

# The Colours of Pompeii

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It is often claimed that without the standard intermodal shipping container and without container ships modern globalisation would have been unthinkable. Likewise, without the development of sea-going ships, the connecting of the Mediterranean world in antiquity would not have taken place to the extent it did. To understand the ancient world, one must understand ancient seafaring and its sea routes. Not only people and goods travelled on ships, but also knowledge and ideas. This is exemplified by a special commodity: pigments for wall paint.

In the late republic the exchange across the Mediterranean reached its peak, only to be surpassed in modern times. Thanks to free access to distant regions and the discovery of new sea routes, for example to India, goods became available in large quantities that had previously been offered either not at all in Rome and Italy or only in small quantities at very high prices. Just as these goods became available, purchasing power increased as well. So did the demands of the Roman upper class. This process of change is still visible today on the walls of Pompeii. The development of the different styles of mural painting from the First Pompeian Style to the Fourth Pompeian Style tells the story of the trade in colour pigments. Starting with the four colours black, white, red, and yellow in the First Style the colourfulness developed with the availability of the corresponding colour pigments. Pliny describes the change and laments this luxury, which he views as exaggerated. With the colour pigments, fashions and new aesthetic views were imported on the growing fleet of trade ships, aesthetics which Pliny considered un-Roman.

The names of the colours mentioned in Plin. NH 35.30 hint at their distant origin: Armenia, India, Syria, Sinope and, in the case of one special white, Paraetionium in Egypt. This white was expensive in Pompeii, but of superb quality. In fact, Selim Augusti identified as many as four distinctly different qualities of white from the stands of the pigment dealers at the forum in Pompeii. But on which routes did the chalk of the Paraetionium white and the other pigments from distant regions reach the Bay of Naples? That they must have been imported on the main trade routes as additional cargo can be deduced from the fact that with the intensification of trade, prices fell: The price of blue decreased by 90% within a few decades. Green also became relatively cheap. The practice to carry additional cargo on the large grain freighters that travelled back from Egypt is well attested. However, Paraetionium lies not on the route around Cyprus, which is often considered to have been the main route from Alexandria to Italy.

A new research approach at the University of Trier used the navigation software *Expedition* to simulate ancient sea routes, determining their course and likely duration. The research results have been published in detail. About 50,000 voyages on different routes were simulated with *Expedition*. The results show the fastest and the most reliable routes ancient skippers could sail. For some routes, the outcome is surprising, among them for the best return route from Alexandria to Italy. The winds favoured the journey

to Alexandria but made the return more difficult for the square-rigged ancient ships: The direct route was blocked by physics. It has been widely assumed that the way back to Italy passed east of Cyprus, always staying close to the coast. The software *Expedition* suggests a different route for ancient ships: from Alexandria, first a short distance west to about 27° 30' East, exactly to where Paraetionium is situated. From Paraetionium then on a north-northeasterly course directly across the open sea to Lycia. On this course the ancient cities of Patara and Myra can be reached safely and quickly considering the wind regime in this part of the Mediterranean. Archaeologists have excavated large granaries in both cities and a lighthouse in Patara. These finds fit well into the picture painted by the results of the computer simulation. Also, it is no longer surprising that Paul switched to a grain freighter in Myra of all places. Finally, we can now believe Ach. Tat. 5.15; 17.1, which speaks of a sailing time of five days from Alexandria to Ephesus. The fastest route from Alexandria to Italy ran right past Paraetionium. The colours of Pompeii thus not only give us an indication of the general development of Roman maritime trade, but also reflect the course of the sea routes that this trade took.

## References

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