

ΑΣΤΡΑΓΑΛΟΙ

Astragaloi: Greco-Roman Dice Oracles

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I. History of Astragaloi in Greece and Rome

Astragalomancy is a Greek variation on dice oracles. Archaeological sites from around the Mediterranean, especially those from the second century CE contain recovered animal bone dice which were used for both divination and gambling (Johnston 2008: 99). Specifically, the sites associated with dice oracles include: Anabura, Antiochia ad Cragum, Aponus, Attaleia, Delphi, Tefenni, and Termessos (Curnow 2004 :174). The bone specifically used in Greco-Roman contexts is the **astragalus bone** of sheep, goats, and pigs, known as “astragaloi” in Greek and “astragali” in Latin. Astragaloi are located in the hind legs of the animal near the hock, and are sometimes called “anklebones” or “knucklebones”. Imitation astragaloi were often used in ancient times, commonly made of wood, glass, bronze, and ivory (Graf 2005: 60). These bones were often inscribed with the names of deities and heroes, though the purpose of this is not clearly known--it could be a method of currying divine favor during gambling, or for devotional and/or mantic reasons as a way to dedicate a set of astragaloi to a particular god (Dandoy 2006: 133).

The Lycian site of Termessos is noted for its inscriptions of 56 oracular texts found upon a stone pillar which outline how to interpret one’s roll. Other examples of these same oracular texts are also found in the sites listed above, so in general, this divination method was widely recognized throughout the region, with only minor local variations in interpretation and practice (Graf 2005: 62). In most oracular texts, five numbers are needed to divine properly--it is speculated that most likely five bones were rolled at once, though one bone may have been rolled five times. Specific combinations of numbers are associated with the “oracle of a given divinity” and more than one kind of throw may be associated with the same deity (ibid 64-64). The mythologies associated with a particular deity may have no apparent correlation to the divinatory interpretation that they herald (ibid) though the oracular message associated with the throw may peripherally relate to that deity’s sphere of influence (Johnston 2008: 100). In many ways, astragalomancy was likely used in Greco-Roman contexts as a divination method for the general public (as no middle-man was needed to get direct answers) or as a means of clarifying answers given during oracular divination sessions. It is important to note that the deities associated with the oracular texts were seen as guiding the hand of the questioner as they receive their answer. Inscriptions frequently reference the deity in the third person: “Zeus will give good counsel to your mind,” “Kypris loves you,” “the blue-eyed goddess Athena will give it to you” indicating that it is not a direct message from the god (ibid), though in larger temples, this could be due to the fact that priestesses would often perform astragalomancy for the visitors.

II. Dice Oracle Gods (Halliday; Theoi.com)

Hermes/Mercury: Messenger god, linked to gambling, lot oracles, dice

Apollo: God of divination and oracles

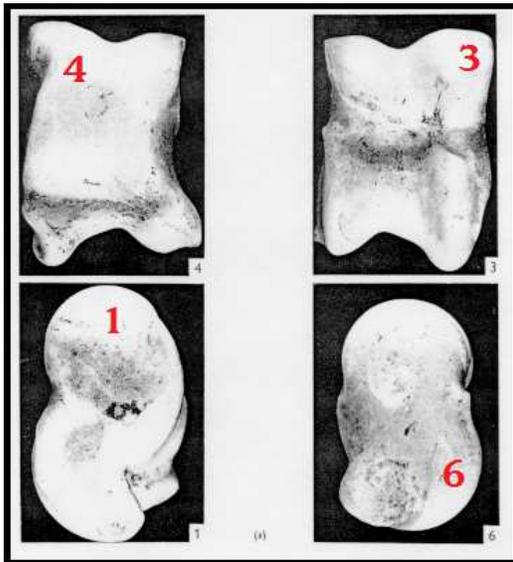
Themis: Titan, prophetic goddess, first Pythia of Delphoi.

Athena: Granted control of psêphos oracles by the Thriae, later gives it to Apollo

Thriae: Three nymphs overseeing bird song omens and psêphos/thriae oracle

Other Found Inscriptions: Achilles, Ajax, Eros, Hera, Hector, Hercules, Nike (Dandoy 2006: 133)

III. Performing and Interpreting Astragalomancy



The curved, small side is called “Chian.” It counts for one point.
The wide, convex side is called the “belly.” It counts for four points.
The wide concave, side is called the “back.” It counts for three points.
The flat small “S” shaped side counts for six points.

Astragalomancy Invocation (Apollonius Sophistes 1995, after Heinevetter 1912)

Apollo, Lord, and Hermes, lead the way!

And thou, who wanders, this to thee we say:

Be still; enjoy the oracle’s excellence,

for Phoebus Apollo has given it to us,

this Art of Divination from our ancestors.

ORACULAR TEXTS: TERMESSOS VERSION (Graf 2005: 84-94)

I. $\text{IIIIII} = 5 = \text{Zeus Olympios} =$ If you see only Chians: Zeus will give good thinking to your mind, stranger: he will grant happiness to your work, for which you will give thanks. But appease Aphrodite and the Son of Maia [Hermes].

II. $\text{IIII}3 = 7 = \text{Athena Areia} =$ If four Chians and one three are cast, the god signals: By avoiding enmity and Animosity, you will reach your prize; you will arrive and the blue-eyed goddess Athena will save you. The activity that you have in mind will turn out as you wish it.

III. $4\text{IIII} = 8 = \text{Moirai} =$ If one four and four Chians in a row are cast: Don’t do the business that you are engaged in; it will not turn out well. It will be difficult and impossible around someone who tires himself out. But if you go abroad for some time, no harm will come from it.

- IV. 33111 = 9 = Zeus' Eagle = If two threes and three Chians are cast: A high flying eagle on the right-hand side of the traveler will be a good omen; with the help of Greatest Zeus (Zeus Megistos) you will achieve your goal; do not fear.
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- V. 61111 = 10 = Daimôn Megistos = If one six and four Chians in a row; It will be better to fulfill whatever vow you made to the *daimôn*, if you intend to perform what you ponder in your mind. Demeter and Zeus will save you.
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- VI. 11143 = 10 = Caring Fortune = If three are Chians, one a four and the fifth a three, Do not do the business you are about to do; as for the very intention you have, the gods are restraining it, but they will free you from your toil and no harm will meet you.
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- VII. 33311 = 11 = Victory = If three threes are cast, and further two Chians; you will win; you will take what you wish, and you will achieve everything; the *daimôn* will make you honored, and you will overcome your enemies, the plan that you are about to realize will be according to your desire.
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- VIII. 44111 = 11 = Joyful Victory = If two fours and three Chians in a row are cast; Do all your business because it will turn out well. The gods will save him who is ill from his bed; also the god announces that he who is in another country will return home.
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- IX. 41133 = 12 = Asklepios = If one four, two Chians and two threes are cast; A storm will come about your business, but it will turn out well; also the god announces that he will free the one who is ill from his suffering, and the gods will bring safely home the one who is abroad.
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- X. 11163 = 12 = Steering Tyche = Three Chians, a six, and the fifth throw a three; Do not yet make haste to go; it is impossible to go, rather wait, if you set out to rush mindlessly, you will do great damage to yourself, but if you wait, blameless time will accomplish everything.
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- XI. 11164 = 13 = Aphrodite = Three Chians and a six and the fifth a four; Sail wherever you wish; you will return full of joy, for you have found and accomplished everything that you ponder in your mind; but pray to Aphrodite and the Son of Maia [Hermes].
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- XII. 13333 = 13 = Zeus and Athena = If one Chian and four threes are cast; You are fit for every business and ready for any undertaking. The gods will easily save him who is ill, and all will be well as to the other oracles.
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- XIII. 33331 = 13 = The Seasons = ...and impossible...the god does not allow the plan that you follow, thus wait; it is terrible to walk into enmity, competition, and a trial.
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- XIV. 13334 = 14 = Poseidon = One Chian, three threes, and one four; The god announces: You kick against the goad, you struggle against the waves, you search for a fish in the sea: do not hasten to do business. It does not help you to force the gods at the wrong time.
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- XV. 61133 = 14 = Daimôn =** One six, two Chians, and a pair of threes. Do not project terrible things, and do not pray for what is against the gods, thinking terrible thoughts. There will accrue no gain from it, and no reward will come from this path you are walking.
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- XVI. 44411 = 14 = Agathos Daimôn =** If three fours and two ones are cast: The *daimôn* will lead you on the way that you undertake, and the lover of smiling, Aphrodite, will lead you toward good things. You will return with rich fruit and an untroubled Fate.
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- XVII. 13344 = 15 = Zeus Savior =** One Chian, two threes, two fours being cast: Approach with courage the business that you set out to do; do it! You will win, since the gods have given you these favorable signs, and do not avoid them in your intention: nothing bad will come from it.
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- XVIII. 11166 = 15 = Zeus Ammon =** If three ones and two sixes are cast: The god announces to you: Undertake with courage the way you set out in your mind, god will give you everything: you will accomplish whatever your mind tells you, and Zeus, thundering high, will be with you as your savior.
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- XIX. 33333 = 15 = Tyche the Savior =** If all the threes are cast together: The woman who has given birth to a child, had both breasts dry, but then she again flourished and has milk in abundance. Then you too will reap the fruits about which you ask me.
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- XX. 43611 = 15 = Zeus of Hosts and Guests (Xenios) =** A four, a three, a six, and two Chians: Do not make haste with the business for which you set out, it is not yet time. The gods will easily save him who is ill, and the god announces that he will make an end to the travel of him who is in foreign land.
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- XXI. 63331 = 16 = Herakles =** One six, three threes, and a fifth a Chian: The moment has not yet arrived, you make too much hast. Do not act in vain, nor like the bitch that has borne a blind puppy. Deliberate calmly, and the god will lead you.
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- XXII. 64411 = 16 = Ares =** One six, two fours, and two Chians: Why do you hurry? Wait calmly, the moment has not yet come; if you hurry without sense and in vain, you pursue something that is not yet ready. I do not yet see the right moment, but you will have success when you wait a little while.
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- XXIII. 43333 = 16 = Kronos =** One four is cast, the other four are threes: Scorpions stand in your way, do not hurry towards the business that you intend; wait, and what you wish will arrive later; neither to buy this nor to sell is better.
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- XXIV. 44413 = 16 = Delphic Apollo =** Three fours, one Chian, and the fifth a three; Do not make haste, it will not be better to go; when you wish to rush mindlessly, you will damage yourself very much; but when you stay put, blameless time will perform everything.
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XXV. 66113 = 17 = Isis the Savior = A double six, two Chians and the fifth a three: Enter and receive the voice from the tripod! The time is also ripe for marriage; you will marry and return home. You will achieve whatever you want in your business, having found the thing about which you are anxious.

XXVI. 16634 = 17 = Hermes the Savior = A Chian, a six, two threes and the fifth a four: I do not see anything painful among the things about which you ask me; do not think small, go forward with courage; you will find everything you wish: your vow will be fulfilled, and there is a perfect occasion for you.

XXVII. 44333 = 17 = Sarapis = If two fours are cast and three threes: Take courage and fight, Zeus the Owner (Ktesios) is your helper. You will punish your opponent and have him under your fist, and he will give happiness to the works for which you thank him.

XXVIII. 14444 = 17 = Revenge = When a single Chian is cast, and the others are four: Now the *daimôn* will fulfill everything for you and lead you the right way. You will perform everything according to your mind, do not wear yourself out anymore. You will achieve beautifully whatever you desire.

XXIX. 66114 = 18 = Adrasteia [“She Whom You Cannot Escape“] = If two sixes, two Chians, and the fifth a four: Do your business and undertake it; the time will be favorable. In the middle, difficulties and danger are waiting. As to the other oracles, things will turn out well for you.

XXX. 16443 = 18 = Zeus of the Lightning = A Chian and a six, two fours and the fifth a three: What you plan will not turn out according to your liking, when you do it; it is not useful to travel to foreign lands. You will show no insight if you sell now, nor will it be useful.

XXXI. 44433 = 18 = The Greatest Daimôn = If there are three fours and two threes, he signifies this: I do not see this plan as safe for you; thus wait. You will do well, after this there will be luck; as for now remain calm, trust the gods and stay helpful.

XXXII. 63333 = 18 = Good Time = A six and four threes together; the oracle announces thus: Do not make haste, the *daimôn* is opposed to you, rather wait and do not act like a dog that gave birth to a blind litter. Take counsel calmly, and things will turn out happily for you.

XXXIII. 66133 = 19 = Good Hope = Two sixes, a Chian and two threes; he signifies this: Everything about which you ask me is smooth riding for you and safe; do not be afraid, a *daimôn* will lead you toward everything; he will end the painful difficulties and you will disprove the suspicions.

XXXIV. 4446I = 19 = Zeus of the Possessions = Three fours, one six, and the fifth a Chian: Proceed with courage, the oracle is about hope, stranger; it announces also that the sick person will be saved. If you need to consult an oracle, you will receive what you desire.

XXXV. 34444 = 19 = Hermes Who Brings Gain in Trade = If one three and four fours are cast: Zeus will give you a good plan to your mind, stranger; thus, all will be well, undertake what you desire; you will find whatever you ask the oracle for, and nothing will be bad for you.

XXXVI. 33364 = 19 = Victory = Three threes, one six and the fifth a four: You pronounce a good oracle, stranger; one you have thought it through, you will do whatever you desire, and the god will be your helper; you will win, you will reap the fruits, and you will achieve everything.

XXXVII. 44444 = 20 = The Inexorable Moirai = If all four are cast together in the same way. The sun has gone down, and terrible night has come, everything has become dark. Interrupt the matter about which you ask me; it is neither better to buy nor to sell.

XXXVIII. 4366I = 20 = The Moon = A four and a three, two sixes, and the fifth a Chian: Do not undertake this business, stranger; it will not turn out well for you. The god announces that he will help the one who is ill; and if there is any fear, nothing bad will happen to you.

XXXIX. 63344 = 20 = The Protecting Dioskouroi = Alone the six, two threes, the others fours: A man who makes haste does not achieve what opportunity offers. You have a profit, and there is fear everywhere because of evil; your business is ill-fated, and everything is painful; watch out!

XL. 666II = 20 = Hephaistos = Three sixes and two Chians; he will tell the following: It is impossible to do business; do not toil in vain! And do not turn every stone, lest you chance upon a scorpion. Fussiness will not bring you luck, be on your guard for all sorts of misfortune!

XLI. 6644I = 21 = Demeter = A pair of sixes, two fours, the fifth a Chian: Everything about which you ask me is on a smooth way for you and safe; do not be afraid, a *daimôn* will lead you toward everything; I see nothing that will bring you harm; take heart and go forward.

XLII. 44463 = 21 = Helios, Bringer of Light = Three fours, one single six, and the fifth a three: You will achieve whatever you desire, and you will find whatever you worry about. Make an attempt, stranger, having taken heart; everything is ready; you will find what is invisible, you will come to the day of salvation.

XLIII. 33366 = 21 = Tyche Who Leads to Good Things = When three threes are cast and two sixes, he

announces this: You matters are doing well; this oracle tells you to press forward; you will get away from difficult illness and master everything, and the god announces that he who is erring in a foreign land will return.

XLIV. 16663 = 22 = The Manifest Fates = One Chian, three sixes, the fifth being cast is a three: Do not put your hand into a wolf's mouth, lest some harm happens to you; the matter about which you ask is difficult and delicate; but you stay quiet, avoiding travel and business transactions.

XLV. 44446 = 22 = Poseidon = If all that are cast are fours, but the fifth is a six, he announces this: Throwing seeds and writing letters on the sea are both pointless and fruitless doing; since you are mortal, do not force a god to harm you.

XLVI. 43366 = 22 = Terrible Ares = Four and two threes, two sixes, and he announces this: Do not undertake the travel that you intend, stranger! Nobody will do it. A large fiery lion is about, against whom you have to be on your guard, a terrible one. The oracle is untractable, wait quietly.

XLVII. 16664 = 23 = Athena = One Chian, three sixes, and the fifth a four: Honor Pallas Athena, and you will get everything, whatever you wish, and everything which you are planning will turn out well; she will free from bonds and will save the sick person.

XLVIII. 66443 = 23 = Happiness = If two sixes are cast and two fours, and the fifth is a three: Sail, wherever you want, you will return home again, having found and done everything according to your wish; you will achieve everything, and thus to buy and to trade is happiness.

XLIX. 66633 = 24 = Apollo Pythios = If three sixes and two threes are being cast, he signifies this: Stay put, do not act, obey Phoibos' oracles. With time, you will find an occasion, but for now stay quiet. If you wait a short while you will achieve everything, whatever you desire.

L. 44466 = 24 = Kronos the Child Eater = Three fours, two sixes; the god announces this to you: Stay at home with your possessions and do not go somewhere else, lest a terrible monster and a revengeful demon approach you. I do not see this business as reliable and safe.

LI. 46663 = 25 = Mên Who Brings Light = One four being cast, three sixes and the fifth a three: Take courage; you have an opportunity; you will achieve what you desire, and you will come upon the right time to begin your travel; your toil will have its chance; it is good to engage in work, competitions and litigation.

LII. 66661 = 25 = Mother of the Gods = Four sixes, the fifth a Chian: he signifies this: As wolves overpower sheep and powerful lions overpower broad hooved oxen, so you too will master all this, and everything about which you ask will be yours, with the help of Zeus' son Hermes.

LIII. 66644 = 26 = Subterranean Zeus = When three sixes and two fours, the oracle announces: The business has its obstacles, do not make hast, but wait; there is a road, painful, impossible and not to be approached; to buy is painful and to sell brings loss.

LIV. 66663 = 27 = Heavenly Aphrodite = Four sixes, the three alone: he signifies this to you: The daughter of Uranus, Aphrodite, the mighty mistress of the Erotes, sends a good oracle, she will grant travel to you; you will escape from sickness and vainglorious thoughts.

LV. 66664 = 28 = Damage = Four sixes, a four: he signifies this: It is impossible to undertake something vain; do not in vain toil uselessly, lest you incur damage by pressing on. It is not good to begin traveling nor doing business.

LVI. 66666 = 30 = Square Hermes = If all that are cast together are sixes: Do not go, wherever you intend to; it will be better for you to stay; I see something hostile to you, thus wait; afterwards, it will be possible, and (the god) will free you from fear and save you from toil.

*An additional astragaloi divination system, based upon the Greek alphabet can be found at: <http://web.eecs.utk.edu/~mclennan/BA/LAO.html>

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Theoi.com (deity descriptions)

IV. Obtaining Your Own Set

Real Astragaloi: Must come from an "even-toed ungulate" aka a split-hoofed mammal...

Many grocery store meat departments will receive animals that have been pre-butchered by cutting through the joint (and ruining the astragalus) so one will need to find a shop that butchers the entire animal. This is possible if you seek out Halal meat-shops in your neighborhood, university meat labs, and private farmers where you will have a good chance of finding complete lamb or pig legs that you can further process yourself, or you can ask the butcher to only sell you only the section of the leg that you want.

Important note: *You will only find the astragaloi on the hind legs of the animal!*

If you are processing animal legs, note the location of the astragalus, near the hock:



Helpful tips on cleaning your astragaloi bones can be found at this site:

<http://www.celticarb.org/crafts/knucklebone.html>

Plastic astragaloi:

<http://historicgames.com/RPdice.html>

<http://www.greathallgames.com/aacc/adice/adicemw.html>

http://www.antiquityperioddesigns.com/store/index.php?main_page=product_info&cPath=56_58&products_id=294

<http://www.pluteopleno.com/store/index.php/products/knucklebones>

http://www.ushist.com/victorian_toys-and-games.shtml#jacks

Ceramic astragaloi:

<http://www.greenmantlestudio.com/generic.asp?p=10&i=123>

Metal astragaloi:

<http://www.revivalclothing.com/pewterknucklebones.aspx>

<http://www.iqtoys.co.nz/product/30270/knucklebones/>

<http://www.pbm.com/~lindah/merchants/d/1r84009481.15482.html>