# The Silphium Plant and Cyrene Perfume

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THE ANCIENT Greek city of Cyrene (Greek: Κυρήνη-Κyrene)—today Shahat, in Libya—was the oldest and most important of the five Greek cities in the region and it gave eastern Libya the classical name 'Cyrenaica' that it has retained until modern times. Cyrene was founded as a colony of the Greeks from Thera (the modern Santorini), a small and relatively barren island—later called Kallisti—, an island which was formed from the brims of the craters of a great volcano. In Book IV of his historical "inquiry" (chapters 145 and 205), Herodotus narrates at length—by means of the juxtaposition of two versions of events—how the oracle of Delphi advised a mighty group of consultants from Thera to leave the place for Libva, because of a severe drought, and to found a colony led by a young man called Battus (c. 631-c. 599 BC). The region, however, was crossed by the merchants who had traveled to Northern Africa before them. So, the setting up of colonies here was of commercial importance. The Thereans settled around 631 B.C. on a site of medium elevation (about 550–620 meters above sea level), about 12 miles from the sea, on the northern part of a chalk plateau that extends south towards the desert. Being close to the sea, Cyrenaica was quite well irrigated and, as compared to other regions, often lush. Therefore, the Arabs named it the Jebel Akhdar (or Gebel el-Akhdar, "green mountains") or the 'Fertile Crescent'.

Cyrenaica's fertile lands were its first and foremost attraction. Due to its geographic position and climate, the region played an important role in the growth of any Aegean civilization. As Cyrenaica was established on the fertile lands limited by the Libyan coast, its agriculture and trade prospered and made it famous in the entire Greek world. In the first two centuries of its life, Cyrene was a hereditary monarchy. Battus I, the founder of the dynasty (the Battiads) and of the city, ruled about 35 years, and he was followed by his son, Arcesilas I (c. 599–c. 583 BC), for the next 16 years. In the archaic and the classical ages, whatever the political regime, Cyrene and Cyrenaica were almost every time successful thanks to the commercial relationships established especially with Greece and Egypt. The exports included cereals,

meat, olive oil, dried fish and *silphium*<sup>1</sup>—a plant which was completely unknown to the Aegean world, in the flora of Greece and Asia Minor. It was a plant of the *Ferula* family, genus *Umbelliferae*<sup>2</sup> which, in all its parts, had a juice with a pronounced spicy fragrance that coagulated in a resinous mass after making an incision in the roots or in the stem of the plant. Hippocrates wrote in his treaties that "*silphium*, which grows spontaneously in Libya, cannot be grown even by careful cultivation in Ionia or the Peloponnese." These attempts at cultivating *silphium* evidently failed because it didn't adapt to the rich and wet soil of those agricultural lands. However, it randomly grew in the mountainous regions. Herodotus wrote about Cyrenaica's good fields, too. According to him, the decomposing chalk gave the soil a red shade (IV, 199). Not only the soil (*drias*), but also the moments of the year had a major influence on the plant's characteristics. According to tradition, the seeds of *silphium* were brought in the region by the violent southern African winds. All these facts show that *silphium* was but a Libyan plant.

The curative effects of the plant were known by the Libyans who probably used it in their treatments. Early Greek and Roman physicians, such as Hippocrates, Galen or Dioscorides knew about the "juice of Cyrenaica" (opos kyrenaikos)<sup>4</sup> and often mentioned its virtues. Before long, it became so costly a panaceum that, during the dynasty of the Battiads, a monopoly on *silphium* was requested. This went a long way towards Cyrenaica's prosperity."<sup>5</sup> Regarding the crop of *silphium*, which seems to have been harvested mostly on semi-desert lands, to the south, it was closely



Fig. 1. Cup of Arcesilaos II

overseen by the royal house. This is proven by the Cup of Arcesilaos II (ca. 560–ca. 550 BC),6 dated about 550 BC, on which it is depicted the king himself seated on a ship's deck. Therefore, in an iconographic source, we see the supervision, the weighing and the storing of the precious silphium bulbs in the presence of the king (fig. 1), proving the essential role of this plant in the economy of the country. After the fall of the monarchy, a state monopoly was decreed over the silphium harvest, the magistrates taking control over the plant production.

Numismatics sheds light on this famous ancient plant, which revealed its perfect form in Cyrenaica. In the final decade of the 6<sup>th</sup> century BC, the colony started to manufacture its own coin using as standard the coins of Athens, Sparta and Corinth. Between the fifth and the fourth centuries BC, the *silphium* plant becomes the emblem of the city. Its presence on the coin proves that it was not only the harvest

of the plant that Cyrene was proud of, but the plant dominated the entire region, including the steppes where the Libyans collected the *opos kyrenaikos*. The engraver was free to imagine the plant the way he wanted and to carve it in metal, only if the symbol could be easily recognized. The following examples show the limits of the documentary value of the coins in understanding what the plant looked like. The root was the most important part of the plant, treasured a lot by those interested to expand their wealth in Cyrene.<sup>7</sup> The root was represented on gold coins rarely as a small bump perpendicular on the plant's stem (*fig. 2*). On the best examples, as the Barca coin, there is a division of the blade of the *silphium* leaf (*fig. 3*)—engraved alternately—but no part of the stem is released by the seeds, which cannot be real.



Fig. 2. The entire silphium with roots



Fig. 3. Silphium with the blade of the leaf profoundly dissected



Fig. 4. The flower's stem



Fig. 5. Vertical leaves

Another example depicts a partially bare stem with the leaves engraved upwards and downwards, in opposite directions (fig. 4). The confusion increases when the leaves are engraved vertically (fig. 5). These images derive from the genuine caricatures dating from the "Robinson IV"8 period. There is a false proportion between the height of the stem and its diameter. For example, in the fourth figure, the diameter between the nodes is just a third of the its length, while the strength of the plant derives from the proportion between the stem's diameter (50 cm at the base) and the plant's total height (220–400 cm), of one cent. These facts indicate that the engraver used the stem to thicken the plant's aspect, to make grooves and to add ornaments.9 The type of silphium engraved on the coins reminds us of the 'giant fennel' plants (Ferula communis) or narthex (Greek, a plant whose leaves wrap its stem), the same kind of plant in which Prometheus hid the fire stolen from the gods. So, not only the literature depicts the silphium plant, but also the coins. It is true that they were small, of lower quality and engraved in different styles, but they give us some clues as to what the silphium looked like, enabling us to identify it easily. The layout of the leaves on the stem is an important botanical criterion that images on the coins do not allow us to use. For the engravers, the association of the plants (fruits, leaves and flowers on a stem) is another Cyrenean symbol that supposes a simple juxtaposition of objects on a scale, in an irrelevant way.<sup>10</sup>

In the fifth and the fourth centuries BC, the *silphium* crops could be found in the land bordered by the Platea Island, the Gulf of Bomba and the western limit of Syrte. The people were preponderant "in and around Syrte and Euhesperis". According to Strabo and Pliny, this region's width was about 300 stadia, respectively 30 miles (ca. 50 km).

Today it is widely accepted that silphium is a member of the Ferula genus (Umbelliferae), a distinction made by Theophrastus, a Greek metaphysician, Aristotle's student and successor, who wrote a treatise about the spicy plants.<sup>12</sup> It means that there are two types of leaves in almost every ferula: great, basal leaves that fall down and dissected in many segments, and stem leaves, inserted in the stem, with marked membranes and ending in an atrophic tongue. We can gather information about this plant from written sources as Theophrastus and Pliny the Elder. According to them, the *silphium* plant appeared near the Garden of Hesperis (today, the Gulf of Syrte), after a sudden dark rain that occurred seven years before the founding of the city of Cyrene (611 BC). As the soil was soaked with water, the plant grew lushly, wildly, as a stubborn weed. Even so, the Greeks considered the plant as "one of the most precious gifts the nature gave to man" or as a gift from Apollo, being mentioned for the first time in an Athenian poem of the fourth century BC as a spice with a flavored fragrance which dominated the sauces served at banquets. It was also used in preparing many recipes. In this regard, the spice is attested in De Re Coquinaria, the only ancient cookbook written by Apicius that survived in its entirety until today. Therefore, this is the most important source that offers an insight into the ancient Roman cuisine. Being so widely used in the Greek and Roman sauces, silphium became as important as celery and parsley in the international cuisine, and just like cognac and crème fraîche in the French cuisine.

Moreover, it was also mentioned as a medicine in Hippocrates' treaties from the fifth to the fourth centuries BC. Due to the plant's notoriety in the fourth and fifth centuries BC, we have today an exceptional and detailed depiction in Theophrastus' History of Plants. He wrote that the plant had a thick root about a cubit in length—similar to that of celery—, and a color resembling the black bark. Its stem was thick and about 12 centimeters in height. It lasted a year and it was used to obtain a famous vinegar which, mixed with honey, oil and cheese, formed a sauce. This sauce was stored in jars in order to obtain a paste that was very much appreciated by gourmets, called *laser* in Latin. The leaves (phyllon) of golden color pointed in opposite directions and had a long stem. The plant had a broad seed. The leaves could be consumed, like the cabbage leaves. The juice was extracted by incisions at the top of the root which allowed exudations in "tears" or in a flow collecting in a hollow dug around the plant. It was used as a medicine. Dissolved in water or wine, it helped stimulate the appetite and treat coughs, sore throats and chest pains. It was also an antidote, used as an external paste, against snakebites, scorpion bites, gout, quinsy and epilepsy. According to Hippocrates, as early as the seventh century BC, silphium was used by Greek women in contraception, and after a while by the Roman women as well. At the physicians' advice, the patient would take a monthly dose of silphium mixed with water and with a lump of resin of the size of a chickpea. It blocked the production of progesterone necessary in the preparation of the uterus for a fertilized ovum. It also cleansed the uterus and helped eliminating the dead fetuses. 13 As one can see, every part of the plant had its value. Strabo relates that the leaves were used in the kitchen. They were consumed fresh or they were given as food to the sheep. As a result, the mutton became soft and tasty. For camels, however, the silphium was poisonous. So, the local people covered the camels' mouth, not allowing them to graze especially when the seeds were in their adulthood. For a man, the leaves tasted good, especially when they were young and contained a lot of water. If the droughts stroke the region, the leaves would get a snappish taste, which was not so good for the seeds. The young sprouts (kauloi) were very tasty vegetables. They were boiled, steamed or fried as it happens in the modern-day Italy with the fennel. Yes, silbhium was an almost perfect product!

The fruits make the difference between *silphium* and the other related species that were used as spices in the kitchen. The tradition says that the seeds were brought by the violent southern winds all the way from the heart of Africa. Although most of them were circular, there also existed long and flat fruits, as those of *Atriplex hortenis*<sup>14</sup> (*fig.* 6). This piece of information is valuable in gathering many details about the *silphium* plant: its ovoid, almond-like shape was wrapped in a flat, prominent membrane. Usually, the roots were marinated in vinegar, and the juice (*opus*) extracted from the roots was used in medical potions. It is intriguing that, even if they are the most important part of the plant, the roots were not engraved on



Fig. 6. Atriplex hortensis seeds

coins. Moreover, neither Theophrastus nor any other Greek or Latin writer mention anything about the *silphium* flower. The reason could be that the flower was not used in any field or did not have any remarkable features. *Silphium* was one of the *epeteiokaulon*<sup>15</sup> species, with annual stems. By its dimensions, its perennial roots and its above-the-earth parts, it reminds us of the plants of the *Ferula* genus. In the spring, the leaves grew directly from the roots. They were similar to those of celery; in other words, the blades were dissected and disseminated along the stem. Due to this plant, the small Cyrene colony became an emporium, an economic center that was the perfect place for transit and wholesale trade. Cyrene specialized in perfume trading and, for a while, it had the monopoly on the Eastern Mediterranean Sea, exporting its perfume in the entire basin.

In Homer's time, almost everyone seemed to have used precious oils, perfumes and beauty ointments. The exports and sales of these products had a major role in the Mediterranean trade. During the eighth and seventh centuries BC, the Corinthian, Rhodian and Eastern Greek perfumes and cosmetics containers—including aryballoi, <sup>16</sup> alabastros, pyxides and other small types of vessels—prevailed on the foreign markets. In the sixth and fifth centuries, when Attican products dominated the exports, the toilet ointment was dispensed in bottles called *lekythoi*. *Pelike* was used for storing the flavored oils or the perfumes in bulk. In the classical age, perfumes

continued to be exported, probably in containers, in bulk, and then retailed in terracotta and alabaster *aryballoi*.

Generally, there were three major methods for manufacturing the perfume. The first stage of production consisted of the chopping of the plants, which was followed by pressing (extracting the essence from the skin and from the fruits), then, the plant material was steeped in cold and warm oil, which absorbed the aromatic materials. Most of the perfumes in the ancient world had an oil base: the Israelites mainly used olive oil; in Mesopotamia, it was sesame oil; in Ancient Greece, it was linseed oil, while the Egyptians used mostly animal fats. In the second stage, the finished product was kept in a cool and shady place in alabaster (or lead) containers, which kept the contents cool. The ingredients were left there for a period of four days. Finally, the mixture was boiled once more, and, after cooling, it was strained and decanted into small flasks.

In the seventh century BC, trade was heavy in fragrant herbs such as marjoram, lily, thyme, lavender, sage, anise, cinnamon, *silphium* and iris, infused into olive, almond, castor and linseed oils to make thick ointments. The second method of processing includes cold steeping, which is effective only with certain kinds of flowers. The process involves saturating and pressing together the plants with a layer of animal fat, until the fragrance is fully absorbed in the fat. The result was a scented pomade (a perfumed ointment). A third method was hot steeping, which was a similar process to cold steeping; the difference was that only the plants were pre-treated with a special astringent and saturated in water or wine. This helped the absorption of the scents in the base oils. In general, in the old times, the resulted perfume was either an oily substance, or a solid, buttery one.

Even if it is difficult to find information about the Greek methods used in the manufacturing of the perfume (including the silphium perfume), there are at least two interesting writings that the Greeks left behind. Details about real perfume recipes were provided by Dioscorides (ca. 40-ca. 90), a Greek physician who lived and wrote in Rome during the time of Nero. He described a common manufacturing process which involved two stages. The first, "served to prepare the oil by the addition of weakly-scented astringents such as aspalathus, cyperus and ginger-grass. This treatment did not permanently scent the oil, but rather made it more receptive to the stronger fragrances which would follow. It also served incidentally to thicken the oil somewhat. The astringents were mixed with wine or water to form a paste, and then they were heated in the oil. Theophrastus comments that this preliminary treatment was recommended in most cases, but necessarily with olive oil, which does not retain odors, and with volatile perfumes like rose. In the second stage of manufacture, the treated oil was given its final fragrance. This process also involved the steeping of aromatics. Repeatedly, the oil was strained from one vessel into another and fresh batches or aromatics were added until the perfume reached the desired strength, sometimes after several days."17

It is true that silphium naturally existed in abundance. Even so, the juice, with its fragrance and curative features, was to be extracted only by making incisions on the plant. This method was deadly for silphium. This is the reason why the Cyreneans kings issued a decree that discouraged and even prohibited the method of cutting the roots of silphium in case they were cut in such a great quantity that they could be used. But these regulations were ineffective, and silphium, the principal source of Cyrenean power economic, gradually disappeared. It is supposed that the extinction took place in the Hellenistic ages, but there are no historical documents in this respect. After 96 BC, when Ptolemy Apion bequeathed Libya to Rome, Libya did not have the privilege to use these natural resources—but not for long. Strabo says that, in his days, the Cyrenaican juice "nearly disappeared" because of the hostilities of the barbarian nomads who systematically destroyed the roots of the plants. After some decades, Pliny the Elder relates that the silphium simply vanished from Cyrenaica: "It has not been found in this region, now for many years, because the tax-farmers who rent the pasturage strip it clean by grazing sheep on it, realizing that they make more profit that way. Only a single stock has been found there within our memory, which was sent to the emperor Nero."18 Another reason that contributed to plant's extinction could have been the high state taxes paid with the money gained by selling the precious silphium. Yes, the plant was intensely exploited for a long period. Nevertheless, it is improbable that the nomads' raids alone could have devastated such a broad territory. The silphium had big, thick, long (nearly a cubit long—44 cm) roots. Can we imagine the way these raids took place? The destruction of the roots was a major cause in the disappearance of silphium, but it normally led to the over exploitation of its roots for their juice. The sheep contributed a lot to its extinction, and, according to Theophrastus, silphium fattened up the sheep and made them more flavored.<sup>19</sup> In the end of Letters 106 and 134, Synesius of Cyrene mentions some rare and fussy goods, referring also to the silphium juice. In another writing, dated 405 BC, Synesius announces a friend from Constantinople that he will send him costly gifts, including a great quantity of silphium juice that would suffice him even in shortages. We do not know how Synesius obtained the juice. Yet, he tells us in Letter 106 that his brother received the beautiful plant from a Phycous' garden.<sup>20</sup> This proves that there were some *silphium* crops, but they were extremely rare.

What counted in growing *silphium* was the impossibility of finding it in its natural habitat.<sup>21</sup> The plant disappeared in Pliny's times. It is true that Galenius, Vegetius and Synesius frequently mentioned the *silphium*, but they also specified that it was a rare and a precious product. They might have referred to the *silphium* of Media, and not to that of Cyrenaica. What is interesting is the fact that, in Greece, they still have the proverb *Battou silphion*, used to depict the famous richness.

Although the plant belonged in every possible way to Cyrenaica, we cannot conclude that it did not exist in other parts of the Mediterranean basin. In fact, the



Fig. 7. Ferula tingitana

western part of the Mediterranean basin was almost unknown to the Greeks. This uncertainty legitimates the research on the *silphium* plant.

In the Mediterranean flora there are no less than 70 kinds of *ferula*, such as *ferula vesceritensis*<sup>22</sup>, *laserpitium siler*,<sup>23</sup> *laserpitium silex*,<sup>24</sup> *laserpitium gummiferum*,<sup>25</sup> *asafoetida*.<sup>26</sup> The *silphium* resembles more or less to these plants. But is it possible that *silphium* vanished in that region only to reappear in another one?

At the beginning of the nineteenth century, Sprengel mentions in his *Historia rei herbariae*<sup>27</sup> the *Ferula tingitana* ( $\sigma i\lambda \varphi \iota ov$ ) (fig. 7)—a plant that produces a spicy resin (fisuh), which reminds us of the ancient silphium juice. This product was known as the Morocco gum ammoniac, highly appreciated by the Orientals who used it as a medicine, as a spicy perfume, for burning and also in magic rituals. Spren-

gel's theory has one big problem: Ferula tingitana cannot be consumed by humans and by animals.

This plant was common in the south of the Mediterranean basin, from Morocco to Palestine. Nothing proves that it could be considered a Libyan plant in the true sense of the word. The adult fruits are bluish-maroon, not resembling to the *silphium* fruits, which are golden yellow.

The physician Paolo Della Cella, who traveled to Cyrenaica in 1817, describes an-

other plant, Thapsia garganica (fig. 8), a common species in North Africa and Greece. Theophrastus had already given some information on  $\sigma(\lambda \omega)$  (silphium) and  $\theta \omega \omega$  (thapsia) as he easily observed Thapsia in its natural habitat. This plant can also be seen today in the rural areas around Athens. As in the case of the majority of plants used for medical purposes, the parts used from this plant are its roots, from which one can extract a white juice. Still, there are



Fig. 8. Thapsia garganica



Fig. 9. Ungrowth fruits of Thapsia garganica

a number of differences between thapsia and silphium. For example, thapsia's roots and juice are known for their powerful purgative and vomitive properties and for their vesicant and revulsive actions. A morphological difference between these two plants is the division of their linear membranes, whatever their width. The only significant similarity is the fruits' lateral growth. But when they reach maturity, they become yellowishbrown, in case of thapsia, and golden yellow, in case of silphium (fig. 9). So, the geographical distribution, the toxicity and the morphological aspect are proofs that Thapsia garganica is not the ancient silphium.28

It has been said that a major climate change (for example dry weather for several millennia) can cause the extinction of a plant from the flora of a country, without human intervention. But there are plants, such as papyrus, that were found again after a long disappearance. Nowadays botanists cannot

tell for sure why the *silphium* plant disappeared. They ask themselves which were the effects of *silphium* consumption and how the plant disappeared. Could it be the intense grazing, its use by the Cyreneans for paying their taxes, or maybe the nomad raids? There are two hypotheses: first, *silphium* simply disappeared from Cyrenaica and second, it has not been found yet.

Nowadays, archaeological documents do not mention the plant at all. So, its disappearance in the first centuries of our era remains a puzzle that is far from being solved. Only the chemical and pharmacological toxicity tests and an intense multidisciplinary research could establish once for all a relationship between today's *Umbelliferae* plants and the ancient *silphium*.

Anyway, the enigma seems to be unsolvable, while *silphium* still spreads its mythical perfume.

### **Notes**

- 1. The Greeks named it *silphion* or "Battos silphion," and the Romans, *silphium laserpitium*, *laserpicium*, *laser*, *sirpe*; these words refer to both the plant and the products derived from it.
- A family of herbaceous dicotyledonous plants, with "umbel"-shaped flowers. It includes the carrot.
- 3. Hippocrates, Maladies IV, 34, 3, Paris, p. 547, 1992.
- 4. In Greek, όπός κυρηναϊκός
- 5. Suzanne Amigues, "Le silphium—état de la question," in *Journal des savants*, no. 2, 2004, p. 191.
- 6. The cup the king used during feasts; it was found in Vulci, Etruria. It is 25 cm high, 28 cm in diameter and it was made of a very fine paste of red pale color. It was entirely covered with a black base layer, which was generally covered again with yellowish white clay.
- 7. François Chamoux, *Cyrene sous la Monarchie des Battiades*, Paris, Ed. Boccard, 1953, p. 258, it specifies that, paradoxically, the roots don't appear on the coins.
- 8. In the fourth period, the representation becomes more and more conventional.
- 9. S. Amigues, "Le silphium—état de la question," in *Journal des savants*, no. 2, 2004, p. 198-200.
- 10. F., Chamoux, *Cyrene sous la Monarchie des Battiades*, Paris, Ed. Boccard, 1953, p.256, notices that the gazelles are sometimes bigger and other times smaller than the *silphium* plant. The engravers didn't respect the exact proportions in the various compositional elements.
- 11. Theophrastus, Study of Plants, VI, 3, 3.
- 12. Ibid., VI, 3, 1.
- 13. Pliny, Naturalis Historia, Enciclopedia cunoștințelor din Antichitate, vol. IV-Remedii vegetale, XIX, 15, ed. Ioana Costa, Iași, Ed. Polirom, 2003, p. 126.
- 14. A member of the Ferulas family related to the ancient silphium.
- 15. In Greek, έπετειόκαυλον.
- 16. In Greek, αούβαλλος.
- 17. Theophrastus, Study of Plants, VI, 3, 1.
- 18. Pliny, Naturalis Historia, Enciclopedia cunoștințelor din Antichitate, vol. IV-Remedii vegetale, XIX, 15, ed. Ioana Costa, Iași, Ed. Polirom, 2003, XIX, 39.
- 19. Theophrastus, Study of Plants, VI, 3, 3.
- 20. S., Amigues, "Le silphium—état de la question," in *Journal des savants*, no. 2, 2004, p. 195.
- 21. The plant was a source of revenue for the Cyreneans. Being very rare and found only in some gardens, it aroused people's curiosity.
- 22. Compared justly to *silphium* because of the heart-shaped fruits.
- 23. It grows in southeastern France and it is prevalent in the mountainous regions of southern Europe. It is a purgative, an invigorating product that fattens the bovines in the Chartreuse Mountains, where the botanists signaled its presence.
- 24. Today it cannot be found in Cyrenaican or Northern African flora.

- 25. It produces an aromatic gum and grows in southern Spain and in northern Africa.
- 26. Quite interesting is the origin of the word asafoetida, because this is related to our problem. It seems that asa (assa, aasa) is the Arab translation of the Roman laser, or silphium. The Greek name was silphium medicum. Laser is mentioned along with other products from India and from the Orient, along with articles from Alexandria, the second century BC, after Alexander the Great opened the eastern markets to the Mediterranean world through the town named after him in the fourth and third centuries BC. According to Indian cookbooks, asafoetida is a sour digestive spice with a powerful flavor. The suffix foetida has to do with the unpleasant smell. In English, it is called the "the Devil's dung" and the Afghan name is "stink finger." These two expressions indicate the people's perception of it. The Cyrenean silphium didn't seem to have the attributes of asafoetida.
- 27. C. P. J., Sprengel, Historia rei herbariae, I, Amsterdam, 1807, p. 84.
- 28. Suzanne Amigues, "Le silphium—état de la question," in *Journal des savants*, no. 2, 2004, p. 197.

### **Abstract**

# The Silphium Plant and Cyrene Perfume

According to Herodotus, Cyrene, the original capital of ancient Cyrenaica and one of the biggest Greek colonies, was founded by Battus in 631 B.C. Cyrene was founded as a colony of the Greeks from Thera (the modern Santorini), itself a Spartan colony. In the classical period, the city flourished due to trade and to the export of cereals, wine, olive oil and mainly of *silphium*. The plant was part of the *Umbelliferae* family, genus *Ferula*. From its roots they extracted a flavored juice, used in contraception, as a medicine and as a spice. It was mainly used in producing the famous Cyrene perfume. It was exported in bottles called *aryballoy*, *alabastros* and *lekythoy* in the entire Mediterranean basin. Eventually, it became so expensive that, during the Battiad monarchy, a monopoly over *silphium* was requested—the plant which contributed to the prosperity of the town, turning it into a real emporium. *Silphium* became the main source of economic power in Cyrene. Its excessive use led to its disappearance in the Hellenistic era, when Libya was given over to Rome. Under these circumstances, the Libyans tried to find *silphium* elsewhere, under the guise of a species called *Assa foetida* or *Thapsia garganica*. Could it be possible that *silphium* disappeared in that area only to be discovered in another one?

The plant is now almost absent from archaeological documents and its extinction, probably in the first centuries of our era, remains a mystery that is far from being solved. Only a multidisciplinary research could now offer a permanent solution to the *silphium* question. Only the chemical and pharmacological toxicity tests could establish once for all a relationship between today's *Umbelliferae* plants and the ancient *silphium*.

## **Keywords**

Cyrene, Battos, silphium, perfume, Thapsia garganica