
The Mediatized Trace of the Social World, the Object of Research

This initial chapter states the purpose of the research presented in this book, distinguishing it from other possible research on traces and defining a stance towards a term that circulates in social discourse of all kinds. It is a question of transforming a *concrete object* of contemporary information-communication, the production and treatment of traces of the social world, into an *object of research* (Davallon in Jeanneret and Ollivier 2004, pp. 30–37).

This research puts forwards the scientific study of an object that is not itself a scientific concept, but is what I call a *cultural being*. By this deliberately fuzzy and flexible expression, I mean a complexity that associates material objects, texts and representations, leading to the sharing of ideas, information, knowledge¹, and judgments. The importance of this type of research object lies in the fact that it plays a role in:

“[...] the historical elaboration of the resources and challenges of culture for a society: stances, knowledge, values, which cannot be understood without one another and which are based on a panoply of objects and procedures, without however being reduced to this single technical inventory” (Jeanneret 2008a, p. 16).

This is the case with the term “trace” and the powerful movement to create devices for collecting and processing traces that we witness: in my opinion, they play a major role in the development of resources and challenges for our society and even affect the definition of society. It is, therefore, a question of understanding how

1 In this work, “knowledge” refers to *savoir* in the French version of the text and “personal knowledge” refers to *connaissance* in the original text.

it is possible to produce, capture and process traces of the social world; or, to be clearer, to analyze all the devices, discourses, objects and processes that lead to qualifying certain representations of the social world as traces.

The reader will have noted the distance, even the uneasiness, that marks my relationship to the word “trace”. Indeed, this study will not avoid a paradox that lies in wait for any research on the development and circulation of a cultural being: “it is necessary to recognize the existence of cultural beings in society, without artificially reifying or limiting them” (Jeanneret 2008a, p. 15). What we call “traces” in our society are extremely disparate, as we will see in detail below. Let us say at the outset that we must renounce the idea of giving it a fixed definition or comprehending it by means of a single concept. Precision in the analysis of historical social constructs – and the trace is a historical social construct – is paid for by accepting a certain vagueness in their definition. It would, therefore, be a mistake to undertake this research with the aim of transforming *trace* into a concept, i.e. to confer on all the social constructs associated with the idea of trace a unique theoretical status, which would amount to transforming circulating representations into scientific knowledge. “The risk for the researcher is then to believe that they will find within the actors ‘personal knowledge’ of the object, thus dispensing him or her purely and simply from building a research object, since this knowledge already exists within this object itself” (Davallon in Jeanneret and Ollivier, p. 32). The trace is, therefore, approached here as a configuration of objects, utterances and ideas that has a certain consistency, but which must be problematized – and, therefore, studied with concepts that are in some ways external to it.

Nevertheless, it is a question of taking these constructs seriously, of not treating them as pure illusions, which would lead to not understanding them and above all not thinking about their existence and social impact. I assume that, despite the considerable dispersion of objects related to the idea of trace, something is at stake in this circulation and in these inventions. In a way, the purpose of this book is to test this hypothesis. In short, we must understand why these traces are not quite, or not only, traces (in the physical sense of the term) in order to describe the life of the trace as a cultural being; and, at the same time, we must recognize a meaning in this crystallization of diverse objects around the idea of *trace*, which I do by assuming that a certain regime of social representation is at work through this ongoing project.

In short, the difficulty I encounter here was perfectly expressed by Roland Barthes in the last pages of the postface to *Mythologies*, entitled “Myth Today”, where he described the “unstable grasp of reality”:

“[...] we constantly sail between the object and its demystification, powerless to make it whole: for if we penetrate the object, we liberate

it but we just destroy it; and, if we leave it its weight, we respect it, but we leave it still mystified [...]" (Barthes 2002 [1957], p. 868)².

I ask the reader to accept this *unstable grasp* of the trace. This book will deal with traces that are not traces in the sense that physicists give to this term and maps that are not maps according to the definition of geographers: it will be a question of understanding why these objects are not (quite) what they claim to be, and also why they can make such claims and what the effects of this effective claim are. We must accept playing the game of this oscillation between deconstruction and reconstruction of the object in which we are interested. Thus, in the following sections, the idea of the trace will be confronted with concepts constructed within the theoretical framework of ICS, such as index, inscription and writing, and it will sometimes even have to be replaced by them to lead to well-stated questions; however, it will nonetheless be constructed as a specific object of research, because it is not reduced to any one of these concepts.

First, I would like to assess the wide range of objects, discourses and postures that can today be associated with the trace object; on this basis, I will endeavor to define the concrete object to which the research specifically relates, the traces of social practices embodied in media devices. Then, I will begin an initial approach into the specificity of this object, using the results of historical research and based on readings, to define an initial conceptual constellation in order to establish a problem statement. Finally, I will address the question of situating the stance and aim of the research that addresses the trace (category and schema) in terms of efficiency with regard to research that aims to ensure its scientific relevance.

1.1. There are traces and traces

I have chosen to start, here, from a very concrete example by considering a set of objects that have the particularity of being commonly defined as the traces of a social³ practice and that show in a particularly spectacular way the metamorphoses of such an object and its great heterogeneity. I wish to first make an inventory of this protean set by asking myself at each step what can justify this qualification – whose relevance I will not discuss at this stage. This example has the merit of allowing a

2 Texts by Barthes included in the *Œuvres complètes* published by *Le Seuil* are cited in this edition, with the mention in square brackets of the date of first publication. The reference will also be given in square brackets for texts whose original publication date is important for analysis. It will be omitted in other cases.

3 I will study further on the processes of attributing the quality of traces to objects. I ask the reader, here, to accept the observation that all the objects mentioned commonly receive the qualification of *trace*, a statement based on observations concerning the social life of this type of object.

precise examination of the transformations undergone by the idea of trace when it passes from the physical world to the social world and from the space of direct observation to mediation by communication, information and documentation devices and actors. This will allow me to establish a set of fundamental distinctions, to define an initial set of concepts and to specify to the reader which of these objects is the object of the research – which is not intended to analyze all and every type of trace.

1.1.1. *The avatars of a trace of use*

The chosen example concerns testimonies that can be found of a practice relating to a cultural object, what is commonly called a *trace of use*. We will have to critically examine this expression, but let us adopt it for the time being. Let us say that it is a set of concrete objects which, in one way or another, bear witness to this practice⁴.

In the Basilica of St. Peter in Rome there is a statue of the saint which has the peculiarity of presenting one foot which is almost totally worn away, to the point of being unrecognizable⁵. This example is of particular interest to us because it has in a sense both a physical and a social face, and thus crystallizes several modes of existence of the trace, highlighting their kinship and differences. Indeed, as a material object, the statue shows a change in its appearance that is quite similar to that of many other objects that have worn over time: a transformation that results in what is called *patina*, an erosion of matter that is accompanied by a change in the appearance of the surface. The unusually smooth, distorted and shiny physical appearance of these objects draws our attention to their relationship to time.

There is, however, patina and patina. Some patinas are strictly natural, such as the one that characterizes those stones that have been rolled downstream by torrents, compared to the sharp ones that have just come off the mountains in the bed of the glaciers. Sometimes, and this is the case here, the patina not only indicates (natural) wear and tear but also (human) use. This may be ordinary wear and tear, similar to that of an ordinary utensil made of rather fragile material: for example, keys on a computer keyboard or the handle of a door, suggesting fairly common use. In this case, it is clear that it is something else: the condition of the statue attests to the exceptional duration and intensity of the use of very many anonymous people, as is the case for some stones in passages that have been used for centuries, for example the stairs of very busy monuments or the pavement of Roman roads.

4 Passages marked by a border are dedicated to the analysis of concrete situations and devices.

5 A first version of this analysis was presented in Jeanneret (2013) from a limited corpus, which has over time been diversified and augmented up until the present.

However, the interpretation of use is even more complex in the case of the statue, because the exceptional nature of this phenomenon immediately suggests a particular practice, without being as easy to understand as a simple passage, which would undoubtedly be the *zero degree* of the interpretation of a trace. The worn and shiny appearance of bronze (its patina) can easily be noticed and interpreted as an indication of the considerable volume and duration of a use, if by this we mean a set of gestures constituting a widely shared behavior. The visual aspect of the material is a sign that refers both to the “thickness” of time and to the density of uses: “as a phenomenon, patina is [...] the expression of ‘passing time’ and of use, inscribed on the outer surface of objects” (Fontanille 2004, p. 245). In fact, beyond this or that limited gesture, it is an elaborate practice on which history has had a transformative effect. A practice that has evolved considerably and has been charged with meaning and values: much more, for example, than knowing how to follow a path or open a door. A practice that includes an obvious and an enigmatic part. This is what Mary Carruthers calls “orthopraxis” (Carruthers 2002): a way of doing things that is linked to a culture and field of belief that has largely become commonplace and implicit, starting with attending Mass in churches and St. Peter’s Basilica in particular. As in the case of worn paving stones, wear and tear can be interpreted as a trace of use; however, here, the nature of this use is more unusual and more enigmatic. It is highly uncertain and has been affected by profound historical changes. Let us say that it is a use linked to a complex social practice.

Let us now move on to a new stage by considering the collection of the many printed and digital documents that mark this statue as a curiosity. These are also, it will be said, traces of a use. But this time, the use is described and represented. Travel guides provide an explicit expression of the idea of a material trace of a social use and also place this use in the context of a cultural regime, i.e. tourism. Without analyzing all of this production, I present, as an example, four comparable but slightly different formulations of such a leitmotiv of the trace of use in tourist guides: “the right foot is almost worn out by being kissed by the faithful” (Baedeker Guide 1905); “eaten away by pilgrims’ kisses” (Routard Guide 1999); “many visitors come to touch the foot of the statue” (Autrement Guide 2000); “worn down by the devotion of pilgrims” (Guide Voir 2005). These formulations are related but unique.

Such a work of written mediation⁶ of the trace is not specific to the publishing industry. We may also find on the Internet comments by network users posted under pseudonyms, like this one: “One may also pass in front of the thin statue of Peter (13th century) with his feet worn out by the caresses of pilgrims who follow one another ridiculously in their shared goal”⁷. In addition, some Internet users go so far

⁶ The concept is further defined in section 1.1.2.

⁷ Posting entitled “San Pietro n’est pas piètre ***** licorne66, 29/08/2007 17.46”. Accessed April 18, 2012. Currently unavailable.

as to devote a series of articles in their blog to analyzing this phenomenon and even to stigmatizing it, such as the author of the blog *Jack aime, Jack n'aime pas*, who wrote on August 8, 2011:

“I have already told you (*click here*) about this statue of *Saint Peter* in *Saint Peter's* Basilica in Rome, whose feet are the object of attacks by visitors (pilgrims?). I have even already shown you the statue ‘in all its glory’ (you definitely have to go *click here*). But I had not shown you the effect that these assaults had on the feet of the statue, especially on the right foot (his right foot), the one that we are advised to touch, probably to do like the pagans who were to touch the right foot of the statues of their gods, to worship them, or their monarch, to signify to him their total submission. You can see this effect in the picture above, which I have finally found⁸”.

Some blogs take the form of an organized genre, the travel journal, creating what can be called a deliberate mediation of use. This is the case of the site *Les voyages de Surtsey: voyager, visiter, goûter*, a notebook kept by an Internet user and hosted successively on several “blogging” platforms, which explicitly expresses its role as an intermediary for the transmission of lived experiences. It contains a combined description of the object and its uses similar to the previous one, but nevertheless different in tone and conclusion:

“In the nave, a few people line up in front of a famous bronze statue of Saint Peter holding the key to heaven, dating from the 13th century. In turn, the faithful will touch or even kiss his right foot, which is a little worn. A somewhat mystical reverence, but you get caught up in the game”⁹.

Here, we can see the role that development of the media can play in the collection and transmission of traces of use: the existence of online networks allows, much more than printed publishing, the multiplication of “voices” (of these different enunciations) that combine in varied ways the description of the object, that of past and present practices, the interpretations of gestures, judgments and recommendations. The development of so-called participatory media and Web 2.0 has led to the production of anthologies (Doueihi 2008, pp. 69–72) of posts that can be seen both as engines for disseminating traces of uses of all kinds – and, therefore, as accelerators in the adoption of these uses – and as the expression of diverse

8 Blog “Jack aime/n'aime pas”, post of August 8, 2011, accessed October 11, 2011. Available at: <http://jackaimejacknaimepas.blogspot.com/2011/08/estropier-pour-obtenir-le-salut.html?m=1>.

The words “click here” printed in brackets were originally hyperlinks.

9 Available at: <http://surtsey.canalblog.com/archives/2015/03/13/31686707.html>. Accessed October 15, 2018.

stances towards the object as well as the practices related to it. Thus, on the *Tripadvisor* industrial tourism platform, the following post titles can be seen: “*À voir*” (To see) – “*Au passage*” (In passing) – “*Toucher*” (Touch) – “*Nous ne toucherons plus le pied de Saint-Pierre*” (We will no longer touch St. Peter’s foot) – “*Touchez-lui le pied*” (Touch his foot)¹⁰.

We could say that all these small written publications describe and comment on the use that they define. They illustrate a certain power acquired by the media to create memories. But writing – handwritten, printed or computerized – is not the only medium that bears the trace of this set of practices. For example, there are two paintings in French museums that give an image of visitors and the gestures they make in front of and on the statue: a drawing from the 18th Century attributed without certainty to Hubert Robert, which is kept in the Musée des Beaux-Arts in Tours with the caption *Les pèlerins à la basilique Saint-Pierre de Rome* and a painting by Léon Bonnat in 1864 entitled *Pèlerins au pied de la statue de Saint Pierre dans l’église Saint-Pierre de Rome*, part of the collection of the Musée Bonnat-Helleu de Bayonne. In addition, there are photographs online by Internet users who have “immortalized” crowds of visitors queuing at or touching the statue¹¹, in addition to countless photographs of the statue itself, which can also be considered as a record of the visits of their authors and more generally of the fact that this object has acquired the status of a curiosity on the Web.



Figure 1.1. *Pèlerins au pied de la statue de Saint Pierre dans l’église Saint-Pierre de Rome (Pilgrims at the Foot of the Statue of Saint Peter) by Léon Bonnat, Bayonne, Bonnat-Helleu Museum (© Bayonne, Bonnat-Helleu museum, photo: A. Vaquero)*

¹⁰ Available at: https://www.tripadvisor.fr/ShowUserReviews-g187793-d195266-r430310166-St_Peter_Enthroned-Vatican_City_Lazio.html. Accessed October 28, 2018.

¹¹ For example: <http://akai-inthesky.blogspot.com/2014/11/rome-jour-3-partie-2-tu-es-pierre-et.html> (see Figure 1.1). Accessed October 28, 2018.

This evocation of a few avatars of a trace of use would not be accurate if I did not specify that many of the objects mentioned above were revealed to me through research online: for example, the drawing and painting are easily identifiable and their image can be downloaded, because the museums have created a presentation of their collection on an industrial platform, *Webmuseo*, developed by the Lille-based agency *A&A*, which specializes in creating “software solutions” for museums¹². Here, we broach a thorny question: the role of digital data processing software and of the actors, industrialists and activists who manufacture them in the circulation of traces.

1.1.2. *Metamorphoses of the trace*

All the documents of all kinds that have been mentioned, from the moment we departed from simple observation of the object to enter into its different representations, ensure a mediation of the trace. What does this mediation consist of? Above all, the trace moves from the realm of lived experience to that of inscription upon a mediatized surface. Therefore, rather than being the subject of direct experience, it is indirectly represented in a document. First, it is brought to the attention of the public by virtue of access to a writing with documentary status. In addition, as such, it can circulate more widely. To be precise: it is its representation that circulates, i.e. a set of signs that take its place at a distance and in its absence. Throughout this book, we will try to understand how and why this appears to be so.

From there, the representation of the object gives an explicit character to its status as a trace of a social practice. The texts not only mention the existence of the patina, but also give an interpretation. In addition, it can be seen that this interpretation can vary greatly. The physical appearance of the object is transformed into an indication of human behavior (wear and tear is transformed into a trace of use) when the narrative describes a gesture and thus this enigmatic sign takes on a social meaning. The patina makes visible, in the physical material of the object, the accumulation of gestures over the course of an immemorial history. But what gestures? Here, our texts diverge: touching, caressing, kissing, assaulting, nibbling? The image becomes thicker as part of a broader narrative scenario. Are they pilgrims? Believers? Visitors? Is their gesture one of veneration? Devotion? Worship? Submission? Superstition? Is it mystical, respectable, sheep-like, ridiculous? Little by little, we have slipped imperceptibly from the observation of something observable, evoking a physical process, to a value judgment, passing through an object of interest, a scenario of practice, a cultural qualification and a figuration of the social world.

12 Available at: <http://www.aa-partners.com/webmuseo-solution-logicielle-pour-les-collections>. Accessed October 28, 2018.

All these observations concern the triviality of the trace of use: the fact that it circulates on different media and that as it circulates it takes on meaning and value. It therefore becomes increasingly complex. But two important points must be added.

First, the use of a medium is reflexive: it says something about the person who uses it and the possibilities of the device. Hence, from the moment a trace of use is the subject of mediation, the act of mediation itself can create a trace. The document is not only the mediation of a trace existing outside it; the existence of a media document itself can be considered a trace of the conditions under which it was produced and the attitudes of those who produced it. Which is to say that which can make a trace multiply and disperse. All these texts say something not only about the gestures of visitors, but also about the act of writing by their author and the nature of its medium: the tourist guide reflects a certain social regime of travel and the state of the publishing industry, and the blog expresses through its conception and style a form of relationship to culture. As for the very fact of keeping a blog, it is a sign of a certain way of communicating online. For an observer interested in the evolution of social practices, this blog is the mediation of a usage of religion and tourism, and also a trace in itself of a cultural norm, a practice of writing and a use of the network.

On the contrary, each new medium of mediation not only modifies the diffusion and meaning of the trace. It affects the very nature of what we consider to be a trace. The study of this process will occupy almost the entire book. For the moment, let us just measure its importance by considering a few examples. When we observe the wear and tear of bronze, the phenomenon we observe is physical (even though its origin is social): passers-by have directly affected the material of the statue. On the contrary, all the testimonies appearing on a medium of transmission have required the action of collecting and representing the statue and its use. In the two cases, we cannot speak in the same sense of a trace. It can be said, on a provisional basis, that the patina is a physical *imprint* of time, but that all the documents have resulted from a human gesture of *inscription*. However, a physical footprint does not make a trace like a human inscription.

Finally, the signs that bear a representation do not have the same relationship to the practices to which they refer. Stories are constructed by their authors and endowed with meaning by their readers: they describe and comment on a social use and thus explicitly attribute meaning and value to it. The painting does something else, perhaps more: it makes a scene present to our eyes and, therefore, if we can say so, it determines figures and gestures. This is also the case of a photograph. However, a painting does not make a trace in the same way as a photograph, because it is put together by the human hand and eye: it bears witness to a practice, but it does not reproduce it in the same way as photograph, which records reality

through a technological process. All this deserves to be detailed later, but we can at this stage be satisfied with recognizing the heterogeneity of what constitutes a trace.

1.1.3. *Mediation, mediatization, device*

Let us summarize. We have observed three major discontinuities. Firstly, there is the distinction between objects that can be interpreted because of their natural link with the phenomena they reveal, such as the rock rolled by the river¹³, and those that acquire the status of traces of social uses through more or less complex scenarios of practice. Then there is the fact that the process of producing the trace is not at all the same when it comes to directly observable imprints left on objects as compared to the trace as the result of gestures of inscription and mediatization linked to the material manipulation of signs by human beings. Finally, we have highlighted the technical ruptures that render the mode of presence of objects and practices strongly influenced by the evolution of technology, and the fact that a painting cannot be a trace of social practice in the same way as a photograph.

At this point, it is necessary to establish a clear vocabulary in order to explore this issue further. The one I will use is borrowed from ICS. With regard to the previous example, I will talk about *mediation* to designate the social act by which the object of interest (here, the foot of the statue) can be identified, collected, interpreted and shared (e.g. by the *Guide du routard* or by the blog), whilst *mediatization* designates the fact that this act involves a material and technological device: in this case, on the one hand, the use of industrial printing and, on the other hand, the practice of computer networks. The term *device* will refer to the material process by which this mediatization is carried out, the use of a more or less complex technical object that organizes and structures our exchanges in terms of resources of expression (words, images) and of roles (a recommendation).

To illustrate the use of these three terms, we can remain in the field of tourism and refer to the invention of the first tourist guides¹⁴. When publishers made this important industrial innovation, they wanted to justify it. One of the first guides devoted to Paris reads as follows:

“It is only natural that a foreigner who visits a large city, and who has neither the time nor the intention to make a long visit, should be accompanied by someone from among the inhabitants who can indicate to him what is most interesting and curious to see in the city

13 This does not mean, however, that their interpretation is not the result of a construction like any other interpretation of a trace (Leleu-Merviel 2017). This is discussed further in Chapter 2.

14 For a more complete analysis, see Jeanneret (2014b).

that he wishes to get to know as quickly as possible. Hence the origin and usefulness of the *cicerones* found in all the cities of Italy, who are commissioned by their antiquities, monuments or modern establishments. Hence, the need to compensate for the lack of intelligent *cicerones* among us with portable books in which we find more or less well made notices concerning palaces, churches, museums, etc.” (Peguegnot 1855).

Here, we see the publisher referring to an older professional practice of mediation, that of the physical guide (a more or less improvised artisanal mediation) to justify the innovation of publishing a printed guide, i.e. the industrial production of a new type of device, of a mediatized genre. This example also shows that not all social mediation necessarily involves technological mediatization, but that all technological media coverage involves social mediation (Davallon and Le Marec 2000; Mœglin 2005).

At the end of this brief exploration of the extent of variation in the notion of trace – which is far from exhaustive – the conditions are set to identify a specific research object: *the analysis of traces of the social work that are produced through media devices*. It is essentially a question of understanding in what capacity these different productions receive the status of traces, how they are produced and what part the creation of representation and communication devices takes, in what way they contribute to generating a representation and a conception of society.

Symmetrically, it is useful to specify what this book will not talk about. It will not be about how human beings create devices to study the nature or conditions under which a situation of direct communication (not mediated by a device) can be established through traces. The chemistry of printing, the detection of geological or meteorological phenomena, the authentication of works, police investigation, the diagnosis of medical symptoms and the observation of signs of character in the behavior of an individual in a situation have no place here – whatever may be the interest of these questions – and are dealt with by other researchers, in particular within the framework of the collection dedicated to the human trace. These limitations are linked to the idea that understanding the mediatized traces of social life is already, in itself, a considerable challenge. From now on, when the word “trace” is used, it will refer to objects and processes that have two claims: to reflect social life (including culture in this definition) and to do so through media devices. This will be the case with one exception: the development devoted to the semiotics of the index (section 2.1), which must consider all types of indices to provide us with appropriate theoretical concepts.

1.2. The social trace as a problem: the legacy of the history of the book

As mentioned above, the processes by which an object is assigned the status of a trace may be profoundly different, so different that the word “trace” comes to refer to phenomena that are entirely foreign to each other. To move forward in the analysis, it is essential to ask ourselves what we do when we talk specifically about a *trace* with regard to objects that circulate in the media: objects that belong not only to the physical world but also to the social world and that come to us at the end of a mediatization process.

To build this theoretical framework, upon which the book is based, I will start from the way in which it has been developed by historians of books, published and read, whether learned or popular. Indeed, the questions raised by these researchers and the problems they encounter particularly enlighten us because they had to place a critique of the trace at the very heart of their approach in order to conduct their investigation¹⁵.

1.2.1. From book to reading

In recent decades, the history of books has undergone a major transformation linked to two major orientations: on the one hand, not only focusing on the form of books as objects, but also seeking to capture reading as a practice; on the other hand, setting aside quantitative data on reading alone in an attempt to qualitatively understand ways of reading. Consequently, as the founders of this movement explain, “the study of the object, far from confining the history of the book to a somewhat vain descriptive erudition, actually introduces a better understanding of book practices and historical variations in the act of reading” (Chartier and Martin 1982, p. 10).

We read alone or in groups, aloud or in silence, *in extenso* or in fragments, etc. But how can we grasp this act? Working on the past, historians are led to look for clues in objects of a culture: ways of doing things, expectations, norms of the relationship that an era has with its books. In addition, this difficulty encountered by historical research is precisely what interests us here. In itself, the historical evolution of these practices is inaccessible to the historian. The latter, like the hunter or the detective (Ginzburg 1989), will try to track the traces of what she or he wants to analyze. From all this, the form of books, which has evolved considerably throughout history, can certainly provide some clues. That is how:

15 For a more in-depth analysis of the contribution of book history and reading to ICS, summarized here, see Jeanneret (2008a, pp. 63–74).

“[...] the history of books can no longer avoid readings, partly inscribed in the object itself, which define the possibilities of appropriation, but partly also borne by the culture of those who read and give meaning, but a meaning which is their own, to the materials read” (Chartier and Martin 1982, p. 11).

We understand that historians were in a way condemned to look within the book (within the media system) for traces of reading (of a usage): this happened from the moment they decided not to content themselves with describing objects, but to understand a process, reading – linking the *book* to *reading*, to use Roger Chartier’s words (1993). They explained, for example, how the appearance of the title, the creation of indexes, the choice of collection catalogues and typography materialized “figures of reading” (Chartier 1993, p. 89). They made the material volume and editorial production the trace of a use. Indeed, “of these plural practices, personal knowledge is undoubtedly forever inaccessible since no archive keeps track of it. Most often, the only indication of the use of the book is the book itself”: this, concludes the historian, defines “the severe limits imposed on any history of reading, but also its compelling seduction” (p. 111). In fact, as Arlette Farge (1989, pp. 18–19) explains, the historian cannot escape the “physical pleasure of the trace found [...] as if the proof of what was the past was finally there, definitive and close. As if, by unfolding the archive, we had the privilege of ‘touching the real’”. However, Farge only signals this temptation in order to defend itself from it. Understanding this appeal and its limits is a major requirement for us. This is precisely the purpose of the present book. In effect, as we will see below, the practices that we expect concerning the traces of contemporary media are also inaccessible to the eye, and not (always) because of historical distance, but because of the unprecedented range of their dissemination. So that here again, it is very appealing but no less risky to hope to grasp them, or even track them down, through the traces they leave.

Let us, therefore, examine historians engaged in production of the trace of a use, i.e. reading¹⁶. Our aim, here, will not be to assess their scientific criteria – which we will have to examine (section 4.2) as an indexical study into social realities – but to understand the problems they face, and which we will certainly face as well. We will limit ourselves, here, to observing three things: what historians refer to as traces; how this term makes sense for them in relation to certain major concepts; and what are the aporias that this research helps to identify.

16 This is the re-reading, within the ambit of the present book, of a series of works that have guided my research over time and that concern the relationship of historians to the archive, the history of reading and the history of scholarly practices.

Historians use the word “trace” a lot. This is the case, for example, when it comes to the status of archival documents (Farge 1989), the resources of historical investigation (Chartier 1993) or the relationship between the text and its readers (Jacob 2002). As these examples show, it is a term with a heuristic function that aims to characterize a pressing issue.

Above all, it is a question of traces when it comes to the very issue of historical research. As we have seen, this is Chartier’s concern, who proposes a method “combining, on the one hand, the reading protocols specific to different groups of readers and, on the other hand, the traces and representations of their practices” (Chartier 1993, p. 93). It is above all the lack of direct access to personal knowledge of practices that leads to the books or paintings of painters being qualified as the place where traces are collected. This phenomenon does not escape those who comment on the endeavor, who systematically place it under the sign of the trace: “it is a question here of distinguishing the modalities of appropriation of cultural materials, through the uses and usages of the book. The difficulty is to find its traces” (Le Men 1986, p. 101).

The trace is, therefore, inhabited in a way by the historian’s desire, who sees in it an object awaiting interpretation, while being very conscious of the way in which this interpretation must be controlled:

“Traces by the thousands are the dream of every researcher... We feel both the strength of the content and its impossible deciphering, its illusory restitution. Tension is organized – often in conflict – between the passion to gather it all, to present it to be read in its entirety, to play with its spectacular side and its unlimited content, and reason, which requires that it be finely questioned for it to make sense” (Farge 1989, p. 22).

However numerous they may be, traces are still too rare for the historian, especially those that can give access to a popular but widespread practice. The trace focuses attention only because it is recognized as the ability to reveal things that are not themselves visible: not only to the extent that they have disappeared, but also because they have not been the subject of a deliberate act of inscription. In the review cited above, Le Men observes that as we move from scholarly reading to ordinary reading and then to popular reading, the trace becomes increasingly rare, and also increasingly crucial. Like the archives of trials, the humble traces bear witness to realities to which society did not confer public status¹⁷. If the idea of trace is omnipresent, it is, therefore, both because some practices were not considered

17 This question is further explored in relation to the “indexical paradigm” (see section 4.2.2).

memorable enough to give rise to inscription and because, when inscription took place, it was not necessarily voluntary.

The unintentionally recorded trace then testifies within the text to a singular local practice that it inscribes in the materiality of the book. It becomes a sign of the reader's active character, of the fact that the reader him- or herself appropriates the text and manipulates it. The historian of antiquity Christian Jacob, who led a collective research project on the history of scholarly practices, places this status of the trace in the perspective of Michel de Certeau's theory of uses (1990), by taking up the images of the latter who represents the user as an actor who poaches and moves within the territory of the text. In this case, the trace embodies the tension between the order of the text, more or less imposed by the publisher and the author, and the freedom of the reader:

"Through reading, two topographies seek an impossible encounter: the first is given, materialized, encoded in the text, resulting from an authorial or editorial will. The second is that of the pilgrim, of his stopping points, of the places where he slows down, where he presses the pace, jumps steps, goes back or digresses [...] To peregrinate is also to leave traces in the spaces that we travel" (Jacob 2002, pp. 16–17).

1.2.2. *A constellation of categories*

Finally, the trace expresses above all the historian's problematic view of a process whose complex, historical and conflictual nature is measured by the historian but is not observed as such, and is only grasped through what the objects can reveal. For the historian, the trace is both a provocation and an enigma. Hence, in the history of reading, the trace only functions in alternation and echoes with a constellation of categories that transform this appealing and enigmatic object into a problem. In reading the texts, we can identify a set of terms that somehow collectively construct the conceptual scope of the trace. I will clarify the choice of terminology: I consider the use of *terms* as the expression of interlinked *categories*. I advance the hypothesis that the system of relationships that unites these categories within a problem is a *concept* for historical research. I hold on to the term *trace* as a sign of the problem thus described. I will seek to show later that it is not a concept, but a *schema*, which gives rise to various figurations.

For this analysis, I retain, here, the programmatic text delivered 35 years ago by Chartier at the founding symposium of research on reading practices (1993)¹⁸. In this conference, alongside five occurrences of the term “*trace*” (in French, or “trace” in English) – in fact quite rare, but always in a strategic position – we find the terms “*pratique/pratiquer*” (“(a) practice/(to) practice”) 11 times, “*inscrire/inscription*” (“inscribe/inscription”) eight times, “form” (understood as the material “form” of the texts) seven times, “*usage/usager*” (“use/user”) seven times and “*indice*” (“index”) five times (and “indication/indicator” twice).

These terms are all used, in different proportions, in most historical works on reading practices, such as in the collective *Des Alexandries* following the symposium held at the *Bibliothèque nationale de France* in 1999 (Jacob 2002). I will cover these categories in an appropriate order to construct the problem in a simple way, but the reader should remember that the categories are interdependent and not hierarchical categories.

The word *trace* applies in history and more generally in the social sciences to a wide range of objects, some of which have nothing to do with the question of reading; it is no less obvious that its frequency is linked here to the specific problem of research, which consists of seeking clues to a cultural practice that takes shape through the encounter with a medium. Above all, it defines a structural link between the idea of trace and that of inscription, which must be understood first and foremost in the elementary sense of the term in documentation sciences: “the smallest document is an inscription” (Otlet 1934, p. 43). In the historian’s work, the trace/inscription dyad embodies more precisely what documentation theorist Jean Meyriat calls the “document by attribution”: inscriptions that have not been intentionally recorded but are *subsequently* attributed an informational value by their user (Meyriat 1981). The historian makes the trace an object of information by giving it the role of an indication of a field of practice. In other words, the success of the term *trace* is related to the fact that it can refer to both inscription and index. We, therefore, have an initial definition of the trace: an inscription that can have the value of an index.

In Chartier, the term “form” is frequently associated with inscription. Indeed, the study gives particular indexical status to the forms of the text, which the historian addresses, as we have seen above, in interaction with the gestures and values of reading. The indices that the investigation is looking for not only relate to the content of the documents, but also to their form, and, today in ICS, to their format, if we mean by this a materialized form, produced in an industrial technological process and manipulated by users. What justifies the importance of forms? Precisely the fact

18 This text, first published in 1985, was the result of a conference given in September 1983 during the *Pratiques de la lecture* (Reading Practices) symposium in Saint-Maximin (France).

that the study takes into account the mediatized nature of the book, the fact that its material form conditions the resources, roles and procedures of communication, that mediatization by itself can make a trace, as we have seen above with guides and the blog.

This first network of categories allows us to specify the analysis. When historians speak of traces, they constitute as their research objects the inscriptions found in the book medium and attribute informational value to these inscriptions, to their textual content and also to their material form. They thus assimilate the inscription to the status of a document by assigning it *a posteriori*. This is perfectly summarized by Chartier's initial formula: "This text would, above all, question the conditions of possibility of a history of practices, made difficult both by the rarity of direct traces and by the complexity of interpreting indirect indices" (Chartier 1993, p. 79). We will have to return (in Chapter 2) to the fact that in reality no trace is ever direct; however, we must undoubtedly understand this opposition between "direct trace" and "indirect index" based on the distinction proposed by another information theorist, Robert Escarpit, between event and document. The historian has no direct access to the events of reading (what people actually did when they were reading) and must rely on the indirect testimony of the document understood as "an accumulation of fixed and permanent traces" that "remain available for reading" (Escarpit 1991, p. 62)¹⁹. It should be noted, however, that the question indicated by the word "trace" only becomes a clear problematic by linking two more defined empirical phenomena, the material process of inscription and the interpretative process of the index. In this sense, making inscriptions of the traces of culture consists of constructing them as indices of practices. This construction is necessarily indirect – and, therefore, problematic – because it involves interpretation, the *a posteriori* attribution of informational value. To be even more precise, the trace is the concrete representation of this link between the materiality of the inscription and its value as an indication of a practice. The idea of trace, in other words, is a concrete way of representing the problem enacted by the historian.

The term "practice", therefore, appears logically in this context, since it refers, in the broadest sense, to that of which the inscription is the index. This is the most general and frequent term in Chartier's texts: it is explained by the fact that this term is richer and more open than others that could be substituted, such as "activity", "behavior" or "habit". In Bourdieu's tradition²⁰, use of the term "practice" makes it possible to designate a set of concrete actions without detaching them from a whole universe of representations, beliefs and values. The preference given to this term –

19 This analysis is based on the history of the concept of the document proposed by Frayssé in Gardies (2011, pp. 46–73).

20 For example, the *Esquisse d'une théorie de la pratique* (Bourdieu 2000), first published in 1972.

which I share in my own work²¹ – is linked to the desire not to describe cultural acts independently of a global environment whose content is at once intellectual, ethical and political. The notion of practice, therefore, dominates the analysis; despite everything, it is not self-sufficient, but is part of a system along with use, which makes it possible to situate reading gestures within a more or less strict relationship with the “order of books” (Chartier 1992), i.e. to the materiality of forms and to all the institutions and norms that frame it. The term “use” indicates, in line with cultural history, that which cultural practitioners must “deal with” (Certeau 1990, p. 52), such as devices, discourses and norms. Use is, therefore, a cultural practice that must adapt to the social and practical constraints of a mediatized world, but that also knows how to mark its own initiative and creativity – which is also expressed in the term “appropriation”.

1.2.3. Structural difficulties

In the use of the word “trace” by historians it takes on meaning not through a single category but through a set of categories: inscription, index, form, practice and use. These will serve later (Chapter 2) as a basis for the analysis of the contemporary schema of the trace of use. To fully understand what is learned from this research on reading, it is interesting to identify the difficulties that historians face in interpreting “indirect” media cues. To do this, it is enough to take up what they say about it without claiming to escape it ourselves.

First of all, we must measure the scope that is formulated here. If inscriptions are instituted as traces, it is because they are considered as witnesses to something that is not directly accessible to us. This, more simply, consists of making them objects of representation. As we have seen above, with regard to the statue of St. Peter, the media texts perform a representational function, by virtue of their power to make something exist that is past or inaccessible, in this case, with regard to the ordinary reading practices of the past, both at once. The trace of use thus allows an “effect and power of presence instead of absence and death” (Marin 1981, p. 10). However, treating the form of the media as a substitute for practices that have become inaccessible to us is problematic for three major reasons.

The first is the constraints that inevitably result from a real consideration of mediation and mediatization. Historians of reading do not attempt to make the book a mere medium. They impose on themselves the discipline of thinking the dialectic between what the system proposes and the mode of appropriation to which it is subject. This is the reason why, like Certeau from whom they draw inspiration, they affirm the importance of the space of play between the editorial frameworks of

21 For a more precise argument for this choice, see Jeanneret (2007).

reading and the inventiveness of practices. However, as a result, inscription is not only an indirect but also an uncertain indicator. It loses a little of its character as a trace. In other words, to hold the inscription as a trace is for the historian more a purpose than a program. Chartier, who seeks to “make Michel de Certeau’s proposals operational”, “reminds us, against all the reductions that cancel the creative force of usage, that reading is never totally constrained and that it cannot be deduced from the texts that it appropriates”. *Cannot be deduced*. This leads to a kind of *aporia*, “the founding paradox of any history of reading, which must postulate the freedom of a practice of which it can only grasp, on a massive scale, the determinations” (Chartier 1992, p. 33). This does not mean that the effort to link the media to practices is futile, but it is marked by the uncertainty of interpretation.

This index is indirect in a second way. What books offer us is not a mimetic representation of reading practices, but, in Chartier’s own words, an “implicit figure”, which is the projection in the texts of how those who produce them – authors as publishers and multiple actors in the book industry – more or less consciously represent themselves as ideal readers, their expectations and their actual uses. Indexical study on the forms of the text may allow fairly plausible hypotheses about how publishers view their readership. We can go one step further and think that changes in these textual formats may have been influenced by the very evolution of practices. The hypothesis defended by this historical trend is rather that of a dialectic. They observe metamorphoses in the forms of the book from one era to another and from one social milieu to another. They draw from this the idea that we can postulate a double determination (in Bourdieu’s terms a structural/structured relationship) between two processes: on the one hand, the development of book (lexical) cultures and, on the other hand, innovation in text-setting devices.

However, such an interaction can only be assumed without being really described in its concrete sources; moreover, establishing such a link does not eliminate the irreducible discontinuity between the reading that is represented (in the editor’s head, in the format of the text) and the reading actually practiced by real people in society. In reality, historians’ analyses circulate between three readership concepts: one mobilized by actors in provision of books and named by Chartier as the “implicit reader”; one concretized by the very forms of the text itself, and named by Umberto Eco (1985) as the “model reader”; and finally, one reflected in the practices of effective reading in a community. To add to this complexity, it should be noted that the implicit reader, the principle of action for producers of print, is not entirely confused with the model reader, the principle of interpretation for the reader within the text, and that in terms of effective reading, collective reading does not correspond either to individual forms of practice. However, this complexity is due to the fact that the trace is mediatized here, which it relates to devices, interactions and signs.

The third difficulty revealed by these works is that the trace is not only studied by the historian, but also produced and often interpreted by the actors themselves. The study of the collective for the study of literate practices, which paid particular attention to the evolution of the ways in which texts are appropriated, showed the richness and diversity of the activity of producing traces among readers themselves. Readers may produce traces for themselves or others and, in this case, what is referred to as the trace is an inscription that works less as an index than what has been “traced-out” (or a *tracé* in the original concept in French) – a term that will play an important role in the rest of our analysis (see section 3.2). The practice of reading can be approached as a means of tracing one’s own path in the text, breaking it up or reorganizing it according to a path. This metaphor expresses the will to give material thickness to the act of reading:

“The open path and the trail markers left along the way, whether it be deliberate or unknown, can guide other readers or serve as signs of recognition for the walker wishing to find their own traces. Some traces are discreet and evanescent, others may permanently affect the ecology of the text, modify the system or even subvert it” (Jacob 2002, p. 17).

Even more fundamentally, this image embodies the idea that “reading is rewriting, by inscribing in the text itself new conditions of its intelligibility” (Jacob 2002, p. 128). In ICS-specific terms, what is highlighted, here, is the mediation function of writing and rewriting. It means that inscription cannot simply be approached as an index of a practice that is external to it. When it is mobilized by human beings in society, and not simply by an automaton, it is also a trace intended to be read, i.e. a piece of writing²². If it is always possible to look at a text as an indication of what it reveals, this does not completely erase its dimension as a gesture addressed to others. This consideration, already fundamental in antiquity, has acquired a major significance in the context of industrial media. Indeed, in the cultural and technological universe studied by historians of ancient literary practices, the medium of the written word (papyrus, parchment, paper) defines the spaces and limits of annotation, for example that borne by handwriting in the margins of the printed word. However, current media devices integrate this process and this trace much more intimately into their textual material, which should lead us to pay greater attention to the fact that traces can be indexes, and also mediations of use.

All these difficulties point to a more general reality, the communicative nature of what are called traces of use in the media: the fact that what both of them describe as traces are signs that circulate in society via devices of communication.

22 These issues are discussed in more detail in Chapter 3.

1.3. Relevance and efficiency

To conclude this journey devoted to the construction of a research object, I would like to quickly situate the specific aim of this book within the many studies of the trace that have developed over the past two decades in an interdisciplinary perspective and in particular within ICS. I will of course have to enter into a dialogue with these works throughout the book, since also, as I pointed out in the introduction, this exchange has been alive for a long time, particularly within the framework of the “*l’homme trace*”/“Human Trace” collection, a theoretical and empirical dialogue without which this book would not have seen the light of day. I will confine myself, here, first of all, to specifying the particular aim of the approach which I advocate within this constellation of research.

Of course, if I consider, here, the communicative forms of the trace – and not only the semiotic category of the index – it is because my reflection is nourished by all the exchanges linked to the Human Trace collection, in its general scope. It is, therefore, necessary to link these particular objects to a more general regime of traces and traceability. I will summarize these givens by means of three shared theoretical options, to which I will have to return in detail: the trace does not naturally exist as a given, but it must be constructed as such and it updates a particular form of thought; therefore, it cannot be opposed, as has often been intended, to the sign, because the trace only exists when it is interpreted and, therefore, constitutes a sign, certainly a particular and complex one but linked to a defined interpretative regime, the “sign-trace” (Galinon-Méléneec 2011, pp. 191–209); as such, the trace is a political and scientific object, because it plays a decisive role in the construction of the information and knowledge that regulate our relationship to the world (Leleu-Merviel 2017).

Nevertheless, I do not seek to deal with this general problem here. As I said earlier, I am considering, here, a particular type of trace, traces of social practices (and not natural phenomena) that are borne by the media (and not in the natural environment or on the body). These objects are of interest to me because they circulate widely and condition the circulation of ideas and knowledge in society. In other words, it is a problem related to the “trivial life” (Jeanneret 2008a) of the trace that concerns me. As such, the dissemination of objects and their role as intermediaries in the circulation of social conceptions will be the criteria for choosing the empirical examples that I will analyze. What characterizes the research conducted here is also the point of view adopted. It is based on the importance of the question of relevance in the analysis of traces and devices of traceability, but it seeks above all to understand the efficiency of these devices, the power that they manage to exercise.

1.3.1. *The evasive relevance of the trace*

To clarify this approach, it is useful to situate it in relation to that proposed by Leleu-Merviel in her book *Informational Tracking* (2018). The trace is approached in an epistemological and critical approach aimed at making explicit the construction of devices of information processing. It contributes more broadly to the identification of a new theoretical framework, breaking with the first theories of information, which, to simplify, have two major shortcomings: on the one hand, the fact that they were based on eliminating the production of meaning, and on the other hand, the fact that information is seen as an object while it is a relational process. Leleu-Merviel separates the trace from its apparent naturalness to show its procedural, complex and largely uncertain character. A trace appears as one of the moments of a very elaborate intellectual construct, which assumes prior states (apprehension, data, aggregate, for example), based on material conditions (indexical retention), a technological process (inscription) and above all a work of qualification which gives a basis to its interpretation and guarantees its reliability. The trace is not isolated but is based, in Leleu-Merviel's words, on a double aggregate of data, that which establishes the informational value of the trace and that which authenticates it.

What justifies this methodical construction is the fact, which is immediately apparent, that the current omnipresence of the terms information and trace is accompanied by a lack of definition and, above all, an insufficient examination of the conditions for their relevance in use. As we have seen above, my observations in this respect are similar to those of Leleu-Merviel. This effort has been made necessary by the uncontrolled transfer of technological theories of telecommunications to human activities, which has led to decades of confusion in information theories, so that deconstructive work, carried out very methodically in the first chapters of *Informational Tracking*, is necessary to subsequently reconstruct the process mentioned above. Therefore, the notion of the horizon of relevance affords a structure for a critique of the uses of the notion of trace. Nothing is a trace in absolute terms, the interpretation of marks is based above all on a domain and a questioning that can justify their meaning.

As such, Leleu-Merviel's analysis is controversial, in the sense given to this term by Bachelard's epistemology: it is a question of undoing the confusion upon which the use of the word *trace* is usually based. The work therefore involves the identification of, and separation from, a trivial and illusory epistemology based on a set of conceptual "optical illusions", mainly the belief in a direct and objective apprehension of the world (Leleu-Merviel 2017, pp. 93–104). The challenge of this critical work is to contribute to a controlled use of the category, and thus of methods of information processing. This clearly formulated objective at the end of the journey is briefly summarized here. In the contemporary digital world, where

“systems only contain clusters of brand-data without horizons of relevance”, it becomes urgent to “create the necessary consensus with the appropriate methodological rigor [...]. In the age of *Big Data* and *deep learning*, the current challenge is to help the emergence of consensual interpretative frameworks with the necessary analytical and methodological rigor” (Leleu-Merviel 2018, pp. 235–236).

This critical model – which participates in the collective theoretical dialogue over time – will provide an essential framework for the following analyses. However, we will not go into more detail on the criteria for proper use of the trace. If epistemological discussion seemed necessary to Leleu-Merviel, as a device designer and information theorist, it is because the idea that the trace could be a direct and objective grasp of the (social) world is doing very well, it circulates widely, and especially because many devices are built based on this hypothesis. This is what this book is seeking to understand.

Leleu-Merviel evokes this “trivial” conception of the trace by commenting on research devoted to the analysis of media audience calculation systems. The critical examination of these mechanisms clearly highlights the fact that they are not guided by a concern to define a horizon of relevance:

“[...] the quantitative measurement of audiences is everywhere, a very efficient operator for the media, for their internal and external organization; to do so, it aggregates phenomena that are not comparable. Watching TV or listening to the radio refers to practices, to investment levels, to behavior whose heterogeneity each of us has experienced” (Meadel 2010, quoted by Leleu-Merviel 2018, p. 200).

The process is nevertheless efficient, as the quoted text underlines at the outset, since this way of creating traces, however questionable it may be on a scientific level, has considerable power in the political economy of the media, and, therefore, in the sorting of the representations of the world that are disseminated to us.

1.3.2. An efficient figure of relevance

Many of the situations that we are confronted by the media today are related to the use of the trivial trace, epistemologically uncontrolled but socially efficient and widespread. Let us take three small real-life examples. I exchange e-mails with a friend who is preparing for the Geneva Conservatory competition and our messages do not avoid mentioning the name of this city: shortly afterwards, during an information search, I see a series of proposals for shows and accommodation in the Swiss capital. I am preparing a course in tourism semiology and to do this, I visit a large number of sites of guides and tour operators dedicated to the city of Rome

(basic corpus building technique): afterwards, connecting myself to a social network, I see a message appearing to invite me to go through the most powerful intermediary to book plane tickets, a rental car and a hotel there. Colloquia sometimes lead researchers to cite individual works, sometimes collective works designated by the sole name of their coordinators: I read in a book devoted to power relations in science based on the frequency of citations that the presence of my name proves an act of domination, whereas, upon verification, the majority of authors cite, not my texts, but articles written by others in these collective volumes where my name appears. To deduce from a visit to a site dedicated to Rome or from a correspondence with a person who goes to Geneva, or a plan to travel to Geneva as a tourist involves, in Leleu-Merviel's words, a very uncertain interpretative aggregate, linked to the fact that no aggregate of authentication forms the basis of the evoked practical scenario. Evaluating the intellectual authority of an author or document based solely on the calculation of the occurrences of their name is based on "the ejection of semantics from the system" (Leleu-Merviel 2018, p. 33), leading to confusion between the calculation of signal frequency and information value.

Nevertheless, these mechanisms are multiplying and a relative social consensus can be organized around the reliability of these calculations, as is the case with political surveys (Jeanneret and Souchier 1997), which are subject to the same confusion. To be more precise, there are devices whose horizon of relevance is not an example of epistemological rigor. The recommendation engine is wrong when it attributes to me the willingness to visit Geneva when I ask for information about a friend, or when it identifies a plan for a stay in Rome when I am preparing a semiology course. However, in a significant number of cases, the recurrent presence of a city in messages indicates the intention to go there; and above all, there are many more who plan to visit Rome than those who teach semiology. By this logic, it does not matter how misinterpreted a conduct is if the overall efficiency of the system provides opportunities for commercial gain. Similarly, it is unlikely that those who defend the evaluation of researchers on the basis of citations or that of universities by the so-called Shanghai ranking believe in the validity of these calculations to define a scientific advance or the quality of education; however, if their objective is not intellectual but managerial or political, it works; as a result, the reality of these calculations is becoming widespread.

What these examples show is that the sharing of belief and the creation of devices can powerfully spread certain qualified media products such as traces into society in material terms and certain conceptions of what a trace is in imaginary terms, without having given rise to critical evaluation. Trivial relevance is therefore constructed by the circulation of objects and by the fact that, little by little, devices diffuse traces which are then seized by actors. A survey conducted by colleagues among students at the beginning of their university education on their use of Google (Simonnot and Gallezot 2009) shows this very clearly. The efficiency of the search

engine gradually imposes confusion between different possible definitions of relevance, to the point of making it very difficult to teach documentary methods. Indeed, the main argument used to avoid these classic distinctions for documentary techniques (relevance to a situation, a subject, a use, a user, etc.) is that “it works”. The challenge of considering the quantitative processing of code transactions as an indicator of the relevance of documents is *de facto* successful, conveying with it an absolute and general definition of relevance. Calculating occurrences with an algorithm would ensure the relevance of any search. The categories related, in Leleu-Merviel’s terms, to the value of information are, therefore, in fact, overwhelmed by the efficiency of the calculation. For example, the calculation of a person’s or text’s popularity is equated with its authority value²³.

1.3.3. *Trace as an interpretative schema*

The purpose of the research summarized here therefore to understand the effective mode of the trivial existence of the trace, as it circulates in media forms and social representations, including and even more importantly when what is defined as *trace* does not deserve to be so defined in the critical problematic of Leleu-Merviel. In her effort to justify the importance of the step of qualifying the trace, she writes: “so-called traces may not always be such a thing” (Leleu-Merviel 2018, p. 183). By this Leleu-Merviel means that the power indexical reasoning gives to testify to or to prove this or that reality is not valid. I could say that I am particularly interested in these traces that are not traces. This is because we are literally surrounded by the mass of so-called traces – or at least inscriptions that are not indicative of what they claim to reveal.

However, taking this trivial construction of relevance and efficiency seriously necessarily produces an inversion of the approach in relation to the project of methodically grounding a legitimate use of the concept of trace. In a rigorous work of constructing the conditions for the scientific interpretation of indices, the trace is not a given, it is the result of a complex elaboration. The “deployment of the trace” starts with observations captured by perception and leads to the writing of their status as an index, passing through a set of controlled constructs: trace-capture, data, retention, inscription, study and qualification. Each step involves reflective work to explain operations of thought and writing. In social life, on the contrary, it is common to declare an object as the trace of something based on its manifestation, on how it presents itself to us, without necessarily questioning all the aggregates that legitimize it in fact. It can even be said that in the media, for a semiotic production (a map, a curve, a data visualization) to acquire the status of a trace, it is necessary

23 This analysis is provisional, since we will see later (in particular section 4.2.3) that the semiotic dimension of interpretation does not completely disappear behind the calculations.

that we do not question too much the way it was produced. This holds, for example, for the fact that a news photograph attests to an event, that the search engine's response list displays accessible information, that a survey curve expresses opinion, and that a line graph identifies a community – all examples that will concern us later.

In the trivial life of ordinary and technically produced traces, the trace is inseparable from the context that delivers it and from the more or less implicit interpretative aggregates that accompany it. So much so that, to simplify the idea, a trace in the media is first of all an object that has the material, formal and semiotic means to manifest itself as such.

What, for example, is the efficiency of a political survey? It is the claim to account for by mathematical calculation, a certain state of opinion. Thus, in May 1995, polling firms were accused of “failing” because they had announced Édouard Balladur's victory in the French presidential election. Certainly, in Leleu-Merviel's words, this so-called trace is not one, because it is based on the confusion between extrapolating the actual votes on election night and collecting voting intentions a few months earlier. The trial of the pollsters expresses this confusion. What does the statement *the pollsters were wrong* mean? It is based on the assumption that a survey must accurately represent opinion; moreover, the defense of the institutes reproduces and reinforces the same confusion: “it is, they say, only a snapshot of opinion at a given moment in time”²⁴.

With this example, we are faced with a certain trivial regime of the trace, with its forms of expression, its “epistemological beliefs” and its “optical illusion” (Leleu-Merviel 2018, p. 101) and with the particular play it introduces between relevance and efficiency. However, this regime is defined not only by a word or a device, by a media message or by a belief, but also by all of this. It circulates between devices (the questionnaire), forms of expression (the curve), aggregates of objects (the opinion barometer), discourse regimes (foresight), interpretative principles (the volatility of the electorate) and communication spaces (political broadcasts). What we have called an “interrhetoric” (Jeanneret and Souchier 1997, pp. 153–154).

The layout of the multiple configurations of signs that embody the trace thus crosses social spaces in the game of chains of interpretations, that which I call “triviality”. Therefore, I have chosen to define the mediatised trace as an interpretative schema and not as a concept. We introduced the term “schema” with Émilie Flon as part of research we conducted together on the modes of presence of places and their practice on the Web (Flon and Jeanneret, in Davallon 2012, pp. 99–104; Flon and Jeanneret 2010). The aim was to analyze mediations of the

24 The meaning of this argument as an example of the trace schema is analyzed in detail in section 2.3.1.

representation of relationships between tourism practices and places in the computerized media. I had the opportunity to take up the concept of an organizational schema in the context of an analysis of so-called “cartographic” representations of the social world (Jeanneret in Galinon-Méléneec and Zlitni 2013, pp. 235–267). Jean-Édouard Bigot (2018) mobilized this concept in his critical research on devices produced by technologists in their claim to replace the social sciences and humanities with “metrics” (a claim that will be discussed in section 4.2.3). On this occasion, he explained the epistemological status of the category (Bigot 2018, pp. 237–240), attributing to it a role of articulation between the phenomenological posture of the analyst and the concrete forms by which it is actualized: what can be called, following Marin (1994), “figurations”²⁵. For Bigot, the notion of a schema makes it possible to understand how this type of media object “organizes a particular regime of visibility that is at the same time an ‘intellectuality’ and to describe [their] particular ways of organizing, structuring and informing the realities they ‘deal with’” (Bigot 2018, pp. 237–238). The result of this analysis is to highlight and make debatable the “claims of mediation” of calculation-based methods of social knowledge, claims that they most often naturalize.

In the study of tourism sites, indeed, as in Bigot’s research, the expression “organizing schema” refers to a structure that is sufficiently prominent, and also sufficiently flexible to be able to take a certain number of organizational forms while embodying within info-communication devices an analogous view of the world. The choice of terminology for the expression “interpretative schema” here meets the same objective of identifying “a structural construction that ensures a link between the technological, semiotic and phenomenological dimensions of representation and for this reason defines certain determining conditions for the construction of the meaning of information within a device” (Flon and Jeanneret 2010, p. 4). In this case, it was then a question, within the organizing schema, of a certain way of articulating, in various graphic configurations, a relationship between the space of writing and the space of the places of practice. The organizational schema was, we wrote, “both a process and a meaning, in fact a creation of meaning in the narrow sense. The schema is, therefore, dynamic” (Flon and Jeanneret 2010, p. 4). It is the search for such relationships that will serve, starting from the next chapter, as a basis of our investigation into the lives of traces and how they are translated into ideas, gestures and tools.

The comment we added applies to the trace schema. “The schema is not reduced to a semiotic modality (as piece of writing), nor to a form (as a list), nor to a cognitive procedure (as a classification) but integrates these different levels into a singular construction” (Jeanneret and Flon 2010, p. 4). In the following chapter, we will see the trace using different semiotic substances (writing as figures), mobilizing

25 On the use of the concept of figuration in ICS, see Jeanneret (2014a, pp. 71–78).

different forms (a graph as photography), engaging complex cognitive and normative operations (observation and belief) and mobilizing the properties of different media in particularly numerous and creative configurations. The trace schema is, therefore, not a simple form of expression. It has great formal plasticity and can be actualized in a very diversified range of different figurations, which our investigation will have to explore.

All the uses of the term “schema” are related to the role that the schematism plays in Kant’s philosophy of personal knowledge, that of a dynamic and flexible structure mediating between sensibility and understanding. In the article cited (Flon and Jeanneret 2010), we discuss the choice of this term by comparing it with other authors and their theoretical framework, in particular the use of the same expression in a different sense by Marin (1994) and the concept of *pattern* in Leleu-Merviel and Useille (2008). In communicational terms, the concept of schema is similar to that of composite (Le Marec 2002) and is derived from it, because it is also a structure that associates, in a flexible way, devices, knowledge, texts and situations. However, where the composite derives its main value is that it allows the study of the singularity of a situation and a situated and singular practice, the schema aims to identify circulating features in such a way that it establishes a relationship to social reality. It cannot be reduced to a category of thought or a product, but as a process, it has a structural character that we will seek to understand.

The interpretative schema obeys the same principles as the organizing schema, but targets a somewhat different object, because it finds its main relevance in writing, and that in turn within reading and the production of knowledge. The concept of an interpretative schema bears some relation to Jean-Michel Berthelot’s (1990) “intelligibility schemas”. This proximity is because, in either case, the main issue of the analysis is the paths of “social intelligence”, to use its picturesque expression, and because, in any case, we must accept the reason that it is always marked by uncertainty. Hence, the definition of this concept given by the social science epistemologist (“a matrix of operations making it possible to inscribe a set of facts in a system of intelligibility, i.e. to reason or provide an explanation”) applies to the trace of the schema. However, there are two differences with the trace of the schema used here. On the one hand, once intelligibility schemas are formalized they define, for Berthelot, well-defined systems of acceptability of a theory in anthroposocial sciences, the trace of the schema taking multiple and unequally controlled forms, and concerning more or less well-defined, more or less valid trivial modes of existence of the social knowledge project in the name of the idea of trace. On the other hand, where Berthelot seeks to isolate the cognitive part of the work of social intelligence, the schema of the trace draws its strength from the historical construction of strong relationships between signs, objects, practices and representations.

Finally, the interpretative schema is not unrelated to the cognitive schema as it is mobilized in Jean Piaget's genetic epistemology. It has the same character as a flexible structure that is repeated in similar circumstances and, therefore, has a repeatable and transferable character in different circumstances. However, where this usage has as its main purpose the genesis of individual capacities, these are categories that circulate in the social sphere and inform the construction of devices.

We will, therefore, seek to describe in the chapter that follows the trace as a trivial interpretative schema that presides over the contemporary multiplication of efficient devices for the production of mediatized representations of the social world. This initial work is necessary to then explore the multiple configurations of the trace in the media.

