MORAL ANALOGIES IN PRINT: EMBLEMATIC THINKING IN THE MAKING OF EARLY MODERN BOOKS

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ABSTRACT

It is a commonplace in the history of the scientific revolution that ancient and medieval notions of reasoning by analogy, which united all of creation in layered realities observable in the puzzle of the world, were swept away by the triumph first of empiricism and skepticism and then of the romantic insistence on the uniqueness of the individual. Recent work shows conclusively that this development was not linear, and that the culture of print so important in the diffusion of early modern science depended on the persistence of moralizing analogy in academies and classrooms and in printing houses and bookshops. This paper offers a look at the persistence of moral, emblematic thought in the publishing industry of early modern Europe. I contend that book workers -- from authors and editors to typesetters and printers -- embraced emblematic thinking as a way of bridging the ethical distance between commerce and science. Their habits of translating moral analogy into print can be seen most clearly and unambiguously in the ways book folk devised emblematic printer's marks and shop signs to label and advertise their work on the book market. An historical case study, this paper describes practices that bear directly on our present debates over the mechanics and ethics of technological innovation and the challenge technology poses to intellectual freedom, enterprise, and the exchange of information. The paper concludes with a reflection on the ways in which contemporary design reasoning is analogous to traditional emblematic thought.

Ancient and medieval notions of reasoning by analogy united all of creation in layered realities observable in the puzzle of the world and described in ebullient, cascading metaphors (Rhodes 2000; Stafford 1999; Gentner and Jeziorski 1994). A typical medieval treatise on natural history, science, or morals was called a *Speculum* or mirror, and presupposed that the author and reader would find themselves fully

reflected in the subjects they studied for the simple reason that they were an essential part of the picture -- one of their own specimens, part of the master metaphor.

We typically assume that this broadly analogical model of scholarly thought was swept away by the triumph first of empiricism and skepticism and then by the romantic insistence on the uniqueness of the individual (Rhodes 2000; Stafford 1999; Johnson 1993). We have tended to think that for the purposes of research we can isolate ourselves as observers or at least describe our observational biases sufficiently to step out of the mirror. Philosophers of science and cognitive scientists repeatedly correct us on this point (Galison 1997; Johnson 1993; Boyd 1976), but for practical purposes we usually still subscribe to one or another empiricist model. We embody the objective value of our work in scholarly publications; and we carefully distinguish research results judged by peer review from popular but well-informed accounts and from naïve or sensational ones. Moreover, we expect the publishers to do the same, giving us type, artwork, and layouts that will make it clear from the start what we are looking at. When a publisher, now or in the past, fails to conform to graphic expectations, we have to wonder if the work in question is serious, popularizing, inept, naïve, or a spoof.

Historians of science, meanwhile, have emphasized the central role of printers and publishers in the progress of empiricism. The growth of scholarly societies and their publication series have typically been portrayed as a cause, or at least the necessary accompaniment, of scientific progress. Recent studies, however, show how the culture of print so important in the diffusion of early modern science depended on the persistence of moralizing analogy in academies and classrooms and in printing houses and bookshops (Hobart and Schiffman 1998; Johns 1998). It would seem that the elaborate machines for moral thought devised by ancient and medieval thinkers persisted into the age of print and were, indeed, popularized by printing (Chartier 1987).

One genre of book that embodies this persistence of moral analogy in the age of print is the emblem book, which we may describe as a collection of puzzle-pictures with mottoes, sometimes in several languages. Such books served for meditation and for teaching, but also for the processes of invention and design. The form was created in the early sixteenth century and flourished as a high-culture phenomenon until about 1600; thereafter emblem-making, popularized by print, was

diffused into a variety of everyday situations. As a scientific tool the emblem disappeared in the early seventeenth century, but as a marker of culture -- a cultural ornament, if you will -- it persisted much further. More importantly, it persisted as well as a sort of tool or machine for moral thinking, a stimulus to the moral imagination (Orgel 2000; Pinkus 1996). Increasingly in the late sixteenth and seventeenth centuries, moral emblems were offered to women and children as tools for learning how to conform to the expectations of society (Matthews 1997 and 1991).

In the present forum, what seems important to me about emblems is that they embody, in a sophisticated way at a crucial point in Western intellectual history, several dimensions of thought which cognitive scientists in recent years have defined as primary. To use Merlin Donald's terms, for example, emblems join visual memory, metaphor, and language into concrete, integrative tools of theoretic culture as it embraces and recapitulates earlier evolutionary cognitive stages, episodic, mimetic and linguistic (1997 and 1991). Indeed, in his most recent book, Donald presents a diagram of the modern mind as a memorial mirror (he titles the section "The Mirror of Consciousness") that represents closely the way the emblem theorists suggested an emblem should work (2001). In different terms entirely, emblems link linguistic and social performance to a sense of community in a fashion reminiscent of "cultural cognition" as posited by Tomasello. In other words, the invention of emblems might be said to reenact the process of sociogenesis that Tomasello believes was made possible by the original human cognitive adaptation (1999). Again, emblematists posit that mere language, unaccompanied by visually mediated symbols, is inadequate to wisdom in the sense of moral understanding. Emblems, then, are presented as tools of the essential moral imagination Mark Johnson has described (1993). In a wide-ranging lecture on distributive cognitive systems at MBR'01, Ronald Giere remarked that a good, modern communication device is designed *not* to affect the data, ideas, or models it transmits. Contrast to this an emblem (or other art work) which is *specifically designed, as a medium*, to affect the ideas transmitted and to render them morally normative for the reader or viewer. Lastly, emblems were offered to both beginners and specialists. As such they were an early modern medium for bridging the naïve-expert shift that has fascinated many researchers into the nature of scientific thought (Wiser and Carey 1983).

PLATE 1: Title page by Simone and Francesco Moscheni, Milan, 1553, showing Francesco's mark of the complimentary nobility of letters and arms, with the Latin motto used on scholarly books.

In this essay, I would like to offer a brief case study of emblematic thought in action, a look at the presence of emblems in the publishing industry of early modern Europe, with special reference to Italy in the age of the Counter-Reformation (ca. 1550-1650), and to our MBR'01 host-city, Pavia. I contend that book workers, from authors and editors to typesetters and printers, embraced emblematic thinking as a way of bridging the ethical distance between commerce and science (Matthews 1997; Stevens and Gehl 2003). They embodied this mode of thought in the structure of the books and pamphlets they produced, and especially in devising emblematic printer's marks to label and advertise their work on the book market. It is my hope that this sort of historical case study will prove of interest to philosophers, sociologists and cognitive scientists who today concern themselves with the ethics of technological innovation and the strategies we devise to appropriate new ideas into older categories of thought.

Let's begin with publisher Francesco Moscheni, who was active both in Milan and Pavia from 1550 to 1566. His circle included grandees of the Spanish governor's court at Milan, humanists making careers in the church or in civil administration, professors of the University of Pavia, and courtiers in smaller towns. All these potential customers were members of social or intellectual elites, and marketing to them was a high-end, high-culture matter. Moscheni ornamented his title pages with several versions of a handsome printer's mark or logo (Plate 1) that includes, among other things, a small fly or *mosca* which is a play on his surname. More importantly the device directly reflected the lively Cinquecento debate over the precedence of arms or letters. It is hard for us to imagine this debate, nor do we really need to. Suffice to say that hundreds of treatises were published in the course of the century on the nature of nobility and specifically whether the scholar or the soldier had the nobler calling (Donati 1988). In Moscheni's device we see a scholar on the left and a soldier on the right, with a motto either in Italian or Latin that exhorts the reader to see scholarship and soldiering as complimentary arts, each necessary to the good order of society. There were subtle differences between the two mottoes, as between the woodcuts. The Latin audience read *Unum nihil, duos plurimum posse*, that is, "One [of these alone] can accomplish nothing, together they can do much." Italian-literate audiences, on the other hand, saw *Maggior forza non è se fian congionti*, or "No greater force than these two

combined." In both versions, soldiers and scholars together were essential to the state. But the Italian motto was expansive and pro-active, more truly optimistic, and more concerned with the outside world than with the scholar's study. In Italian we read a slogan, an exhortation, while the Latin is a witty observation, in the manner of an epigram. Except for a few short remarks in one preface, Moscheni never published a direct address to the controversy between letters and arms, but he did not have to. His mark summarized his position in the debate perfectly, and the two versions of it were tailored to his two overlapping markets. The mark takes a moral and intellectual stance.

PLATE 2: Mark of Girolamo Bordone and Pietro Martire Locarno, Milan, 1606, showing their company mark at the center, their individual marks in the cartouche below, and a framework with symbols of the nobility of letters and arms.

An exactly comparable combination of social and intellectual pretensions on the Milan book market characterizes the partnership forty years later between Girolamo Bordone and Pietro Martire Locarno, which lasted from 1599 until Locarno's death in 1609. Their mark (Plate 2) however, was considerably more complex. Each of the partners had his own mark, but after a few years of collaboration they celebrated their partnership with a company mark that offered a new, emblematic central figure and incorporated their individual marks as satellite symbols. The central image is that of three trees, an olive symbolizing fame, an oak for strength, and a palm for victory. The motto, *Crescit occulte*, "It grows unnoticed," comes from Horace, where it refers to the fame of Marcellus growing slowly like an ancient tree. The lettering on the trunk of the oak discreetly refers to a noble patron, the Spanish governor of Milan. This complex mark presents a power play behind the classical veneer, auguring as it does fame for the authors and prosperity for the publishers with a whispered, smiling nod to the patronage of the Spanish court at Milan. Moreover, Bordone and Locarno included Moscheni's theme of the complementarity of arms and letters in the ornamental frame of their complicated new mark. Even this elaborately emblematic mark was a commercial symbol, aiming to identify a precise market niche for the legal and courtly products of the firm (Castellani 1995 and 1998).

Popular imprints survive in relatively small numbers, though they were printed in the tens of thousands by comparison with print runs in the hundreds for most scholarly and elite books. It is harder, therefore, to generalize from what survives, but we can try, since books of this sort tend to conform to types even more than upper-end books (Rhodes 2000). Single-sheet calendars, almanacs, religious broadsides, popular poetry, and the like tend to center around a single, striking image. The image may or may not be cut to order for the product and is often only loosely connected to the subject of the text. A 1511 calendar from Bologna now at the Newberry Library, for example, shows the single-image idea but not the centering used regularly later on. Moreover, the off-center picture is clearly labeled Venus but just as clearly represents Jupiter. By contrast, seventeenth-century festival posters from Rome are based on the formal, title-page format that had become standard by the middle of the sixteenth century. The form is a sort of template into which accurate information — both visual and textual — is inserted. The communicative problem in such posters is to make present to a varied public the meaning of an

abstract religious doctrine, in one striking case (also from the collection of the Newberry) the feast of the Triumph of the Wounds of Christ. At the center we see a learned emblem of the wounds, displaying in solemn fashion the tools of torture. Many representations of the tools of the passion include the sign affixed to the cross that read "Behold the King of the Jews," but here we find instead an elegant banderole with an emblematic saying "Plaga plagis curatur," or "The blow is cured by blows." Around the frame we are given lighter-hearted and more decorative elements that signal the festival character of the holy day. Some have symbolic meaning in other contexts but are reused here from title pages or other posters.

Similarly, inside popular-level books, images could be interchangeable. Chivalric romances were often illustrated with totally conventional images reused for whatever the hero or heroine at hand (Sberlati 1995). Elaborate initial letters decorated with mythological figures might or might not relate to the texts they decorate (Petrucci Nardelli 1991). At the extreme upper end of this kind of production is the most ambitious illustrated religious text of the century, the vernacular *Epistles and Gospels* published dozens of times with a hundred or more woodcuts. It is a para-liturgical text, giving the layperson an Italian version of texts the priest read at Mass in Latin. The individual images are specific to the texts but the blocks are used conventionally and move from edition to edition, printer to printer, and sometimes feast to feast on the calendar, for a century or more.

Interestingly, however, in simple design terms, these popular products functioned very much like the emblematic title pages on more substantial books. That is, they combine commercial and moral import in individual images, surrounded by type but not always closely explicated in the adjacent text. Commercial motives are never absent but they are rarely alone on the page, because the emblematic mode of thinking encouraged readers to look for more than one level of meaning. The presence of the image was an invitation to think on more than one level, to add value if you will to the textual content. The image was a tool; the reader was invited to pick it up and use it for a moral task.

I think it is well worth asking *how* these other motives went along with the commercial ones. Symbols are rarely single-reference; and emblems are deliberately designed to have more than one set of meanings. They are, that is, puzzles; and puzzling them out was

considered a sort of invention in early modern Europe. Lest you think that this was esoteric and backward-looking, I remind you that both Galileo and Newton participated in the creation of emblems. Invention, let us remember, still had a strongly rhetorical meaning in the sixteenth and seventeenth centuries. It always meant inventing arguments or finding them out in the raw materials of a subject; in the case of emblems it also meant encoding them in symbols that could be unlocked in a second moment by another inventor. The act of devising or inventing images and the act of decoding them were not just technical skills. These were moral acts in themselves, fruitful applications of mental skill to problem solving and practice in making and effecting moral decisions.

With this symbolic baggage in mind, let's consider a series of title pages printed here in Pavia from the invention of printing forward. As elsewhere, the earliest Pavia imprints had no title pages; they imitated manuscripts in starting right in on page one with the preface or text and relegating publication information to the end. The moral value and elite status of reading was never at issue in the Middle Ages, so the kind of labeling that we come to expect in a complex, typographical world was unnecessary. The earliest printer's marks were placed at the end of the book, where medieval scribes had sometimes put their names, as a simple maker's mark.

The full-information, modern title page was invented only around 1500, just when emblem books were beginning to be conceived. It evolved out of the practice of putting the title on a blank leaf at the beginning of the printed book to label it for shop inventory. This is more information than advertisement. The earliest title pages were just dust-covers or guard leaves with a simple title. Next an illustration was added for the sake of greater advertising impact, as on a modern dust jacket, though the same illustration could be used for more than one work. Then, slowly, other publication information was added. Sometimes we find a long title with the author's name embedded, and a statement of the place of publication, but without date or printer.

The fully-developed title page of, say, 1530 is a place for display both of the authority of the book and of standardized information about its content, expressed in terms of type, ornament, and sometimes illustration. Pavia books early in the sixteenth century are almost all connected with the medical and law faculties of the university. They tend to emphasize this with a classroom scene, or with typography that

embodies their content as commentaries on standard classroom texts. The framed and formal version of the classroom used so often, by the way, also often occurs on professors' tombs, carved in marble. A good example is mounted on the back wall of the law quadrangle here at the University of Pavia.

An interesting exception to the domination of the press at Pavia by the university is the press set up at the Charterhouse in 1560 specifically to print breviaries and other service books. Liturgical books had their own pattern, what printers in the period called a "red and black" look. They substitute a pious image for the classroom one or for the printer's emblem, and they use gothic or black-letter type long after the more legible roman types were usual. The Carthusians, famous for their great learning, worked largely to this pattern, though at Pavia they preferred roman type for the title pages. Still, these prayer books look more like popular religious texts than learned ones.

Placing an emblem on the title page in the form of a printer's mark or, less commonly, the personal emblem of the book's author or that of a scholarly academy, obviously has more to do with the authority of the product than its subject. It signals the reader from the start that she or he is entering a world of literature, scholarship, or science and not that of religion or entertainment. The emblem is validation, not information. It is a letter of recommendation from one intellectual to another (Pinkus 1996, 75-88), and it includes moral advice, or rather, it includes the gift of a tool for moral imagination. The emblematic printer's mark also embeds in every text from a given press the multi-layered meanings of the emblem, whether they have anything to do with the specific content of the book or not. We take this entirely for granted when we look at an imprint. Oxford University Press, or for that matter a little corporate Penguin, has a cachet some other imprints do not. But as we move into the age of electronic publishing (with peer review rarer and far less stability for texts in circulation) we are reverting to a situation like that of the early title page, when the maker's mark was still a novelty and not always a recognized guarantee. Then, a new mark was something you had to stop and read. In this spirit, I would like to conclude my talk today with a reading of a single printer's mark from Pavia.

Pavia's most important press in the sixteenth century was that of the Bartoli family, related to other printers of this name around Italy at end of the century. The details of the family history are obscure, but it seems

that a thirty-year publishing venture in Pavia gave some members of the family the means and the temerity to try to move into the more diverse market at Genoa. Their Pavia products are strongly literary, reflecting a broadening of the university curriculum and the increasing influence of academicians outside the university.
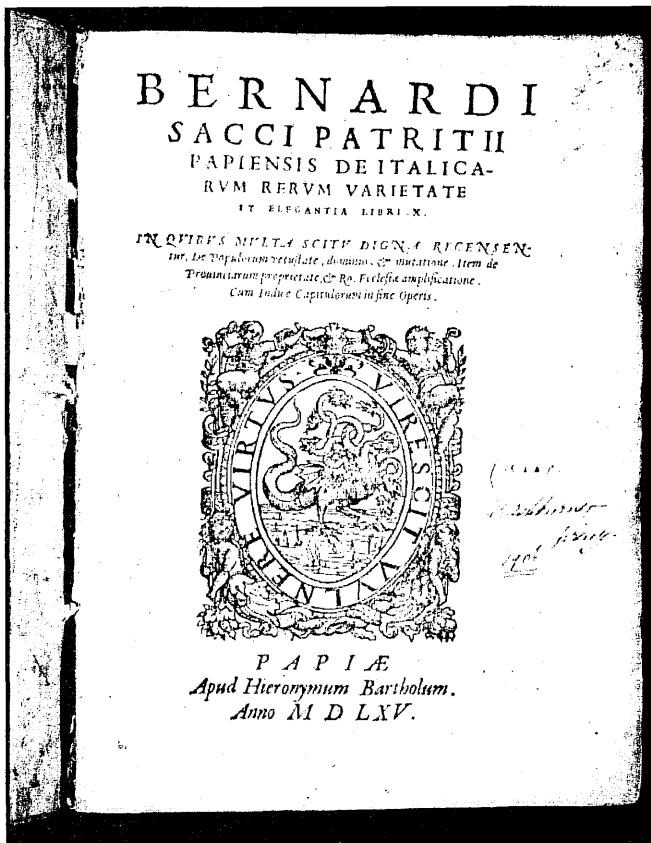

PLATE 3: Mark of Girolamo Bartoli, Pavia, 1565, showing the seven-headed Hydra and the Latin motto, "Courage (or strength) increases with every wound."

The Bartoli mark (Plate 3) is a mythological image, and a remarkably macho one, showing as it does the seven-headed Hydra as the monster would have looked to Hercules just before their action-packed confrontation. As was usual, there were several versions of the same basic logo. For readers of the sixteenth century, contemplating the twelve labors of Hercules was like following Rambo through a particularly grueling twelve-step program. The emblem embodies many of the themes I have been sounding in this talk. We of course already know the end of the story. This is the second of Hercules' successful labors and he still has ten to go, so the Hydra is about to bite the dust. But the motto of the emblem contains the usual twist intended to make the reader stop and apply some inventive, moral imagination to the image. The motto, which refers first to the Hydra's own mythological powers, can also be taken to refer to Hercules or the reader as well. The words are those of an extremely obscure Latin poet, Aulus Furius Antias, and are known only from late antique sources, and so this motto is well chosen to display the inventor's erudition. "*Virescit vulnere virtus*," means "Courage (or strength) increases with every wound," and so refers to the Hydra's ability to grow two new heads for every one an adversary cuts off. More broadly, however, the motto can also refer to the fact that Hercules used the Hydra's blood to poison his arrows and so strengthened himself through the wounds of the monster. It can also be taken to describe Hercules' fame and influence, which grew with every new labor successfully completed. Moralized, of course, it also has two meanings. Of the Hydra the motto refers to endurance, and especially to the power to effect vendetta; it is a warning on the lines of "Don't tread on me," understandable in the context of a heraldic device, perhaps, but more problematic in the publishing field. Apropos of Hercules, it is an exhortation to fortitude in the face of adversity, ingenuity in solving complex problems, versatility (how to do seven things at once), as well as Hercules' prime virtue, cunning.

Which is a lot to pack into a company logo, you say. Well, yes, but not more perhaps than grey-flanneled General Motors execs or Mitsubishi's aerobics team leaders once expected of their employees. And it is entirely typical of sixteenth and seventeenth-century thought patterns. It is a tool for constructing powerful variations of what and Mark Johnson and George Lakoff call prototypical moral narratives (Johnson 1993; Lakoff and Johnson 1999). For the people of the late Renaissance,

the emblematic title page was a window into a whole moral world (Plate 4), that of the author, that of the publisher, and that of the audience of readers. The title page and the book were also the intellectual's window on the wider world.
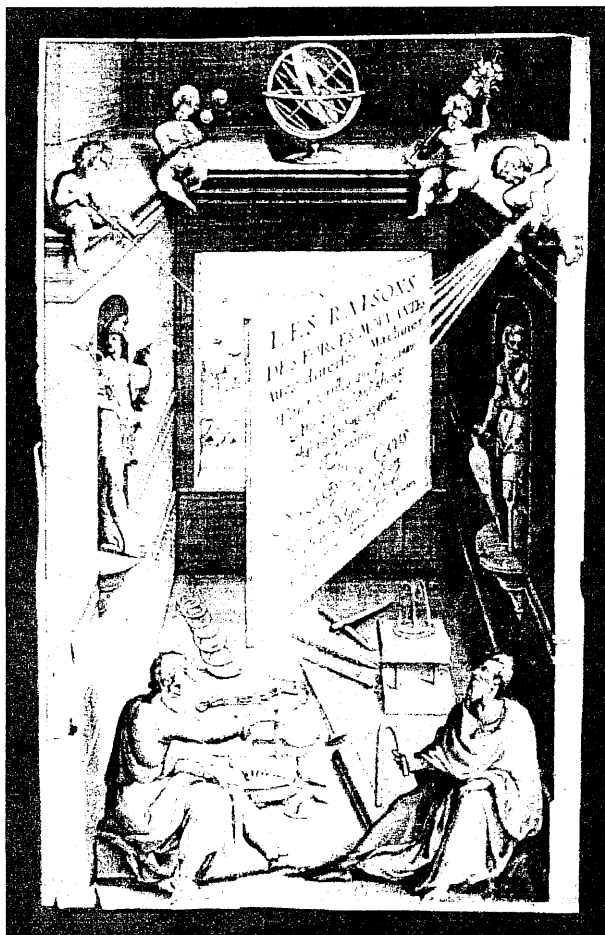

PLATE 4: The emblematic title page as window on the moral and scientific world, from Salomon de Caus, *Les Raisons des Forces Mouvents*, Frankfurt a.M., 1615.

Let me conclude by reference to one of the most ambitious and provocative papers at MBR'01, that of Peponis, Lycourioti and Mari on design reasoning. In simple graphic and print-production terms, an emblem is a realized design, which we can describe accurately in the terms so well developed by Peponis et al. (2001). As a puzzle in the making, an emblem conforms closely to the "intersection of properties" model they describe, since the emblem maker must first of all find an object that can stand at the intersection of several fields of meaning. During the MBR'01 discussion of the Peponis et al. paper, some of the tensions involved in this negotiation were described in terms of designer-client relations. In the cases I have described in this essay, the emblem negotiates between the various commercial needs and intellectual pretensions of authors, printers, and publishers. From the point of view of the maker, the emblem always starts as a sketch or note on the way to a fully realized design object, a memo-to-self.

However, as a published puzzle-object intended to be deciphered in a second and subsequent moments by those who read and re-invent the emblem and who use it as a tool for moral metaphor, the emblem is much closer to the more complex model of "retrospective derivation," which these same scholars propose for understanding a realized, sited, and constructed building. The emblem in this sense is also richly retrospective. The meanings realized by those who read, absorb, or inhabit this construction do not need to recapitulate those of the devising inventor to be meaningful and useful. Indeed, the success of the emblem depends on the ability of the user/viewer/reader/re-inventor to shift the meaning at least slightly and thereby to moralize it for her- or himself.

I differ from Peponis et al. in thinking that, although the retrospective dimension may also apply to the initial design process, it does not do so necessarily. The full force of "retrospectivity," it seems to me, is realized only after the fact and rarely (or at least only sometimes) by the designer, whether of a building or an emblem. In any case, however, the power of the metaphor does, and *must*, reside in this retrospectivity, or to use a more literary term and one perhaps more congenial to the sixteenth-century authors of emblems, reflexivity. Late Renaissance writers, after all, were more likely to choose a metaphor drawn from linguistics to describe a visual artifact than to move metaphorically in the opposite direction. The emblematists do, however, always posit that both language and visualized object are essential to the

emblem, and that the power of the emblem resides between the two.

I hope the few examples of emblems I have adduced, placed as they are in the context of our intense deliberations at MBR'01, will suggest that emblematics is a potentially fruitful field of study for all those interested in the social dimensions of cognitive science, especially on the level of sophisticated scientific discourse. Although professional emblematics was confined to a relatively short historical period, that period coincided exactly with the European age of exploration and conquest, the birth of modern political states, and the scientific revolution. If we can claim any value for the history of science in the evolving field of cognitive studies, then emblematics should be part of the history we seek to recover.

<div align="right">The Newberry Library (Chicago)</div>

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