

8-2023

## Who Sings and Who Falls Silent? A Spatial and Social Analysis of Virgilian Graffiti in Pompeii

Rachel Murray  
*University of Arkansas-Fayetteville*

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Who Sings and Who Falls Silent?  
A Spatial and Social Analysis of Virgilian Graffiti in Pompeii

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts in Comparative Literature and Cultural Studies

by

Rachel Murray  
University of Arkansas  
Bachelor of Arts in Classical Studies and German, 2017

August 2023  
University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

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David Fredrick, Ph.D.  
Thesis Director

---

Rhodora Vennarucci, Ph.D.  
Committee Member

---

Curtis Maughan, Ph.D.  
Committee Member

---

Mohja Kahf, Ph.D.  
Committee Member

## Abstract

This study analyzes Pompeian domestic spaces in which graffiti that quote the works of Virgil have been found. This is particularly compelling because of the *Aeneid's* status as a 'national epic,' simultaneously 'high' culture and seemingly part of the 'common' imagination. In the past scholars have argued that the presence of Virgilian graffiti was not indicative of widespread interaction with Virgil, and that a select few individuals were responsible for these quotations. Drawing from ideas proposed by modern graffiti studies and spatial theorists and employing the methodology developed by the Virtual Pompeii Project, this study uses network analysis measures to show that a variety of people likely created Virgilian graffiti, rebutting former assumptions that they were the work only of educated elite men or school children.

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## Introduction

The past few decades have seen an explosion of interest in the study of ancient graffiti and what information these personal and tactile messages from the past can give to modern scholars. Increasingly, these studies have recognized the importance of analyzing these graffiti *in situ*, as they would have been written and read in the past. Graffiti are a particularly interesting body of texts to study because of their inextricable connection to place and space. An ancient book of poetry may have been written or read anywhere, but once a graffito is placed on a surface, it cannot be moved. Therefore, any study of graffiti must include study of the spaces in which they are found. The graffiti of Pompeii provide an especially useful body of evidence for accomplishing this. When the eruption of Vesuvius in 79 CE buried the town, it not only preserved thousands of examples of ancient graffiti, incised, painted, and written with charcoal, it also ensured many would remain in their spatial context to be discovered and studied later, with at least some of their decorative surrounding preserved. The graffiti of Pompeii have captured the imagination of scholars since excavation of the city began in the late 18<sup>th</sup> century, and they have elicited no end of speculation about when and why they were written, by whom, and for what audience. There is a fascinating subset of these graffiti that even quote works from famous authors such as Ennius, Propertius, and Ovid.<sup>1</sup> No author, however, is more heavily referenced on Pompeiian walls than Virgil.

Of the many thousands of graffiti found in the city, the majority are found within domestic spaces, the interiors of ‘private’ homes, which is one important way they are distinct from formal wall-writing like lapidary inscriptions or political *programmata*, painted campaign

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<sup>1</sup> Kristina Milnor, *Graffiti and the Literary Landscape in Roman Pompeii* (Oxford: Oxford UP, 2014), 247.

posters for local offices.<sup>2</sup> Virgilian graffiti are no exception, with 34 examples recorded in houses throughout the city. Many have seen these graffiti as no more than schoolboy exercises, or the bored scribbles of the wealthy elite. This study, however, challenges this idea by analyzing these quotations and adaptations in more detail, with a data-driven spatial analysis of where they are found. Because graffiti are texts that appear in space, this study combines examination of the quotations themselves with an analysis of their spatial context by calculating network topology measures for the houses in which they are found. Network topology treats spaces within a house as nodes connected by edges (doorways) and measures the flow of information through these nodes. Drawing on the methodology developed by the Virtual Pompeii Project, network topology maps were created for 17 houses found in a variety of locations throughout the city. The data collected from these maps suggest that no one group of people was engaged in creating these graffiti and that they were created for more than one or two privileged spaces for their performance, opening up new possibilities for ancient interaction with Virgil's poetry across a range of spatial and social registers.

I will begin with an overview of modern graffiti studies because some theories developed in this field are applicable to ancient graffiti and as modern scholars, our understanding of ancient graffiti is by necessity colored by our perceptions of modern graffiti. With this foundation, I will continue with a survey of ancient graffiti studies and end with a discussion of spatial theory and a brief description of approaches and methodology of the Virtual Pompeii Project. The next section covers recent approaches to Pompeiian graffiti specifically and ends with a discussion of the typology of all Virgilian quotations found so far and the ones that form the core of this study. After an explanation of my methodology for producing and analyzing the

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<sup>2</sup> Rebecca R. Benefiel, "The Culture of Writing Graffiti within Domestic Spaces of Pompeii" in *Inscriptions in the Private Sphere in the Greco-Roman World*, eds. Rebecca R. Benefiel and Peter Keegan (Leiden: Brill, 2016), 83.



house graphs, I will discuss the trends in the distribution of Virgilian graffiti uncovered by this analytic approach. Finally, I will end with a discussion of the House of M. Casellius Marcellus that contains four examples of Virgilian graffiti that illuminate, through their content and relation to space, how non-elite Romans responded to Virgil as active writers and readers.

### ***Graffiti, Ancient and Modern***

In his groundbreaking 1971 study, Reisner recognizes the innate human impulse for communication, of which graffiti form an important, if overlooked, genre.<sup>3</sup> Humans have been writing on walls since writing and walls have existed, but it was not until the end of the 20<sup>th</sup> century that modern graffiti began to be considered a legitimate form of creative expression.<sup>4</sup> Though this study is concerned with the ancient graffiti of Pompeii, the theoretical approaches developed in response to modern graffiti can still be useful in understanding this distinctly human habit, if only because modern studies of ancient graffiti are inevitably colored by perceptions of modern graffiti, which are a constituent part of how most people experience and define “the city.” Therefore, grounding this analysis in the study of graffiti more broadly will offer more nuance and critical depth than a strictly epigraphical approach. Ross identifies four axes along which graffiti can be examined: authorized vs. unauthorized, content, writer, and location.<sup>5</sup> The Virgilian quotations discussed in this study can be investigated along similar axes. The verse/work chosen and the location where it was written are simple enough to answer through archaeological reports and entries in the *Corpus Inscriptionum Latinarum (CIL)*, and it is these details that may offer evidence for the identity and status of the writer and the permissibility of the action. It should be noted, however, that providing a critical, data-informed

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<sup>3</sup> Robert Reisner, *Graffiti: Two Thousand Years of Wall Writing* (Chicago: Cowles, 1971), 1-2.

<sup>4</sup> Jeffrey Ian Ross, “Introduction: Sorting It All Out” in *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (London & New York: Routledge, 2016), 1-10.

<sup>5</sup> Ross, 1.

assessment of space within Roman houses remains an ongoing project, since the traditional concept of the “Roman house” and its associated nomenclature for the rooms is not well supported by evidence, or adequate for meaningful spatial analysis.<sup>6</sup>

Graffiti, both ancient and modern, is not the property of one scholarly community, occupying instead what Brighenti calls an “interstitial space,”<sup>7</sup> which is both an advantage and a hindrance. One must search many corners of scholarship with often prohibitively complex terminology, but at the end lies the opportunity for in-depth, interdisciplinary analysis. Schacter, who approaches graffiti from an anthropological background, chooses to discard questions of authorization and discuss all graffiti, regardless of content, as ornamentation.<sup>8</sup> Graffiti are, by their nature, an ornament because they are “an auxiliary element on a customarily architectural surface” and can only exist through a “secondary medium,” granting importance to and enhancing the visual engagement of whatever surface on which they appear.<sup>9</sup> Though this idea has intriguing implications for the large, painted campaign posters and advertisements that appear on public-facing Pompeiian walls, many of the graffiti found in Pompeii are often small and lightly scratched. The pleasure of a Pompeiian graffito is perhaps not in any eye-catching visual appearance but rather in the delight of having spotted it, adding a performative element to Schacter’s theory of ornamentation. To discover the lines of Virgil in Pompeiian houses sometimes requires the reader to inhabit the same physical space, and even bodily location, of the writer.

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<sup>6</sup> Penelope M. Allison, “Domestic Spaces and Activities,” in *The World of Pompeii*, eds. John J. Dobbins and Pedar W. Foss (London & New York: Routledge, 2007), 269.

<sup>7</sup> Andrea Mubi Brighenti, “At the Wall: Graffiti Writers, Urban Territoriality, and the Public Domain.” *Space and Culture* 13, no. 3, 2010: 316-7; Ross, 3; cf. J.A. Baird and Claire Taylor, “Ancient Graffiti” in *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (London & New York: Routledge, 2016), 17.

<sup>8</sup> Rafael Schacter, “Graffiti and Street Art as Ornament” in *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (London & New York: Routledge, 2016), 141.

<sup>9</sup> Schacter, 142-3.

The act of creating the graffiti, which carries potential legal repercussions in the modern era, is itself a type of performance. As Ferrell has noted, it was the “risk, skill, and adrenaline rush” inherent in their creation that made modern graffiti, an innately ephemeral art before the proliferation of digital cameras, a desirable undertaking.<sup>10</sup> But, of course, the risk of punishment associated with graffiti-making in the modern era is inextricably tied to the type of space in which (or on which) it takes place. For a modern person to write a message on an interior wall of their own dwelling or a bar’s bathroom stall is not nearly as risky as attempting to write a message on the base of the Washington Monument. In fact, by some modern definitions the first might not even be considered a graffiti because of its location; writing on the bathroom stall is an example of graffiti, but not nearly of the same magnitude as tagging a national monument.<sup>11</sup> The spatial and performative quality of graffiti exists both for graffiti-maker and graffiti-viewer, as Bowen discusses in an analysis of Graffiti Alley in Toronto and Lilac Alley in San Francisco.<sup>12</sup> Not only is the creation of graffiti a haptic experience for the maker, but also the reader as they experience a graffiti *in situ*, perhaps even imagining themselves in the maker’s position in the act of creation. Thus, graffiti act as a means of physical communication that extends beyond understanding the semantic meaning of the words or pictures inscribed or painted on the wall. Graffiti have the ability to create or modify space by manipulating the reader’s experience of that space, a premise that is critical to this study’s use of network topology to analyze space in Pompeian houses.<sup>13</sup> As Brighenti points out, walls define space *physically* by limiting movement and visibility as well as *socially* by managing encounters and the flow of information.<sup>14</sup> Because

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<sup>10</sup> Jeff Ferrell, “Foreward: Graffiti, Street Art, and the Politics of Complexity” in *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (London & New York: Routledge, 2016), xxxiv.

<sup>11</sup> It would, however, be considered graffiti by ancient definitions, discussed in more detail below.

<sup>12</sup> Tracey Bowen, “Graffiti as Spatializing Practice and Performance.” *Rhizomes* 25, 2013: para. 6.

<sup>13</sup> Bowen, para. 21.

<sup>14</sup> Brighenti, 322.

of this, walls become the front line for defining, claiming, and reclaiming territories, the aggregation of which makes up the public domain.<sup>15</sup> Graffiti-writing is a powerful tool to accomplish this; the writer physically leaves their mark on the wall for the reader to find and consider.

The power of graffiti to make and shape space is at the root of the modern aversion to graffiti and the contrary push for its acceptance in the mainstream. Striving for the acceptance of graffiti, in the form of both writing and images, as ‘real’ art has become the mission of some scholars. McCormick argues that the creation of graffiti in clear defiance of laws or social mores in itself classifies graffiti as “important, even great, art.”<sup>16</sup> Though much graffiti from the medieval and early modern periods can be traced to invading armies, casting graffiti as another means of physical domination over a location rather than a form of artistic expression, there is a “second history of mark-making” created by those rebelling against the status quo. The ephemeral nature of modern wall-writing can represent the “frailty” of the voice of the oppressed.<sup>17</sup> The image of graffiti-maker as the disempowered shouting into the void is complicated, or perhaps enriched, by the appearance of Virgilian quotations on the walls of Pompeii. Are they the result of bored Pompeiian schoolboys, minds wandering during lessons on rhetoric and grammar, or could they be the “people’s voice” speaking back to the elite through the elite’s own poetry?<sup>18</sup> It is important to note that these Virgilian quotations not only utilize ‘elite’ poetry, but seemingly ‘elite’ spaces as well, appearing in large, urban *domus* likely owned by wealthy families. In actuality, the ‘elite’ status of these spaces is not clearcut; many large

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<sup>15</sup> Brighenti, 329.

<sup>16</sup> Carlo McCormick, “The Writing on the Wall” in *Art in the Streets*, eds. Jeffrey Deitch, Roger Gastman, and Aaron Rose (New York & Los Angeles: Skira Rizzoli, 2011), 20.

<sup>17</sup> This is more so the case for painted graffiti, which are easily covered or scrubbed away. Graffiti that are scratched into surfaces, as are often found at Pompeii, are more permanent.

<sup>18</sup> McCormick, 20-2.

houses were owned by the formerly enslaved after attaining freedom. The *domus* was also a space of interaction for many different people: the inhabiting family, clients, visitors, and enslaved people both within and outside the household. The act of scratching anything into these domestic walls is an act of laying some form of claim to a space. In his study of the Denver graffiti scene of the 1990s, Ferrell argues that tagging a wall is a means of resisting power structures reinforced by the manipulation of public space through surveillance, intrusions of private property into public areas, and a growing police force.<sup>19</sup> A Pompeiian graffiti-writer may be participating in a similar process, physically leaving their mark on a space to claim however small a piece of it.

Thus, it is not only the content of the graffiti that deserves study, but the location as well. Chmielewska has argued for the study of graffiti in both their spatial and linguistic contexts, noting that a graffiti calls “attention to self while designating specific place.”<sup>20</sup> As an example, Megler et al. analyzed the distribution of graffiti reports in San Francisco to test the idea that more graffiti exists in areas with larger populations of young males and in commercial (public) spaces.<sup>21</sup> Their statistical analysis supported both hypotheses, showing that more graffiti was reported in these areas. In addition to resisting dominant power structures, Ferrell also theorized that young men, a group that is more likely to produce modern graffiti, mark walls to communicate with or advertise themselves to other young male graffiti artists.<sup>22</sup> These modern graffiti artists seem more likely to put their art somewhere easily accessible to those they would wish to see it, but graffiti are not always located in readily visible areas. As Ferrell has noted, many factors influence the consideration of graffiti location. A public space may be chosen to

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<sup>19</sup> Jeff Ferrell, “Urban graffiti: Crime, Control, and Resistance.” *Youth & Society* 27, no. 1, 1995: 79.

<sup>20</sup> Ella Chmielewska, “Framing (Con)Text: Graffiti and Place.” *Space and Place* 10, no. 2, 2007: 151.

<sup>21</sup> Veronika Megler et al., “Spatial Analysis of Graffiti in San Francisco.” *Applied Geography* 54, 2014: 63.

<sup>22</sup> cf. Ferrell, “Urban Graffiti.”

reach a wider audience; this appears to be the case for the *programmata*, political campaign posters, found on the public walls of Pompeii, discussed in more detail below. A secluded location, on the other hand, offers a more intimate experience for a selective audience, as may be the intention behind the location and small size of the domestic Virgilian graffiti discussed in this study. The writer might also consider the cultural significance of a location and the type of audience thought to frequent such areas.<sup>23</sup> These considerations are especially important for the selection of graffiti analyzed in this study because they appear in ‘domestic’ spaces. However, tension between ‘public’ and ‘private’ comes to a head in the Roman *domus*, which acts as both a dwelling for the household (including enslaved people) and a place of business and socialization.

Graffiti appear throughout the Greco-Roman world on surfaces from many different time periods in many different locations.<sup>24</sup> Though the study of modern graffiti offers useful lenses through which to analyze ancient wall-writing, there are key differences between ancient and modern graffiti. Most modern graffiti, unless christened with the more elevated label ‘street art,’ are illicit productions, but notions of (il)legality are much less important in the study of ancient graffiti.<sup>25</sup> Graffiti appear in homes and sacred spaces with little indication that this would be frowned upon. It might surprise a modern audience to learn that in Pompeii far more graffiti exist within domestic spaces than in or on public buildings, and there is little to indicate it was only inhabitants who produced it.<sup>26</sup> Ancient graffiti should therefore be thought of not as vandalism, but another form of writing practiced by many people of different backgrounds. This is supported

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<sup>23</sup> Ferrell, “Foreword,” xxxii.

<sup>24</sup> J.A. Baird and Claire Taylor, “Ancient Graffiti,” in *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (London & New York: Routledge, 2016), 17.

<sup>25</sup> Baird and Taylor, “Ancient Graffiti,” 19.

<sup>26</sup> Benefiel, “Culture,” 83.

by the sheer number of examples found in Pompeii and elsewhere; clearly graffiti-writing (and reading) was a popular habit.

Some of this discrepancy between modern and ancient understandings of graffiti is owed to ancient conceptions of ‘public’ and ‘private,’ which were muddled even in their own time. Domestic spaces, which are seen as private to modern Americans, were often locations for business in antiquity; for example, Roman clients were expected to pay visits to their patrons in their homes to conduct their business, called the *salutatio*. The blurring of the line between public and private can be seen in the uses of sidewalks in Roman city, as discussed by Wallace-Hadrill. Sidewalks were open to public access and under the authority of the *aedile*, a government office, but upkeep was the responsibility of the owner whose property abutted the sidewalk.<sup>27</sup> This tension between public and private extends from the sidewalk into the *domus* itself, where some rooms were meant to be displayed to the public, whereas others were closed off to all but the inhabitants. Therefore, it is difficult to apply the term ‘illicit’ to graffiti in a Pompeian house. They are, however, an unofficial means of communication, not commissioned by state or citizen as an official inscription would be. Graffiti also evoke, as Wallace-Hadrill points out, the sphere of private communication, as their creation mimics the act of writing on wax tablets or composing letters, but this is complicated by the public nature of their creation.<sup>28</sup> Depending on the time of day and location of the graffiti, someone could easily watch the graffiti-writer as they make their mark in/on the plaster and inspect their work once they finish, reinforcing what Baird calls the “embodied practice,” the performative quality of both creating

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<sup>27</sup> Andrew Wallace-Hadrill, “Inscriptions in Private Spaces” in *Inscriptions in the Private Sphere in the Greco-Roman World*, eds. Rebecca R. Benefiel and Peter Keegan (Leiden: Brill, 2016), 2.

<sup>28</sup> Wallace-Hadrill, “Inscriptions,” 6.

and reading graffiti.<sup>29</sup> This embodied quality of graffiti is also deeply rooted in their spatial context; the surface material, house/room layout, decoration, and any additional nearby graffiti all affect a graffito's creation and reception. Analyzing these spaces provides information about the graffiti they contain, especially useful when other evidence about their creation is incomplete or lacking altogether, because the space itself influences social dynamics.

### ***Spatiality and Spatial Analysis***

Spatial analyses are key not only for the understanding of graffiti, a deeply spatialized means of communication, but also because of space's ability to create and control social reality. De Certeau recognized the impact space has on humanity beyond, or perhaps as the result of, the physical containment and articulation of area by built environments, claiming that "spatial practices in fact secretly structure the determining conditions of social life."<sup>30</sup> He also discusses space as a lived experience, citing a woman from Rouen who states that one's home is the only *place* left, a space "still open for a certain time to legends, still full of shadows."<sup>31</sup> This juncture of physical space, represented space, and lived experience is also found in Lefebvre's concept of space as a means of production, domination, and control.<sup>32</sup> Lefebvre describes space along three planes: the physical creation by a society (practical space), the mental concept held by the professionals who work with space (represented space), and space as it is experienced by the people who use it (representational space).<sup>33</sup> Drawing on Lefebvre's representational space, Soja coined the term 'thirdspace' to describe where measurable, physical space meets the mental idea

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<sup>29</sup> J.A. Baird, "Private Graffiti? Scratching the Walls of Houses at Dura-Europos" in *Inscriptions in the Private Sphere in the Greco-Roman World*, eds. Rebecca R. Benefiel and Peter Keegan (Leiden: Brill, 2016), 16.

<sup>30</sup> Michel de Certeau, "Walking in the City," in *The Cultural Studies Reader*, ed. Simon During (London & New York: Routledge, 1993), 157.

<sup>31</sup> De Certeau, 159.

<sup>32</sup> Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith, (Malden, MA: Blackwell, 1991), 26.

<sup>33</sup> Lefebvre, 38-40.



and emotional experience of those who live it.<sup>34</sup> Thirdspace is also how people *inhabit* space, especially when that results in the renegotiation of identity. As Soja argues, “these lived spaces of representation are thus the terrain for the generation of ‘counterspaces,’ spaces of resistance to the dominant order arising precisely from their subordinate, peripheral or marginalized positioning.”<sup>35</sup> The concept of thirdspace is especially applicable to the Roman *domus* as inhabited by those Other in gender or status, at once the domain of the *dominus* built to reinforce his power and also a place where these same power dynamics are in flux, which can be seen in the spatial analysis of the houses in this study.

The methodology employed in this study is heavily indebted to the work undertaken by the Virtual Pompeii Project, in which the research team applied network analysis to the entirety of Regio VI in Pompeii. That research, in turn, was shaped by a need to modify the theory of space syntax to better account for a space’s effect on human behavior and movement. With the publishing of their book *The Social Logic of Space* in 1984, Hillier and Hanson took an important step toward developing a means of mathematically measuring the importance of spaces, recognizing that the organization of space generates and limits social reproduction, as argued by de Certeau, Lefebvre, and Soja. The result of their work is a framework for describing systems of spaces based on quantifiable relationships between them, with implications for any power structures therein. As the name suggests, space syntax analysis (SSA) provides a way of ‘reading’ space the way one might read an ancient text, allowing the layout of rooms to communicate information about the culture that built them. Unlike reading a text, however, the process of applying SSA to a structure involves converting physical space into numbers that can

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<sup>34</sup> Edward W. Soja, *Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places*, (Malden, MA: Blackwell, 1996), 57.

<sup>35</sup> Soja, 68.

be analyzed and graphed. This approach is particularly useful for archaeologists if very little of a structure remains beyond the wall foundations or not much is known about the culture that produced such spaces.<sup>36</sup>

In traditional SSA, spaces exist on spectra of symmetry-asymmetry and integration-segregation, which all relate to the system's accessibility and relative hierarchy.<sup>37</sup> Two spaces are said to be symmetrical if they have the same relationship to each other such as, for example, if space A is the neighbor of space B, and space B is likewise the neighbor of space A. An asymmetrical arrangement would occur if space A contained space B, because the two spaces' relationship to each other is no longer equal.<sup>38</sup> Integration measures the distance between a starting space and all the other spaces in the system.<sup>39</sup> These qualities can be diagrammed in interior spaces primarily with a justified plan graph (J-graph), which is created by establishing a starting space, or node, and arranging the remaining nodes in successive levels based on their distance from the start.<sup>40</sup> A system in which there are several levels of nodes (high depth) and low integration in general suggests a stratified society with strict hierarchies. On the other hand, a society that builds spaces with low depth and high integration likely has a more egalitarian structure.

Traditional SSA has been applied to buildings from many different cultures and eras, including Pompeii;<sup>41</sup> but, in spite of its ability to provide information about *how* one might move

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<sup>36</sup> For further discussion, see Ostwald, 465; Fredrick and Vennarucci, 185-6; Grahame, 24-8.

<sup>37</sup> Bill Hillier and Julienne Hanson, *The Social Logic of Space* (Cambridge: Cambridge UP, 1984), 62, 109.

<sup>38</sup> Hillier and Hanson, 62.

<sup>39</sup> Hillier and Hanson, 108-9.

<sup>40</sup> Hillier and Hanson, 106ff.

<sup>41</sup> See Mark Grahame, *Reading Space: Social Interaction and Identity in the Houses of Roman Pompeii*, (Archaeopress, 2000); Kevin D. Fisher, "Placing Social Interactions: An Integrative Approach to Analyzing Past Built Environments," *Journal of Anthropological Archaeology* 28, 2009: 439-457; Ruth M. Van Dyke, "Space Syntax Analysis at Chacoan Outlier of Guadalupe," *American Antiquity* 64, no. 3, 1999: 461-473.

through these structures, SSA does not adequately account for *why* one might take that path.<sup>42</sup> Visual cues such as decoration also have an effect on human movement and behavior. As Fredrick and Vennarucci have noted, “SSA does not have an explanatory framework or method to address the combination of space and decoration.”<sup>43</sup> They propose instead to use social network analysis (SNA) to address these gaps. SNA maps how information flows through nodes in a social network, and Fredrick and Vennarucci argue that this is comparable to how people travel through a spatial network.<sup>44</sup> Network topology (NT) measurements can then be taken to show which nodes/rooms in a house are useful pass-through points and which nodes/rooms are areas where high-value information can be found. For this study, I have applied SNA to domestic spaces in which Virgilian graffiti are found to better understand the quality of the traffic and types of interactions that may have occurred in these spaces.

### **Pompeii, Its Houses and Graffiti**

It is important to note the differences in definition between modern and ancient graffiti beyond questions of permissibility. In modern parlance, “graffiti” refers to any writing or drawing on a public surface, often using spray paint, but in studies of Pompeii, graffiti refers specifically to words or drawings scratched into a surface, public or private.<sup>45</sup> The writing on the walls of the city comes in many more forms than this, however. Aside from the more formal inscriptions set up by the imperial and local government and inscriptions found on gravestones, there are many examples of painted signs dotting the cityscape, including *programmata*, painted

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<sup>42</sup> Daniel Montello, “The Contribution of Space Syntax to a Comprehensive Theory of Environmental Psychology,” *International Space Syntax Symposium*, 2007: 6.

<sup>43</sup> David Fredrick and Rhodora Vennarucci, “Putting Space Syntax to the Test: Digital Embodiment and Phenomenology in the Roman House,” *Studies in Digital Heritage* 4, no. 2, 2021: 189.

<sup>44</sup> Fredrick and Vennarucci, 192.

<sup>45</sup> The graffiti analyzed in this study largely fall into this definition, with two exceptions written in charcoal: *CIL* 4.4665 and 4.8222

campaign posters.<sup>46</sup> As advertisement, these painted notices were meant to be seen and read from a distance. Many Pompeiian graffiti, on the other hand, were a much more intimate endeavor, which is reflected in their subject matter.<sup>47</sup> Often in shallowly scratched letters and difficult to discern from afar, graffiti contain greetings, insults, professions of love, sexual remarks, and poetry. Some graffiti-writers would use the same stylus required for correspondence on wax tablets to inscribe their messages into plaster.<sup>48</sup> Perhaps the personal nature of their creation also bled over into their discovery. Locating a name, an insult, or a line from Virgil could have been like opening a letter from a friend (or perhaps hate mail). This sense of intimacy would also be stronger in a domestic space than in a very public building like the Large Palaestra, which is why the appearance of Virgil in these spaces is especially interesting.

### ***The Pompeiian House***

The majority of houses in Pompeii, including the ones in this study, follow a similar plan, known as “*atrium*-style.” Nineteenth and 20<sup>th</sup> century scholars labeled the different rooms in a Pompeiian house relying primarily on Vitruvius’s *De Architectura*, a 1<sup>st</sup> century BCE work about the recommended layout and room proportions for a well-made house.<sup>49</sup> An entrance hallway, or *fauces*, leads into a large hall called the *atrium* with an *impluvium*, a basin in the floor to catch rainwater coming through an opening in the roof, called the *compluvium*. A series of smaller rooms surround the *atrium*, labeled *cubicula* or *ala* depending on how open they are to the *atrium* (see Fig. 1). An open room called the *tablinum* lies between the *atrium* and the garden space (*peristylum*), which is also surrounded by rooms, similar to the *atrium*. The *tablinum* is

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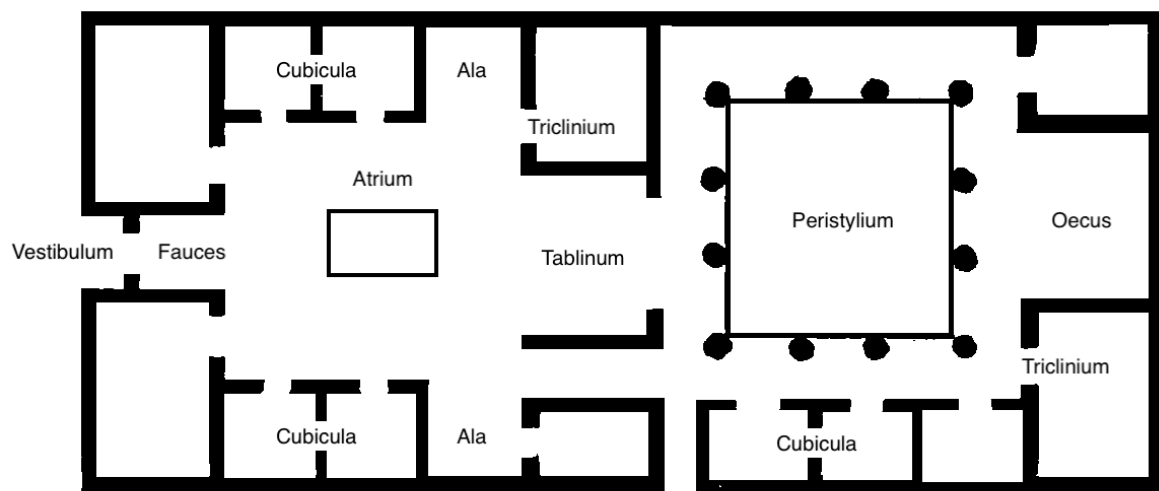
<sup>46</sup> James Franklin, “Epigraphy and Society,” in *The World of Pompeii*, eds. John J. Dobbins and Pedar W. Foss (London & New York: Routledge, 2007), 518.

<sup>47</sup> Milnor, 5.

<sup>48</sup> Wallace-Hadrill, “Inscriptions,” 6.

<sup>49</sup> Allison, 269.

traditionally thought of as the ‘home office,’ where the *dominus*, would receive clients and conduct business and is usually given an advantageous view of the garden. Large rooms in the corners of the *atrium* and garden are often labeled *triclinia* and are thought to be dining rooms. These rooms tend to have elaborate decoration and good views of the garden space. Many of the houses in Pompeii have most of these elements, but very few follow this plan exactly. Moreover, as Allison notes, these modern labels tell us very little about the types of activities that actually took place in these spaces.<sup>50</sup>



*Figure 1: House plan with Vitruvian terms, based on Mau, Pompeii, Its Life and Art.*

The terms for these rooms also do not necessarily tell us who was ‘allowed’ to be there. The concept of privacy in the Roman *domus* is much different than that found in the modern American home, for example. As Riggsby points out, ‘public’ in the modern American sense is defined in opposition to ‘private;’ anything that lies outside of one’s intimate, private circle is deemed public. The opposite appears to be true in the Roman mind where ‘private’ defines anything not publicly available.<sup>51</sup> In the Roman house, private space denotes areas “where at

<sup>50</sup> Allison, 270-1.

<sup>51</sup> Andrew M. Riggsby, ‘Public’ and ‘Private’ in Roman Culture: The Case of the Cubiculum,” *Journal of Roman Archaeology* 10 (1997): 49.

least some of the rules of public behavior are relaxed.”<sup>52</sup> Many rooms in the *domus* seem to straddle the line between public and private. They are private in that they are the domain of a single person or member of the *familia* (inhabitants, including enslaved people and, to a certain, rather ambiguous extent, clients), but people other than inhabitants (visitors) could enter areas of the *domus* with a certain degree of freedom. This realization has two important consequences for the purposes of this study. First, the availability to public scrutiny is the reason the ‘elite’ Roman house was often so richly decorated.<sup>53</sup> A house’s size and decoration was a means of declaring or even elevating the social standing of the *dominus*, or as Wallace-Hadrill states, “[his] was a power-house.”<sup>54</sup> This notion becomes problematic, however, in light of the spatial data discussed below. Second, the public-private ambiguity of the Roman house means a wide variety of possibilities for the identity of the graffiti-writers in these houses.

### ***Domestic Graffiti, Literacy, and Subjectivity***

Pompeii provides a fruitful opportunity for discussing the interplay of public and private within Roman domestic spaces regarding graffiti making and reading. Of the astonishing number of graffiti preserved in the city, the majority of examples (around 3000) are found within houses.<sup>55</sup> As might be expected, larger houses can be very heavily inscribed, but, as Benefiel found in her analysis of *insulae* I, 9 and VI, 15, the size of house has little bearing on the number of graffiti found therein.<sup>56</sup> For example, the House of Menander (I 10.4), a sprawling *domus* that takes up nearly two-thirds of its *insula*, contains nearly 50 graffiti, whereas the House of M. Casellius Marcellus (IX 2.26), a much more moderately sized house, has 60 graffiti in its

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<sup>52</sup> Riggsby, 47.

<sup>53</sup> To call all large richly decorated houses in Pompeii ‘elite’ is problematic, as is discussed further below.

<sup>54</sup> Andrew Wallace-Hadrill, “The Social Structure of the Roman House,” *Papers of the British School at Rome* 56 (1988): 55.

<sup>55</sup> Benefiel, “Culture,” 83.

<sup>56</sup> Benefiel, “Culture,” 91.

interior.<sup>57</sup> Graffiti, much like the *domus*, also lie at the intersection of public and private. Much of the graffiti in Pompeii is dialogic, consisting of first and second person verbs, vocative names, and forms of greeting.<sup>58</sup> In fact, names account for nearly 60 percent of all Pompeian graffiti, which reinforces the function of graffiti as identity-making.<sup>59</sup> Virgilian quotations are then situated in a medium that seems to be meant for interpersonal communication, raising the question of the graffiti-writers' identities and what these graffiti-writers were intending to say through Virgil's words.

The question of who wrote these Virgilian graffiti has intrigued scholars since their discovery and is closely tied to the level of literacy in Pompeii and the wider Roman Empire. Former approaches to this body of evidence have linked the occurrence of these graffiti to the likelihood that the graffiti-writer was able to have *known* Virgil's works, which can only truly be accomplished by *reading* them. This, of course, overlooks the critical significance of the oral performance of Virgil's works. Harris has argued for a very low level of literacy, linking the eradication of illiteracy in modern, industrialized states to a concerted effort by those in power. As the Roman Empire had no such thing as widespread, standardized schooling, "mass literacy" was therefore impossible.<sup>60</sup> Harris dismisses the large quantity of graffiti found at Pompeii as the product "over several years, indeed decades, by a few hundred literate slaves and by schoolboys from highly respectable families."<sup>61</sup> The language here reveals the assumptions of class behind literacy and graffiti-writing. The "literate slaves" Harris mentions could very well be freed, and,

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<sup>57</sup> These numbers represent distinct entries in the *CIL*; it should be noted, however, that groups of similar graffiti are often combined under one listing, making the true number of graffiti much higher.

<sup>58</sup> See Benefiel's discussion of graffiti as dialogue in the House of Maius Castricius and the House of the Four Styles; cf. Milnor, Lohman, and Damer.

<sup>59</sup> Erika Zimmermann Damer, "What's in a Name?: Mapping Women's Names from the Graffiti of Pompeii and Herculaneum," in *Women's Lives, Women's Voices: Roman Material Culture and Female Agency in the Bay of Naples*, eds. Molly Swetnam-Burland and Brenda Longfellow, (Austin, TX: University of Texas Press, 2021): 152.

<sup>60</sup> William V. Harris, *Ancient Literacy*, (Cambridge: Harvard UP, 1989): 233ff.

<sup>61</sup> Harris, 260.

though they may become quite wealthy, they would not be part of the ‘elite.’ Political *programmata*, painted campaign signs for candidates for local Pompeian offices, also do not provide good evidence of literacy in Harris’ view because the election of the *duumvir*, the highest local political office, was largely a formality and the *programmata* merely status symbols.<sup>62</sup> Moreover, the trade guilds that often added their names to the endorsements for political candidates did so to raise their own status rather than to actually influence an election.<sup>63</sup> This view is also held by Mouritsen, who argues that the *programmata* were merely a ritualistic part of an otherwise undemocratic system.<sup>64</sup> But in their analysis of the spatial distribution of *programmata* in Pompeii, Viitanen and Nissin have found that campaign posters tend to be in the most heavily trafficked, and therefore the most visible, parts of the city.<sup>65</sup> They also note that *programmata* can be found on the façades of small houses and businesses, “possibly in the hands of non-elite owners.”<sup>66</sup> This data points to at least some level of literacy held by a wider percentage of the population than Harris’s conservative estimate, consistent with the spread of literacy among Pompeii’s freed population, if we assume that literate ex-enslaved people begot literate children.

Though Harris recognizes that enslaved people, particularly those in wealthy, urban houses, were often able to read and write, he stops short of declaring any high level of literacy among women of any status.<sup>67</sup> There have been several recent studies on Pompeian graffiti, however, that do shed light on this often-overlooked group. Benefiel has done extensive work on

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<sup>62</sup> Harris, 216.

<sup>63</sup> Harris, 260.

<sup>64</sup> Henrik Mouritsen, *Elections, Magistrates and Municipal Élite: Studies in Pompeian Epigraphy*, Rome: 1988, 44-56.

<sup>65</sup> Eeva-Maria Viitanen and Laura Nissin, “Campaigning for Votes in Ancient Pompeii: Contextualizing Electoral *Programmata*,” in *Writing Matters: Presenting and Perceiving Monumental Inscriptions in Antiquity and the Middle Ages*, eds. Irene Berti, et al. (Berlin: De Gruyter, 2017), 125-6.

<sup>66</sup> Viitanen and Nissin, 137.

<sup>67</sup> Harris, 252.



graffiti-as-dialogue in two Pompeiian houses, the House of Maius Castricius (VII 16.17)<sup>68</sup> and the House of the Four Styles (I 8.17), the latter of which contains a number of women's names and greetings in the *tablinum* of the house, as if a group of women were writing back and forth on the walls.<sup>69</sup> Benefiel argues that even women without formal schooling could copy the letters of more literate women.<sup>70</sup> Zimmermann Damer has taken a "carto-onomastic" approach to Pompeii and Herculaneum to map the frequency of women's names in the graffiti of the two cities, finding 137 unique names and feminine addresses among 240 graffiti and concluding that at least some were written by women graffiti-writers.<sup>71</sup> This is supported by Levin-Richardson, who argues that a larger proportion of women than previously thought were graffiti-writers by analyzing female sexual agency present in erotic graffiti found in brothels and elsewhere.<sup>72</sup> Female participation in inscription is not limited to informal texts like graffiti. Hemelrijk has found many examples of female benefactors among the lapidary inscriptions in the Latin west, showing a greater involvement of women in civic life than was previously thought.<sup>73</sup> It is therefore possible, perhaps likely, that women authored some of the Virgilian graffiti in Pompeii. As scholars look once again at the authorship of some graffiti, these Virgilian quotations also deserve reconsideration.

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<sup>68</sup> Rebecca R. Benefiel, "Dialogues of Graffiti in the House of Maius Castricius in Pompeii." *American Journal of Archaeology* 114, no. 1, 2010: 59-101.

<sup>69</sup> *ibid.* "Dialogues of Graffiti in the House of the Four Styles at Pompeii (Casa Dei Quattro Stili, I.8.17, 11)" in *Ancient Graffiti in Context*, eds. J.A. Baird and Claire Taylor (London & New York: Routledge, 2011): 20-48.

<sup>70</sup> Benefiel, "Four Styles," 28.

<sup>71</sup> Zimmermann Damer, 157.

<sup>72</sup> Sarah Levin-Richardson, "Fututa Sum Hic: Female Subjectivity and Agency in Pompeian Sexual Graffiti." *The Classical Journal (Classical Association of the Middle West and South)* 108, no. 3, 2013: 319-45; cf. Milnor, 191-231.

<sup>73</sup> Emily Hemelrijk, "Female Munificence in the Cities of the Latin West," in *Women and the Roman City in the Latin West*, eds. Emily Hemelrijk and Greg Woolf, (Boston: Brill, 2013): 68.

## *Virgilian Graffiti*

It is only within the last few decades that scholars have recognized the quotations written on walls as evidence of wider enjoyment of Virgil.<sup>74</sup> In his survey of the graffiti of Insula IX, Wallace-Hadrill repudiates the core of Harris' argument for limited literacy, remarking:

What they indicate about the use of writing is not (in my view) either that 'vulgarities' were written by the low-born, nor that a small number of well-educated children from the richer households circulated town sharpening their wits, but that graffiti as an ephemeral medium attracts self-consciously trivialising uses of the skills of writing. *Writing for the Pompeians is not magic or sacred or privileged or special: it is part of the low-level, everyday life of a town.*<sup>75</sup>

Wallace-Hadrill is basing this assertion on the more quotidian instances of graffiti that appear in Pompeii (names, insults, erotic statements, and doodles), but a case can be made for a similar approach to Virgilian graffiti. Even if a Pompeian had never studied Virgil in a school, they still would have been familiar with his works through public and private recitation and perhaps through wider cultural experience.<sup>76</sup> By turning Virgil into a graffito, the graffiti-writer may even be laying some claim to the poet, absorbing him into the "everyday life" Wallace-Hadrill describes. Lohman argues that the 'informal' quality of ancient graffiti comes from their creative freedom over their work, as opposed to the more formal dedicatory inscriptions or electoral notices.<sup>77</sup>

A particularly noteworthy example of this is the Virgilian adaptation found in the House of M. Holconius Rufus (VIII 4.04), which reads:

*MULTA MIHI CURAE CUM [PR]ESSERIT ARTUS*

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<sup>74</sup> Nicholas M. Horsfall, *A Companion to the Study of Virgil*, (Leiden: Brill, 2000), 250-1; cf. James Franklin, "Virgil at Pompeii: A Teacher's Aid." *The Classical Journal* 92, 1996: 175-84, and Milnor, 233-262.

<sup>75</sup> Andrew Wallace-Hadrill, "Scratching the Surface: A Case Study of Domestic Graffiti in Pompeii," in *L'écriture dans la maison romaine*, eds. Mireille Corbier and Jean-Pierre Guilhembet, (Paris: De Boccard, 2011): 410, emphasis mine.

<sup>76</sup> Horsfall, 250.

<sup>77</sup> Polly Lohman, "Private Inscriptions in Public Places? The Ambiguous Nature of Graffiti from Pompeian Houses," *Theoretical Roman Archaeology Journal* 2016 (2017): 79.

*HAS EGO MANCINAS STAGNA REFUSA DABO*<sup>78</sup>

When many cares press down my limbs,  
I use my left hand to release the streams.<sup>79</sup>

The graffiti-writer has re-worked the Virgilian phrase “stagna refusa” from *Aeneid* 1.126 into a nearly metrical elegiac couplet, the meter often used for erotic poetry. Virgil uses this phrase in a description of Neptune’s rise from the deep as he senses the violent storm inflicted on the Trojans by Aeolus at Juno’s behest (*Aen.* 1.124-30). This writer appears to be playing with these images of turbulence in a burlesque of the original scene, adopting Virgil’s language and the epic habit of placing “*artus*” at the end of the line for their own ribald, erotic poetry. Varone has argued that “*mancinas*,” a Latin word that only appears in this graffiti, is a contraction of “*manus amica*,” the “friendly” or masturbatory hand, which was often the left, “*amica*” being the Latin word for “girlfriend.”<sup>80</sup>

Pinpointing an exact date for the Virgilian graffiti of Pompeii is difficult, though some evidence for dating exists. The *Aeneid*, from which over three quarters of the graffiti quotations come, was published shortly after Virgil’s death in 19 BCE, though it is possible sections of the poem were recited around Rome before then.<sup>81</sup> Within Pompeii, the eruption of Vesuvius in 79 CE provides a clear *terminus ante quem* for these graffiti; likewise, graffiti appearing on walls rebuilt after the devastating earthquake in 62 CE must be dated after this event. The dating of a graffiti could be further narrowed down by examining the decoration surrounding it. The artwork found in Pompeii has been organized into a chronology consisting of four phases or

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<sup>78</sup> *CIL* 4.2066

<sup>79</sup> All translations are mine unless otherwise stated. The grammar of this graffiti is quite difficult to translate literally. This graffiti is also available through the Ancient Graffiti Project, edited by Benefiel: <http://ancientgraffiti.org/Graffiti/graffito/AGP-EDR175929>

<sup>80</sup> Antonio Varone, *Erotica Pompeiana: Love Inscriptions on the Walls of Pompeii*, trans. Ria P. Berg (Rome: L’Erma di Bretschneider, 2002), 94-95, n. 151.

<sup>81</sup> Horsfall, 20.

styles, but the usefulness of this data is unfortunately limited. Some of the graffiti in this study, first discovered in the 19<sup>th</sup> century, no longer exist, or if the graffito is still visible, the decoration has long since fallen away. Furthermore, the dating of nearby decoration may not give much information for dating the graffito. For example, a quotation of *Aeneid* 2.1 was found in an *exedra* off the peristyle in the House of the Silver Wedding (V 2.i),<sup>82</sup> a room which contained Second Style decoration. However, the Second Style was popular c. 100-20 BCE, predating the widespread publishing of the *Aeneid*, and so tells us little about when this graffito may have been written.<sup>83</sup>

The number of quotations of Virgil's works that appear in Pompeii is debated, usually falling between 50 and 70.<sup>84</sup> Though roughly 25% of the city remains unexcavated, about half of the quotations discovered so far occur in public spaces, defined here as the interiors of commercial or public spaces such as *tabernae* and the Large Palaestra as well as exterior, street-facing walls. The other half are found in domestic spaces, the interiors of houses. There are slight concentrations in Regiones 1, 6, and 9, but the graffiti are fairly widespread (Fig. 2), which itself indicates wide interaction with Virgil's works in the city.

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<sup>82</sup> *CIL* 4.4212

<sup>83</sup> A more thorough chronological analysis of the Virgilian quotations of Pompeii is worth pursuing and would be a nice complement to the spatial data.

<sup>84</sup> E.g. Della Corte identified 56 quotations, 172; whereas Milnor lists 70, though she remains skeptical that the graffiti said to quote the *Georgics* are actual quotations, 263-72. I am relying on the list compiled by Milnor for the purposes of this study.



*Figure 2: Map of Pompeii showing locations of Virgilian graffiti in public (red) and domestic (blue) spaces; my map adapted from Marcus Cryon.*

As with most graffiti, Virgilian quotations in the public sphere appear in heavily trafficked places such as in/on buildings along the main thoroughfares and public buildings like the Large Palaestra. Though domestic quotations also show up in houses on busy streets, this correlation is less certain. Most of the quotations found in Pompeii come from the *Aeneid*, while only 14 come from the *Eclogues*.<sup>85</sup> Of the 53 quotations from the *Aeneid*, 16 are from the first line of Book 1, 14 are from the first line of Book 2, and the remainder (23) quote various lines throughout the work (Table 1 and Fig. 3). Thus, the claim found in previous discussions that the first lines of *Aeneid* Books 1 and 2 make up the “vast majority” of Virgilian quotations at Pompeii is clearly not true.<sup>86</sup> Though *Aeneid* 1.1 and 2.1 are the most popular lines to be quoted, the sum total of

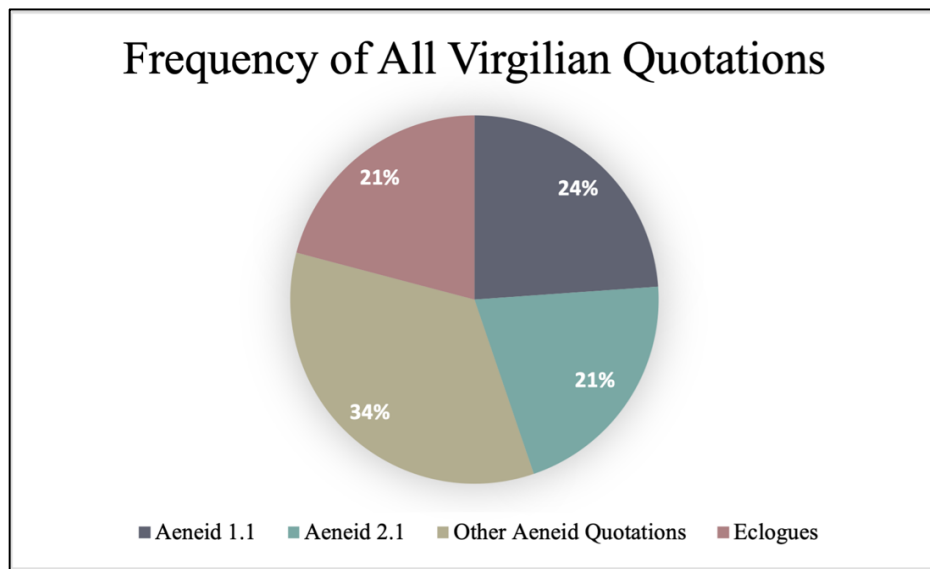
<sup>85</sup> Della Corte also located two graffiti he thought came from the *Georgics*, but this is dubious. For fuller discussion, see Milnor, 272.

<sup>86</sup> Milnor, 237; Harris 261; Franklin, “Vergil at Pompeii,” 175-84.

these quotations is less than the aggregate total of quotations from other passages from Virgil. When combined, *Aeneid* 1.1 and 2.1 comprise only 42% of all Virgilian quotations, a far cry from an overwhelming majority.

*Table 1: Frequency of All Virgilian Quotations*

<i>Line</i>	<i>Frequency</i>
<i>Aeneid 1.1</i>	16
<i>Aeneid 2.1</i>	14
<i>Other Aeneid Quotations</i>	23
<i>Eclogues</i>	14



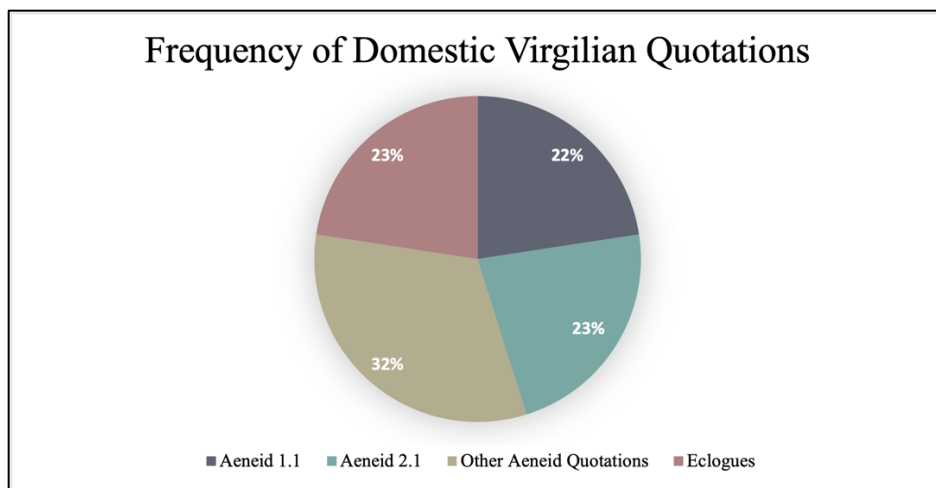
*Figure 3: Frequency of all quotations from Virgil's works in Pompeii.*

A similar pattern is found in the quotations that appear in specifically domestic spaces (Table 2 and Fig 4). Harris asserts that the quotation of Virgil was likely a school exercise because of the frequency of the first lines of Books 1 and 2, but the data in figure 3 show that these lines, though a significant portion of the total quotations, make up less than half of the

quotations found in the city.<sup>87</sup> Clearly, these graffiti are more than the work of wealthy, male schoolchildren. As seen above, some of these quotations are in fact adaptations, in which the graffiti-writer has employed Virgil's words in their own poetic compositions, often erotic in nature. Another such example, found in the House of M. Casellius Marcellus (IX 02.26), is discussed in more detail below.

*Table 2: Frequency of Domestic Virgilian Quotations*

<i>Line</i>	<i>Frequency</i>
Aeneid 1.1	7
Aeneid 2.1	7
Other Aeneid Quotations	10
Eclogues	7



*Figure 4: Frequency of domestic quotations of Virgil's works.*

<sup>87</sup> Harris, 264.

## Spatial Analysis of Domestic Virgilian Graffiti

### *Methodology*

As in SSA, social network analysis (SNA) uses nodes connected by edges to graph the movement of information through a social network. The approach developed by the Virtual Pompeii Project treats each room in a house as a node and where two rooms join as an edge, equating the movement of people through a house to the movement of information through a network.<sup>88</sup> A series of network topology (NT) measurements are then calculated based on the newly created network map. To analyze the houses in this study, I have followed a very similar workflow for creating these network maps to that developed by the Virtual Pompeii Project. First, the floorplan of each house was isolated and processed using ArcGIS ArcMaps software to convert individual spaces into nodes. It should be noted that ‘space’ does not necessarily equate to ‘room.’ Some rooms may contain multiple nodes if they have distinct paths of movement. For example, when entering a standard *atrium*, a visitor or inhabitant cannot directly cross the room without walking through the *impluvium*; therefore, they must choose which direction to take around the obstruction, creating two separate paths through the house. Many *atria* and garden spaces in these houses have been divided into four nodes to represent movement around barriers. As Fredrick and Vennarucci have noted, one path usually sustains more traffic than the other as shown in the betweenness scores of these paths, a privileged position in the network reinforced by visual cues such as decoration or light.<sup>89</sup> According to Milnor, Virgilian quotations have been found inside 25 houses in Pompeii, of which 16 were mapped and analyzed for this study.<sup>90</sup>

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<sup>88</sup> Fredrick and Vennarucci, 192.

<sup>89</sup> Fredrick and Vennarucci, 193.

<sup>90</sup> Eight of these houses were left out of the analysis due to insufficient information for quotation placement or house layout.



I used the map found in *The World of Pompeii* as a base map and cross-referenced the placement of walls and features with the floorplans found in *Pompei pitture e mosaici (PPM)*, a set of 11 volumes containing descriptions and photos of Pompeii's decorated spaces, and images from *Pompeii in Pictures*, an online collection of images of the excavated sections of the city.<sup>91</sup> After converting the rooms/spaces of the houses into nodes, the collection of nodes was then exported as a comma separated values (CSV) file and uploaded into Gephi, an open-source network analysis software, where edges were drawn manually to graph potential movement patterns through the house. The network topology (NT) measurements were then calculated for these graphs as both directed and undirected. A directed graph establishes one node (the entrance or *fauces*) as the beginning of the path through the house; an undirected graph treats all nodes as potential starting points. The directed graph can therefore represent the various paths taken by a visitor to the house, whereas the undirected graph represents the movement of an inhabitant of the house. Both types of graphs were calculated because they often have radically different NT measurements for the same space, as will be discussed further below.

The NT measurements I have chosen to use are closeness centrality, betweenness centrality, authority, hub, and eigenvector centrality. The closeness centrality of a node represents its average distance, measured in nodes, to the other nodes in the network. For directed graphs, which represent the movement of visitors to the house, this is essentially a measure of depth, similar to the J-graph of traditional space syntax. The larger a directed closeness value, the further from the entrance, or deeper, the room is in the house plan. Another issue with measuring closeness on a directed graph is that endpoints will always have a closeness value of zero. A

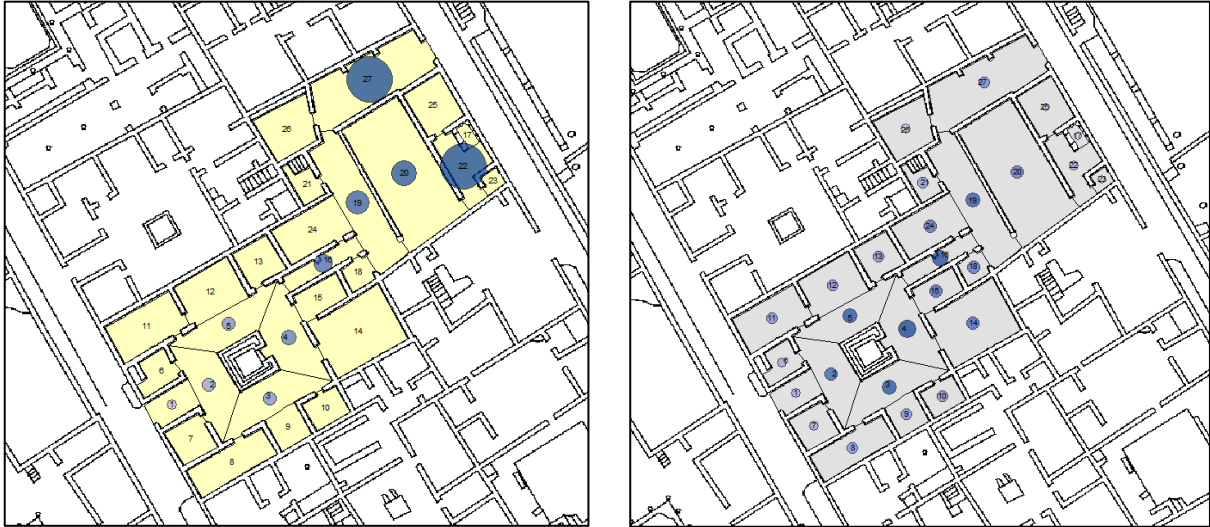
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<sup>91</sup> John J. Dobbins and Pedar W. Foss eds., *The World of Pompeii*. (New York: Routledge, 2007); *Pompei pitture e mosaici*, eds. Giovanni Pugliese Carratelli and Ida Baldassare (Rome: Istituto della enciclopedia italiana, 1990); *Pompeii in Pictures*: <https://pompeiiinpictures.com/pompeiiinpictures/>

node's closeness is dependent on the node's ability to lead to other nodes; nodes that lie at the end of a directed path cannot lead anywhere else, so their closeness value is zero. This can be seen in figure 5 (left), where the rooms surrounding the atrium appear to have no nodes because once someone enters one of these rooms, they cannot continue any deeper into the house. Therefore, on a directed graph where movement goes in one direction from the entrance to the back of the house, this measurement is less useful for recognizing areas of high traffic than betweenness. In an undirected graph representing the movement of inhabitants, however, the closeness values reflect how central a node is in a network; a node with high undirected closeness would likely see heavy traffic. Figure 5 shows the closeness scores for directed and undirected graph of the House of the Four Styles (I 8.17).<sup>92</sup> The directed graph shows that the garden space and the attached rooms are the deepest rooms in the house. On the other hand, the undirected graph shows many nodes having similar, small closeness values, with slightly larger values centered in the atrium (rooms 2-5) and hallway leading to the garden (room 16). This shows that the four sides of the atrium are more centrally located for inhabitants than any other room, but not by much.

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<sup>92</sup> The size and color of the nodes correspond to their value; i.e. the larger and darker a node is, the higher the value. Closeness, authority, hub, and eigenvector measurements often result in values  $<1$  whereas betweenness can often have values  $>100$ . Therefore, some manipulation of the size of the nodes had to occur for them to be easily readable on the map.



*Figure 5: House of the Four Styles (I 8.17) directed closeness values (left) and undirected closeness values (right).*

In a similar vein, betweenness centrality measures the frequency with which a node appears on the shortest distance between two nodes. Nodes with high betweenness are pass-through points that likely experience high amounts of traffic. Figure 6 below shows the directed and undirected betweenness values for the House of Four Styles. On both maps, the back side of the atrium (4), the hallway leading into the garden area (16) and the space just outside the garden (19) have the highest betweenness values, meaning that these areas would likely see more traffic for both visitors and inhabitants alike. These values also exhibit the importance of dividing the atrium into four nodes; in this house, the back side of the atrium is much more connected to the rest of the house than the other parts, which has implications for the decoration and graffiti found there. For a graffiti to appear in a heavily trafficked area of the house means a high likelihood of

the writer having an audience for the creation of their work and more eyes on their work once completed.



*Figure 6: House of the Four Styles (I 8.17) directed betweenness values (left) and undirected betweenness values (right).*

Hub and authority are two related measures that show a node's distributive strength and the value of the information found at that node, respectively. A node is considered a hub if it has an above-average number of connections to other nodes, which means it is a strong distributor to other nodes. Nodes that are fed by nodes with high hub values are found to have high authority values. For this reason, authority is also a measure of the value of the information stored in that node. Spaces with high authority values are therefore likely to be loci of power. Turning once again to the House of the Four Styles, on the directed graph, the hub values are highest on the north and south sides of the atrium (Fig. 7), which means the authority values will be higher in rooms connected to them. This is confirmed by the values shown in figure 7 where the back (east) side of the atrium and the rooms to the north and south of the atrium have the highest authority values. The undirected graph, on the other hand, shows nearly identical hub and authority values clustered around the four sides of the atrium. This means the atrium as a whole

held valuable information for inhabitants of the house. On undirected graphs, the hub and authority values are often very close, as seen in figure 7, meaning that these measures are more useful on directed graphs, whereas betweenness and eigenvector are more informative on undirected graphs.

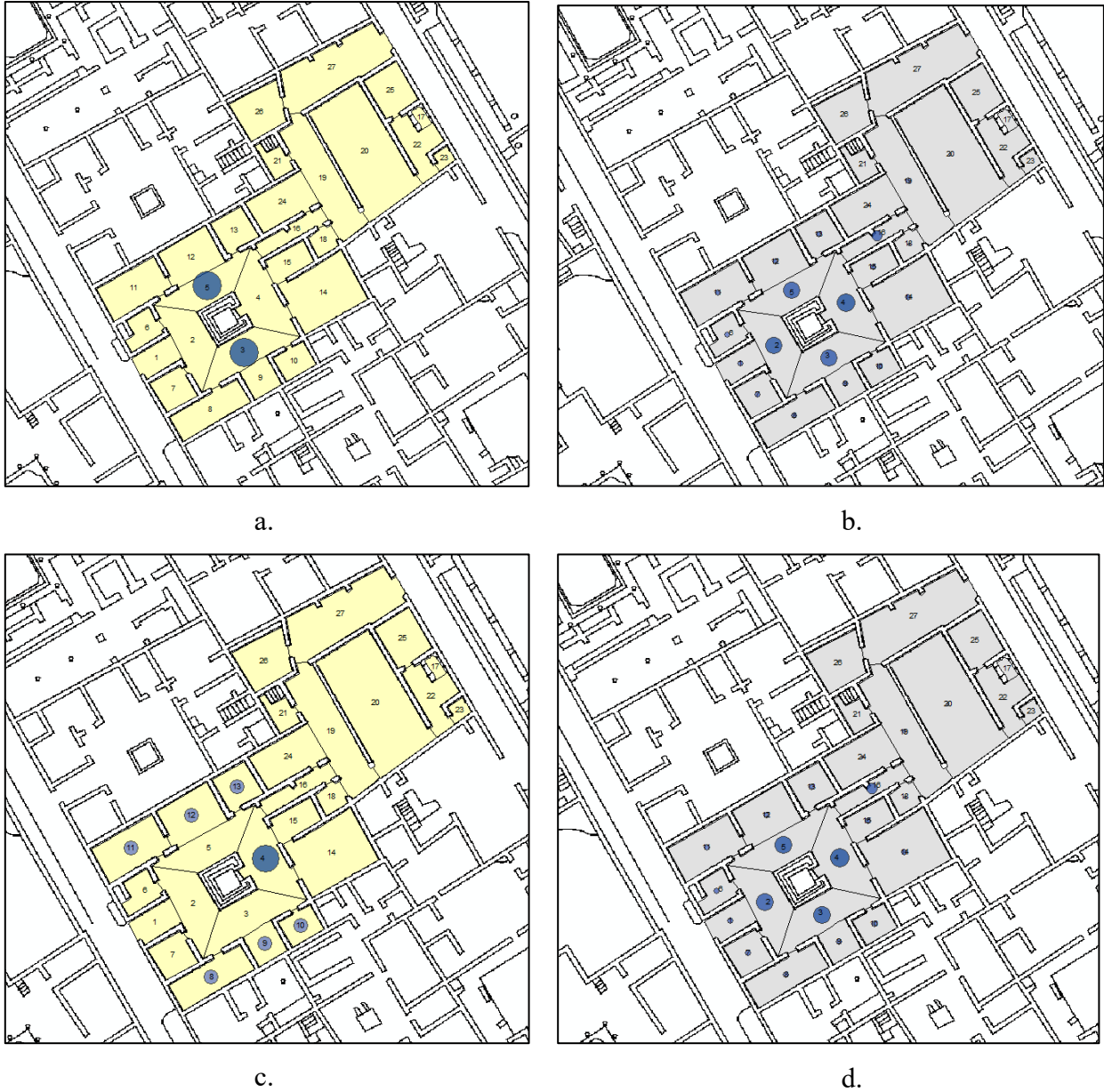


Figure 7: House of the Four Styles (I 8.17) directed hub values (a), undirected hub values (b), directed authority values (c) and undirected authority values (d).

Finally, eigenvector centrality, also called the prestige score, measures a node's importance within a network based on the quality, not quantity, of its connections. Nodes with high eigenvector lie at the end of chain of very well-connected nodes and so are high-value destinations where high-value interactions take place. Interactions where identity and power can be negotiated or renegotiated occur in spaces with high eigenvector. This idea is illustrated clearly in figure 8, a map showing the directed eigenvector for the House of the Four Styles, where the highest values are found in the garden space on the east end of the house. For a visitor to the house, the garden and its attached room would be the most desirable location to arrive at. On the undirected map, however, the garden loses importance, and the atrium becomes the most highly valued space.



*Figure 8: House of the Four Styles (I 8.17) directed eigenvector values (left) and undirected eigenvector values (right).*

### ***Houses Containing Virgilian Graffiti***

The houses analyzed in this study vary in size, ranging from the modestly sized House of the Compluvium (VI 15.09) to the sprawling House of Menander (I 10.04) (Fig. 9a and b,

respectively).<sup>93</sup> Nearly all of the houses are atrium-style and most have one or more garden spaces. The one exception is the House of the Gladiators (V 05.03), used to house gladiators before moving to the barracks near the Large Theater. In place of an atrium with impluvium, the bulk of the house is taken up by a large peristyle garden (Fig. 9c).



*Figure 9: House of the Compluvium (a), House of Menander (b), House of the Gladiators (c), and House of the Silver Wedding (d)*

Houses such as Menander and the House of the Silver Wedding (V 02.i), another large *domus* with two garden spaces (Fig. 9d), are outliers in terms of size, but the majority of the houses are

<sup>93</sup> A full list of the houses used in this study can be found in in the Appendix.

large enough to denote ownership by the wealthy, which does not necessarily correlate with social status, as freed people were able to become quite wealthy. However, as discussed above, the size of the house does not seem to be tied to the number of graffiti found on its walls, and this holds true for Virgilian graffiti as well, which is also related to the fairly random spatial distribution of Virgilian quotations discussed further below. For all its size, the House of Menander (Fig. 9b) contains only one quotation on a column in the peristyle. The House of the Silver Wedding (Fig. 9d) features two quotations, the same number as the House of the Compluvium (Fig. 9a), though it is nearly triple the size of the smaller house. Of the houses in figure 9, the House of the Gladiators has the most Virgilian quotations in the garden area (Fig. 9c).

The decoration of these houses is as varied as the size, ranging from the simple First Style decoration of the House of the Compluvium to elaborate Fourth Style decorative schemes like those found in the House of Venus in the Shell (II 03.03), which features several erotic mythological scenes in and around the peristyle garden, including a vast, well-preserved painting of Venus reclining on a shell that gives the house its name (Fig. 10). From the evidence that remains, there are few instances where a Virgilian graffiti clearly appears to be responding to the decoration that surrounds it. In fact, nine out of the 31 graffiti in this study are found on minimally decorated columns, though they may have been in conversation with decoration elsewhere in the room. Benefiel has found that the graffiti-writers in the House of Maius Castricius often actively avoided writing over decoration, which may explain why so many graffiti found throughout the city appear on columns.<sup>94</sup> The graffiti-writer in the House of Venus in the Shell also avoided any decoration by tucking away their Virgilian graffiti in a closet-like space to the east of the

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<sup>94</sup> Benefiel, "Culture," 99.



peristyle (room 24 in Fig. 10), but the writer of this quotation may have been responding to their surroundings. The quotation, inscribed very lightly, reads “[a]rm[a vi]r[umque]” (*CIL* 4. 10111a) with “cam” (*CIL* 4. 10111b) written beneath, which may have been the beginning of “cano.” The writer has chosen Virgil’s opening words, “I sing of arms and a man,” a reference to Aeneas specifically just feet away from a painting of the hero’s mother. This shows a familiarity with the

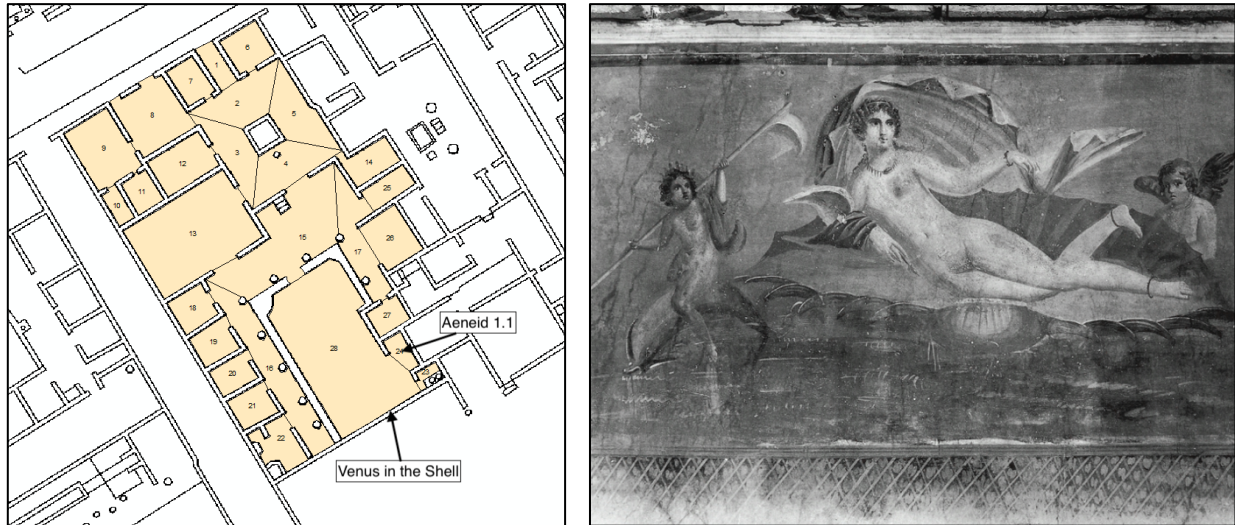


Figure 10: Floorplan of the House of Venus in the Shell (left); painting of Venus found on south wall of peristyle, room 28 (right), from *PPM* vol. 3, 141.

content of the *Aeneid*, or at least the Aeneas-story, beyond a memorization of the first words. Gazing upon the goddess, the graffiti-writer was inspired to write this quotation specifically, showing intentionality in quoting Virgil.

Because of their size and decoration, these houses were likely owned by wealthy individuals, though to call the houses ‘elite’ would be inaccurate. The prevailing understanding of power dynamics in the Roman house is rooted in Wallace-Hadrill’s concept of the “power-house.”<sup>95</sup> Under this paradigm, power is centered on the *dominus*, the elite, male head of the household, and the layout and decoration of a large atrium-style house are tools used to reinforce

<sup>95</sup> Wallace-Hadrill, “Social Structure,” 55.

his power. However, this approach overlooks any power potentially held by other free or enslaved members of the household. Moreover, the NT measurements of the different rooms in these houses also point to a more decentralized power structure because of the presence of multiple significant nodes in a variety of measurements on the undirected graphs.

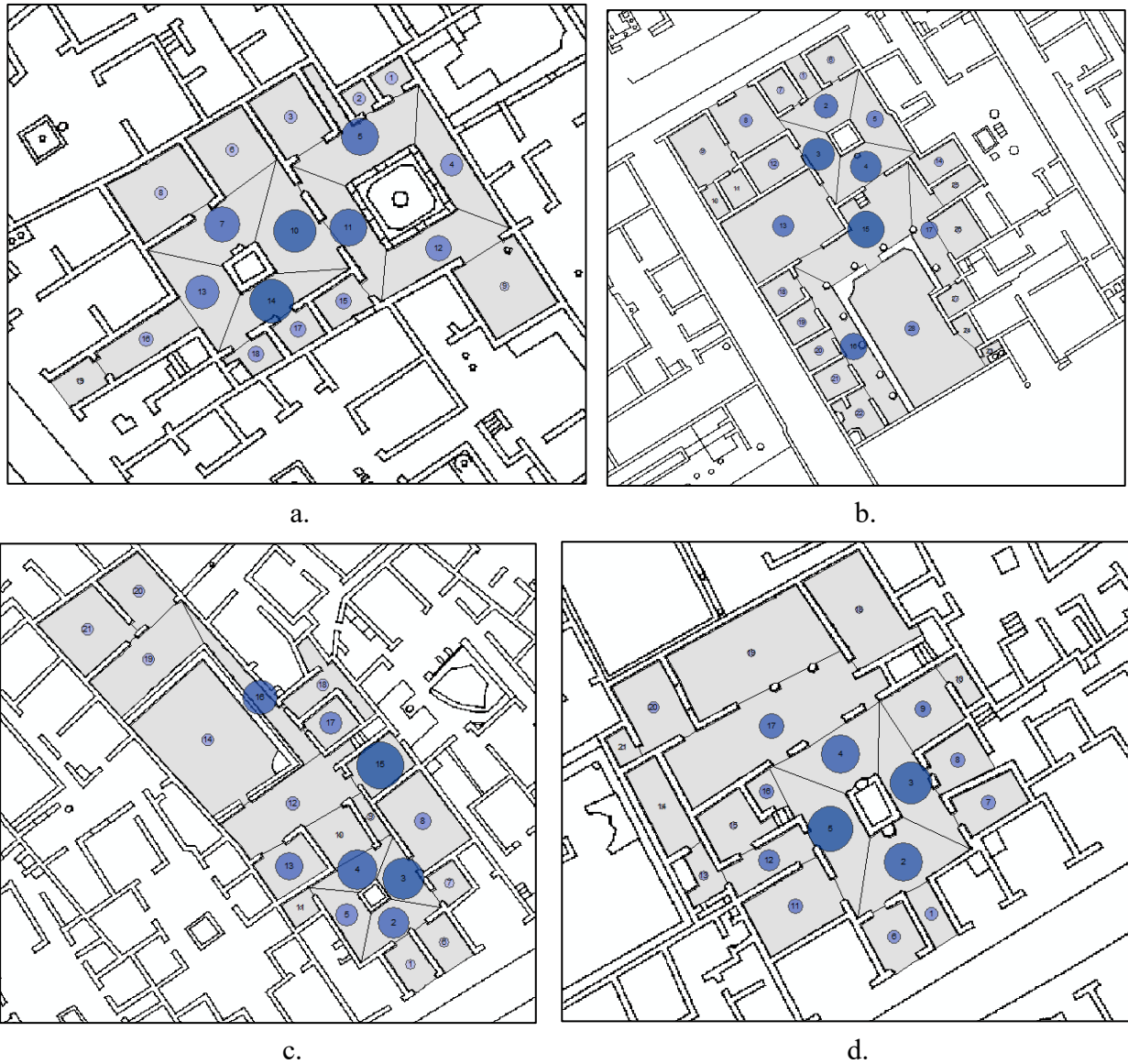


Figure 11: Undirected eigenvector scores for the House of the Actors (a), the House of Venus in the Shell (b), the House of Paccia (c), and the House of L. Numisius Rarus (d).

Figure 11 shows the undirected eigenvector maps for the House of the Actors (I 02.06), the House of Venus in the Shell (II 03.03), the House of Paccia (V 02.10), and the House of L.

Numisius Rarus (VI 14.12). Each of these houses show multiple spaces with high eigenvector scores, more than a centralized network is likely to have. If these maps are compared to the Grewal’s graphs, it is clear they most closely resemble the decentralized plan (Fig. 12).<sup>96</sup> As Fredrick argues, this pattern of information flow points to power held in the hands of multiple people in the house, traveling through a variety of paths, not just the *dominus*.<sup>97</sup> That power is more spread out in these houses is also reflected in the NT measures for the rooms in which Virgilian graffiti are found.

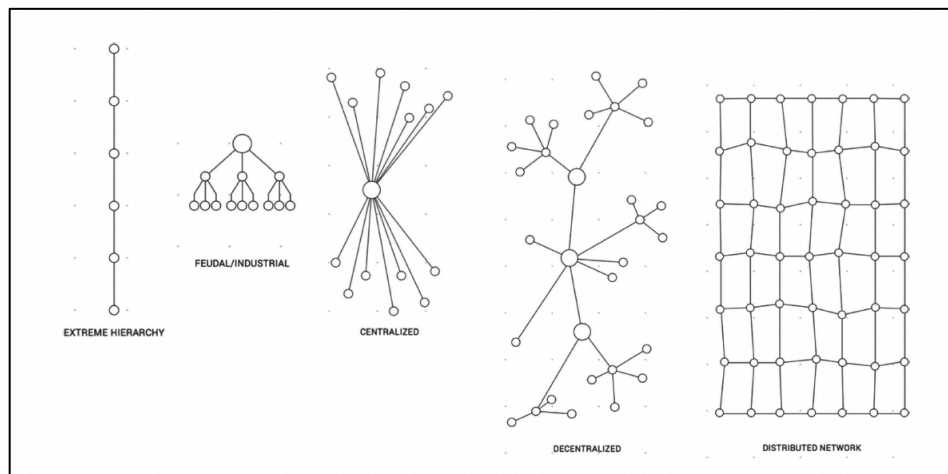


Figure 12: Paradigms of network centralization, adapted from Grewal 2010.

### Network Analysis

Virgilian quotations tend to appear in *atria* and garden spaces, as shown in Table 3, which seems logical because these rooms would be heavily frequented by visitors and inhabitants alike, and they provide good light by which to write. What is striking, however, is the breakdown of where different quotations appear within a house, as shown in Table 4. *Aeneid* 1.1 and 2.1 only appear in *atria* or garden spaces, while other *Aeneid* quotations mostly appear in rooms

<sup>96</sup> David Grewal, *Network Theories of Power*; Lecture delivered at the Annenberg School for Communication and Journalism, University of Southern California.

[https://www.youtube.com/watch?v=35RVa5VQ3bk&ab\\_channel=USCAnnenberg](https://www.youtube.com/watch?v=35RVa5VQ3bk&ab_channel=USCAnnenberg)

<sup>97</sup> David Fredrick, “Narcissus and the Happy Inch: Queering Social Reproduction in the Roman House” (forthcoming).

outside of these two spaces, and quotations from the *Eclogues* appear nearly evenly in *atria*, garden spaces, and other types of rooms alike. The most recognizable Virgilian quotations appear in the more public areas of the house, whereas quotations from parts of the *Aeneid* outside of the first lines of Books 1 and 2 show up in a variety of locations. When these quotations are reduced to schoolboy repetitions of *Aeneid* 1.1 and 2.1, this pattern is completely missed. On the surface, this might indicate that visitors to the home, those who would be likely to congregate in the *atrium* or garden, were more likely to write these popular tags, and the other quotations could have been the work of inhabitants because of their locations outside of the ‘public’ areas of the house. This would also align with Milnor’s argument that some Pompeiian graffiti-writers would repeat *Aeneid* 1.1 or 2.1 without necessarily knowing the entirety of Virgil’s text.<sup>98</sup> This is complicated, however, by the NT scores of these rooms.

*Table 3: Frequency of Domestic Virgilian Quotations by Type of Room*

<i>Room</i>	<i>Frequency</i>
<i>Atrium</i>	8
<i>Garden Space</i>	10
<i>Other Rooms</i>	7

*Table 4: Frequency of Type of Virgilian Quotation by Room*

<i>Line</i>	<i>Room</i>	<i>Frequency</i>
<i>Aeneid 1.1</i>	<i>Atrium</i>	2
	Garden Spaces	4
	Other Rooms	0

<sup>98</sup> Milnor, 254-5.

<i>Line</i>	<i>Room</i>	<i>Frequency</i>
<i>Aeneid 2.1</i>	<i>Atrium</i>	3
	Garden Spaces	3
	Other Rooms	0
<i>Other Aeneid Quotations</i>	<i>Atrium</i>	1
	Garden Spaces	2
	Other Rooms	5
<i>Eclogues</i>	<i>Atrium</i>	2
	Garden Spaces	1
	Other Rooms	2

The rooms containing quotations of *Aeneid* 1.1 and 2.1 have similar patterns in their NT measurements, but these point to these spaces being high-value destinations for inhabitants rather than visitors. Of the 11 examples of these quotations, eight appear in rooms with high undirected eigenvector centrality. Figure 13 shows this phenomenon in the House of Tryptolemus (VII 07.05, a), the House of Mercury (VII 02.35, b), the House of the Actors (I 02.06, c) and an unnamed house (VII 15.08, d). The House of Tryptolemus and the house at VII 15.08 contain quotations from *Aeneid* 1.1, and the House of the Actors and the House of Mercury contain quotations from *Aeneid* 2.1. The ‘back’ side of the *atrium* and garden spaces, such as where two of these quotations occur (Fig. 13a and b), tend to have higher undirected eigenvector scores in most houses; this may be a result of proximity to the *tablinum* or the *triclinium*, two rooms in the Roman house where high-value information is contained. The *tablinum*, where the *dominus* would conduct his business, and the *triclinium*, the location of significant information exchange

during dinner parties, are ‘traditional’ *loci* of power. It is therefore telling that both the high eigenvector scores and the quotations do not show up in these rooms themselves, but rather the spaces leading to them. This shows that the spaces *outside* of these rooms contain high-value information exchange and may be places, in the flow of inhabitants within the house, where the negotiation of power may take place.

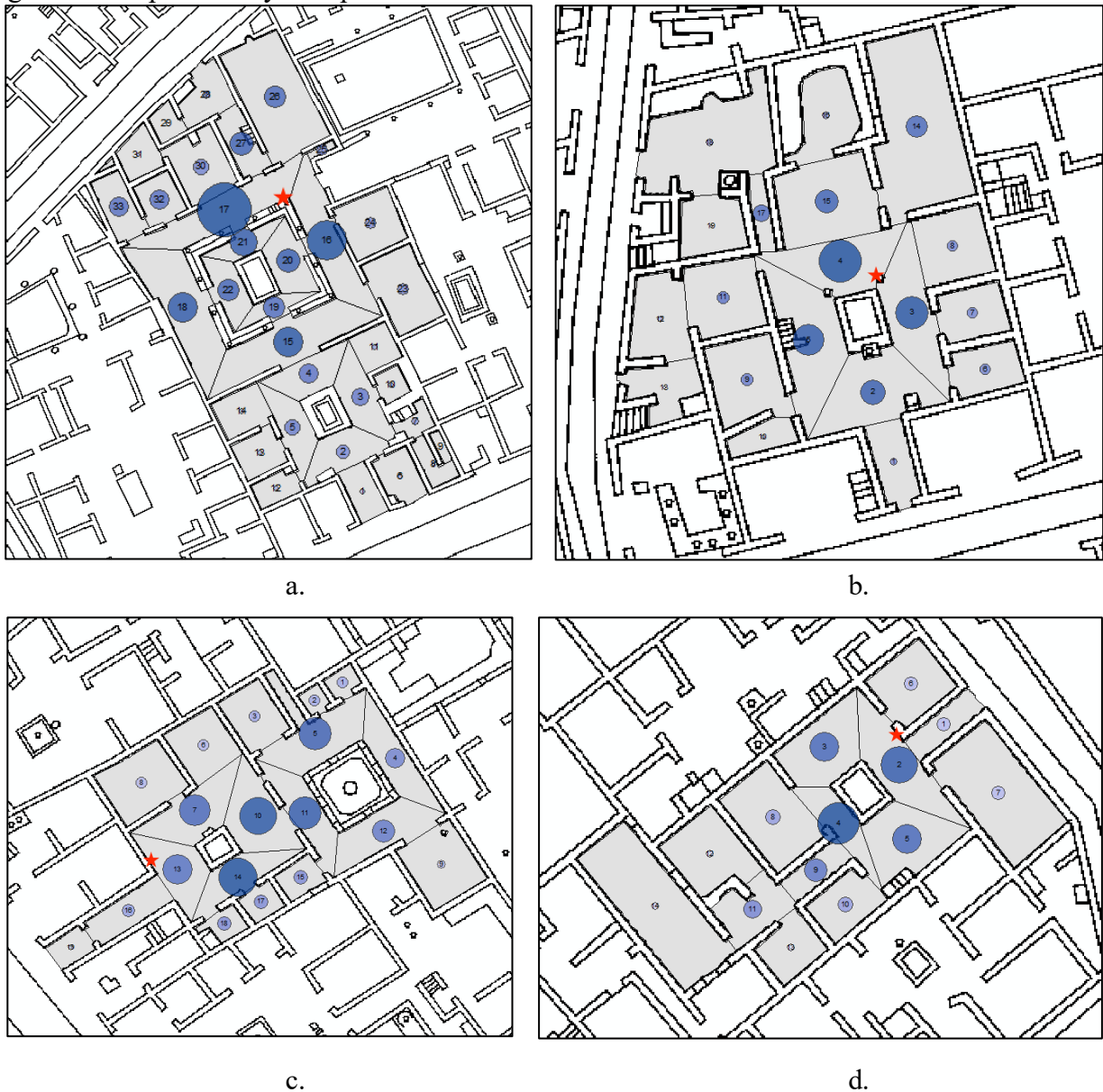


Figure 13: Undirected eigenvector scores for the House of Tryptolemus (a), the House Mercury (b), the House of the Actors (c), and an unnamed house in Regio VII (d). Quotation locations are marked with red stars.

It is also in these spaces that graffiti-writers have chosen to quote Virgil's *Aeneid*, a literary symbol of Roman imperial might, rather than in the rooms where household power is concentrated. It should also be noted here that a more pessimistic view of the *Aeneid* as a critique of imperial power has support among many scholars, an interpretation that the location of these quotations would seem to support.<sup>99</sup>

This can be seen also in the quotations from found in the House of the Actors and the unnamed house at VII 15.08, which are both found on the 'front' side of the *atrium* (Fig. 13c and d). Neither of these spaces have the highest undirected eigenvector scores in these houses, but these are still points of significant information exchange. It is intriguing that these lie so far from the spaces thought to hold the most power over the household and yet they contain some of the longest quotations found in Pompeiian domestic spaces. The 'front' atrium wall in House VII 15.08 features the full first line of the *Aeneid*:

[A]RMA VIRUMQUE CANO TROIA[E] QUI PRIMUS AB ORIS<sup>100</sup>

I sing of arms and a man, who first from the shores of Troy...

This is the only full quotation of the first line found in any domestic space in the city, going far beyond the 'school tags' of the first two words often found elsewhere. This graffiti-writer clearly had good knowledge of at least the beginning of the *Aeneid* and enough time to scratch a line of hexameter into the plaster. A similar situation arises in the House of the Actors, where the first half of *Aeneid* 2.1 was found in nearly the same location:

CONTICUERE OMNES / OMN / INTENTIQ[UE]<sup>101</sup>

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<sup>99</sup> Many have made this argument, but one of the earliest and the most influential was put forth by Wendell Clausen, "An Interpretation of the *Aeneid*," *Harvard Studies in Classical Philology* 68 (1964): 139-47; cf. W. R. Johnson, *Darkness Visible* (Berkeley: University of California Press, 1976).

<sup>100</sup> *CIL* 4.4832

<sup>101</sup> *CIL* 4.3889

Everyone fell silent, [and], eager...

Most of the quotations of *Aeneid* 2.1 contain only the first word or two, but this writer seems to have had the intention of continuing the quotation. The locations of these longer quotations can be interpreted in a few ways. If we accept the theory that Virgilian quotations are the result of schoolboy exercises, this may point to the atrium as the likely location of such schooling. The location of these quotations in unexpected but still high-value destinations within the house may also point to authorship outside of the immediate family. Allison has pointed out that the *atrium* was a major circulation area for all members of the household and a space for household industry, especially women's work like weaving.<sup>102</sup> The length of these quotations shows a significant amount of time spent in these areas, so it is just as likely that the writers of these graffiti could have been enslaved people and/or women, who would have different reactions to the *Aeneid*.

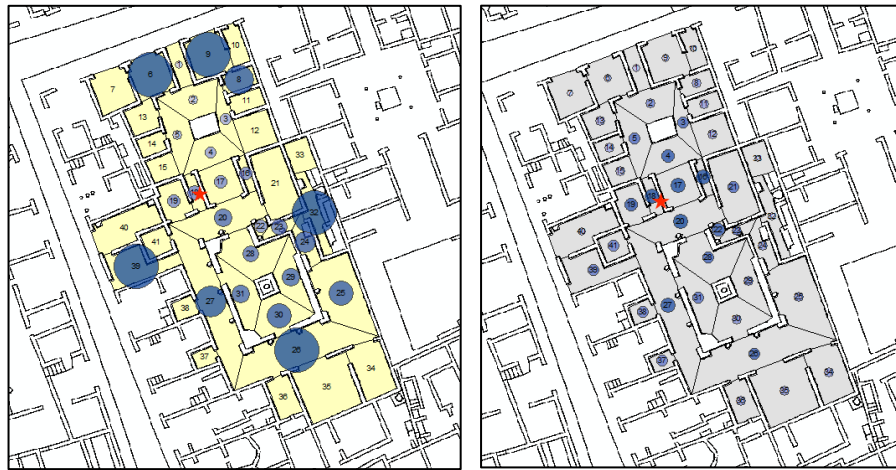
The spatial data for other quotations of the *Aeneid* and quotations from the *Eclogues* does not present so clear a picture because of their tendency to appear in rooms apart from *atria* and garden spaces. Other *Aeneid* quotations are as likely to appear in spaces with low to moderate undirected eigenvector or high undirected betweenness as they are to appear in spaces with high undirected eigenvector. Two appear in spaces without any high NT measurements at all (*CIL* 4.1531 and 4.4127). Figure 14 shows both the directed and undirected NT measurements for the House of M. Holconius Rufus, which contains the erotic adaptation of *Aeneid* 1.126 discussed above. This adaptation appears in a hallway (room 18) to the west of the *tablinum* (room 17). The undirected scores are higher than the directed scores, and the room has a similar undirected closeness, hub, authority, and eigenvector scores as other rooms in the house, but it does not

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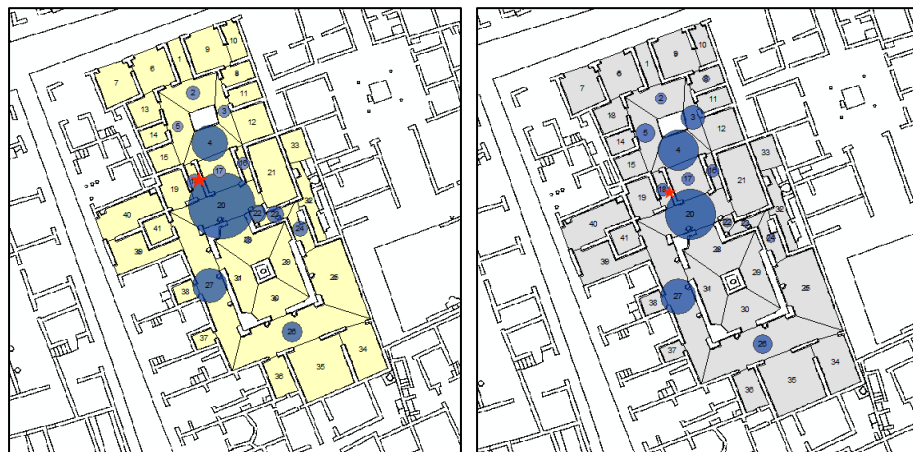
<sup>102</sup> Allison, 271.



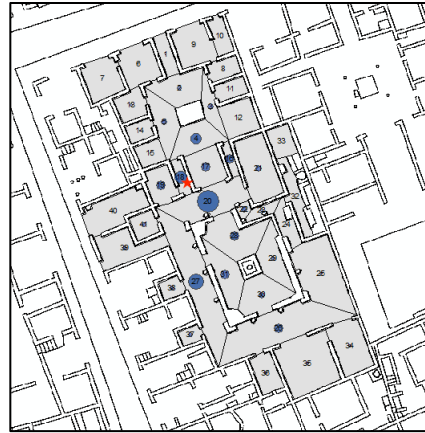
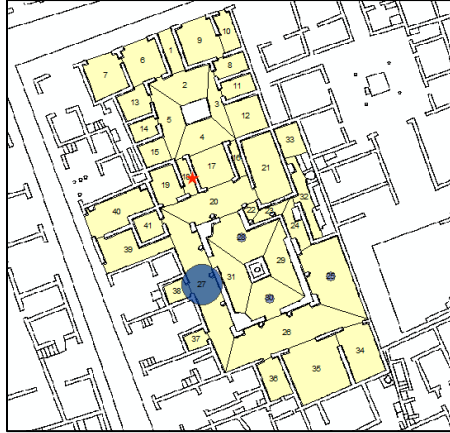
stand out in any one measure, which makes sense considering it is a hallway and therefore unlikely to be a room in which people gather. The nature of the space, the weak directed NT measurements, and slightly higher but relatively muted undirected NT measures perhaps points to a graffiti-writer of lower status, perhaps even an enslaved person, but one with a deep understanding of Latin poetry. One must consider who would have the time or intent to write an elegiac couplet in a dimly lit hallway. The adaptation shows poetic facility by the use of meter and an allusion to Virgil not found in any other domestic space. This may indicate a higher level of literacy and literariness outside of the elite sphere than previously thought.



*a. Closeness Centrality*



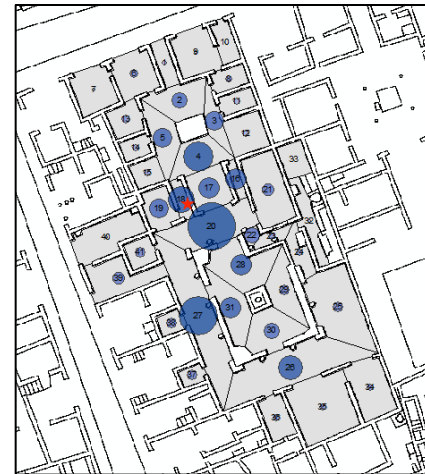
*b. Betweenness*



*c. Hub*



*d. Authority*



*e. Eigenvector*

*Figure 14: Directed (yellow) and undirected (gray) NT measures for the House of M. Holconius Rufus (VIII 04.04). Adaptation location marked with a red star.*

The fact that there is no strong spatial pattern for quotations outside of *Aeneid* 1.1 and 2.1 is a surprising but interesting result and goes against previous notions of the authors of these graffiti. That the majority of Virgilian graffiti in domestic spaces do not come from the easily quotable first lines of Books 1 and 2, and that about a quarter of the quotations do not appear in the more public-facing rooms like *atria* and garden spaces point to a deeper interaction with Virgil than merely as a school text. Virgilian quotations appear in a variety of locations, both in terms of their Vitruvian designations and what their NT measurements indicate about their place in the networks of information power within the houses. The graffiti-writers are using their work in (or perhaps to establish) Soja's thirdspace, where boundaries are (re)negotiated. This also indicates authors of varying backgrounds with different levels of knowledge of Virgil writing for a variety of audiences. What unites the examples in this study is the writers' choice of these quotations to express themselves on Pompeiian walls, using Virgil to create or assert their identity in these thirdspaces, which amounts to an assertion of agency, through a kind of writing that challenges the primacy of epic, among those thought not to have agency. Perhaps no one theory of Virgilian interaction quite explains every instance, which can be seen in the Virgilian graffiti of the House of M. Casellius Marcellus.

### ***Case Study: The House of M. Casellius Marcellus***

As a conclusion to this study, I would like to discuss a particularly interesting example. The 'Virgilian' landscape of the House of M. Casellius Marcellus (IX 02.26) stands out for a few reasons. First, this house contains more Virgilian quotations than any other domestic space in the city. In fact, it features the second highest number of interior quotations of any space, public or

private, after the Large Palaestra.<sup>103</sup> Second, this house features a variety of quotations: one graffito quotes *Aeneid* 1.1 (*CIL* 4.5002, labeled A in Fig. 15); two more quote other lines of the *Aeneid* and are the only examples of these lines found in Pompeii, 1.234 (*CIL* 4.5012, labeled B in Fig. 15) and 2.14 (*CIL* 4.5020, labeled C in Fig. 15); the fourth ‘quotation’ is in fact an adaptation of *Eclogues* 3.1 into a new, nearly metrical line that is erotic in content (*CIL* 4.5007, labeled D in Fig. 15). The quotations in this house are also unique because three of them have clustered into an area of the house outside of the *atrium* or garden space. As figure 15 shows, *Aeneid* 1.234 and 2.14 and the adaptation of *Eclogues* 3.1 appear in a pseudo-porticus (room 14) on square columns that frame a window into the garden space.



Figure 15: Floorplan of the House of M. Casellius Marcellus (IX 02.26) with Virgilian graffiti labeled A-D.

<sup>103</sup> I have excluded quotations on street-facing façades in this assessment, though a more thorough exploration of Virgil in the street would be welcome.

The House of Casellius (IX 02.26) has one entrance on a side street coming off the Via Stabiana. In modern parlance, Insula 2 might be called a mixed-use block with a fairly even distribution of shops, workshops, larger atrium-style *domus*, and smaller dwelling spaces. The types of spaces found in this insula already indicate a less ‘elite’ part of town, so the presence of so many Virgilian graffiti is especially striking. The house, originally excavated in 1869, derives its name from a political *programma* found near the front door extolling the virtues of the *aedile* Casellius, which indicates that the owner of the house, if not Casellius himself, was likely politically active. As Viitanen and Nissin have shown, someone wishing to put up *programmata* needed the permission of and likely had a relationship with the owner of the house.<sup>104</sup> Fiorelli also claimed that the shop next door was owned by the same owner of this house, but the two spaces are not connected and there is little material evidence to support this.<sup>105</sup>

The House of Casellius is not large, and the *fauces-atrium-tablinum-garden* sightline is off-center. Standing in the *atrium* and looking through the *tablinum*, labeled 12 in figure 15, a visitor to the home would only see one side of the garden space. Likewise, the room labeled 9 in figure 15 next to the *fauces* has been identified as a *triclinium*, which is given a view of the atrium rather than the garden. The best view is achieved from the pseudo-porticus, labeled 14 in figure 15, which contained a large center window into the garden space. Though little of it survives today, it was once a richly decorated house with First through Fourth Style frescoes and mosaic floors. Most of the surviving decoration is in the *atrium*, *triclinium*, *tablinum*, and the hallway leading into the pseudo-porticus, though this space itself has no remaining intelligible decoration. Fiorelli theorized that this space served as a summer *triclinium*, which is supported by the view into the garden and the presence of graffiti. This makes this space both a kind of

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<sup>104</sup> Viitanen and Nissin, 128.

<sup>105</sup> Giuseppe Fiorelli, *La Descrizione di Pompei per Giuseppe Fiorelli* (Napoli: Massa Editore, 1875), 144.

circulation space because of the access to the garden and a place to linger in, perhaps during a dinner party.

The first quotation found in the house is much like many other examples of Virgilian graffiti. It reads “arma virumque,” the first two words of the *Aeneid*’s opening “arma virumque cano”: “I sing of arms and a man.” The popularity of this quotation, comprising about 20% of all Virgilian quotations, has already been explored (see Table 1 and Fig. 3). The location of this graffiti on the west side of the *atrium*, the area labeled 3 in figure 15, is a little strange compared to other examples. As shown, the *atrium* was a fairly common location for Virgilian graffiti in general, but *Aeneid* 1.1 is more commonly found in gardens than *atria* (see Tables 3 and 4). Regardless, this line’s appearance in a more public-oriented space of the house does align with other examples. The first line of the *Aeneid* is arguably the most recognizable quotation from the poem both now and in antiquity. Many Pompeians without the means to read Virgil’s poetry themselves would be able to attach these words to his work and the wider Aeneas story, which proliferated even before Virgil immortalized it in his verses, as it had already been claimed by the Julian gens as a family foundation myth. Julius Caesar himself was often a champion of policy to help the common people, so the association with his family likely resonated with the lower classes of the Roman world. One could imagine that reading this graffiti on a wall would call to mind not only Aeneas’ journey but also the imperial power associated with the Julio-Claudian line. The line “arms and a man” also evokes the epic themes of the poem recalling the warfare of the *Iliad* and the man mentioned as the first word of the *Odyssey*, linking these epic themes to the emperor and to the *atrium* space where it was inscribed.

As the first room someone would enter, the *atrium* is therefore the most public area of a Pompeian *domus*, accessible to any visitor. This is especially true of the House of Casellius,

which only has one entrance. Anyone entering the house must pass through the *atrium*, which is why these rooms tend to have ample decoration. As discussed, Wallace-Hadrill has argued that the decoration of these public-facing spaces acts as advertisement for the elite male head of the household, which casts an interesting light on the choice of location and quotation for this graffito.<sup>106</sup> The author of this graffito did not sign their name, which is slightly unusual considering names are frequently found ancient graffiti. They also chose to exclude the next word of the line: *cano*, “*I sing*.” This may have been due to a lack of time to finish the quotation, but it could also have been a conscious choice by the graffiti-writer. Milnor has argued that the creation of graffiti is an assertion of the individual over the collective public space, one reason why it is alternately abhorred and celebrated in modern cities.<sup>107</sup> This graffito, however, has a weak sense of individuality, reinforced by the lack of name and personal verbs in its composition and the generic choice of quotation. Instead, the graffito author’s identity is subsumed by the epic connotations and imperial implications of Virgil’s words, an imperialism that comes at the expense of the traditional elite, in the part of the house meant to reflect the power of the *dominus*.

The NT measures for this house indicate that this part of the *atrium* was not an area of the house where visitors spent much time. Figure 16 shows the directed authority and betweenness scores for the House of Casellius. The ‘back’ side of the atrium (room 4) has high directed authority values and high directed betweenness, but the space containing the graffito (room 3) has neither. This might imply that this part of the *atrium* is unimportant from a visitor’s perspective, though the west side of the atrium provides a direct line from the *fauces* (room 1) to the space labeled the *tablinum* (room 12) for anyone entering through the front door. Room 3 may be useful to get from the entrance to another part of the house, but it high-value interactions

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<sup>106</sup> Wallace-Hadrill, “Social Structure,” 55.

<sup>107</sup> Milnor, 4.

were unlikely to take place there, which may in part be due to the off-center axis connecting the *fauces* to the garden. This might also explain why no other graffiti, Virgilian or otherwise, were found in the *atrium* of this house.



Figure 16: Directed authority (left) and betweenness (right) for the House of M. Casellius Marcellus.

Perhaps, then, the graffiti-writer was among the inhabitants of the house. Figure 17 shows that the undirected eigenvector and betweenness scores for room 3 are much higher than the authority and betweenness scores found on the directed graph. Clearly this space was more important to inhabitants than visitors both for navigating to other rooms and as a high-value destination.



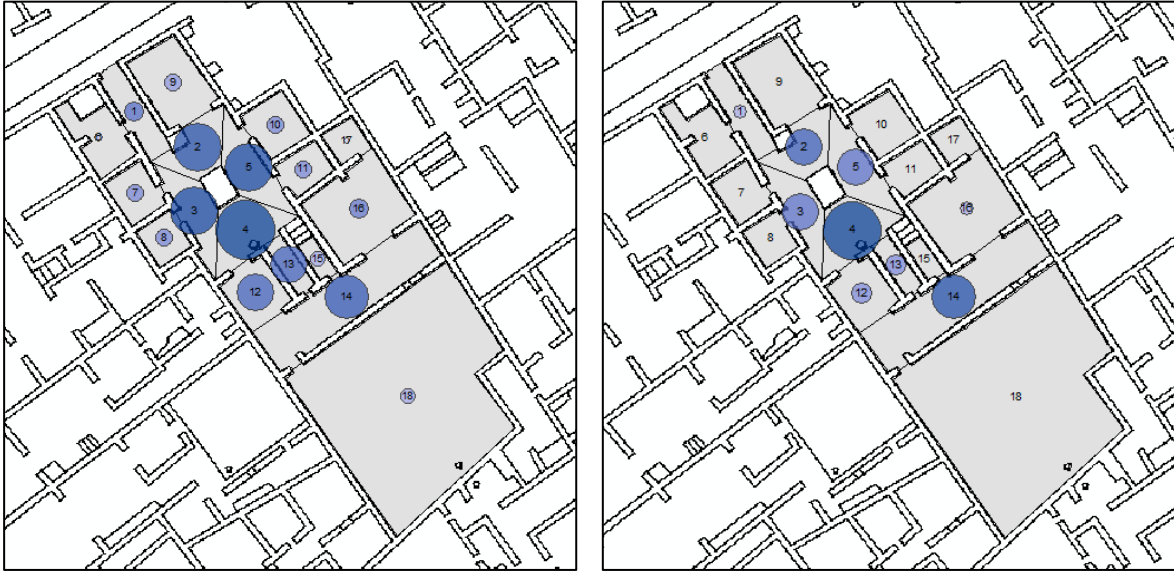


Figure 17: Undirected eigenvector (left) and betweenness (right) for the House of M. Casellius Marcellus.

In regards to graffiti, the pseudo-porticus is different from the *atrium* in many ways. Most immediately, where the *atrium* of this house appears to be largely devoid of graffiti, the pseudo-porticus has been heavily inscribed. According to the *CIL*, 57 individual graffiti have been found in this room, mostly on the pillars that supported the second story and framed the window into the garden space. Many of these graffiti are also personal, with several inscribed names, greetings, and well wishes. The anonymity of the graffiti found in the atrium vanishes, and the assertion of the individual presence seems acceptable, even welcomed, in this space. This is likewise reflected in the Virgilian quotations found here. On one of the pillars was found *Aeneid* 1.234, the beginning of a plea made by Venus to her father Jupiter as she advocates for Aeneas and his people:

*CERTE HINC ROMANOS OLIM / VOLVENTIBUS ANNIS*

“Surely after many years have rolled by, here the Romans...

Her speech continues that “here,” meaning Italy, the Romans will have control over land and sea by the will of Jupiter (*Aen.* 1.235). This line carries similar epic connotations as the first line

found in the *atrium*, but the share of this epic power has been widened. Rather than singing of one man, this line conjures up the divinely appointed dominance of the Roman people as a whole. The emphasis on the power of the emperor is removed in favor of a more collective power held by every citizen of the empire. It also highlights the complex ‘national’ origins of the Romans, having descended from immigrants, which may appeal to the Pompeians living outside the capital city and the enslaved and freed with origins outside of Italy. This reflects a shift from household power held only by the *dominus* to others in the house.

The other direct quotation found in this room on a nearby pillar reads simply “ductores Danaum” (*CIL* 4.5020), “the leaders of the Greeks,” which comes from *Aeneid* 2.14 as Aeneas begins his tale of the fall of Troy. As mentioned previously, this quotation, especially in conjunction with the other *Aeneid* quotation found in this room, is interesting because neither are found anywhere else in the city and show a familiarity with Virgil’s text beyond simple repetition of the first lines. The choice of these lines specifically also shows an emphasis on the parts of the poem outside of the promotion of the Julian gens, instead focusing on the Trojans as refugees defeated in war, which may have appealed especially to the enslaved people working in houses like this, sold into slavery after defeat. In the transition from *atrium* to pseudo-porticus, the quotations have also shifted away from power centered on the imperial family, and by extension the *dominus*, to a more decentralized power.

The final Virgilian reference found in the House of Casellius is perhaps the most intriguing of all. Rather than a direct quotation, the author has adapted *Eclogues* 3.1 into a new erotic poetic line, much like the graffiti-writer in the House of M. Holconius Rufus discussed above. The graffiti reads:

*DET MIHI DAMOETA FELICIOR QUAM PHASIPHAE; HAEC OMNIA SCRIPSIT  
ZOSIMUS*

“Let him give it to me, Damoeta(,) happier than Pasiphae(;) Zosimus wrote all these things.”

As shown in Table 1 and figure 3, quotations from the *Eclogues* are much less popular than the *Aeneid*, and the majority are simply the names “Rusticus and Corydon.”<sup>108</sup> The original line from which this inscription was adapted reads: “Dic mihi, Damoeta, cuium pecus, an Meliboei” or “Tell me, Damoetas, whose flock this is; the flock of Meliboeus?” What was a simple question in Virgil’s text has now become a wish with homoerotic tones as Zosimus seems to be identifying himself with Pasiphaë in the passive sexual role.<sup>109</sup> Clearly, this Zosimus was not only familiar with the *Eclogues* but also showcases his own poetic talent through his wordplay by changing “dic” to “det” and referencing a cow-related myth in his adaptation of an original line asking about a flock belonging to Meliboeus, whose name contains the root for “bovine.” Erotic graffiti was widespread in the ancient world, including poetic compositions, but this graffiti is unique specifically because the author twists the words of Rome’s most popular poet for his own poetic purpose. Zosimus’ line demonstrates an individuality and performativity lacking in the quotation found in the *atrium*. First, the author signed his work, taking credit for his poetic composition and asserting his joint ownership over Virgil’s words. Though the Aeneas myth had been coopted by the Julian gens and the later imperial family, this adaptation unequivocally belongs to Zosimus and the addition of his name forces both ancient and modern readers to imagine who he might be. Through his use of the first person, he also invites the reader to put themselves in this same position as they read it aloud or to themselves.

According to the *CIL*, this same Zosimus was likely responsible for the quotation of *Aeneid* 1.234 found nearby, which might indeed be part of the “haec omnia” Zosimus claims in

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<sup>108</sup> For example, *CIL* 4.1524, 4.1527, 4.4660

<sup>109</sup> The grammar here is ambiguous. “Felicior” could be referring to Damoetas, placing Damoetas in the role of Pasiphae. I have chosen to have “felicior” modify “Zosimus,” placing the author in the passive sexual role.

his line. When taken together, these two lines present a fascinating, seemingly conflicting image of power. Above is the pastoral, homoerotic line in which the author willingly places himself in the passive sexual role; below, is the epic assertion of Roman might. In the rigid binary of the penetration model, the power is indisputably held by the sexual penetrator, and yet, here we have a graffiti writer positioning himself both as the penetrated party and sharing in the power of the supremacy of the Roman state. It should also be noted that this assertion of Roman might in *Aeneid* 1.234 comes through the mouth of a woman (goddess), adding another gendered layer to Zosimus's work. This exchange is also happening in the more private, collectivized pseudo-porticus space towards the back of the house, where it seems parties other than the elite *dominus* may have held power. This can be seen also in the NT measurements seen in figures 16 and 17, which shows the pseudo-porticus scoring highly on directed authority, undirected eigenvector, and both directed and undirected betweenness. Clearly this room was a place of high-value information exchange, and therefore presents, as thirdspace, an opportunity to (re)negotiate boundaries, which is reflected in the poetic quotations and adaptations of Zosimus in the pseudo-porticus.

## **Conclusion**

The House of Casellius and the examples discussed above provide a limited but important view into how ancient Romans interacted with Virgil's texts, both to reinforce and complicate the idea of power in the early imperial period, but further comparative research is needed before more concrete conclusions can be drawn. The nearly 70 Virgilian quotations found in Pompeii are a very small percentage of the more than 5000 graffiti catalogued so far, which makes drawing conclusions about wider Virgilian reception difficult. However, it is important to try to understand Virgil in more diverse contexts outside of the ancient classroom. Further work

ought to be done to continue this pursuit. This study focused only on quotations in domestic spaces, but a wider spatial analysis of Virgilian quotations throughout the city would further enhance our understanding of ancient interactions with Virgil's texts. As mentioned above, other Roman authors also make an appearance in the graffiti of Pompeii but there has yet to be a thorough study of their relation to the Virgilian quotations and each other. This study is a small but important step in understanding the intersection of space and popular literature in the Roman world, which will hopefully continue to be built upon.

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Appendix: List of Houses Mapped in Study

<i>Address</i>	<i>House Name</i>	<i>Number of Quotations</i>
<i>I 02.06</i>	House of the Actors	1
<i>I 08.17</i>	House of the Four Styles	1
<i>I 10.04</i>	House of Menander	1
<i>I 10.08</i>	House of Minucius	1
<i>I 13.01</i>	House of T. Crassius Crescens	1
<i>II 03.03</i>	House of Venus in the Shell	1
<i>V 02.10</i>	House of Paccia	1
<i>V 02.i</i>	House of the Silver Wedding	2
<i>V 05.03</i>	House of the Gladiators	3
<i>VI 14.12</i>	House of L. Numisius Rarus	3
<i>VI 15.09</i>	House of the Compluvium	2
<i>VII 02.35</i>	House of Mercury	1
<i>VII 07.05</i>	House of Tryptolemus	1
<i>VII 15.08</i>	Unnamed House	1
<i>VIII 04.04</i>	House of M. Holconius Rufus	1
<i>IX 02.26</i>	House of M. Casellius Marcellus	4