Notation of visual information in the earliest archeological scholarship

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A text inscribed on a durable support always looks like better historical evidence than a text merely written on perishable parchment or paper. An inscription carved on a stone tablet, for instance, gives the impression of having arrived directly from the past. Unlike a written text, it does not appear to be dependent on a chain of handmade copies with all its risk of error and misunderstanding. Material artifacts in general have great evidentiary authority, whether inscribed or not: portraits stamped on coins or carved in relief or in three dimensions; mosaics, frescoes, and tapestries; urns and sarcophagi; monuments and buildings.

But in the event, it is extremely difficult to assign a date to a material artifact on internal criteria alone. Some tombs, portraits, and inscribed tablets are the products – like handwritten texts – of complex transmission processes. Stone’s durability is not absolute, but only comparatively greater than that of parchment or paper. Over a long period of time even texts written on stones need to be replaced, and in the Middle Ages they often were. In other cases old inscriptions and sculptures were replicated not because they had deteriorated but in order to bring them to new audiences. Still other inscriptions or artifacts were made to look older than they really were. Although medieval and early Renaissance historians valued such objects as material samples of a distant past, they actually had a good deal of trouble dating them.

For many centuries these chronologically rootless artifacts exerted an inordinate and sometimes unjustified persuasive power on the minds of the lettered and the unlettered alike. Premodern archaeologists learned to live with undatability; indeed they tried to harness the power of the undated object. As early as the eleventh century, monastic historians were actively hunting for old inscriptions, tombs, and portraits, and for texts written on the oldest possible bits of parchment and in the most obsolete scripts. Clerical historians disseminated the new findings in so-called ‘translation’ reports and hagiographies, in manuscript and later in print. Civic chroniclers cited inscriptions found carved in stone or woven in old tapestries whenever possible. In the fifteenth century, scholars began to compile lists of the ancient texts they found inscribed on tombs, votive slabs, and other monuments.

Immediately these early archaeologists, clerical and lay alike, faced the problem of how to notate and publicize their findings. If inscribed texts were simply quoted, and if material artifacts were simply described verbally, then their evidentiary content would be quickly absorbed into the textual record and become indistinguishable from ordinary historical facts handed down by mere tradition. The material evidence would have to rely on authority like every other form of textual information, and thus lose its special rhetorical force. The clerics who excavated old sarcophagi and relics soon realized that their discoveries would need to be reenacted and chronicled. They staged rituals and spectacles and recorded corroborating inscriptions or images in illustrated ‘tradition books.’ In some cases they ‘published’ their findings in a forged inscription or a carved tomb. These ‘retrospective’ tombs were even backdated, stylistically and literally. Civic historians found ways to mount and display the inscriptions they found or fabricated.

But such devices still did not solve the problem of how to incorporate ‘raw’ inscriptions and other material information into written historical accounts. There were several good reasons for leaving such information as raw as possible. First, it was important to prevent inscriptions from becoming ordinary, non-performative texts, that is, words detached from any particular physical setting or any single moment of utterance. For it was that supposedly direct connection to a historical utterance – a real source, individual or institutional – that made the inscription valuable. Second, when evidence was hard to interpret, it made sense to leave it intact for later scholars to puzzle over. Third, raw evidence gave the impression that the scholar had inspected the evidence himself and was not overly dependent on received authority. Impressions and connotations of trustworthiness were crucial. Any system of transmission needs to win the trust of the readers and scholars who rely on it. That trust is generated by a rhetoric of attentiveness to detail and by the establishment of agreed-upon protocols of copying designed to minimize error and drift. But in the fifteenth and early sixteenth centuries the protocols that would preserve raw material evidence did not yet exist.

It is interesting to follow the career of a group of inscriptions introduced as raw evidence in a twelfth-century
In the twelfth-century manuscript of the *Excerptum*, which survives in Stuttgart, the texts of this and the other three inscriptions were entered as marginal glosses, apparently as a way of indicating graphically their special status.8 The inscriptions were material evidence and thus in a sense stood outside the text, which was of course grounded in received authority, in other words, prior written texts. Later, in a fifteenth-century manuscript of the *Chronicle of Ursberg*, a thirteenth-century history that incorporated the passage on Augsburg from the *Excerptum*, the inscriptions were woven directly into the text, and not distinguished by script or in any other way from the rest of the text.9 This was normal manuscript practice and it was preserved in the earliest printed version of the passage, an excerpt from the *Chronicle of Burchard of Ursberg* published in Augsburg in the early 1470s (fol. 20v–21v). But when the Augsburg scholar Conrad Peutinger cited the inscription referring to Cisa in his *Sermones conciliales*, printed in Strasbourg by Matthias Schörer in 1506, he indented the distich and restored it to verse form (fol. b5r). The edition of the Ursberg chronicle published in Augsburg in 1515 by Johannes Miller did the same for all four inscriptions (fol. V3v–V6r). In the Strasbourg edition of 1540 edited by the Reformer Caspar Hedio, finally, the inscriptions were not only indented but printed in a majuscule font to reinforce their epigraphic origins (p. 308). These ‘inscriptions’ had very probably been invented in the first place and planted by the author of the *Excerptum* to persuade the original readers. In the chain of manuscript and printed copies, the authority of the inscriptions was supported ever more vigorously by layout and typography as that authority waned. Eventually the inscriptions were discarded as unreliable evidence. The Italian scholar Mariano d’Accursius visited Augsburg in 1330 and 1332 and wrote a pamphlet on the worship of Cybele in ancient Augsburg. He ignored the alleged inscriptions about Cisa and instead based his theory on the city insignia, the pine-cone or *Zirbelnuss*.10

Even more difficult than the problem of how to distinguish epigraphic texts from ordinary written texts was the problem of how to establish a notation system for non-textual information. By this I mean information about images and ornamentation, information about the physical supports of epigraphic texts, and information about the material aspects of epigraphic texts (lettering, spacing, layout, punctuation). Some non-textual information can be converted into digital (i.e. linguistic or numerical) form, for example the dimensions of a monument, the size of letters, or the names of iconographic types. But most non-textual information cannot be easily or adequately converted into textual information and has to be transmitted analogically. Analogical transmission will require its own notation system. But that notation system will never be able to take all the material and physical features of an artifact into account and will need to make selections.

Certain kinds of illustrative material were commonly preserved with great fidelity from copy to copy, even through complicated manuscript trees. The entire system of Christian iconography and the canon of forms of the pagan gods depended on faithful copying. Some special corpuses of referential or diagrammatic images were treated with considerable care by copyists, for example the illustrations in practical handbooks, herbas, weapon books, and the like. But conventions had been established in these areas and artists were routinely trained to work within them. Conventions for copying ancient inscriptions and other kinds of material historical evidence had to be devised from scratch. A given scholar may have decided, for instance, to register the placement of interpuncts in a Roman inscription. But did it matter whether the interpuncts were rendered as triangular or square? If the lettering mattered, was it sufficient to note the majuscule–minuscule distinction or was more than this needed? Which features of the support mattered: sculpted or relief images, presumably, but also the overall shape of the artifact? As soon as the scholar recorded his find, the evidence entered into a transmission chain. How would subsequent copyists know which aspects needed to be preserved? Ideally, the notation system itself would minimize the transmission problems. All this had mostly been worked out for linguistic texts. The alphabet and standardized spelling and punctuation conventions guaranteed a more or less secure transmission of linguistic content. The major concern in text-based scholarship was script – and, later, typographic – error. For material evidence, transmission problems were different and potentially worse. Notation systems needed to be devised that would preserve the crucial features from copy to copy with minimal corruption and misunderstanding. The notation conventions had to be worked out in constant negotiation with the media of transmission, which in the fifteenth and early sixteenth centuries were continually evolving: drawing, hand-lettering, metal type, woodcut, engraving. This paper examines the various ways in which the earliest systematic collections of archeological source material, both handmade and printed, dealt with the problem of notation.
It often seems that fifteenth-century archeologists were less consistently attentive to graphic aspects of Roman inscriptions – lineation or line-division, layout, punctuation, letter forms, physical supports – than they should have been. This sort of data would have helped scholars determine the functions of the inscriptions and date them, always a difficult task with Roman monuments, which were not dated by calendar year. But the scholars’ uneven treatment of these features may have been related to their sensitivity to the problem of the transmission of analogical information. Scholars tend to take transmission seriously; indeed, attention to transmission is practically the essence of scholarship. The scholarly approach to the collecting and displaying of evidence can be defined as the approach that is maximally alert to the limitations of notation systems, both the notation systems that brought the evidence forward from the past to the present and the notation systems that publish the results of research. Scholarship did not always manage to overcome the transmission problem. Sometimes it was satisfied to limit its own inquiry so that the problem never arose. As a result we find few satisfactory incorporations of materiality in the fifteenth-century manuscript sylloges, or collections of inscriptions.

Manuscripts had the capacity to give quite a lot of information about epigraphic monuments. The handwritten syllogus of the fifteenth century might well have developed into a dense, analogical notation system for registering and preserving material aspects of the unique inscriptions of texts. Many syllogists did avail themselves of this analogical possibility when they tried to draw the tablets, altars, and monuments that supported the inscriptions. The pioneering inscription-collector Cyriacus of Ancona was an avid draughtsman. Many of the drawings of supports and sculptures in fifteenth-century sylloges derive from his notebooks. But the realities of copying resulted in an uneven and heterogeneous treatment of data. Typically the quantity and kind of information varied from one subsection of the collection to another, from one inscription to the next. The unevenness reflects the range of sources that flowed into each redaction of each syllogus. Syllogists sometimes worked from their own on-site notebooks, but more often from sylloges compiled by other scholars. Data that fell by the wayside in a hasty copy – information about the sculptural embellishment of an inscribed monument, or about incomplete letters – were sometimes lost forever, sometimes imaginatively restored.

It cannot be denied that the manuscript functioned best as a differential notation system for linguistic content. The linguistic content of inscriptions remained remarkably stable from copy to copy. Letters on a page are perfectly efficient notations of textual content. The alphabetic notation system guaranteed consistency of content across wide variations in script and material medium. It seems fair to say that most scholars thought of everything in the syllogus beyond the core of textual content as surplus, whose presence or absence did not fundamentally alter the syllogus’s identity or value.

A good example of an extensively illustrated fair copy of one of the most comprehensive inscription collections of its time is the Marcana syllogus at Princeton University. The collection itself was compiled by the Paduan scholar Giovanni Marcana, largely on the basis of Cyriacus of Ancona’s notebooks and with the help of Felice Feliciano. The principal copy of the second redaction of the Marcana syllogus, now in Modena, was prepared by Feliciano and dedicated to Domenico Malatesta Novello, probably Marcana’s patron. The manuscript is dated 1465. There exist three close and slightly later copies of this manuscript, one of them at Princeton. The Princeton manuscript is a copy of the Modena manuscript but of a copy in Paris, also written by Feliciano. The Princeton manuscript begins with a series of fifteen fanciful full-page drawings of real buildings and imagined scenes from ancient Rome. One drawing in the Modena manuscript and, tentatively, two in the Princeton copy have been attributed to Marco Zoppo, a pupil of the antiquarian-minded Squarcione. The others were done by professional artists who ran up against their limits as soon as they had to move beyond standard iconography and workshop models. There are many weaknesses, especially in the description of buildings, even in the drawings in the Modena copy, which are presumably the originals. The main focus of the drawings is not correct antique form but ritual and festival, objects, costumes, the iconography of architecture: the imagined life of the ancient city in and among the famous buildings. There are several inscriptions in good Roman majuscules in these scenes, in one case a funerary inscription on the pedestal of a statue (fol. 4r, ‘Roman forum’). But most of the inscriptions are only labels to help with identification, like the word SACRIFICIUM on the two flanking altars in the sacrifice scene described on fol. 8v (figure 1). In the Princeton manuscript, the full-page drawings are followed by a list of Roman monuments organized by type: arches, palaces, forums, temples, baths, and so forth. Then follows the syllogus itself, the list of inscriptions, almost all of them from Italy. The list begins with Rome and proceeds through Ravenna, Forli, Cesena, Milan, Verona, Brescia, Padua, Pesaro, and other cities. In all there are some 140 folios of inscriptions. Some are surrounded by drawings of tablets, aedicules, and other stone supports. In the Modena manuscript these drawings were executed by Feliciano himself. The Princeton drawings are apparently close copies, although they have never been compared systematically.

The inscriptions in the Princeton Marcana are written in majuscule letters so that in disposition they somewhat resemble actual inscriptions. But the forms of these letters bear no notational relationship to the original epigraphic
Figure 1. Giovanni Marcanova, Quaedam antiquitatum fragmenta, Garrett Ms. 158, fol. 8v (Princeton University Libraries).
monuments, except in the very general sense that they are majuscules. They do not note the relative size of different parts of an inscription; they do not register any anomalous alphabets or individual letters; and with few exceptions they do not record any broken letters. The majuscule lettering in a fair copy was merely an aspect of luxury presentation, not part of the data. This is proven by the fact that in the ordinary drafts that preceded the fair copy of a sylloge, the inscriptions were written in run-on lines, and not in majuscules but in a more or less random combination of humanist minuscule and the majuscule used in humanist manuscripts for titles and headings. (In the Princeton manuscript, incidentally, locations of the inscriptions are given in red majuscule or minuscule.) The minuscule is of course not an antique form at all, although many fifteenth-century scholars thought it was. The majuscule made more sense because the inscriptions themselves were always in majuscule. In fact, the humanist majuscule alphabet was derived from the most regular epigraphic canon, the scriptura monumental is of the late first and early second century. But it was only an approximation of epigraphic script, as Feliciano’s own back-slanting capitals so elegantly demonstrate. Scribal majuscule was primarily a book hand, not an analogical notation system. In the sylloges it served as a sufficient, although not necessary, sign of an epigraphic text. The uniform lettering in the sylloges was useful, finally, because many of the original inscriptions had long since been lost, and many others were fictions and had never been carved in stone in the first place.

Because the manuscript sylloges did not manage to preserve any information about letter forms, the fifteenth-century epigraphers made virtually no advances in the study of Roman epigraphic alphabets and no contributions to a chronology of scripts. The epigraphers developed little forensic expertise and were as a general rule incapable of discrediting a modern forgery on the basis of the letter forms.

The inscriptions and drawings in the Marcanova manuscript are fitted inside a strict grid of horizontal and vertical ruled lines. Uniform and balanced page layout is the main objective. Notation of the epigraphic data and illustration of the material supports is thus erratic and unreliable. The inscriptions seldom register any features of the original stones beyond the linguistic content. The inscriptions are not recorded in their original lineation or line-division, that is, as they appeared on the stones; line-breaks are arbitrary and marked with hyphens, exactly as they would not be on Roman inscriptions. Many inscriptions are punctuated with triangular interpoints and with hederae distinguentes or ivy leaves, just as Roman inscriptions were. But punctuation in the sylloge does not reproduce the punctuation on the actual stones, with rare exceptions. Missing or illegible letters are conjecturally completed, with no indication of the original condition.

In the first quarter of the sylloges in the Princeton manuscript, the inscriptions are given in purely textual form, with no attempt to array the words in epigraphic form or to draw the supports. On fol. 70a, for the first time, an inscription is placed inside a frame of concentric rings. On fol. 72v, an inscription is written on the face of an altar. From this point on quite a lot of information about layout and supports is offered. Some of it is roughly accurate, for example, a drawing of a monument in Ravenna, a relief of a vase with two nude youths, bearing the inscription OSSA L. TITI. L. L. SILLONIS, based on a written description by Desiderio Spreti. But other inscriptions are shown inscribed, for no very good reason, on the faces of fictional altars or stelai. An inscription from Milan, for instance, appears inside a circle drawn on the base of an altar with a vase on top. But the actual inscription, which had an additional two lines omitted by Marcanova, comes not from an altar but from a stone imbedded in the city wall. Another Milanese inscription is written on an elaborate full-page drawing of a sarcophagus found at St Simpliciano, now lost (figure 2). The first two and last two lines seem authentic, and indeed are written in majuscules. But the middle nine lines are in verse; they are a modern interpolation and accordingly are written in humanist minuscules. The drawing of a hunter and dog at the narrow end of the sarcophagus seems several steps removed from its original.

Many of the Milanese inscriptions in the Princeton manuscript are recorded in epigraphic or pseudo-epigraphic lineation. For example, on the page facing the sarcophagus with the hunter, an inscription from St Simpliciano beginning ‘M. Valerius Maximus...’ is arrayed in nine lines with spacing and centering to give the impression of authentic epigraphic layout. But in this case the stone still exists, and in fact it is not linedate in quite this way.

In one section of the sylloge, devoted to the inscriptions of Pesaro, Marcanova’s data are unusually good (figure 3). The fragmentary inscription TRONAE is shown on a pedestal beneath three pairs of legs broken off at the calves. The fragment VES. D. D. D appears on the base of a broken column. For both of these monuments Marcanova is the original and only source. On the same page, a broken tablet is described with exceptional precision. The top edge of the tablet, which still exists, is in fact broken and the first line of the inscription is only partly legible. Marcanova carefully notates this incomplete line, even to the point of writing half-letters. And yet, although he clearly studied the monument at first hand, Marcanova does not bother to reproduce the original lineation of the inscription.

Iconic messages are by nature more susceptible to drift than textual messages. The alphabetic system was designed expressly to absorb and neutralize variation in the form of written letters from one writer to the next. The alphabet is a differential system: individual written letters do not have to achieve exact matches with a perfect or ideal letter; they
have only to differ from similarly shaped letters. B is B as long as it does not begin to resemble R. The consequence is that scribes have considerable stylistic latitude, and considerable margin for error. Letter forms can vary from copy to copy without any loss in intelligibility. Iconic messages, by contrast, are highly vulnerable to gradual deviation. Within a chain of iterated iconic messages, divergence from the original model can proceed incrementally and smoothly from copy to copy. Small variations can accrue in the course of the chain of performances, and yet there may be no catastrophic point where the iconic message is suddenly no longer recognizable. The beholder will not realize that the chain of drawings has slipped into meaninglessness or error.

'Drift' in a chain of copied images, even when recognized, is harder to reverse and repair than error in a chain of textual messages. Textual errors can often be emended by inference. A relatively small variation in the transcription of a text — a missing or misunderstood letter or badly misspelled word — can drastically alter the meaning. Luckily the textual error often results in nonsense that warns the recipient to seek an emended reading. But corrupted iconic messages cannot so easily be emended by common sense alone. Unintelligible features of culturally remote artifacts and iconographic types were often reconstructed anachronistically, on the basis of deceptive similarities to more recent forms. Because analogical information like a line break or a punctuation mark usually had no intrinsic meaning, it could not be reconstructed by inference if it happened to drop out of the transmission chain. Eventually there was no way to find one's way back to the original. The only way to reverse the unidirectional process of analogical drift would have been to go and check all the stones for oneself, and when the collections got too big and far-fetched this was simply impossible. And of course in many cases there were no stones to check.

In general, drawing from a model called for interpretive decisions at every step, decisions that could not be avoided except by permanently excising some portion of the data. Yet the draughtsmen were not necessarily the most competent interpreters of iconographic features, just as the scholars were not the best draughtsmen. The copyist frozen by incomprehension was nonetheless forced to make some decision. The merit of differential notation systems like the phonetic alphabet is that the copyist can easily postpone interpretation — in effect leave the interpretation to the next reader.

And yet what made the iconic notation system truly unstable was that not every interpretive decision taken by the copyist was crucial. Most drawn lines even in a fundamentally notational drawing were understood to have a certain 'tolerance' and were not taken as strict equivalents of lines in the real world. As William Ivins put it in a classic
analysis of early printed images, lines can either be 'representatives of classes of lines,' which provide 'tolerances' of the sort a toolmaker uses in making diagrams of tools to be manufactured; or they can denote particulars in their 'this-and-no-otherwise.' But there were often no internal criteria to help decide which lines in a drawing were 'representative' and which were 'particularizing.' Therefore draughtsmen felt entitled to improve upon inferior models. A copy by the scholar Michele Ferrarini of an altar described in the Marcanova sylloge demonstrates how loosely scholars felt bound by iconic information. The altar, topped with a statue of Priapus and bearing an inscription of uncertain origin, attributed in the Renaissance to Virgil, appears in both the Modena and Princeton manuscripts. The inscription had supposedly been found in Padua and still existed; the bronze Priapus was in the possession of Marcanova himself. In his own sylloge Ferrarini preserved the basic form of Marcanova and Feliciano's monument but altered the ornamental features, such as the molding and the pedestal supporting the statue. Priapus himself is still exposing himself, but his beard is trimmed and he wears a modern costume. The text, of course, is rendered perfectly accurately. Maria De Martis Dalle Fratte even wonders whether Ferrarini did not draw the altar and the statue entirely from memory.

Textual scribes were restrained by powerful taboos from improving upon the words they were copying. Even experienced and independent scholars would not have embarked lightly on such a venture. But drawings were not protected by the same taboos. Not surprisingly, it was the better artists who were most likely to improve on their predecessors. Albrecht Dürer, for instance, made two splendid watercolors based on drawings of antique subjects which he found in Hartmann Schedel's sylloge of 1504–05, Mercury as Allegory of Eloquence and Arion Riding on a Dolphin. The weak drawing of Arion in the Schedel manuscript appears at the top of a page under a citation from Lucian: *Pisce super curvo vectus cantebat Orinon* (Carried on the curved back of the fish, Orion [Arion] sang) (fol. 54v) (figure 4). The singer Arion is supposed to have rescued himself from pirates by leaping onto the back of a music-loving dolphin.
Below, a satyr encounters a basilisk; a Greek inscription reads ZEU BASILEU ILATHI (Be gracious, Zeus the king). These and other reasonably competent drawings in Schedel’s manuscript, in some cases based on drawings after Cyriacus of Ancona, have been attributed to an unknown Nuremberg painter. They perfectly illustrate the deficiencies of the iconic transmission system. Without the inscriptions, or comparative material from other sources, we would in many cases be unable to make sense of them. The Arion drawing offers no information beyond the fact of a nude man clinging to a fish. It is impossible to infer or reconstruct the stylistic properties of a possible antique model. Ancient representations of Arion on the dolphin usually showed him clothed and holding a lyre. The nude youth riding the dolphin may in fact have been Phalanthos, the mythical founder of Taranto, copied by Schedel from a coin and misidentified as Arion. Dürer, for his part, improved on the drawings in the Schedel manuscript by taking advantage of their ample tolerances. The models left him plenty of room to introduce additional information that would both clarify the subject and bring the figures into compliance with a more impressive, in this case a personal, stylistic mode. In his Arion watercolor, Dürer gives the singer a lyre and an open-mouthed, skyward gaze, as well as an athletic body and flowing mane of hair of the sort he knew from antiquarian prints by Mantegna (figure 5).

Another reason that copyists did not take the trouble to copy images faithfully was that the copyists knew that the images were serving other functions beyond the straightforward registration of facts. Scholars had additional, non-notational motives for supplementing their epigraphic texts with drawings. Generic ‘information’ about the material supports for inscriptions was a way of reminding readers that the inscriptions did after all originate on real stones, and that the scholars had spent time finding and transcribing the inscriptions, at least some of them. That is the apparent function of the invented frames, cippi, and altars in the Marcanova sylloge. Sometimes a simple linear frame around the inscription sufficed to recall the epigraphic origins. In other cases, as we have seen, the scholar drew an entire altar or sarcophagus. The scholar might then inflect his fictional monument with ornamental flourishes and even whimsical supplements, generating an effect of the real. In some cases the monuments were invented from whole cloth. The famous fountain with the sleeping nymph inscribed Huius Nympha Loci was a monument that everyone drew and seemed to believe in, even though no one had ever seen it. The Nymph of the Spring was a poem that became a putative classical inscription and sculpture and eventually a modern pictorial tradition. The poem invokes the Roman idea of a naiad sleeping at a fountain. The text emerged in the circle of Pomponio Leto and appears in the sylloge of Michele Ferrarini. It was then included in all subsequent sylloges. The conceit that came to accompany the poem was
that it was inscribed on a tablet, accompanied by a statue of a sleeping nymph that had been found super ripam Danœrii, above the banks of the Danube. The location was remote enough that no one would bother to check. In the manuscript sylloges the statue of the nymph was often drawn, inside an architectural frame, together with the text. Scholars evidently did not fear being "caught out" at this game. Feliciano actually drew, in different manuscripts, different frames for the same monument, even in cases when he knew the monument first-hand.6 In the Marcanova manuscript, Feliciano added a third, non-existent story or level to the Porta dei Borsari in Verona, just to fill out the page; proof, if any is needed, that 'non-notational materiality' was not meant to deceive.

Some authors indulged this license to invent in the direction of the most 'romantic' and fanciful image of antiquity.8 The borders and frames drawn around the epigraphic texts became a supplemental domain where picturesque aspects of an imagined antiquity were allowed to unfold. Giorgio Montecchi sees the fanciful colored drawings of Feliciano's sylloges as "festive and poetic," and connects them to the jubilatio, Feliciano's literary account of the archeological excursion on Lake Garda with Marcanova and Andrea Mantegna.9 Since the function of such drawings was in large part connotative, scholars began using invented altars and cippi as frames for titles on the title pages of their own manuscripts. The Marcanova–Feliciano manuscript in Modena gives its title and date on such a stelae.10 The device was quickly adopted by printers. De Romanæ urbis vetustate of Pomponio Leto (printed in Rome by Mazzocchi in 1510), for example, has a typographic title inside a woodcut frame. The device quickly spread from strictly archeological works to editions of classical authors and other learned texts. Monumental frames, entablatures, mock cippi, votive altars, and tablets amounted to a new decorative apparatus, on title-pages of all kinds of manuscripts and early imprints.11 Such drawings made no notational pretenses; they were never portraits of actual monuments. Their exclusive function was to provide period flavor and to suggest the general soundness of the scholarship behind the works.

In the 1450s and 1460s artists and illuminators began to adopt the devices of the antiquarian manuscripts. In the drawings of Roman monuments in the sketchbooks of Jacopo Bellini, for instance, the blending of notational and non-notational elements is handled so smoothly that it is impossible to distinguish them on internal grounds. Bellini and his son-in-law Mantegna were getting their epigraphic texts from the sylloges of Marcanova and other reliable sources. Many of Bellini's drawings of ancient monuments were even grounded in autopsia. In many cases his drawings are much more accurate than the professional scholars' drawings.12 But Bellini also invented monuments, combined real monuments in fantastic ways, and relocated inscriptions to the wrong monuments. At one point in the Louvre Sketchbook, for instance, Bellini "mounted" four separate inscriptions on three imaginary monuments (fol. 49).

What effect did print technology have on this situation? For the most part, the printing press did not interest the syllogists. Early printing was mostly about volume and few antiquarian scholars were worried about volume. None of the major early epigraphic syllogists seems to have shown any interest in getting his collection printed. Only one sylloges was printed in the fifteenth century, the collection of inscriptions from Ravenna compiled by Desiderio Spreti (1489). The only antiquarian scholar who managed to make use of the new technologies of mechanical replication was Conrad Peutinger, who had the luck to be working with the most technically innovative printer in Europe, Erhard Raitdolt.13 In 1505 Peutinger published his collection of the Augsburg inscriptions, Romanæ vetustatis fragmenta. He followed with a second, expanded edition in 1520. Peutinger's two sylloges, as we shall see, demonstrate that type and printed images might have helped solve some of the transmission problems. They suggest that there was a way of thinking about type that went beyond mere volume. Indeed, they suggest that with a little tinkering, the mechanical transmission system might have solved many of the problems associated with analogical drift. But in the event, mechanical replication did not solve those problems and in some ways it only made matters worse.

At first it seems surprising that the early epigraphers did not push their sylloges into print.14 If inscriptions were classical texts like any others, why not make an edition? And yet it did not happen. Sylloges were not published partly because the scholars thought of their manuscript sylloges as already published. The idea of publication, or the fixing and dissemination of texts and forms, was not a novelty introduced by the technologies of metal type and relief and intaglio printing. The advantages of publication were in fact already widely recognized at the start of the fifteenth century. The congealing of humanist culture with a common script, the new pride and authority of the heads of major painting workshops, and the appetite on the part of scholars and artists for news and results from rival towns and courts were the conditions for the invention of prints and print, not the consequences. Paul Saenger has recently argued that the initial impact of printing on book collecting and scholarship was negligible and overrated by modern scholars.15 Indeed, it is easy to see how a mid-fifteenth-century scholar or artist could have failed to predict the technological revolution of metal type and engraving. Prints by Mantegna or Nicoletto da Modena might have looked like no more than Bellini-type modelbook drawings that had managed to win a somewhat wider audience for themselves. And by the same token a manuscript sylloges, disseminated in numerous copies through scholarly circles all over Italy, could be thought of as an already published work, rather than as a stubborn
resistance to the technology of movable type. From the point of view of the scholar or artist, print technology looked primarily like a device for reaching new and very broad audiences. But scholars and scholarly artists did not necessarily care about reaching new and broad audiences. For their purposes, the old—literally ancient—system of circulating manuscripts and handmade works worked well. In fact, great quantities of copies were just what was not needed. The readership was much too small and the printer would never have gotten rid of the copies. It was far more economical to distribute handmade copies to other scholars than to have them set in metal type and printed.

Another reason scholarship was seldom published was that many scholars mistrusted print. They feared that errors set in type would be rapidly and uncontrollably amplified and difficult to reverse. They could not rely on printers to attend to textual detail. From the point of view of Annius of Viterbo, for example, that eventuality was likely and troublesome enough to discredit the entire technology. And even with good proofreading, print was still incapable, in the view of many scholars, of reproducing color, sensitive draughtsmanship, and other decorative effects of the best handmade books. It is possible that some of the more exquisite decorative effects in manuscripts of the 1460s and 1470s, including epigraphic collections, were meant as a deliberate challenge to print.

The first true syllogic to be printed was a collection of inscriptions from Ravenna edited by the humanist Desiderio Spreti (c.1414–c.1474). The collection was prepared perhaps as early as the 1450s as a supplement to a history of Ravenna, De amplitudine, de castigatione et de instauratione urbis Ravnae. The history and the inscriptions were edited by Jacobus Francus and printed by Matteo Capcasa (di Codexi) at Venice in 1489. The fifty-five inscriptions, mostly copied from stones found in local churches, are listed on the last eight pages of the volume (fol. c3r–c6v). Some are accompanied by verbal descriptions of relief sculptures. They are printed in an ordinary lower-case roman font. But the printer in many cases gives abbreviations such as D.M., B.M.P. or H.M.H.N.S. on separate lines, all in capitals, spaced to simulate the look of a Roman stone. On fol. c6v, the printer left a space for a Greek inscription which was then inserted by hand; the Latin translation is given in type just below.

Clearly, print in its first decades did not make much of a case for itself as the ideal vehicle for the raw materials of antiquarian scholarship. But consistency and accuracy made it the ideal vehicle for a scholarly tool. In 1486 Michele Ferrarini published a quarto volume of eighteen leaves, De interpretandiis Romanorum litteris, an alphabetical list of the abbreviations commonly found in Roman inscriptions, with expansions, based on a juridical handbook by Marcus Valerius Probus, a first-century philologist. The volume was printed by Boninus de Boninis in Brescia, where local epigraphy was already far advanced. It was in the pages of this and other early Probus editions that printers first experimented with printed archeological images. The Ferrarini edition places four of its titles in woodcut frames simulating antique monuments, with both xylographic and typographic texts. On fol. a3r, for example, the words antiquitati investigandae opus necessarium are framed in a tabula ansata which is itself set inside a round-arched frame (figure 6). Inside this frame and above the tabula are a bust of a woman and a garland; below is a vase. Frames and text are both xylographic.

The woodcut frames and titles in the 1486 Probus are whimsical and superfluous. Yet they cannot simply have been flourishes introduced by the printer. The woodcut letters, although less precisely and regularly cut than metal type, display excellent Roman form. The designs were clearly delivered to the woodcutter by a humanist with exact knowledge of the best epigraphic models, no doubt Ferrarini himself. The bowl of P is left open, for example, as it was on all Roman imperial inscriptions, and the cauda of R is long. All three woodcut titles, moreover, use epigraphic ivy leaves as embellishments. They look
almost like trial runs for a truly notational antiquarian publication.

In 1499 the Venetian printer Johannes de Tridino put out an edition of the Probus. The woodcut frames with simulated inscriptions of the sort we saw in the 1486 edition have disappeared. The list of epigraphic abbreviations is followed by several pages of miscellaneous antiquarian material, for example a full-page woodcut of a woman pointing to a long inscription on a triumphal arch. This is the inscription of the Sybil recorded by Bede, an epigraphic curiosity, a monster abbreviation twenty characters long: P.P.P.P.E.S.S.S.E.V.V.V.V.V.V.V. E.F.F.F. (fol. d2v) (figure 7). The apparent source of the image was in fact the Marcanova syllog; it appears on fol. 74r of the Princeton manuscript. In the woodcut the arch is faced with white-on-black vegetal stalks. A typographic sentence beneath the arch explains that the sibyl had these initials carved on the arch. The edition also offers a reduced syllog, as if to whet the appetite of the amateur epigrapher. But every inscription and epitaph listed is a modern invention. The layout and headings in this publication all suggest authenticity. The texts of the fictional epitaphs are anchored to reality by explanatory headings: Roma in ecclesia post campum Marstium; Pelatii in arca laterina in qua vas fictile clausum erat. The texts are printed partially in majuscules, as if to remind the reader that real inscriptions do indeed come in majuscules and never in minuscules. But in fact it is all supplement, suggestion, and fantastical quasi-scholarship. The quite dependable list of abbreviations is yoked to a collection of entirely spurious inscriptions, not a single text taken from an ancient stone.

The Probus editions brought a taste of Italian epigraphic scholarship to a far-flung audience. Evidence of this is the collection of 23 inscriptions and epigrams printed by the German humanist Nicolaus Marschall of Thuringia, Epitaphia quaedam mirae vetustatis (Erfurt, 1502), a quarto volume of only eight leaves. Marschall got a woodcutter to copy for him the Arcus Sybellae Romae illustration from the Venetian Probus of 1499. Marschall surely thought of the image as an archeological document. He also included two woodcuts of clay pots and explained that these were ‘urns in which the Romans used to devoutly preserve the ashes of their dead’ (fol. 4r–4v) (figure 8). The pots, decorated like Archaic pottery with abstract patterns in horizontal registers, are based on similar drawings found in manuscript sylloges. Here, too, it appears that Marschall took them seriously as archeological evidence. He had probably never seen any vases like them.
In Italy, meanwhile, scholars seemed to have less and less patience with illustrations that were not strictly notational. Works by the most serious antiquarians, Flavio Biondo and Pomponio Leto, were published in luxury editions with beautiful roman fonts and generous margins, but unadorned by any illustrative material. If anything, print accelerated the split between scholarly and decorative illustration. "Romantic" archæology was amplified and popularized in the collectors' prints by Andrea Mantegna or Marcantonio Raimondi and on title-pages and elsewhere in printed books. Roman architecture, alphabets, and statues in many of the fine engravings -- although in some cases derived from close scrutiny of actual artifacts -- mainly served as setting and supplement for narratives. Part of the function of these antiquarian-flavored prints was to fix and publicize the correct forms of antiquity. But the prints were fundamentally pictorial and are best compared with narrative panel paintings.

In the field of book publishing, it was the famous quasi-archæological romance, the Hypnerotomachia Poliphili (Venice, 1499) that once and for all drove a wedge between scholarly and imaginative aims. The book is in many ways closely related to the early sylloge. The illustrations in the manuscript syllogos, not only the fanciful scenes like those at the beginning of the Marcavon manuscript, but also the drawings of individual monuments in the syllogos themselves, were important sources for the Hypnerotomachia Poliphili. The Hypnerotomachia was grounded in the best antiquarian and epigraphic scholarship. One never wants to underrate the extent to which early scholarship was intertwined with fantasy and the imagination. But in point of fact the Hypnerotomachia was not notational, not even to the extent that the Marcavon illustrations were. The frames, altars, and urns of the Hypnerotomachia did not represent specific monuments; they were not participating in a transmission process. Nor did the book provoke antiquarian scholars to rush into print. On the contrary, the success of the Hypnerotomachia must have encouraged the retreat of serious scholars back into pure text, that is, encouraged their sense that illustrations were interesting but not essential to the scholarly enterprise.

When they did try print, serious scholars in these years generally decided to abandon images altogether. In 1509 Jacopo Mazzocchi in Rome published a Probus that followed the 1499 Venetian imprint virtually to the letter and with a similar typeface. But there were two major differences. First, there are no woodcut illustrations at all. The Arcus Sybiliae Romae appears only as an enigmatic chain of initials and an explanatory text. (The expansion, as was customary, is given in the catalogue of abbreviations along with all the others.) Second, none of the inscriptions is printed in majuscule. Consistency is preferred to a half-hearted, merely cosmetic acknowledgement of the physicality of the epigraphic texts. Despite the persistence of the fake inscriptions, this is a more refined and scholarly publication.

Fastidiousness about graphic 'effects' was a way of reassuring readers, of commending seriousness. In the gradual purging of non-notational materiality from the most serious Italian antiquarian scholarship, we can observe a parting of the ways between the concerns of scholars and the concerns of artists. Both these opposing reactions to the problem of analogical information were symptoms of some ambivalence about materiality: on the one hand, an unbending of the material aspects of inscriptions such as supports and layout from reality altogether ('romantic' archæology); on the other hand, the suppression of materiality and the exclusive registration of linguistic content.

The new Italian tendency, emerging in the first years of the new century, to dissectant printed scholarship from its romantic supplements was adopted by the best-traveled German scholars and the best-informed German publishers. Woodcut illustration had been associated since the 1480s with popular, mass-market publications. Scholarly publishers did publish popular books with illustrations, as I have noted. But when Schurin in Strasbourg published an edition of the works of Pomponio Leto (1515), for instance, he emulated the pure, clean texts of the best Roman and Venetian antiquarian publications, unencumbered by illustrative material. Peutinger worked for years on a history of the Roman emperors and planned to illustrate it with more than a hundred woodcut portraits of the emperors by Hans Burgkmair. But the work remained stalled in manuscript. Peutinger drew pen borders around the Augsburg inscriptions in his fair copy of the Romanae vestigia, possibly the very manuscript he gave to the printer. These drawn borders in most cases reproduce the basic shapes of the actual stones. But in the publication itself Peutinger omitted all borders and frames, even though these would have been technically easy for Radolt to produce. And Peutinger did not print images in his 1505 sylloges, even though interesting artifacts like the well-known relief of Mercury, which he elsewhere wrote about at length, were just asking for woodcut treatment.

Yet in other ways both Peutinger and Schedel experimented radically with the concept of the printed sylloges, more so than any Italian scholars of their day. Hartmann Schedel (1440-1514), the Nuremberg city physician and cousin of the pioneering Augsburg scholar Hermann Schedel, was acutely ambivalent about print technology. Today Schedel is incomparably better known for writing the famous World Chronicle published in Nuremberg in 1493 than for his manuscript compilation of antique inscriptions, the most impressive of its time north of the Alps – proof at last of the superior publicity value of print over the old system of scribal copying. Yet Schedel himself, who got his medical degree in Padua, certainly considered his antiquarian omnibus, more than 330 folios, his most significant scholarly achievement. Schedel collected inscriptions over a period of many years. He inserted several medieval inscriptions from
Nuremberg and nearby monasteries, for instance, into his manuscript copy of Sigismund Meisterlin’s Nuremberg Chronicle. In his inscription collecting he was assisted by his friend Lorenz Behaim and others. In 1504–05 Schedel wrote out a fair copy of his sylloge and had it bound. It was built upon the sylloges of Cyriacus of Ancona and Poggio Bracciolini and it rivalled the collection of his contemporary Fra Giocondo. Schedel added to his sylloge until his death in 1514. To the texts of the ancient inscriptions in Rome and Greece Schedel added colonial Roman inscriptions found by other German scholars in cities such as Augsburg and Trier. He included plenty of miscellaneous scholarly material like modern poems and epitaphs and bits of local historical and mythographic lore as well as the drawings after Cyriacus and other sources mentioned earlier (see figure 4). At the beginning of the section of the sylloge devoted to Germany, Schedel discusses the distant pagan past of his home town Nuremberg. His sylloge is a collection of artifacts, not a history: the section bears the heading: Imagines antique more idolorum quae post variam cladem et exuvstionem remanserant (Images of ancient idols that have survived the various destructions and conflagrations). Local historians saw in the St Margaret Chapel in the castle an ancient temple to Diana. Schedel reports that colcheta Diana in arce Nurembergque quae in colte et memore situ fuit (Diana was worshiped in the citadel at Nuremberg which was founded on a hill in the forest) and offers a weak drawing of a maiden wielding a bow and arrow, possibly by his own hand (fol. 290av) (figure 9). The drawing may reflect a medieval relief of a female figure in the wall of the castle, now lost, that was interpreted by Schedel’s contemporaries as a pagan cult image, or a copy of one. A bust portrait of Diana’s brother Apollo, on the same page, is certainly not grounded in an antique model. A figure of Hercules with a club, meanwhile, could be seen on the Heidenturm of the castle; Schedel gives this image and others on the facing page, this time drawn by the professional artist that we know from the drawings after Cyriacus (fol. 290br).
Schedel’s *World Chronicle*, one of the most ambitious and important of all early publications, appeared in 1493. It is the most copiously illustrated of all incunabula: 1896 woodcuts printed from 645 different blocks on more than 300 folios, in Latin and German-language editions. But behind this great machine the author Hartmann Schedel vanishes. On the colophon Schedel is absorbed into a collective authorship, as if the text were ‘received’ and not composed. The colophon reads: this history ‘was gathered with great diligence and judgment by highly learned men.’ There is some truth to the idea of collective authorship since much of the book Schedel simply transcribed from Giacomo Foresti and other already published sources. Yet the colophon is not reluctant to mention by name the translator Georg Alt, the printer Anton Koberger, the investors Sebald Schreyer and Sebastian Kammermeister, and even the artists Michael Wolgemut and Wilhelm Pleydenwurff; but no word of Schedel. For a long time bibliographers thought the translator Alt was the author.65

Schedel may have accepted this arrangement because he felt that the printed *World Chronicle*, weighty as it was, did not represent his principal achievement as an antiquarian scholar. What mattered most to his scholarly reputation was the manuscript sylloge, which needed to be seen only by a restricted club of specialists. Schedel seems to have made a historic miscalculation here in underestimating the impact of replication technology on scholarship. He did praise the invention of printing in the *Chronicle* (fol. 152v). He also owned at least 700 printed books including a 42-line Gutenberg Bible. But Schedel himself never did publish a book except for the *Chronicle*. He generally seems to have thought of publishing as merely an efficient way of bringing texts to broader readerships. Like many scholars of his generation Schedel does not seem to have held any strong notion of the ‘edition,’ that is, the idea that print technology could be used to freeze a text and establish it as a closed and authoritative unit. He copied many printed books by hand throughout his entire life — including for example the excerpt from the Ursperg Chronicle published in Augsburg in the 1470s — and freely redistributed the texts among his own manuscripts.66 In other words he did not treat printed texts any differently from manuscripts.

There is no evidence that Schedel ever made any effort to publish his sylloge. In fact it is unlikely that any publisher would have taken it on. And as has been stressed, there was certainly no expectation at the time that an antiquarian sylloge such as Schedel’s would be published. Still, Schedel had one highly innovative idea about replication technology and the problem of the transmission of pictorial information. As we have seen, Schedel made or had made for him a number of drawings based mostly on prior manuscripts but also on original subjects. But he also had the idea of pasting woodcuts and engravings directly into his sylloge, scrapbook fashion. Schedel outfitted many of his books, manuscripts and printed books alike, with prints.67 In itself the practice of pasting woodcuts and engravings into manuscripts was nothing new. This seems to have been one of the basic applications of the early print and the reason for the physical survival of thousands of impressions. Schedel pasted more than a dozen woodcuts into his personal copy of the *World Chronicle*. These include a broadsheet ‘Ode to St Sebald,’ patron saint of Nuremberg, with a woodcut by Wolgemut (fol. 335a), and a broadsheet by Sebastian Brant interpreting the birth of Siamese twin pigs in Landser in Alsace (fol. 335d).68 He seems to have seen these prints not as sops or sensationalizing tall tales for the credulous unlettered, but on the contrary as reliable hagiographic and cosmological reports, of use precisely to the skeptical scholar. The same can be said of a pair of woodcuts of the *Titulus Jesu Christi*, the trilingual label attached to the Cross, pasted into the *World Chronicle* (fol. 333v–334v). For the Titulus woodcuts Schedel used print technology for exactly the purpose that Peutinger would in the *Romanae vetustatis fragmenta* of 1505: to fix the material properties of script. The first woodcut was published by Johann Winterburg in Vienna in 1501 (fol. 333v). The woodcut gives the formula ‘Jesus of Nazareth, King...’ (truncated at the right edge) in Latin, Greek, and Hebrew. The Latin text, the lowermost, is written in an exotic, non-standard roman majuscule. The Greek title in the middle is not in Greek at all and simply involves a few alterations to individual letters, such as omitting the cauda on Ο, curling the shaft of Ε, and converting the Σ into Κ. The Hebrew at the top is grounded in real letters, but shakily. Schedel’s second woodcut (fol. 334r) gives the texts in reverse, as was occasionally done, for reasons that are not clear (figure 10).69 A xylographic text below this woodcut reports that a fragment of the original Tablet with the trilingual label was discovered in Rome in 1491 by a cardinal and was now preserved at S. Croce; and that the woodcut letters represent the letters in the discovered fragment in their true forms, in their actual size. The woodcut offers itself as a completely authoritative indexical sign of the relic. On the other side of the page (fol. 334v), Schedel copied the *Titulus in the correct direction as well as the explanatory text.*

Schedel also pasted nine prints into his antiquarian sylloge, Clm 716. That was more unusual and not in line with the best Italian custom. The inserted prints included a woodcut view of Nuremberg excised from the *World Chronicle*, a woodcut view of Rome; a copy after the *Blessing of Christ* by the German engraver Master E.S.; and five engravings by the Venetian artist Jacopo de’ Barbari.70 Jacopo’s *Judith with the Head of Holofernes* appeared at the very beginning, with a border drawn around it, and above the title *Romanae vetustatis fragmenta varia* (fol. IV r); the related St Catherine appeared at the end of the volume (fol. 346v). The *Water-Jug Carrier and Woman with a Distaff* appeared among a group of modern epigrams (fol. 70v–79r).71 The *Venus or Vanitas* came at the
end of the section on Rome (fol. 25v) (figure 11). The Venus was in fact the only pagan subject among the more than 300 prints we know from Schedel's collection, except for a pair of rude German book illustrations representing Jupiter and Saturn. This is remarkable because Schedel was interested in pagan antiquity and one imagines that he would have tried to acquire as many prints with antique subject-matter as possible. It shows that in 1504 there were still not very many prints with antique subject-matter to choose from in Nuremberg.

Schedel saw Jacopo's engravings not as notations of unique artifacts, nor as fictions or fancies on antique themes, but as notations of information about the way the gods looked and their attributes. Schedel knew that his own drawings, the latest in a long chain of copies, were drifting further and further from the authoritative forms of the gods as they were preserved in antique statuary. Jacopo de' Barbari's engravings arrested the process of drift and variation. They seemed to extract the relevant data about the represented personages from the manual transmission process and fix it. Schedel was capable of copying texts by himself. But for images he was ready to put himself in the hands of professionals. Schedel's attempt in his antiquarian manuscript to combine the two notation systems, manual-differential and mechanical-analogical, discloses the real significance and potential of printed images. Jacopo's engravings did not solve the problem of the transmission of iconic information by developing a better notation system, for instance by stabilizing the syntax of lines and shading devices and by installing a canonical or formulaic system of physiognomic or body types, as later engravings would. Rather they simply abolished the problem of pictorial notation technologically, by brute force.

The force of mechanical replication was that it tended to make recipients neglect to ask critical questions about the drawing process behind the print. Schedel knew very well that the prints had been made by Jacopo de' Barbari, who was living in Nuremberg between 1500 and 1503. But I imagine that he thought of Jacopo as a kind of enabler in the notation process, not as an author. As we have seen, Schedel did not think of printed texts as editions. But he does seem to have understood printed images as 'editions' of the forms of the gods, cartographic information, or sacred relics as the case may be.

One can almost formulate a rule governing the way self-styled indexical images are received: when a sign is indexical to something, as an engraving is indexical to a copper plate, the indexical relationship tends to get transferred or reassigned by the recipient, not always legitimately, to some other more important object, a point of origin more interesting than a mere copper plate. Engravings, for instance, which strictly speaking are indexical only to their copper plates, were immediately taken for especially authoritative indexes of all sorts of things in the world, like
geographic facts, wonders and prodigies, or the forms of the pagan gods. This phenomenon of ‘reassignable indexicality’ earned a good deal of spurious authority for printed images throughout the whole early modern period.

From our point of view, Schedel’s use of prints by Jacopo de’ Barbari, of all people, to notate the forms of the gods points directly to the fallacy of ‘reassignable indexicality.’ For us the elegance and appeal – the sensitivity of the line, the melancholy mood – of Jacopo’s images overwhelms their notational function. We tend to focus on the excess beyond the iconographical information and in fact feel sure that what these prints really ‘publish’ is Jacopo’s style. In effect, we tend to ‘reassign’ the print’s indexicality to the mind of the artist-author, perhaps the preferred point of origin in the modern epoch. Jacopo’s prints illustrate nothing so much as the historical, paradoxical fact that the engraving in the Renaissance, once or even twice removed from the hand of the artist, in fact introduced unprecedented possibilities for strong stylistic intervention, labeled by signatures and dates; in other words, the institutionalization of the artist-author.

Conrad Peutinger took a completely different but no less original approach to the problem of the printed sylloge.26 Peutinger was a jurist, Italian-trained, and the city secretary in Augsburg, rival to Schedel’s Nuremberg. He

Figure 13. Conrad Peutinger, Romanae vetustatis fragmenta (Augsburg, 1505), fol. 3r (New York Public Library).

Figure 14. Conrad Peutinger, Inscriptiones vetustae Romanae et eorum fragmenta in Augusta Vindelicorum (Mainz, 1520), fol. 13v (Bancroft Library, University of California).
was born in 1465 and already around 1500 was emerging as the main rival to Schedel as the leading antiquarian scholar in Germany. In 1505 Peutinger published the twenty-three inscriptions he had discovered in and around Augsburg.35 In *Romanae vetustatis fragmenta* Peutinger and Erhard Ratdolt used print technology neither as a way of broadcasting to a vaster readership, nor as a way of establishing a definitive edition of the texts of the Augsburg inscriptions. The real and much more imaginative aim of the 1505 publication was to use print technology as a means of registering and fixing material, non-textual properties of the inscriptions. This began with the typeface. The font, designed expressly for this book, measured 8 mm. in height, making it one of the largest of all early types. It was large enough to register nuances in the serifs and shading. This suggests that Ratdolt was making some effort to register features of the scripts he could see for himself in the Augsburg stones.

The book prints the inscriptions in roman capitals and in almost all cases in their true lineation. But Peutinger and Ratdolt also used metal type to notate orthographic and punctuation usages in the stones, and even their physical condition. In several cases black ivy leaves are inserted at the very points where they appear in the actual inscriptions, for example in the third line of a votive tablet to the centurion C. Managnus Iustus, found at the convent of St Stephan in Augsburg (fol. 3r) (figure 12).36 The symbol meaning ‘centurion’ in the same inscription is rendered in print as a capital T with a kind of comma attached to it.37 In several other cases Ratdolt prints small capitals in superscript at the end of a line to denote similar abbreviating devices used on the actual stones. He does this twice in a funerary inscription found at the cathedral and later installed by Peutinger in the atrium of his own home; it is still there, badly weathered (fol. 2r) (figure 13).38 An inverted T used on the stone at the end of line 2 to complete the word SECVRITATIS is rendered as a small TI; at the end of line 5 a superscript S completes the word SOCRVS. Extraordinarily, Ratdolt in several cases leaves blank spaces in the text to denote missing or damaged letters, for example in the last line of the tablet from the cathedral,
where half a word (and several following lines) were obliterated by a circular cavity.

Peutinger and Ratdolt's quasi-pictorial presentation of the inscriptions had two effects. The passivity in the face of truncated or missing words allowed other scholars to make up their own minds about how to decipher the texts. And the care to reproduce extremely minor features generated the strong connotation that the texts were known to Peutinger by autopsy and that he had recorded them faithfully, as he indeed had, with very few errors. The manuscript sylloges rarely attempted anything like this, simply because no one had confidence that these material features would get preserved in subsequent copies.

One might think that Peutinger's 1505 edition would have put a halt to the handcopying process, at least when it came to the Augsburg material. But it did not. Hartmann Schedel copied the Augsburg inscriptions directly from the printed book into his own sylloges, without even crediting Peutinger. They are the only inscriptions in his sylloges that preserve original lineation. Even Peutinger himself did not have a very strong conception of the published text as an 'edition.' In 1511, six years after his publication, he and his wife Margareta Welser composed a manuscript report on his local antiquarian activities which they sent to Margareta's brother in Rome and several other antiquarians. The 1511 report copies out all the inscriptions included in the 1505 publication, which all the recipients of the letter certainly already owned. That is the real proof that Peutinger in 1505 was using type not to establish an edition of the texts of the inscriptions, but as a vehicle for non-linguistic information about the inscriptions.

Peutinger's idea was taken up by later printed sylloges, although never again with the precious concentration of the 1505 volume. In 1520 Peutinger himself had Johannes Schoeffer of Mainz publish an updated edition of his Augsburg sylloges, Inscriptions vetustae Romanae et earum fragmenta in Augusta Vindelicorum, with eleven new inscriptions. In the same year, in a uniform edition, Schoeffer printed the collection of the Roman inscriptions of Mainz compiled by Johann Huttich, Collectanea antiquitatum urbis et agri Magnutini reportarum. The title page of the two volumes have the same woodcut border with scenes and figures from Roman history. Some of the woodcut frames for the inscriptions are shared by the two books. Both use the same two majuscule fonts. The main, larger typeface used for the inscriptions is the same size as Ratdolt's, 8 mm. Schoeffer's 1520 publications went a step further than the 1505 imprint toward analogical notation: the inscriptions are nested within woodcut frames, sometimes even with woodcut renderings of sculptural features. For example, the transcription of a stone supposedly found by German soldiers near Padua and acquired by Cardinal Matthias Lang – Peutinger saw it at his castle of Wellenburg near Augsburg – is framed and topped by the bust of a man in a triangular gable (fol. 13v) (figure 14). Moreover, Peutinger and Schoeffer's Augsburg sylloges, sensationally, represents damaged or worn letters in the inscriptions not by blank spaces as in the 1505 publication, but by actual broken type. A good example is the funerary monument of the twenty-seven-year-old Tiberius Aetuanus Ursacinus, dedicated by his wife Simpliciana (fol. 8r) (figure 15). The stone is still imbedded in the wall of the atrium of the Peutinger house. The 1520 publication renders the worn letters with pieces of metal type that had apparently been broken or filed down. The fragmentary letters do not precisely reproduce the condition of the stone, but they gave a powerful impression of its battered face. In some cases the same deliberately mutilated sorts do double duty on different stones. For instance, a broken E in the sixth line and a broken P in the tenth line of the Tiberius Aetuanus monument had already appeared a page earlier, in the transcription of another stone in Peutinger's personal collection (fol. 7r). Other inscriptions are circumscribed by broken-edged woodcut frames, for instance the votive tablet to the Fates (P[arc]3) offered by C. Cosinus Primus, in Peutinger's time imbedded in the wall of a local house (fol. 10v) (figure 16). But the frame was merely connotative, not denotative, since it reappears on fol. 15r, rotated 90 degrees.

In Johann Huttich's Mainz sylloges, also published by Schoeffer in 1520, there are no broken types used to denote incomplete letters. This must reflect the thoroughness of the indications provided by the respective scholars in their manuscripts. A curious feature of the Huttich sylloges is the extremely large majuscule font — 13 mm — used for the three short inscriptions on fol. B3v.

Meanwhile, the first major Italian archeological publications achieved splendid effects of layout and design but not always in the service of the epigraphic data. The Illustrium imagines by Andrea Fulvio (Rome: Jacopo Mazzocchi, 1517) was not strictly a sylloges but an album of woodcut portraits based quite faithfully on coins and medals, plenty of which were fakes. The printed portraits are in the form of medallions, white on black, flanked by griffins, putti, or cornucopias. The book covers the whole roster of famous Romans from Janus to the eleventh-century emperors Conrad II and Henry III. The portraits are supplemented by texts printed in framed tablets. The first true sylloges published in Italy, Mazzocchi's Epigrammata antiquae urbis (1521), is a majuscule type of various sizes, including a huge font 11 mm in height (fol. 23v and passim). But generally it does not reproduce the lineation or spacing of its inscriptions, nor does it attempt to render missing or broken letters. The Mazzocchi publication translates some illustrative material from its manuscript predecessors into woodcut, including a number of full-page descriptions of Roman monuments. More than a hundred inscriptions are set within woodcut borders, cartouches, urns, altars, and tabernacles. These
DE REGIONE

D.
M.
ATILIAE MOSCHIDI, F. DULCISSIMAE.
Q. ATILIVS MOSCHVS ET CORNELIA CORINTHIA
S. PARENTES FECERVNT SIBI SVIS POSTERIS
SVORVM.

Ibidem.

IOVI O. M.
DOCTI CILENO. C. FRONTI
NIUS LARAM POSVIT.
L. M.

Ibidem.

D.
M.
VIRGINIS FILIAE MEAE CARISSIMAE VIRGINEAE NIMIAM
OB PIETATEM PROPRIUS MEIS MANIBVS INTEREMPTAE PROH
DOLOR QVANTVM EVIT CARISSIMA IN ANNO. XVII.
IVVEN.
TVIS EVS MENS. V, D. III.

Ibidem.

In domo Francisci de Planci.

M. ANTONIVS INGENVS HIC SIVS EST.

Ibidem.

DIIS MANIBVS.
P. SEXTI POLYTIUMI SEXTIA NEMESIS VIRO SVO
FEC. CVM QVO VIXIT ANNIS. XXV.

Figure 17. Jacopo Matzoccii, Epigrammata antiquae urbis (Rome, 1521), fol. 117v (Beinecke Library, Yale University).
frames are frequently repeated and are generally not meant to match up with reality. Typical is the votive inscription in S. Maria in Monticelli set in a tabula ansata (fol. 171v) (figure 17). But some of Mazzocchi's woodcut frames are attentive to their models, which could all be found in Rome, after all. The well-known funerary altar dedicated to Magna Mater with a relief of Cybele and Attis, found near S. Sebastiano on the Via Appia, is described with considerable attention to detail (fol. 171v) (figure 18). The inscription is given in its correct lineation. The artist tries to make sense of every iconographic feature and peculiarity of costume, and even renders decorative motifs such as the flourishes on the side of Cybele's chariot. Features considered non-essential, like the number of spokes in the wheel (six instead of seven), are reproduced less reverentially. The account of a tombstone found at S. Lorenzo in Lucina is unusually scrupulous: instead of an imperfect woodcut rendition of the sculpted portraits, it describes them verbally: *Hic sunt capita duarum mulierum* (fol. 78v) (figure 19). It is significant that the scholarly author or authors of the Mazzocchi volume – Angelo Colocci, Mariangelo

Accursius, and Andrea Fulvio have all been proposed – are hidden behind the name of the publisher, just as Hartmann Schedel's name had not appeared in the *World Chronicle* of 1493. It is as if the extra, unaccustomed step of publication were already exceeding the scholars' normal range of activity and was most appropriately connected to the name of a printer.

Peutinger's idea of using print technology as a means of transmitting non-linguistic features of ancient artifacts foundered because the layout and lineation of inscriptions were not interesting enough to enough readers and therefore not a profitable printing venture; and because the available technology for transmitting pictorial information – woodcut – was simply unreliable. The one large-scale experiment in the analogical reproduction of antiquities from the first half of the century was the pan-European syllage of the Ingolstadt professors Petrus Apianus and Bartholomeus Amantius, *Inscriptiones sacrosancte vetustatis* (Ingolstadt, 1534). The book makes extensive use of woodcut frames and even, in some cases, broken type. But the Apianus
AVGVSTÆ VIND.

XXXIII. Item in basilica D. Virginis.

CL IVCGANAE
EX TEST. P. CL
MATERNI. PA
TRIS. F. I. SILVI
NA. VXOR. ET
HERES. F. C
N. I. F. L

Silvia, uxor & heres P. Cl. Materni, ex mariti testamento fieri suffit, ferique curvus Cl. Lancana eis filiis ut nos tamen exspectationis invia non secellerit, Posterno me nota mihi non nota.

XXXIII. Ad D. Valerici.

DIM
IVI: MACRIANO QVONDAM
VETERANOM: MEXBICOS
CONIVGI: CARISSIMO
SECONDIA SERVATA ET
SIBI ET IVLIO S
ALPINO ET ALPINAE FILIAS
BENEALENTIVBVS F C

Litterarum informis specie, quam proxime ad lapidis istem exprimendam curavimus, non opituo faculo est. Implexe necundi usus, Macrianium mihi hominem huiusmodi significavit, ut nos amicos nostrum Io. Vianianus, a Liption doctus, monuit: Convertex quod Exbeneficarius Consulibus, quia eo munereiam defunctus. De Beneficientia

Figure 29. Marcus Weber, Rerum Augustanarum Vindelicarum Libri Octo (Venice, 1594), p. 227 (Beinecke Library, Yale University).
publication did not advance beyond the Peutinger publication of 1520 except in scale. Most of the woodcut frames in Apianus bear little relation to the actual frames and were chosen mainly for their fit on the page. The woodcuts are of workmanlike quality and do not convey any finer aspects of pictorial or ornamental form.

Like Peutinger, most serious scholars seem to have mistrusted woodcut for the same reasons that truly conservative scholars like Annius of Viterbo mistrusted metal type: it was too risky to permit non-scholars such as printers, typesetters, artists, and woodcarvers to have a hand in the transmission process; errors would be instantly disseminated beyond the control of the author; printed information would take on an unwarranted authority. Woodcut in particular was a misleading medium because it gave what could appear to be a complete account of its object, but what was in fact an account heavily reliant on approximation, simplification, and, in the case of artifacts from a remote and alien culture, interpretation. Sometimes woodcut gave too much information about its object, sometimes not enough, and it was not always easy for the beholder to tell which. Woodcut had been invented at the beginning of the fifteenth century as a means of replicating simple line drawings. A whole system of conventional shorthands and formulae had to be unlearned before woodcut could meet the new referential ends. And by that time, engraving was taking over as the preferred medium for book illustration. In the face of this confusion, archeological scholarship retreated to reliable notation systems, indeed began to define itself through that retreat. Artists meanwhile resisted the referential project and generally pushed the image, including the woodcut, in the opposite direction, toward semantic incompleteness.

Later on, toward the end of the sixteenth century, printed syllages began to try more seriously to reproduce aspects of the layout and lettering of inscriptions. One of the most elegant was the appendix to the history of ancient Augsburg by Marcus Welser, Rerum Augustanearum Vindelicarum Libri Octo, literally the successor to Peutinger’s volumes, printed by the house of Aldus Manutius in Venice in 1594.94 In his appendix Welser listed all the known inscriptions in Augsburg and its surroundings. He printed engravings of a number of uninscribed objects—a pine cone, a Medusa, a fluted column, several reliefs—as well as of some of the more interesting inscriptions together with their supports. One inscription in particular attracted Welser’s comment, and justifiably so: its strange, slanted script is unique in the whole Roman world, until it was soon the recent excavations of two further examples (p. 227) (figure 21).95 The inscription had been found at Sts Ulrich and Afra in Augsburg and was already known to Peutinger, although he made no notation of the peculiarities of the script either in his manuscripts or in his publications.96 Welser, however, noted the ‘deformed letters’ (literinarum infirmis species) and guessed that the stone-dated ‘not from the best period’ (non optimo saeculo).

In the seventeenth century, engraving conventions were standardized to such an extent that it became possible to usefully compare printed reproductions from different sources. Many of the great eighteenth-century published collections of antiquities made extensive and systematic use of engravings. But in a sense these collections represented the high-water mark of the analogical approach to scholarship. In the standard entries in the nineteenth-century and early twentieth-century syllages—vast compilations which in some fields effectively put an end to the cataloguing process—layout and punctuation were incompletely notated, and letter forms were ignored almost entirely. Neither the Corpus Inscriptionum Latinarum, for instance, nor Vollmer’s Inscriptiones Bavariorum Romanarum managed to render the strange lettering on the Augsburg stone illustrated so precisely by Welser. The GIL simply reported: litteris male ornatis. Scholarship when it is most scholarly omits data that it cannot note precisely.

NOTES
8. Local Roman inscriptions were mounted in the walls of the Monte di Pietà in the Piazza della Loggia in Brescia already in 1465; see Weiss, Renaissance Discovery of Classical Antiquity, p. 161. On the forged


10 - Munich, Bayerische Staatsbibliothek, Clm 4351, fol. 175r. This manuscript dates from around 1470 and is the oldest manuscript of Burchard's text. It was owned by Conrad Püntinger.


13 - See, for example, the careful discussion of how the inscription or line division of Greek inscriptions was handled in Cyriacus' notebooks and the later manuscript tradition in Edward W. Bodnar, *Cyriacus of Ancona and Athens* (Brussels: Latomus, 1966), pp. 193-42.


17 - See, for example, the pages from one of Feliciano's syllabaries in Verona and from a copy of one of his manuscripts, reproduced in Agostino Conto and Leonardo Quaglariello, eds., *L'"Antiquario:" Felice Feliciano Veronese*, Atti del Congregamento di Studi, Verona, 1993 (Padua: Antenore, 1995), figs. 20, 17.


19 - See the reproductions of pages from the Modena manuscript in L'"Antiquario:" Felice Feliciano Veronese, figs XLI-XVI.

20 - For new evidence that Fra Giocondo took an interest in ancient epigraphic scripts, however, see Lucia A. Giapponi, "A Fragmentary Treatise on Epigraphic Alphabets by Fra Giocondo da Verona", *Renaissance Quarterly*, 32 (1979), pp. 18-40.


22 - Fol. Bv, Corpus Inscriptionum Latinarum (Berlin, 1852 II). (abbreviated as CIL: X, 249).

23 - Fol. 98v, CIL V, 929v.

24 - Fol. 100r, CIL V, 6178.

25 - Fol. 99v, CIL V, 8983.

26 - Fol. 138v, CIL XI, 6181.

27 - Fol. 142v, CIL XI, 6305.


29 - Fol. 16r in Marcianova's Modena manuscript, fol. 168r in Ferrarini's collection, Reggio Emilia, Biblioteca Panizzi, Ms. C 398. CIL V. 2893. The altar appears on fol. 141v in the Princeton manuscript. The inscription is found in many late fifteenth-century manuscripts and imprints, the drawing, however, in only these two collections. The Priapus altar in the Marcianova sylloque is reproduced in Chiarolo, "Gli frammenti della sacra antiquitativa": studi antiquari e produzione delle immagini da Ciriaco d'Ancona a Francesco Colonna", fig. 96, and paired with the drawing in Ferrarini's Reggio Emilia manuscript in L'"Antiquario:" Felice Feliciano Veronese, figs 18-19.

30 - Maria De Martin Dalle Fratte, *L'avventura del Priapeo 82 Bucchi* Dal Feliciano agli orti di Bernardo Bembo', L'"Antiquario:" Felice Feliciano Veronese, pp. 117-40. The stone, whose true form we do not know, can be traced well into the sixteenth century and seems to have been a fifteenth-century forgery.


32 - The basilisk is a medieval figure; there are no known ancient representations. Schefold possibly misunderstood the inscription.


34 - The draughtsman was guided by Schefold, however; Phyllis Williams Lehmann pointed out that the Mercury in Cil 716 makes better sense of certain antiquarian details than other copies in the Cyriacus tradition, *Samotracian Reflections*, p. 139, n. 139.


39 - Montecchi, "Lo spazio del testo scritto nella pagina del Feliciano", p. 278.

40 - Fol. 15r. Montecchi, "Lo spazio del testo scritto nella pagina del Feliciano", p. 279, 80.

41 - For an example, see the title page to a Paduan or Venetian Petrarch manuscript of the 1460s, *Painted Page*, no. 71. But see generally


44 - The reasons that the early syllabuses were not published is discussed in somewhat greater detail in my article 'Early Archeology and the Book Trade: The Case of Puteiner's Romanicum vetustatis fragmentum (1503)', Journal of Medieval and Early Modern Studies, 28 (1998), pp. 78-87.


48 - A few quasi-syllabuses did get published in the fifteenth century, but they were either not very scholarly or preserved nothing of the material aspects of the inscriptions and other artifacts they described. In the 1470s the Dutch printer Coster published a small anthology of 56 verse epitaphs and epigrams supposedly compiled by Arcenec Silvius, Ludwig Bertolot, 'Die älteren gedrückten lateinischen Epitaphiensammlungen', in Festschrift Leo Oetiker (Munich: Rosenbal, 1921), p. 21; reprinted in Bertolot, Studien zum italienischen und deutschen Humanismus, ed. P. O. Kristeller (Rome: Edizioni di Storia e Cultura, 1975), vol. 1, pp. 269-301.


50 - For a reproduction of fol. aiv, with the woodcut inscription significatio literarum antiquarum on a gabled funerary stela, see Wood, 'Early Archeology and the Book Trade', fig. 6.

51 - CIL II 497*, VI 1.*.


53 - Although there was Roman pottery to be found in Thuringia; see Mortimer Wheeler, Rome Beyond the Imperial Frontiers (London: Bell, 1934), pp. 24, 89-90. Later, Marschall was involved in excavations of ancient German graves in Mecklenburg and concluded that lords were buried in mounds and their subjects buried only in urns; Paul Hans Steinmeier, Die Anfänge der deutschen Vorgeschichtsforschung, Diss. Heidelberg, 1934, pp. 19-21.

54 - See, for example, Bianco, Italia illustrata (Rome, 1474) and Roma istantata (Venice, 1503); and Leto, Romanorum historiarum compendium (Venice, 1499), with woodcut initials only.


57 - Munich, Bayerische Staatsbibliothek, Clm 4028.

58 - See Max Hautmann, 'Dürer und der Augsburger Antikenbesitz', Jahrbuch der prussischen Kunstsammlungen, 41 (1921), pp. 54, 98; 'Abrecht Dürer and Classical Antiquity, With an Excursus on the Illustrations of Apianus' "Inscriptiones" in Relation to Dürer' (1921/22), in Meaning in the Visual Arts (Garden City: Doubleday, 1955), esp. pp. 254-4. It is important to stress that although Peutinger was rather indifferent to beauty, as Panofsky pointed out (pp. 275-7), this was not the only reason he suppressed visual information in his scholarly publications.

59 - Munich, Bayerische Staatsbibliothek, Clm 472.

60 - Munich, Bayerische Staatsbibliothek, Clm 27539, a collection of mostly Roman inscriptions (preliminary 10 Clm 716).


62 - On the early theories of Nuremberg's origins, see Ernst Mummehof, Nürnberg's Ursprung und Alter (Nuremberg: Schrager, 1908), pp. 3-12.


64 - Munich, Bayerische Staatsbibliothek, Clm 516. See Die Chronik des Propstes Baschard von Ursberg, eds Holder-Egger and Simons, p. xxxvii.


66 - Herndon, Die Graphiksammlung des Humanisten Hartmann Schedel.


68 - Munich, Bayerische Staatsbibliothek, Clm 187 = Rar. 387; Herndon, Die Graphiksammlung des Humanisten Hartmann Schedel, nos 51, 98.

69 - Reproduced in Herndon, Die Graphiksammlung des Humanisten Hartmann Schedel, fig. 25; see also no. 98, n. 3. See Die deutschen Inschriften, 29 (Worms), p. 331, for an example of a Titulus carved on a sandstone Crucifix in reverse.

70 - Most of the prints in Clm 716 were removed in the early nineteenth century and are now kept in the Graphische Sammlung, Munich; they were replaced in the manuscript by facsimiles.

71 - See Herndon, Die Graphiksammlung des Humanisten Hartmann Schedel, nos 3, 4, 105, and fig. 23.


73 - Herndon, Die Graphiksammlung des Humanisten Hartmann Schedel, nos 78-8.

74 - Wood, 'Early Archeology and the Book Trade', examines Peutinger's 1505 publication in greater detail.
75 – Geissler, ‘Erhard Randolf’, cat. no. 222. Archäologie der Antike 1500-1700, ed. Margaret Daly Davis, no. 47.
76 – CIL III. 5817; Friedrich Vollmer, Inscriptiones Batavoriae Romanae (Munich, 1915), no. 128; Augsburg, Römisches Museum, Lap. 52.
77 – On the ‘centurion’ symbol, which Feliciano misunderstood, see Rino Aveani, ‘Felicianerle’, L’Antiquario, Felix Feliciano Veronesi, pp. 214. For that matter, there is no reason to believe that Peutinger understood it either.
78 – CIL III. 5846; Vollmer, Inscriptiones, no. 158; Augsburg, Peutingerhaus.
79 – Augsburg, Stadt- und Staatbibliothek, 2 Cod. H. 3, is a fair copy; Bayerische Staatsbibliothek, Clm 4018, no. 3 is a copy sent to the humanist Michael Hummelberg and annotated by him. See Hummelberg’s letter of 13 April 1511 to Peutinger, Briefwechsel, ed. König, no. 95.
80 – Robert Proctor, An Index to the Early Printed Books in the British Museum (London, 1898-1903), 211, pp. 18-20, Type 15.
81 – CIL XI. 66 (Ravenna); Vollmer, Inscriptiones, 444, b. The stone has apparently not been seen since 1560.
82 – CIL III. 5834; Vollmer, Inscriptiones, no. 145.
83 – CIL III. 5811; Vollmer, Inscriptiones, no. 122; now lost.
84 – CIL III. 5795; Vollmer, Inscriptiones, no. 106; now lost.
85 – Proctor, Index, 2, pp. 1, Type 22.
88 – Exceptional are the blank spaces in an inscription in a Roman garden, fol. 66r.
91 – See Bernd Rocek et al., Kommentar zur Augsburgerischen Chronica (Neuss/Augsburg: Kieser, 1984).
93 – Romanus vestitas fragmena, fol. 3r; Inscriptiones, fol. 3r.