

F. I. individualizes, on one hand, a pure example of ‘impoliteness’ (a key concept of the theoretical frameworks of this book), and on the other, elements of a ritual repetitiveness: the *flagitatio*.

Similarly, the seven examples of quarrels taken from the novel are divided up in terms of the equality or inequality of the participants according to their status, and just like before – during the analysis of particular cases – new details are constantly added in addition to those seen earlier. For example, in the novel, quarrels, while maintaining the main, comical tonality, can be further developed from verbal fights to physical action. Finally, after extremely careful consideration of particular examples of quarrels in the *palliata* and novel, the author proceeds to the third and last chapter of her book which is completely devoted to the vocabulary of quarrels, and more precisely to four Latin terms: *iurgium*, *rixa*, *lis* and *altercatio*.

Until now, one other example has so far remained unmentioned: included in a separate sub-chapter (2.1), it deals with a quarrel between two old men in Terence’s *Adelphoe* (78–140), with which the demonstrative part of the book opens. This scene does not belong to either the *palliata* or the novel, but is chosen to initiate the presentation; it has a special status in terms of the structure of the whole book since Donatus – a native speaker from the fourth century – commented on it, giving us fairly direct access to the perception of the quarrel from within the culture itself. An analysis of this quarrel by Terence along with Donatus’s remarks sets the tone for the whole book.

Still, it would be more accurate to describe the author’s operations through a metaphor that comes from the world of biological sciences, rather than one from the world of music. Like botanists, anatomists, zoologists and other practitioners of natural history of the 19th century, F. I. goes through particular examples of quarrels to determine a type specimen. Just as they did, she is trying to look over random modifications in search of a prototype, a composite image that summarizes many individual features. Actually, this metaphor becomes most clear at the end, in the Conclusions, when the constant updating of the definitions of quarrel is graphically concluded in a series of tables. Each table summarizes the quarrel examples of one Roman author and the presence of quarrel elements is marked with ticks in it. What these tables show is how polythetic, in fact, are the classifications of quarrels extracted by F. I. from Roman authors. As is known, ‘polythetic’ means a classificatory approach based on traits that are common to many, but not necessarily all members of a group; in other words, the principle of “family resemblance” made famous by Ludwig Wittgenstein.

To sum up: due to the studied matter and approaches, this monograph – while without a doubt being a significant contribution to the field of historical pragmatics – will also be appreciated by those involved in the study of classifications in the ancient world.

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CHRISTINA WAWRZINEK: *Tore zur Welt. Häfen in der Antike*. Philipp von Zabern Verlag, Darmstadt 2016. ISBN 978-3-8053-4925-3. 224 pp. EUR 29.95.

One gets a good idea of the wide range of ports and motivations for ancient seafaring just by looking at the rich collection of illustrations included in this publication: ports in frescoes, on coins, mosa-

ics, oil lamps and columns. Moreover, the everyday work is depicted: shipbuilders with their tools, porters carrying amphorae, warships being kept in shipsheds.

The history of ancient seafaring and ship building is narrated from the point of view of ports and their development. For a long period of time, no special port constructions were needed, as natural bays with shallow water were used to simply beach the ships in order to get drinking water. The presentation is sometimes somewhat contradictory. The author states that it was first the Greeks and then the Romans who started building ports according to their needs and that the role of the Phoenicians in developing ports is so far unclear. The author does not mention that besides the Greeks, the Phoenicians are also credited with creating the triremes, which required a proper shipshed into which ships were hauled to allow the timber to dry out, and therefore, the Phoenicians too must have had some solutions for shipsheds. The author then gives details about the nature of the Phoenician coastline with few natural bays available and the structure of port constructions in Sidon and Tyros, where a sophisticated system was built of harbour basins connected to each other by canals. At Tyros and Atlit, there were also breakwaters built on underwater reefs. These ports were important as, among other things, they also served as ports for the Persian kings.

Generally, ports were built according to the need, and each port had different phases of development in terms of its size, capacity, the cargo it dealt with, etc. Dating the ports is tricky. The Roman invention, water concrete that enabled the building of port facilities in places where no natural prerequisites existed, makes an exception in that it is easier to date. To the discussion of Egyptian long-distance trade and inland navigation, one should add the seafaring and port constructions on the Red Sea.

The port of Carthage, built in the aftermath of the Second Punic War was one of the most sophisticated ports in the ancient world. However, it was built at the time when Carthage had already been made subordinate to Rome, losing its overseas territories, its war fleet and the right to independent foreign policy. It would be interesting to read more about how the Carthaginians kept ships previously and whether the places of natural anchorage really were sufficient for keeping and maintaining their fleets during the wars with Syracuse, Pyrrhus and the Romans, when fleets of 100 to 200 ships were often used on an annual basis, and exceptionally in the First Punic War when fleets with 200 to 300 ships were launched. After the destruction of the Punic state in 146, Carthage became the capital of the province *Africa proconsularis*, and naturally, the port was still used. It was an important city in the Vandal kingdom until the Byzantine infantry and fleet took the city in 533.

Representations of important ports and their archaeology continue with Alexandria, Elaia, Rhodos, Ostia, Portus and Sebastos in Caesarea in Israel for which there is the rare description by Josephus.

The chapter on the technology used in ports sheds light on mooring rings of stone; the ships were attached to these by rope directly, with no metal rings or wooden pillars needed as was previously thought. Moreover, the development in the building techniques of piers and breakwaters is discussed, taking examples from Knidos, Piraeus, Delos and Puteoli. Besides rocks and concrete, timber was used; for this, the best-preserved examples come from Xanten on the Lower Rhine and London, where the different phases of the construction can be observed.

The original depth of the harbour basins is hard to determine. The basin at Ephesos seems to have been 4 metres deep, but ports were able to operate with the depth of just two metres or less in the basins. The form of the basins depended on the natural circumstances but became more regulated

as the ports became part of the general city plan. Cranes were used to load and unload goods. As to the supply of fresh drinking water, wells, aqueducts, and tanks for collecting water have been discovered. Entrance to ports was regulated, keeping off pirates and other unwanted intruders. The author discusses the concept of *kleistos limen*, a fortified and closed port in which was included the chain, the *kleithron*, that was placed at the mouth of the port. Here, besides the archaeological evidence, one could also mention Philo's *Poliorketika* (90–104) that contains instructions about how to defend against attacks from the sea and how to lay siege and attack a city from the sea. Lighthouses are discussed, starting with the Pharos in Alexandria, its funding and its advanced technical construction with concave mirrors and how it was the forerunner of many other lighthouses in antiquity.

The question of the location of shipyards is tricky: were they located close to the ports or kept separately? The great risk of losing vessels and timber by fire accidentally or by enemy action speaks for a separate location. The author makes the point that archaeological findings with tools and timber supplies close to a known port are easily interpreted as a shipyard, whereas a similar discovery far from a maritime context can be interpreted to be something else. Archaeological excavations have nevertheless uncovered some verified shipyards by the sea and on rivers; however, we cannot always know whether it was a question of taking a ship apart to salvage the usable parts and destroy the rest, or of improving an existing vessel or whether it was about building brand new ships. All these functions took place in antiquity. For instance, in Athens, we have inscriptions recording ships, their condition and usable parts in store, and in Rome, Livy narrates tales of many military campaigns that were started by checking the condition of the existing ships in shipsheds and repairing them and then, if needed, building new ships to reach the number required for the fleet.

The chapter about the system and network deals with a wide number of issues concerning cargo and its transport: what kind of jobs there were in the ports, how goods were packed and transported in amphorae and sacks, how the ancient customs system worked and who funded the building of ports. A large section deals with the port area in Rome with the history of the excavations.

The chapter about naval ports contains observations about various issues; how the ports got a place in the city plan as we know from examples at Naxos, Rhodes and Alexandria, and how cities such as Knidos, Athens and Thasos developed new defence strategies to protect the ports from the developing artillery and other threats. This discussion repeats what has already been dealt with when speaking about the technology in ports. A lengthy discussion follows about Piraeus. It is mistaken to say that the Romans had never been involved in a sea battle before the First Punic War, or that a more permanent fleet only came about in the first century B.C. The fleet played a crucial role in Rome's overseas expansion, forcing first the Carthaginians, and then Philip and Antiochus to build fleets in an arms race which Rome won, forbidding the defeated enemies from keeping proper fleets.

Ancient ports make a constantly growing topic in research; this book presents research questions and gives copious information about the archaeological discoveries in a wide geographical area. Perhaps a different structure would have served better; now the presentation at some points repeats what has already been said. A list of ancient texts in German translation is included as well as a bibliography and an index of places.