

La grandiosa imitazione. Il grande Plastico di Pompei.

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For better or worse, Pompeii intermediates much of our perception of the Roman world. For two centuries, an endless stream of new discoveries has fixed Pompeii in the public and scholarly consciousness. For the public, the site's continual disinterment has produced a drumbeat of historical wonders: the delicate implements of daily life, the vibrant decoration of great houses, and the full, three-dimensional environments of hundreds of these homes. For scholars, the long duration of Pompeii's investigation has also proliferated a host of new mediating structures, intellectual devices meant to organize the archaeological evidence. Thus, conventional names for buildings were consolidated within a telescopic address system, frescoes were codified within a framework of four illusionistic styles, and many typologies of objects, features, and even space itself were created to contend with the complexity of Pompeii's urban experience. When the grand clearance excavations ended in the 1960s, scholars embarked upon enormous projects to catalog the wealth of information on art, imagery, and publications. Despite, or more accurately because of these efforts, the last decades have seen new digital attempts to overcome the sheer volume of information about Pompeii.¹ Yet these digital initiatives mean that we are now mediating our mediating structures, building frameworks for our frameworks. It is in this context that the Museo Archeologico Nazionale di Napoli (MANN) sought to create a digital, three-dimensional model of its physical model of Pompeii, commonly called the "Plastico," a digital sister one step removed from her material mater.

La grandiosa imitazione: il grande Plastico di Pompei. Dal modello materico al modello digitale by Daniele Malfitana, Giulio Amara, and Antonino Mazzaglia provides essential documentation and discussion of this remarkable "double" artifact, including both the process and the purpose of its digitization. In my extended review of this book, I hope to amplify the work of the authors to situate the Plastico in its many contexts – as a souvenir, as a craft, as a technology, as a scientific instrument – as well as setting the new digital model within its own emerging world of similar electronic objects. I begin with an overview of the book, laying out its chapters and what readers can expect to find (and not) in each. Next, I delve into the history of the Plastico and cork models more generally before turning to this particular 3D model. I conclude with a discussion of how scholars might use the new digital Plastico.

The contents of *La grandiosa imitazione*

La grandiosa imitazione contains two prefatory statements, an introduction, six chapters and an atlas, totaling 313 pages, though the atlas takes up more than half of the text.

¹ Poehler 2023.

A bibliography is present at the end, but there is no index. The prefaces by Paolo Giulierini, then current MANN director, and by Massimo Osanna, previous director of the Parco Archeologico di Pompei (PAP), poetically argue for the value of the Plastico, and its digitization, for both the museum and the archaeological site. In a deeply theoretical introduction, Malfitana, former Director of the Institute for Archaeological and Monumental Heritage (2011–2019), interrogates the idea of the city and what intellectual tools we possess to “read” cities, before turning to this specific document for ancient Pompeii. Indeed, those scholars who lived contemporaneously with the Plastico’s production saw it not only as a remarkable work of art, but also as an act of preservation. Overbeck remarked that it was “the most commendable undertaking of the new era, as anyone who knows to what extent the ruins are exposed to decay will admit” (61). Malfitana connects this previous “new era,” brought about by Pompeii’s most famous superintendent, Guiseppe Fiorelli, to the current moment, a time when so much documentary and organizational effort has been expended on Pompeii by the Grande Progetto di Pompei and subsequently by the Pompeii Sustainable Preservation Project, which Malfitana leads.

Chapter I, by Antonio Mazzaglia, continues the theoretical trajectory of the introduction, exploring the variety and purposes of models, both physical and intellectual. Learned critiques of semiology and the image evolve into deconstructions of virtual reality, placing the Plastico and its digital representation within a constellation of meaning-making processes. But Mazzaglia means this also as a warning, quoting Forte in asking us to not take the models at face value: “there is no methodology without an information theory, there is no absolute cognitive value of technology without an adequate epistemological reflection” (35).² It is from this lofty, if insecure, perch that the text shifts from models of reality in theory, to a history of models in cork.

At the heart of the volume are three chapters by Guilo Amara, who is thanked in Malfitana’s introduction for completing so much of the work to digitize and study the Plastico while still only an undergraduate (2015–2016). Chapter II provides a brief history of cork models and the two iterations of the early Plastico, while the position of these models as media at the birth of photography is addressed in Chapter III (with Giovanni Fragalà). Chapter IV offers an overview of the model of Pompeii itself. I attempt a deeper exploration of these chapters below.

The discussions of digital technologies in this book are next, authored by Antonio Mazzaglia and Danilo Pavone, joined by Giovanni Fragalà (Chapter V) and by Fabiana Cerasa (Chapter VI). Chapter V details the digitization process, from mapping the information design, to rigging a custom scaffolding above the Plastico to complete the capture, to processing and post-processing procedures. The process, which essentially mimicked a drone flight over the real ancient city, resulted in a complete digital model of the Plastico, as well as individual models and orthophotos at different levels of quality (e.g., high, medium, low) covering different segments of the city (e.g., regions, insulae). Chapter VI argues for the potential of the digital Plastico to be not only an artifact and historical document in the real world, but also an instrument and even an information system in the digital realm. To this end, a detailed database of information about the model and its creation was developed in alignment with the larger Piano della Conoscenza of the Grande

² Forte 2006, 30.

Progetto Pompei.³ The authors provide a hypothetical example of a “virtual tour” by drilling down from the entire digital model to the eastern areas of region VII and insula 1 in particular before exploring individually annotated buildings illustrated from multiple angles.

Chapter VII, again by Giulio Amara, is undoubtedly the most interesting as it uses the new digital model to critically examine the fidelity of the original Plastico model and corrects the common claim that the model depicts Pompeii at the moment of its liberation from the lapilli. Finally, the book’s second half is an atlas of the model, insula-by-insula, provided with the purpose of “guiding the reader through that game of references which lead from the model to the real context,” from the digital model, to the Plastico, to Pompeii itself. While this atlas is no substitute for access to the actual digital model, we should nonetheless marvel at the technical achievement and sympathize with the challenge of hosting and providing access to an object representing almost half of an entire ancient city.

The cork model and the “Plastico”

Like today’s complex, digital 3D models, large-scale or intricate cork models were objects of both art and science, requiring considerable skill and expense to produce. Models, of course, have an extremely long history, beginning in the Neolithic, with famous examples known from the ancient Near East, Egypt, and Crete, and encompassing models that were made contemporaneously with Pompeii’s existence in Roman times. Most famous are scale models of temples from Ostia (1:32) and Niha, Lebanon (1:24) that seem to have served as instructional devices.⁴ In Chapter II, however, Amara traces the origins of the Plastico not to didactic architectural models, but instead to the Neapolitan folk art that produced primarily nativity scenes. With the disinterment of the Vesuvian cities in the middle of the 18th c., a new market opened, inviting a felloplastic industry to produce unique, high-end commercial products that catered to wealthy clients wishing to materialize the memories made on their grand tours of the classical world.

Such a commercial origin has implications for what modelmakers thought these objects were for and how they should be designed. In this light, the apparent accuracy of the models in representing their subjects was not driven directly by a scientific interest but was instead a byproduct of a “persuasive communication strategy: to convince and gain the trust of the client” (44–45). Complicating this were the interests of clients, which often were scientific, or at least didactic. The clients’ hoped-for models that were examples of ancient idealized architectural forms served also as a means of preservation. To the collector, models were thus potent intermediaries, halfway points between the lost wisdom of an ancient world and its potential revival in theirs. For the modelmaker to meet this demand required a precision of measurement, quality of execution, and at least the appearance of accuracy in rendering.

The history of the Plastico and its forerunners is relatively poorly documented, as Amara recounts largely based on Kockel’s long engagement with the subject.⁵ The evidence

³ Fichera et al. 2015.

⁴ Mindrup 2019, 13–18 n. 18, 79–82.

⁵ Kockel’s (1998, 11–22) introduction is especially closely followed here.

begins with the surviving model by Giovanni Altieri of the Temple of Isis (1:18) from as early as 1784, while another model of the Villa of Diomedes was also begun in the same year but was never finished.⁶ Its components are now lost. A generation later, between 1821 and 1822, Pompeii superintendent Michele Arditi commissioned Domenico Padiglione to create a second model of the Villa of Diomedes (1:48). Although on display in the MANN through the 1850s, it too has now been lost.⁷ In the preceding decade, Padiglione had already produced a number of models including the Odeon, part of the Amphitheater, and another Temple of Isis, as well as the entire theater district at Pompeii.⁸ It is unclear if the Odeon and Isis Temple were incorporated into the theater-district model, but they are all present in a model (1:80) of the same area in Sir John Soane's Museum, attributed to Paglione. It was perhaps the experience of making these models, commissioned for archaeological purposes and region-wide in scope, that encouraged Padiglione to consider a model of the entire site then excavated. One wonders, however, if he understood that his ambition would extend beyond his lifetime, indeed for more than a century.

Our understanding of the collaborative, staccato, multi-generational endeavor to model all of Pompeii is rife with ambiguity, and the contributors to this volume can be forgiven for not covering all of it or tackling all of its enduring mysteries. Indeed, even the originator of the plan for a model at 1:48 scale is unknown. The idea first appears in a letter written in 1822, and although Amara assigned it to Domenico Padiglione (42), Kockel is convinced the handwriting cannot be his, despite the many discussions of scale and measurement. Ironically, in another letter from 1823, we do learn the origin of the 1:100 scale of the second city model that Fiorelli would commission in 1860.⁹ What is clear is that the first steps toward a complete documentary model at 1:48 scale began in 1822 with a project to recreate the forum area and surrounding public buildings. Domenico's sons, Agostino and Felice Padiglione, extended his commission, notably with models of important residential buildings at this scale, including the House of Sallust (1833), the House of the Faun (1833–1835), and the House of the Tragic Poet (1837–1838). These appear to be the only pieces documented of the comprehensive model of the entire city as excavated, which begs the question if it ever actually existed. That the edges of the forum area – the first area modeled – were still described as unfinished in 1860, when the first model was decommissioned, seems to be evidence that a complete first model did not exist.¹⁰ Only Kockel's conjecture that the rapid pace of the second model's creation between 1861 and 1864 was bolstered by the existence of a complete earlier and larger model offers circumstantial evidence.¹¹

The belief in a full, first, large-scale (1:48) model has helped to suppress another mystery: whether the surviving large models are copies of originals that supposedly remained at Pompeii or are in fact the original models themselves. The first of these is a model made by Agostino Padiglione of the House of Sallust and the southern half of insula VI.2,

⁶ The Isis Temple model is now deaccessioned: <https://collections.smvk.se/carlotta-mhm/web/object/4072359>. On the original Diomedes model, see Kockel 1998, 27, 37–39.

⁷ Dessales 2020, 40–42, esp. n. 69.

⁸ Kockel 1993, 147; Kockel 2004, 145 and n. 24.

⁹ There is a discrepancy between Amara's citation of this letter as Archivio Storico della Soprintendenza Archeologica di Napoli, XIV. B 8, 28 and Kockel's (2004, 148 n. 32) reporting it instead as XIV. B 8, 23.

¹⁰ Kockel 2004, 161 n. 35.

¹¹ Kockel 1993, 142.

preserved in the *Pompejanum* of Ludwig I of Bavaria. Kockel argues that this is a copy produced in 1839–1840 rather than the 1833 original, but it is unclear as to why this must be so.¹² The label for Ludwig I's model reports that its scale “largely correspond[s] to 1:50,” certainly close enough to the original 1:48 scale.¹³ Additionally, in correspondence between Ludwig I and his agent, Martin von Wagner, the king is advised to receive the model as soon as possible because it is suffering from too-frequent touching and showings to strangers.¹⁴ It would seem that if the model were only produced during the last year, and by commission to the King of Bavaria, it should be less likely to be endangered by such conditions. Similarly, Amara suggests that the Theater District model in Sir John Soane's Museum is a copy of the Domenico Padiglione original, possibly because there was a direct ban on sales of models without permission put in place in 1820. While clear in the text (42–43), Amara is vague in his footnote (n. 47) about the Theater District model's originality. Intriguingly, Kockel points out that there

must have been an event that provoked this letter. As far as we know, Padiglione sold a model of the Temple of Poseidon in Paestum to Crown Prince Ludwig of Bavaria (later King Ludwig). This was perhaps the same occasion that the model of the theatre quarter, now in Sir John Soane's Museum, was made.¹⁵

More curious still is that Soane's model was purchased in 1826, soon after the original model's creation, and by auction rather than by commission.¹⁶ Was the sale of the Theater District model a further reason for the government's prohibition? If a city-wide model was envisioned at 1:48 scale, then a Theater District model at 1:80 scale, like the one at Sir John Soane's Museum, would be expendable.¹⁷

Whatever the originality of these individual models or the completeness of the whole to which they may have belonged, by 1860 they were destined to be replaced by a smaller model, initially at one-quarter the size (i.e., 1:200), swiftly corrected to one-half (i.e., 1:100). Such wide differences in scale would preclude direct recycling and reuse of the original models,¹⁸ but their use as a reference might well have been a boon to modeler Felice Padiglione and painter Antonio Servillo. As a physical object of art, the Plastico model was made up of sheets of cork scored by pyrography, as seen in the representation of bare masonry. Frescoes, floors, and ceilings were recreated in tempera and stucco and given vibrant, contrasting colors to enhance the visibility of the miniature artworks. The core of the second model consisted of the areas surrounding the forum, as well as six additional insulae to the north and east, all of which were produced in only a few years between 1862 (when the 1:200 model plan was abandoned) and ca. 1864, when a lithograph of the model was made and published in 1866.¹⁹

¹² Kockel 1993, 142–43. See also Bergmann 2016.

¹³ Kockel 1993, 142; Kockel 2004, 147.

¹⁴ Kockel 1993, 148.

¹⁵ Kockel 2004, 148 n. 32.

¹⁶ See <https://collections.soane.org/object-mr1>.

¹⁷ Although only documented in 1822, the idea of a complete model of the city is easy to imagine as having been understood by Domenico Padiglione (even if not his original idea) prior to this date.

¹⁸ Mindrup (2019, 3 n. 10) offers an interesting example of a cannibalized medieval model.

¹⁹ Amara (56) points out that payment was already made for the model by January 1864. Overbeck 1866.

How the model grew from this original nucleus is, again, imperfectly known. Amara (56) suggests insulae VI.3 and VI.4 were added soon after the image was taken, based on the particular cross-hatching used to indicate bare (*opus incertum* style) masonry.²⁰ Between 1865 and 1908, however, little certainty exists about which parts of the model were made when, other than the banal certainty that they followed the date of excavation. In this period, the contract to continue the Plastico's expansion fell to another family dynasty. Vincenzo Bramante and his sons Alessandro and Emilio worked only slowly and sporadically for reasons of law, process, and health. Another image of the model, a photograph taken in 1897, shows it complete to the line of insulae east of via Stabiana and including six of Region VI's northern blocks. Van der Poel reports that the House of the Vettii model had been begun by the Bramantes and so at least part of (at least) insula VI.15 can be credited to them.²¹ Although slow, the Bramantes' work was masterful:

It is the exact planimetric and altimetric representation, at the ratio of 1/100, of what remains of the ancient city. The streets and the buildings appear there with the most minute particularities of the various methods of masonry, floors, stuccos and wall paintings. It shows Pompeii as seen from above through a lens capable of making the surface 10,000 times smaller and the volume 1,000,000 times smaller.²²

The final period of the model's development was between 1909, when insula XI.5 was completed by Nicola Roncicchi, and 1940, when insulae VI.16 and IX.8 were added to the model. Insula VI.16 was constructed by Antonio Carotenuto and Luigi Auriemma between 1926 and 1939. By contrast, insula IX.8, which contains the House of the Centenary, was completed much more rapidly, between 1937 and 1939.²³ In 1989, following restoration of the model, the awkward extension of the insula IX.8 model was removed and placed in museum storage, leaving the Plastico as the visitor to the model room, or now to the 3D model, will find it.

The Plastico as a digital model

At the moment, however, no one can make use of the digital model outside of the illustrations in the Atlas. No mention is made of when, where, or if the model(s) and underlying data might be made available. Undoubtedly, there are both technical issues and cultural resistance preventing dissemination. Experiments in photogrammetry at Pompeii were already underway in the mid-1990s,²⁴ though laser scanning would dominate over the next two decades, with major campaigns in the Forum (2004), on the fortifications (2007), in the Quadriporticus (2011), and in insula V.1 (2011–2012).²⁵ Between 2010 and 2020, many more projects began to integrate photogrammetric practices into their fieldwork as the cost to produce digital 3D models – both in processing power and expertise –

²⁰ Masonry, and specifically *opus incertum*, was differently executed by the Padiliones, who used a cross-hatch, and later by the Bramantes, who rendered it more naturally (56, Fig. 3; 60, Fig. 6).

²¹ Van der Poel 1981, 107.

²² Amara assigns these words to Sogliano, but the citation to Ruesch (1911, 380) makes no mention of him. This is unfortunately one of many bibliographical missteps and omissions in the volume.

²³ Careful autopsy by Antonella Coralini (288–90) demonstrates the dates of construction, though van der Poel (1981, 108) claims the model was built a decade earlier.

²⁴ Eiteljorg 1995.

²⁵ Balzani et al. 2004; Hori et al. 2007; Poehler and Ellis 2012.

was dramatically reduced.²⁶ Few projects, however, have shared the results of their 3D captures, in whole or even in part.²⁷ Most of those that did make their models available took advantage of the contemporary arrival of 3D hosting platforms, especially Sketchfab.com. In fact, for a time, this seems to have been the plan for disseminating the digital Plastico. In 2016, two accounts were set up: the LAIM IBAM CNR which currently hosts one model and the IBAM CNR Demo account, which hosts 17 models.²⁸ The last two models were posted on June 16, 2016. Unfortunately, the quality of these models is too low for serious research on their contents.

Why more models were never posted is unknown, but the Istituto per i Beni Archeologici e Monumentali del Consiglio Nazionale delle Ricerche (IBAM-CNR) no longer seems to exist. Restarting the Plastico project likely will require an impetus from outside of the original initiative. Perhaps the effort to publish this book is evidence of movement in that direction. Evidence of hurdles other than financial and technological, however, are found in the volume's opening pages. Indeed, the idea that it is "an ethical obligation to disseminate the results of research well beyond the restricted scientific community" was sufficiently foreign that it was described as "what in the United Kingdom is defined as Public Archeology" (7). It is not the case that Italy does not have an *archeologia pubblica*,²⁹ but it remains underappreciated. Work in the Vesuvian region, however, has been a bright spot in this area.³⁰ In fact, efforts to make the archaeological site of Pompeii more accessible,³¹ make its operation more transparent,³² and make its cultural impacts even broader, such as the Pompeii Commitment,³³ have been priorities over the last decade. The importance of these efforts was emphasized by the Covid-19 pandemic, but abatement of that emergency will test the commitment to such principles. I am hopeful that this book will renew interest in the digital Plastico and that we will see its unveiling in the near future.

Using the Plastico

Three-dimensional models have a number of advantages over 2D representations, not least of which is a sense of presence, a "hereness" in Mindrup's terminology.³⁴ Models and their viewers share the same space, rather than projecting into another space as other media do. Models are explored intuitively, allowing our lifetime of experience navigating architectural spaces and objects to guide us toward the information we desire without the training needed to use other information spaces, such as tables, graphs, and filing

²⁶ Anderson 2020; see also Olson and Caraher 2015.

²⁷ The Swedish Pompeii Project is exceptional in this regard: <https://www.pompeijiprojektet.se/insula-v-1/documentation-of-insula-v-1/3d-models-3d-gis/>.

²⁸ Strangely, the account names and their URLs are reversed. LIAM IBAM CNR: <https://sketchfab.com/laimdemo>; IBAM CNR DEMO: <https://sketchfab.com/ibamlaim>.

²⁹ Bonacchi 2013.

³⁰ Ripanti 2017. See *Archaeology* magazine's "Interactive Dig" for Pompeii from 2001 to 2003: <https://interactive.archaeology.org/pompeii/history.html>. More recent is the Apolline Project: <https://www.apollineproject.org/cultural-heritage.html>. Both have strong connections to British institutions.

³¹ <http://pompeiiisites.org/en/visiting-info/pompeii-for-all/>.

³² <http://pompeiiisites.org/parco-archeologico-di-pompei/amministrazione-trasparente/>.

³³ <https://pompeiiicommithment.org/en/>.

³⁴ Mindrup 2019, 2.

Table 1.

Calculations for average modeling date, average excavation date, and average modeling lag.

<i>Insula</i>	<i>Modeling date, earliest</i>	<i>Modeling date, latest</i>	<i>Modeling date, average</i>	<i>Excavation date, earliest</i>	<i>Excavation date, latest</i>	<i>Excavation date, average</i>	<i>Modeling lag, smallest</i>	<i>Modeling lag, greatest</i>	<i>Modeling lag, average</i>	<i>Modelers</i>
I, 1	1878	1890	1884	1852	1872	1862	18	38	22	Bramantes
I, 2	1878	1890	1884	1873	1873	1873	17	17	11	Bramantes
I, 3	1878	1890	1884	1868	1872	1870	18	22	14	Bramantes
I, 4	1872	1890	1881	1853	1933	1893	18	37	12	Bramantes
I, 5	1878	1890	1884	1852	1874	1863	16	38	21	Bramantes
V, 1	1878	1890	1884	1875	1876	1876	14	15	9	Bramantes
VI, 1	1864	1897	1881	1770	1824	1797	73	127	84	Bramantes
VI, 2	1864	1897	1881	1806	1808	1807	89	91	74	Bramantes
VI, 3	1861	1864	1863	1804	1838	1821	26	60	42	F. Padiglione
VI, 4	1861	1864	1863	1804	1809	1807	55	60	56	F. Padiglione
VI, 5	1864	1890	1877	1808	1881	1845	9	82	33	Bramantes
VI, 6	1861	1864	1863	1810	1827	1819	37	54	44	F. Padiglione
VI, 7	1864	1897	1881	1828	1840	1834	57	69	47	Bramantes
VI, 8	1861	1864	1863	1824	1827	1826	37	40	37	F. Padiglione
VI, 9	1864	1890	1877	1826	1842	1834	48	64	43	Bramantes
VI, 10	1861	1864	1863	1824	1831	1828	33	40	35	F. Padiglione
VI, 11	1864	1897	1881	1830	1843	1837	54	67	44	Bramantes
VI, 12	1861	1864	1863	1829	1833	1831	31	35	32	F. Padiglione
VI, 13	1864	1890	1877	1830	1876	1853	14	60	24	Bramantes
VI, 14	1864	1890	1877	1834	1874	1854	16	56	23	Bramantes
VI, 15	1925	1925	1925	1894	1895	1895	30	31	31	N. Roncicchi
VI, 16	1926	1939	1933	1903	1905	1904	34	36	29	Aurienma & Carotenuto
VII, 1	1872	1890	1881	1848	1873	1861	17	42	21	Bramantes
VII, 2	1872	1890	1881	1830	1839	1835	51	60	47	Bramantes
VII, 3	1872	1890	1881	1834	1867	1851	23	56	31	Bramantes
VII, 4	1861	1864	1863	1823	1859	1841	5	41	22	F. Padiglione
VII, 5	1861	1864	1863	1823	1829	1826	35	41	37	F. Padiglione
VII, 6	1861	1864	1863	1759	1762	1761	102	105	102	F. Padiglione

VII, 7	1861	1864	1863	1817	1864	1841	0	47	22	F. Padiglione
VII, 8	1861	1864	1863	1813	1864	1839	0	51	24	F. Padiglione
VII, 9	1861	1864	1863	1813	1864	1839	0	51	24	F. Padiglione
VII, 10	1872	1890	1881	1860	1869	1865	21	30	17	Bramantes
VII, 11	1872	1890	1881	1850	1890	1870	0	40	11	Bramantes
VII, 12	1872	1890	1881	1862	1890	1876	0	28	5	Bramantes
VII, 13	1864	1890	1877	1839	1863	1851	27	51	26	Bramantes
VII, 14	1864	1890	1877	1830	1849	1840	41	60	38	Bramantes
VII, 15	1872	1897	1885	1871	1872	1872	25	26	13	
VIII, 1	1861	1864	1863	1806	1806	1806	58	58	57	F. Padiglione
VIII, 3	1864	1897	1881	1820	1829	1825	68	77	56	Bramantes
VIII, 4	1872	1890	1881	1750	1850	1800	40	140	81	Bramantes
VIII, 5	1889	1897	1893	1820	1889	1855	8	77	39	Bramantes
VIII, 6	1889	1897	1893	1813	1813	1813	84	84	80	Bramantes
VIII, 7	1864	1890	1877	1750	1890	1820	0	140	57	Bramantes
IX, 1	1872	1889	1881	1852	1889	1871	0	37	10	Bramantes
IX, 2	1872	1889	1881	1850	1889	1870	0	39	11	Bramantes
IX, 3	1872	1889	1881	1846	1889	1868	0	43	13	Bramantes
IX, 4	1878	1889	1884	1800	1878	1839	11	89	45	Bramantes
IX, 5	1901	1908	1905	1877	1880	1879	28	31	26	Bramantes;
IX, 8	1929	1929	1929	1880	1899	1890	30	49	40	N. Roncicchi Auriemma & Carotenuto

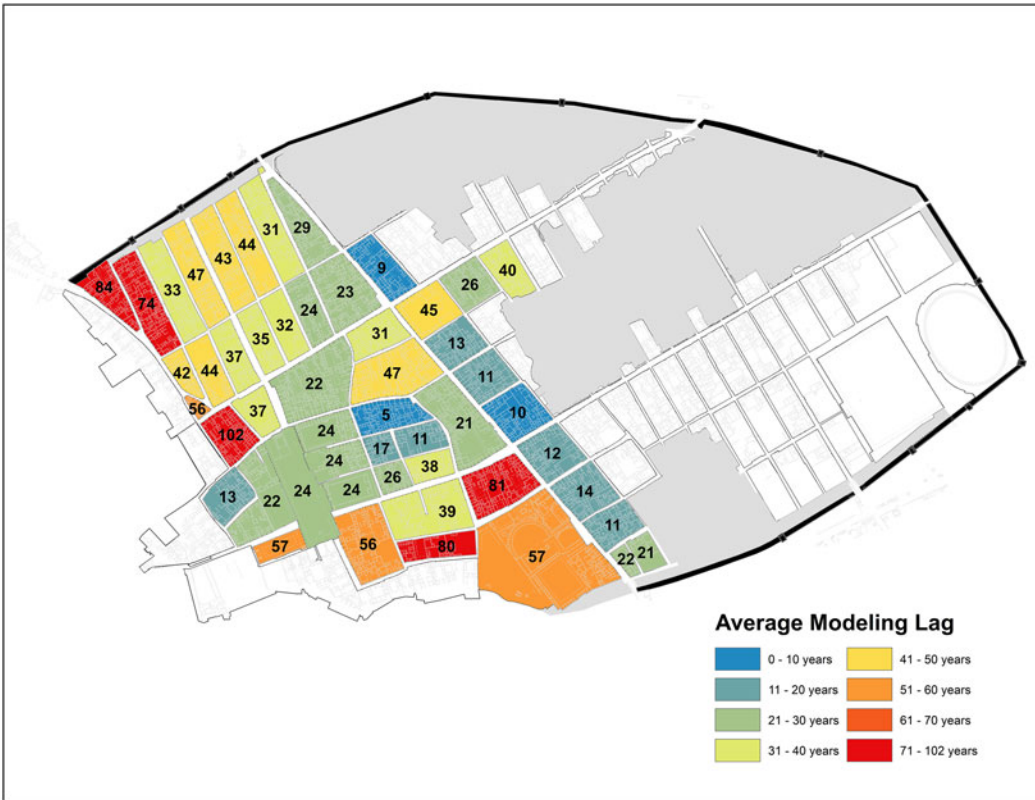


Fig. 1. Map of average modeling lag.

systems. Because they are free of the physics of the world we inhabit, digital models have even greater advantages, such as infinite scaling, impossible views, and simultaneous use.³⁵ In combination with the density and chronology of the archaeological documentation embedded within it, the digital Plastico has the potential to be an extremely powerful research tool.

Yet the Plastico has its own particular limitations, introduced in large part by the vagaries of its production. As the history of the Plastico demonstrated, “in its final form, the Pompeian model constitutes the set of several models produced and progressively assembled: for this reason it will not be possible to ignore the phases of its creation” (55). Users must remind themselves that the Plastico does not show each part of the city at its moment of discovery, and less still, its ancient appearance. Many areas were modeled only after a significant amount of time had elapsed, especially those areas that were created for a second time in the final model. This fact introduces the further complication that some parts of the Plastico are modeling other models rather than the site itself. Finally, there is always simple human error to countenance.

In Chapter VII, Amara explores these intersecting considerations via four somewhat poorly distributed case studies: the House of the Ancient Hunt (VII.4.48), the House of

³⁵ See these concepts illustrated inside a 3D model: <https://sketchfab.com/3d-models/room-035-def84c5577c143dcb10aaec1549188db>.

the Black Walls (VII.4.59), the House of the Citharist (I.4.5.25), and the Officina Coriariorum (I.5.2). His excellent analysis demonstrates that while in many cases the modelers produced faithful representations of what remained to be seen on site at that time based on their direct observations, they also used other documentary sources to recreate architectures and decorations that had subsequently disappeared or were simply more easily accessible that way. Naturally, the degree of reliance on these reproductions will correlate with the number of decades that an area has stood exposed since excavation. For anyone studying these four locations, Amara's autopsy will be indispensable and usefully paired with Kockel's and Heslin's discussions of the Temple of Isis and Temple of Apollo models, respectively.³⁶

For scholars hoping to use the rest of the digital model of the Plastico, it would be useful to know how long a certain area was exposed prior to it potentially being modeled in the Plastico since this will correlate with the degree to which the model will include information not found anywhere else. That is, the closer in time to its excavation that a model was made, the more likely it will be to represent what the excavators first encountered since there will have been less time for degradation of the materials. Similarly, this compression of time means that there might be few illustrations already created and published for the modelers to rely on instead of the site itself. Usefully, the Atlas (mostly) provides both of these sets of data, and so by finding the difference in years between excavation and model production we can generate a table of data (table 1) to represent the rate of modeling lag. Because the dates of excavation are known, but not always contiguous and because the dates of model production are always a range of years, it is necessary to calculate the longest and the shortest possible rate of modeling lag. To represent these data spatially, I have also created a map (Fig. 1), using the average lag in modeling, a rough figure calculated by finding the average year of excavation and average year of modeling and subtracting the former from the latter. For example, insula V.1 was primarily excavated between 1875 and 1876 while the modeling occurred between 1878 and 1890, for an average lag of only nine years.

All told, the data show that while some parts of Pompeii could have been modeled in the same year as their excavation, other (even adjacent) sections might have witnessed a century's delay between exposure and modeling. On average, the modeling lag rate was a generation (35 years). The reader should be aware that the information for these calculations was taken from the Atlas and could be improved by reducing the resolution of excavation dates down to the individual building, where known. Nonetheless, this map and table offer a quick look at the degree to which the model might have represented "fresh" excavations or how much it must have relied on secondary sources.

Conclusion

With the completion of this grand digital humanities project, there is now another link in the chain of experiences available today: from accessing a scan of the Plastico on a computer, to viewing the physical cork model in a museum, to visiting the site of Pompeii itself. In closing, it is important to consider the position of this new experience in the long history of illustrating the ancient city. For Goethe (Rome, 1 November 1786), a first visit to Rome was a validation of his previous encounters with its representations:

³⁶ Kockel 1998, 72–89; Heslin 2015, 20–23.

All my dreams of youth, I see them live before my eyes; the first etchings I can remember (my father had many views of Rome hanging in a room of our house) I now see in reality; and all that I have known for a long time in painting and in drawing, in copperplate and woodcut, in plaster and cork, is here all together before me, all now gathered before my eyes, and wherever I go I find an ancient knowledge in a foreign world. Everything is as I imagined it, and everything is new. (Quoted on page 39)

We see here an appetite for the real, whetted by the simulacra of cutting-edge technology of 250 years ago. When made available online to the public, the digital Plastico likely will have the same effect, driving a public hunger to visit the Naples Museum and Vesuvian cities.

The internet, however, is obviously a commercial as well as cultural marketplace, and we should also anticipate both the commodification of the digital Plastico and resistance to those forces. Like Saint-Non's grand folios (*Voyage Pittoresque de Naples et de Sicile*, 1781–1786), which brought the ancient world into the homes of paying customers, modern entrepreneurs will see the landscapes of Pompeii as digital assets to be sold to individuals and to companies. Indeed, it is already possible to buy a model of the Pompeii amphitheater for a mere \$10.³⁷ Soon we might expect the city digitally recreated at scale to be reused in fantastic virtual gaming environments. In this regard, it is no surprise that Epic Games purchased the Sketchfab hosting platform in 2021. It is hard to imagine these considerations are not impacting the decision to keep the digital Plastico largely offline; a 21st-c. parallel of the sales ban placed on Domenico Padiglione.³⁸

But while the government in 1820 could prevent those with the ability to see the ancient city from distributing their vision of it in physical media, today the ubiquity of cellphones and social media make attempts to regulate such access a fool's errand and even likely counterproductive, as Goethe's quote suggests. More important for the academic community is the fact that these digital photographs, taken in their millions, are shaping an archaeological record of Pompeii that will undoubtedly skew our perception of the ancient city around these first decades of the 21st c., just as the Plastico model fixed a certain perception around the middle of the 19th c. We should also reflect on the observation that Saint-Non chose to frame his illustrations of "ancient ruins as a residue of that distant past in which history was still in harmony with nature" (38) and ask what the depthless gray voids that surround our digital models of the same ruins are in harmony with.³⁹

Finally, it is easy to appeal to the proverb that "imitation is the sincerest form of flattery" when considering that nearly every archaeologically oriented technology seems to find its way to Pompeii for expression. From photography to balloon flight, from felloplasty to photogrammetry, each technique is brought to the ancient city for a subject worthy of its contemporary hype. Yet we should also recall, when judging the continually closing gap

³⁷ https://sketchfab.com/3d-models/amphitheatre-of-pompeii-italy-f366e19b932a43b19c0513b5e55214a8_

³⁸ The PAP website makes clear that, to this day, "in accordance with existing regulations, the reproduction of state-owned cultural assets requires permission from the competent Archeological Park and, except for study purposes and personal use, is subject to payment of a fee." <http://pompeiiisites.org/en/archaeological-park-of-pompeii/application-forms-for-use-of-images/>.

³⁹ Amara quotes Gilpin (1792, 46) in n. 5. See also Moormann 2018, 7–8.

La grandiosa imitazione. Il grande Plastico di Pompei.

between the real and its representation, that there is more to that proverb: “Imitation is the sincerest form of flattery that mediocrity can pay to greatness.” The Plastico of Pompeii, in physical and now digital forms, is well worth its appellation of *la grandiosa imitazione* as it is as close as we can get to the greatness of its archaeological materials and to the wonder they evoked in the centuries of moments that make up Pompeii’s rediscovery.

References

- Anderson, M. A. 2020. “Structure from motion and archaeological excavation: Experiences of the Via Consolare Project in Pompeii.” *Studies in Digital Heritage* 4: 78–107.
- Balzani, M., N. Santopuoli, A. Grieco, and N. Zaltron. 2004. “Laser scanner 3D survey in archaeological field: The Forum of Pompeii.” In *International Conference on Remote Sensing Archaeology: October 18–21, 2004. Beijing, China*, 169–75. Beijing: Joint Laboratory of Remote Sensing Archaeology in affiliation to the Chinese Academy of Sciences, Ministry of Education, and State Bureau of Cultural Relics.
- Bergmann, B. 2016. “A tale of two sites: Ludwig I’s Pompejanum and the House of the Dioscuri in Pompeii.” In *Returns to Pompeii. Interior Space and Decoration Documented and Revisited in the 18th–20th Century*, ed. S. Hales and A.-M. Leander Touati, 183–215. Acta Instituti Romani Regni Sueciae 62. Stockholm: Svenska Institutet.
- Bonacchi, C. 2013. “The development of Public Archaeology in Italy: A review of recent efforts.” *Public Archaeology* 12: 211–16.
- Dessales, H., ed. 2020. *The Villa of Diomedes: The Making of a Roman Villa in Pompeii*. Paris: Hermann.
- Eiteljorg, H. 1995. “Single-photo photogrammetry at Pompeii in 1995.” *Pompeii Forum Project*. <http://pompeii.virginia.edu/ann-rpts/95/pg-95.html>.
- Forte, M. 2006. “Tra conoscenza e comunicazione in archeologia: considerazioni in margine alla terza dimensione.” In *Laser scanner e GPS. Paesaggi archeologici e tecnologie digitali*, ed. R. Francovich and S. Campana, 23–40. Florence: All’Insegna del Giglio.
- Fichera, M. G., L. Malnati, and M. L. Mancinelli. 2015. “Grande progetto Pompei: la direzione generale per le antichità e il piano della conoscenza.” In *Il SITAR nella Rete della ricerca italiana. Verso la conoscenza archeologica condivisa. Atti del III Convegno (Roma, Museo Nazionale Romano, 23-24 maggio 2013)*, ed. M. Serlorenzi and G. Leoni, 25–31. Sesto Fiorentino: Archeologia e Calcolatori.
- Gilpin, W. 1792. *Three Essays: On Picturesque Beauty; On Picturesque Travel; and On Sketching Landscape: To Which is Added a Poem, On Landscape Painting*. London: R. Blamire.
- Heslin, P. 2015. *The Museum of Augustus: The Temple of Apollo in Pompeii, the Portico of Philippus in Rome, and Latin Poetry*. Los Angeles: Getty Publications.
- Hori, Y., O. Ajioka, and A. Hanghai. 2007. “Laser scanning in Pompeian city wall: A comparative study of accuracy of the drawings from 1930s to 40s.” *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives* 36. https://www.isprs.org/proceedings/xxxvi/5-w47/pdf/hori_et_al.pdf.
- Kockel, V. 1993. “Das Haus des Sallust in Pompeji. Eine dreidimensionale archäologische Dokumentation aus dem 19. Jahrhundert.” In *Rom über die Alpen tragen. Fürsten sammeln antike Architektur: Die Aschaffener Korkmodelle*, ed. W. Helmberger and V. Kockel, 134–48, 345–47. Landshut-Ergolding: Arcos.
- Kockel, V. 1998. *Phelloplastica: modelli in sughero dell’architettura antica nel XVIII secolo nella collezione di Gustavo III di Svezia*. Jonesred: Åström.
- Kockel, V. 2004. “Towns and tombs. Three-dimensional documentation of archaeological sites in the Kingdom of Naples in the late eighteenth and early nineteenth century.” In *Archives and Excavations: Essays on the History of Archaeological Excavations in Rome and Southern Italy from the Renaissance to the Nineteenth Century*, ed. I. Bignamini, 143–62. London: British School at Rome.
- Mindrup, M. 2019. *The Architectural Model: Histories of the Miniature and the Prototype, the Exemplar and the Muse*. Cambridge, MA: MIT Press.
- Moormann, E. M. 2018. “The appreciation of Pompeii’s architectural remains in the late 18th and early 19th Century.” *Architectural Histories* 6: 1–11.

- Olson, B., and W. Caraher, eds. 2015. *Visions of Substance: 3D Imaging in Mediterranean Archaeology*. Grand Forks, ND: The Digital Press at The University of North Dakota.
- Overbeck, J. 1866/1884. *Pompeji in seinen Gebäuden, Alterthümern und Kunstwerken*. Leipzig: Verlag von Wilhelm Engelmann.
- Poehler, E. 2023. "Pompeii as archive." In *Shaping Archaeological Archives: Dialogues between Fieldwork, Museum Collection, and Private Archives*, ed. R. Raja, 127–42. Turnhout: Brepols.
- Poehler, E., and S. Ellis. 2012. "The 2011 season of the Pompeii Quadriporticus Project: The southern and northern sides." *The Journal of Fasti Online* 249: 1–12.
- Ripanti, F. 2017. "Italian public archaeology on fieldwork: An overview." *Archeostorie. Journal of Public Archaeology* 1: 93–104.
- Ruesch, A. 1911. *Guide illustré du Musée National de Naples, approuvé par le Ministère de l'Instruction Publique*. Naples: Richter.
- Van der Poel, H. B. 1981. *Corpus Topographicum Pompeianum. Pars V. Cartography*. Austin, TX: University of Texas.

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The archaeology of childhood in the Etruscan-Italic world

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GOVI, E., ed. 2021. *Birth: archeologia dell'infanzia nell'Italia preromana*, 2 vols. Collana Disci. Bologna: Bononia University Press. Pp. 930, figs. ISBN 978-8-8692-3884-0.

The archaeology of childhood, like other current trends in archaeology, answers a need to reflect on the gradual shifting of interest – in the humanities, in history, and in social science – from general systems and laws to the variability of microhistory, from norms to differences, the particular, the contingent, a shift reflecting deep changes in the global politico-social scenario. It answers a need to investigate the ambiguities, contradictions, and tensions that run through societies and the material culture that is an integral part of social contexts. As the editor points out, the papers in this book outline a polyhedric semantic picture that does justice to the variability and complexity of the phenomenon.

The peculiarity of the Italian situation is due to the multiplicity and polymorphism of Etruscan-Italic archaeological contexts, which, along with Italian scholars' strongly historicist approach, has made it difficult to follow a uniform theoretical path, despite the fact that the archaeology of funerary contexts in Italy has had a sound theoretical basis ever since the late 1970s. At that time, B. d'Agostino and A. Schnapp laid the foundation of a semiology of necropoleis by recognizing the multifunctionality of funerary signs.¹ From the 1980s onward, d'Agostino addressed the question of the demographic representativity of

¹ d'Agostino and Schnapp 1982.