Germany and Russia in the 1920s, he set out the idea of Verfremdungseffekt, translated into English as “alienation effect.” Brecht placed this Verfremdung—the action of defining something as foreign to oneself—at the boundary between the aesthetic and the political. It concerns the challenging of the realistic character of so-called realist art. This alienation effect seeks to counter the illusion of reality produced by the audience’s identification with the characters and the story. According to Brecht, producers of aesthetic works have to make a clear choice between seeking to increase or decrease the lucidity of the audience for their productions. Godard and other filmmakers of the second half of the twentieth century saw themselves as following this approach, which they had also found in the work of the Soviet filmmaker Vertov. His Man with a Camera (1929) was a manifesto for this idea.

In order to achieve this alienation effect, Brecht used a number of procedures. These played with the actors’ delivery, the presence of an outside narrator, the on-stage deployment of text extracts that comment on the action, and even different lighting effects. Music played a major role within these mechanisms. In order to prevent the spectators from identifying with the hero, Brecht often inserted musical interludes in which the actors would sing songs that commented, often ironically, on the previous scene. The aim was to encourage viewers to engage in a “debriefing” on what they had just seen and thus to avoid falling prey to the meanings implicit within it.

This use of music is the complete antithesis of the soundtrack’s role in a standard commercial movie. Even in the age of silent cinema, when live musicians played accompaniments that directly interpreted the images, the aim was to increase the identification of the audience with the action happening on the screen in order to elide the difference between the “other world” of the cinema and the everyday world of feelings and sensations. This led to a self-reinforcing system that consisted of a musical coding of different narrative situations within the film. The combination (itself also governed) of dramatic action, comic episode, fear, romance, and so on contributed strongly to defining the film’s genre. This coding in turn helped to make
these categories yet more rigid and obliged composers to adhere to their stifling conventions.

This could only be done, however, by narrowing the range of musical possibilities. Contemporary popular cinema created a specific musical universe in the form of “film music.” It was restricted mainly to paraphrases (rarely direct borrowings) from late nineteenth-century Western classical music, including rewrites of earlier pieces in the style of this period (such as music with Mozartian connotations). For each situation, the codes of melody, tempo, harmony, and instrumentation were binding and permitted few deviations from the norm. Thus, audiences were subjected to a kind of musical lobotomy whenever they went to the movies.

With the exception of art, experimental, and avant-garde films, it is rare to find any distancing from these schemata, although it is rather more common in film musicals. In fact, musical comedy is one genre whose construction allows some departure from the usual reality effect. There is no attempt to make the audience believe that people express themselves in song in the real world. Every film musical, by definition, assumes that it is party to a game whose rules are shared with the public and which partially dismantles their subjective identification with the characters.

This is an inversion found to some extent in all genres, and it is the most rigid that best lend themselves to a meta-interpretation. The aficionados of westerns or zombie movies (Borzakian 2013), for example, are capable of detecting the most minuscule departures from the accepted norms, which offer a certain innovation. In the case of the musical, this is even more obvious. Most of the time, the musical comedy universe is stylized to such a degree that there is little room for depiction of even the least complex space. However, there are exceptions, which, on occasion, include Bollywood films. Even in the most stereotyped of these—and there are many—one systematically finds a rupture of the unity of place and action, which inevitably creates a distancing effect for the viewer. This occurs, for example, when the hero suddenly finds himself in a completely different place to the usual setting of an Indian house. We might see characters singing and dancing, for example, in a Swiss mountain or New Zealand set. This highly ritualized succession of musical numbers tends to weaken or suspend the viewer’s mechanism of subjective identification with the characters and what
befalls them. It gives them back a degree of reflexivity through their knowledge of the rules of the game and the director’s trickery. They go along with it but they are not taken in by it. This is not the case in normal films, where the aim is for the music not to be noticed precisely in order to standardize viewers’ expectations to the maximum.

Demy’s film Les demoiselles de Rochefort (1967) is a good example of a match between musical comedy and/or space. Many of the scenes were filmed in the town of Rochefort, which was spruced up for the occasion. Even when the scenes are sung, the theatrical treatment of public space does not detract from a certain theoretical realism. The emphasis on the rhythm of walking, the use of semi-private settings such as cafes, the role played by unexpected micro-events, and the place of serendipity not only play a role in the scenario, but actually have a direct importance. It is as if these spaces had been arranged just so that these experiences could happen there. This is similar, albeit in a different register, to Calvino’s approach in Invisible Cities (1974), where each city is at once a fiction and a concept. The inspiration, although very different on the surface, is close to that found in Varda’s 1962 film Cleo de 5 à 7. It deals from beginning to end with the relationship between the spatiality of the various characters who have a fundamental relationship with a situated and specific urban environment. This was a completely original approach at the time, and remains so even today.

Most of the time, however, there is a kind of negative correlation between music and space. The more music plays its conventional normative role, the more we are dominated by the story and the genre, and the less room there is for space to have its own existence. It is not surprising then that, in its desire to break with the norms of commercial cinema, the Dogme 95 manifesto (Trier and Vinterberg 1995)—which also insisted on the absolute necessity of filming outdoors (Principle 1) and rejected any notion of genre (Principle 8)—should take an interest in music, requiring that the entire soundtrack be diadic (Principle 2). In other words, only the sounds that had meaning within the context of the film were seen as legitimate. This is not necessarily a silver bullet but it is, in any case, very different from the stereotyped sound signatures that indicate the setting is New York by the sound of police sirens or Paris by the accordion music. This affords us a glimpse of the fact that sound is also a very important resource in spatialization (Sapiéga 2010), comparable in power to the
image. *Lisbon Story* (Wenders 1994) shows how we can construct an urban space by placing auditory perception at the center. It means that while music is most often part of a mechanism that displaces space in the scene, this is in no way an inevitability. The diachronic power of sound opens up promising avenues for giving cinema its own geography. To summarize, we might say that the presence of space in film has a strong relationship with the audience’s ability to maintain a distance from the narrative hegemony and that music is, in one way or another, an important lever in this regard.

### 1.3 The Retreat of Space from the Cinema

Coming back to Gardès’s classification of space, we can say that once category 1 is applied (which is a condition of the very film itself), categories 3 and 4 cancel out category 2, which would be the closest to a geographicity in film. In other words, space only exists in film as an accompaniment to the narrative and as an aid to producing non-reflexive viewers. This means that—to repeat an expression used in reference to the city (Jousse and Paquot 2005; La Rocca 2005)—space is not a character, but merely a set.

Hence, diegetic space does not play the role of an environment—that is, as an active element comparable to that of the characters—but is simply a context held at a distance. Its contribution to the plot is simply that of a container that makes the action believable (an outdoor scene, for example). At best, it adds a particular symbolic dimension, such as a recognizable landmark, a particular weather feature, or the presence of a crowd. There are of course a number of specific cases where the configuration or location of a place is important, but these are usually anecdotal. We note, for example, that a large number of American crime movies begin with a canted angle or bird’s-eye aerial shot of the city where the action is about to unfurl. Once the title sequence is over, however, the norm is resumed. Of all the films set in Los Angeles, Mann’s *Collateral* (2004) stands out because the urban environment plays a central role in the film’s action, including its spatial functioning. We are presented with the city’s geographical fragmentation, a predominance of automobile metrics, and the conclusion—both practical and symbolic—on the metro. Here, urban space ceases to be the setting and becomes a character. In most cases, the opposite is true.
The spatial environment, which surrounds the (real) characters and which they can modify, remains fundamentally out of shot (Seguin 1999).

The filming of space as such requires language resources that have been little developed throughout cinema history. Popular cinema has forgotten how to leave the characters and focus on their surroundings. It has forgotten how to give the characters a minor place within the scene and focus viewers’ attention on a complex set of variously fixed and moving images. It has forgotten to take the time to just stop and look at a landscape. This is not likely to change because changes in the dominant language of film reflect demand, and the public demands an increasingly rapid tempo. The long takes used in Hungarian (from Miklós Jancsó to Béla Tarr) or Russian cinema (from Andrei Tarkovsky to Alexander Sokourov) have always been rare. They are even rarer nowadays when the average duration of a shot, at five seconds (on this, see the Cinemetrics.lv² website), is half of what it was fifty years ago. This is one aspect of the headlong rush of film technology and movie style to encourage viewer identification with narrative realism, a central goal in current cinema. The divergence is not therefore just thematic or semantic; it relates to decisions taken at a very early stage as to what language resources will be deployed.

1.4 It Is Space Nevertheless

To summarize, the issue that arises relates to the value we place on space, not as a setting but as character. If we opt for the latter, it means that an environmental-type reality, comprising several actors (including the film’s characters and other people) and objects, will be to some extent at the heart of the image. This would be light-years away from the tradition of focusing on a small number of identifiable visual realities. In this context, therefore, it is not surprising that “space as environment” (Gardiès’s category 2) is rarely present in the history of the cinema. However, it is not totally absent and we can detect it in certain brilliant exceptions from the beginning of the twentieth century (see the filmography at the end of this article). We can identify several contexts that have made such exceptions possible.

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² Available at http://www.cinemetrics.lv/.
1.4.1 The Avant-Garde Silent Film
I will return to Vertov’s emblematic Man with a Camera (1929) later in this article.

1.4.2 Some Auteur Films
The protracted long-take opening sequence of Welles’s 1958 Touch of Evil is but one example. The take crosses the United States–Mexican border where actors, objects, and environment combine in a truly remarkable semiological hybridization. Godard’s 1960s films are also highly sensitive to diagetic space. In the same era, Malle’s Zazie in the Metro (1960) turns the space of Paris into a burlesque and fantastic element. On a rather different scale, we should also mention Altman’s Gosford Park (2001), in which the complex space of the titular house is used as a metaphor for social relationships.

1.4.3 The Urban Moment in the West
The 1970s and 1980s saw the emergence of some significant filmmakers who turned the urban environment into a character in their movies. We can see this clearly in Wenders’s earliest work as well as in some of his later productions. Other examples include Tanner with In the White City (1983) and Blier with Buffet froid (1979). This moment in cinema history was born out of a convergence of two different strands. On the one hand, there was a search for new aesthetic languages to express the relationships between individuals and society that had emerged after the various liberation movements at the end of the 1960s and, on the other hand, there was a renewed interest in the city and urban life by some sections of society.

In the same period, the United States was undergoing an “urban crisis” and there was a difficult relationship to space within the city, as illustrated in Scorsese’s After Hours (1985) and Lee’s Do the Right Thing (1989). We find the same kind of crisis in Detroit fifteen years later in 8 Mile by Hanson (2003). These are exceptional in that they describe, with remarkable precision, spatial configurations that are not immediately reducible to the demands of the plot. Allen’s Manhattan (1979), however, is more in line with the European tendency.

It is enlightening to compare Wenders’s Wings of Desire (1987) with Silberling’s 1998 remake, City of Angels (1998), shot in California and Nevada. Whereas Wenders’s
film makes links between the characters’ geography and the wider geography of Berlin and the world, the focus in the second film is on the private spaces of individuals, for whom the environment in which they move is of little importance.

1.4.4 Emerging Cinemas
We find a different treatment of space in certain films emerging from outside of Europe and North America. There are complex reasons for this, which are characterized by the interplay between what filmmakers want to do, what the public want to see, and what European distributors want to show their home audiences. The latter has contributed a great deal to the success of these films. A significant number of works, including some put out on general release, came out of the Chinese cultural milieu of Taiwan (with Hou Hsiao-hsien, Edward Yang, and Tsai Ming-liang) and Hong Kong (with Wang Kar-wai) in the 1980s, and from South Korea and particularly China in the 1990s. We also see a spatial sensibility in some of the auteur cinema from Slovenia, Serbia, Albania, Turkey, Russia, Iran, Brazil (unconnected to the cinema novo of the 1960s), and Argentina (particularly in the wake of the 2001–2002 crisis).

However, we may ask whether this spatial sensibility has not just been a phase in the history of national cinemas at a point when the different cultures of these societies were already communicable but were still attractive to foreign viewers. What happens next is that the same causes produce the same effects and the films from these countries tend to slip into the same mold of narrative normalization. If they do not conform, they become (or remain) marginalized, as has happened everywhere else.

This global geography of space in cinema is all the more remarkable for its lack of homogeneity, albeit the broad trends are similar. Thus, in Western Europe, where such “exotic” films that use space diagnostically are appreciated, homegrown filmmakers have largely ignored this dimension since the 1980s. Britain’s brilliant “social” cinema, which emerged in the 1960s and saw a recrudescence in the Thatcher period, particularly with Ken Loach, dealt hardly at all with space. In France, the popular comedy film Amélie (2001), which depicts a stylized, perhaps nostalgic space that celebrates the chance encounters of the city and the intimate quality of public space, is an exception among the country’s productions. Finally, the highly original
perspective of Angelopoulos who takes space seriously, especially in *The Suspended Step of the Stork* (1991), is almost the only one in Greek cinema.

The Italian “neo-realist” (in its broadest sense) films made between 1945 and 1975 sometimes take an ephemeral spatial tangent. After a clear and sometimes spectacular interest in space and spatiality—such as that shown in Rossellini’s *Rome, Open City* (1945), and *Germany Year Zero* (1948), De Santis’s *Bitter Rice* (1949), and Rosi’s *Hands over the City* (1963)—socioeconomic and political concerns largely supplant space as such. All the great cinematographers who came later (particularly Visconti, Fellini, Antonioni, and Pasolini) began by espousing a socially oriented cinema. This already lacked interest in spatiality and tended later to concentrate on psychological aspects, sometimes developing a hybrid between the phenomenological and the metaphysical. With his anxious exploration of industrial areas in *The Red Desert* (1964) and the penetrating gaze on London’s spaces found in *Blow-Up* (1966), Antonioni could have established a new genre by allotting the role of radical and incommunicable other to the spatial environment. This did not happen however. Those who retained an interest in society as a whole concentrated rather on the political sphere, with its plots and intrigues (e.g., Rosi, Petri), while comedy and dramatic comedy, formerly tinged with social concern—like Monicelli’s *The Pigeon* (1958) or De Sica’s *Bicycle Thieves* (1948) and *Miracle in Milan* (1951)—were quickly captured by the decontextualized psychologization movement. At the end of this period, Comencini, Scola, and Bertolucci demonstrated proudly that they had almost completely erased the traces of their predecessors from the immediate postwar period. There is a paradox here: in acquiring the status of major artists, these filmmakers left geographicity behind. Much later, *La stella che non c’è* (2006), which deploys a strong sense of space, seems more like a Chinese than an Italian film despite the nationality of its director, Gianni Amelio.

Japan’s trajectory was similar to that followed by Italy. Kurosawa’s *To Live* (1948) was similar in some respects to Rosi’s *Hands over the City* (1963) and, like the latter film, remained something of an oddity in its context. As in Italy, the societal film, which remained focused on ideal-type characters (like Imamura’s 1970 film *History of Japan as Told by a Bar Hostess*), could not withstand the triumph of the psycho-
metaphysical. Ozu represents the culmination of the psycho-metaphysical, where spatiality is essentially limited to the interior of a house.

What emerges from this brief exploration of cinema history from the point of view of diacritical space—that is, of geographicity—is that the dominant tendency has shown little interest in—has virtually ignored, in fact—these issues. The reasons for this are neither conjunctural nor contingent, but relate to the place that film has gradually come to occupy in the viewer’s mental universe. If we wish to put space at the center of any discussion of the image, we must maintain some distance from this history and interpret it in another way.

2 Geography through Film: A Dialogue between Scientific Method and Contemporary Aesthetics

In this second section, I would like to put forward an alternative title for this article: Giving Cinema Space. This interpretation allows us to reflect on the conditions that would enable those who are working with space to use cinematographic language and exploit its possibilities.

2.1 Doing Away with the Documentary

From this perspective, the first step towards achieving this would involve a re-reading of the history of cinema. Until now, with rare exceptions, scientific films have focused on popularization rather than on authoritative statement, as if it were generally agreed that the moving image cannot be used for argument and explanation. The documentary has monopolized a cinematographic expression, considered inferior to verbal discourses that claim to be objective. What is the documentary? It is a hybrid form that is situated at the juxtaposition of two worlds, both somewhat removed from scientific endeavor, namely audiovisual journalism and commercial fiction (Figure 1). The documentary is a kind of overblown reportage with the temerity to compare itself to a fiction film shown in movie theaters.

In fact, documentaries are becoming increasingly less confined to television stations. A growing, though still limited, number are being shown in cinemas, marking a surprising return to favor after a long absence. Up until the 1960s, a film showing
would also include a short film (often a documentary) and a newsreel. Today, these documentaries are often radical films that are not concerned with either nuance or logical argument. Like Moore’s films, which are something of a caricature, they may often be accused of both positivism and dogmatism. They are reproached for positivism because they do not allow the viewer to follow the process through which the film object is constructed. The “truth” they claim to portray is the result of an unveiling, as if the filmmaker had a direct and immediate access to the objective world. The accusation of dogmatism stems from the fact that they rarely entertain a symmetrical methodology for opposing views, which would test counter-arguments that could refute the statements made. Quite the contrary, what we see is a sequence of unchallenged discourse, which is self-reinforcing throughout the film.

![Diagram](image)

**Fig. 1: What are the sources of the documentary?**

It is easy to see how the relationship between science and cinema has been badly affected by its subordination to models that ignore the most basic principles of scientific procedure under the guise of popularization. There is certainly another possible definition of the documentary, which would place it alongside art movies (*auteur* films) but which would replace the fictional plot by a more stringent and objective reality. We need to choose our words carefully here because we are not
talking about the same thing. In the art film, the guiding principle is the aesthetic project, which sometimes produces remarkable results. We find comparable objects in literature although not referred to by a specific term. Thus, a book such as *The Kindly Ones* by Littell (2009), which features real historical Nazi characters, is considered a novel in the same way that Resnais’s *Mon oncle d’Amérique* (1980) is seen as a fiction film, even though it contains entire scenes devoted to scientific theory. I propose to call this field “documented fiction.”

It is possible to envisage an alternative relationship between film with cognitive-objective aims and existing productions (Figure 2). Scientific cinema would then be located at the intersection of the scientific approach and audiovisual languages. This intersection could benefit from opening up a dialogue with the contemporary world of aesthetics. What we have seen in the case of music (Levy 1999) would also be true of cinema. When art and science genuinely try to fulfill the ethical contract that binds them to society through the act of creation, (cognitive-subjective) art and (cognitive-objective) science would have much to say to each other.

![Fig. 2: Intersection for the scientific film.](image)

From this viewpoint, film is just one among many products of audiovisual languages. It is possible to imagine other combinations of sound and image, and this could allow written text to have some kind of place. It would also be possible to vary the amount of interaction between the audiovisual object and the viewer at whom it is directed. Researchers have a wide range of means to inspire their imagination, ranging from the software for creating presentations (like PowerPoint, Keynote, and Prezi) to film

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3 Thanks to Camille Bui for encouraging me to put forward a clearer classification here.
proper, and from the Web documentary to the installation in a contemporary art
gallery, as well as others which have yet to be invented.

2.2 Monstration and Demonstration

Over and above the diversity of these resources, scientific cinema raises the question
of the relationship between monstration and demonstration. Why does the image not
automatically have the status of empirical proof that case studies, statistics, maps, or
interviews have in a written article for example? Verbal language can be used for a
variety of purposes, including in films. The image may also be used in different
situations, for example to make a comparison or test a hypothesis, and it can be
tested systematically in the largest number of cases. It is also possible to use a
figurative image as one would a graph (which is a non-figurative image), as a stylized
expression of a statement.

Moreover, the combination of multiple elements—both fixed and mobile images and
verbal and nonverbal sounds—can produce an active cinema with extremely rich
methodological and epistemological resources. Marker’s La Jetée (1962), although
made up entirely of still images, is still capable of telling a story. This would be true
moreover even if there were no story and if the plot were replaced by description or
reasoning. By marshalling various Verfremdung procedures (see 1.2), these new
kinds of assembly could actually increase the viewer’s reflexivity by providing
opportunities to take a step back and maintain a critical distance from the argument.
This is something that the average scientific film does not always do—far from it, in
fact.

This is especially the case with sequentiality. If a film, like a text, has a sequential
structure, with a beginning, a middle, and an end, then the two language families can
integrate synchronic elements that may be figurative, analogical, or symbolic (Levy
1996). These observations enable us to make a distinction between films that are shot
and films that are mounted or edited. The richness of the latter is well demonstrated
by the Soviet silent cinema of Vertov and Eisenstein. Montage is unequivocally the
most constructionist aspect of the filmmaker’s craft. It offers the best way of
communicating with the viewer in ways other than through storytelling. As such, it is
logically an area where the scientific film can assert itself.
It is also possible to vary the rhythms of reception in many ways, particularly since projection in a movie theater is no longer the only option. Active readings (speeding up, stopping and starting, repeating) may not always respect the work’s integrity but can strengthen the cognitive aspect of the images. Cinema has the advantage over text in that it can suggest—and it is always possible to decline the author’s invitation—a certain kind of temporal arrangement. In doing so, it facilitates a critical attitude to what it presents by including various kinds of pause during the communication process for example. The interaction between researchers on complex propositions has much to gain overall by enabling a slowing down of the exchange. This is certainly possible when reading a text but it is necessarily the director’s conscious choice in the case of a film argument, in accordance with his or her overall argument. In this sense, it is just as credible, in principle, to refute a proposition put forward by a film as by a text.

In the opening sequence of *Man with a Camera*, Vertov wrote: “For the attention of the viewers: The film you are about to see is an experiment in the filmic transmission of visible events without the aid of inter-titles [. . .], or a script [. . .], or stage settings or theater actors. This experimental work attempts to create a complete international language as the basis for film, totally distinct from the language of theater and literature.” This project is of interest to researchers who have attempted to construct verbal languages adapted to their own propositions, which are distinct from those used in literary fiction.

Finally, and more broadly, if we liberate the image and the complex information it contains, while still retaining the explicit nature of the propositions we put forward, we can create new ways of approaching a basic aspect of scientific work. All research inevitably stages the lack of a direct relationship between the empirical and the theoretical and the tension between these two terms. Expressing science through film does not mean in any way abandoning the use of evidence. It could contribute, however, to a greater lucidity from the scientific community about the multiple relationships between two essential components of scientific work. These components are, first, allowing ourselves to be open to disruption by the real (relevance) and, second, constructing a discourse that can transform this disruption
into the simplest and most rigorous set of propositions possible (coherence), on the other. Unless we adopt a naive and pre-Kantian position on the relationship between reason and the objects it addresses, we are forced to admit that there is no one simple, isolatable method, independent of the particular research situation, for communicating this reason and its objects in an effective manner. This means that the argument structure of scientific texts requires vigilance, critique, and innovation. By adding other scientifically oriented languages, we can help start a debate on the whole set of reasoning tools, which the tendency towards standardization of scientific communication tends to limit and circumscribe.

2.3 What Kind of Spatiality for the Cinema?

It is no accident that *Man with a Camera*, the film manifesto for a kind of cinema that is opposed to the identification between actor and viewer, is also a film about space. At around the same time, Lang’s *Metropolis* (1927) and Ruttmann’s *Die Sinfonie der Großstadt* (1927) put the city and its particular spatiality, which is both complex and synchronic, at the heart of their projects. The universal language that Vertov was aiming for, and which he thought would enable him to distance himself from the cinema’s literary and theatrical sources, is a language that does not organize the film’s sequentiality in accordance with the chronology of dramatic action. For Vertov, coherence lies in themes and formulations, whose unity comes from the logical links provided by film semiology. It comes from the movement of the parts and the whole, the interactions between human beings and between humans and machines, and the articulation between individual action and collective project, and between actors and environment. All these elements feature in the theoretical work of the social sciences that concern themselves with geography. In other words, contemporary geography is particularly well positioned to take Vertov as an opening point of reference. He marks the point in cinema history at which there was the closest epistemological similarity to scientific procedure and where space was most spontaneously mentioned.

The relationship between geography and cinema has certainly been affected by certain misunderstandings as to what constitutes the visible. Classical geography (1870–1970) defined itself as a science of the visual, thus drawing an epistemological dividing line between the visible and the invisible. This viewpoint now seems naive
and absurd. What our eyes perceive is so heterogeneous, it precludes any consideration of the visual as a disciplinary field and as a self-limitation that makes it impossible to get to the end of an endless chain of questions asking “why?” Geography-as-science-of-the-visual proved to be vitiated by its empiricism and its inability to generate credible theories of human spatiality. Of all the social sciences, anthropology was actually the first to use film as a scientific language. It was first used as a means of rigorous and rich description (an approach adopted by “visual anthropology”) and then formed a partnership with fiction film. This is best demonstrated by Jean Rouch (1917–2004) who (perhaps naïvely) shows, with his impressive film output, including Petit à petit (1971), that there is a porous boundary between (aesthetic) fiction and (scientific) simulation and that research has much to learn from this interpenetration.

The use of visual languages in space-related scientific communication should clearly acknowledge the debt to previous work. Showing the visible—which is also, as Paul Klee (1966) rightly said, making visible—also entails that we immediately become aware of the limits of the visible, that we delineate its limits, and that we do not seek to persuade the viewer that these limits can be overcome. The world of the invisible is not necessarily any more inaccessible than that of the visible and an everyday conversation with a stranger, for example, enables us to access this readily. It is neither more nor less composed of representations and non-representational realities. There is thus no need to have recourse to metaphysics in this area. We merely need to admit that using what is visible includes ipso facto recognizing the invisible.

City life, as it developed in the large conurbations of the first half of the twentieth century, provided researchers with a concrete expression of this problematic. Kracauer (1889–1966), analyzing the big city in the wake of Georg Simmel and Walter Benjamin, stated frankly that he would limit his gaze—and hence his vision—to the surface of urban reality. This decision was not made through impotence but because that is where he believed the basis of metropolitan identities (Füzesséry and Simay 2008) and the essence of interactions in public space lay. Kracauer (1997; 2012) was both an acute observer of life in the big cities and a film theorist. The mass of interactions, the anonymity, the civility, and the management of the other all
converge to create a communicational restraint that is so well described by Goffman (1990). Showing public space in and through film means having to recognize that we remain on the surface of things. The tenuous links that are made visible, however, are absolutely essential for understanding public space itself and, beyond that, the functioning of contemporary societies of individuals (Levy 2013). This is not time wasted, therefore, because the image makes it possible to construct an object that makes sense within a theory of the social. We only have to watch Trier's Dogville (2003) to understand that when cinema is given enough room, both geography and social theory have much to gain.

Finally, like a map, the geographical film creates a new space that adds itself to all preexisting spaces, including those that we wish to show. Here, as elsewhere, to represent the world is to change it. A constructivist-realist cinema that is capable of referring to the space humans inhabit seems a goal that is both exciting and feasible. It is these principles that I have tried to put into practice when making the movie Urbanite/s (Levy 2013). A condensed version appears below.

FILMING INHABITED SPACE: TEN PRINCIPLES FOR A SCIENTIFIC FILM

1. **Affirmation.** Situating ourselves in the field within a framework of scientific expression, aiming for modes of expression typical of research-based statements: relevance, coherence, accessibility, explanation, refutability.

2. **Bifurcation.** Distancing ourselves from the documentary tradition, inventing a new range of languages.

3. **Refusal.** Rejecting the automatic association between cinematographic sequentiality and narrativity.

4. **Invention.** Moving away from using the language of film as an illustration of other types of discourse, and putting its unique features at the service of scientific communication: comparative method, using the existing as proof (≠ illustrated lecture, commentary on images).

5. **Dialogue.** Seeking out resonances between science and art. Building bridges with the best aspects of fiction movie history since its beginnings (≠ referent of commercial cinema).
6. **Distancing.** Increasing the viewer’s level of lucidity and self-reflection (≠ conventional identification effects).

7. **Invention.** Representing environments (≠ actors, objects) and attempting to revise or invent languages to make this possible.

8. **Striving.** Moving away from the particular/general dichotomy, focusing on the dialogic relationship between the individual and the universal, while avoiding exoticism and other geographical clichés.

9. **Observation.** Taking the greatest possible advantage of the observation of surfaces—of the world, of people, and of things.

10. **Thinking.** Show what is invisible by means of what is visible, without forgetting that this is never completely possible.

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