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Plants and Trees in Herodotus' Histories: An Ethnobotanical Perspective on the Ancient World

Herodotos'un Historiai'sinde Bitkiler ve Ağaçlar: Antik Dünya Üzerine Etnobotanik Bir Perspektif

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ABSTRACT

Human beings, by their very nature, have always been compelled to meet fundamental needs such as nourishment, shelter, security, and religious practice. From the earliest periods of history, these needs were shaped by the geographical conditions in which human communities lived. Early societies sustained themselves through hunting and gathering, making extensive use of the plants and trees available in their natural environment both as sources of food and as materials for daily life. With the transition to a sedentary way of life during the Neolithic period, agricultural activities began to develop, leading to the deliberate protection, cultivation, and domestication of previously wild plants and trees. This transformation marked the shift from a consumer-based subsistence economy to a productive social structure. With the emergence of productive societies, plants and trees acquired significance far beyond their nutritional value. They came to play an essential role in construction, medical practices, ritual activities, economic production, and religious belief systems. These multifaceted uses are reflected in the works of ancient authors, most notably Herodotus, whose *Histories* provides valuable insights into the relationship between human communities and their natural environment. The primary aim of this study is to identify the plants and trees mentioned in Herodotus' *Histories* and to examine their forms of use and intended purposes within the narrative. The analysis is structured around individual plant and tree species presented under separate headings and arranged according to the frequency with which they appear in the text, from the most frequently mentioned to the least. Through this systematic approach, the study seeks to evaluate Herodotus' treatment of botanical elements within their broader cultural and historical contexts.

Keywords: Herodotus' History, Plants, Plant Use, Barley, Olive.

ÖZET

İnsan, doğası gereği beslenme, barınma, güvenlik ve inanç gibi temel ihtiyaçlarını karşılamak zorunda olmuştur. Tarihin en erken dönemlerinden itibaren bu ihtiyaçlar, yaşanılan coğrafyanın sunduğu doğal imkânlar doğrultusunda şekillenmiştir. Avcılık ve toplayıcılıkla geçinen erken topluluklar, çevrelerinde bulunan bitki ve ağaçlardan hem besin kaynağı hem de günlük yaşamı sürdürebilmeye yönelik çeşitli amaçlarla yararlanmışlardır. Neolitik Dönem'le birlikte yerleşik yaşama geçilmesi, insan–doğa ilişkisini köklü biçimde dönüştürmüş; tarımsal üretimin başlamasıyla birlikte yabani bitki ve ağaçların bilinçli olarak korunması, geliştirilmesi ve kültüre alınması süreci hız kazanmıştır. Bu dönüşüm, tüketici bir toplum yapısından üretici bir toplumsal düzene geçişi de beraberinde getirmiştir. Üretici toplum yapısının oluşmasıyla birlikte bitki ve ağaçlar yalnızca beslenme bağlamında değil; barınma, tıbbi uygulamalar, ritüel pratikler, ekonomik faaliyetler ve dini inanç sistemleri içerisinde de önemli bir yer edinmiştir. Antik yazarlar, özellikle de Herodotos, bu çok yönlü kullanım alanlarını tarihsel anlatılarında ayrıntılı biçimde yansıtmıştır. Bu çalışmanın amacı, Herodotos'un *Historiai* adlı eserinde yer alan bitki ve ağaç türlerini tespit etmek, bunların kullanım biçimlerini ve hangi amaçlarla anıldıklarını ortaya koymaktır. İnceleme kapsamında Herodotos'un metninde geçen bitki ve ağaç adları başlıklar hâlinde ele alınmış; söz konusu unsurlar, eserdeki geçme sıklıklarına göre en çok anılandan en az anılana doğru sistematik bir biçimde sıralanmıştır. Böylece Herodotos'un bitkisel unsurlara yaklaşımı, hem kültürel hem de tarihsel bağlamı içerisinde değerlendirilmiştir.

Anahtar Kelimeler: Herodotos Tarihi, Bitkiler, Bitki Kullanımı, Arpa, Zeytin.

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INTRODUCTION

Herodotus was born in the first half of the fifth century BCE in Halicarnassus (modern Bodrum), one of the major port cities of the Carian region. His belonging to a literate and socially privileged family enabled him to grow up within an intellectually stimulating environment from an early age. The presence of his uncle Panyasis, one of the most prominent poets of the period, likely played a formative role in Herodotus' literary and intellectual development (Yarlıgaş, 2022: 144-145). Although Carian by origin, Herodotus appears to have felt a stronger cultural and intellectual affinity with the Ionian world. This inclination can be explained by the fact that, during the

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sixth and fifth centuries BCE, Ionia had emerged as one of the most significant centers of philosophy, science, and the arts in the eastern Mediterranean.

Herodotus' admiration for Ionia is explicitly articulated in his work *Histories*. He describes the Ionian cities as having been founded under the most favorable climate known on earth, emphasizing that neither the cold and humid regions of the north nor the hot and arid lands of the south could be compared with Ionia (Hdt. I.142). This observation is noteworthy, as it reflects the importance Herodotus attributed to the relationship between geography, climate, and human life within his historical narrative (Yardımcı, 2025: 3-4).

Due to political tensions arising from Persian domination, Herodotus and his family were forced to leave Halicarnassus and settle on the island of Samos, where they lived in exile for an extended period. In the middle of the fifth century BCE, Herodotus returned to Halicarnassus and soon thereafter embarked on extensive travels, during which he gathered the observations and information that would form the foundation of his work. Throughout these journeys, he visited large parts of the Mediterranean basin, Egypt, Phoenicia, Mesopotamia, Anatolia, the Black Sea coasts, and the Arabian Peninsula (Ahmed, 2016: 9-11). In these regions, he collected ethnographic, geographical, and cultural data concerning both Greek communities and the peoples he collectively referred to as "barbarians." These travels, which appear to have continued until approximately the 430s BCE, were instrumental in shaping the multilayered content of the *Histories*.

Herodotus provides little direct information about his own life within his work. Consequently, biographical details rely largely on the limited accounts of later authors such as Suidas, Stephanos of Byzantium, and Eusebius (Herodot Tarihi, 13). These sources indicate that Herodotus spent the final phase of his life in the city of Thurii in southern Italy, where he died around 425 BCE (Rhetorika, III: 9). Indeed, some ancient authors refer to him not as Herodotus of Halicarnassus, but as Herodotus of Thurii (Demir, 2005: 70).

The *Histories* is a comprehensive work that extends far beyond the narration of political events and military conflicts, incorporating geography, ethnography, economy, religious practices, and observations of the natural world. During the Hellenistic period, an Alexandrian editor divided the work into nine books, each named after one of the nine Muses, daughters of Mnemosyne, the goddess of memory. This editorial arrangement underscores the perception of the *Histories* not merely as a historical account, but as a coherent literary and intellectual composition.

Although the principal focus of the *Histories* is the origins and development of the Greco-Persian Wars, the work also contains numerous reflections on anthropology, religion, philosophy, and political thought. Cicero's designation of Herodotus as the "Father of History" attests to the originality of both the scope and the method of the work in antiquity (Cicero, On the Laws I: 5). By combining oral traditions, official records, and personal observation, Herodotus emerges not only as a historian, but also as one of the earliest thinkers to systematically document the cultural and natural environment of the ancient world. This study aims to examine the representations of plants and trees in Herodotus' *Histories* within the framework of this holistic historiographical approach and to assess the insights they provide into human–nature relationships in antiquity.

Trees and Their Uses as Mentioned by Herodotus

Ebony Tree (*Diospyros* sp.)**:** In the third book of Herodotus' *Histories*, significant information is provided regarding tree species growing in different geographical regions and their respective uses. In this context, Herodotus first refers, in Book III, chapter 106 (p. 265), to certain wild trees found in India. Although the specific species is not explicitly named, he notes that these trees produce a material described as a kind of "wool." This substance is said to have been used by the Indians primarily in the manufacture of clothing. Herodotus' description suggests that the tree in question grew under tropical climatic conditions. The reference to a "wool" derived from plant fibres is particularly noteworthy, as it points to the use of vegetal raw materials in early textile production.

In Book III, chapter 114 (p. 268), Herodotus turns his attention to Ethiopia, where he mentions wild trees among which the ebony tree is singled out. Although the text does not provide a direct explanation of the specific purposes for which ebony was used, the hardness, durability, and workability of the wood strongly suggest that it was employed in the manufacture of small wooden objects. In antiquity, ebony was widely valued for the production of luxury items, decorative objects, and small tools, owing to its dense texture and dark colour. Taken together, these passages demonstrate that plant and tree species were perceived not merely as elements of the natural environment but as integral components of economic and cultural life. The example of the ebony tree clearly illustrates the historical and ethnobotanical significance of Herodotus' geographical observations and his accounts of material culture.

Olive Tree (*Olea europaea*)**:** In Herodotus' *Histories*, the olive tree appears not only as an agricultural resource but also as a sacred plant endowed with religious, symbolic, and ideological meanings. In Book I, chapter 193 (p. 104), it is explicitly stated that olive trees do not grow in Assyria. This remark constitutes an early observation concerning the climatic and geographical limits of olive cultivation.

In Book IV, chapter 34 (p. 308), Herodotus recounts that two young maidens from the Hyperboreans died on Delos and were buried within the sanctuary of Artemis. He emphasises that their tombs were shaded by an olive tree, an image that strongly associates the olive with sacred space and with concepts of purity and virginity. The olive tree is mentioned again in Book IV, chapter 195 (p. 374), though without further elaboration.

The symbolic functions of the olive tree become more pronounced in Book V. In chapter 51 (p. 404), the olive branch is described as being used in acts of supplication and prayer. In chapter 82 (p. 421), Herodotus relates that when the land of the Epidaurians ceased to produce crops, an oracle declared that a statue made of olive wood should be erected in order to end the calamity. After the statue was set up, the land reportedly became fertile once again. This episode clearly presents the olive tree as a symbol of fertility and renewal.

In Book VII, chapter 19 (p. 522), Herodotus recounts a dream seen by Xerxes during his preparations for war. In this dream, Xerxes wears a crown made of fresh olive branches, which is interpreted as a sign that the war would spread across the entire world and that all peoples would be subjected to him. In the same book, chapter 141 (p. 568), the olive branch again appears as an object used in prayer.

The sacred and symbolic significance of the olive branch is further reinforced in Book VIII. In chapter 26 (p. 627), it is stated that a crown made of olive branches was awarded as a prize. In chapter 55 (pp. 637–638), Herodotus reports that within the Erechtheus temple on the Athenian Acropolis stood a sacred olive tree. Although the Persians burned both the temple and the tree, the olive was observed to have sprouted anew the very next day. This powerful narrative conveys the idea of the olive tree's indestructibility and its protection by divine forces. Finally, in chapter 124 (p. 672), the awarding of an olive-branch crown is once more mentioned. In light of these accounts, the olive tree emerges in Herodotus' work as a potent symbol of peace, victory, fertility, and sanctity. It occupies a central position not only in religious rituals but also in narratives of political legitimacy and divine favour, underscoring its profound cultural significance in the ancient world.

Pine Tree (*Pinus* sp.)**:** In the sixth book of Herodotus' *Histories*, particularly striking descriptions and idiomatic expressions concerning trees are encountered. In Book VI, chapter 37 (p. 457), Herodotus employs the expression "to crush like a pine tree," offering an observation-based characterization of the nature of the pine. As explained in the text, this expression reflects the perception that once a pine tree is cut down, it does not regenerate or sprout anew. The idiom thus demonstrates that ecological knowledge of tree species in antiquity was shaped not only by practical experience but was also embedded in metaphorical language. In this context, the pine tree comes to symbolise an irreversible condition, providing a significant example of how the biological properties of trees were translated into collective memory and figurative thought.

In Book VI, chapter 75 (p. 475), Herodotus refers to a plant described as a "tree tulip." Although this expression cannot be identified with certainty using modern botanical terminology, it most likely denotes a visually striking plant that developed in a tree-like form. Herodotus' description suggests that plants were perceived not merely as elements of the natural environment but also as entities endowed with aesthetic and functional value. When considered together, these passages indicate that trees in the ancient world were understood not only as components of the landscape but also as essential raw materials for the production of various objects. In this sense, wood formed part of both the material culture of everyday life and the conceptual world shaped through metaphor and analogy. Herodotus' accounts thus provide valuable insights into the economic, symbolic, and practical meanings attributed to trees by ancient societies.

Palm Tree (*Arecaceae*)**:** The palm tree, belonging to the Arecaceae family, is a tree species that typically reaches heights of 10–15 metres and is characterised by rounded, segmented leaves. The persistence of its leaf bases, the arrangement of its flowers in pairs or groups of four, and the production of heart-shaped fruits constitute some of its distinguishing botanical features. Although the native range of many palm species is traditionally associated with China and Japan, palms are today widely cultivated as ornamental trees in parks and along streets in the coastal regions of the Aegean and Mediterranean. Herodotus' accounts, however, indicate that in antiquity the palm tree was far more than a decorative plant and possessed a wide range of practical applications.

In Book I, chapter 193 (pp. 104–105), Herodotus notes that palm trees grew extensively across wide plains and that most of them bore fruit. He emphasises that palm fruits were used to produce food, wine, and honey. Moreover, he reports that what the Greeks referred to as the "male palm" had its fruit attached to the date palm, and that a

particular insect found in the palm fruit entered the date palm and prevented the fruit from ripening and falling. This account is noteworthy in that it reflects an awareness of biological interactions and pollination processes within ancient agricultural observation.

In Book II, chapter 91 (p. 158), Herodotus describes a temple whose interior was surrounded by palm trees, while in chapter 156 (p. 197) he states that a palm tree stood within the sanctuary of Apollo. These references demonstrate that palm trees were closely associated with sacred spaces and were perceived as symbolic elements within religious architecture.

In Book IV, chapter 43 (p. 311), Herodotus records that garments were made from palm leaves, revealing that the fibrous qualities of the palm were utilised in the production of clothing for everyday use. Furthermore, in Book VII, chapter 69 (p. 541), he notes that palm stems were employed for military purposes, describing large bows—at least four cubits in length—constructed from palm wood. This passage clearly indicates that palm trees were incorporated into ancient military technology. Taken together, Herodotus' accounts demonstrate that the palm tree fulfilled a multifunctional role in the ancient world, encompassing nutrition, production, religious symbolism, daily life, and military equipment. In this respect, the palm tree stands as a significant botanical element in Herodotus' work, reflecting the complex and multilayered relationship between the natural environment and human activity in antiquity.

Oak Tree (*Quercus* sp.)**:** The oak tree, belonging to the beech family (Fagaceae), comprises approximately three hundred species, some of which are evergreen, and is distinguished by its exceptionally durable timber. Owing to its wide geographical distribution and ecological resilience, the oak occupied an important place in both the natural landscape and human life of the ancient world. In Herodotus' *Histories*, the oak tree appears not primarily in terms of its practical uses, but rather within the contexts of subsistence, sacredness, and geographical description.

In Book I, chapter 66 (p. 37), Herodotus refers to a people who subsisted on acorns and were considered strong as a result of this dietary practice. This account indicates that acorns functioned as an alternative food source in regions where agriculture was limited or insufficient. At the same time, the consumption of acorns reflects a close relationship with the natural environment and preserves traces of hunter-gatherer traditions within certain communities.

In Book II, chapter 55 (p. 145), Herodotus recounts that a dove perched upon an oak tree and spoke, an episode followed in chapter 56 by the statement that a sanctuary dedicated to Zeus was established beneath an oak tree. These narratives clearly demonstrate that the oak was regarded as a sacred element and was closely associated with the cult of Zeus. In this context, the oak emerges not merely as a natural tree but as a spatial symbol of divine communication and prophecy.

In Book VII, chapter 218 (p. 606), Herodotus describes the slopes of a mountain as being covered with oak trees, thereby providing a depiction of the region's natural vegetation. Although no specific use of the oak is mentioned in this passage, the emphasis placed on its abundance and dominance within the landscape is noteworthy. Taken together, these accounts indicate that the oak tree in the ancient world was valued not only as a material resource but also as a significant element within subsistence practices, sacred spaces, and perceptions of the natural environment. In Herodotus' narrative, the oak thus functions as a symbolic tree reflecting the interconnected relationship between nature, belief, and human life.

Fig (*Ficus carica*): The fig is a plant belonging to the genus *Ficus* within the mulberry family (Moraceae) and is considered one of the earliest fruits consumed in human history. The deciduous fig tree typically grows to a height of 7–10 metres and, under favourable conditions, may live for up to a century. Characterised by branches that are long and often more twisted than the height of the trunk, the tree produces fruits composed of numerous seeds. During its development, the fig fruit is green in colour, turning purple or brown as it ripens, and reaches an average size of 3–5 centimetres. These botanical characteristics help to explain both the fig's natural resilience and its preference as a nutritionally valuable fruit in ancient societies.

In Herodotus' *Histories*, the fig is primarily associated with its edibility and sweetness. In Book I, chapter 71 (p. 41), it is stated that certain peoples "do not have figs to sweeten their mouths," an expression that clearly conveys the perception of figs as a desirable and sweet fruit. In the same book, chapter 193 (p. 104), Herodotus notes that figs do not grow in Assyria, thereby offering an early observation concerning the climatic and geographical distribution of the fig tree.

In Book II, chapter 40 (p. 137), the fig is discussed in a ritual context with considerable detail. Herodotus describes sacrificial ceremonies in which the animal's internal organs are arranged in a prescribed manner, prayers are recited, and the body of the sacrifice is filled with fine wheat bread, honey, dried grapes, figs, and various aromatic

plants. This account demonstrates that figs were valued not only in everyday nutrition but also as a significant food element within sacred rituals. Their association with honey and dried grapes—products rich in symbolic meaning—suggests that figs were linked to concepts of abundance, sweetness, and fertility. In light of Herodotus' accounts, the fig emerges as both a nourishing fruit and a symbolic component of ritual practice in the ancient world. As such, it constitutes an important example within Herodotus' botanical narratives, illustrating the close relationship between nature, diet, and sacred observance.

Date Palm (*Phoenix dactylifera*): The date palm, which has been consumed by humans for approximately eight thousand years, is native to the Middle Eastern region—one of the earliest centres of human settlement. Across this area, numerous varieties of dates are cultivated, differing in taste, texture, and appearance. Owing to its durable structure, high nutritional value, and capacity for long-term storage, the date palm occupied a particularly significant position in the ancient world, especially in desert and semi-arid environments, where it served as a staple food resource.

In Herodotus' *Histories*, the date palm is discussed both in the context of ritual practice and everyday subsistence. In Book II, chapter 86 (p. 156), while describing the mummification procedures practised in Egypt, Herodotus notes the use of dates in this process. He explains that after the brain of the deceased was extracted through the nostrils with an iron hook and the internal organs were removed, the body was washed with date wine and treated with various aromatic substances. This account demonstrates that dates were valued not merely as a foodstuff but also as a substance endowed with purifying and preservative qualities, employed in ritual and medical contexts.

In Book IV, chapter 172 (p. 366), Herodotus states that the people known as the Nasamones subsisted on dates. He records that this group travelled to the oasis of Augila to collect dates and emphasises the abundance of date palms in that region. In chapters 182 and 183 of the same book (p. 370), it is reiterated that the Nasamones regularly journeyed to Augila specifically for the purpose of harvesting dates, and that the branches of the date palms were heavily laden with fruit. These passages reveal the central role of the date palm within regional economies and nomadic patterns of movement. Taken together, Herodotus' accounts indicate that the date palm functioned as a strategic agricultural resource in the ancient world, playing a vital role in nutrition, ritual purification, and geographical mobility. As such, the date palm emerges as a significant botanical element in the *Histories*, illustrating the dynamic relationship between humans and their environment and highlighting the influence of ecological conditions on cultural practices.

Cedar Tree (*Cedrus* sp.): The cedar is a coniferous and long-lived tree belonging to the genus *Cedrus* within the pine family (Pinaceae). With an average lifespan of approximately one thousand years, cedar trees may reach heights of up to 40 metres and attain trunk diameters exceeding two metres under favourable conditions. Owing to the durability of its timber, its fragrant resin, and its antiseptic properties, cedar was regarded in the ancient world as a highly valuable raw material in architectural, medical, and cosmetic contexts.

In Book II, chapter 87 (p. 157) of Herodotus' *Histories*, the use of cedar in the Egyptian mummification process is described in detail. According to Herodotus, embalmers injected a liquid extracted from cedar wood into the body of the deceased without opening the abdomen or removing the internal organs. After the body had been left in natron for a prescribed period, the cedar-derived liquid was drained out. This procedure clearly indicates a conscious exploitation of the antiseptic and preservative qualities of cedar resin, demonstrating its deliberate use for medical and ritual purposes.

A further account concerning the cedar tree appears in Book IV, chapter 75 (p. 324), where Herodotus provides a striking description of its cosmetic and aesthetic applications. He reports that women crushed shavings of cypress, cedar, and frankincense on a rough stone, mixed the material with water, and applied the resulting paste to their faces and bodies. This treatment is said to produce a pleasing fragrance and, once washed off the following day, to leave the skin bright and rejuvenated. This passage reveals that cedar was employed not only for therapeutic purposes but also in practices of beauty and bodily care. Herodotus' testimonies thus clearly demonstrate that the cedar tree occupied a multifunctional role in the ancient world. Central to medical, ritual, and cosmetic practices, cedar held a privileged position within the material and cultural life of ancient societies, owing to its durability, aromatic qualities, and perceived protective properties.

Sorkun (Willow) Tree (*Salix* sp.): Sorkun refers to various willow species belonging to the family Salicaceae and is characterised by its flexible yet durable branches. Among willow types, the crack willow is particularly notable for its thin, soft branches and dark reddish bark, while the basket willow stands out for its green or yellowish bark and high yield. The triandrous willow is known for its long and robust trunk, whereas the white willow, also known as the cooper's willow, possesses yellow or greenish bark and extremely pliable branches. These characteristics made

sorkun especially suitable for applications requiring flexibility and resilience, such as weaving, basketry, and other forms of craft production.

In Herodotus' *Histories*, the sorkun tree is discussed explicitly within the context of military technology. In Book VII, chapter 61 (p. 539), Herodotus notes that sorkun wood was used in the manufacture of weapons. This reference indicates that the tree's lightweight yet sturdy structure rendered it appropriate for military equipment.

The use of sorkun is described in even clearer terms in Book IX, chapter 61 (p. 717). Here, Herodotus reports that Persian soldiers carried shields made from sorkun branches and remarks that these shields stood before them like the wall of a fortress. This vivid description demonstrates that the elasticity of sorkun wood made it resistant to impact and thus effective as a defensive material, playing a significant role in military tactics. Taken together, Herodotus' accounts show that the sorkun tree was not limited to everyday utilitarian uses but also functioned as an important raw material within ancient military technology and defensive systems. In this respect, sorkun represents a striking example in Herodotus' work of how botanical resources were transformed into strategic assets in warfare and military organisation.

Cinnamon (*Cinnamomum* sp.): Cinnamon (*kinnamon*), belonging to the laurel family (Lauraceae), refers to evergreen and aromatic tree species traditionally associated with China and Japan. Under favourable conditions, these trees may grow up to 30 metres in height and are distinguished by their brown, coarse, longitudinally fissured bark. Their leathery leaves, approximately 10–12 cm in length, are ovate with pointed tips and entire margins. Small whitish-yellow flowers bloom in compound clusters, and the plants produce grape-like berries roughly the size of chickpeas. Cinnamon trees thrive in full sun or partial shade, particularly in clayey and loamy soils.

In the third book of Herodotus' *Histories*, cinnamon is treated less as a subject of botanical accuracy than as an exotic product surrounded by narratives concerning its origin and acquisition. In Book III, chapter 107 (p. 265), Herodotus states that Arabia was the only land from which cinnamon was obtained. However, in chapter 111 of the same book (p. 267), he presents a contradictory and largely legendary account. In this passage, it is claimed that no one knows with certainty where cinnamon grows or from which land it originates, and some even suggest that it may come from distant regions associated with Dionysus.

According to Herodotus, the term *kinnamon* is of Phoenician origin, and the substance itself consists of thin branches. He relates that large birds collected these branches and used them, mixed with mud, to construct their nests. Because humans were unable to obtain cinnamon directly, they devised an indirect method: large pieces of meat were placed near the nests, and when the birds carried them back, the nests collapsed under the excessive weight, allowing the cinnamon branches to be collected. This narrative exemplifies Herodotus' tendency to explain valuable products from distant regions through mythological and exotic imagery. The limited and contradictory nature of Herodotus' information on cinnamon suggests that this substance was known in the ancient world largely through indirect trade networks and second-hand reports. The uncertainty surrounding its origin endowed cinnamon with an aura of mystery, making it not merely an aromatic plant but also a component of narratives shaped by distance, commerce, and imagination.

Myrrh (*Commiphora myrrha*): Myrrh is an aromatic resin obtained from a shrub or small tree typically growing to a height of 2–5 metres and characterised by thorny branches and small leaves. The resin is fragrant and sticky, yellowish in colour, and may appear either transparent or opaque. It has a consistency similar to beeswax, hardens rapidly after collection, and becomes darker over time. Botanically identified as *Commiphora myrrha*, the plant is native primarily to eastern Africa and the Arabian Peninsula, including regions such as Yemen, Somalia, Saudi Arabia, and Ethiopia. It grows naturally along the coastal areas of the Red Sea and the Indian Ocean. Myrrh is known by various names, including *murr* in Arabic, *bol*, *bola*, or *hirabol* in Indic traditions, as well as *myrrha* and *mirra*.

In Herodotus' *Histories*, myrrh occupies a particularly important place within ritual and medical contexts. In Book II, chapter 86 (p. 156), while describing the Egyptian practice of mummification, Herodotus states that the abdomen of the deceased was filled with myrrh and various aromatic substances. This practice demonstrates a deliberate exploitation of myrrh's antiseptic, preservative, and fragrant properties. In this context, myrrh appears not merely as an aromatic commodity but as an indispensable element of funerary ritual.

In Book III, chapter 107 (p. 265), Herodotus offers a broader assessment of the collection of aromatic substances originating from Arabia. While he emphasises that plants such as cinnamon, ladanum, and cassia were extremely difficult and dangerous to obtain, he notes that myrrh could be collected with relative ease. This observation indicates an awareness both of myrrh's natural accessibility and of its commercial value. Taken together, Herodotus' accounts portray myrrh as a central substance within the ritual, medical, and olfactory culture of the

ancient world, as well as a key product of the aromatic trade linking Arabia and eastern Africa. In this respect, myrrh stands out in the *Histories* as a significant botanical material reflecting the interconnected realms of exotic commodities, funerary practice, and long-distance trade networks.

Tamarisk / Ilgın Tree (*Tamarix* sp.): The tamarisk (ılgın) is a plant that typically develops in the form of a small tree or shrub and is well adapted to arid and semi-arid climatic conditions. In its early stages, the bark of the trunk is slightly fissured, gradually darkening over time to an almost black colour. The branches are glossy and dark reddish-brown in tone. The leaves are scale-like, narrow, oval, and bright green; on young branches they measure approximately 0.4–0.5 cm in width, while on older branches they become markedly smaller, reaching lengths of about 0.1 cm. The small, pale pink flowers generally bloom in dense clusters measuring 4–6 cm in length. These morphological characteristics indicate that tamarisk is particularly well adapted to saline and moist soils, especially those found in coastal areas and along riverbanks.

In Herodotus' *Histories*, the tamarisk tree is mentioned not so much as an object of botanical description but rather in the context of technical and practical use. In Book II, chapter 96 (p. 161), Herodotus refers to the construction of a type of raft in Egypt that employed tamarisk wood together with reeds and rushes. According to his account, these plant materials were combined to create a structure suitable for transport on water. The selection of tamarisk in this context can be associated with the tree's lightness and durability. This testimony demonstrates that tamarisk was valued in the ancient world not only as part of the natural environment but also as a functional raw material employed in water transport and simple engineering solutions. Herodotus' example is significant in that it illustrates how plant resources were adapted to technical purposes in accordance with local environmental conditions.

Plants and Their Uses as Mentioned by Herodotus

Wheat (*Triticum* sp.): In Herodotus' *Histories*, wheat is frequently mentioned as both a staple food of everyday life and a crucial agricultural product within economic, ritual, and military contexts. In Book I, chapters 19 and 22 (pp. 13–14), references to wheat and wheat-covered hills point to early examples of cultivated agricultural landscapes. In chapter 193 of the same book (p. 104), Herodotus notes that wheat was grown in Assyria through irrigation, while in Babylonia the fertility of the soil was ensured by river flooding, resulting in exceptionally abundant wheat production. In this context, he emphasises the richness of the crop by observing that the leaves of the wheat plants were as wide as four fingers.

In Book II, chapters 36 and 40 (pp. 135–137), wheat is explicitly identified as the primary ingredient used in bread production. Moreover, the practice of stuffing sacrificial animals with wheat bread during ritual ceremonies highlights the role of wheat within religious observance. In Book III, chapter 22 (p. 222), an account concerning the Persian court raises questions about what the "Great King" ate and the reasons for longevity among the Persians; here, bread consumption and methods of wheat cultivation are described. In chapter 91 of the same book (pp. 259–260), income derived from wheat is recorded as "one hundred and twenty thousand medimnoi of wheat." Given that the *medimnos*, a unit used for dry goods, corresponds to approximately 51.84 litres, this quantity amounts to roughly 6,220,800 litres of wheat.

In Book IV, chapter 17 (p. 301), it is stated that the Halizones cultivated wheat primarily for their own subsistence, whereas the Scythians grew wheat mainly for commercial purposes. This distinction demonstrates that wheat functioned not only as a staple food but also as a commodity within trade networks. In chapter 33 (p. 307), Herodotus reports that sacred offerings bound with wheat stalks were sent from the Hyperboreans to Scythia and emphasises that sacrifices performed in honour of Artemis were not conducted without wheat stalks. In chapter 109 (p. 339), wheat is once again described as being cultivated and consumed directly as food.

The military significance of wheat is made particularly explicit in Book VII. In chapter 31 (p. 527), Herodotus notes that skilled craftsmen extracted honey from the finest wheat flowers. In chapter 119 (p. 558), wheat is described as being ground into flour, while chapter 147 (p. 573) records that wheat was transported by ship. In chapter 158 (p. 580), it is stated that responsibility for supplying wheat to the entire Greek army during wartime was undertaken, underscoring wheat's role as the principal food source for military forces. Finally, in chapter 187 (p. 593), Herodotus calculates that the daily ration for Xerxes' army amounted to one *choinix* of wheat per person, resulting in a total daily consumption of 110,340 medimnoi. Taken together, Herodotus' accounts clearly demonstrate that wheat in the ancient world was far more than a simple agricultural product. It constituted a foundational element of economic systems, ritual practices, trade relations, and military logistics. As such, wheat occupies a central position in the *Histories*, reflecting its indispensable role in sustaining ancient societies across multiple dimensions of life.

Barley (*Hordeum* sp.): In Herodotus' *Histories*, barley occupies an important position, particularly within the contexts of ritual practice, dietary habits, and agricultural production. In Book I, chapter 132 (p. 75), while discussing sacrificial customs associated with reverence for the gods, Herodotus states that the Persians were unfamiliar with practices such as sprinkling the victim with holy water, playing the flute, wearing specific ritual garments, and using barley grains. This passage indicates that barley grains were commonly employed as a traditional ritual element in sacrificial ceremonies and were perceived as an agricultural product symbolising fertility. Herodotus further emphasises that this custom was not unique to the Persians. In chapter 160 of the same book (p. 88), it is reiterated that the Persians did not scatter barley over the head of the sacrificial victim.

In Book I, chapter 193 (p. 104), Herodotus notes that barley was cultivated in Assyrian territory and remarks that the leaves of the barley plants reached a width of four fingers. This vivid description reflects his observations concerning the agricultural productivity of the Mesopotamian region.

In Book II, chapter 36 (p. 135), Herodotus compares the dietary habits of the Egyptians with those of other peoples, noting that while many societies consumed barley, the Egyptians did not attach particular value to it. Nevertheless, in chapter 77 of the same book (p. 154), he reports that, owing to the absence of vineyards in Egypt, a type of wine made from barley was consumed. This observation demonstrates that barley was used not only as a staple food but also in the production of beverages. In Book III, chapter 46 (p. 235), the phrase "the sack awaits barley flour" clearly indicates that barley was ground into flour for culinary use. In Book VI, chapter 57 (p. 466), Herodotus states that when kings did not attend the communal banquet, they were sent two *khoinikes* of barley and one *kotyle* of wine at home. In Book VII, chapter 119 (p. 558), the use of barley in flour production is once again emphasised. Collectively, these examples demonstrate that barley functioned as a fundamental product in everyday diet as well as in official and ceremonial contexts.

Spelt / Hulled Wheat (*Triticum spelta*): Spelt is defined as one of the hulled wheat species belonging to the grass family (Poaceae). From antiquity onward, it was widely cultivated in certain regions of Europe and remained a major food source from the Bronze Age through the Middle Ages. Owing to its hardy structure and its ability to adapt to harsh climatic conditions, spelt ranked among the principal cereal crops consumed in nearly every meal. In the present day, however, spelt is considered a crop under threat of decline, particularly in parts of Central Europe, due to the reduction of cultivated areas.

In Herodotus' *Histories*, spelt is mentioned in connection with dietary practices in Egypt. In Book II, chapter 77 (p. 154), it is explicitly stated that the Egyptians consumed bread made from spelt. Herodotus notes that this bread was known as *kyllestes*. This information is significant in that it reveals the diversity of wheat-based dietary culture in Egypt and demonstrates the varied processing techniques applied to different cereal types.

The hulled structure of spelt distinguishes its milling and processing methods from those of other wheat varieties, reflecting the technical knowledge possessed by ancient societies regarding grain cultivation and food production. Herodotus' brief yet noteworthy reference indicates that in Egypt not only common wheat varieties but also alternative cereal species were consciously utilised. In this respect, spelt emerges in the *Histories* as an important cereal illustrating the diversity of ancient subsistence systems and regional agricultural practices.

Millet (*Panicum* / *Setaria* sp.): Millet is a gluten-free cereal characterised by small, rounded grains that may appear in white, grey, yellow, or red hues. Thanks to its resistance to drought and its short growing period, millet has historically served as a crucial food source, particularly in regions where agricultural production was limited. These qualities ensured millet's inclusion among the principal cereals of ancient societies.

In Herodotus' *Histories*, millet is mentioned within the contexts of agricultural production and nutrition. In Book I, chapter 193 (p. 104), the millet plant is described as being "as tall as a tree," an expression that draws attention to its height and striking appearance. This description demonstrates that Herodotus observed cereal crops not merely as products but also in terms of their morphological characteristics.

In Book IV, chapter 17 (p. 301), Herodotus refers to the dietary practices of the Halizones, stating that this community cultivated millet and subsisted on it. This account reveals that millet functioned as a primary agricultural product and a central element of daily nourishment in the region. The example of the Halizones is particularly noteworthy, as it highlights the importance of millet within local economies and regional food systems. Herodotus' accounts thus indicate that millet, alongside cereals such as wheat and barley, was regarded as a staple food in specific geographical contexts of the ancient world. In this respect, millet represents a significant botanical element in the *Histories*, reflecting agricultural diversity and the adaptive subsistence strategies developed by different societies in response to their environmental conditions.

Grapes and Wine (*Vitis vinifera*): In Herodotus' *Histories*, grapes and wine are discussed primarily within the contexts of dietary practices, geographical descriptions, and symbolic representations. In Book II, chapter 37 (p. 136), the expression "wine from the vine" (*ampelinos oinos*) is used, clearly indicating the presence of vineyards and the production of wine from grapes. In Book IV, chapter 195 (p. 374), Kyraunis Island, belonging to the land of the Gyzones, is described as being abundant in vineyards, a detail that underscores the agricultural prosperity of the region.

In Book VII, chapter 27 (p. 526), Herodotus refers to a golden vine branch located in the citadel of Susa. This reference demonstrates that the vine and grape motif was not merely agricultural in nature but also carried symbolic and prestige-related meanings. Elsewhere in the same book, Herodotus alludes to the intoxicating effects of wine consumption, indicating an awareness of wine's mind-altering properties. These passages collectively show that wine was recognised not only as a staple beverage but also as a substance with social, symbolic, and physiological significance. The evidence presented by Herodotus suggests that grapes and wine, alongside barley, were not simply basic agricultural products in the ancient world. Rather, they occupied a broad spectrum of functions ranging from ritual practice and everyday consumption to economic activity and symbolic representation.

Papyrus (*Cyperus papyrus*): Papyrus is a plant resembling reeds, native primarily to Africa and especially widespread along the banks of the Nile River. Reaching heights of up to four metres, it has a stem approximately the thickness of a wrist, with ribbon-like leaves that gather at the top in an umbrella-like formation. In ancient Egyptian civilisation, papyrus held exceptional importance. While the fleshy lower portion of the stem was consumed as food by poorer segments of society, its fibrous and brittle leaves were used to produce everyday objects such as baskets. Above all, however, papyrus was valued for its use in the production of a paper-like writing material. In order to prevent deterioration, papyrus sheets were treated with cedar oil, a practice that contributed to the survival of numerous historical documents to the present day.

In Book II of the *Histories*, Herodotus devotes a distinct section to this plant under the heading "Lotus and Papyrus" (II, p. 158). In chapter 92 (p. 159), papyrus is described in detail as an annual plant growing in standing water. After harvesting, the stalk was cut, and the lower portion—approximately one cubit in length—was either consumed or sold. Herodotus further notes that papyrus was preferably eaten after being grilled over a hot fire, and that the remaining parts of the stalk were employed for other purposes. In Book II, chapter 96 (p. 161), papyrus is described in connection with shipbuilding, accompanied by a detailed technical explanation. According to Herodotus, wooden elements were inserted between longitudinal ribs to form the hull of a vessel, while the joints were caulked with papyrus. The mast was made of acacia wood, and the sails were fashioned from papyrus fibres. This account demonstrates that papyrus constituted an essential raw material within the maritime technology of ancient Egypt.

The use of papyrus as a writing surface is explicitly attested in Book III, chapter 42 (p. 233), where a papyrus roll is described as being inscribed with information and dispatched to Egypt by a courier. This passage clearly indicates that papyrus served as a functional equivalent of paper in communication and record-keeping. In Book V, chapter 58 (p. 408), Herodotus further notes that writing was carried out on papyrus, particularly on its smooth inner surface, and that books written on papyrus were in circulation. In Book VII, attention is drawn to the fibrous properties of papyrus. In chapter 25 (p. 524), papyrus fibres are said to have been used in the manufacture of ropes, while in chapter 34 (pp. 528–529), these ropes are described as being employed in bridge construction. Herodotus specifies, however, that papyrus fibre alone was insufficiently strong and therefore had to be combined with flax and hemp fibres. He states explicitly that "for the bridge they stretched ropes made from four papyrus strands and two strands of flax and hemp." These accounts demonstrate that papyrus was not merely a plant of symbolic or cultural value but a strategic raw material with applications ranging from nutrition and writing culture to shipbuilding and engineering.

Flax (*Linum usitatissimum*) and Hemp (*Cannabis sativa*): Flax is among the earliest cultivated plants in human history and has been grown for approximately 4,000–5,000 years in the Near East and the Mediterranean basin for both its fibres and its seeds. Over time, flax cultivation spread across a wide geographical area, becoming an economically and culturally significant activity in many parts of the world. In ancient Egypt in particular, flax cultivation is attested as early as the fourth millennium BCE, as evidenced by depictions on temple and tomb walls. These representations demonstrate that flax was used not only in everyday clothing but also within religious and ceremonial contexts.

Although the native range of hemp is generally considered to be Central Asia and the Indian subcontinent, it is now cultivated across much of the temperate and tropical world. Likely among the earliest plants to be deliberately domesticated and selectively bred, hemp has historically been used both as a source of vegetal raw material and for

its psychoactive properties. The exceptional strength of its fibres made hemp indispensable in the production of ropes, textiles, and various technical materials. In Herodotus' *Histories*, a concrete example of the everyday use of flax is provided. In Book I, chapter 195 (p. 106), it is stated that certain peoples "wore a long linen garment and over it another made of wool." This passage indicates that flax was a fundamental component of ancient dress and was particularly favoured for undergarments. Moreover, the combination of linen and wool reflects a sophisticated approach to textile production, in which different raw materials were employed together according to their functional properties. Herodotus' brief but meaningful account thus demonstrates that flax was not merely an agricultural product but an integral element of daily life and material culture in the ancient world.

Lotus / Sacred Lotus (*Nelumbonaceae*): The lotus, belonging to the family Nelumbonaceae, is an aquatic plant of Asian origin. Lotus species favour still waters and typically grow in shallow lakes and marshy environments as perennial herbaceous plants. Their flowering stalks rise above the water surface, allowing the blossoms to open without touching the water. Depending on the species, lotus plants may be either hardy or delicate, and they are found both in the wild and under cultivation in many regions of the world. In ancient India and China, the lotus was regarded as a sacred plant; within Buddhist belief systems in particular, it was venerated owing to the belief that the Buddha including was born from the heart of a lotus flower.

In Book II of Herodotus' *Histories*, the lotus is given special attention under the heading "Lotus and Papyrus" (II, p. 158). The plant referred to as *lotos* in the text can be identified botanically as the lotus lily. Herodotus describes how this plant, which grew abundantly on the surface of the water in Egypt, was collected and dried in the sun. The inner part of the lotus, likened to poppy seeds, was then crushed, cooked over a fire, and used to make bread. He further notes that the root of the lotus was also consumed, describing it as sweet in flavour, apple-sized, and rounded in shape. This account demonstrates that the lotus was regarded as a significant food source in ancient Egypt. In Book IV, chapter 177 (p. 368), Herodotus refers to the people known as the Lotophagi, stating that they subsisted almost entirely on the fruit of the lotus plant. He describes the lotus fruit as being about the size of a mastic-tree berry and sweet in taste, and adds that a wine-like beverage was also produced from it. In this context, the lotus emerges not only as a staple food but also as a versatile plant used in the production of fermented drinks. Herodotus' account illustrates that the lotus played a decisive role in both subsistence and cultural identity in the ancient world. The example of the Lotophagi is particularly striking, as it shows how a single plant could come to define the lifestyle and external relations of an entire community. In this respect, the lotus represents one of the key botanical elements in the *Histories* where geography, dietary culture, and ethnographic observation intersect.

Rose (*Rosa* sp.): The rose, one of the most characteristic plants of the family Rosaceae, encompasses a wide variety of species. Although many rose species are considered native to Asia, their visually striking and ornamental flowers facilitated their spread across a broad geographical area, leading to their cultivation in almost every part of the world. In the ancient world, the rose was valued not merely as a natural plant but also as an element imbued with aesthetic, symbolic, and cultural significance.

In Herodotus' *Histories*, the rose does not appear as an agricultural or nutritional product but rather as an ornamental and descriptive motif. In Book I, chapter 195 (p. 106), Herodotus notes that Assyrian staffs were decorated with various figures, one of which was a depiction of a rose. This reference indicates that the rose was favoured as a decorative motif within artistic representation. Given that vegetal motifs in Assyrian art were often associated with authority, refinement, and aesthetic ideals, the choice of the rose can be interpreted as a deliberate and meaningful one. In Book VIII, chapter 138 (p. 679), Herodotus refers to a particular type of rose growing naturally in a region of Macedonia. He emphasises that these roses grew wild, possessed approximately sixty petals, and had a fragrance that was lighter and more delicate than that of other rose varieties. This description demonstrates that Herodotus paid attention not only to the functional aspects of plants but also to their sensory and aesthetic qualities. Although no direct reference is made to the rose's use in nutrition or ritual practice, the information provided suggests that its value in the ancient world lay primarily in ornamentation, natural beauty, and sensory perception. In this respect, the rose may be regarded as a reflection of the aesthetic relationship between humans and nature in Herodotus' narrative.

Ladanon / Labdanum (*Cistus* sp.): Ladanon (labdanum) is an aromatic resin obtained from shrub species belonging to the family Cistaceae, which are widely distributed throughout the Mediterranean basin. These shrubs are characterised by hairy, often sticky leaves and white or pink flowers. Known by various names such as *labdanum*, *ladanum*, *ladan*, or *ladanon*, the substance is a sticky, brownish resin secreted from the leaves and branches of the plants. In the ancient world, ladanon was highly valued for its pleasant fragrance and was used for medicinal, cosmetic, and ritual purposes, particularly in the production of incense and perfumes.

In Book III of Herodotus' *Histories*, ladanon is presented, much like cinnamon, as an exotic substance distinguished by its origin and method of procurement. In chapter 107 (p. 265), ladanon is listed among the plants said to be obtained exclusively from Arabia. In chapter 112 of the same book, Herodotus offers a more detailed and striking account of its origin. He explains that although ladanon—called *ladanum* by the Arabs—possessed a fine and agreeable scent, it was found in places where unpleasant odours prevailed. According to Herodotus, ladanon was collected as a resin-like substance that adhered to the beards of goats and he-goats. As the animals moved among the shrubs, the sticky resin clung to their hair, from which it was subsequently gathered and processed. This account indicates that ladanon was obtained not directly from the plant itself but through an indirect and labour-intensive process. Herodotus further remarks that many fragrances were produced from ladanon, underscoring its importance within ancient perfumery and incense traditions. His description demonstrates that aromatic resins were perceived not merely as commodities of trade but also as substances whose exotic origins and unusual methods of production stimulated the imagination. In this respect, ladanon stands out in the *Histories* as a botanical product that embodies the interconnections between distant lands, olfactory culture, and ritual practice in the ancient world.

Cassia (*Cassia fistula* L.): Cassia, known in Latin as *fructus Cassiae fistulae* and commonly referred to as "Indian cucumber" or *hıyarşember* in vernacular usage, is a member of the legume family (Fabaceae). Under favourable conditions, it grows in the form of a tree reaching heights of approximately 8–10 metres. Its brownish fruits may attain lengths of up to 50 cm, and the plant is primarily distributed across tropical regions. Cassia is generally considered to be native to India and has long been regarded as a valuable plant owing to its medicinal and aromatic properties.

In Herodotus' *Histories*, cassia is presented, like cinnamon and ladanon, as an exotic substance distinguished by both its origin and its method of procurement. In Book III, chapter 107 (p. 265), Herodotus states that cassia was obtained from Arabia. In chapter 110 of the same book, he provides a detailed and striking account of how the plant was collected. According to Herodotus, those who set out to gather cassia completely covered themselves with leather and animal skins, leaving only their eyes exposed. This precaution is directly linked to the dangerous nature of the areas in which the plant was said to grow. Cassia is described as thriving in shallow marshlands populated by aggressive, bat-like winged creatures that emit deafening sounds. For this reason, Herodotus emphasises that protecting the eyes was of vital importance for those engaged in collecting cassia. His account focuses less on the botanical characteristics of the plant than on the hazards and mysterious conditions associated with its acquisition. This emphasis suggests that cassia was perceived in the ancient world not merely as a medicinal or aromatic product, but as an exotic substance associated with distant lands and unknown environments. The narrative of cassia thus represents one of the most striking examples in Herodotus' work of the intersection between trade, nature, and mythological imagination.

Bamboo (*Bambusa* sp.): In Herodotus' *Histories*, bamboo appears as a noteworthy plant primarily within the context of technical knowledge and local production practices. In Book III, chapter 98 (p. 262), Herodotus reports that in India bamboo was used in water transport. According to his account, the Indians constructed boats from bamboo, with each individual node of the plant yielding a separate vessel. This description illustrates how the hollow, segmented structure of bamboo was functionally exploited by ancient societies. The ability to produce floating craft with minimal processing reflects a technological approach closely adapted to local environmental conditions. At the same time, this example demonstrates that Herodotus was attentive not only to the nutritional or ritual uses of plants, but also to applications based on technical and engineering knowledge. His brief yet distinctive reference to bamboo highlights the strategic role played by vegetal raw materials in transportation and mobility in the ancient world. In this respect, bamboo stands as an important example in the *Histories* of how natural resources were transformed into practical technologies suited to regional needs.

Broad Bean (*Vicia faba*): In Herodotus' *Histories*, the broad bean is presented not within the context of nutrition, but rather as an object of cultural and religious taboo. In Book II, chapter 37 (p. 136), Herodotus explicitly states that the Egyptians neither cultivated broad beans nor consumed them as food. He notes that even when the plant grew spontaneously, it was neither eaten raw nor prepared as a cooked dish.

Herodotus further emphasises that this prohibition was especially strict among the priestly class. According to his account, priests not only refrained from eating broad beans but could scarcely tolerate even seeing them. The reason given for this aversion is that the broad bean was not regarded as a "pure vegetable" (*katharon lachanon*). This designation indicates that broad beans were considered incompatible with ritual purity within the Egyptian belief system. The negative attitude toward broad beans stands in sharp contrast to Herodotus' descriptions of other plants such as wheat, barley, figs, or dates, which occupy positive roles in both dietary and ritual contexts. This contrast demonstrates that plants in ancient societies were classified not solely according to their nutritional value, but also according to their symbolic, religious, and cultural meanings. Herodotus' account thus constitutes an

important ethnographic observation reflecting the dietary regulations and concepts of purity upheld by the Egyptian priesthood. In this respect, the broad bean emerges in the *Histories* not as a cultivated food crop, but as a plant defined by religious prohibition and cultural boundaries.

Results and Discussion

Herodotus' *Histories* constitutes an exceptionally rich source not only for political events, wars, and the deeds of kings, but also for the natural environment of the ancient world, agricultural production, dietary practices, technical knowledge, and ritual behaviour. Within the scope of this study, the plant and tree species mentioned in Herodotus' work have been examined systematically in order to identify the contexts in which they appear, the purposes they serve, and the meanings attributed to them. The analysis demonstrates that Herodotus' references to plants are far from incidental; rather, they reflect a multilayered perspective closely intertwined with geography, economy, belief systems, and cultural practice.

Cereal crops emerge as the most frequently mentioned plant group in Herodotus' narrative. Wheat, barley, millet, and spelt are presented as the fundamental food resources of ancient societies, while their modes of production, levels of productivity, and systems of distribution are described in considerable detail. Wheat in particular is treated not merely as a staple of everyday nourishment, but as a cornerstone of economic systems, military logistics, and state organisation. The quantitative data provided concerning army provisioning, along with references to measurement units such as the *medimnos* and the *khonix*, reveal that Herodotus approached agricultural products not only descriptively but also within an administrative and economic framework.

Other cereals, such as barley and spelt, highlight regional variation in dietary culture. The devaluation of barley as a foodstuff in Egypt, contrasted with its use in the production of beer, or the emphasis placed on spelt bread (*kyllestes*), illustrates Herodotus' comparative approach to food traditions. These accounts demonstrate that cereals were classified not solely on biological grounds, but also according to cultural preferences and symbolic values. In this context, the strict rejection of the broad bean in Egypt on grounds of ritual purity provides a striking example of how plants could be evaluated through religious norms and taboos rather than nutritional criteria alone.

Fruit trees and woody plants appear in Herodotus' work not only as sources of nourishment, but also as carriers of symbolic, sacred, and ideological meaning. The olive tree stands out as one of the most significant examples. Associated with fertility, peace, victory, and sanctity, the olive occupies a central role in temples, reward ceremonies, and dream interpretations. The narrative of the olive tree on the Acropolis that regenerated after being burned vividly illustrates the perception of the olive as a divinely protected entity rather than a mere agricultural resource. Similarly, the oak tree, linked to the cult of Zeus, occupies a sacred position within religious landscapes, while the consumption of acorns sheds light on early subsistence strategies and the close relationship between humans and their natural environment.

Plants such as fig, date, grape, and lotus occupy a liminal space between nourishment and ritual practice. The filling of sacrificial victims with figs, honey, raisins, and wheat bread; the use of dates in mummification; and the account of the Lotophagi, who subsisted on the lotus fruit, all demonstrate that plants functioned not merely as providers of physical sustenance, but as key elements shaping cultural identity and ritual behaviour. The lotus, in particular, exemplifies how a single plant could come to define the lifestyle of a community and its relationship with the outside world.

Herodotus' engagement with plants is not confined to food and ritual. Papyrus, bamboo, tamarisk, palm, and willow (sorkun) are discussed within the framework of technical knowledge and engineering practices. The multifaceted use of papyrus in writing, shipbuilding, rope-making, and sail production; the construction of boats from bamboo; the use of tamarisk in raft construction; and the manufacture of shields from willow branches all attest to Herodotus' keen observation of how vegetal raw materials were transformed into technological solutions. These accounts highlight the role of plants as fundamental components of technical systems shaped by human ingenuity and local environmental knowledge.

Aromatic plants and resins occupy a distinct place in Herodotus' narrative. Cinnamon, cassia, ladanon, and myrrh are noteworthy not only for their fragrance and medicinal properties, but also for the uncertainty surrounding their origins and the exotic narratives associated with their procurement. Frequently linked to Arabia, these substances are presented through accounts of perilous collection processes and myth-like explanations. Stories of cinnamon branches falling from birds' nests, ladanon adhering to goats' beards, and cassia gathered amid dangerous marshlands populated by aggressive creatures demonstrate that these commodities carried not only economic value but also narrative and ideological significance. By contrast, the relatively easy procurement of myrrh suggests the existence of a perceived hierarchy among aromatic substances.

This study has shown that Herodotus' accounts of plants form an integral part of his broader ethnographic and geographical approach to history writing. Plants are not treated as passive elements of the natural world; rather, they function as active indicators of human lifestyles, belief systems, economic relations, and levels of technical knowledge. In this respect, the *Histories* offers an invaluable perspective on human–nature relations in antiquity. In conclusion, the botanical narratives embedded in Herodotus' work present a multidimensional panorama of how ancient societies interacted with their environment. Spanning nutrition, ritual, economy, technology, symbolism, and ideology, this wide spectrum allows Herodotus to be regarded not only as the "Father of History," but also as a careful observer of the natural and cultural landscape of the ancient world. By systematically analysing his references to plants and trees, the present study aims to contribute to a deeper understanding of how ancient peoples perceived, classified, and transformed the natural world in which they lived.

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