

Carlo Ginzburg

Clues, Myths, and the Historical Method

*Translated by
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Clues: Roots of an Evidential Paradigm

God is in the detail. *A. Warburg*

An object which speaks of the loss, of the destruction, of the disappearance of objects. It does not speak of itself. It speaks of others. Will it also include them? *J. Johns*

In the following pages an attempt will be made to show the silent emergence of an epistemological model (a paradigm, if you prefer)¹ towards the end of the nineteenth century, in the humanities. Sufficient attention has not been paid to this paradigm, though it is very much operative in spite of never having become explicit theory. Such a study may help us to break out of the fruitless opposition between “rationalism” and “irrationalism.”

I

A series of articles on Italian painting appeared in the *Zeitschrift für bildende Kunst* between 1874 and 1876. They were signed by an unknown Russian scholar, Ivan Lermolieff, and translated into German by an equally obscure Johannes Schwarze. The new method of the attribution of old masters proposed by the articles provoked conflicting reactions and lively discussions among art historians. The author then shed the twin masks, revealing himself to be the Italian Giovanni Morelli (a surname for which Schwarze is the equivalent and Lermolieff very nearly its anagram). Art historians today still speak of a “Morellian method.”²

Of what did this method consist? Museums, Morelli stated, are full of paintings with inexact attributions. But it is difficult to trace every piece to its real creator: we are frequently dealing with unsigned works which may have been touched up or are in a deteriorated condition. In these circumstances it is essential to be able to distinguish originals from copies. Yet, to accomplish this, Morelli insisted, we should not depend, as was so often the case, on the most

conspicuous characteristics of a painting, which are the easiest to imitate: eyes raised towards the heavens in the figures of Perugino, Leonardo's smiles, and so on. We should examine, instead, the most trivial details that would have been influenced least by the mannerisms of the artist's school: earlobes, fingernails, shapes of fingers and of toes. Morelli identified and faithfully catalogued by this method the shape of the ear in figures by Botticelli, Cosmé Tura, and others, traits that were present in the originals but not in copies. He ended up proposing many new attributions for works hanging in the principal European museums. Some of the new identifications were sensational: in a reclining nude in Dresden which had passed as a copy by Sassoferrato of a lost painting by Titian, Morelli identified one of the very few authentic works by Giorgione.

In spite of these results, Morelli's method was heavily criticized, in part, perhaps, because of the almost arrogant certainty with which he applied it. In time, it came to be judged mechanical, crudely positivistic, and fell into disrepute.³ Still, many scholars who aligned themselves against it may have continued unobtrusively to use it in making their attributions. It is to Edgar Wind that we owe renewed interest in Morelli's writings. Wind viewed them as typical examples of the modern attitude to art, an attitude leading to the appreciation of details rather than of the work in general. Morelli represented a carrying to extremes of the cult devoted to artistic spontaneity whose ideas he had absorbed in his youth through contact with Romantic circles in Berlin.⁴ Wind's interpretation is not very convincing, since Morelli was not concerned with aesthetic problems (a fact which was later held against him), but with problems of a preliminary philological order.⁵ Actually, the implications of Morelli's method were of a different sort, and much more complex. We shall see how Wind himself was a hair's breadth from discovering them.

"Morelli's books," Wind writes, "look different from those of any other writer on art; they are sprinkled with illustrations of fingers and ears, careful records of the characteristic trifles by which an artist gives himself away, as a criminal might be spotted by a fingerprint ... any art gallery studied by Morelli begins to resemble a rogue's gallery."⁶ This analogy was developed brilliantly by Enrico Castelnovo, who compared Morelli's presumptive method to the one ascribed, almost contemporaneously, to Sherlock Holmes by his creator, Arthur Conan Doyle.⁷ The art connoisseur resembles the detective who discovers the perpetrator of a crime (or the artist

behind a painting) on the basis of evidence that is imperceptible to most people. There are countless examples of Holmes's shrewdness in discovering clues by means of footprints, cigarette ashes, and the like. But to be convinced of just how accurate Castelnuevo's analogy is we need only to glance at "The Cardboard Box" (1892), in which Sherlock Holmes literally "morellizes." The case begins, in fact, with two severed ears sent through the mails to an innocent maiden lady. And here is the expert at work: "Holmes paused, and I [Watson] was surprised, on glancing round, to see that he was staring with singular intentness at the lady's profile. Surprise and satisfaction were both for an instant to be read upon his eager face, though when she glanced round to find out the cause of his silence he had become as demure as ever."⁸ Later, Holmes explains to Watson (and to the reader) the course of his lightning mental process:

As a medical man, you are aware, Watson, that there is no part of the body which varies so much as the human ear. Each ear is as a rule quite distinctive, and differs from all other ones. In last year's *Anthropological Journal* you will find two short monographs from my pen upon the subject. I had, therefore, examined the ears in the box with the eyes of an expert, and had carefully noted their anatomical peculiarities. Imagine my surprise then, when, on looking at Miss Cushing, I perceived that her ear corresponded exactly with the female ear which I had just inspected. The matter was entirely beyond coincidence. There was the same shortening of the pinna, the same broad curve of the upper lobe, the same convolution of the inner cartilage. In all essentials it was the same ear. Of course, I at once saw the enormous importance of the observation. It was evident that the victim was a blood relation, and probably a very close one.⁹

We shall see, shortly, the implications of this parallel.¹⁰ But first it may be well to look at another of Wind's valuable intuitions: "To some of Morelli's critics it has seemed odd that personality should be found where personal effort is weakest. But on this point modern psychology would certainly support Morelli: our inadvertent little gestures reveal our character far more authentically than any formal posture that we may carefully prepare."¹¹ "Our inadvertent little gestures ...": for the phrase "modern psychology" we can forthwith substitute the name of Freud. What Wind wrote about Morelli has, in fact, drawn the attention of scholars to a long-neglected passage in Freud's famous essay "The Moses of Michelangelo" (1914).¹² Freud began the second section by writing:

Long before I had any opportunity of hearing about psycho-analysis, I learnt that a Russian art-connoisseur, Ivan Lermolieff, had caused a revolution in the art galleries of Europe by questioning the authorship of many pictures, showing how to distinguish copies from originals with certainty, and constructing hypothetical artists for those works of art whose former supposed authorship had been discredited. He achieved this by insisting that attention should be diverted from the general impression and main features of a picture, and he laid stress on the significance of minor details, of things like the drawing of the finger-nails, of the lobe of an ear, of aureoles and such unconsidered trifles which the copyist neglects to imitate and yet which every artist executes in his own characteristic way. I was then greatly interested to learn that the Russian pseudonym concealed the identity of an Italian physician called Morelli, who died in 1891 with the rank of Senator of the Kingdom of Italy. It seems to me that his method of inquiry is closely related to the technique of psycho-analysis. It, too, is accustomed to divine secret and concealed things from unconsidered or unnoticed details, from the rubbish heap, as it were, of our observations.¹³

The essay on the *Moses* of Michelangelo originally appeared anonymously: Freud claimed it as his own only when he included it among his collected works. It has been supposed that Morelli's inclination to suppress his own identity as an author, concealing it under pseudonyms, may have ended up affecting even Freud; and various more or less acceptable theories have been offered on the significance of this coincidence.¹⁴ What is certain is that Freud, under the veil of anonymity, acknowledged in a manner that was both explicit and reticent, the considerable intellectual influence exercised by Morelli upon him at a stage long before the discovery of psychoanalysis. To reduce this influence, as some have attempted to do, to merely the essay on Michelangelo's *Moses*, or in general terms to those essays dealing with art history,¹⁵ unduly limits the scope of Freud's own words: "It seems to me that [Morelli's] method of inquiry is closely related to the technique of psycho-analysis." Instead, the entire statement by Freud from which I have just quoted assures Giovanni Morelli a special place in the early development of psychoanalysis. It is, in fact, a documented connection, not a hypothetical one, as is often the case with Freud's "antecedents" or "precursors"; moreover, the encounter with Morelli's writings occurred, as I have said, in Freud's "preanalytic" phase. We are dealing with an element, then, that contributed directly to the crystallization of psychoanalysis, and not (as in the case of the piece on the dream of J. Popper "Lynkeus" mentioned in the reprintings of

the *Traumdeutung*)¹⁶ with a coincidence noted subsequently, after the discovery had been made.

Before asking what Freud might have gained by reading Morelli, we should try to pinpoint the time of this occurrence, or perhaps we should say the times, since Freud speaks of two separate encounters: "Long before I had any opportunity of hearing about psychoanalysis, I learnt that a Russian art-connoisseur, Ivan Lermolieff ..."; "I was then greatly interested to learn that the Russian pseudonym concealed the identity of an Italian physician called Morelli...."

We can only guess at the date of the first statement. As a *terminus ante quem* we can suggest 1895 (the year Freud and Breuer's *Studies on Hysteria* were published) or 1896 (when Freud used the term *psychoanalysis* for the first time).¹⁷ The *terminus post quem* is 1883. In December of that year Freud mentioned in a long letter to his fiancée his "discovery of art" during a visit to the Dresden Museum. He had not been interested in art previously, but now, he wrote, "I sloughed off my barbarism and began to admire."¹⁸ It is difficult to imagine that Freud could have been interested in the writings of an unknown art historian before this date; it is perfectly plausible, instead, that he should have begun to read them not long after the letter to his fiancée about the Dresden gallery, since Morelli's first volume of collected essays (Leipzig, 1880) dealt with works by Italian masters in the Munich, Dresden, and Berlin museums.¹⁹

Freud's second encounter with the writings of Morelli probably can be dated with greater precision. Ivan Lermolieff's real name was made public for the first time on the title page of the English translation of his collected articles mentioned above, which appeared in 1883; in later editions and in the translations after 1891 (the date of Morelli's death) both his name and the pseudonym always appear.²⁰ We cannot exclude the possibility that one of these volumes, sooner or later, fell into Freud's hands; but he may have learned of Ivan Lermolieff's identity by pure chance in September 1898, rummaging in a Milanese bookshop. Freud's library, now in London, contains a copy of Giovanni Morelli (Ivan Lermolieff), *Della Pittura italiana: Studii storico critici – Le Gallerie Borghese e Doria Pamphili in Roma* (Milan, 1897). The date of purchase is inscribed on the title page: Milan, September 14.²¹ Freud's only visit to Milan took place in the fall of 1898.²² At that particular time, moreover, Morelli's book would have interested Freud for still another reason. For several months he had been occupying himself with memory lapses: a little earlier, in Dalmatia, he had tried in vain to recall the

name of the artist responsible for the Orvieto frescoes (an episode which he later studied in *Psychopathology of Everyday Life*). Morelli's book actually mentioned the painter (Luca Signorelli) as well as the other artists who had popped into Freud's memory (Botticelli, G. A. Boltraffio) as possibilities.²³

But what could a reading of Morelli's essays have meant to the young Freud, still far from psychoanalysis? Freud himself tells us: it was the idea of a method of interpretation based on discarded information, on marginal data, considered in some way significant. By this method, details usually considered of little importance, even trivial or "minor," provided the key for approaching higher aspects of the human spirit: "My adversaries," Morelli wrote ironically (just the sort of irony that would have delighted Freud), "like to consider me a person who is unable to discern the spiritual meaning in a work of art and for this reason gives special importance to external matters, the shape of a hand, of an ear, and even, *horribile dictu*, to such an unpleasant subject as fingernails."²⁴ Morelli could have claimed as his own that Vergilian motto so dear to Freud which he used as the epigraph for *The Interpretation of Dreams*: "Flectere si nequeo Superos, Archeronta movebo" ("If Heaven I can not bend, then Hell I will arouse").²⁵ Moreover, to Morelli, these marginal facts were revealing because they constituted the instances when the control of the artist, who was tied to a cultural tradition, relaxed and yielded to purely individual touches "which escaped without his being aware of it."²⁶ What is so remarkable, even more than the allusion to the unconscious,²⁷ not exceptional for the period, is the identification of the essence of artistic individuality with elements outside conscious control.

I have traced parallels between the methods of Morelli, Holmes, and Freud. I have already spoken of the connections between Morelli-Holmes and Morelli-Freud. The striking similarity between the methods of Holmes and Freud has been discussed by Steven Marcus.²⁸ Freud himself revealed his interest in the adventures of Sherlock Holmes to a patient, the "wolf-man." But in the spring of 1913 to a colleague, Theodor Reik, who had compared the psychoanalytic method to that of Holmes, Freud spoke with admiration of the techniques attributed to Morelli. In each case, infinitesimal traces permit the comprehension of a deeper, otherwise unattainable reality: traces – more precisely, symptoms (in the case of Freud), clues (in the case of Sherlock Holmes), pictorial marks (in the case of Morelli).²⁹

How does one explain this threefold analogy? At first glance the solution would seem very simple. Freud was a physician; Morelli had a medical degree; Conan Doyle had practiced medicine before turning to literature. In each of these cases the model of medical semiotics is evident: that discipline which permits the diagnosis of diseases inaccessible to direct observation based on superficial symptoms, sometimes thought to be irrelevant in the eyes of the layman – Dr. Watson, for example. It is worth noting, incidentally, that the duo Holmes-Watson, the perceptive detective and the obtuse physician, represents the splitting of a single real person, one of the young Conan Doyle's professors, renowned for his extraordinary diagnostic abilities.³⁰ But these are not simply biographical coincidences. Towards the end of the nineteenth century – more precisely in the decade 1870-80 – a presumptive paradigm began to assert itself in the humane sciences that was based specifically on semiotics. Its roots, however, were much older.

II

Man has been a hunter for thousands of years. In the course of countless chases he learned to reconstruct the shapes and movements of his invisible prey from tracks on the ground, broken branches, excrement, tufts of hair, entangled feathers, stagnating odors. He learned to sniff out, record, interpret, and classify such infinitesimal traces as trails of spittle. He learned how to execute complex mental operations with lightning speed, in the depth of a forest or in a prairie with its hidden dangers.

This rich storehouse of knowledge has been passed down by hunters over the generations. In the absence of verbal documentation to supplement rock paintings and artifacts, we can turn to folklore, which transmits an echo, though dim and distorted, of the knowledge accumulated by those remote hunters. An oriental fable that circulated among Kirghiz, Tartars, Jews, Turks, and others relates the story of three brothers who meet a man who has lost a camel or, in variant versions, a horse.³¹ They describe it for him without hesitation: it is white, blinded in one eye, and carries two goat-skins on its back, one full of wine, the other of oil. Then they have seen it? No, they have not. So they are accused of stealing and brought to trial. For the brothers, this is a moment of triumph: they demonstrate in a flash how, by means of myriad small clues, they could reconstruct the appearance of an animal on which they have never laid eyes.

Obviously, the three brothers are repositories of some sort of venatic lore, even if they are not necessarily hunters. This knowledge is characterized by the ability to construct from apparently insignificant experimental data a complex reality that could not be experienced directly. Also, the data is always arranged by the observer in such a way as to produce a narrative sequence, which could be expressed most simply as "someone passed this way." Perhaps the actual idea of narration (as distinct from charms, exorcisms, or invocation)³² may have originated in a hunting society, relating the experience of deciphering tracks. This obviously undemonstrable hypothesis nevertheless seems to be reinforced by the fact that the rhetorical figures on which the language of venatic deduction still rests today – the part in relation to the whole, the effect in relation to the cause – are traceable to the narrative axis of metonymy, with the rigorous exclusion of metaphor.³³ The hunter would have been the first "to tell a story" because he alone was able to read, in the silent, nearly imperceptible tracks left by his prey, a coherent sequence of events.

"To decipher" or "to read" animal tracks are metaphors. We have tried, however, to take them literally, as the verbal condensation of a historical process which brought us, perhaps over a long span of time, to the invention of writing. The same sort of connection has been articulated, in the guise of an aetiological myth, by Chinese tradition, which attributes the invention of writing to a high official who had observed bird tracks on the sandy banks of a river.³⁴ On the other hand, if we abandon the realm of myths and hypotheses for that of documented history, we are struck by the undeniable analogies between the venatic model just discussed and the paradigm implicit in the Mesopotamian divination texts, which began to be composed in the third millenium B.C.³⁵ Both presuppose the minute investigation of even trifling matters, to discover the traces of events that could not be directly experienced by the observer. Excrement, tracks, hairs, feathers, in one case; animals' innards, drops of oil on the water, heavenly bodies, involuntary movements of the body, in the other. Granted that the second series, as opposed to the first, was virtually limitless in the sense that practically everything was grist for the work of the Mesopotamian diviners. But the principal difference between them is something else: divination looked to the future and the interpretation of venatic clues to the past (perhaps a past only instantly old). And yet there were great similarities in the learning process between the two; the intellectual operations involved – analyses, comparisons, classifications – were formally identical. Only formally, to be sure; the social context was

totally different. It has been noted, in particular, how profoundly the invention of writing shaped Mesopotamian divination.³⁶ In fact, among other royal prerogatives, the power to communicate with their subjects by means of messages was attributed to the gods – messages written in the heavens, in human bodies, everywhere – which the divines had the task of deciphering (a notion destined to issue in that ageless image of the “book of nature”). And the identification of soothsaying with the deciphering of divine characters inscribed in reality was reinforced by the pictorial features of cuneiform writing: like divination, it too designated one thing through another.³⁷

Even a footprint indicates an animal’s passing. In respect to the concreteness of the print, of a mark materially understood, the pictogram already represents an incalculable step forward on the road towards intellectual abstraction. But the abstract capacities presupposed by the introduction of pictographic writing are, in turn, of small consequence next to those required for the transfer to phonetic writing. Actually, pictographic and phonetic elements continued to coexist in cuneiform writing, just as in Mesopotamian divination literature the increasing tendency to generalize deductively did not cancel out the fundamental ability to infer causes from their effects.³⁸ This explains both the way in which technical terms taken from a legal vocabulary infiltrated the Mesopotamian language of divination, and the presence of passages dealing with medical physiognomy and semiotics in divination treatises.³⁹

Thus, we have returned to semiotics. We find it included in a constellation of disciplines (although the term is obviously anachronistic) which have a common feature. It might be tempting to juxtapose two pseudosciences, divination and physiognomics, with sciences such as law and medicine, ascribing the disparity in such a comparison to the spatial and temporal distance of the societies under discussion. But this would be a superficial conclusion. Something did indeed link these different methods of seeking knowledge in ancient Mesopotamia (if we exclude divination by inspiration, which was based on experiences of an ecstatic type):⁴⁰ it was an attitude oriented towards the analysis of specific cases which could be reconstructed only through traces, symptoms, and clues. Mesopotamian legal texts themselves did not consist of collections of laws or ordinances but of discussions of concrete examples.⁴¹ Consequently, we can speak of a presumptive or divinatory paradigm, directed, depending on the forms of knowledge, towards the past, present, or future. For the future, there was divination in a strict sense; for the past, the present, and the future, there was

medical semiotics in its twofold aspect, diagnostic and prognostic; for the past, there was jurisprudence. But behind this presumptive or divinatory paradigm we perceive what may be the oldest act in the intellectual history of the human race: the hunter squatting on the ground, studying the tracks of his quarry.

What I have been saying explains how a diagnosis of cranial trauma reached on the basis of bilateral squint could turn up in a Mesopotamian treatise on divination.⁴² More generally, it explains historically how an array of disciplines could emerge which centered on the deciphering of signs of various kinds, from symptoms to writing. Passing from Mesopotamia to Greece this constellation changed profoundly, following the birth of such new disciplines as historiography and philology, and a new social and epistemological autonomy in medicine and other ancient disciplines. The body, language, and human history for the first time were exposed to objective examination, which on principle excluded divine intervention. We are still today the heirs of this decisive turning-point in the culture of the *polis*. It may be less obvious that in this transformation, a paradigm definable as semiotic or presumptive played a primary role.⁴³ It is especially evident in the case of Hippocratic medicine, where the definition of its chosen method depended on the explicit notion of symptom (*semeion*). The Hippocratic school maintained that only by attentively observing and recording all symptoms in great detail could one develop precise “histories” of individual diseases; disease, in itself, was out of reach. This emphasis on the presumptive nature of medicine was probably inspired by the contrast, pointed out by the Pythagorean physician Alcmeon, between the immediacy of divine knowledge and the speculative nature of human perception.⁴⁴ A conjectural paradigm operating on diverse levels found its implicit justification in the denial that reality is transparent. Physicians, historians, politicians, potters, carpenters, sailors, hunters, fishermen, women: for the Greeks these were only some of the groups dealing in that vast world of conjectural knowledge. Its borders – governed, significantly, by the goddess Metis, Jove’s first wife, who personified divination by aqueous means – were marked by such terms as “conjecture” and “speculate” (*tekmor*, *tekmairesthai*). But as I have stated, this paradigm remained implicit – suppressed by the prestigious (and socially higher) model of knowledge developed by Plato.⁴⁵

The defensive tone of certain passages in the Hippocratic corpus⁴⁶ indicates that as early as the fifth century B.C., the polemic against the

uncertainties of medicine, destined to last into our own day, had already begun. This continuum is explained by the fact that relations between doctor and patient, characterized by the latter's inability to verify the knowledge and authority professed by the former, have not changed much since the time of Hippocrates. But the terms of the controversy, together with the profound transformation experienced by the idea of "rigor" and "science," have changed in the course of almost two and a half millennia. Obviously, the decisive point is constituted by the appearance of a scientific paradigm based on Galileian physics, but one which turned out to be more durable than it. Even if modern physics cannot call itself "Galileian" (although it has not rejected Galileo), his epistemological and even symbolic significance for science in general has remained intact.⁴⁷

It should be clear by now that the group of disciplines which we have called evidential and conjectural (medicine included) are totally unrelated to the scientific criteria that can be claimed for the Galileian paradigm. In fact, they are highly qualitative disciplines, in which the object is the study of individual cases, situations, and documents, precisely *because they are individual*, and for this reason get results that have an unsuppressible speculative margin: just think of the importance of conjecture (the term itself originates in divination)⁴⁸ in medicine or in philology, and in divining. Galileian science, which could have taken as its own the Scholastic motto *Individuum est ineffabile* ("We cannot speak about what is individual"), is endowed with totally different characteristics. Mathematics and the empirical method implied, respectively, quantification and the repetition of phenomena, while the individualizing perspective by definition excluded the latter and admitted the former only as mere instrument. All this explains why history never became a Galileian science. It was during the seventeenth century, in fact, that the grafting of antiquarian methods to historiography indirectly revealed the remote conjectural origins of the latter, hidden for centuries.

This original feature has not changed despite the ever-closer links between history and the social sciences. History has stayed a social science *sui generis*, forever tied to the concrete. Even if the historian is sometimes obliged to refer back, explicitly or implicitly, to a sequence of comparable phenomena, the cognitive strategy, as well as the codes by which he expresses himself, remain intrinsically individualizing (although the individual case may be a social group or an entire society). In this respect the historian is like the physician who uses nosographical tables to analyze the specific sickness in a patient. As with the physician's, historical knowledge is indirect, presumptive, conjectural.⁴⁹

But our hypothesis is too orderly. In the realm of conjectural disciplines, one – philology, or more precisely, textual criticism – has from its very emergence presented certain atypical characteristics.

Its objective, in fact, took shape through a process of drastic selection of the pertinent characteristics, later to be reduced even further. This internal curtailing of the discipline was expressed by two decisive historical milestones: the inventions of writing and of printing. Textual criticism originated as a consequence of the first (when the decision was taken to transcribe the Homeric poems) and became well established after the second (when the earliest, often hurriedly produced editions of the classics were replaced by more reliable ones).⁵⁰ At first, all the elements tied to orality and gesture and later even those tied to the physical characteristics of writing were thought to be irrelevant to the text. This twofold process resulted in a progressive dematerialization of the text, which was gradually purified at every point of reference related to the senses; even though a material element is required for a text's survival, the text itself is not identified by that element.⁵¹ All this seems obvious today, but actually it isn't at all. One need only think of the crucial function played by intonation in oral literature, or by calligraphy in Chinese poetry, to realize that the concept of text I have just mentioned is tied to an extremely significant cultural choice. That this selection was not determined by the mere substitution of mechanical for manual means of reproduction is demonstrated by the well-known example of China, where the invention of printing did not break the link between literary text and calligraphy. We shall see shortly how the problem of pictorial "texts" historically has been expressed in radically different terms.

The abstract notion of text explains why textual criticism, even while retaining to a large extent its divinatory qualities, had the potential to develop in a rigorously scientific direction, as in fact occurred in the course of the nineteenth century.⁵² The radical conception of considering only the portions of a text which could be reproduced (first manually and later, after Gutenberg, mechanically) meant that, even while dealing with individual cases,⁵³ one avoided the principal pitfall of the humane sciences: quality. Significantly, Galileo turned to philology in the very moment that he was founding modern natural science through an equally drastic reduction. The traditional medieval juxtaposition of world and book was based on evidence that both were immediately decipherable, while Galileo, instead, stressed that "philosophy ... written in this great book which is always open before our eyes (I call it the universe) ... cannot be understood if we do not first

learn the language and the characters in which it is written,” namely, “triangles, circles and other geometrical figures.”⁵⁴ For the natural philosopher as for the philologist, the text is a profound, invisible entity to be reconstructed independently of material data: “figures, numbers and movements, but not smell, nor tastes, nor sounds, *which I do not believe are anything more than names outside the living animal.*”⁵⁵

With these words Galileo set natural science on the anti-anthropocentric and anti-anthropomorphic direction which it would never again abandon. A gap had opened in that world of knowledge, one destined to enlarge with the passing of time. And, to be sure, there could be no greater contrast than between the Galileian physicist professionally deaf to sounds and insensitive to tastes and odors, and his contemporary, the physician, who hazarded diagnoses by placing his ear on wheezy chests or by sniffing at feces and tasting urine.

The Sienese Giulio Mancini, the personal physician of Urban VIII, was one of these men. There is no evidence that he knew Galileo personally, but it is quite likely that the two met because they belonged to the same Roman circles (from papal court to Academy of the Lincei) and knew many of the same people (from Federico Cesi to Giovanni Ciampoli and Giovanni Faber).⁵⁶ Nicio Eritreo (Gian Vittorio Rossi), in an extremely lively sketch, outlined Mancini’s atheism, his extraordinary diagnostic abilities (described in terms drawn from the language of divination), and his willingness to extort from his patients paintings about which he was “intelligentissimus.”⁵⁷ Mancini had, in fact, written a work entitled *Alcune considerazioni appartenenti alla pittura come di diletto di un gentiluomo nobile e come introduzione a quello si deve dire*, which circulated widely in manuscript form but did not actually appear in print until a little over three decades ago.⁵⁸ As the title indicates, the book had not been written for painters but for gentlemanly dilettantes – those *virtuosi* who were flocking in ever greater numbers to the exhibitions of ancient and modern paintings being held yearly at the Pantheon on the nineteenth of March.⁵⁹ Without this artistic market, Mancini might never have written what was probably the newest element in his *Considerazioni*, the part devoted to the “recognition of painting” – to the methodology, in other words, for identifying fakes, distinguishing originals from copies, and so on.⁶⁰ The first attempt to establish connoisseurship (as it would come to be called a century later) can be traced back, then, to this physician celebrated for his lightning diagnoses, a man who, confronted by a patient, could divine with a rapid glance “what would be the outcome of the sickness” (“quem exitum

morbus ille esset habiturus").⁶¹ At this point it may be permissible to see in this fusion of the clinician's and connoisseur's eye something more than a simple coincidence.

Before looking more closely at some of Mancini's arguments, we should note a premise shared by him, the "noble gentleman" to whom the *Considerazioni* were addressed, and ourselves. The premise is an unstated one because it has been held (wrongly) to be self-evident: namely, that between a canvas by Raphael and a copy (be it a painting, an engraving, or, today, a photograph) a difference exists that is impossible to eliminate. The commercial implications of this assumption that a painting is by definition unique and impossible to reproduce are obvious.⁶² They are connected to the appearance of the connoisseur as a social figure. But the premise springs from a cultural selection which is anything but predictable, as demonstrated by the fact that it is not applicable to written texts. The presumed eternal characteristics of painting and literature do not enter into this. We have already mentioned the historical developments through which the notion of written text became purified of traits not considered pertinent. This refinement has not – yet – taken place in the case of painting. To our eyes, manuscript copies or printed editions of the *Orlando Furioso* can reproduce the text as Ariosto wanted it; copies of a portrait by Raphael, never.⁶³

The different status accorded to copies in painting and in literature explains why Mancini, as connoisseur, could not use the methods of textual criticism, even while establishing a general analogy between the acts of painting and writing.⁶⁴ And with this analogy as a starting point, he was obliged to look for help to other budding disciplines.

The first goal that Mancini set for himself concerned the dating of paintings. In pursuing it, he stated that it was essential to have "a certain practice learning about the variety of paintings and their periods, just as antiquarians and librarians know letters, from which they deduce the epoch of the writing."⁶⁵ The allusion to knowledge of letters has to refer to methods worked out in those very years by Leone Allacci, Vatican librarian, for the dating of Greek and Latin manuscripts – methods that would be further developed a half century later by the founder of paleography, Mabillon.⁶⁶ But, Mancini continued, "in addition to the properties common to the century," there also exist "properties that belong to the individual," as "we see these distinctive characteristics in writers." So the analogy between painting and writing, first proposed on a macroscopic scale ("ages," "century"), was subsequently restated on a microscopic, individual level. In this sphere

Allaci's protopaleographical methods did not work. These very years, however, saw an isolated effort to analyze individual scripts from an unusual vantage point. The physician Mancini, citing Hippocrates, observed that it might be possible to move from "functions" to "impressions" of the soul, which in turn are rooted in the "properties" of individual bodies: "through which and with which supposition I believe certain fine minds in this century of ours have written down and attempted to establish a rule for discerning the intellect and intelligence of others in the handwriting of one man or another."

The Bolognese physician, Camillo Baldi, must have been one of these "fine minds." His *Trattato come da una lettera missiva si conoscano la natura e qualità dello scrittore* contained a chapter, the sixth, which can be considered the oldest European text on handwriting. It was entitled "What Meaning Can Be Read into the Representation of the Character," where "character" designated "the figure and the drawing of the letter as it is executed by pen on paper."⁶⁷ But in spite of his initial enthusiasm, Mancini lost interest in the stated purpose of the new graphology and the reconstruction of writers' personalities accomplished by going from their written "characters" (i.e., letters) to their psychological "character" (a synonymy which takes us back to a single, remote disciplinary matrix). Mancini paused, instead, on the initial premise of the new discipline: individual handwritings differed and were impossible to imitate. By identifying equally inimitable elements in painting he might have been able to achieve his object, namely the development of a method which would permit the separation of originals from fakes, works by great masters from copies or the productions of their followers. All this explains his exhortation to determine whether

one can discern in paintings the master's boldness, especially in those parts which of necessity are done deliberately and cannot easily be imitated, as is the case especially with hair, beards, and eyes. Ringlets in the hair can only be imitated with difficulty, and it becomes apparent in the copy; and if the copyist does not want to imitate them, then they will lack the master's perfection. And these features in a painting are like strokes and flourishes in handwriting, which require the master's boldness and resolution. The same can be said about bold strokes of brilliance which the artist executes with masterful touches impossible to imitate, as in the folds of clothing and reflected light, which depend more on the artist's fantasy than on the actual reality of the object.⁶⁸

So we can see that the parallel between acts of writing and painting previously discussed by Mancini in various contexts is reexamined in this passage from a new and unprecedented point of view (with the

exception of a passage by Filarete which Mancini may not have known).⁶⁹ The analogy is emphasized by the use of such technical terms recurring in contemporary handwriting treatises as “boldness,” “strokes,” “flourishes.”⁷⁰ This is also the origin of the insistence on “speed”: in an increasingly bureaucratic age, the characteristic guaranteeing success for a chancery cursive on the copyist’s market was, besides elegance, the swiftness of the *ductus*.⁷¹ In general, the importance Mancini attributed to decorative elements testifies to the serious attention he was paying to the salient features of Italian handwriting models prevailing from the late sixteenth to the early seventeenth centuries.⁷² The study of written “characters” revealed that the identification of a master’s hand should be looked for in the parts of a painting executed most rapidly, and thus potentially freed from the representation of reality (tangles of hair, cloth “which depend more on the artist’s fantasy than on the actual reality of the object”). We shall return to the riches buried in these statements – riches that neither Mancini nor his contemporaries were able to bring to the surface.

“Characters.” This word reappears in its proper or analogical sense about 1620, in writings by the founder of modern physics on the one hand, and in the works of the originators of paleography, graphology, and connoisseurship, on the other. To be sure, only a metaphorical relationship existed between the disembodied “characters” read by Galileo in the book of nature through the eyes of the brain,⁷³ and those materially deciphered by Allacci, Baldi, or Mancini on paper and parchment, canvas, or tablets. But the identity of terms brings up once again the heterogeneity of the disciplines which I have juxtaposed. Their scientific value, in the Galileian sense of the term, decreased abruptly as one passed from the universal “properties” of geometry to “properties common to the century” in writing and then to the “individual properties” of paintings – or even calligraphy.

This descending scale confirms that the real obstacle to the application of the Galileian paradigm was the centrality (or the lack of it) of the individual element in the single disciplines. The more that individual traits were considered pertinent, the more the possibility of attaining exact scientific knowledge diminished. Of course, the preliminary decision to neglect individual features did not in itself guarantee that physico-mathematical methods could be applied, and without them there could be no talk of adopting the Galileian paradigm in a strict sense. But at least in that case it was excluded without more ado.

At this juncture two roads were open: either sacrifice knowledge of the individual element for generalizations (more or less scientific, more or less capable of being formulated in mathematical terms) or attempt to develop, even if tentatively, a different paradigm, founded on scientific knowledge of the individual ... but a body of knowledge yet to be defined. The first course was taken by the natural sciences, and only much later by the so-called humane sciences. The reason for this is clear. The tendency to obliterate the individual traits of an object is directly proportional to the emotional distance of the observer. In his *Trattato di Architettura* Filarete declared that it was impossible to create two perfectly identical buildings, just as Tartars' "snouts are made alike, or indeed Ethiopians are all black, and yet if you examine them closely have differences alongside the similarities." He did admit, however, that "many animals do resemble one another, such as flies, ants, worms, frogs and many fish so that members of the species cannot be told apart one from the other."⁷⁴ In the eyes of a European architect, even the slight differences between two edifices (European) were significant, those between two Tartars or Ethiopians were negligible, and those between two worms or two ants, actually nonexistent. A Tartar architect, an Ethiopian ignorant of architecture, or an ant would have suggested different hierarchies. Individualizing knowledge is always anthropocentric, ethnocentric, and so on. Of course, even animals, minerals, or plants could be viewed from an individualizing perspective – that of divination, for instance⁷⁵ – especially in cases clearly outside the norm. Teratology, as we know, was an important component of divining. But in the early decades of the seventeenth century even the indirect influence of a model such as the Galileian tended to subordinate the study of anomalous phenomena, such as divination, to investigation of the norm, to furthering the general knowledge of nature. In April 1625 a two-headed calf was born in the outskirts of Rome. The naturalists in the Academy of the Lincei became interested in the case. It was the topic of conversations in the Vatican gardens of the Belvedere between Giovanni Faber, the academy's secretary, Ciampoli (both, as we have seen, close to Galileo), Mancini, Cardinal Agostino Veggio, and Urban VIII. The first question they asked was the following: Was the bicephalous calf one or two animals? For physicians it is the brain that distinguishes the individual; for Aristotelians, it is the heart.⁷⁶ In Faber's account we can probably detect an echo of the participation of Mancini (the only medical man present at the discussions). So, in spite of his

astrological interests,⁷⁷ he analyzed the specific characteristics of the monstrous birth, not for the purpose of foretelling the future but, rather, to achieve a more precise definition of the normal individual, who, as a representative of a species, could reasonably be considered a repeatable phenomenon. With the same attention which he was accustomed to dedicate to paintings, Mancini pored over the anatomy of the two-headed calf. But the analogy with his activity as connoisseur ended here. In a sense, he personified the linking of the divinatory paradigm (Mancini the diagnostician and connoisseur) and the generalizing paradigm (Mancini the anatomist and naturalist) yoked together, but each of different origin. Despite appearances, the precise description of the autopsy performed on the calf, recorded by Faber, and the detailed engravings of the animal's internal organs which accompanied it⁷⁸ were not intended to reveal the "individual properties" of the object as such, but to reach beyond them to "the common properties" of the species (which in this case were natural rather than historical). The naturalistic tradition going back to Aristotle was thereby revived and sharpened. Sight, symbolized by the sharp-eyed lynx on the shield of Federico Cesi's academy, became the privileged function of those disciplines excluded from the suprasensorial eye of mathematics.⁷⁹

The humane sciences (as we would call them today) were at least ostensibly represented among these disciplines, primarily for their tenacious anthropocentrism, expressed with such naïveté in the quotation from Filarete. And yet there were attempts to introduce the mathematical method even in the study of what was most human.⁸⁰ Understandably, the first and most successful, carried out by the political arithmeticians, assumed as its subject human events that were most affected by biology: birth, procreation, and death. This drastic reductionism permitted rigorous inquiry, and at the same time served the requirement for information in the areas of the military or finance of absolute states, oriented as they were, and given the scale of their operations, in an exclusively quantitative direction. But the indifference to qualitative matters of those who used the new science of statistics did not entirely cause it to break its ties with that circle of disciplines which we have dubbed conjectural. The calculation of probability, as the title of Bernoulli's classic work, *Ars conjectandi*, tells us, was an attempt to give a mathematically exact formulation to problems which had also confronted divination in a radically different form.⁸¹

But the humane sciences as a whole remained firmly anchored to the qualitative, though not without some uneasiness, especially in the case of medicine. In spite of advances, its methods seemed doubtful, its results questionable. A work such as Cabanis's *The Certainty of Medicine*, published towards the end of the eighteenth century, recognized this lack of accuracy, even as it strove to acknowledge a scientific character of its own in medicine.⁸² There seemed to be basically two reasons for this "uncertainty." First, it was not enough to catalogue individual diseases so that they would fit into an orderly scheme: in every individual a disease assumed different characteristics. Second, knowledge of diseases remained indirect and conjectural: by definition, the living body was beyond reach. To be sure, the cadaver was dissectable: but how could one's steps be traced from it, already impaired by death, to the characteristics of the living individual?⁸³ In the face of this twofold difficulty it was inevitably recognized that the efficacy of medical procedures was not subject to proof. In conclusion, the inability of medicine to achieve the exactness of the natural sciences stemmed from the impossibility to quantify, except with purely auxiliary functions. And the impossibility of quantifying was due to the unavoidable presence of what was qualitative, of the individual; and the presence of the individual was indebted to the fact that the human eye is more sensitive to differences (even marginal ones) between human beings than those between rocks or leaves. The future epistemological essence of the humane sciences was already being formulated in these discussions on the "uncertainty" of medicine.

An understandable impatience can be read between the lines of Cabanis's book. In spite of the more or less justifiable objections which could be directed against medicine on the methodological plane, it remained fully recognized as a science from the point of view of society. But in this period not all forms of conjectural knowledge benefited from similar prestige. Some, such as connoisseurship, which was relatively recent, occupied an ambiguous position on the periphery of the recognized disciplines. Others, more closely tied to daily life, actually remained outside. The ability to identify a defective horse by the condition of his hocks, an impending storm by sudden changes in the wind, a hostile intention in a sudden change of expression, was certainly not to be learned from a farrier's manual or meteorological or psychological treatises. Knowledge of this sort in each instance was richer than any written codification; it was learned not from books but from the living voice, from gestures and glances;

it was based on subtleties impossible to formalize, which often could not even be translated into words; it constituted the patrimony, partly unitary, partly diversified, of men and women from all social classes. These insights were bound by a subtle relationship: they had all originated in concrete experience. The force behind this knowledge resided in this concreteness, but so did its limitation – the inability to make use of the powerful and terrible weapon of abstraction.⁸⁴

Written culture had for a considerable period of time attempted to give a precise verbal formulation for this body of local knowledge that was without origin, memory, or history.⁸⁵ By and large, the results were dull and impoverished. Just think of the abyss separating the schematic rigidity of the physiognomy treatises from the flexible and rigorous insight of a lover or a horse trader or a card shark. Only in the case of medicine, perhaps, had the written codification of conjectural knowledge resulted in real enrichment (although the history of the relationship between learned and popular medicine remains to be written). In the course of the eighteenth century the situation changed. An out-and-out cultural offensive by the bourgeoisie appropriated for itself much of the knowledge, conjectural and nonconjectural alike, of artisans and peasants, codifying it and thereby intensifying a gigantic process of acculturation begun earlier (obviously in a different guise) by the Counter-Reformation. The *Encyclopédie*, naturally, is the symbol and chief instrument in this offensive. However, even minor (but revealing) episodes need to be studied, such as the case of the Roman bricklayer who proved to a presumably stupefied Johann Joachim Winckelmann that the “tiny, flat stone” between the fingers of a statue discovered at Porto d’Anzio was actually “the stopper of an ampulla.”⁸⁶

The systematic gathering of these “small insights,” as Winckelmann calls them on another occasion,⁸⁷ nourished, between the waning eighteenth and early nineteenth centuries, the new formulations of ancient lore – from cooking to hydrology and veterinary medicine. For an increasingly large number of readers, access to specific experiences was mediated by means of the printed page. The novel actually provided the bourgeoisie with both a substitute for and reformulation of initiation rites – that is, for access to experience in general.⁸⁸ And thanks precisely to the literature of imagination, the conjectural paradigm enjoyed new and unexpected success in this period.

I mentioned earlier, in connection with the probable venatic origin of

the conjectural paradigm, the oriental fable of the three brothers who described an animal they had never seen by interpreting a series of clues. The story first appeared in the West in the collection of Giovanni Sercambi.⁸⁹ It reappeared as the centerpiece of a much larger anthology of stories, presented as translations from Persian into Italian by a certain Cristoforo the Armenian, published in Venice in the mid-sixteenth century with the title *Peregrinaggio di tre giovani figliuoli del re Serendippo*. In this version the book was reprinted and translated several times – first into German and then, in the course of the eighteenth century, riding that wave of interest for things oriental, into the principal European languages.⁹⁰ The story of the sons of King Serendippo enjoyed such great success that it led Horace Walpole in 1754 to coin the neologism *serendipity* to designate the “making [of] discoveries, by accidents and sagacity, of things which they were not in quest of.”⁹¹ A few years earlier Voltaire, in chapter 3 of *Zadig*, had revised the first novella in the *Peregrinaggio*, which he had read in the French translation. In Voltaire’s version the camel of the original had become transformed into a bitch and a horse, which Zadig succeeded in describing minutely by deciphering their tracks on the ground. After he was accused of theft and conducted before the judges, Zadig exculpated himself by recounting out loud the mental process which had enabled him to sketch the portrait of two animals he had never seen: “I saw on the sand the tracks of an animal, and I easily judged that they were those of a little dog. Long, shallow furrows imprinted on little rises in the sand between the tracks of the paws informed me that it was a bitch whose dugs were hanging down, and that therefore she had had puppies a few days before.”⁹² These lines, and those which followed, were the embryo of the mystery novel. They inspired Poe, Gaboriau, and Conan Doyle – the first two directly, the third perhaps indirectly.⁹³

The reasons for the extraordinary success of the detective story are well known. I shall discuss some of them below. I can observe straightaway, however, that the genre was based on a model of learning that was both very ancient and modern. I have already talked about its distant roots in antiquity. As for its modernity, it will suffice to cite the page on which Georges Cuvier extolled the methods and successes of the new science of paleontology:

Today, anyone who sees only the print of a cloven hoof might conclude that the animal that had left it behind was a ruminator, and this conclusion is as certain as any in physics and in ethics. This footprint alone, then,

provides the observer with information about the teeth, the jawbone, the vertebrae, each leg bone, the thighs, shoulders and pelvis of the animal which had just passed: it is a more certain proof than all Zadig's tracks.⁹⁴

A more precise sign, perhaps, but one that was also closely allied. The name "Zadig" had taken on such symbolic value that in 1880 Thomas Huxley, on a lecture tour to publicize Darwin's discoveries, defined as "Zadig's method" that procedure which combined history, archaeology, geology, physical astronomy, and paleontology: namely, the ability to forecast retrospectively. Disciplines such as these, profoundly diachronic, could not avoid turning to the conjectural or divinatory paradigm (and Huxley spoke explicitly of divination directed toward the past),⁹⁵ discarding the Galileian model. When causes cannot be reproduced, there is nothing to do but to deduce them from their effects.

III

We could compare the threads of this research to the threads in a carpet. We are at a point where we see them arranged in a tight, homogeneous weave. The consistency of the design is verifiable by casting an eye over the carpet in various directions. Vertically, we would have a sequence of the type Serendippo-Zadig-Poe-Gaboriau-Conan Doyle. Horizontally, we find at the beginning of the eighteenth century a certain Monsieur J.-B. Dubos listing, one after another in decreasing order of unreliability, medicine, connoisseurship, and the identification of scripts.⁹⁶ Diagonally, even, jumping from one historical context to another – over the shoulder of Monsieur Lecoq feverishly crossing an "expanse of earth, covered with snow," dotted with the tracks of criminals, comparing it to "an immense white page upon which people we are in search of have written, not only their movements and their goings and comings, but their secret thoughts, the hopes and anxieties that agitated them,"⁹⁷ we shall see emerging authors of physiognomy treatises, Babylonian soothsayers deciphering messages composed by the gods on rocks or in the heavens, and Neolithic hunters.

The carpet is the paradigm that, as I went along, I have called, depending on the context, venatic, divinatory, conjectural, or semiotic. These, clearly, are not synonymous adjectives, but nonetheless refer to a common epistemological model, expressed

through various disciplines that are frequently linked by borrowed methods or key terms. Then, between the eighteenth and nineteenth centuries, with the emergence of the “humane sciences,” the constellation of conjectural disciplines changed profoundly: new stars were born and quickly fell, such as phrenology, or experienced great success, as did paleontology.⁹⁸ But it is medicine, above all others, which assumes a preeminent position, thanks to its prestige epistemologically and socially. All the “humane sciences” attempt to relate themselves to it, explicitly or implicitly. But to which side of medicine? In mid-nineteenth century we see choices emerging: the anatomical model on the one hand, the semiotic on the other. The metaphor “anatomy of society,” employed even by Marx in a crucial passage,⁹⁹ expresses the admiration for systematic knowledge in an age which had witnessed the collapse of the last great system, the Hegelian. But in spite of Marxism’s great success, the humane sciences increasingly ended up accepting (with one notable exception, as we shall see) the conjectural paradigm of semiotics. And here we return to the trio Morelli, Freud, and Conan Doyle with which we began.

Thus far I have spoken of a conjectural paradigm and its synonyms in a broad sense. It is now the moment to dismember it. It is one thing to analyze footprints, stars, feces, sputum, corneas, pulsations, snow-covered fields, or cigarette ashes; it is quite another to examine handwriting or paintings or conversation. There is a basic difference between nature, inanimate or living, and culture – certainly greater than the infinitely more superficial and mutable differences that exist between individual disciplines. Morelli set out to identify, within a culturally conditioned system of signs such as the pictorial, those which appeared to be involuntary, as is the case with symptoms (and the majority of clues). And in these involuntary signs, in the “material trifles” – a calligrapher might call them “flourishes” – comparable to “favorite words and phrases” which “most people introduce into their speaking and writing unintentionally, often without realizing it,” Morelli recognized the surest clue to an artist’s identity.¹⁰⁰ He was thus resurrecting (indirectly perhaps)¹⁰¹ and further developing methodological principles which had been formulated much earlier by his predecessor, Giulio Mancini. It was no accident that these principles should finally reach maturity after so long a time. In this very period there had emerged an ever more visible trend consisting of closer control of society by the state, employing a conception of the

individual which also was based on small and involuntary traits.

Every society feels the need to distinguish its essential elements; but the way this need is approached varies with time and place.¹⁰² There is the name first of all: but the more complicated a society, the more a name is inadequate to circumscribe an individual's identity unambiguously. In Greco-Roman Egypt, for example, a person standing before a notary for the purpose of contracting matrimony or concluding a commercial transaction was required to have a short physical description recorded next to his name, including mention of any scars or other particular marks.¹⁰³ The chances of error or fraudulent substitution of persons remained high just the same. In contrast, a signature at the bottom of contracts offered many advantages: at the end of the eighteenth century, the abbot Lanzi, in a passage from his *Storia pittorica* devoted to the methods of connoisseurship, stated that the inimitability of individual handwriting had been intended by nature "to safeguard" "civil [i.e., bourgeois] society."¹⁰⁴ Certainly signatures could be falsified, and illiterates were excluded from this form of control. But in spite of these drawbacks, century after century, European societies did not feel the need for more secure and practical methods for determining identity – not even when the birth of large factories, the geographical and social mobility that came with them, and the rapid rise of cities radically altered the terms of the problem. And yet even under conditions such as these, to cover one's tracks and reemerge with a new identity was child's play – and not only in large urban centers the size of London and Paris. But it was not until the closing decades of the nineteenth century that new and competing systems of identification began to be proposed from various quarters. The need erupted from contemporary events connected with the struggle between the classes: the birth of an international association of workers, the repression of working-class movements after the Commune, changes in the perception of crime.

The emergence of new capitalist methods of production – in England from circa 1720 on,¹⁰⁵ and in the rest of Europe almost a century later, with the advent of the Napoleonic code – spawned legislation, tied to a new bourgeois concept of property, which increased the number of punishable crimes and the gravity of the penalties. This criminalization of the class struggle was accompanied by the creation of a penal system based on long detention.¹⁰⁶ But prisons produce criminals. The number of recidivists in France,

constantly on the rise after 1870, had reached a percentage by the end of the century equal to half of indicted criminals.¹⁰⁷ The problem of identifying these backsliders constituted the more or less conscious bridgehead for the comprehensive program of social control which followed.

For the proper identification of recidivists it was necessary to prove (a) that an individual had been condemned previously and (b) that he was the same person as the one who had already been thus sentenced.¹⁰⁸ The first point was resolved by the creation of police files. The second presented more serious difficulties. The old punishments which stamped a person forever through branding or mutilation had been abolished. The fleur-de-lis burned into Milady's shoulder permitted D'Artagnan to recognize her as a convicted poisoner – while two escapees, Edmond Dantés and Jean Valjean, succeeded in reappearing in society under false, respectable names (these examples should suffice to demonstrate how great an impression the figure of the relapsed criminal exercised on the nineteenth-century imagination).¹⁰⁹ Bourgeois respectability demanded signs of recognition that were just as indelible, if less sanguinary and degrading, as those of the *ancien régime*.

The idea of an enormous criminal photographic archive was rejected at first because it posed unsolvable problems of classification: how was one to isolate distinct features in the continuum of an image?¹¹⁰ The quantification route seemed simpler and more precise. In 1879, Alphonse Bertillon, an employee in the Paris prefecture, began to employ an anthropometric method (which he explained in various articles and memoranda)¹¹¹ based on minute bodily measurements recorded on a personal file. Clearly, an error of just a few millimeters created the possibility of judicial error. But the principal defect in Bertillon's anthropometric method was its purely negative quality. It permitted the exclusion, at the moment of identification, of individuals not corresponding to the data, but not the positive verification that two identical series of data referred to a single individual.¹¹² The unavoidably elusive nature of the individual, chased out through the door by means of quantification, was reentering by the window. Thus, Bertillon proposed to integrate the anthropometric method with the so-called "spoken portrait," namely the verbal, analytical description of the separate entities (nose, eyes, ears, etc.), the sum total of which should have restored the image of the individual – thereby permitting the process of identification. The pages filled with ears exhibited by Bertillon cannot help but recall the

illustrations in Morelli's own works appearing at about this time.¹¹³ There may not have been a direct influence: however, it is striking to see that Bertillon, in the course of his activity as expert graphologist, used as clues revealing falsification the peculiarities or "idioms" of the original which the counterfeiter seldom succeeded in reproducing, but might substitute with his own.¹¹⁴

As may be supposed, Bertillon's method was incredibly complex. I have already alluded to the problem posed by measurements. The "spoken portrait" complicated matters still more. How was one to distinguish, in the description, a humped-curved nose from a curved-humped one? How did one classify the nuances of blue-green eyes?

It was F. Galton who suggested, beginning with his paper published in 1888, which he subsequently revised and improved, a method of identification that simplified both the collecting of data as well as its classification.¹¹⁵ The new technique was based on fingerprinting. But Galton honestly acknowledged that, both theoretically and practically, he had been preceded in this by others.

The scientific analysis of fingerprints had been begun in 1823 by the founder of histology, J. E. Purkyně, in his *Commentatio de examine physiologico organi visus et systematis cutanei*.¹¹⁶ He identified and described nine basic types of papillary lines, simultaneously claiming, however, that there are no two individuals with identical fingerprints. The practical applications to which the discovery could be put were ignored, although its philosophical implications were discussed in a chapter entitled "De cognitione organismi individualis in genere."¹¹⁷ Knowledge of the individual, Purkyně stated, is crucial in the practice of medicine, beginning with diagnosis: symptoms reveal themselves differently in individuals and thus must be treated in different ways. Thus, some modern scholars, whom he does not name, have defined medicine as the "art of individualizing" ("artem individualisandi," "die Kunst des Individualisirens"). But the foundations of this art rest on the physiology of the individual. Here, Purkyně, who had studied philosophy in Prague as a young man, was rediscovering the deepest current in the thought of Leibniz. Each person, "ens omnimodo determinatum," has an individuality recognizable even in its most imperceptible and infinitesimal characteristics. Neither the facts of a particular case nor external influences suffice to explain it. It is necessary to posit the existence of an internal norm or "typus" which maintains the variety of organisms within the limits of each species. Awareness of this "norm," Purkyně declared prophetically,

“would reveal the hidden knowledge of individual nature.” The error of physiognomics had been to confront the variety of individuals from the viewpoint of preconceived opinions and hasty conjectures: consequently, it had been impossible up to this point to establish physiognomics on a scientific, descriptive basis. Abandoning the reading of hands to the “vain science” of palmistry, Purkyně focused his attention on a much less visible fact, and he discovered the secret mark of individuality in the lines imprinted on the tips of the fingers.

Let us leave Europe for a moment and pass on to Asia. In contrast to their European colleagues, and completely independently of them, Chinese and Japanese soothsayers had become interested in the not-so-obvious markings on the surface of the hand. The custom, verified for China, and especially Bengal, of pressing a fingertip blackened with pitch or ink on letters and documents¹¹⁸ probably had behind it a series of factors of a divinatory nature. Anyone accustomed to deciphering mysterious writings in the veins of wood or rock, or in the tracks left by birds or in drawings impressed on turtle shells,¹¹⁹ could have easily accepted as writing the lines imprinted by a dirty fingertip on any sort of surface. In 1860 Sir William Herschel, chief administrator in the Hooghly district of Bengal, noticed that this custom was widespread among the local population, appreciated its possible utility, and decided to put it to work for the benefit of the British government. (He was not interested in the theoretical aspects of the question; he did not know of Purkyně’s Latin treatise, which had lain unread for half a century.) As Galton observed retrospectively, there was a real need for an efficient method of identification in the British colonies, and not in India alone: natives were illiterate, quarrelsome, cunning, deceitful, and, in the eyes of a European, indistinguishable. Herschel announced in an 1880 issue of *Nature* that after seventeen years of testing, fingerprinting had been officially introduced in the Hooghly district and had now been in force for three years with excellent results.¹²⁰ Imperial officials had appropriated the conjectural knowledge of the Bengalese and turned it against them.

Galton took Herschel’s article as the point of departure for systematically rethinking and examining the entire question. The confluence of three very different elements made his investigation possible: the discovery made by Purkyně, a pure scientist; concrete knowledge, linked to the daily practice of the people of Bengal; and the political and administrative good sense of Sir William Herschel, a faithful servant of Her Britannic Majesty. Galton paid homage to the

first and to the third. He also attempted to distinguish racial peculiarities in the fingertips, but without success; he declared, however, that he would pursue the research on Indian tribes in the hope of discovering there "a more monkey-like pattern."¹²¹

Galton, in addition to making a decisive contribution to fingerprint analysis, had also foreseen its practical implications. In a very short time the method was introduced in England, and from there little by little spread throughout the world (France was one of the last countries to accept it). In this way, every human being – Galton observed proudly, applying to himself praise pronounced for Bertillon by an official in the French Ministry of the Interior – acquired an identity, an individuality which could be relied upon with lasting certainty.¹²²

And so, what had been until recently, in the eyes of British administrators, an indistinct mass of Bengalese "snouts" (to use Filarete's disparaging term) became at one stroke individuals, each one distinguished by a specific biological mark. This prodigious extension of the concept of individuality was in fact occurring by means of the State, its bureaucracy and police. Thanks to the fingerprint, even the least inhabitant of the poorest village of Asia or Europe was now identifiable and controllable.

But the same conjectural paradigm employed to develop ever more subtle and capillary forms of control can become a device to dissolve the ideological clouds which increasingly obscure such a complex social structure as fully developed capitalism. Though pretensions to systematic knowledge may appear more and more far-fetched, the idea of totality does not necessarily need to be abandoned. On the contrary, the existence of a deeply rooted relationship that explains superficial phenomena is confirmed the very moment it is stated that direct knowledge of such a connection is not possible. Though reality may seem to be opaque, there are privileged zones – signs, clues – which allow us to penetrate it.

This idea, which is the crux of the conjectural or semiotic paradigm, has made progress in the most varied cognitive circles and has deeply influenced the humane sciences. Minute paleographical details have been adopted as traits permitting the reconstruction of cultural exchanges and transformations – with explicit allusions to Morelli which sealed the debt Mancini had incurred with Allacci almost three centuries earlier. The depiction of flowing vestments in Florentine Quattrocento painters, the neologisms of Rabelais, the

cure of scrofula patients by the kings of France and England, are only a few examples of how slender clues have been adopted from time to time as indications of more general phenomena: the world view of a social class, a single writer, or an entire society.¹²³ A discipline such as psychoanalysis came into being, as we have seen, around the hypothesis that apparently negligible details could reveal profound phenomena of great importance. The decline of systematic thought has been followed by the success of aphoristic reasoning – from Nietzsche to Adorno. The very term *aphoristic* is in itself revealing. (It is a clue, a symptom, a lead: there is no getting away from the paradigm.) *Aphorisms* was, in fact, the title of a famous work by Hippocrates. In the seventeenth century, collections of political aphorisms began to appear.¹²⁴ Aphoristic literature is, by definition, an attempt to formulate evaluations of man and society on the basis of symptoms and clues: a man and a society that are sick, *in crisis*. And even *crisis* is a medical, Hippocratic term.¹²⁵ It can easily be demonstrated that one of the greatest novels of our century, Proust's *Recherche*, was constructed according to a scientific conjectural paradigm.¹²⁶

But can we actually call a conjectural paradigm scientific? The quantitative and antianthropocentric orientation of natural sciences from Galileo on forced an unpleasant dilemma on the humane sciences: either assume a lax scientific system in order to attain noteworthy results, or assume a meticulous, scientific one to achieve results of scant significance. Only linguistics has succeeded, during the course of the present century, in escaping the quandary, subsequently posing as a more or less finished model for other disciplines.

The question arises, however, whether exactness of this type is attainable or even desirable for forms of knowledge most linked to daily experience – or, more precisely, to all those situations in which the unique and indispensable nature of the data is decisive to the persons involved. It was once said that falling in love is the act of overvaluing the marginal differences which exist between one woman and another (or between one man and another). But this can also be said about works of art or about horses.¹²⁷ In such situations the flexible rigor (pardon the oxymoron) of the conjectural paradigm seems impossible to suppress. These are essentially mute forms of knowledge in the sense that their precepts do not lend themselves to being either formalized or spoken. No one learns to be a connoisseur

or diagnostician by restricting himself to practicing only preexistent rules. In knowledge of this type imponderable elements come into play: instinct, insight, intuition. I have scrupulously refrained up to now from bandying about this dangerous term, *intuition*. But if we really insist on using it, as synonymous with the lightning recapitulation of rational processes, we shall have to distinguish a *low* from a *high* form of intuition.

Ancient Arabic physiognomics was rooted on *firâsa*, a complex notion which, in general, designated the ability to pass, on the basis of clues, directly from the known to the unknown.¹²⁸ The term came from the vocabulary of the *sufi* and designated mystical intuitions as well as forms of discernment and wisdom that were attributed to the sons of the king of Serendipity.¹²⁹ In this second meaning *firâsa* was none other than the instrument of conjectural knowledge.¹³⁰

This "low intuition" is based on the senses (though it skirts them) and as such has nothing to do with the suprasensible intuition of the various nineteenth- and twentieth-century irrationalisms. It can be found throughout the entire world, with no limits of geography, history, ethnicity, sex, or class – and thus, it is far removed from higher forms of knowledge which are the privileged property of an elite few. It is the property of the Bengalese, their knowledge having been expropriated by Sir William Herschel; of hunters; of sailors; of women. It binds the human animal closely to other animal species.

- identical, according to Zambrini, to the first, which appeared in Venice in 1497); *Le Metamorphosi*, fol. 41r.
40. For one attempt, see my *Cheese and the Worms: The Cosmos of a Sixteenth-Century Miller* (Baltimore, 1980).
 41. See E. W. Monter, "La sodomie à l'époque moderne en suisse romande," *Annales: E.S.C.* 29 (1974): 1023-33, esp. p. 1030.
 42. D. Herlihy offered some interesting observations on the subject at the Venetian roundtable in September 1976.
 43. B. Caimi, *Interrogatorium sive confessionale* (n.p., 1474), unpaginated.
 44. See the stimulating remarks by L. Febvre, *Le problème de l'incroyance au XVI siècle: La religion de Rabelais* (1942; Paris, 1968). The subject of a "history of the senses" was proposed by Marx in a famous page of the Parisian *Manuscripts*.

[The present article was reprinted (without the illustrative material, owing to editorial oversight) in the proceedings of the conference, *Tiziano e Venezia* (Venice, 1980). In that volume see the contributions by C. Hope and H. Zerner, who discuss themes treated here. On vernacular versions of Ovid I should have cited B. Guthmüller, "Die literarische Uebersetzung im Bezugsfeld Original-Leser am Beispiel Italienischer Uebersetzungen der Metamorphosen Ovids im 16. Jahrhundert," *Bibliothèque d'Humanisme et Renaissance* 36 (1974): 233-51. See also, by the same author, "Ovidübersetzungen und mythologische Malerei: Bemerkungen zur *Sala dei Giganti* Giulio Romanos," *Mitteilungen des Kunsthistorischen Instituts in Florenz* 21 (1977): 35-68 (brought to my attention by Carlo Dionisotti). On Dolce's dedication to Titian, discussed above, see the clarifications by Dionisotti, "Tiziano e la letteratura," in *Tiziano e il manierismo europeo*, ed. R. Pallucchini (Florence, 1978) (but his entire essay is important). In the same volume see also the contribution by M. Gregori, "Tiziano e Aretino." A. Chastel, following Dionisotti, has insisted on the significance for Titian of vernacular versions of Ovid: "Titien et les humanistes," in *Tiziano Vecellio*, Atti dei convegni dei Lincei, 29 (Rome, 1977), pp. 31-48. A. Gentili takes a different position (*Da Tiziano a Tiziano* [Rome, 1980], pp. 173 ff.) and argues against my interpretation. I have corrected an error in the name of Achille Tazio's translator, and specified that the reference to Titian's *Danae* applied to both versions. For the rest, however, it does not seem to me that Gentili grasped the sense of my argument, which intended to deny not Titian's capacity for invention (imagine!), but simply his direct dependence on Ovid's text, assumed by Panofsky. The attempts to devalue the importance of the quite clear passage in Dolce's dedication are doomed to fail.]

Clues: Roots of an Evidential Paradigm

1. I use the term in the sense proposed by T. S. Kuhn, *The Structure of Scientific Revolutions* (Chicago, 1962), disregarding the clarifications and distinctions introduced later by the author (see "Postscript-1969") in the second, revised edition of his work (Chicago, 1974), pp. 174 ff.
2. On Morelli, see especially E. Wind, *Art and Anarchy*, 3rd ed. (Evanston, 1985), pp. 32 ff., 117 ff., and the bibliography cited there. For his biography,

see also M. Ginoulhiac, "Giovanni Morelli, la vita," *Bergomum* 34, no. 2 (1940): 51-74. Attention has recently been paid to Morelli's method by R. Wollheim, "Giovanni Morelli and the Origins of Scientific Connoisseurship," in *On Art and the Mind: Essays and Lectures* (London, 1973), pp. 177-201; H. Zerner, "Giovanni Morelli et la science de l'art," *Revue de l'art*, 1978, nos. 40-41: 209-15; and G. Previtali, "A propos de Morelli," *ibid.*, no. 42: 27-31. Other contributions are cited in note 12, below. Unfortunately, we still lack a comprehensive study on Morelli which considers – in addition to his works on art history – his education, his relations with German circles, his friendship with De Sanctis, and his involvement in political life. In regard to De Sanctis, see the letter in which Morelli proposed him as instructor in Italian literature at the Zurich Polytechnic Institute (F. De Sanctis, *Lettere dall'esilio, 1853-1860*, ed. B. Croce [Bari, 1938], pp. 34-38), as well as the indices of De Sanctis's *Epistolario*, 4 vols. (Turin, 1956-69). On Morelli's political commitment, see for now the brief remarks in G. Spini, *Risorgimento e Protestanti* (Naples, 1956), pp. 114, 261, 335. For the European impact of Morelli's works, see what he wrote to Marco Minghetti from Basel on June 22, 1882: "Old Jakob Burckhardt, whom I went to visit last night, gave me the warmest welcome, and insisted on spending the entire evening with me. He is an extremely original man both in thought and action, and you would like him too, but he would especially please our Donna Laura. He spoke to me of Lermolieff's book as if he had consigned it to memory, and he used it to ask me a thousand questions – a thing which certainly tickled my vanity. I am to meet with him again this morning." Bologna, Biblioteca Comunale dell'Archiginnasio, Carte Minghetti, XXIII, 54.

3. Next to the "great" Cavalcaselle, Longhi judged Morelli "less great, but notable just the same"; he spoke immediately after, however, of "suggestions of ... materialism" which rendered Morelli's "method presumptuous and esthetically unserviceable." R. Longhi, "Cartella tizianesca," in *Saggi e ricerche, 1925-1928* (Florence, 1967), p. 234. On the implications of this and other similar opinions of Longhi's, see G. Contini, "Longhi prosatore," in *Altri esercizi (1942-1971)* (Turin, 1972), p. 117. This damaging comparison with Cavalcaselle is revived, for example, by M. Fagiolo in G. C. Argan and M. Fagiolo, *Guida alla storia dell'arte* (Florence, 1974), pp. 97, 101.
4. See Wind, *Art and Anarchy*, pp. 40 ff. Croce, instead, spoke of "the sensuality of details, immediate and out of context." B. Croce, *La critica e la storia delle arti figurative: Questioni di metodo* (Bari, 1946), p. 15.
5. Longhi, *Saggi*, p. 321, speaks of "the sense of quality ... in Morelli" being "so little developed or frequently corrupted by the arrogance of the simple acts of the connoisseur"; immediately after, he actually calls Morelli "the sad and mediocre critic from Gorlaw" (the Russian disguise for Gorle, a place near Bergamo where Morelli-Lermolieff resided).
6. Wind, *Art and Anarchy*, p. 38.
7. E. Castelnuovo, "Attribution," in *Encyclopaedia universalis*, 2 (1968): 782. More generally, A. Hauser (*The Philosophy of Art History* [New York, 1959], pp. 109-10) compares Freud's detective technique to Morelli's (cf. note 12, below).
8. A. Conan Doyle, "The Cardboard Box," in *The Complete Sherlock Holmes*

- Short Stories* (London, 1976), p. 932.
9. *Ibid.*, pp. 937–38. “The Cardboard Box” appeared for the first time in the *Strand Magazine* 5 (1893): 61–73. W. S. Baring-Gould, editor of *The Annotated Sherlock Holmes* (London, 1968) 2:208, noted that a few months later the same journal published an anonymous article on the different shapes of the human ear (“Ears: A Chapter On,” *Strand Magazine* 6 [1893]: 388–91, 525–27). According to Gould, the author of the article could have been Conan Doyle himself, who might have ended up writing Holmes’s contribution to the *Anthropological Journal* (for *Journal of Anthropology*). But this is just a gratuitous assumption: the article on ears had been preceded in the *Strand Magazine* 5 (1893): 119–23, 295–301, by an article entitled “Hands” signed “Beckles Willson.” At any rate the page of ear illustrations from the *Strand* reminds us of those accompanying Morelli’s writings – confirmation that themes of this sort were popular at the time.
 10. It cannot be excluded, however, that this is more than a parallelism. One of Conan Doyle’s uncles, Henry Doyle, painter and art critic, became the director of the National Art Gallery in Dublin in 1869 (see P. Nordon, *Sir Arthur Conan Doyle: L’homme et l’oeuvre* [Paris, 1964], p. 9). Morelli met Henry Doyle in 1887 and wrote about it in French to his friend Sir Henry Layard: “What you tell me about the Dublin gallery interested me very much, especially because I had the opportunity in London to meet that excellent Mr. Doyle personally, who made the best of impressions on me ... alas, instead of a Doyle just think who one ordinarily finds directing our European museums!” British Library, Add. MS. 38965, Layard Papers, vol. 35, fol. 120v. The fact that Henry Doyle knew the Morellian method (obvious to an art historian of the day) is proved by the *Catalogue of the Works of Art in the National Gallery of Ireland* (Dublin, 1890), which Doyle compiled and which uses (see p. 87, for example) Kugler’s manual, thoroughly revised by Layard in 1887 under Morelli’s guidance. The first English translation of Morelli’s writings appeared in 1883 (see the bibliography in *Italianische Malerei der Renaissance im Briefwechsel von Giovanni Morelli und Jean Paul Richter, 1876–1891*, ed., J. and G. Richter [Baden-Baden, 1960]). The first Holmes story, “A Study in Scarlet,” was published in 1887. The possibility emerges from all this that Conan Doyle had direct knowledge of Morelli’s method through his uncle. But this supposition is not essential, since Morelli’s writings were not the only vehicle for the ideas I have been attempting to study here.
 11. Wind, *Art and Anarchy*, p. 38.
 12. In addition to a precise reference in Hauser (*The Philosophy of Art History*, pp. 109–10), see also J. J. Spector, “The method of Morelli and Its Relation to Freudian Psychoanalysis,” *Diogenes*, 1969, no. 66: 63–83; H. Damisch, “La partie et le tout,” *Revue d’esthétique* 2 (1970): 168–88; idem, “Le gardien de l’interprétation,” *Tel Quel*, 1971, no. 44: 70–96; R. Wollheim, “Freud and the Understanding of Art,” in *On Art and the Mind*, pp. 209–10.
 13. See S. Freud, “The Moses of Michelangelo,” in *Freud’s Collected Papers* (New York, 1959), 4:270–71. R. Bremer, “Freud and Michelangelo’s Moses,” *American Imago* 33 (1976): 60–75, discusses Freud’s interpretation of the *Moses* without mention of Morelli. I have not been able to see K. Victorius,

- “Der ‘Moses des Michelangelo’ von Sigmund Freud,” in *Entfaltung der Psychoanalyse*, ed. A. Mitscherlich (Stuttgart, 1956), pp. 1–10.
14. See S. Kofman, *L'enfance de l'art: Une interprétation de l'esthétique freudienne* (Paris, 1975), pp. 19, 27; Damisch, “Le gardien,” pp. 70 ff.; Wollheim, “Freud and the Understanding of Art,” p. 210.
 15. Spector's excellent essay is an exception; however, it too denies the existence of a real relationship between the methods of Freud and Morelli (“The Method of Morelli,” pp. 68–69).
 16. S. Freud, “The Interpretation of Dreams,” in *The Basic Writings of Sigmund Freud*, trans. and ed. with an Introduction by A. A. Brill (New York, 1938), p. 339n.
 17. See M. Robert, *The Psychoanalytic Revolution: Sigmund Freud's Life and Achievement* (New York, 1966), p. 84.
 18. See E. H. Gombrich, “Freud's Aesthetics,” *Encounter* 26, no. 1 (1966): 30. Curiously, in this essay Gombrich does not mention Freud's reference to Morelli.
 19. I. Lermolieff, *Die Werke italienischer Meister in den Galerien von München, Dresden, und Berlin: Ein kritischer Versuch*, aus dem Russischen übersetzt von Dr. Johannes Schwarze (Leipzig, 1880).
 20. G. Morelli (I. Lermolieff), *Italian Masters in German Galleries: A Critical Essay on the Italian Pictures in the Galleries of Munich, Dresden, and Berlin*, translated from the German by L. M. Richter (London, 1883).
 21. H. Trosman and R. D. Simmons, “The Freud Library,” *Journal of the American Psychoanalytic Association* 21 (1973): 672. I am grateful to Pier Cesare Bori for this reference.
 22. See E. Jones, *The Life and Work of Sigmund Freud*, 3 vols. (New York, 1962), 1:335.
 23. See Robert, *The Psychoanalytic Revolution*, p. 180; Morelli (I. Lermolieff), *Della pittura italiana*, pp. 88–89 (on Signorelli) and 159 (on Boltraffio).
 24. Morelli (Lermolieff), *Della pittura italiana*, p. 4.
 25. Vergil, *Aeneid* 7.312 (Loeb Classical Library). Freud's choice of the Vergilian passage has been interpreted in various ways: see W. Schoenau, *Sigmund Freuds Prosa: Literarische Elemente seines Stil* (Stuttgart, 1968), pp. 61–73. The most convincing view, in my opinion, is E. Simon's (*ibid.*, p. 72); he suggests that the epigraph signifies that the hidden, invisible part of reality is not less important than the visible. On the possible political implications of the epigraph, already used by Lassalle, see the excellent essay by C. E. Schorske, “Politique et parricide dans ‘L'interprétation des rêves’ de Freud,” *Annales: E.S.C.* 28 (1973): 309–28, esp. 325 ff.
 26. Morelli (Lermolieff), *Della pittura italiana*, p. 71.
 27. See Morelli's epitaph written by Richter (*ibid.*, p. xviii): “Those particular clues [discovered by Morelli] ... which such a master is wont to advance out of habit and almost unconsciously.”
 28. Steven Marcus, Introduction to A. Conan Doyle, *The Adventures of Sherlock Holmes: A Facsimile of the Stories as They Were First Published in the “Strand Magazine”* (New York, 1976), pp. x–xi. See also the bibliography in the appendix to *The Seven Percent Solution; Being a Reprint from the Reminiscences of John H. Watson, M.D., as Edited by Nicholas Meyer* (New York, 1974), a novel

- based on Holmes and Freud which enjoyed an undeserved success.
29. See *The Wolf-Man by the Wolf-Man*, ed. M. Gardiner (New York, 1971), p. 146; T. Reik, *Ritual: Psycho-Analytic Studies* (London, 1931). For the distinction between symptoms and clues, see C. Segre, "La gerarchia dei segni," in *Psicanalisi e semiotica*, ed. A. Verdiglione (Milan, 1975), p. 33, and T. A. Sebeok, *Contributions to the Doctrine of Signs* (Bloomington, 1976).
30. See W. S. Baring-Gould, "Two Doctors and a Detective: Sir Arthur Conan Doyle, John A. Watson, M.D., and Mr. Sherlock Holmes of Baker Street," *Introduction to the Annotated Sherlock Holmes*, 1:7 ff., regarding John Bell, the physician who was the inspiration for the creation of Sherlock Holmes. See also A. Conan Doyle, *Memories and Adventures* (London, 1924), pp. 25-26, 74-75.
31. See A. Wesselofsky, "Eine Märchengruppe," *Archiv für slavische Philologie* 9 (1886): 308-9, with bibliography. For the later success of this fable, see notes 89 and 90, below, and accompanying text.
32. See A. Seppilli, *Poesia e magia* (Turin, 1962).
33. See the famous essay by R. Jakobson, "Two Aspects of Language and Two Types of Aphasic Disturbances," in *Fundamentals of Language*, by Roman Jakobson and Morris Halle (The Hague and Paris, 1971), pp. 67-96.
34. See E. Cazade and C. Thomas, "Alfabeto," in *Enciclopedia Einaudi* (Turin, 1977), 1:289. Cf. Etiemble, *The Orion Book of the Written Word* (New York, 1961), pp. 23-24. See in general, Walter Benjamin, "Über das mimetische Vermögen," in *Angelus Novus: Ausgewählte Schriften 2* (Frankfurt a.M., 1966), pp. 96-99.
35. I am using the excellent essay by J. Bottéro, "Symptômes, signes, écritures," in *Divination et rationalité* (Paris, 1974), pp. 70-197.
36. *Ibid.*, pp. 154 ff.
37. *Ibid.*, p. 157. For the connection between writing and divination in China, see J. Gernet, "La Chine: Aspects et fonctions psychologiques de l'écriture," in *L'écriture et la psychologie des peuples* (Paris, 1963), esp. pp. 33-38.
38. This is the inference which Peirce called "presumptive" or "abductive," distinguishing it from simple induction: see C. S. Peirce, "Deduction, Induction, and Hypothesis," in *Chance, Love, and Logic* (New York, 1956), pp. 131-53, and "Abduction and Deduction," in *Philosophical Writings of Peirce*, ed. J. Buchler (New York, 1955), pp. 150-56. In his own essay, Bottéro constantly emphasizes, instead, the "deductive" characteristics (as he calls them, "for lack of something better") of Mesopotamian divination ("Symptômes," p. 89). This is a definition which unduly simplifies, to the point of distorting it, the complicated trajectory which had been so well reconstructed by Bottéro himself (*ibid.*, pp. 168 ff.). This oversimplification seems to be dictated by a narrow and one-sided definition of "science" (p. 190), disavowed in fact by the significant analogy proposed at one point between divination and such a loosely deductive discipline as medicine (p. 132). The parallelism proposed above between the two tendencies of Mesopotamian civilization and the mixed character of cuneiform writing develops some of Bottéro's observations (pp. 154-57).
39. *Ibid.*, pp. 191-92.
40. *Ibid.*, pp. 89 ff.
41. *Ibid.*, p. 172.

42. Ibid., p. 192.
43. See the essay by H. Diller, "Ὅψις Ἀδελῶν Τὰ Φαινόμενα," in *Hermes* 67 (1932): 14-42, esp. 20 ff. The juxtaposition proposed there between analogical and semiotic methods will have to be corrected, interpreting the latter as the "empirical use" of analogy: see E. Melandri, *La linea e il circolo: Studio logico-filosofico sull'analogia* (Bologna, 1968), pp. 25 ff. J.-P. Vernant's statement ("Parole et signes muets," in *Divination et rationalité*, p. 19) according to which "political, historical, medical, philosophic and scientific progress consecrates the break with divinatory mentality," seems to identify the latter exclusively with inspired divination (but see what Vernant himself states at p. 11 in regard to the unresolved problem constituted by the coexistence, even in Greece, of the two forms of divination, inspired and analytical). An implicit devaluation of Hippocratic symptomatology is evident on p. 24; cf., instead, Melandri, *La linea*, p. 251, and especially the book by D  tienne and Vernant cited at note 45, below.
44. See the introduction by M. Vegetti to Hippocrates, *Opere* (Turin, 1965), pp. 22-23. For Alcmeon's fragment, see *Pitagorici: Testimonianze e frammenti*, ed. M. Timpanaro Cardini (Florence, 1958), 1:146 ff.
45. On all this see the rich study by M. D  tienne and J.-P. Vernant, *Cunning Intelligence in Greek Culture and Society*, trans. Janet Lloyd (New York, 1978). The divinatory attributes of Metis are alluded to at pp. 104 ff.: but see also pp. 145-49 for the connection between the types of knowledge listed and divination (apropos sailors) and pp. 270 ff. On medicine, see pp. 297 ff.; on the relationship between disciples of Hippocrates and Thucydides, see Vegetti's introduction to Hippocrates, *Opere*, p. 59 (but also Diller, *Hermes* 67:22-23). The ties between medicine and historiography should also be investigated from the reverse perspective: see the studies on "autopsy" recorded by A. Momigliano, "Storiografia greca," *Rivista storica italiana* 87 (1975): 45. The presence of women in the circle dominated by metis (see D  tienne and Vernant, *Cunning Intelligence*, pp. 20, 267) raises problems which I shall discuss in a later version of this article.
46. Hippocrates, *Opere*, pp. 143-44.
47. See P. K. Feyerabend, *Probleme des Empirismus* (Braunschweig, 1981) (*I problemi dell'empirismo* [Milan, 1971], pp. 105 ff.); idem, *Against Method* (London and New York, 1978); and the critical comments by P. Rossi, *Immagini della scienza* (Rome, 1977), pp. 149-50.
48. The *conietor* is a prophet. Here and elsewhere I am following observations made by S. Timpanaro but am putting them in a different (even opposite) perspective: see Timpanaro, *Il lapsus freudiano: Psicanalisi e critica testuale* (Florence, 1974) (in English as *The Freudian Slip: Psychoanalysis and Textual Criticism* [London, 1976; rpt. Shocken Books, 1985]). Briefly, while Timpanaro rejects psychoanalysis because it is closely related to magic, I try to demonstrate that not only psychoanalysis but also the majority of the so-called humane sciences are inspired by a divinatory type of epistemology (see the last part of this essay for its implications). Timpanaro had already alluded to the individualizing explanations of magic and to the individualizing instincts of two such sciences as medicine and philology (*Il lapsus*, pp. 71-73).
49. M. Bloch wrote some memorable pages on the "probable" character of

historical knowledge: *The Historian's Craft* (New York, 1962). Its characteristics of indirect knowledge, based on traces, have been emphasized by K. Pomian, "L'histoire de la science et l'histoire de l'histoire," *Annales: E.S.C.* 30 (1975): 935-52, who implicitly reexamines (pp. 949-50) Bloch's observations on the importance of the critical method developed by Maurists (see *The Historian's Craft*, pp. 81 ff.). Pomian's rich study concludes with a brief look at the differences between "history" and "science," but he does not mention the individualizing attitude of various types of knowledge (see "L'histoire," pp. 951-52). On the connection between medicine and historical knowledge, see M. Foucault, *Microfisica del potere: Interventi politici* (Turin, 1977), p. 45, and the text at note 44 above; but for a different viewpoint, see G.-G. Granger, *Pensée formelle et sciences de l'homme* (Paris, 1967), pp. 206 ff. The insistence on the individualizing characteristics of historical knowledge is suspect because too often it has been associated with the attempt to base it on empathy or on an identification of history with art, etc. Obviously, this paper is written from a totally different perspective.

50. On the impact of the invention of writing, see J. Goody and I. Watt, "The Consequences of Literacy," *Comparative Studies in Society and History* 5 (1962-63): 304-45, and, more recently, J. Goody, *The Domestication of the Savage Mind* (Cambridge, 1977). See also E. A. Havelock, *Preface to Plato* (Oxford, 1963). On the history of textual criticism after the invention of printing, see E. J. Kenney, *The Classical Text: Aspects of Editing in the Age of Printed Books* (Berkeley, 1974).
51. The distinction proposed by Croce between "to express" and "to extrinsicate" artistically grasps (even if in a mystifying way) the historical process of the purification of the notion of text which I have attempted to outline here. The extension of this distinction to art in general (obvious from Croce's point of view) is unsupportable.
52. See S. Timpanaro, *La genesi del metodo Lachmann* (Florence, 1963). On page 1 he presents the foundation of *recensio* as the element making a discipline scientific which before the nineteenth century had been an "art" more than a "science" because it was identified with *emendatio*, or conjectural art.
53. See the aphorism by J. Bidez recalled by Timpanaro, *Il lapsus*, p. 72.
54. See G. Galilei, *Il Saggiatore*, ed. L. Sosio (Milan, 1965), p. 38. Cf. E. Garin, "La nuova scienza e il simbolo del 'libro,'" in *La cultura filosofica del Rinascimento italiano: Ricerche e documenti* (Florence, 1961), pp. 451-65, who discusses the interpretation of this and other passages from Galileo proposed by E. R. Curtius from a perspective resembling my own.
55. Galilei, *Il Saggiatore*, p. 264; my italics. On this point, see also J. A. Martinez, "Galileo on Primary and Secondary Qualities," *Journal of the History of Behavioral Sciences* 10 (1974): 160-69.
56. For Cesi and Ciampoli, see the text below; for Faber, see G. Galilei, *Opere* (Florence, 1935), 13:207.
57. See J. N. Eritreo [G. V. Rossi], *Pinacotheca imaginum illustrium, doctrinae vel ingenii laude, virorum* (Leipzig, 1692), 2:79-82. Naudé, along with Rossi, judged Mancini "a great and consummate atheist": see R. Pintard, *Le libertinage érudit dans la première moitié du XVIIe siècle*, 2 vols. (Paris, 1943), 1:261-62.

58. See G. Mancini, *Considerazioni sulla pittura*, ed. A. Marucchi, 2 vols. (Rome, 1956–57). D. Mahon, *Studies in Seicento Art and Theory* (London, 1947), pp. 279 ff., has emphasized Mancini's importance as "connoisseur." J. Hesse, "Note manciniane," *Münchener Jahrbuch der bildenden Kunst*, 3rd ser., 19 (1968): 103–20, is rich in information but too restrictive in his judgment.
59. See F. Haskell, *Patrons and Painters: A Study in the Relations between Italian Art and Society in the Age of the Baroque* (New York, 1971), p. 126; see also the chapter "The Private Patron," pp. 94 ff.
60. See Mancini, *Considerazioni*, 1:133 ff.
61. Eritreo, *Pinacotheca*, pp. 80–81; my italics. Further on (p. 82) another of Mancini's diagnoses which turned out to be correct (the patient was Urban VIII) was called "either divine inspiration, or prophecy" ("seu vaticinatio, seu praedictio").
62. Engravings obviously pose a different problem than do paintings. A general tendency exists today to dismiss the uniqueness of representational art; but opposite tendencies exist, which also confirm uniqueness (of *performance* instead of the work itself: *body art*, *landscape art*).
63. All this naturally presupposes W. Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations* (New York, 1973), pp. 217–51. Benjamin, however, speaks only of figurative works of art. Their uniqueness, and especially that of paintings, is contrasted to the mechanical reproduction of literary texts by E. Gilson, *Peinture et réalité* (Paris, 1958), pp. 93, and especially pp. 95–96 (I owe this reference to the kindness of Renato Turci). But for Gilson the contrast is intrinsic, and not of a historical character, as I have attempted to demonstrate here. De Chirico's "faking" of his own works shows how the modern notion of the absolute uniqueness of the work of art tends actually to leave out of consideration the biological unity of the individual artist.
64. See a remark by L. Salerno in Mancini, *Considerazioni*, 2: xxiv, n. 55.
65. *Ibid.*, 1:134; at the end of the reference I have changed "painting" to "writing," as sense requires.
66. I am proposing the name of Allacci for the following reasons. In a previous passage, similar to the one cited, Mancini speaks of "librarians, especially Vatican librarians," capable of dating ancient Greek and Latin writings (*ibid.*, p. 106). Both passages are lacking in the shorter redaction, the so-called *Discorso di pittura*, completed by Mancini before November 13, 1619 (*ibid.*, p. xxx). (The text of the *Discorso* is on pp. 291 ff.; the section on the "identification of paintings" is on pp. 327–30.) Allacci was named "scriptor" at the Vatican Library in mid-1619; see J. Bignami-Odier, *La bibliothèque vaticane de Sixte IV à Pie XI* (Vatican City, 1973), p. 129; recent studies on Allacci are listed on pp. 128–31. Moreover, no one in Rome during these years except for Allacci possessed the expertise in Greek and Latin paleography mentioned by Mancini. On the importance of Allacci's paleographical ideas, see E. Casamassima, "Per una storia delle dottrine paleografiche dall'Umanesimo a Jean Mabillon," *Studi medievali*, 3rd ser., 5 (1964): 532, n. 9. Casamassima also suggests the connection between Allacci and Mabillon, referring us for the necessary documentation to the sequel to his article, which, unfortunately, has not appeared. No evidence of dealings

with Mancini emerges from Allacci's correspondence preserved in the Biblioteca Vallicelliana in Rome. The two, however, were members of the same intellectual circles, as demonstrated by their common friendship with G. V. Rossi (see Pintard, *Le libertinage*, 1:259). On the good relations between Allacci and Maffeo Barberini before the latter's pontificate, see G. Mercati, *Note per la storia di alcune biblioteche romane nei secoli XVI–XIX* (Vatican City, 1952) p. 26, n. 1. As I have said, Mancini was Urban VIII's physician.

67. See Mancini, *Considerazioni*, 1:107; C. Baldi, *Trattato* ... (Carpi, 1622), pp. 17 ff. On Baldi, who also wrote on physiognomics and divination, see the entry under his name in the *Dizionario biografico degli italiani*, 5 (1963): 465–67, written by M. Tronti, who concludes by making his own Moréri's disparaging opinion: "On peut bien le mettre dans le catalogue de ceux qui ont écrit sur des sujets de néant." Note that in his *Discorso di pittura*, which he finished before November 13, 1619 (see note 66), Mancini wrote: "The individual properties of writing have been discussed by that noble spirit who, in that booklet of his which is now circulating among us, attempted to demonstrate and explain the causes of these properties, so that, from the manner of the writing he has thought to be able to give information about the temperament and habits of the writer, a curious and beautiful thing, but a little too short." Mancini, *Considerazioni* 1:306–7. The passage poses two difficulties to the identification with Baldi suggested above: (a) the first printed edition of Baldi's *Trattato* appeared at Carpi in 1622; thus, in 1619, or just before, it could not have been available as a "booklet ... which is now circulating among us"; (b) in his *Discorso* Mancini speaks of a "noble spirit," but in the *Considerazioni* of "fine minds." But both difficulties are resolved in light of the printer's note to the reader in the first edition of Baldi's *Trattato*: "The author of this little treatise, when he wrote it, never gave a thought to whether it would be published or not; but because a certain person, who worked as a secretary, published under his name many writings, letters, and other compositions which belonged to others, I thought it only proper to see that the truth should be made known, and credit be given where it was due." Clearly Mancini first knew the "booklet" of that "secretary," whom I have not succeeded in identifying, and then later also Baldi's *Trattato*, which circulated in manuscript form in a slightly different version from the one that was eventually printed (it can be read, together with other writings of Baldi's, in MS. 142 of the Biblioteca Classense, Ravenna).
68. Mancini, *Considerazioni*, 1:134.
69. See A. Averlino [Filarete], *Trattato di Architettura*, ed. A. M. Finoli and L. Grassi (Milan, 1972), 1:28 (but see in general pp. 25–28). The passage is noted as a foretaste of the "Morellian" method in J. Schlosser Magnino, *La letteratura artistica* (Florence, 1977), p. 160.
70. See, for example, M. Scalzini, *Il segretario* (Venice, 1585), p. 20: "Who becomes accustomed to this form of writing, in a very short time loses the speed and natural openness of the hand." Also, G. F. Cresci, *L'idea* (Milan, 1622), p. 84, who remarks on "those strokes with so many flourishes, which they have boasted of doing in their writing with only one pass of the pen."
71. See Scalzini, *Il segretario*, pp. 77–78: "But if these people who courteously answer, that they write leisurely with graceful line and polish, if they were

- called to the service of some prince or lord, who needed, as often happens, to write forty or fifty long letters in four or five hours, and if they were called to his chamber to write, how long would it take them to perform this service?" This tirade is directed against certain unnamed "boastful masters" accused of practicing a slow and tiring chancery hand.
72. E. Casamassima, *Trattati di scrittura del Cinquecento italiano* (Milan, 1966), pp. 75–76.
 73. "... this very great book, which nature continually holds open before those who have eyes on the forehead and the brain" (quoted and discussed by E. Raimondi, *Il romanzo senza idillio: Saggio sui 'Promessi Sposi'* [Turin, 1974], pp. 23–24).
 74. Averlino [Filarete], *Trattato*, pp. 26–27.
 75. See Bottéro, *Symptômes*, p. 101, who traces the lesser use in divination of minerals, vegetables, and, to a certain extent, animals, to their presumed "formal poverty," rather than, more simply, to an anthropocentric perspective.
 76. See *Rerum medicarum Novae Hispaniae Thesaurus seu plantarum animalium mineralium Mexicanorum Historia ex Francisci Hernandez novi orbis medici primarii relationibus in ipsa Mexicana urbe conscriptis a Nardo Antonio Reccho ... collecta ac in ordinem digesta a Ioanne Terrentio Lynceo ... notis illustrata* (Rome, 1651), pp. 599 ff.; this is part of the section written by Giovanni Faber, not acknowledged on the title page. On the importance of this book see the perceptive remarks by Raimondi, *Il romanzo*, pp. 25 ff.
 77. See Mancini, *Considerazioni*, 1:107, who, in citing a writing by Francesco Giuntino, alludes to Dürer's horoscope. The editor of the *Considerazioni*, 2:60, n. 483, does not specify the work in question; cf., instead, Giuntino's *Speculum astrologiae* (Lyon, 1573), p. 269v.
 78. See *Rerum medicarum*, pp. 600–627. It was Urban VIII himself who urged that the illustrated description be printed (*ibid.*, p. 599). On the interest in landscape painting in these circles, see A. Ottani Cavina, "On the Theme of Landscape, II: Elsheimer and Galileo," *Burlington Magazine*, 118 (1976): 139–44.
 79. See Raimondi's stimulating essay "Towards Realism," in his *Romanzo*, pp. 3 ff. – even if, following Whitehead (pp. 18–19), he tends to reduce unduly the opposition between the two paradigms, one abstract-mathematical, the other concrete-descriptive. On the contrast between classical and Baconian sciences, see T. S. Kuhn, "Tradition mathématique et tradition expérimentale dans le développement de la physique," *Annales: E.S.C.* 30 (1975): 975–98.
 80. See, e.g., "Craig's Rules of Historical Evidence, 1699," *History and Theory: Beiheft* 4, 1964.
 81. On this theme, hardly touched upon here, see the important book by I. Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction, and Statistical Inference* (Cambridge, 1975). I have found useful M. Ferriani's review article "Storia e 'preistoria' del concetto di probabilità nell'età moderna," *Rivista di filosofia* 10 (1978): 129–53.
 82. P.J.G. Cabanis, *An Essay on the Certainty of Medicine* (Philadelphia, 1823).
 83. On the subject, see M. Foucault, *The Birth of the Clinic: An Archeology of Medical Perception* (New York, 1973); *idem*, *Microfisica*, pp. 192–93.

84. See also my *The Cheese and the Worms: The Cosmos of a Sixteenth-Century Miller* (Baltimore, 1980), pp. 58–60.
85. I am returning here, but from a somewhat different perspective, to points made by Foucault in *Microfísica*, pp. 167–69.
86. J. J. Winckelmann, to G. L. Bianconi, April 30, 1763 (from Rome), in Winckelmann's *Briefe*, ed. H. Diepolder and W. Rehm, (Berlin, 1954), 2:316 and 498n.
87. The allusion to "small insights" is found in *Briefe* (Berlin, 1952), 1:391.
88. This is true for more than the *Bildungsroman*. From this point of view, the novel is the true descendant of the fairy tale; see V. I. Propp, *Le radici storiche dei racconti di fate* (Turin, 1949).
89. See E. Cerulli, "Una raccolta persiana di novelle tradotte a Venezia nel 1557," *Atti dell'Accademia Nazionale dei Lincei: Memorie della classe di scienze morali*, 8th ser., 18 (1975); on Sercambi, see *ibid.*, pp. 347 ff. Cerulli's essay on the sources and on the diffusion of the *Peregrinaggio* should be considered, as far as the eastern origins of the story are concerned, in conjunction with the references in note 31, above, and with its indirect flowering, by way of *Zadig*, into the detective story (see the text below).
90. Cerulli (*ibid.*) mentions a number of translations: into German, French, English and Dutch (both from the French), and Danish (from the German). This list may have to be supplemented on the basis of a work which I have been unable to see: *Serendipity and the Three Princes: From the Peregrinaggio of 1557*, ed. T. G. Remer (Norman, Okla., 1965), who records editions and translations (pp. 184–90). Cf. W. S. Heckscher, "Petites perceptions: An Account of Sortes Warburgianae," *Journal of Medieval and Renaissance Studies* 4 (1974): 131, n. 46.
91. Heckscher, "Petites perceptions," pp. 130–31. Here Heckscher develops an observation from his own "The Genesis of Iconology," in *Stil und Ueberlieferung in der Kunst des Abendlandes*, Akten des XXI Internationalen Kongresses für Kunstgeschichte in Bonn, 1964 (Berlin, 1967), 3:245, n. 11. These two essays by Heckscher, extremely rich in ideas and references, examine the birth of Aby Warburg's method from a perspective which resembles, at least in part, the one adopted here. In a future revision I intend to consider the Leibnizian approach proposed by Heckscher.
92. Voltaire, "Zadig," in Voltaire's "Candide," "Zadig," and *Selected Short Stories*, ed. D. M. Frame (Bloomington, 1966), pp. 110–11.
93. See, in general, R. Méssac, *Le "detective novel" et l'influence de la pensée scientifique* (Paris, 1929), which is excellent, though now partly outdated. On the connection between the *Peregrinaggio* and *Zadig*, see Méssac, pp. 17 ff. and pp. 211–12.
94. "Aujourd'hui, quelqu'un qui voit seulement la piste d'un pied fourchu peut en conclure que l'animal qui a laissé cette empreinte ruminait, et cette conclusion est tout aussi certaine qu'aucune autre en physique et en morale. Cette seule piste donne donc à celui qui l'observe, et la forme des dents, et la forme des mâchoires, et la forme des vertèbres, et la forme de tous les os des jambes, des cuisses, des épaules et du bassin de l'animal qui vient de passer: c'est une marque plus sûre que toutes celles de Zadig." *Ibid.*, pp. 34–35 (quoted from G. Cuvier, *Recherches sur les ossements fossiles* [Paris, 1834], 1:185).
95. See T. Huxley, "On the Method of Zadig: Retrospective Prophecy as a

Function of Science,” in *Science and Culture* (London, 1881), pp. 128–48 (a lecture from the previous year to which Méssac, *Le “detective novel,”* p. 37, drew attention). On p. 132 Huxley explained that “even in the restricted sense of ‘divination,’ it is obvious that the essence of the prophetic operation does not lie in its backward or forward relation to the course of time, but in the fact that it is the apprehension of that which lies out of the sphere of immediate knowledge: the seeing of that which to the natural sense of the seer is invisible.” Cf. also E. H. Gombrich, “The Evidence of Images,” in *Interpretation*, ed. C. S. Singleton (Baltimore, 1969), pp. 35 ff.

96. See [J.-B. Dubos], *Réflexions critiques sur la poésie et sur la peinture* (Paris, 1729), 2:362–65 (quoted in part by Zerner, “Giovanni Morelli,” p. 215n).
97. E. Gaboriau, *Monsieur Lecoq, I: L'enquête* (Paris, 1877), p. 44. On p. 25 the “recent theory” of the young Lecoq is contrasted to the “antiquated practice” of the old policeman Gévrol, “champion of the positivist police method” (p. 20), who stops at appearances and therefore does not succeed in seeing anything.
98. On the long popular success of phrenology in England (long after official science was looking upon it haughtily), see D. De Giustino, *Conquest of Mind: Phrenology and Victorian Social Thought* (London, 1975).
99. “My inquiry led me to the conclusion ... that the anatomy of this civil society ... has to be sought in political economy.” K. Marx, *A Contribution to the Critique of Political Economy* (London, 1971), p. 20 (the sentence comes from the preface, written in 1859).
100. See Morelli, *Della pittura*, p. 71. Zerner (“Giovanni Morelli”) has maintained, on the basis of this passage, that Morelli distinguished three levels: (a) the general characteristics of a school; (b) individual characteristics, revealed by hands, ears, etc.; (c) mannerisms introduced “unintentionally.” Actually (b) and (c) resemble one another: see Morelli’s reference to the “overly fleshy thumbs of male hands” in Titian’s paintings, a “mistake” which a copyist would have avoided. *Le opere dei maestri italiani nelle gallerie di Monaco, Dresda e Berlino* (Bologna, 1886), p. 174.
101. An echo of Mancini’s writings, analyzed above, could have reached Morelli by means of F. Balducci, *Lettera ... nella quale risponde ad alcuni quesiti in materia di pittura* (Rome, 1681), pp. 7–8, and L. Lanzi, *Storia pittorica dell’Italia*, ed. M. Capucci (Florence, 1968). To the best of my knowledge, Morelli never cites Mancini’s *Considerazioni*.
102. See *L’identité: Séminaire interdisciplinaire dirigé par Claude Lévi-Strauss* (Paris, 1977).
103. A. Caldara, *L’indicazione dei connotati nei documenti papiracei dell’Egitto greco-romano* (Milan, 1924).
104. Lanzi, *Storia pittorica*, 1:15.
105. E. P. Thompson, *Whigs and Hunters: The Origin of the Black Act* (London, 1975).
106. M. Foucault, *Discipline and Punish: The Birth of the Prison* (New York, 1977).
107. M. Perrot, “Délinquance et système pénitentiaire en France au XIXe siècle,” *Annales: E.S.C.* 30 (1975): 67–91, esp. 68.
108. See A. Bertillon, *L’identité des récidivistes et la loi de relégation* (Paris, 1883), p. 24 (reprinted from *Annales de démographie internationale*); E. Locard, *L’identification des récidivistes* (Paris, 1909). The Waldeck-Rousseau law, which

- required prison sentences for the relapsed and deportation for the “incorrigible,” dates to 1885. See Perrot, “Délinquance,” p. 68.
109. Branding was abolished in France in 1832. Both *The Count of Monte Cristo* and *The Three Musketeers* date from 1844; *Les Misérables* is from 1869. The list of ex-convicts who populate French literature of the period could be greatly extended: Vautrin, etc. See, in general, L. Chevalier, *Laboring Classes and Dangerous Classes in Paris during the First Half of the Nineteenth Century* (London, 1973), esp. chs. 2–5.
 110. See the problems raised by Bertillon, *L'identité*, p. 10.
 111. See A. Lacassagne, *Alphonse Bertillon: L'homme, le savant, la pensée philosophique*, and E. Locard, *L'oeuvre de Alphonse Bertillon* (Lyon, 1914), p. 28 (reprinted from *Archives d'anthropologie criminelle, de médecine légale, et de psychologie normale et pathologique*).
 112. Locard, *L'oeuvre de Alphonse Bertillon*, p. 11.
 113. See A. Bertillon, *Identification anthropométrique: Instruction signalétiques*, new ed. (Melun, 1893), p. xlviii: “Mais là où les mérites transcendants de l'oreille pour l'identification apparaissent le plus nettement, c'est quand il s'agit d'affirmer solennellement en justice que telle ancienne photographie ‘est bien et dûment applicable à tel sujet ici present’ ... il est impossible de trouver deux oreilles semblables et ... l'identité de son modelé est une condition nécessaire et suffisante pour confirmer l'identité individuelle,” except in the case of twins. Cf. idem, *Album* (Melun, 1893), plate 60b (which accompanies the preceding work). On Sherlock Holmes's admiration for Bertillon, see F. Lacassin, *Mythologie du roman policier* (Paris, 1974), 1:93 (who also cites the passage on the ears cited in note 9, above).
 114. See Locard, *L'oeuvre de Bertillon*, p. 27. Because of his expertise as a graphologist, Bertillon was consulted in the Dreyfus affair over the authenticity of the celebrated *bordereau*. Because he expressed an opinion clearly supporting Dreyfus's guilt, Bertillon's career was damaged, in the polemical opinion of biographers: see Lacassagne, *Alphonse Bertillon*, p. 4.
 115. F. Galton, *Finger Prints* (London, 1892), with a bibliography of the prior publications.
 116. See J. E. Purkyně, *Opera selecta* (Prague, 1948), pp. 29–56.
 117. Ibid., pp. 30–32, from which the remainder of this paragraph is drawn.
 118. See Galton, *Finger Prints*, pp. 24 ff.
 119. See L. Vandermeersch, “De la tortue à l'achillée,” in *Divination et rationalité*, pp. 29 ff., and J. Gernet, “Petits écarts et grands écarts,” *ibid.*, pp. 52 ff.
 120. See Galton, *Finger Prints*, pp. 27–28 (and the expression of thanks at p. 4). Galton refers on pp. 26–27 to a prior episode which had no practical consequences, a photographer in San Francisco who had thought he could identify the members of the Chinese community by means of fingerprints.
 121. Ibid., pp. 17–18.
 122. Ibid., p. 169. For the statement which follows, see Foucault, *Microfisica*, p. 158.
 123. The reference here is to L. Traube, “Geschichte der Paläographie,” in *Zur Paläographie und Handschriftenkunde*, ed. P. Lehmann, vol. 1 (Munich, 1965 [photographic reprint of the 1909 ed.]). Attention was called to this passage by A. Campana, “Paleografia oggi: Rapporti, problemi, e prospettive di una

- ‘coraggiosa disciplina,’” *Studi urbinati* 41 (1967), n.s. B, *Studi in onore di Arturo Massolo*, 2:1028; A. Warburg, *Die Erneuerung der heidnischen Antike* (Leipzig & Berlin, 1932), whose first essay dates from 1893; L. Spitzer, *Die Wortbildung als stilistisches Mittel exemplifiziert an Rabelais* (Halle, 1910); M. Bloch, *The Royal Touch: Sacred Monarchy and Scrofula in England and France* (London, 1973). The examples could be extended: see G. Agamben, “Aby Warburg e la scienza senza nome,” *Settanta*, July–September 1975, p. 15 (where Warburg and Spitzer are cited; on p. 10 there is mention also of Traube).
124. In addition to Campanella’s *Political Aphorisms*, which originally appeared in a Latin translation as part of the *Realis philosophia (De politica in aphorismos digesta)*, see G. Canini, *Aforismi politici cavati dall’ “Historia d’Italia” di M. Francesco Guicciardini* (Venice, 1625), on which see T. Bozza, *Scrittori politici italiani dal 1550 al 1650* (Rome, 1949), pp. 141–43, 151–52. See also the entry for “Aphorisme” in the *Dictionnaire* of Littré.
 125. Even if it was originally used in a juridical sense; for a brief history of the term, see R. Koselleck, *Critique and Crisis: Enlightenment and the Pathogenesis of Modern Society* (Cambridge, Mass., 1988).
 126. I shall deal with this point more fully in a later version of this essay.
 127. See Stendhal, *Memoirs of an Egotist*, ed. D. Ellis (London, 1975), p. 71: “Victor [Jacquemont] seems to me a man of the highest distinction – just as a connoisseur (forgive the word) sees a beautiful horse in a four-month-old foal whose legs are still swollen.” Stendhal is excusing himself with the reader for using a word of French origin such as *connoisseur* with the meaning that it had acquired in England. See Zerner’s remark (“Giovanni Morelli,” p. 215, n. 4) that even today there is no word in French equivalent to *connoisseurship*.
 128. See the rich and perceptive book by Y. Mourad, *La physiognomonie arabe et la “Kîtab Al-Firâsa” de Fakhr Al-Dîn Al-Râzî* (Paris, 1939), pp. 1–2.
 129. See the extraordinary episode attributed to Al-Shâfi’i (ninth century A.D.), *ibid.*, pp. 60–61, which reads like something out of Borges. The connection between the *firâsa* and the feats of the sons of the king of Serendipity has been duly noted by Méssac, *Le “detective novel.”*
 130. See Mourad, *La physiognomonie*, p. 29, who lists the following classifications for the various types of physiognomics contained in the treatise by Tashköprü Zâdeh (A.D. 1560): (1) the science of wens or moles; (2) chiromancy; (3) scapulimancy; (4) divination by means of footprints; (5) genealogical science by means of the inspection of the members of the body and the skin; (6) the art of finding one’s way in the desert; (7) the art of discovering springs; (8) the art of discovering places containing metals; (9) the art of forecasting rain; (10) prophecy by means of past and present events; (11) prophecy by means of involuntary movements of the body. On pp. 15 ff. Mourad proposes an extremely interesting comparison, deserving further study, between Arabic physiognomics and the research of the Gestalt school of psychology on the perception of individuality.

[This essay has provoked numerous comments and rejoinders (including one by I. Calvino in *La Repubblica*, January 21, 1980) which would be superfluous to list here. I shall cite only what appeared in *Quaderni storici* 6, no. 11 (1980): 3–18 (writings by A. Carandini and M. Vegetti); *ibid.*, no. 12, pp. 3–54 (pieces by several individuals and my

reply); and *Freibeuter*, 1980, no. 5. Marisa Dalai has made me note, in regard to Morelli, that I should have cited the perceptive observations of J. von Schlosser, "Die Wiener Schule der Kunstgeschichte," *Mitteilungen des Oesterreichischen Instituts für Geschichtsforschung*, Ergänzungs-Band 13, no. 2 (1934): 165 ff.]

Germanic Mythology and Nazism: Thoughts on an Old Book by Georges Dumézil

I should like to thank Kyung Ryong Lee, Arnaldo Momigliano, Adriano Prosperi, Gianni Sofri, and Jean Starobinski for their suggestions and references. Naturally, the responsibility for what I have written is mine alone.

1. See, most recently, Dumézil's statements in 1980 to J. Bonnet and D. Pralon, in F. Desbordes et al., *Georges Dumézil* (Paris, 1981), pp. 20–23. The caesura of 1938 is openly acknowledged (p. 341) even in the critical bibliography which closes out the volume.
2. See G. Dumézil, *Les dieux des Germains: Essai sur la formation de la religion scandinave* (Paris, 1959), p. 1; translated into English as *Gods of the Ancient Northmen* (Berkeley and Los Angeles, 1973), p. xlv.
3. A. Momigliano, "Premesse per una discussione su Georges Dumézil," *Opus* 2 (1983): 331. This issue of *Opus* contains several essays, almost all of which were presented at a seminar on Dumézil held in Pisa in January 1983.
4. Curiously, *Mythes et dieux* is not listed either in the catalogues of the Bibliothèque Nationale (Paris) or in the library of the Sorbonne. In the British Library it is reported as "misaid." I have located two copies: in the Carolina Rediviva in Uppsala and in the Deutsche Archäologisches Institut, Rome.
5. S. Gutenbrunner, review of *Mythes et dieux des Germains*, by G. Dumézil, *Deutsche Literaturzeitung* 61 (1940): cols. 943–45.
6. M. Bloch, review of *Mythes et dieux des Germains*, by G. Dumézil, *Revue Historique* 188 (1940): 274–76.
7. G. Dumézil, *Mythes et dieux des Germains* (Paris, 1939), pp. 153–57. The comment by C. S. Littleton (*The New Comparative Mythology* [Berkeley and Los Angeles, 1982], p. 63) is scandalously shallow: "It was perhaps ironic that it was in 1939, the year Hitler's legions began their grisly march, that Dumézil first focused his attention upon the Germanic branch of the I.E. speaking world."
8. Dumézil, *Mythes et dieux des Germains*, pp. 79 ff., esp. pp. 90–91.
9. *Ibid.*, p. 157.
10. *Ibid.*, pp. 138–39. On these aspects of Nazi propaganda, see, in general, G. L. Mosse, *The Nationalization of the Masses* (New York, 1975).
11. See what Dumézil himself states in the interview cited above (Desbordes, *Georges Dumézil*, p. 20).
12. See J. Le Goff's introduction to M. Bloch, *Les rois thaumaturges* (Paris, 1983), p. iv, and Bloch's "Pour une histoire comparée des sociétés européennes," in his *Mélanges historiques* (Paris, 1963), 1:16–40.
13. M. Bloch, *Les caractères originaux de l'histoire rurale française* (Paris, 1952), pp. xiv, 46 ff.
14. Bloch, *Apologies pour l'histoire; ou, Métier d'historien* (Paris, 1949).