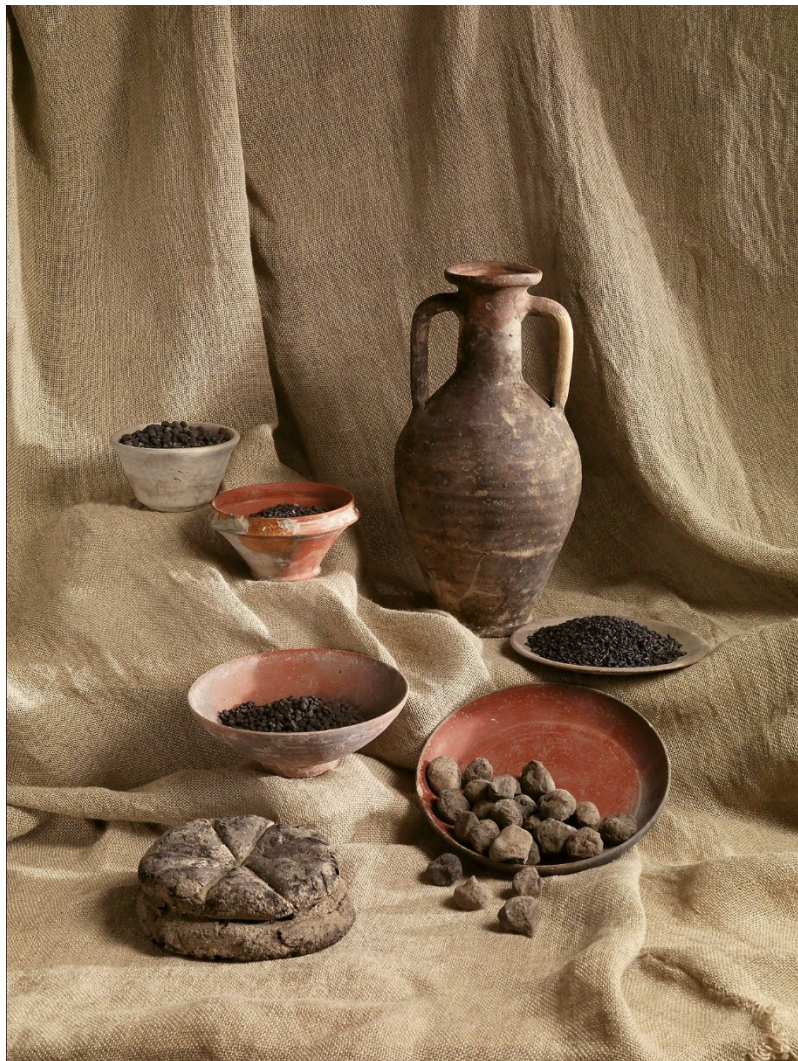


The Archaeology of the Roman Diet



Food Remains from Pompeii (Archivi dell'Arte/Luciano Pedicini 2018)

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Introduction

There has been a long-held belief that the average Roman citizen subsisted on a vegetarian diet of cereals, olive oil, and wine while the more affluent dined on a wide variety of extravagant delicacies. However, recent archaeological excavations in the ancient cities of Pompeii and Herculaneum are shedding new light on the diet and eating habits of citizens living in the heart of the Empire. The work being done in these two cities is demonstrating that early notions regarding the Roman diet may not be accurate.

Most of the time when looking at ancient cultures, it is an examination of the records of dead communities, abandoned for a long time before they were preserved. However, due to the nature of the disaster and the catastrophe that happened in 79 CE, Pompeii and Herculaneum allow the possibility to capture a snapshot of a living community. This gives a unique opportunity to examine some things about a living community that may reveal new insights into the Roman diet. It may only apply to this specific region, but it's still a snapshot that didn't exist before. By examining new data from excavations and analysis of skeletal remains, this may expand the understanding beyond the traditional view of the Roman diet.

The Traditional View of the Roman Diet

When performing a Google search on the Roman diet, there is a vast array of search results. Careful reading will reveal that most people have the idea that the poorest Romans ate badly or even “like animals” (as in the March 2013 [livescience.com](#) article by Stephanie Pappas states) while the rich dined lavishly on best and most exotic things (e.g. the March 2015 article “Roman Food” from the History Learning website). Many of these articles also claim that the vast majority of the Roman population was living in poverty. (Pappas 2013; Schneidel and Friesen 2009)

So, where does this idea come from? It seems to be picked up from 20th Century historians. One such historian, Harold Johnston, stated in *The Private Life of Romans* that “Grain and grapes and olives furnished subsistence for all who did not live to eat. These gave ‘the wine that maketh glad the heart of man, and oil to make his face to shine, and bread that strengtheneth man’s heart.’ On these three abundant products of the soil the mass of the people of Italy lived of old as they live today.” (Johnston 1932) Johnston himself was relying on the works of earlier historians such as Joachim Marquardt (c. 1886)

and Ludwig Friedländer (c. 1881). The works of these historians paint a picture of the diet of the average Roman citizen as one of mere subsistence. It implies that they had barely enough nutrition to survive on, and it depicts their lives as “short and full of pain”. (Grayson and Sheets 1979) Others, like Willem Jongman, “simply assumed we knew life...was brutish and short.” (Jongman 2017)

To contrast this, there are the writings of authors who lived during the time of the Roman Empire. Several works from the period shine a light on the agricultural activities that were taking place. Among these is Cato’s *De Agri Cultura*, written around 160 BCE, which provides a glimpse into rural life. (Cato, M., & Dalby, A. 1998) By the 1st century CE, two more works were written that give additional insights. The first of these is *Naturalis Historia* by Pliny the Elder. This encyclopedic work is comprised of thirty-seven books arranged into ten volumes covering a vast array of topics including agriculture, horticulture, and botany. (Pliny the Elder & Holland, P. 2012) Additionally, there is the *De Re Rustica*, by Pliny’s contemporary Columella. *De Re Rustica* covers such topics as viticulture, gardening, animal husbandry, and bee keeping discussed in detail. (Columella, L.I.M, & Ash, H.B. 2007) These three works serve as primary textual evidence of the crops and livestock grown and available for the Roman table.

The region of Campania, in which Pompeii and Herculaneum are located, was famed for its fertility. Pliny the Elder notes in his works that both olives and wine were produced heavily in the region. He further states that four varieties of grapes were grown on the slopes of Mt. Vesuvius, and he goes on to describe several other varieties of fruits grown in the region. Columella and Cato also describe the produce of the region including cabbage and a variety of nuts.

From these men come some of the earliest known Roman recipes. Cato’s work is the earliest reference dating from 160 BCE while Pliny the Elder and Columella are contemporaries of each other, both having lived in the 1st Century CE. This also makes them a contemporary of Apicius from whom most of the modern knowledge of Roman cooking originates. *De Re Coquinaria* is attributed to Marcus Gavius Apicius. (Apicius, M.G., & Vehling, J. D. 1977) He was a famous epicurean from the 1st Century CE. Apicius is even mentioned in the works of Pliny. However, the recipes that form the *De Re Coquinaria* were not compiled into a single volume until sometime in the late 4th or early 5th Century. While the nearly five hundred recipes contained within the volume are derived from several sources, approximately three-fifths of them are believed to be Apicius’ own. (Horgan 2017) It’s on these works that historians like Johnston based their belief that a diverse and varied diet belonged only to the elite.

The works of the poets Horace, Martial and Juvenal, provide anecdotal evidence to a certain extent, but the food described in their poems form what might be considered more “middle-class” diets. They describe meals that gourmets might have considered ‘humble’. (e.g., Martial’s meal consisting of lettuce, eggs, olives, smoked cheese, fish, and fowl). (Martial & Michie, J. 2002). This is in stark contrast to the lavish meals of the elite. One such meal described by Macrobius included more than 27 dishes. It was comprised of seven varieties of shellfish, five types of bird, hares, deer and wild boar, just to name some of the dishes. (Macrobius, A.A.T. & Kaster, R.A. 2011). Despite the simple words and descriptions, the literary works suggest that even people living a more middle-class lifestyle still had “a real gastronomic tradition (that) exists all the time in the background.” (Dalby 2000) Their descriptions of dining focus more on locally available proteins, vegetables, and a variety of cheeses. (Dalby 2000) While these appear from the poems to be more humble than upper-class meals, there is still a commitment to flavorful foods. This is evidenced by the detailed descriptions of sauces to be served with certain dishes (e.g., description of lamprey sauce in Horace’s *Satires* 2.8 43-53). (Dalby 2000)

Not only do these writings show some differences from the elite diet, but they speak to a wider variety of diet for the Roman middle and lower-class than scholars have historically believed. The first clue that there is not a complete understanding of how the Roman diet worked can be found in poetry. Looking more deeply, it is clear that assumptions made and perpetuated on the average Roman diet, are not wholly accurate. In order to correct these assumptions, different data needed to be found that would open a window to the food and diet of this ancient society.

A New Window

The new excavations taking place at Pompeii and Herculaneum opened a perfect window of opportunity for further research. What happened to Pompeii and Herculaneum that opened this window on a living community for us? What exactly happened at these two cities that created the insight into a living Roman community? How did a tragedy of epic proportions open the perfect window for research? The key to this really has to do with their location. Pompeii and Herculaneum are in the Campania region of Italy. They rest on the shores of the Bay of Naples, and towering over them is Mt. Vesuvius. The residents of this region had long lived in the shadow of the mountain and farmed on the fertile landscape that surrounded it, but they had little idea that one day the mountain would drastically alter their lives and, in the process create a time capsule of Roman life.

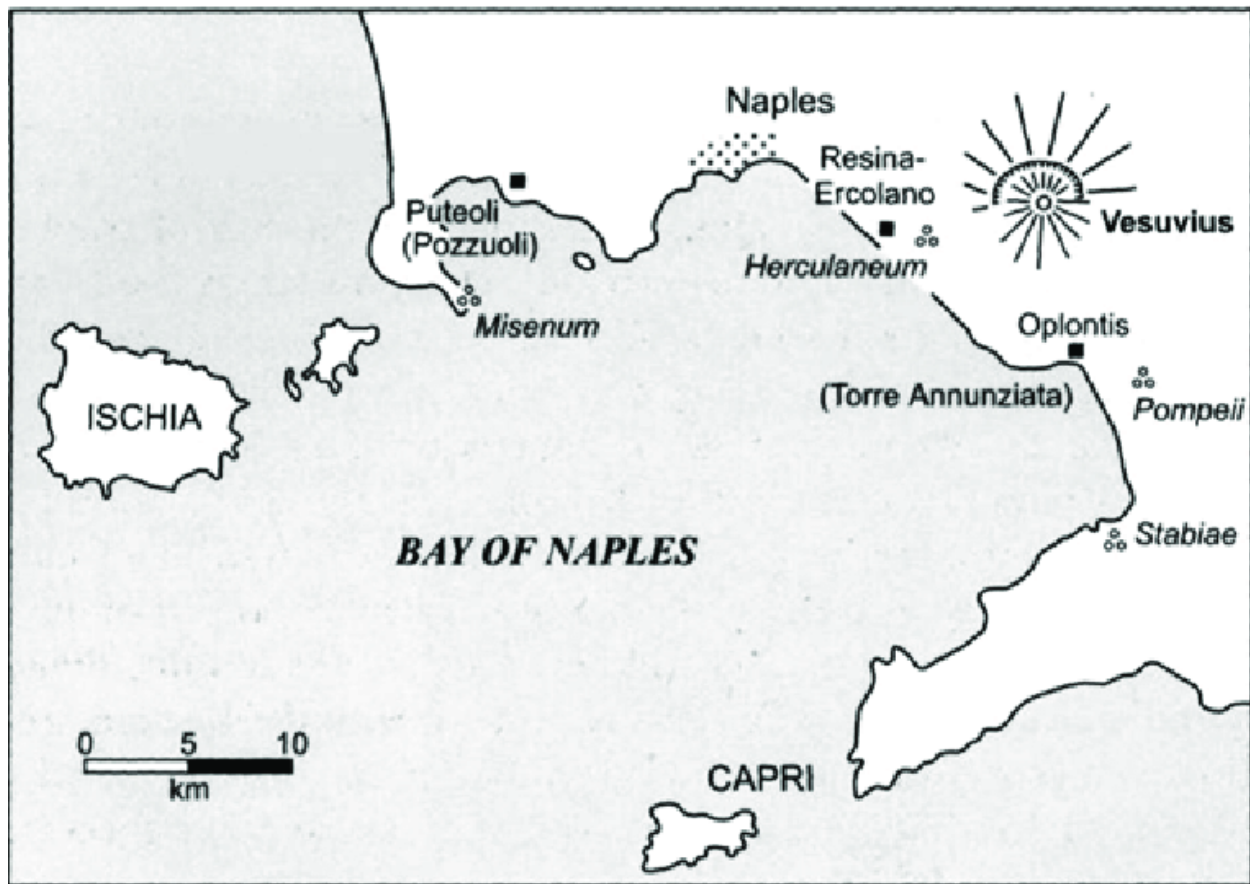


Figure 1. Map of the Bay of Naples (Scarth & Tanguy 2001)

An earthquake of large magnitude struck the region in 62 CE, causing significant damages to both Pompeii and Herculaneum. Many scientists now speculate that the quake was just the beginning of Mt. Vesuvius becoming active once more. Oblivious, the residents of the affected towns had no inkling that it was just a precursor of what was yet to come. As a result, they were wholly unprepared for the eruption of the volcano that took place in 79 CE. History's best account of what occurred on that day comes from the eyewitness account of Gaius Plinius Caecilius Secundus, or Pliny the Younger as he is more commonly known. In his letters to the historian Tacitus, he describes the violent eruption of the mountain in great detail. His account of the event includes the ash and stone falling from the sky, the enormous cloud of volcanic debris that shot into the sky, and the choking, noxious fumes. He even recounts the efforts of his uncle, Pliny the Elder, to rescue the endangered citizens before he died in the attempt. What is clear from Pliny the Younger's account is the suddenness of the eruption and how utterly unprepared the residents of the region were for such a catastrophe. (Pliny the Younger & Radice, B. 2003)

The people of Pompeii had no idea what to do when the sky turned black as night, and the air filled with choking ash. Such a circumstance must have terrified them, evidenced by their flight from their homes. It is clear from the archaeological record that essentially one of two things happened. Either people abandoned everything they had and fled for their lives or they died there. Some people who chose the latter still died there. Failing to make their escape, people took shelter wherever they could: in a gladiatorial barracks, the interiors of homes, or in the cellars of larger buildings. In the end, these places where they took shelter would become their final resting places. Ash and pyroclastic flows ultimately buried the town under more than 20 feet of volcanic material, and in the process, a wealth of material was preserved for later generations to examine. (Beard 2008)

The impact of the eruption on Herculaneum was no less severe. However, Herculaneum shows a more “staged” evacuation process than Pompeii does, indicating that the citizens here perhaps had a little more time to flee. Ultimately, Herculaneum’s citizens were forced, in that moment, to make decisions very quickly. During the first examinations of Herculaneum, few remains were found. This led to the belief that many of the inhabitants escaped to safety. This misconception lasted well into the modern era until remains were located near the ancient harbor. (Scandone, R. & Giacomelli, L. 2014). Based on the remains found on the beach and in the boat sheds, it is clear that many people fled toward the harbor in an effort to make their escape by the sea. While some may have escaped the fury of the volcano by this path, not all did as the remains of more than 300 individuals were discovered there. Herculaneum was sealed in almost three times the quantity of volcanic material that Pompeii was. The nature of the materials that covered Herculaneum created an environment for preservation that protected items like carbonized food and wooden objects which proved to be rare and significant finds for researchers.

One recent find at Herculaneum graphically demonstrates just how violent the eruption of Mt. Vesuvius was. In examining the remains of a skeleton found at the Collegium Augustalium, researchers found a hard, glassy substance coating the interior of the skull. Chemical analysis revealed proteins and fatty acids in the substance that are consistent with human brain tissue. As a result of their analysis, researchers were able to determine that the glassy substance was the vitrified remains of human brain tissue. In other words, the enormous heat of the eruption melted the soft tissue of the brain solidifying it into this glass-like substance upon cooling. (Petrone et al. 2020)

The sudden and overwhelming eruption of Mt. Vesuvius sealed these towns away, locking them in a time capsule. In that moment, what was created was

essentially a frozen “day in the life”. While some people got away, they did so with nothing more than the items they could carry as they ran. They didn’t have a chance to pack up. They didn’t have a chance to take all of their furniture or household goods. All they took was what they could throw together in an hour or two perhaps, and that was it. Everything else stayed there, including all kinds of household objects, stored goods, and other things like food still cooking in ovens, and the contents of latrines.

The Excavations

The sites of Pompeii and Herculaneum were left largely undisturbed for many centuries. Herculaneum was originally discovered in the process of digging a well at the start of the 18th century. When it was discovered, it began to nominally undergo excavations under the auspices of the King of Naples, but even these proved difficult due to the nature and depth of the material. It also appeared to focus simply on the material culture that could be retrieved from the ground to enrich the homes of the patrons funding the work. Excavations continued intermittently over the 18th and 19th centuries before being abandoned entirely. It would not be until the mid 20th century that excavations would resume, and these would be undertaken in a much more formal and scholarly manner than had previously been done. (Scandone, R. & Giacomelli, L. 2014).

Pompeii’s story of discovery is not much different. It was discovered by an architect in the 16th century, but it was not until nearly 200 years later that it began to be excavated. Again, under the auspices of the King of Naples, Pompeii began to be uncovered, and its material culture removed and examined. The excavations were often done by people with no knowledge or training, and they were not according to a formal plan. The result was a very haphazard and disjointed process of discovery. A valuable loss of research was a direct consequence of the removal of remains to designated “bone houses” without properly recording where the finds originated from. In some cases, buildings that were excavated were later reburied. Due to the smaller layer of volcanic debris, the excavations did not suffer the same intermittent excavation process that Herculaneum did. Pompeii was excavated pretty consistently from its discovery, and continued throughout the 19th century. It is during this time frame that the excavations became more formal and started to follow a plan as the archaeologist in charge at the time, Giuseppe Fiorelli, put an end to the uncontrolled digging that had previously taken place. The current regio divisions of Pompeii and the preservation of bodies through casting are credited to Fiorelli and his formal planning. Despite all this, Pompeii did experience

significant pauses in its excavations due to overwhelming world events. (Connolly 1990)



Figure 2. Aerial View of Current Excavation Site at Pompeii (Sanp Pompeii Handout/EPA via Shutterstock 2018)

There is an unprecedented flow of information coming from the sites at Pompeii and Herculaneum that is shedding new light on Roman life. Archaeologists at these sites are using new techniques and disciplines such as zooarchaeology, archaeobotany, and environmental archaeology that provide new information regarding the diet of ancient Romans based on samples of organic material and bones. These finds are not just coming from soil samples, but they are also coming from places like rubbish heaps and sewage systems, items previously overlooked or ignored by predecessors.

The Latrines

Early diggers were seemingly more interested in scavenging material culture from the ground. There is evidenced of the removal of mosaics and murals from places like the House of the Vestals in Pompeii. (Murphy et al. 2013) As a result, finds that spoke to less material things like food and diet were often not well documented overlooked entirely. They did make note of some finds related to the ancient diet but only when significant quantities of particular food items

were found “for example a dolium of grain or an amphora filled with fish bones”, but often these finds were not recorded in the context of their surroundings which limits our understanding of who ate them. (Rowan 2017) It was not until the modern era that researchers began to specifically include environmental sampling and archaeobotanical analysis in their plans of excavation. This more in-depth focus on the food stuffs of Pompeii and Herculaneum led one researcher to compile a catalogue of all the food items found in the towns and surrounding areas. (Borgongino 2006) This work begins to shed light on the food items found in region, but it is only a jumping off point. However, it does not provide the context in which the items were found, and thus, no idea of who would have consumed them. The continuing excavations at Pompeii and Herculaneum give researchers access to additional information and contextual data that paints a richer, more detailed picture of the Roman diet than ever before.

Perhaps the most significant of these finds come from the Cardo V sewer in Herculaneum which is the “largest single deposit of food finds” in the region. (Rowan 2017). According to Andrew Wallace-Hadrill, Director of the Herculaneum Conservation Project, more than 10 tons of material has been excavated from this location. This equates to some 775 containers (each containing 15 liters of material) from the Cardo V. (Camardo 2015) What is unique about this find is what it is able to tell us about the diet of people in different socio-economic classes.

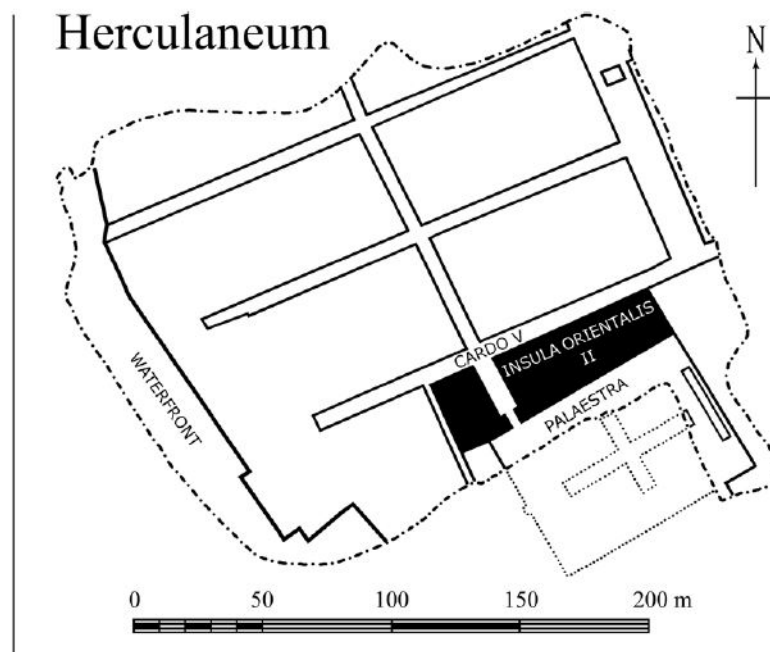


Figure 3. Diagram of Insula Orientalis II Block (Nicholson et al. 2018)

There is an entire urban block situated above the Cardo V sewer. Known as the Insula Orientalis II, this block was comprised of shops on the ground floor with at least three floors of residential living spaces above it. (Camardo 2015) Artifacts discovered in this complex seem to indicate that the shopkeepers lived on the ground floor in living spaces adjacent to their shops while the upper level living spaces were occupied by wealthier, probably upper middle-class, citizens. All of these dwellings had latrines which drained into the Cardo V. At first glance, it would be logical to assume that there would be an intermingling of the refuse from the different dwellings. However, the way in which the Cardo V sewer drains led to a stratification of layers and quadrants. This stratification provides a to differentiate the deposits and make some determination about which layers came from the lower-class dwellings and which came from the more upper middle-class dwellings. (Rowan 2017)

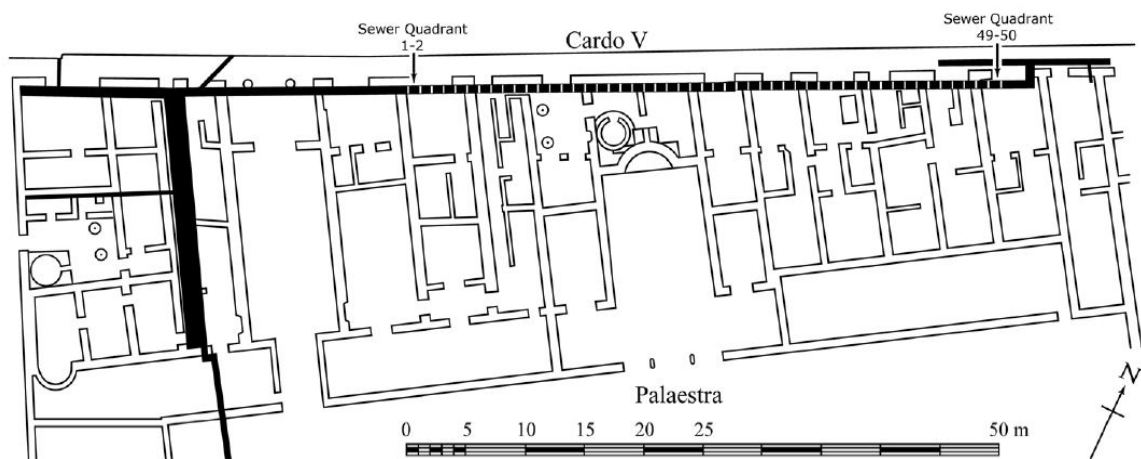


Figure 4. Diagram of Cardo V Sewer (Nicholson et al. 2018)

So, what do the deposits reveal about what was being eaten by the residents of Insula Orientalis II? Archaeologists have found that the block, which they believe housed lower and middle-class citizens, contained as they expected a diet rich in grain, fruits, nuts, and olive oil. To be precise, some “84 and 27 different mineralized and carbonized plant taxa respectively” were discovered in the sewer. (Robinson and Rowan 2015) This is what you might expect to find if early historians’ assumptions about a largely vegetarian diet are to be believed.

However, they also found the remains of numerous egg shells. The majority of the shells came from chicken eggs, indicating a high consumption of this item. They also discovered several fragments of goose eggshell. (Rowan 2017) In addition to egg-shells, they found small animal bones belonging to birds, sheep, pig and chicken. (Robinson and Rowan 2015) More surprising perhaps was the discovery of a variety of more rare food items including sea urchins

and dormice, a type of plump rodent considered to be a delicacy to the Romans; as well as exotic foods like dates, and spices such as peppercorns and mint seeds. (Robinson and Rowan 2015)

The sewer contents also demonstrated that they ate a diet rich in seafood. The researchers identified and studied an estimated 2500 fish bones from the Cardo V sewers, and from these taxa, they were able to identify approximately 70 species of fish and 48 marine shellfish species. This speaks to a wide variety of marine species being available for consumption. (Nicholson et al. 2018)

If the assumptions of the early historians are accurate, there should be clear disparities in the strata for the lower-class residents versus the strata for the upper-middle class residents. The historical perspective would suggest low food diversity for the less wealthy residents and an absence of expensive food items. Instead, the evidence exhibits a great deal of similarity of food stuffs from one strata to the other. In fact, “many of the same food items...even expensive items such as black pepper” appear in the strata of both the lower-class and upper middle-class residents. (Rowan 2017) This suggests that those who resided in the Insula Orientalis II ate largely the same diet regardless of their socio-economic standing. The only exception to this being evidenced by the slightly rarer food items like goose egg shells appearing in the refuse of the wealthier inhabitants. (Rowan 2017)



Figure 5. Eggs preserved by the Vesuvius eruption (Dorling Kindersley/Museo Archeologico Nazionale di Napoli 2014)

How does this compare with findings at Pompeii? Although there is no equivalent of a *Cardo V* in Pompeii, thanks to the work of researchers with both the University of Cincinnati's Porta Stabia Archaeological Research Project and the Pompeii Pistrina Project, there is a significant variety of archaeobotanical finds. The excavations have uncovered at least ten cess pits in the neighborhood of the Porta Stabia. While it is by no means as large as the *Cardo V* discovery, researchers were able to remove several cubic meters of material for analysis. The properties in the Porta Stabia, like those in the *Insula Orientalis II*, showed that there were socio-economic distinctions between the residents living in Pompeii. What these finds have demonstrated is that Pompeii had perhaps a larger variety of food stuffs than Herculaneum, as supported by the discovery of a butchered giraffe leg. For the most part, however, the finds in Pompeii greatly resemble the finds of Herculaneum and show to a great extent the same level of diversity. Hereto, there is a suggestion that the wealthier residents had more access to slightly more rare food items, like dormice and giraffe, but to a large extent, the same food stuffs were eaten across socio-economic strata including imported spices like black pepper and caraway. (Ellis 2018) This would seem to suggest that the two cities were much alike in their diet, and that the diet available to the residents of both was nutritionally more diverse than the subsistence diet that they were previously thought to have consumed. (Rowan 2017)

The Skeletons

Skeletal remains are another way in which to examine the diet and health of the people of Pompeii and Herculaneum. By scrutinizing specific characteristics of bones, determinations can be made regarding the general health of the population. Bones contain the history of growth, trauma, and disease. Furthermore, by examining the carbon and nitrogen isotopes contained within the bones, and trace minerals within the bones, clues to the diets of the individuals can be obtained through their remains.



Figure 6. Dr. Estelle Lazer in a Bone house at Pompeii (www.abc.net.au 2013)

Unfortunately, Pompeii's data set reveals some complications. The initial excavations did much to compromise the data because there are inconsistencies in the recording of not only where remains were found, but once remains were excavated, they were moved to "bone houses" for storage purposes." This caused skeletal remains to be disarticulated in the storage process. As a result, the bones of each individual became separated from each other. This disarticulation of the remains means that it is difficult to identify the full skeletons of individuals. An example of this has recently come to light. DNA analysis has recently been conducted on a skull that has been thought to belong to Pliny the Elder. After the analysis, the researchers cannot conclusively say that it is, in fact, Pliny's skull though it does contain many markers that would be consistent with Pliny's characteristics. What they can say with certainty is that the jaw bone that was with the skull belongs to a completely different person. (Wu 2020)

By contrast, the data sample in Herculaneum is much more cohesive. Most of the skeletal remains in Herculaneum were discovered in the later part of the 20th century, and when they were discovered, they were excavated and archived in a much more careful and deliberate fashion. Because of this, they were catalogued and preserved with an eye towards a more complete analysis. (Lazer 2017)

Several types of analysis have been conducted with regard to the skeletal remains. The first of these involves bone pathology. With the Pompeii data set, analysis largely focused on the individual bones that are most likely to yield the most information. These include the long bones (of both arms and legs), pelvic bones, and skulls (including teeth). (Descocurdres 1994) Unsurprisingly, the teeth indicate that there was a lack of oral hygiene (in comparison to what is standard in modern Western societies). This apparent lack of hygiene could provide some indicators as to underlying health issues such as systemic infection or other soft tissue pathology. On the other hand, there is a frequency of healed injuries that “reflects a certain robusticity in the immune systems” of the population. (Lazer 2017) There is further evidence of certain pathologies of the bones that are indicative of osteophytic changes to the bone. These changes demonstrate the presence of conditions like arthritis that are more consistent with the bones of those who have survived in to later adulthood. (Lazer 2017)

Despite the difficulties of the Pompeii data set, it is still possible to compare an analysis of it with that of Herculaneum. The remains of more than 300 intact skeletons discovered at Herculaneum were subjected to similar pathological analysis. What is more, because the skeletal remains at Herculaneum were studied while still intact, it is possible to draw inferences about the remains that are not possible with the remains at Pompeii. Based on the goods and apparel found with them, the Herculaneum remains represent a group of people whose members were of different socio-economic classes. (Bisel 1988a) Thus, it would appear that their remains would represent a cross-section of the Herculaneum society. These studies indicate that the population of Herculaneum, while prone to some diseases (especially in childhood), were largely a healthy population regardless of socio-economic standing. (Bisel 1988a) These findings are very similar to the findings of the Pompeii studies. This would appear to corroborate the findings of the Pompeii studies, and it suggests that, despite the randomness of the sample of the remains due to the separation of the skeletons, the citizens of Pompeii were also a largely healthy population. (Lazer 2017)

A pathological examination is not without its limitations. Any examination of the physical changes to the bones themselves cannot necessarily reveal diseases that affect the soft tissues nor the nutritional consumption of the person to whom they once belonged. Fortunately, there is a way to examine the bones at a more elemental level.

In addition to the pathological analysis, researchers in Pompeii have been able to conduct stable carbon and nitrogen isotope analysis of the skeletons. This type of analysis can reveal much about the diets of an ancient people because there is a direct relationship between the type of food being consumed and the

isotope signature of the element found in the bones. So what new knowledge do these studies impart? Isotope analysis reveals that the people of Pompeii ate a diet rich in diversity. The food that they ate consisted of “a range of fruits and vegetables, grains, seafood, and meat of domesticated and wild animals”. (Pate et al. 2016) This data corroborates the archaeological finds of the both the Cardo V and the Porta Stabia. Additionally, it supplements that data by “providing quantitative estimates for various food categories”. (Pate et al. 2016) Estimates from the nitrogen levels suggest that marine proteins comprised on average between one-quarter and one-third of the diet. Carbon levels indicate that the remainder of their diet was comprised of plants and herbivores. Carbon testing is unable to distinguish between whether the food eaten is just plants or is derived from plant eating animals. The results also show that there was some variation between the male and the female diet, with males consuming slightly higher amounts of protein than females. (Pate et al. 2016)

Stable carbon and nitrogen analysis have not yet been completed for the skeletal remains of Herculaneum. However, they have undergone trace mineral analysis in order to detect other indicators of diet. The analysis examined the remains for traces of zinc, copper, and strontium. The results of this found that the remains contained high levels of strontium and zinc. The levels of these minerals indicate that the residents across economic categories ate “a diet high in marine fish, crustaceans, and legumes but low in red meat”. (Robinson & Rowan 2015) Again, this outcome corroborates the archaeological findings of the two cities.

Discussion

Looking at the archaeological finds, the staple isotope analysis, and the trace mineral evidence combined, the question begs to be asked. What does it truly reveal about the previous knowledge of the Roman diet? The answer is simple. While antiquity provided answers to some extent through poems and other writings, it did not give an accurate representation. The overwhelming evidence indicates that the Roman population – including the lower-classes – was much healthier, and had greater access to wider varieties of foods than originally thought. What all this evidence is really indicating is that the Roman population – including the lower-classes – is much healthier than we had previously thought. This indicates to us they had access to and were eating a greater variety of foods than we thought.

Additional revelations indicate that diet wasn't necessarily based on class. A recent discovery in the Oplontis suburb of Pompeii has located some 50 intact

skeletal remains. While a full analysis of these remains is still underway, preliminary forensic investigations indicate that while most people ate meat and fish, at least one of the skeletons (believed to be a woman in her early twenties) led a largely vegetarian diet. This particular find is noteworthy, even at this early stage, due to assumptions that she was probably more well to do. This conclusion based on the value of the items discovered with her and the fact that there are no indications of hard work wear on the bones. (Bradley et al. 2010) This would suggest that vegetarian diets were not related to poverty, but instead reflect the availability of choices in the Roman diet.

What is also clear is that what food was available was not dictated solely by what was grown in the region. Modern archaeological investigations into the agricultural regions around Pompeii and Herculaneum indicate that there was at least some reliance on outside sources for certain commodities as much of the fertile ground was given over to more profitable export crops like grapes for wine. (De Simone 2017) It is evident from the environment and fertility of the ground that cereals could be grown in the region, but of the local cereals “not enough was produced to feed the population”. (Rowan 2017) It is apparent from records kept at the nearby Sulpicci Archive that the region definitely relied on imports of pulses and grains from Egypt. (Rowan 2017) It is also apparent from the appearance of dates, peppercorns, and other non-local spices that there was a thriving trade in food stuffs imported from other parts of the Empire and beyond.

The work being done at Pompeii and Herculaneum begins to paint a different picture of the Roman diet than there has ever been. It can be said that, at least for the citizens of these two cities, their diet was more diverse and nutritional than originally believed. It is not the subsistence diet argued by Johnston, nor the extravagant banquets suggested by Apicius, but rather it is something in between. It is tempting to make assumptions about the rest of the Roman world based on what has found in these two cities, but this is stretching beyond the limits of the two data sets. More examination is necessary before it can be definitively argued that the dietary diversity of Pompeii and Herculaneum applies to the whole of the Roman world.

Further Research

It is clear that further research is needed on this subject. There are on-going excavations at the port city of Ostia that will add still more to the ever changing understanding of the central Empire, and of course, similar questions must be asked about the provinces in Asia Minor and North Africa. Interestingly, archaeobotanical research being done in both the Netherlands and Britain is

beginning to show that “in both cases Roman rule coincided with a much better and more varied diet than before or after”. (Jongman 2017) This combined with the data from Herculaneum and Pompeii give reason to believe that other places within the Roman Empire may have had much healthier and more varied diets than historically thought because these outlying provinces are also showing evidence of more healthy varied diets. While it is too soon to generalize about the diets of the whole of the Roman world, this new knowledge is leading to the tantalizing possibility that the diet of the Roman world was richer and more diverse than ever imagined.

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