

“Life is a Combination of Magic and Pasta”: Unraveling Italian Pasta’s History



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Introduction

Pasta, a cornerstone of Italy, is strongly connected to its cultural identity. Despite this, the knowledge of its origins remains obscure. Through archaeological findings, it is believed that the Etruscans were the first to have pasta on the Italian peninsula, and we also see evidence of it throughout Ancient Rome. These findings show that pasta served as a food source for both the Roman army and civilians. This pasta, however, was not identical, for the pasta made for the army and civilians had a major difference: the type of wheat. While the army used coarse semolina flour made from durum wheat, many civilians used soft wheat flour made from emmer wheat. This project explores these differences and aims to determine why each type was preferred and how pasta evolved over time.

Methods

This project draws from previously published works and experimental archaeology. The lit review involved tracking down ancient recipes and learning of pasta’s rich history. Maps that highlighted areas where wheat was grown and what the most popular wheat crop was were also examined, along with studies that talked about the spread of pasta through time, and the reasons why people distributed it.

With this information in place, this study then involved learning to make pasta using both semolina flour and type 00 flour made from emmer wheat. Particular attention was given to the texture, color, tenderness, time to cook, and shelf life of both pasta types. This data was then compared to evaluate differences.



Figure 1: Durum Wheat Grains, which are used to make semolina flour



Figure 3: Pasta well with type 00 flour



Figure 2: Roman milling machine



Figure 4: Mixing of eggs and soft wheat flour

Findings

Through these experiments, significant differences between the types of pasta became evident.

Hard Wheat Flour Pasta (Semolina) - The texture was very coarse; it felt like rubbing your finger against a higher grit sandpaper. The pasta was less tender than soft wheat flour pasta. It was also chewier and firmer. The dough itself was hard to roll out and stretch, and the color was close to a natural yellow or even amber, much like the dried pasta of today. This pasta has a cook time consistent with modern store-bought varieties: ~8-12 minutes. The shelf life is where this pasta shines, as it can last up to a year if it is stored in a dry environment. This pasta has a very “al dente” flavor and could leave one feeling full even with a smaller portion.

This type was used mostly by the army. This pasta was also popular among the lower-class and some middle-class Romans. This is because it could be made with just flour and water.

Findings Cont.

Chickens were not often available to these people, which meant eggs were hard to come by. The lack of eggs meant the gluten in the semolina was activated by the water, leading to a thicker protein network.



Figure 5: Dried Pasta made from Semolina that's been stored for over a week in the open

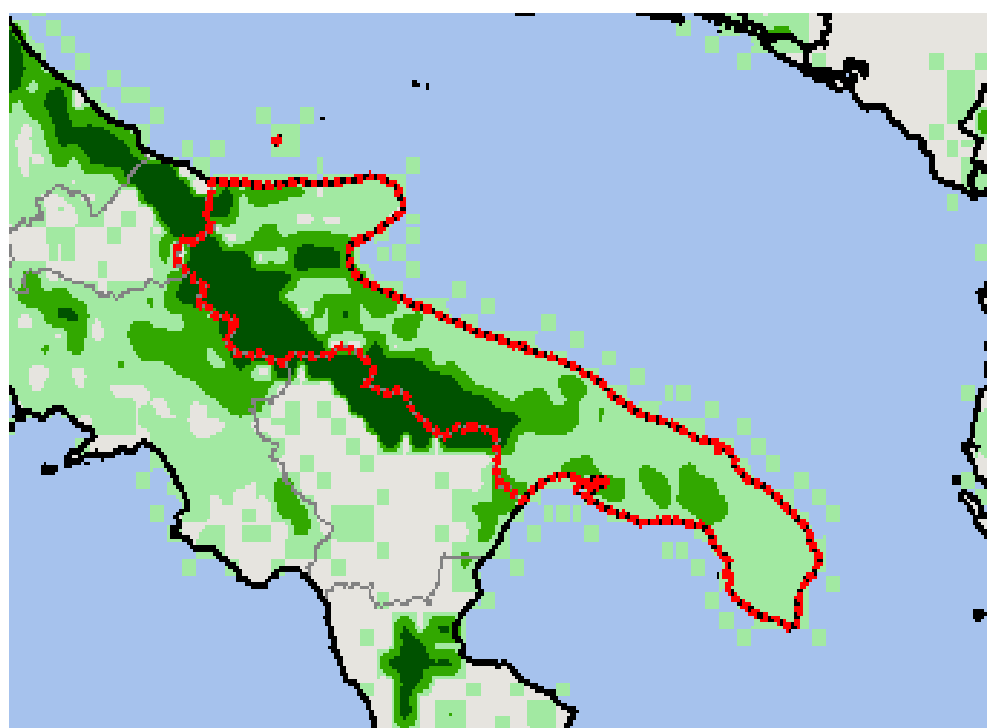


Figure 6: Map of where Durum wheat was/is currently grown

Soft Wheat Flour Pasta (Emmer) - This type of pasta has a very soft and silky texture. It is extremely tender, so delicate that it almost falls apart in your mouth, and very smooth. The dough was very easy to roll out and stretch, and paler in color, sometimes looking almost white when cooked. This pasta cooks extremely fast, taking 4 minutes at its longest. However, it cannot last very long if it is not stored in a refrigerator, which means this pasta was usually eaten right after it was shaped. The taste was soft and subtle, which allowed it to be paired with a tomato sauce or a pesto, and it felt like one could eat more before getting full. This pasta was used mostly by middle to upper-class citizens, as they could more easily afford eggs. Eggs are essential to this pasta type, as they help the gluten in the flour form a thinner network of proteins, which leads to a softer dough.

Emmer is a descendant of another ancient wheat variety known as Einkorn. Emmer wheat is an early form of unconscious artificial selection. Roman farmers would select Einkorn plants that released easy-to-mill grains and would continue to plant seeds from those plants to see if they could get similar ones



Figure 7: Shaped soft wheat flour pasta before it was cooked



Figure 8: Freshly cooked soft wheat flour pasta

Discussion

The information gathered from both the testing and literature review highlighted many aspects of how pasta was perceived and created. The availability of Durum wheat meant that pasta was, at first, readily accessible by everyone. However, the introduction of eggs and finely milled flour meant pasta could become defined by class. In lower-class and some middle-class homes, pasta made from Semolina would have been all they were able to make, as they could not afford eggs. But what also made it more popular was its shelf life. Poor families did not want food that would not be able to last, so being able to store extra food without worry about it spoiling was a huge bonus. An extended shelf life also introduced a way to earn money through trade. Merchants were able to carry a lot of dried pasta at a time, and because it was hard to spoil, it was perfect for long-distance trade. Wealthier homes did not have to worry about shelf life. They could afford to have fresh pasta prepared whenever, so getting bulk was not something that concerned them. The softness of Emmer wheat pasta dough made it preferred by the upper class, as it allowed for more extravagant shapes

Discussion Cont.

Ravioli and tortellini would have been popular among the wealthy because it was so different. Pasta that could be stuffed was unheard of to the poor, so it was not only a way to change the taste, but also a way to flaunt your wealth to your rich friends. We can see how important pasta was to the wealthy before Rome, specifically with the Etruscans. A tomb of an Etruscan king has a mural that seems to be depicting people shaping pasta, which meant it must have been important to him or the culture. In present times, these different types of pasta carry a similar sentiment. Most households around the world buy dried pasta and store it rather than make fresh pasta. If you do eat fresh pasta, it is typically in a restaurant, and the prices for it are much higher, which means the people buying and eating it tend to have more money.



Figure 9: Shaped soft wheat flour pasta for Dr. Kimmerer



Figure 10: Mural from the Etruscan King's tomb

Conclusion

This research provides a new and more comprehensive understandings of a critical part of Italian culture. Pasta made from Semolina filled an important military and social role with its long shelf life. Lower-class households were provided an inexpensive food source that was also easy to make, only requiring flour and water. And because Semolina pasta was easy to store, people often made it in bulk to help ensure that enough food was always available. Pasta made from soft wheat flour, however, played a significant role in both consumption and social aspects for the middle and upper classes. This pasta allowed upper-class citizens to flaunt their wealth to their friends at dinner parties or to enjoy pasta made in extravagant shapes. Geography also played a part in the Italian/Pasta relationship. The unique physiographic regions of Brundisium and Tarentum made growing Durum wheat possible, which meant an abundance of flour was readily available with the proper amount of milling. Because durum wheat and flour were available to everyone, pasta was able to transform an entire country and became a staple in both Italian cuisine and culture.

Sources and Acknowledgements

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