Orality, Literacy, Memory in the Ancient Greek and Roman World

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We live in a world of copies not just of books and art, but of virtually everything we use from computers to cars to the furnishings of our home and the games we play. We are so surrounded by facsimiles and reproductions that it is difficult for us to imagine a world with limited means of making copies. It is jolting to remember that the assembly line was an invention of the Industrial Age and did not become a major economic force until Henry Ford produced his Model Ts in the early 1900s. It is not that copies did not exist in classical antiquity, but rather that their nature differs in some cases dramatically from modern ones. We expect our copies to look so like their originals that not even an expert can distinguish a digital reproduction from its original. In antiquity, except for certain restricted categories of die- and mould-made objects, like coins, seals, and lamps, each copy could generally be distinguished from every other. While classicists have long been accustomed to the idea of variations between stories and manuscripts, classical art historians approach the problems of copies with an ingrained bias toward Greek art that makes them treat Roman copies, if they judge them aesthetically fine, as exact replicas of lost Greek originals. Although that bias has begun to shift in recent years in the study of sculpture, painting

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1 It was a great honour to have been invited to give the keynote address at the Seventh International Orality/Literacy Conference. In particular I would like to express my deep gratitude to Anne Mackay for her exemplary organization of the conference and for her gracious hospitality. The reaction and comments from the attendees were most helpful and are reflected in the notes. I would especially like to single out Ed Carawan for our refreshing discussion. It is a pleasure, as always, to acknowledge the help of A. A. Donohue and Susan Woodford, both of who made the supreme scholarly sacrifice of reading a draft of this paper without the notes. I also thank Brunilde S. Ridgway and Miranda Marvin for their observations. Please note that references are kept to a minimum both for objects mentioned and the extensive literature on copies. All translations are from the Loeb Classical Library editions unless otherwise noted. All web sites were accessed in March 2008.
has received little attention. Nor have classical art historians considered the implications of the results from studies of orality and literacy. In this paper I shall try to redress that lack of balance.

I begin with a consideration of what Greeks and Romans thought about copies. The English word “copy” comes from the Latin copia, which, however, does not mean “copy” but “abundance” or “plenty”—meanings which explain its later extension to our sense of “copy.” Pollitt’s extremely useful compendium of technical Greek and Latin words for art history, *The Ancient View of Greek Art*, contains no entry in the indices for “copy.” With a knowledge of Greek and Latin, however, one can find παραδείγμα and exemplum together with exemplar. Pollitt notes for the Greek term that its “basic meaning ... is ‘model’ or ‘pattern’.” Similarly, he says that “the terms exemplum and exemplar can mean both ‘model’ and ‘copy.’ When the word means ‘copy,’ however, it always has the sense of a ‘representative copy’ and hence is still very close in meaning to ‘model’.” In other words, the Greek and Latin words focus on the source for copies rather than on the copies themselves, ironically like scholars today.

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2 Lippold (1951) remains the basic study for the idea that Greek paintings stand behind almost every Roman painting. Bergmann (1995) is one of the few to consider painting. Hallett (2005: 433-35) has a brief section on painting in his review of Gazda (2002) and Perry (2005). Even the recent fascicle of *Art History* (Trimble and Elsner [2006]), devoted to the problem of classical copies, has no article on painting.

3 According to the *OED Online* (s.v. *copy* A II.3), the meaning of “copy” as “a picture or other work of art, reproducing the features of another” dates to 1584. The earlier meaning, more literally after the Latin, as “abundant” or “copious” is daggered as obsolete (A I.l). The earliest citation is 1596 for “copy” as “something made or formed, or regarded as made or formed, in imitation of something else; a reproduction, image, or imitation” (A II.4a). It is probably not coincidental that the modern meaning of “copy” as artistic reproduction follows the invention of the printing press with its multiple copies that are portable and hence can be compared to each other. Compare Muller (1989), who similarly dates the beginning of the desire for “authenticity” to the sixteenth century.

4 Pollitt (1974: 211). τύπος is another problematic word, when used in sculptural contexts. It probably does not mean “model” but rather “mould” or “relief,” both of which terms remove it from my current concern about “copies.” See Pollitt (1974: 272-93) for a summary of the scholarship and especially 291 for the “best” usage. I thank A. A. Donohue for bringing this term to my attention in this context.


6 This usage parallels the classical interest in firsts. Pliny the Elder records who invented what artistic technique. That sometimes the stories, such as for the invention of portraits in clay (*HN* 35.151) and paint (*HN* 35.15) are the same did not bother him, if he noticed at all. It would appear, then, that the classical interest in firsts parallels the modern interest in originals except that Greek and Latin seem just
It is therefore no surprise, as Isager notes, that “the extensive private market in modifications or adaptations of Greek art constitutes an area which Pliny [the Elder] fails and probably did not wish to include.” In fact, Pliny refers only once to a copy of a painting. The reference is instructive:

In his youth Pausias [the painter] loved ... Glykera, the inventor of flower wreaths. Imitating her in rivalry [certandoque imitatione] he extended his method of encaustic painting to represent a very numerous variety of flowers. ... A copy of [his] panel [huius tabulae exemplar] [of Glykera], an ἀπόγραφον as they say, by Dionysios in Athens was bought by Lucius Lucullus for two talents.8

I find it interesting that Pliny falls back on a Greek word, because Latin lacks the appropriate word.9 Now the absence of a particular word does not mean that a particular phenomenon does not exist, but rather that no need was felt for such a word. For example, Latin was quite content to use the same word, pollex, for both big toe and thumb.10 Sometimes context is all.

In this case, however, I do not think that context fully accounts for the absence of our sense of “copy.” In the first part of the passage, Pliny refers to “imitating ... in rivalry”—two terms we are accustomed to seeing in classical texts on copying. “Rivalry” obviously means competition and a number of anecdotes describe both formal and informal artistic competitions.11 For the most part, I am not concerned with that aspect here. “Imitation,” however, is a more complex term that may include copying but does not have to.12 I could, for example, be inspired by Seurat to paint a picture using only dots of paint. My painting need as parsimonious with words for “original” as they are for “copy,” since Pollitt (1974) similarly does not have a listing for “original.”

7 Isager (1991: 174) for both the quotation and the information. Lucian (Zeuxis 3-5) refers to an “extremely accurate copy” (3.10) of a painting by Zeuxis in terms remarkably similar to the way scholars today refer to copies. Yet, as will be seen, there is no way for Lucian to have known how accurate the copy is, since the original, according to him, was lost at sea. Lucian, like Pliny the Elder, uses a similar word to refer to copy, ἀπόγραφος.

8 Plin. HN 35.125 (my translation).

9 A similar situation exists with “symmetry.” Compare Plin. HN 34.65: non habet Latinum nomen symmetria.

10 OLD 1397, s.v. pollex.

11 The most famous “contest” for artists that we know of may be the one among five sculptors to make the best Amazon, on which see Plin. HN 34.53. For another example in painting, consider that between Zeuxis and Parrhasios (Plin. HN 35.65).

12 In general, on artistic imitatio see Perry (2005: 111-22).
not share the same colours much less the same subject as any of Seurat's paintings. It would only loosely be an imitation of his style. In a sense this is the kind of imitation Pseudo-Longinus (On the Sublime, 13.2-4) describes when he says that Plato imitated Homer. When art historians, however, refer to "copies," they generally are not talking about inspiration as imitation. They mean something that has the same subject and elements as the original and is portrayed in the same manner. The three requirements of subject, elements, and style must all be met.

In the Academica (2.85-86) Cicero talks about such exact replication:

Tell me, could not Lysippus, by means of the same bronze, the same blend of metals, the same graver and all the other requisites, make a hundred Alexanders of the same shape [modi]? then how [qua ... notione] would you tell them apart? Well, if I imprint a hundred seals with this ring on lumps of wax of the same sort, will there possibly be any means of distinction to aid in recognizing them? Or will you have to seek out some ring-maker?  

It is significant that Cicero chose two types of reproduction that really can produce identical copies. Because the case for identical sealings from a signet ring is obvious, I discuss only bronzes here. Classical bronze statues are a rarity today, because bronze was presumably worth more as money as material than as art. Moreover, what has survived seems to be variants rather than exact replicas. A stock type received modifications from minor adjustments in pose to the treatment of details. Mattusch presents the somewhat surprising example of the Riace bronzes. At first, and even second, glance the differences in their heads mask the sameness in their bodies, in part because we are "hard wired" to notice heads, and not just heads but faces—a fact which explains, in part, why the Romans concentrated their efforts on the heads for their portraits and often used stock bodies. Gazda presents the example of Vespasian and Titus from the Shrine of the Augustales at Misenum, made after both had died. Like the Riace bronzes, only the heads vary. The skill needed, however, to replicate stone images may be greater than that for bronzes, which can repeatedly use the same moulds.

13 Translation adapted from the LCL. Compare Platt (2006).
14 Mattusch (1996: 64 and 66-67, fig. 2.18). For example, Botbein (1996:72) refers to "the stylistically earlier of the bronze warriors from Riace" and hence does not see them as twins in body.
15 Massironi 2002: 44-47.
The most obvious extant example of Roman copies of a Greek original is that of the Erechtheion caryatids with replicas in the Forum of Augustus in Rome and at Hadrian’s villa at Tivoli. Because moulds can be taken from existing statues, as Lucian mentions for a Hermes in the Agora at Athens, there is no logistical reason why the three sets of caryatids should not match. Moreover, for us today it is a relatively simple matter to compare the three sets through photographs, which demonstrate that the copies meet the criterion of “close enough.” The Romans, however, would not have been able to see even two of the sets of caryatids together.

Statues, no matter the material, can be shipped from site to site. Bartman suggests that copies of official Roman portraits in lighter weight materials like plaster or wax would have been sent to various parts of the Roman Empire for copying locally. Yet that does not mean that they are identical portraits, such as for Queen Elizabeth II in British embassies throughout the world. Bartman, like Mattusch, comments on the fact that “variants are frequent in Livia’s portrait corpus, perhaps more the norm than close copies ... [because of] the rudimentary nature of the system by which it [the portraits] was produced.” In particular, she notes that “the Roman sculptor ... seems often to have reproduced assiduously those aspects of the image that were unfamiliar while executing more freely those he already knew.” To put it in Thucydidean terms, even where we might expect precision, generally only

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17 Schmidt (1973) is the basic study for all copies of the Erechtheion caryatids, including the three mentioned in the text. She also provides full photographic documentation: for the caryatids from the Forum Augustum, Rome: pls. 1-5; for the caryatids from Hadrian’s Villa: pls. 6-32. For the Erechtheion caryatids see, among many others, Stewart (1990: pls. 431-32). On “exact copies,” see Perry (2005: 90-96) with two caryatids from Tivoli illustrated on 92-93, figs. 19-20.

18 The Hermes was so frequently copied that it became black from the pitch used. Lucian, Iupp. trag. 33. Compare Mattusch (1996: 191).


20 Bartman (1999: 20 and 24). Compare Albertson (2004: 300) who, in a study of portraits of Marcus Aurelius, says that “as we progress from the 1st through the 2nd centuries the actual copying of an official model becomes more accurate, the dependence on models greater and greater.” Bartman obviously illustrates a number of Livia portraits, but one of those on which she focuses in this section is the head now in Baltimore, The Walters Art Gallery 23.211: Bartman (1999: 19, figs. 13-14). I also know of one instance where “copies” were made based on a verbal description, but obviously not of a portrait. The device of the Marsyas in the Forum shows a distinct difference on Greek Imperial bronzes compared to the original in the Forum Romanum: his right hand is no longer raised above his head, but in an adlocutio. See Small (2003: 114-16 with figs. 58-59).

gist is captured. If sculptors have trouble accurately reproducing heads, consider what may happen when copying statuary groups.

To understand the problem, first try a thought experiment. Imagine the Laocoon, a three-figured statuary group. We now know that Laocoon’s right arm no longer extends more or less straight up in the air, but is bent back at the elbow toward his head, which falls to our right in intense agony. Now think of his two sons. Which is the older boy and where does the snake wrap around him? Where is the head of the snake that bites Laocoon? Where is the second snake’s head? Which is Laocoon’s weight-bearing leg? Are there the usual bits and pieces of drapery and, if so, where are they? The more questions I ask, the more I hope you will realize that, like me, you really do not have a clear picture in your mind of this well-known group.

If you look, for example, at an illumination from the Vatican Vergil, Laocoon looks quite reasonable, even if his two sons are awfully small and his red cloak in contrast rather voluminous. His left leg is the weight-bearing leg, because he kneels on the altar with the other one. The snakes are a bit hard to find, but they encircle Laocoon and the boys around their torsos and around the arms of Laocoon. I pass over that the image of Laocoon, on the left, clearly labelled, has no beard and no cloak, but is dressed like a victimarius. Let us try another version, the marvellous cartoon by Charles Addams (Figure 5). Typical of twentieth-century artists, he has placed the group in a specific, three-dimensional setting and has based his rendition on the earlier restoration of the Laocoon with the right arm extended upward. What about his sons? They, too, are raising their right hands. Is that correct? Let us look

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23 The Laocoon remains the subject of long debate as to whether it is a Roman copy of a Greek original or a Roman original, and even whether the Laocoon we have is the one Pliny the Elder mentions. Deciding the answer to these questions has no bearing on my use of it as an iconic example that everyone “knows.” See Brilliant (2000: 2-3 figs. 2-3 with the two different restorations, and 98 fig. 20 for the back view); also Décultot et al. (2003), and Varner (2006: 679) with bibliography.
25 Addams (1991: 215). First published in The New Yorker for April 17, 1975. To date, The New Yorker has published four cartoons spoofing the Laocoon: another one by Addams for November 22, 1982, one by William O’Brien for January 25, 1958, and one by Vahan Shirvanian for January 12, 1987. I treasure them all, but this one the most. For all of these cartoons, see the two CDs that came with Mankoff (2004); search under the date, the artist, or “Laocoon.”
at the "real" Laocoon (Figure 6). Artistic license is perhaps too kind a word. The illuminator of the *Vatican Vergil* not only gave Laocoon two little boys instead of an older boy and a youth, but also has changed the pose of Laocoon, who now helplessly raises his hands rather than vainly trying to remove the snakes. In addition the statuary Laocoon is more or less seated on the altar with his left foot touching the ground to the side of it. The older son on our right is trying to step out of his snake, so to speak, while the younger one is more securely ensnared. The head of the second snake is difficult to discern, because the left hand of the left son covers its head, as he tries to push it away.

The phenomenon you have just experienced is known as recognition memory. When you see the Laocoon, you know it. To understand what I mean, consider the infamous penny test from 1979. Diabolical cognitive psychologists—they are always diabolical—showed fifteen possible obverses for the American one-cent coin and then asked American college students to identify the real one. Most could not pick out the right one. I have rerun the test with my students and had the same results. As Norman points out, "the students, of course, have no difficulty using the money: in normal life, we have to distinguish between the penny and other U.S. coins, not between several versions of one denomination." Since I am talking about a basic human skill, the Romans and their artists would have the same kind of recognition memory that we have today. Artists making copies, however, should be better at this task than we are. Some experimental evidence exists to support that position. When chess masters are asked to memorize the arrangement of men in the middle of a game, they recall it with remarkable accuracy. On the other hand, when the same chess masters are asked to memorize a chessboard with randomly sprinkled men, they do no better than anyone else. Hence it is likely that Roman artists might not have been able to

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26 As Brunilde Ridgway (pers. comm.) points out, the illumination in the *Vatican Vergil* does not necessarily depend on the Vatican Laocoon sculptural group. Yet, when we think of a representation of the death of Laocoon, we think of the sculptural group. Moreover, because we know the sculptural group, we can recognize the same subject in the *Vatican Vergil*. At the same time we consciously or unconsciously “measure” all Laocoon versions against that group. On the iconographical history of Laocoon, see *LIMC* 6, pp. 196-201 with pls. 94-95: “Laocoon” (Erika Simon).

27 Nickerson and Adams (1979: 297, fig. 6).


29 Cognitive psychologists refer to this phenomenon as the differences between experts and novices, the results of which would also apply to the abilities of expert
have recalled today's modern art accurately, but only pieces within their expertise.\(^\text{30}\)

If artists are able to copy an object right in front of them, as in a second cartoon of the Laocoon by William O'Brien,\(^\text{31}\) they should have no problem with accuracy. Yet Bartman says that, at least for portraits of Livia, accuracy is a real issue.\(^\text{32}\) I do not know of any sneaky cognitive tests of artists' memories compared to ordinary folks. I do, however, have the cover from a *TV Guide* that appeared shortly after I had accepted the invitation to deliver the keynote address represented by this paper.\(^\text{33}\) *TV Guide* re-created nine famous covers, one of which shows Reba McEntire taking the pose of Lucille Ball in the iconic trampling of the grapes.\(^\text{34}\) Because the original cover was available to the re-creators,
there should be no inaccuracies except for the fact that the newer rendition is in colour and the original was shot in black and white. Both Lucy and Reba are similarly dressed, but their headscarves have different patterns. Reba manages to keep her blouse firmly on both shoulders, while Lucy’s has slipped off her right shoulder. Their hands do not match. Reba holds her right thumb out and extends her left fingers, while Lucy has formed loose fists with each. Lucy is looking more downward with her eyes half-closed compared to the open-eyed Reba. Like a good art historian, I could go on, but I think I have mentioned enough differences. Making an accurate copy, even in the best of circumstances, is not easy. For the purposes of *TV Guide* the two images are close enough even in a direct comparison, but for art historians “close enough” is often not enough. We want to know exactly what the original looked like. Unfortunately even today we live in a Thucydidean world. I wonder if your mind drifted off during my comparisons, because basically many of us do not care about that much precision. Good enough is good enough. I think Romans must have been similar. Some cared for accuracy; most were happy with gist.35 There is additionally, of course, the fact that most could not easily compare original and copy in the absence of photographs.

With this background let us switch our focus to classical copies of classical paintings. The situation immediately becomes more complicated. The only securely identified copies I know for painting are on vases. The Museum of Fine Arts in Boston owns two Attic red-figure kylikes by Aristophanes with identical subjects and scenes.36 The mu-

distinguished from parodies, which reproduce the poses, dress, and setting, but with twists on the originals to amuse the viewer. For example, *Smithsonian* (2005: 116) compiled ten takes on the classic Grant Wood painting American Gothic that range from cartoon characters (Beavis and Butthead) to vizsla dogs to Paul Newman and his daughter Nell. On the problems with our terminology, see Ragghianti (1964: 14). Compare the title of Bergmann’s article (1995): “Greek Masterpieces and Roman Recreative Fictions.”

35 Compare Perry (2005: 60): “This [the variety in the posture and proportions of the Olympia-Aphrodite sculptures] implies that it might have been a general visual familiarity, and not the exact replication of a particular model, to which patrons and viewers responded.” Fullerton (2006: 483) suggests, “Alternatively, perhaps the images we have are signs, the form of which derive from a mental image of the things being signified ... but which employ a few salient features ... that would suffice to indicate the subject. ... in any case, no one disputes that these representations are not pictorially accurate, but we might question more carefully whether they were even intended to be so.”

36 Boston, Museum of Fine Arts 00.344 and 00.345 (*ARF* 1319.2 and 3 respectively; *Para.* 478; *Add.* 363). They date to c.425-400 BC. For online photographs of
museum even displays the vases next to each other. Like the photographs of Reba and Lucy, only a close analysis separates the two. For example, in the tendos Herakles fights Nessos who still holds Deianeira. In addition to the issues of preservation that distinguish the two vases today, Boston 00.344 has an inscription in the exergue and Boston 00.345 does not. The lower edge of Deianeira’s drapery at the ankle differs slightly in its treatment and she has larger feet on the former. Similar discrepancies can be found in the exterior scenes of Lapiths fighting centaurs. For example, the leftmost centaur on each of the reverses has slightly different gestures for his arms and hands. Again, I could extend my analysis of such details, but none is as striking as the fact that they are so closely matched. More importantly, this kind of copying does not concern me here, because the two vases are twins, produced at the same time in the same workshop by the same painter. In a sense both are originals, since there is no way for us to know which was painted first or even if more of these were made at the same time. Nor is there any way to tell whether another vase was the model for these two. Similar twins exist in sculpture, such as Kleobis and Biton. Immediate duplication of objects is economical no matter what the material, because once the artist has figured out how to make a particular object, the next one will be that much easier to produce even if it has to be carved or painted from scratch.

I am, however, concerned with the production of copies separated in time and space from their “originals.” The sole example I know of a painting that has survived in both model and copy occurs on an Etruscan red-figure kylix that adapts the exterior scenes from an Attic red-figure kylix (Figure 7). While the interior scenes differ—satyrs for the Etruscan 00.344: B4D 220534 and 220535 respectively; also search by museum and inventory number at http://www.perseus.tufts.edu.

37 Connor (1981) discusses the same phenomenon of contemporary “replicas,” but in this case for an Attic black-figure painter, the Painter of Louvre F 6 (ABV 123-29; Para. 50-53; Addi 34-35).


can kylix and Oedipus and the Sphinx for the Attic kylix—the exterior scenes of both show satyrs revelling. The Etruscan vase-painter simplified the Attic scene by removing one figure on each side with the result that one of the sides makes less sense than the original, because the youth about to be beaten with a sandal has been omitted. On the other side, the Etruscan artist omitted the satyr pissing in a pot (Figure 8). On the whole the Etruscan satyrs seem less elegant and more awkward, but the leftmost satyr, seen from a three-quarters rear view, is actually more accomplished on the Etruscan kylix than on the Greek one. Hence it is very important to keep in mind that just because something is clearly a copy does not mean that the copy cannot be better than the original, whether overall or only in sections, as in this case.

Large-scale paintings, either on panels or on the wall, present great difficulties for the copyist, because the methods available for making copies of paintings do not permit the accuracy possible for mould-made objects. Panel paintings do have the advantage of being transportable and are therefore capable of being directly copied in a painter’s workshop. Alternatively the reverse could happen, with the painter setting up his easel in front of the original. Quintilian remarks, “Shall we follow the example of those painters [pictores] whose sole aim is to be able to copy pictures [describere tabulas] by using measurements and lines [mensuris ac lineis]?”. It is important to examine Quintilian’s vocabulary. First, he may be referring only to panel paintings, for he uses the word tabula. Second, mensura can easily be translated as “measurements,” but lineae is more complicated. It can simply mean “lines” or, according to Pollitt, may refer to the drawing of outlines. Hence Quintilian is not talking about imposing a grid on the original—a practice that would destroy the original—but instead he probably means making sure that the basic sketch, that is the lines of the scene, is accurate by checking its measurements. He does not assess the precision of such

It is important to note that the Attic red-figure kylix was found in Vulci, the probable provenience for the Etruscan kylix.

41 Quint. Inst. 10.2.6. Translation adapted from LCL (1st ed.). Butler translates the phrase mensuris ac lineis as “by using the ruler and the measuring rod,” based on the assumption that the original was divided into a grid. I have provided a more literal reading.


43 A. A. Donohue (pers. comm.) suggests that they could have used string for a temporary grid. Such a grid could be attached temporarily to the picture by bits of wax. It might also be possible, for example, to mount such a grid on a wooden frame and place it against the original. We have no evidence for or against these sugges-
copies. Nor does he mention the problem of colour nor how those colours are laid on, such as with broad, visible strokes or small, nigh invisible ones.

In contrast, both Pliny the Elder and Pliny the Younger discuss colour. Pliny the Elder deprecates the inaccuracy of illustrated texts on botany:

Crateuas, Dionysius and Metrodorus adopted a most attractive method, though one which makes clear little else except the difficulty of employing it. For they painted likenesses [effigies] of the plants and then wrote under them their properties. But not only is a picture [pictura] misleading [fallax] when the colours are so many, particularly as the aim is to copy [aemulationem] Nature, but besides this, much imperfection arises from the manifold hazards of the copyists.\(^{44}\)

Pliny does not rate the ability of the copyists highly, because they are virtually incapable of achieving accurate colours. Even today we simi-

\(^{44}\) Plin. HN 25.4-5 (8-9). Translation adapted from the LCL. On copyists "improving the original," recall how the Etruscan artist improved one of the figures he was copying from an Attic red-figure kylix. Compare my discussion on the "Reproduction of Pictures" in Small (2003: 134-38).
larly lament the lack of accuracy in colour photographs, some of which, even in expensive coffee table books, are often wildly off from the originals. Pliny the Elder’s nephew, Pliny the Younger, addresses the difficulties of accurately copying portraits painted on panels, a process that involves many of the same problems as copying manuscript illuminations. He writes to Vibius Severus:

The well-known scholar Herennius Severus is very anxious to place in his library portraits [imaginæ] of your fellow-townsmen, Cornelius Nepos and Titus Catius, and asks me to have them copied [exscribendas] and coloured [pingendas] if, as seems likely, they are in your possession. ... All I ask is that you find as accurate [diligentissimum] a painter [pictor] as you can, for it is hard enough to make a likeness from life [ex vero], but an imitation of an imitation [imitationis imitatio] is by far the most difficult of all. Please do not let the artist you choose depart from the original even to improve on it.45

Pliny the Younger recognizes the variability in individual reproductions of works of art.46 He describes the process of reproducing painted portraits as requiring two steps: the drawing or outlining of the figure, like the lineæ of Quintilian, and then the addition of colour. It makes sense that the same order would be followed no matter what the subject and thus applies to all painting. What is interesting for us is that Pliny considers “an imitation of an imitation by far the most difficult of all.” In other words, Pliny the Younger, who should be acquainted with both originals and copies of paintings, implies that most copies of paintings fall far short of the originals.47

To get some understanding of the problems painting presents, consider two Roman wall paintings of Perseus and Andromeda, one from the House of the Priest Amandus at Pompeii and the other from

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46 Compare Dion. Hal. Din. 8, who expresses strikingly similar thoughts about copies and originals: "a certain spontaneous charm and freshness emanates from all the original models, whereas in the artificial copies, even if they attain the height of imitative skill, there is present nevertheless a certain element of contrivance and unnaturalness also. It is by this rule that not only orators distinguish other orators, but painters the works of Apelles and his imitators, modelers the works of Polyclitus, and sculptors the works of Phidias." Translation adapted from the LCL.
47 Miranda Marvin (pers. comm.) suggests that Pliny the Younger is referring to Plato’s denigration of painting and sculpture (Resp. 10.598b) rather than actual copies of copies. Perry (2005:95), on the other hand, has the same reading of the passage as I do.
Boscotrecase (Figure 9).\textsuperscript{48} A glance is enough to tell that they represent the same subject with the same elements: Perseus flying in from the left; Andromeda manacled to the cliff jutting up in the centre with the ketos on the left and her mother Kassiopeia below on the right; and finally Perseus repeated and being received by her father Kepheus on the right. The iconographical differences are minor. Kassiopeia, for instance, sits on a separate outcropping in the one from Pompeii, but at the bottom of the same cliff in the Boscotrecase painting. Despite their iconographical similarities, their renderings are strikingly different. The Boscotrecase painting is seen from farther away and is rather atmospheric. The ketos stands out in the Boscotrecase example, whereas the palace of Kepheus is much clearer in the Pompeian panel. Finally, of course, as both Pliny the Elder and the Younger would have noted, the colours differ. For instance, the Pompeian panel depends more on a bluish-green for its background, while the Boscotrecase painting uses a deeper green overlaid with more greys and browns. Which is the original? Should it be the one from Boscotrecase from the decidedly upper class villa of Agrippa Postumus? Remember, however, that accomplished execution is not always the most reliable guide—or all the satyrs on the Etruscan kylix would have been more poorly drawn than their Attic models. Then, again, another painting, no longer extant, may be the original.

What about the other Pompeian type of Perseus freeing Andromeda? A slightly later moment is chosen in a version from the House of the Dioscuri (Figure 10).\textsuperscript{49} Perseus has released Andromeda’s right arm from its manacle and is helping her step down. I pass over the fact that her left arm, which Perseus awkwardly supports, remains pinned to the cliff. Neither is looking at the other. This painting focuses less than the other two on placing the protagonists in an overall setting, and more on the pair alone. In fact, the only subsidiary figure is the dying ketos, as usual on the lower left. Perhaps this version goes back to a Greek original, since the Greeks never lost their focus on the main figures. Recall

\textsuperscript{48} For the Boscotrecase version: New York, Metropolitan Museum of Art 20.192.16: Anderson (1987/88: 53, colour), and LIMC Andromeda 1 32 with pl. 629. For the Pompeian version: Kraus and von Matt (1975: 186 fig. 250, colour). LIMC Andromeda 1 33. Note that Richardson (2000: 36) attributes both paintings to the Boscotrecase Painter, but he has assumed that because they show the same elements they must be by the same hand. Compare my discussion of their use of space to portray continuous narrative: Small (1999: 568, with 569 fig. 8).

\textsuperscript{49} Pompeii 6 9.6-7. Naples 8998: H1186. LIMC Andromeda 1 69, p.781 with pl. 634, where it is assigned to the Fourth Style. Bergmann (1995: 95-96 and 113 fig. 6, bottom left).
that Pliny the Elder (*Natural History* 35.116) said that it was a Roman, Studius, who invented landscape painting. Pliny (*Natural History* 35.132) even offers us a Greek candidate for the representation of such an Andromeda: Nikias of Athens. It was among his “large pictures” (*grandes picturas*) not to speak of the fact that Nikias was known for “paint[ing] women most carefully.” Pliny the Younger’s remarks quoted above. Lippold (1951) provides a useful compendium of “traditional” scholarly attributions of Pompeian paintings to Greek artists. He discusses Nikias (93-101) and the Perseus and Andromeda (94 with fig. 76).

There is a second possibility: a Roman painter took the model and bettered it. Quintilian, in the same passage I quoted above, directly continues, “It is a positive disgrace to be content to owe all our achievement to imitation [*imiteris*]. For what, I ask again, would have been the result if no one had done more than his predecessors?” In other words, Quintilian not only believes that Romans can do better than their predecessors, but also that they should do so. If that is true of rhetoric, why would it not be true of painting? Would Roman artists be bettering Greek paintings, however, or would they merely be bettering the works of their peers and their own ancestors? I can only partially answer this question. I think that it is highly unlikely that absolutely no changes or only changes for the worse occurred in painting since the fourth century BC when Nikias lived. I think that the Romans’ two greatest contributions to painting were full illusionism, and landscapes with figures integrated within those landscapes and not dwarfing the setting. The Greeks never lost their belief in the idea that “man is the measure of all things.” The fourth century BC painting that we do have from Vergina emphasizes the figures, as with the second pair of Perseus and Andromeda, rather than having the landscape dominate the figures.

At this point let us expand our discussion to consider the most famous and complex example from Pompeii: the Alexander Mosaic from c. 100 BC in the House of the Faun (Figure 11). Without its border it measures a little over five metres by nearly three metres. With its borders it expands to nearly six metres by just over three metres—the size...
of an average Manhattan living room. It contains over fifty men and approximately twenty horses. The vagueness of these numbers is due to the incomplete preservation. No doubt exists that the mosaic represents Alexander and Darius. Which of their two major encounters, Issos in 333 BC or Gaugemela in 331 BC, remains debated. For my purposes here it does not matter. Similarly, at least seven different Greek painters have been proposed as the artist. Recent attributions have centred on Philoxenos and Apelles. Pliny the Elder (Natural History 35.110) says that Philoxenus not only was the court painter of Kassandros in Macedonia after the death of Alexander, but also the painter of a battle [proelium] between Alexander and Darius. Apelles is a possible candidate, first because Pliny (Natural History 35.85) records that Alexander the Great often visited his workshop. Second, according to Pliny, Apelles “surpassed all the painters that preceded and all who were to come after him.” In addition, scholars tend to assign extant works of high quality to the artist rated most prestigious in the ancient texts.

Pliny describes Apelles’ style as “unrivalled for graceful charm . . . he knew when to take his hand away from a picture . . . . he used to acknowledge his inferiority to Melanthius in grouping, and to Asclepiodorus in nicety of measurement.” Comments like these are useless in making attributions, especially for a Roman copy made in another medium three hundred years later. Even more important, not only have no paintings by Apelles survived, but also we do not have even a single scrap painted by any classical Greek painter mentioned in the extant literary sources.

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56 Plin. HV 35.79. Also see extended discussion in Moreno (2001: 29-38).
57 Compare Ridgway (2004: 733). There are a number of resonances between Ridgway’s essay on the Laocoon and my treatment of copies, although I read the article after I gave the keynote address but before I prepared it for publication. The original article, “Le Laocoon dans la sculpture hellénistique,” appeared in Décultot et al. (2003: 13-31).
58 Stewart (1993: 150-157), among others, relates the Alexander Mosaic to Apulian vases by the Darius Painter (c. 330 BC according to Stewart, [150]) that portray encounters of a Greek warrior on a horse pursuing a Persian. In the end, however, Stewart concludes (152-53), “Clearly, the Darius Painter cannot have seen the original of the Mosaic, a sketch of it, or any other painting of Alexander produced for the Macedonian court. He simply did not know what Alexander looked like. Had he done so, he would not have shown him bearded. . . . but in the absence of any precise indication of Alexander’s real appearance had to resort to guess work.”
Just because we do not have the original and cannot know its painter, it may still be possible to posit an original Greek painting that stands behind the Alexander Mosaic. First, Alexander the Great by dint of his date obviously dates the subject to no earlier than the last third of the fourth century BC. Furthermore, as I indicated above, we know of at least one painting from the fourth century BC depicting a battle between Alexander and Darius. Hence the appearance of Alexander and Darius in a Roman mosaic from c. 100 BC is not in and of itself surprising. The second major support for a fourth century BC original lies in the palette of the mosaic which follows earlier practice and is limited to four colours—"red," black, yellow, and white—though Cohen notes "some green elements." 59 Third, the focus of the scene is on the figures, not the setting, which has the proverbial Greek lone, barren tree. The depiction of the spears extending above the fray reflects the way they actually looked in a battle, as I discovered in an otherwise forgettable movie about the battle at Marathon. Other elements are variously interpreted. Some scholars maintain that the armour is authentic fourth century BC, others that it is a mixture of elements from the Hellenistic period. 60 Some mistakes are apparent on close examination. For example, there are traces of "a white horse that anatomically cannot be put together" among the four black ones on the right quadriga. 61 These errors are considered to prove that the mosaic must be a copy, because surely the original painting got it right. Again, this argument does not matter, since originals can have mistakes. Even the scholars who know about and notice these errors still consider the mosaic an "excellent copy," as Hölscher puts it, of a Greek original painting from the fourth century BC. 62

At this point we must consider the logistics of making a copy of a painting larger than a Persian rug in an average New York living room. We should not worry about whether the original was in Pella or even

59 Cohen (1997: 167-69, esp. 168). It is interesting to note that the restriction to four colours is not apparent unless pointed out, in part, I believe, because battles scenes on barren plains are naturally often limited in their palette

60 While most scholars accept the realia as fourth century BC, Michael Pfrommer (1998) has devoted a monograph to a study of the individual elements, especially of the armour and the dress of the figures. He concludes (215) that "Die Realien des Mosaikgemäldes entsprechen keinesfalls alexander- oder diadochenzeitlichen Vorgaben." (My emphasis.) He believes (216) that the realia indicate that the mosaic dates most likely in the late third or early second century BC.

61 Cohen (1997: 79) with other mistakes discussed.

62 Hölscher (2004: 23): "an excellent copy of an important painting dating from the late fourth century BC soon after the death of Alexander the Great."
Alexandria, as others suggest, since either location presents the same problems for copying. I begin with the obvious limitations: no photographs, no casts, no imposing a grid over the precious original. A sketch could be made, but not to scale, since the available materials—papyrus, wax or wood tablets, clay slab—were not manufactured on such grand scales. Even photographing the whole mosaic in one shot is not easy, and details blur and sometimes disappear. We still need details. In the absence of a picture of the whole, joining these details together is also not easy. Consider that the copy being made in Ravenna today has a life-size photograph displayed in the workshop and that that photograph shows faint vertical lines indicating that it was pieced together.

Next the Ravenna mosaicists made:

... a tracing of the photo with a dark marker and covered it with a thin layer of tissue to make a negative impression. Now they had their design.

... Instead of raising a single large wooden [frame] ... covered in lime as the ancient mosaicists might have done, the Italians decided to use 44 separate clay frames and work on the mosaic section by section.

Even today with all of our technical equipment it is no simple matter to make a copy of something that size. What is the likelihood that some 44 sketches, each totally accurate, were precisely pieced together in antiquity?

For Alexandria: Fehr (1988). Cohen (1997: 59) suggests that the so-called original painting was “perhaps ... carried off to Rome from Macedonia as part of the booty from the battle of Pydna (168 B.C.).”


Merola (2006: 38). One scholar (Donderer [1990]) believes that the mosaic is an “original” Greek mosaic that was removed in sections from a Hellenistic palace. Against this idea Dunbabin (1999: 43) argues, “In my opinion this theory remains unlikely in view of the size and fragility of the work and the difficulty that would be involved in dividing it into sections.” She then adds, “the mosaic was laid on the spot by a team of craftsmen, who may safely be taken to have been Greek. Everything else is uncertain ...’ One cannot assume prima facie that all good artists must be Greek. Even Greek names are no guarantee that they are not Romanized Greeks, as the variety of names in the United States so eloquently testify. On the mechanics of laying a mosaic, see Dunbabin (1999: 279-90).

There is virtually no extant evidence of actual copybooks. While most scholars would agree that artists must have shown some kind of designs to prospective clients and that artists must have had access to designs for their own use, nonetheless, it remains highly speculative what forms these designs took. The closest example may be the sketches on the reverse of the Artemidorus papyrus, but these comprise separate drawings of animals and monsters, as well as details like hands, feet, and heads. Canfora (2007), among others, questions the papyrus’ antiquity. Nothing comparable to what would be needed to replicate the Alexander-Mosaic is preserved. The best colour pictures appear in Gallazzi and Settis (2006: esp. 142-55).
Next the Alexander Mosaic, to state the obvious, is a mosaic. It is not a painting. The closest analogy to what it is like to copy a painting into a mosaic-like format is that twentieth-century invention of paint by numbers. Consider the cover of Esquire with the portrait of Lyndon Johnson by Richard Hess from June 1967. Johnson’s head is divided into a number of irregular sections that are then numbered with the colour of the paint to be used. One should look particularly at how artificial the nose appears with its precisely defined sections, rather than the looser, more feathery strokes that are actually used in painting. Alexander’s nose is similarly constructed, except for its sections being less curved due to the square tesserae. Although the average size of the tesserae is small (0.04-0.08 inches), they still produce more precise edges than Roman wall painting has, like those in the paint-by-number pictures. At the same time the stones—and these are stones not coloured glass—have no real way of matching the colours in a painting. Recall what Pliny the Elder and Pliny the Younger said about matching colours when the original was right in front of the copier. It is highly improbable that the painters could have taken so many precisely cued swatches back to Pompeii with them, especially when the number of tesserae involved is a staggering two million.

So how did the Romans produce an “excellent copy,” as Hölscher puts it, of a Greek original painting from the fourth century BC? They did not. They could not. First—and this argument is insurmountable—in the absence of any original we actually do not have the foggiest notion whether the Alexander Mosaic is a good, bad, or indifferent copy of it. One simply cannot judge the quality of being a copy without the

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Note that Settis (31) refers to the Alexander Mosaic as a “riproduzione intenzionalmente fedele”—a judgement similar to that of Hölscher.

67 In addition to the actual cover, an online reproduction may be found at: [http://americanhistory.si.edu/paint/Images/Large_Images/IMAGE_HTML/lbj.html] This image was part of an exhibition (at the Smithsonian National Museum of American History) on paint by number pictures, for which see Bird (2001) with the Johnson portrait appearing on p. 112.

68 Merola (2006: 38) for both the size of the tesserae and their number.

69 Ragghianti (1964: 24-36) is especially salutary to read on the idea of exact copies of lost Greek paintings. He heads one chapter (p. 30) “The Impossibility of Making ‘Perfect’ Reconstructions of the models of ‘Classical’ Artists.”

70 Some scholars’ desire for a Greek original is so great that they make some remarkable arguments. For example, Cohen (1997: 52) says, “to argue that the surviving image is solely a Roman creation would be to forestall discussion of its rich fourth-century Greek imagery, and the historical associations of this imagery, and confine oneself to issues of reception.”
original for comparison. At this point, then, I think it is necessary to pull together the strands of my discussion to understand what the Alexander Mosaic is and how it works. From the outset, making a copy of a painting presents more problems than that of a single statue. In the case of the Alexander Mosaic two issues are paramount: its size and the colours. I hope I have established that neither was likely to be copied with any degree of exactness. Even today when a model is right before us, as in the case of Lucy and Reba, we are unable to make an exact replica without digital assistance. In classical antiquity, however, one thing was on the side of the copyist that is not the case today: very few people, if any, could or would check to see how well the copy matched the original. At the same time, in part because of these limitations, their standards of precision were different from ours.

Consider the preface to Cicero’s *Topics*:

> on reaching Velia I saw your family [Gaius Trebatius Testa] and your home, I was reminded of ... [my] debt [to write a translation of Aristotle’s *Topics*]. ... Therefore, since I had no books with me, from memory recalled I wrote down these things on the voyage itself. 71

Since we have Aristotle’s *Topics*, we are in a position to judge the quality of Cicero’s translation. Most scholars find little in common between the two works except that they both do discuss the use of “topics” “for inventing arguments ... [using] a rational system.” 72 As the artist of the Alexander Mosaic changed paint into tesserae, so Cicero changed Aristotle’s examples into legal ones which would be more appealing to Trebatius, a lawyer. Similarly Trebatius is not likely to compare Aristotle’s text to Cicero’s, but, like many an art historian today using the *Loeb* translations and not checking the Greek or Latin original, not only will Trebatius be relieved that he does not have to slog through Aristotle’s text, which he found difficult and obscure, but also he will believe that he does, indeed, have Aristotle’s *Topics*. In fact, while I have just used the *Loeb* translation myself—so much easier than making translations from scratch—I have actually adapted that translation to more literally capture what Cicero says. The translator says “I wrote up what I could remember,” when Cicero never uses “could”; instead he says *conscripsi*—“I wrote down”—for Cicero believes he has remembered eve-

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71 Cic. Top. 1.5; translation adapted from the *LCL*. See fuller discussion in Small (1997: 217-19).

72 Cic. Top. 1.2.
rything. He needs no text in front of him. Like most Romans, especially those who were lawyers, he prided himself on his recall. Because he lived in a world still dominated by orality and not literacy, he felt free to switch examples to legal ones because his standard for "copy" is "equivalency" not "identity." In Thucydidean terms the gist is sufficient. Hence we can recognize the three Laocoons discussed above as all being imitations of the "real" Laocoon. In the case of the Alexander Mosaic precision is neither possible nor desired. What we have is a Roman creation in the spirit of Cicero's *Topics* after a Greek original—something that Quintilian would have approved of. As we could not re-create Aristotle's *Topics* from Cicero's *Topics*, so we cannot reconstruct any Greek original from the Alexander Mosaic. Nor in truth can we reconstruct any Greek painting from any Roman painting or mosaic. In classical antiquity gist always trumped precision, because even in the rare cases where precision was possible no one could really check. Orality governs not just the world of texts but also of art.

**Bibliography**

Abbreviations


BAD = Beazley Archive Database:

[http://www.beazley.ox.ac.uk/BeazleyAdmin/Script2/default.htm](http://www.beazley.ox.ac.uk/BeazleyAdmin/Script2/default.htm).


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73 Such a reconstruction would be analogous to reconstructing portions of the *Iliad*, *Odyssey*, and the *Ilioupersis* from Vergil's *Aeneid*. The *Aeneid* stems from the same tradition, but it is an utterly Roman creation that no one suggests is "an excellent copy" of any Greek work.

74 Compare Ragghianti (1964: 27): "If we look at copies actually made by artists (and those which Rubens and Cézanne made of Caravaggios' *Deposition* exist) we find we are faced with another phenomenon, that is that they are really quite new works, in spite of the fact that they depend on an artistic precedent; they are works where the link with a form that was already personal and definite, if it exists at all, is very slight, overwhelmed and obliterated by other values, by a new language. Sometimes the model is completely buried." Bergmann (1995: 81-83) believes (82) that it is a "common illusion that we can anchor them [also the Doryphoros of Polykleitos] in two distinct cultures—Greece and Rome—and make sense of them." She later (97) says, "I would suggest that the primary aim of most muralists was not to replicate exactly a Greek original." She does not, however, appear to consider the Alexander Mosaic a Roman creation.

OED Online = The Oxford English Dictionary Online: [www.oed.com].


Para. = Beazley, J. D. (1971). Paralipomena: Additions to Attic Black-Figure Vase-Painters and to Attic Red-Figure Vase-Painters, 2nd ed. Oxford: Clarendon.


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Figure 5. "Laocoon." Charles Addams. *New Yorker* (April 17, 1975). © Tee and Charles Addams Foundation.

Figure 6. Laocoon. Vatican Museums. Photograph: Archive Timothy O. K. Greevy.
Figure 7. Satyrs: Attic red-figure kylix, Oedipus Painter, c.450 BC. Vatican 16541. Photograph: Alinari / Art Resource, NY ART319401.
