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CLS-0166
14 December 2023

Eirene: A Story about Female Herbalists in Ancient Greece

Visual Analysis and Comparison Between AI-Generated Images and Primary Source

Introduction

Through a close reading of Wilhelm Adolf Becker's work *Charicles: or, Illustrations of the Private Life of the ancient Greeks*, tr. Frederick Metcalfe (Oxford 1874), a historical fiction with twelve chapters and extensive footnotes, I am most interested in its depiction about healers, doctors, plants and ancient Greek women. Given the limited rights and low status of women in ancient Greece, who were mostly confined to domestic roles, I followed *Charicle's* model and wrote a medium-length story from a non-traditional Ancient Greek women's perspective with primary sources. The following essay investigates how I critically applied AI-generated images based on primary sources coupled with the storyline, covering topics of travel in the Greek world, marriage and adoption customs, and ancient healing methods.

Although *Charicles* is a classic work with delicate elaborations on primary sources, it's primarily portrayed from an elite male perspective. It assumes a reader's familiarity with Greek or Latin, lacking colored scene illustrations. Since we have very limited primary sources from ancient Greek women's view, it is imperative to broaden our capacity of imaging women's real conditions in daily life of ancient Greece. I aimed to create a narrative from a woman's perspective and added several illustrations from generated AI—I used DALL-E of ChatGPT4.0 for all generated sources in this project—and visual primary sources, which may encourage wider sharing of ancient greek knowledge based on primary sources in a more understandable way.

Based textual primary source from Aristophanes's *Birds* and *Plutus*, Homer's *Odyssey*, Hesiod's *Works and Days*, Plato's *Metaphysics*, etc, and coupled with archaeological and visual primary

sources, I wrote this historical fiction with imaginative protagonists with the Greek social customs and social context.

To introduce the characters, the story briefly illustrates that Eirene (about 20 years old), a gifted herbalist in ancient Greece, heals others with her plant knowledge. She was adopted and educated by a seasoned female herbalist, Aegio. Living near Epidauros (near the temple of Asclepius in Argolid), Eirene encounters Leos, an injured young man from Athen (at the age of ephebo 18-20), forming a tender relationship through healing and sharing stories with secular challenges. However, Eirene could not forget her old love, another 20-year-old woman called Calliope, who became a hetaera (a female prostitute). In addition, even though I have referred to many ancient Greek terms, like ephebos, the overall language of this story is more contemporary, which is different from Becker's *Charicles* translated into English 19th century. For instance, I used the full name of referred books instead of abbreviations in the footnote, since I didn't assume any readers to have prior knowledge about ancient Greek primary sources, and it may be easier for them to look up online.

Methodology

The methodology is comprised of three components: (1) a historical fiction story from an ancient Greek woman's perspective during the Classical Period (479–323 BCE), using primary sources to detail herbs, healing, and love; (2) footnotes explaining the primary sources, and how it was critically applied in my creative writing; (3) the appendix about the documentation of visual comparisons of AI-generated images and primary sources, serving as illustrations;

In creating visuals, I used a three-step method: generating images with AI tools from descriptions in the Perseus Library, comparing these with the prompts for accuracy, and then contrasting them with original primary visual sources. Due to my limited proficiency in Greek and Latin, all primary sources and translations were sourced from the Perseus Digital Library and its "Art & Archaeology Artifact Browser."

However, there are notable limitations and challenges in its method. A key issue arose with the use of DALLE for image generations. Due to the inability to modify its generative parameters,

the tool consistently produced two images for each prompt, which requires a careful comparison of both images to ensure the authenticity and accuracy of the AI text-to-image tool in my project. Additionally, I had to rely on some primary sources from a male perspective or periods like the Hellenistic or Archaic, as there are scarce primary sources directly relevant to the story themes or the Classical period's specific location, and it is challenging to locate primary sources about ancient female healers and herbalists. To avoid confusion, I have clarified the rationale for these choices in the footnotes, particularly where they may not align perfectly with the context.



Book cover of *Eirene* generated by Midjourney and collaged with plants by me

Content of Eirene: A Story about Female Herbalists in Ancient Greece with Illustrations

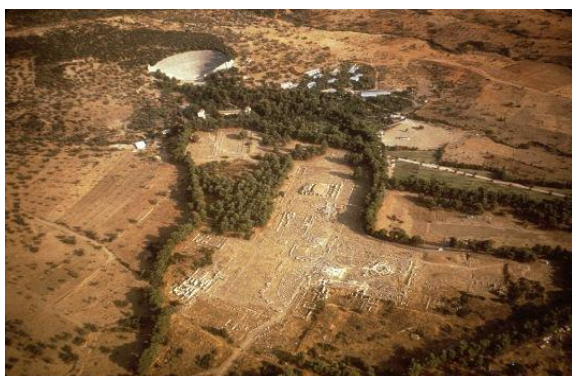


Fig. 1. Aerial view of site, from N, Epidauros, Photograph by Raymond V. Schoder, S.J., courtesy of Bolchazy-Carducci Publishers, from Perseus Library

In the ancient Argolid¹, under a sky veiled with the hues of twilight, a subtle coolness lingered in the air, carrying the promise of the long winter, a sharp contrast with the warmth that usually shrouded the city in the summer.² The sun dipped low, kissing the horizon; Leaves rustled softly in the breeze, a prelude to the tale unfolding in the dusk.

Eirene, in the bloom of her damsel's ages, draped in

¹ See Pausanias, *Description of Greece*, 3.23, *φασί δὲ οὐ Λακεδαιμονίων, τῶν δὲ ἐν τῇ Ἀργολίδι Ἐπιδαυρίων εἶναι*, the people say that they are not descended from the Lacedaemonians but from the Epidaurians of the Argolid. Translated from Perseus Library.

Ancient Spartan inhabitants are from Lacedaemon region. In *Eirene*, I chose Argolid as the setting because it houses the Temple of Asclepius, aligning closely with the story's focus on healing practices and services.

² See Hesiod, *Works and Days*, line 504-507, *μῆνα δὲ Ἀηναῖωνα, κάκ' ἡματα, βουδόρα πάντα, [505] τοῦτον ἀλέασθαι, καὶ πηγάδας, αἴτ' ἐπὶ γαῖαν πνεύσαντος Βορέας δυσηλεγέες τελέθουσιν*, While it is yet midsummer command your slaves: "It will not always be summer, build barns." Avoid the month Lenaeon, wretched days, all of them fit to skin an ox, [505] and the frosts which are cruel when Boreas blows over the earth. Lenaeon: The latter part of January and earlier part of February. Translated from Perseus Library.

The sentences shows the necessity of avoiding hazards like frost and treacherous pits or wells during the winter month, especially when Boreas, the personification of the north wind, blows. Drawing from this primary source, the story is set in early February, providing a backdrop for how the protagonists encounter each other amidst the harsh weather conditions.



Fig.2 Overall view of remains from Epidauros, Katagogeion. Photograph by Maria Daniels, May - June 1990, from Perseus Library

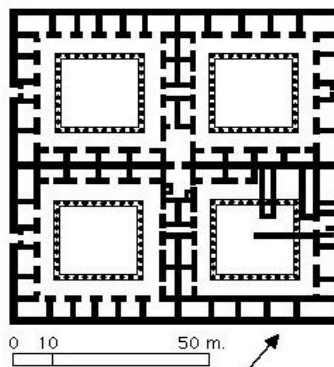


Fig.3 Plan, Epidauros, Katagogeion, copyright C. H. Smith 1989, based on Buglass (artist), from Perseus Library

a beautifully embroidered robe colored brightly, caressed the delicate folds of the chiton gently³. Upon her finger, a serpentine ring glistened, catching the distant rays of the rising sun, which played upon its twists with light most enchanting. Shelves lined with jars of herbs and healing salves, each meticulously labeled, spoke of a life for the healing arts. Eirene's hands, always steady, selected a few herbs for the day's remedies.

Surrounded by the arable Argolid countryside stood Eirene's abode. More than just a private dwelling, it served as a guesthouse and sanctuary for those seeking the healing service from Eirene and blessing from Asclepius, the god of medicine and healing⁴. The architecture blended with the

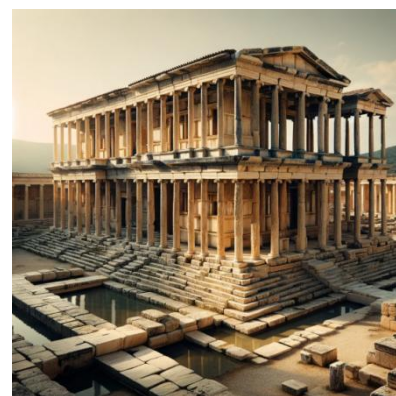


Fig.4, 5 Two generated images by DALL-E

natural tranquility: The building's heart was its courtyards. In these open spaces, the sky stretched wide above, and the gentle whisper of the wind wove through the Doric columns. Though not grandeur, each house's

³ See Aristophanes, *Plutus*, 1199, τὰς χύτρας, αἷς τὸν θεὸν, ἰδρυσόμεθα, λαβοῦσ' ἐπὶ τῆς κεφαλῆς φέρε, σεμνῶ, ς: ἔχουσα δ' ἦλθεσ αὐτῇ ποικίλα. Take the pots of vegetables which we are going to offer to the god in honor of his installation and carry them on your head; you just happen luckily to be wearing a beautiful embroidered robe. Translated from Perseus Library.

Plutus is an Ancient Greek comedy that features the personified god of wealth Plutus. This segment suggests the common practice of dressing elegantly as a sign of respect when making offerings to the gods in ancient Greece. As primary sources on healers' attire are scarce in the Perseus Library, I chose this segment as it implies that healers, out of respect for the gods, might have donned beautifully embroidered robes.

⁴ See Aristophanes, *Plutus*, 410, Ἀμὰ Διάλλ' ὅπερ πάλαι παρεσκευαζόμεν ἐγὼ, κατακλίνειν αὐτὸν εἰς Ἀσκληπιοῦ κράτιστόνέστι. But I have thought the matter well over, and the best thing is to make Plutus lie in the Temple of Asclepius. Translated from Perseus Library.



Fig.6,7 Side B: Hermes, Artemis, Herakles, and Athena /Side B: oblique from right. Collection:Berlin, Antikenmuseum

room was crafted with visible care. Water channels were delicately constructed around each courtyard, bringing life and a soothing rhythm to the structure⁵.

At the first blush of dawn, Eirene meandered through the path of withering garden, which used to be verdant in summer, her eyes inspecting the herbs she had so tenderly cultivated, as violets, pomegranate, parsley, grapes, citrons, olives⁶ and so on⁷. Some botanical rarities, challenging to find and nurture elsewhere, were why Eirene chose to reside in the suburbs of Argolid, a coastal city with a rainy Mediterranean climate, especially in the winter. With the sun's earliest rays, she armed herself with gardening tools, venturing into the nearby forests to harvest wild herbal medicines. The woods were



Fig. 8,9 Two generated images of Side B by DALL-E

crowded despite the early hour; Eirene filled her basket with figs.⁸ Fortune smiled upon her as

⁵ See Fig.1-5 and the appendix.

⁶ See Fig.6-9 and the appendix.

⁷ In Perseus Library, There are numerous records about ancient greek fruits, regarded important for greeks as a part of their entertainment. See *Plato, Critias*, 115b, *τὰ μέρη σύμπαντα ὄσπρια—καὶ τὸν ὄσος ξύλινος, πόματα καὶ βρώματα καὶ ἀλείμματα φέρων, παιδιᾶς τε ὅς ἔνεκα ἡδονῆς τε γέγονε δυσθησαύριστος ἀκροδρῶν καρπός, ὅσα τε παραμύθια πλησμονῆς μεταδόρπια ἀγαπητὰ κάμνοντι τίθεμεν, ἅπαντα ταῦτα ἢ τότε ποτὲ οὐσα ὑφ' ἡλίῳ νῆσος ἱερὰ καλά τε καὶ θαυμαστὰ καὶ πλήθεσιν ἄπειρ' ἔφερον. ταῦτα οὖν λαμβάνοντες πάντα παρὰ τῆς γῆς κατεσκευάζοντο τὰ τε, and all the produce of trees which affords liquid and solid food and unguents, and the fruit of the orchard-trees, so hard to store, which is grown for the sake of amusement and pleasure, and all the after-dinner fruits that we serve up as welcome remedies for the sufferer from repletion,—all these that hallowed island, as it lay then beneath the sun, produced in marvellous beauty and endless abundance. And thus, receiving from the earth all these products, they furnished forth, translated from Perseus Library. Unguents perhaps the olive, or coco-palm, the fruits of orchard-trees perhaps the pomegranate, or apples, the after dinner fruits perhaps the citron.*

⁸ Figs are very common in the ancient greek world. See Aristophanes, *Plutus*, line 716-722, *ἔφρα ἐν τῇ θυεῖα συμπαραιμνῶν ὀπὸν καὶ σχίνον: εἶτ' ὄξει διέμενος Σφηττικατέπλασεν αὐτοῦ τὰ βλέφαρ' ἐκστρέψας, he threw three heads of Tenian garlic into the mortar, pounded them with an admixture of fig-*

her foraging often yielded fruits and berries destined for the healing of those who sought her aid or to be carefully stored in her inventory. Her eyes slowly wandered to the other side of the fig trees, where a dark mass obstructed her view. "Could this be another rare plant? I'm incredibly lucky today; surely, the goddess Tyche is watching over me⁹! I must go and see..."



Fig.10 Interior: Horse and rider, Collection of The J. Paul Getty Museum, Malibu, California, from Perseus Library



Fig.11,12 Two generated images by DALL-E

Eirene approached excitedly but was startled as a strange face, eyes tightly closed, emerged. At the rising age of Ephebo, a handsome young man, almost eighteen, lay in the woods unconsciously, his face and neck partially covered by damp, nearly rotting leaves. Saddle fragments lay nearby; his horse had long since escaped.¹⁰ Checking his breath, she found he was still alive, though his breathing was faint and irregular. As time was fleeting, Eirene, unable to diagnose his condition in the dark, struggled to drag his tall but slender body to her adobe. Sweat drenched her garment, even in early February's chill, but her determination did not waver: "I must save him."

After nearly half an hour, Eirene, utterly weary, realized with a pang of regret that some of the rare herbs she had collected were accidentally left behind in the forest. She laid the young man on the soft bed in the guest room and meticulously cleaned him. The night had deepened, stars

tree sap and lentisk, moistened the whole with Sphettian vinegar, and, turning back the patient's eyelids, applied his salve to the interior of the eyes, so that the pain might be more excruciating. Translated from Perseus library.

⁹ Tyche, the goddess of fortune or luck. See Pausanias, *Description of Greece*, 4.30, ἔσα δὲ καὶ Τύχης ναὸς Φαραιάταις καὶ ἄγαλμα ἀρχαῖον, the people of Pharae possess also a temple of Fortune (Tyche) and an ancient image.

¹⁰ See Fig.10-14 and the appendix.



Fig.13,14 Two generated imaged by DALL-E

shimmering weakly in the dark sky. Eirene prepared a simple broth and basic herbal tonics, feeding them gently to the unconscious youth. She then silently prayed to the statue of Asclepius for his recovery. After tidying herself and sorting the newly collected herbs, she succumbed to a deep, restful sleep.

As the sun rose high, a series of coughs awakened Eirene. She suddenly remembered the man she had rescued and rushed to the guest room. “Are you awake? Did you dream of something in the evening?¹¹” she asked the young man who tried but failed to speak, “Eirene, using her familiar medical skills, checked his temperature, pulse, and excretions.¹², further surmising that an asthma¹³ or a bronchitis attack had caused his fainting in the forest. With half-opened eyes full of wariness, the young man listened as Eirene recounted how she found him and her

¹¹ See Pindar, *Olympian*, 13, *ἐνυπνίῳ δ' ἄ τάχιστα πιθέσθαι κελήσατό μιν, ὅταν δ' εὐρυσθενεῖ*, the seer told him to obey the dream with all speed. Translated from Perseus Library.

¹² In ancient Greece, the doctors always check the patient's evolving symptoms in a very comprehensive way, included their dreams, since dream plays a big role in both Greek mythology, daily life, and historical records. See Hippocrates, *De morbis popularibus*, 1.3, *ἐπὶ τὸ ῥᾶνον γὰρ καὶ χαλεπώτερον ἐκ τούτων — ἐκ τῆς καταστάσεως ὅλης καὶ κατὰ μέρη τῶν οὐρανίων καὶ γῆρας ἐκάστης, ἐκ τοῦ ἔθεος, ἐκ τῆς διαίτης, ἐκ τῶν ἐπιτηδεύματων, ἐκ τῆς ἡλικίας ἐκάστου, λόγοισι, τρόποισι, σιγῇ, δια [10] νοήμασιν, ὕπνοισιν, οὐχ ὕπνοισιν, ἐνυπνίοισι, οἴοισι καὶ ὅτε, τιμῶσι, κνησμοῖσι, δάκρυσιν, ἐκ τῶν παροξυσμῶν, διαχωρήμασιν, οὖροισιν, πτύλοισιν, ἐμέτοισι, καὶ ὅσαι ἐξ οἴων ἐς οἰαδιαδοχαὶ νοσημάτων καὶ ἀποστάσεις ἐπὶ τὸ ἀλέθριον καὶ κρίσιμον, ἰδρώς, ῥίγος, ψύξις, βῆξις, πταρμοί, λυγμοί, πνεύματα, ἐρεύξιες, φῦσαι, σιγῶσαι, ψοφώδες, αἱμορραγίαι, αἱμορροῖδες.* for these make a diagnosis more favourable or less ; from the constitution, both as a whole and with respect to the parts, of the weather and of each region ; from the custom, mode of life, practices and ages of each patient ; from talk, manner, silence, thoughts, sleep or absence of sleep, the nature and time of dreams, pluckings, scratchings, tears ; from the exacerbations, stools, urine, sputa, vomit, the antecedents and consequents of each member in the successions of diseases, and the abscessions to a fatal issue or a crisis, sweat, rigor, chill, cough, sneezes, hiccoughs, breathing, belchings, flatulence, silent or noisy, hemorrhages, and hemorrhoids.

¹³ Besides today's investigation of asthma in medical realm, asthma is early discovered and researched by ancient Greek scholars. See Aretaeus, *De causis et signis acutorum morborum* (lib. 2), *εἰ ἀπὸ δρόμου καὶ γυμνασίων καὶ παντὸς ἔργου δυσπνοεῖ ἢ ἀναπνοῇ, ἄσθμα καλεῖται: καὶ ἡ νοῦσος δὲ ὀρθόπνοια, καὶ ἡδε κικλήσκειται ἄσθμα: ἐν γὰρ τοῖσι παροξυσμοῖσι ἀσθμαίνουσι καὶ οἶδε. ὀρθόπνοιαν δὲ ἐκάλεον, οὐνεκεν ὀρθίῳ σχήματι μόνον ἀναπνεύουσι εὐφύρως: πνίξ γὰρ ἐν κατακλίσει. εἵνεκεν τοῦ τόνου τοῦ ἐπὶ τῷ πνεύματι ὀρθόπνοια τοῦνομα. Ἡ ὀρθίος γὰρ ἀνατέταται ἐξ ἀναπνοῆν, κῆν ὑπτιος κατακλινθῆ ὄνθρωπος, κίνδυνος πνιγῆναι.* If from running, gymnastic exercises, or any other work, the breathing become difficult, it is called *Asthma* (ἄσθμα); and the disease *Orthopnoea* (ὀρθόπνοια) is also called *Asthma*, for in the paroxysms the patients also pant for breath. The disease is called *Orthopnoea*, because it is only when in an erect position (ὀρθίῳ σχήματι) that they breathe freely; for when reclined there is a sense of suffocation. From the confinement in the breathing, the name *Orthopnoea* is derived. For the patient sits erect on account of the breathing; and, if reclined, there is danger of being suffocated.

background as a female healer and herbalist, trained alongside Aegio, a seasoned female Greek herbalist.

“Aegio, my teacher, who never married, adopted me years ago. She discovered my deep connection with oracles and magical instruments¹⁴ and gradually trained me in the art of herbal medicine,” Eirene shared. “I am especially grateful to her for not treating me as a *hetarea* to entertain male guests or as a slave but for earnestly teaching me knowledge and philosophy, encouraging me to use these gifts to save lives with the virtues of plants. My childhood companions either became slaves, losing their chance for education, or *hetarea*, despite decent wealth—a life I never desired. I longed for the freedom akin to that of an Athenian man. When Aegio first took me to Athens five years ago, I was astounded by its theaters, street philosophers, and bustling markets. I apologize for speaking so much, forgetting that you, being a man, might not understand my situation. I do not know much about my life before being adopted; Aegio is reluctant to share, but she said that a blind soothsayer told her about my gift in herbal healing and connection with oracles.¹⁵”

The man nodded, indicating that Eirene could continue. Though he couldn't speak, he wrote “Leos” with a hard reed pen with a bit of ink near the bed¹⁶, pointing to himself. Leos's handwriting was so clear and neat, the mark of an educated man. Leaving a bowl of broth with a wish for his speedy recovery, Eirene was constantly reminded of her responsibility as a healer. It

¹⁴ Without enough primary sources about the background of magical healers or solely female healers in ancient Greece, there are plentiful original texts about mysteries, rituals, and even criticisms about the mystical evils. See Hippocrates, *De morbo sacro*, 1, *εἰ γὰρ σελήνην τε καθαιρέειν καὶ ἥλιον ἀφανίζειν καὶ χειμῶνά τε καὶ εὐδίην ποιέειν καὶ ὄμβρους καὶ αὐχμούς καὶ θάλασσαν ἄφορον καὶ γῆν καὶ τάλλατὰ τοιονότροπα πάντα ὑποδέχονται ἐπίστασθαι, εἴτε καὶ ἐκ τελετέων εἴτε καὶ ἐξ ἄλλης πινός γνώμης ἢ μελέτης φασὶν ταῦτα οἶόν τ' εἶναι γενέσθαι οἱ ταῦτ' ἐπιτηδεύοντες, δυσσεβέειν ἔμοιγε δοκέουσι καὶ θεοὺς οὐτε εἶναι νομίζουσιν οὐτ' ἐόντας ἰσχύειν οὐδὲν οὐτε εἴργεσθαι ἂν οὐδενός τῶν ἐσχάτων, ὧν ποιέοντες πῶς οὐ δεινοὶ αὐτοῖσιν εἰσιν;* For, if they profess to know how to bring down the moon, darken the sun, induce storms and fine weather, and rains and droughts, and make the sea and land unproductive, and so forth, whether they arrogate this power as being derived from mysteries or any other knowledge or consideration, they appear to me to practice impiety, and either to fancy that there are no gods, or, if there are, that they have no ability to ward off any of the greatest evils. Translated from Perseus Library.

¹⁵ See Apollodorus, *Library*, 3.6, *ἦν δὲ παρὰ Θηβαίοις μάντις Τειρεσίας Εὐήρου καὶ Χαρικλοῦς νύμφης, ἀπὸ γένους Οὐδαίου τοῦ Σπαρτοῦ, γενόμενος τυφλὸς τὰς ὀράσεις.* Now there was among the Thebans a soothsayer, Tiresias, son of Everes and a nymph Chariclo, of the family of Udaeus, the Spartan, 19 and he had lost the sight of his eyes. Different stories are told about his blindness and his power of soothsaying. For some say that he was blinded by the gods because he revealed their secrets to men.

¹⁶ Ink is commonly mentioned in Ancient Greek author's works. See, Plato. *Phaedrus* 276c, *Σωκράτης, οὐκ ἄρα σπουδῆ αὐτὰ ἐν ὕδατι γράμει μέλανι σπείρων διὰ καλάμου μετὰ λόγων ἀδυνάτων μὲν αὐτοῖς λόγῳ βοηθεῖν, ἀδυνάτων δὲ ἱκανῶς τάληθῆ διδάάν,* Socrates, Then he will not when in earnest, write them in ink, sowing them through a pen with words which cannot defend themselves by argument and cannot teach the truth effectually.

was time to gather and prepare herbs, maintain her home, and hone her skills for the many patients who awaited her healing touch.

Bathed in the tender glow of the winter sun, a new day unfolded. It wasn't long before the morning hush was broken by Leos, who rediscovered the gift of speech, his words a cascade of gratitude towards Eirene. "Eirene, without your tender care, I might have perished, forgotten in the wilderness. Allow me to introduce myself formally. My name is Leos, the son of an Athenien citizen



Fig.15,16 Main panel: seated maenad at left, silen, Eros, and Dionysos /Seated Hermes with caduceus, from Perseus Library

I was journeying from Argos, where I had attended a friend's wedding, rushing back to Athens when fate took its unexpected turn... The Athenian doctor diagnosed me with asthma, warning against over-exhaustion," Leos confided, "He spoke of an imbalance of the elemental waters and fires within me¹⁷, yet the key to a true cure remained elusive." With a sense of nostalgia, he spoke of Athens, his homeland basking in the glow of philosophy and magnificence, in stark contrast to the rustic charm of Eirene's abode. Like the deep pool of Aegean blue, Eirene listened, her eyes shimmering as when Leos had hung on her every word and story during his recovery. As days slipped into one another, a tender affection, tinged with the hues of love, blossomed silently between them. This bond, unspoken yet profoundly felt, thrived in their shared moments and quiet glances. Though Leos's voice had returned and his health was mending, the thought of parting lingered far from their minds. In each other, they had found not just solace but a gentle, burgeoning love, a heartwarming comfort that grew with each passing day.

¹⁷ Aristotle thought that the rationale of everything could be about fire and water, and in ancient Greece, many realms, including healing, medicine, geography and philosophy, have employed the way of thinking about natural element, particularly fire and water. See Aristotle, *Metaphysics*, 984a, *σχεδὸν γὰρ ἅπαντα τὰ ὁμοιομερῆ καθάπερ ὕδωρ ἢ πῦρ οὕτω γίνεσθαι καὶ [15] ἀπόλλυσθαί φησι, συγκρίσει καὶ διακρίσει μόνον, ἄλλως δ' οὔτε γίνεσθαι οὔτ' ἀπόλλυσθαι ἀλλὰ διαμένειν αἰδία.* For he says that as a general rule all things which are, like fire and water, homoeomerous, are generated and destroyed in this sense only, by combination and differentiation; otherwise they are neither generated nor destroyed, but persist eternally. Translated from Perseus Library.

As the time flew, Aegio returned from her vacation among fellow Greek herbalists. Clad in a robe embroidered with delicate flowers, mirroring Eirene's attire, she carefully examined the Hermes-wand¹⁸ residing in

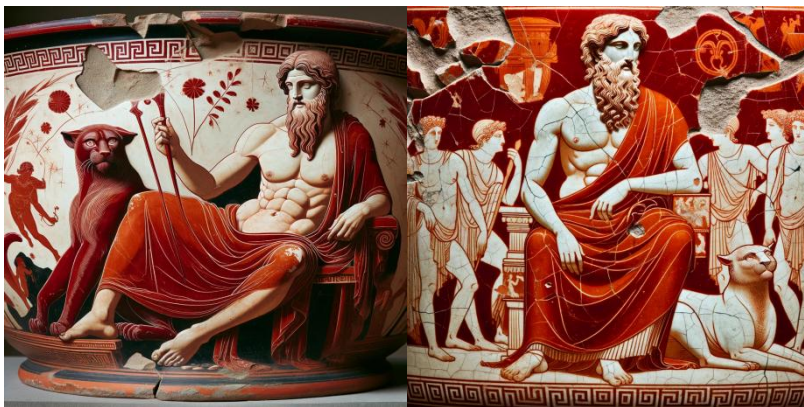


Fig.17,18 Two generated images by DALL-E

the gate of the garden.¹⁹ “Aegio, Eirene has often sung your praises, a woman of profound wisdom and esteem,” Leos exclaimed with great sincerity, his gaze locked with Aegio “Your guidance has cultivated in Eirene a healer of exceptional kindness, a savior to my very being. I don’t know how to express my boundless gratitude” “That’s just my duty,” Aegio responded, her voice a well of wisdom, a striking contrast to Eirene’s vivacious nature. She meticulously evaluated Leos’s condition, inquiring into the treatments and herbs Eirene had used. The stubbornness of Leos’s asthma was a challenge. Still, Aegio, leafing through a ton of age-old scrolls which were recorded from the oral records, unearthed a renowned and quite precious herb named *moly*,²⁰ as white as milk. It is said that only mortal men cannot uproot it.

Under Aegio and Eirene’s considerate care, Leos’s health improved and flourished, his breaths steady like the tranquil sea after a tempest. Yet within Leos, a storm of emotions surged.

¹⁸ See Fig.15-18 and the appendix.

¹⁹ See Pliny the Elder, *The Natural History*, hic tamen complexus anguim et frugifera eorum *concordia in causa videtur esse, quare exterae gentes caduceum in pacis argumentis circumdata effigie anguim fecerint; neque enim cristatos esse in caduceo mos est*. Translation: It is this entwining of serpents with one another, and the fruitful results of this union, that seem to me to have given rise to the usage among foreign nations, of surrounding the caduceus with representations of serpents, as so many symbols of peace-it must be remembered, too, that on the caduceus, serpents are never represented as having crests. Translated from Perseus Library.

I found limited three-dimensional visual primary sources detailing the physical characteristics of Hermes' wand, like its sculptures. Most depictions are two-dimensional representations on the surfaces of vases. There are extensive sources about Hermes-wand from Homer, see *Homer. Odyssey. 5.50, τίπτε μοι, Ἑρμεία χρυσόραπι, εἰλήλουθας, αἰδοῖός τε φίλος τε; πάρος γε μὲν οὐ τι θαμίζεις. αὔδα ὃ τι φρονέεις: τελέσαι δέ με θυμὸς ἀνωγεν*, Why, pray, Hermes of the golden wand, hast thou come, an honorable guest and welcome? heretofore thou hast not been wont to come. Speak what is in thy mind; my heart bids me fulfil it. Translated from Perseus Library.

²⁰ See Homer, *The Odyssey*, Book 10, Card 6. As he spoke he pulled the herb out of the ground and showed me what it was like. The root was black, while the flower was as white as milk; the gods call it Moly, and mortal men cannot uproot it, but the gods can do whatever they like. Translated from Perseus Library. I didn’t find the Greek language version of this book edition in Perseus Library, which requires me further examine *The Odyssey*. Though with plenty of mythological records, it is not sure whether this plant effects in realistic conditions.

Though Eirene never voiced her emotions aloud, her every attentive gesture towards Leos revealed the depth of her feelings. Eirene's heart wandered to Calliope, her dearest friend, whose eyes held the same deep blue as Leos's—their shared moments ignited a chemistry comparable to her connection with Leos. She reminisced about the times they danced amidst the garden's blooming roses²¹ and grapes, and sang under the chill breeze of late summer nights. The ambiguity of her feelings lingered - was it a forgotten love for Calliope or merely friendship? Three years had passed since Calliope left as a hetaera under her master's command. Eirene pondered the blurred lines between love and friendship, their memories a bittersweet blend of past and present. For Leos, the weight of his Athenian heritage with family expectations that shadowed it cast a pall over his affections. Eirene and Leo both held their secrets deeply.

As suggested by Aegio, Leos penned a heartfelt letter to his family in Athens about the love he unexpectedly had found in Argolid. In response, his family sent a generous tribute of 7 mina through an Argolid banker, a gesture befitting Athenian nobility, ensuring Eirene and Aegio were justly compensated. Yet, on matters of the marriage, their approval was not readily given with the vast amount of their family heritage. Leos didn't reveal any concern about the disagreement and bought a new horse to return to his motherland with the money sent by his family. Yes, Leos held onto a glimmer of hope that he could reconcile his newfound love with his family's expectations.

Their farewell took place in the wilderness by the marsh²², where fate had first woven their paths together – a place now sacred in the memory of their hearts. There they stood, each lost in a labyrinth of thoughts and uncertainties, their future as enigmatic as the whims of the gods. Woven with unspoken promises and lingering gazes, their farewell was enveloped in the healing

²¹ Rose, the highest rank of flower in ancient Greece, especially in terms of chaplets, perfumes, and other kinds of elegant usages. See Euripides, *Medea*, line 841-845, *αἰεὶ δ' ἐπιβαλλομένην χαίταισιν εὐώδη ῥόδων πλόκον ἀνθέων τᾶ Σοφία παρέδρους πέμπειν Ἔρωτας, παντοίας ἀρετᾶς ξυνεργούς*, and ever dressing her hair with a fragrant chaplet of roses she sends the Loves to sit at Wisdom's side, joint workers in every kind of excellence. Translated from Perseus Library.

²² There are extensive records about marshes or wetlands in ancient Greek mythology or historical records. See Aristophanes, *Birds*, 1553-1556, *πρὸς δὲ τοῖς Σκιάποσιν λίμνητις ἔστ' ἄλουτος οὔψυχᾶ γωγεῖ Σωκράτης*, near by the land of the Sciapodes there is a marsh, from the borders whereof the unwashed Socrates evokes the souls of men. Translated from Perseus Library.

While primary sources on marshes in the Argolid area were elusive, the region's coastal plain climate suggests the possibility of their existence. Therefore, I chose a marsh setting for the protagonist's farewell scene. Wetlands in Greek mythology or plays are often portrayed as sacred, which adds significance to the farewell moment.

forest's divine watchfulness and whispered secrets. Despite the chasm between their worlds, their shared recollection endured.

Appendix: Visual Analysis and Comparison

Pair 1(Eirene's adobe, Fig.1-5)

According to the story's framework, as a healer, Eirene's home is a guesthouse, but it is challenging to locate a primary source on the architecture of guest houses near the Temple of Asclepius, especially during the Classical Period. In compromise, I turned to refer to an archaeological site from the Hellenistic Period in the midway between the Temple of Asclepius and Ancient Theater at the Asclepieion, for supplementary information. It's noted that potential distinctions between guest houses of these two periods exist, which warrants further investigation into primary sources to discern these differences.

Prompt from Perseus Library:
“Context: Epidauros
Type: Guest House
Summary: Large square building with courts; northwest of the Theater, about midway between the Theater and the central Sanctuary of Asklepios.
Date: ca. 320 BC - 300 BC
Dimensions: 76.3 m x 76.3 m.
Region: Argolid
Period: Hellenistic
Plan:Four square peristyle courts with 10 Doric columns to a side. The two-storied Doric peristyles formed portico entrances to the surrounding 160 rooms. Around each courtyard ran a channel for water.”

Based on the description serving as the generative prompt, these two images are produced by DALL-E model in ChatGPT align loosely with the textual description. By comparing the generated one with the text, the generated works show a large square building with courts of approximate dimensions. However, these images do not accurately represent the specified number of 10 Doric columns, instead displaying Ionic columns with two additional volutes as decorations. The absence of water channels in each courtyard is another discrepancy. Moreover, the two images, generated from the same prompt, exhibit different court and house plans, an inconsistency worth noting.

Furthermore, the aerial view of Epidauros suggest a flat plain without prominent mountains, but the this area is more like a flat plain without very prominent large mountains. On the contrary,

Fig4,5 shows some visible mountains in the background of the guest house, contradicting the geographical scenery in the prompt.

Due to the incompleteness of this primary archaeological site, our view is limited to several bare rocks with a roughly building plan implied by their overall arrangement, complicating the task of assessing the accuracy of the generated works.

Pair 2 (Some fruits in Eirene's garden, Fig.6-9)

As depicted by the story, "Eirene meandered through the path of withering garden, which used to be verdant in summer, her eyes inspecting the herbs she had so tenderly cultivated, as violets, roses, parsley, citrons, olives and so on." Reliable textual primary sources detailing the growth conditions of these plants in ancient Argolid, Greece, were not found in Perseus Library. However, numerous vases and artifacts depicting Greek mythological characters with the presence of some plants were available. For this scene, I chose Side B of an Attic Red Figure Ware, mainly featuring the procession of gods and Herakles.

This vase, from Late Archaic period, may not directly reflect plants types of the Classic Period, but the geographical features likely remained consistent over one or two million years. It is plausible that these plants continued to exist during the Classic Period. Another challenge is that most ordinary objects in ancient Greece are often depicted with small area in artifacts's surface related to gods, which troubles in which makes it have trouble in tracing their specific history and conceptualizing how they are used concretely by the Greeks. Identifying the abstract painting of objects on vases surface, like pomegranate trees and grape wines in this pair, proves difficult, as these artifacts sometimes prioritize mythological figures, instead of the precise representation of objects held by these figures.

Prompt from Persues Library:
"Collection: Berlin, Antikenmuseen
Summary: Interior: Achilles tending the wounded Patroklos Sides A and B: Herakles entering Olympos
Ware: Attic Red Figure
Painter: Name vase of the Sosias Painter
Potter: Signed by Sosias
Context: From Vulci
Date: ca. 500 BC
Dimensions: H. 0.10 m; Diam. (mouth) 0.32 m
Primary Citation: ARV2, 21.1, 1620; Para, 323; Beazley Addenda 2, 154
Shape: Kylix
Beazley Number: 200108
Region: Etruria
Period: Late Archaic

On side B, the three Horai continue the procession, the first carrying a grape vine, the second a branch from a pomegranate tree and a smaller branch with some other fruit (lemons or quince), the third one piece of red fruit, probably an apple. Next are two seated goddesses. The one in the foreground is labelled Amphitrite, though the goddess next to Poseidon on side A could also be identified as Amphitrite. Her companion, who wears a veil and has thrown her arm around Amphitrite's neck, is Hestia. Amphitrite holds a Thyrsus. As on side A, the seated gods hold phiales. Behind the seated goddesses is Hermes Kriophoros. He holds a sceptre in addition to the young ram, and wears his winged boots and a mantle. Behind him is a figure with short hair dressed in chiton and mantle and carrying a lyre who could be identified as Apollo if he were not labelled Artemis. Herakles can be seen second from the left carrying his club. His right hand is raised, with the palm upward, his fingers cupped. He is wearing a short, belted tunic and his lion skin; a quiver hangs at his waist. Behind him walks a young goddess holding a staff, her hand on Herakles' shoulder. Although without attributes, she can probably be identified as Athena. She wears a chiton, mantle and a fillet. The mantle is pulled partially over her head. Behind her, under one handle is the moon, Selene, represented by a woman's head and hand in a disk. She wears earrings, a fillet and a necklace."

Comparing the generated images to the textual prompt and primary visual sources, DALL-E seems to have successfully replicated the main content — regular processions of gods with appropriate gestures and attires, chiton, mantle and fillet. However, DALL-E emphasized the fruits element, enlarging them and making them more physically recognizable, whereas the fruits are minor in the original work. Despite this, the overall painting style and red color themes on Side B contrast starkly with the original, and DALL-E fails to accurately depict every element. For example, extra figures, like two centaur (mythical half-human and half-horse creatures), appear unnecessarily in the bottom level of Fig.9; The grape wine carried by one of the Horai is inaccurately represented., and the disk held by Selene is omitted.

The inconsistency of these generated works may stem from the lengthy descriptions in the prompt, like "As on side A, the seated gods hold phiales", potentially overwhelming DALL-E's capacity to prioritize the text's key elements. DALL-E, being a large language model, is trained on widely available online data, which might explain its proficiency in generating images like Eirene's adobe compared to some others in this paper, given the abundance of architectural visual sources on the Internet.

Pair 3 (Leos with his horse, Fig.10-14)

In this pair, DALL-E generated two sets of images based on nuanced prompts derived from a primary visual source of another vessel. Initially, a more comprehensive prompt was entered:

Prompt from Perseus Library

“Interior: Horse and rider with spear. Horse kneels on front legs. Tondo surrounded by red and black tongues. Overlap decoration (lip and bowl painted together) on exterior.
Collection: Malibu, The J. Paul Getty Museum
Summary: Calydonian boar hunt, Battle of Lapiths and centaurs
Ware: Attic Black Figure
Date: ca. 580 BC - ca. 570 BC
Dimensions: H. 0.129 m., D. 0.262 m.
Shape: Siana cup
Beazley Number: 10149
Period: Archaic”

Notwithstanding, the final generated pieces (Fig. 13,14) fell short of expectations. Both of Fig13, 14 depicted an entire three-dimensional side of the ware within extraneous figures, rather than focusing on the interior part, though the size and the central focus on the rider and horse is almost similar. I speculate that some confusing textual descriptions, such as “Shape: Siana cup” and “Summary: Calydonian boar hunt, Battle of Lapiths and centaurs”, may have led DALL-E to incorporate irrelevant details. Consequently, I manually reduced these confusing words and refined the following new prompt:

“Ware: Attic Black Figure
Period: Archaic
Interior: Horse and rider with spear
Horse kneels on front legs. Tondo surrounded by red and black tongues”

The resulting images (Fig.11, 12) of this new attempt were way more effective, accurately showing the interior view with similar design elements to the original vase, albeit with minor mistakes. The shape of red and black tongues in Fig.11, 12 was not entirely precise, especially in Fig.11 that generated a moon shape instead of a tongue shape, though with similar positions and colors. Furthermore, an additional dark-colored figure appears under the horse’s knee in Fig.12—According to his movement, it seemed that he is an enslaved person with the rider, or another warrior followed the rider. The rotation direction of Fig.11 is inverted as well.

Pair 4 (Aegio’s hermes wand, Fig.15-18)

Considering Hermes’s frequent appearance in Greek artifacts and the plot’s focus on healing with divine elements, I included the Hermes wand in a segment about Aegio: “Clad in a robe

embroidered with delicate flowers, mirroring Eirene’s attire, she carefully examined the Hermes-wand residing in the gate of the garden.”

Prompt from Perseus Library:
The beardless Hermes, seated at right and facing right, sits on his cloak, one end of which falls over his leg; he is otherwise nude, except for a white fillet. He holds his herald's wand (kerykeion) in his left hand. Standing before him is another figure of Eros (not painted white) wearing a white fillet.
Ware: Attic Red Figure
Painter: Attributed to the Class of Brussels A 3099
Context: Said to be from Nola
Date: ca. 410 BC - ca. 400 BC
Dimensions: H. 0.355 m.
Primary Citation: ARV2, 1341, 2; Beazley Addenda 2, 367.
Shape: Hydria-kalpis
Beazley Number: 217539
Region: Campania
Period: Classical
Condition: Broken and repaired, with some missing pieces restored and re-painted. Some areas misfired red, particularly the mouth and neck. Weathering of the added white, especially the panther.

Compared to the prompt above and the original artifact’s photograph, the images (Fig.17,18) generated by DALL-E differ significantly in color themes and styles. They fail to reflect the condition of being “broken and repaired”, instead showing quite discernible broken marks without restorations or repaints. In my opinion, it is might because of the difficulty of generating images with a very manual style. Additionally, both images depict a bearded figure, contrary to the description of a beardless Hermes. The panther, mentioned as “Weathering of the added white”, is depicted very unnaturally in Fig.18 and even entirely in a dark color in Fig.17.

The textual prompt’s reference to a non-white Eros wearing a white fillet also left me perplexed. In examining the original vessel, I observed only a entirely white flying figure, seemingly representing Eros, the god of love. There was no discernible figure matching the description of being unpainted white yet adorned with a white fillet. This discrepancy between the textual description and the visual evidence on the vessel adds some complexity to the interpretation.

Surprisingly, DALL-E automatically included plants as a part of the background, which is not even mentioned in the prompt. It is possibly due to the large language model training on a vast array of information, which gradually shapes its generative style in specific categories. This is evident as both Pair 2 and Pair 4’s generated vase images share similar color styles, despite

minimal manual intervention in the prompt's keywords, like the prompt in digital library may come from two different authors.

Conclusion

Despite multiple challenges in experimenting the function of text-to-image in the artificial intelligence tool DALL-E with primary sources, it is clear that the emergence of AI generative art tools have a significant impact on the process of creatively reconstructing ancient civilizations. These technologies are transforming how we engage with and interpret historical narratives, going beyond mere simplifications of creative processes. Due to the limitation of my knowledge in ancient Greek civilization and as my first time of writing a medium-length historical fiction based on primary sources, I didn't manage to accomplish a very complete version as Becker's, and there is significant space for my improvement in the interplay of primary sources and visual storytelling.

Given the limited primary sources about female healers and herbalists I found in Perseus Library, it is still challenging to investigate every social customs in this story based on original texts or visual sources. In spite of this, with the layout of illustrative context, the audience, who is assumed to have no prior knowledge of daily life in Ancient Greece, may better associate the critical scenarios with ancient Greek social customs based on primary sources, which is one essential purpose of this project in reconstructing the ancient Greek on original artifacts or archaeological sites for a greater public. Through lowering the barrier for readers to engage with and understand historical content, this approach could be applied for broader application in public education and literary contexts, where visual storytelling can be a powerful tool to bring history to life for contemporary audiences. Also, this method could be beneficial in reconstructing and presenting other underrepresented perspectives and narratives from different historical periods and cultures with the same scarce primary sources.

In summary, AI text-to-image tools may be so powerful in revolutionizing the entire ecology of collaborative efforts between artists, scholars, and primary sources. Yet, there are still ways for us to further experiment how to improve its performance in bridge the gap between authentic materials and AI generated media works. Future endeavors may be more focusing on building upon the foundations laid by previous scholars and artists on the primary sources. Even when

utilizing generated prompts crafted by authoritative writers or critics from Perseus Digital Library, the visual results sometimes still fell short with expectations, mixed with random surprises. This highlights the need for further advancement in how AI generative art tool can seamlessly integrates into the new landscape of multimodal media in a contemporary era, such as graphic novels, illustrations, games and even animation. The collaboration between AI tools, creators and scholars is crucial. By improving the accuracy of generated art and enhancing large language model's understanding of human intent behind text prompts, these tools can become more adept at producing visuals that more precisely reflect the creator's vision and historical accuracy.

Looking ahead, there are considerable potentials for further refinement in visual storytelling in my project. On one hand, I am planning to conduct this project in researching more detailed and reasonable explanations of my creative story from primary sources and improve my writing skills, while keeping conversing them in visual documentations via DALL-E; On the other hand, the future work could involve explorations of more advanced AI mediums, such as Runway Gen.2 (image-to-video, text-to-video tool) and Pika Lab, which offer enhanced features like video editing, which may provide more dynamic and immersive experience of daily life in ancient Greece for the audience.

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