

MANTO

Data Collection Principles and Practices



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# MANTO: an introduction

MANTO is a research project spanning Classical Studies and Digital Humanities. It aims to analyse and visualise the networks which constitute Greek myth. It does this by capturing mythic data from Greek literature: the entities which existed in the storyworld and the interactions which connected them. Ultimately, MANTO will be an authoritative resource for Greek myth and its impact on the landscape of the Mediterranean; building it in the digital sphere using principles of linked-open data offers new opportunities to reveal the incoherencies and contestations that characterise the tradition.

MANTO will only be as good as the data that it is built on: it needs to be systematically collected, and expertly curated. This guide explains our methodology for extracting mythic data from the corpus of Graeco-Latin literature.

This project is guided by the intellectual premise that Greek myth existed in antiquity in what Tolkien described as a ‘secondary world’: it was a fictional universe with coherent spatial and chronological dimensions, and broadly consistent in its biological and cultural norms. Yet this storyworld from the purely fictional model of Middle Earth in two distinctive ways. Firstly, it was partially co-terminous with the ancient here-and-now of the ‘primary world’. Mythic events took place in the deep past of the Mediterranean and so their traces lingered in the *spatium historicum*. Secondly, the mythic storyworld was not the work of a single mind but created out of the improvisation and negotiation of thousands of disparate communities and hundreds of individual writers and artists over more than a millennium. These two qualities make Greek myth a complex target for analysis, but also a rich and rewarding one.

Our project aims to capture and organise the data of Greek myth, but to do so in such a way as to preserve its inherent messiness. Fundamental to our work is an ontology which shapes both the model of the database, and our approach to the practice of data collection. This ontology emphasises a relational dataset above all; we are not capturing stories directly, but the ties between the nodes of our network. Moreover, each piece of data is simply an assertion of fact; we collect factoids independently of each other even though they are likely to be falsified or bolster other factoids elsewhere. MANTO is thus a paradigmatic approach to Greek myth: it proceeds by breaking up myth into small data in order to achieve the fullest view possible of the whole.

PART 1: PRINCIPLES

# Ontology: the *spatium mythicum*

For the purposes of this project, we define the *spatium mythicum* as extending chronologically from the creation of the Cosmos to five generations after the return of the Heraclids to the Peloponnese. This storyworld is made up of the following kinds of entities:

* AGENT: Person-like entities with agency; these include heroes, gods, monsters, significant animals which operate with agency within the storyworld (e.g. ‘the Nemean Lion’).
* COLLECTIVE: Groups of agents with recognisable collective identities. Examples include agents who act in concert (‘the Argonauts’), agents of the same species (‘the Centaurs’) or genealogy (‘the Danaids’) and agents with a commonly-encountered collective appellation (‘the Dioscouri’).
* SPECIFIC OBJECT: Particular object-like entities without agency and with specific identities within the storyworld. These can include animals which lack agency in the storyworld (e.g. ‘the cattle of Geryon’). These should be (potentially) movable; immoveable objects are landmarks.
* GENERIC OBJECT: Object-like entities without agency and without specific identities within the storyworld. These can include animals and even humans that lack agency in the storyworld (e.g. ‘cattle’, ‘slaves’).
* PLACE: Significant geographical locations in the mythic storyworld. They may be natural (rivers, mountains), conceptual (regions) or built environments (cities, towns, sanctuaries). Some mythical places have analogues in the landscape of the historical Mediterranean (e.g. ‘Athens’, ‘Thebes’), others (e.g. ‘the Underworld’, ‘Isles of the Blessed’) do not.
* LANDMARK: a building (temple, house) or other landmark (tomb, spring) that is part of the mythic storyworld. These should be immovable and fixed in space; moveable objects are specific objects.
* EVENT: A significant event, typically with broad ramifications within the mythic storyworld, (e.g. ‘the Trojan War’, ‘the return of the Heraclids’).

# Ontology: the *spatium historicum*

MANTO is concerned primarily with the networks which made up the *spatium mythicum* and attempts to capture these as comprehensibly as possible. Nonetheless, we also need to consider the impact of this storyworld on the landscape of the *spatium historicum.* For the purposes of this project, we define this – quite bluntly – as the entire period subsequent to the end of the *spatium mythicum* (i.e. beginning 6 generations after the return of the Heraclids).

We restrict data collection regarding the *spatium historicum* to the following two lists of phenomena:

* RELICS surviving in the historical world which were specific objects or landmarks created in the mythic storyworld.
* An historical person or group claiming ANCESTRY from a mythical agent or collective.
* EPIPHANIES of agents or collectives in the historical world.
* PROPHECIES from agents and collectives in the historical period. (We exclude historical instances where the source of the prophecy is an Olympian god or personification.)

In the above categories, the entities which appear are essentially entities from the *spatium mythicum* manifesting in the *spatium historicum.* So, a specific object in the *spatium mythicum* becomes a relic in the *spatium historicum*, an agent becomes an ancestor, or an epiphany, or the source of a prophecy. In the following categories, however, we actually create new entities to capture other ways in which myth might impact the historical world:

* REPRESENTATION of events and entities from the mythic storyworld in the historical world on specific objects and landmarks, and in places. (We exclude representations of Olympian gods and personifications except in instances of clear narrative content.)
* CULT SITES created in the historical period which attest a relationship between agents or collectives and landmarks or places which would not otherwise be captured in the data. (We exclude cult sites dedicated to Olympian gods and personifications that have no importance to the mythic storyworld.)
* METANOMASIA of the names of places etc. It is frequently not possible to determine whether this name change is supposed to have occurred before or during the historical period; for our purposes that distinction does not matter.
* EVENTS in the historical period which are required to act as timemarks for (esp.) the existence of mythical relics.

In these instances, we add to our dataset entities which had no role in the mythic world. We create them in just the same way as purely mythic entities; they will be identifiable in the dataset because they have only a limited range of interactions with other entities (*viz*, ‘is depicted on’; ‘changes name to’, ‘has cult site’ etc).

# Source material

Every piece of data is connected directly to a specific passage of text from the Graeco-Latin corpus. Moreover, where one of these passages attributes the information to another literary source, we capture that as well. In our data model, these passages constitute another kind of entity, although quite different from the entities that populate the *spatium mythicum.*

# Linked Open Data

MANTO uses LOD principles to both build on existing digital initiatives, and contribute further datasets. Our list of agents and collectives will provide a foundation for a new LOD resource.

* PLACES will use where possible the Pleiades URNs (<https://pleiades.stoa.org/>). More granular topographical information will come from the Uppsala *Periegesis* project, and from Topostext. We will endeavour to contribute any topographical data that we create to Pleiades.
* PASSAGES will use where possible the Canonical Text Services (CTS) URNs as currently accessed through the Perseus Scaife Viewer (<https://scaife.perseus.org/>). Use of the CTS URNs allow us to connect data to passages without being committed to any one edition or translation.

# The datum

The entities described above have a kind of ontological fixity to them. They remain stable and clearly identified within our database. But of course the Greek mythic storyworld is far from stable and clearly articulated. Data collection thus consists of creating connections between these entities in ways which allow uncertainty, inconsistency, and contestation. Each tie consists of a ‘datum’, a factoid conveyed in a grammatically-standardised sentence. We treat these as ‘factual assertions’: they represent assertions made about myth in our source material but we make no further assessment of their likelihood to be either supported or negated elsewhere in the tradition.

Every datum is connected to one or more passages in which such an assertion is found. It has the form of a simple sentence. The fullest form would be expressed as:

PASSAGE: SUBJECT – VERB – DIRECT OBJECT – INDIRECT OBJECT – PREPOSITIONAL PHRASES.

The point of the datum is to connect together as many entities as possible in a rich network. The connections are made possible by the ‘verb’ – chosen from a list of possible ‘interactions’ and by ‘prepositions’ – again, chosen from a list of allowable terms. All other parts of speech are entities. Some examples would be:

……..

The data model allows for great autonomy in the creation of data. Any type of entity may be used in any position in the sentence, and there are no restrictions on which types of entities are to be used with which interactions. More than one entity may appear in any part of speech. In addition, the standardised grammar is highly flexible since all parts of speech with the exception of the verb are optional. (It may seem surprising that a subject is not required: for the reason for this, see note on passive forms below.)

These data will be the foundation for our later analysis of the storyworld. The datum above all captures relational data: the very fact that entities appear in the same datum mean that there is some kind of connection between them in the mythic storyworld. This information is also, to some extent, quantitative: an entity which appears in more data can be assumed to have a greater importance in myth than one that appears in fewer data.

If we were solely interested in analysing the mythic storyworld in relational and quantitative ways our data model would consist simply of lists of nouns (being the entities and passages). Having a much more complex model allows us to register also the qualitative dynamics of these connections. So, for example, ‘Achilles kills Hector at Troy’ gives us information about both the nature of the relationship between these two entities, as well as information about the qualities of both. It will later allow us to (e.g.) collate a list of all deaths that occur at Troy, or determine which heroes belonged to Achilles’ generation, or produce a synopsis of the major events of Hector’s life, or of the kinds of relationships he had with other heroes.

This database is designed primarily to capture significant relationships and interactions which have concrete outcomes. For the most part, we ignore questions of intentionality; i.e. both deliberate and non-deliberate killings are captured using ‘kills’. The database is usually not able to capture actions considered but not carried out, although the general sentiment of relationships between agents can typically be captured by ties such as ‘hinders’ or ‘helps’ etc. So, for example, instances of false accusations of rape (as in the story of Phaedra) can be captured as ‘AGENT [Phaedra] plots against AGENT [Hippolytus]’ and ‘AGENT [Phaedra] deceives AGENT [Theseus]’. Note how broad these data are: the aim of MANTO is to capture connections between mythical entities and act as a kind of index to the events of Greek myth as they appear in the literature; it is not able to re-tell the stories in detail, nor to capture the idiosyncrasies of ancient storytellers’ approaches to them.

PART 2: PRACTICES

2.1 Creating an entity

When we create an entity, we are attributing to it certain fixed or essential features that it invariably possesses in the storyworld. Ontologically, this is somewhat different from creating a datum, which is an assertion made about that entity in a particular passage. Put baldly, an entity has an objective reality within our dataset whereas a datum expresses a (subjective) observation on that reality. This distinction is important, since we will sometimes need to decide whether to affix a certain quality to an entity when we create it in the database, or to express that quality separately through a datum. For example, it is possible to affix to a Landmark the ontological quality ‘is near Place/Subplace’ when we create an entity, but also to ascribe this quality to that entity by using the interaction ‘is near’ in a datum connected to a particular passage. Where the distinction is unclear, or you suspect that there might be conflict on this matter in the sources, use a datum since that offers greater flexibility later.

There is only one required field for all entities: ‘Type of entity’. The only options allowable here are the classifications of entities listed above.

All entities can be given any of the following:

Name (Smith & Trzaskoma): The name of the entity as it appears in Smith & Trazaskoma’s translation of Apollodorus and Hyginus.

Name (transliteration): The name of the entity as strictly transliterated from the Greek (κ = k, χ = ch, ῥ = rh, αι = ai, γγ (etc) = ng.)

Name (Latinized): The name of the entity as rendered in a Latinized transliteration, i.e. as typically used in Loeb editions. Do not use Latin forms: e.g. use Heracles (not Hercules), Aias (not Ajax), Polydeuces (not Pollux).

Name in Latin texts: The name as used by Latin authors (e.g. Hercules, Pollux)

Alternative names: Any alternative spellings, or forms, of this character’s name, where the different spelling does not raise issues of ontological identity (e.g. ‘Paris’ is also known as ‘Alexander’). Where multiple alternatives exist, each should be entered separately.

Identifying information: The most pertinent information about this entity that would help to (e.g.) disambiguate homonyms or easily-confused entities.

Note: The minimum needed to create an entity is one form of that entity’s name, plus identifying information. It is not necessary to give all forms of an entity’s name at this point, although such completeness will be desirable later if MANTO is to become the foundation for a LOD thesaurus of mythic names.

In addition, some entities can be furnished with further descriptions:

Pleiades URI?: for places, change to yes or no depending on whether a Pleiades URI exists. For all other entities, or if you have not checked Pleiades, keep the default ‘none’

Pleiades URI: for places, enter Pleiades URI here. Enter just the numbers, not the URL.

in/on/at and near: use to express topographical relationships between places, sub-places, landmarks. (note: do not use for specific objects, since these are potentially moveable, and so should be located only using a datum)

LIMC headword?: for agents and collectives, change to yes or no depending on whether a LIMC entry exists. For all other entities, or if you have not checked LIMC, keep the default ‘none’

LIMC headword: for agents and collectives, enter the LIMC headword here, using the same spelling and retaining Roman numerals.

Note (private): record anything here that might be useful to later data collectors.

Commentary (public): use this space to make notes that will appear in the public-facing website

Checked?: Default is ‘no’. Leave as is for the moment.

whose membership is somewhat identifiable but nonetheless large, unstable, imprecise or disputed such that it’s more effective and precise to name the collective rather than to name its individual members. Groups may be made up of members of a recognisable ‘species’ (e.g. ‘the Centaurs’), or by members who act in concert (‘the Argonauts’). In other instances we create collectives with limited and known membership (e.g. ‘the Dioscouri’) simply to capture recognisable names which are likely to be common search terms.

NB. Collectives should be created and used as little as possible. Do not use where the members could be named instead as agents (e.g. ‘Castor’, ‘Polydeuces’ not ‘the Dioscouri’) or where the membership is not either distinctive, identifiable, or prone to act in concert. Many collectives mentioned in our sources can either be ignored or be treated as a proxy for something else (usually place: e.g. ‘Cadmus rules Thebes’ not ‘Cadmus rules the Thebans’). Take care to name collectives precisely (e.g. ‘the nymphs’ is not appropriate since they do not act in concert, but ‘the nymphs visited by Perseus’ is fine even if cumbersome).

NB. Generic objects should be created and used as little as possible. They should only be used where they are needed to complete the grammar of the datum, and be identified quite broadly (e.g. ‘gifts’, ‘cattle’). We make no attempt at completeness in this category of entities.

NB. Events should be created and used as little as possible. They are primarily used to express Timemarks in the data where an ancient source makes a specific chronological connection between events which is not apparent otherwise.

Historical SPECIFIC OBJECTS and LANDMARKS should be created and used as little as possible. They are desirable only where that object or landmark has mythic representations of sufficient significance and data-richness that distinguishing it specifically within that place is useful (e.g. ‘the Chest of Cypselus’, ‘the Lysche at Delphi’).

2.2: Naming Conventions

All proper nouns should be capitalised. In the creation of certain COLLECTIVES, SPECIFIC OBJECTS, PLACES, and LANDMARKS the following conventions should be used.

Genitives should be avoided and ‘of’ used instead – i.e. ‘the Club of Heracles’ rather than ‘Heracles’ Club’. Likewise, adjectives should be avoided. The exception is where a genitive or adjective is commonly used – e.g. the Trojan Horse, the Calydonian Boar

Where ‘the’, ‘of’, ‘at’ etc. are included in the name of an entity, they should be lowercase. All other words should be capitalised - e.g. the Thunderbolt of Zeus, the Hundred-Handers, the Walls of Troy, the Skin of the Calydonian Boar.

Note: the Greek and Trojan contingents at Troy differ from these conventions (e.g. the Thracian contingent at Troy rather than the Contingent of the Thracians at Troy). This is based on the names given in the commentaries of Kirk (1985).

Anonymous entities

It is not uncommon to encounter mythic agents who lack names. Our solution is to identify this figure by his/her most salient feature in square brackets. E.g. Iliad 9 has a narrative featuring Marpessa's mother, who is unnamed. We would create an entity named [Marpessa's mother]. In some instances, this agent would remain unnamed in our database. In others, we might later encounter the name in another author and so this label is just a place-holder (e.g. Ps-Plutarch does give the name of Marpessa’s mother in his Parallela minora.)

It is important to distinguish between anonymous entities and cases where a figure’s name omitted by the author, but whose identity is still obvious. In these situations, the name of the entity can be used as normal.

Alternative names

As described above, any alternative spellings of an entity’s name or an alternative form where the different spelling does not raise issues of ontological identity (e.g. ‘Paris’ and ‘Alexander’) is to be added to the Alternative names field. Otherwise, alternate names should be entered as a separate entity. This is also to allow for ties such as ‘changes name to’, ‘becomes god’, and ‘is called’, as well as instances where the two names generally referring to a single entity are used in a particular text to refer to separate entities (e.g. Persephone and Kore).

PLACES

Use the form similar to that used in the source. As with the creation of AGENTS, in cases of alternative names create one entity per distinct name.

For example, ‘Apia’ is an alternative name for ‘Peloponnesos’. Two separate entities are created and the relationship between the two is reflected using the interaction ‘is called’. The creation of two separate entities allows for the creation of interactions regarding eponyms of each name.

In naming PLACES, follow the conventions of Pleiades as far as possible. There are several exceptions in the naming conventions of some geographical features;

Mountains - Mount Dicte

Rivers - River Axios

Seas - Myrtoan Sea

LANDMARKS

Since LANDMARKS are often generic structures such as temples and city walls, it is important to specify location. This information will be reflected in a datum, but should also be included in Identifying Information to distinguish it from similar entities.

For example, when referring to a Temple of Athena located at Troy, the generic name ‘Temple of Athena’ can be used, as long as the Identifying Information is detailed enough to distinguish it from other Temples of Athena. In this case ‘at Troy’ is a sufficient identifier.

Other things to remember

Always translate the Greek krene as 'spring' (not 'fountain').

Where ‘wooden statue’ is used in the translation, use the Greek word ‘xoanon’.

2.3: Interactions

The data collection methodology for MANTO balances the need for machine-readable outputs against the need to accurately convey peculiar strangeness of the mythic world. For this reason, any kind of entity is allowable in any part of speech, and in relation to any interaction. This allows flexibility in that, where we might typically expect the interaction ‘AGENT kills AGENT with SPECIFIC OBJECT’, we are able to also use ‘AGENT kills OBJECT with PLACE’ if required. Thus, except in instances in which the interaction is to be reserved for very specific kinds of relationships (as described in a usage note), any entity can be used in any part of speech. Similarly, interactions can be followed by whichever prepositions make sense. Some typical ones are listed in [brackets]: these should be followed carefully for consistency (e.g. note where an indirect object should be used rather than the preposition ‘to’), but are by no means an exhaustive list.

Interactions use verbs and verb phrases in the simple present tense. Verbs should always be singular in form even where the subject is plural. They typically use the active voice, although passive forms do occur (see below ‘Creating a datum’). Some interactions incorporate prepositions and others do not; this might at first seem inconsistent. The rule-of-thumb is that the interaction should be in the most minimal form that could be useful (e.g. ‘is prophet’ might be used on its own, or added to relationally with various prepositional phrases (‘in/on/at’; ‘of’), but ‘is son’ is not useful alone and allows only one possibility, so appears in the form ‘is son of’).

Study the interactions and usage notes carefully; it is important that we are capturing the same kinds of actions and relationships using the same interactions. The list of interactions can be expanded if a situation emerges which does not fit any of the available options. New additions should be flexible enough to be useful in a variety of contexts and texts, and should be formulated using broad, objective language (e.g. ‘kills’, not ‘murders’ or ‘bludgeons to death in a murderous rage’).

For ease of use, the list of interactions is broken up into subcategories.

NB. In the list below, ties with text struck through have been deleted since the previous version, but might be reintroduced if needed.

Qualities

ENTITY has hybrid form

~~ENTITY has supernatural eyesight~~

~~ENTITY has physical deformity~~

~~ENTITY is blind~~

Familial relationships

ENTITY is father/mother/grandfather/grandmother/child/son/daughter/grandson/ granddaughter/uncle/aunt/sister/brother/twin of ENTITY (note: reciprocal relationships need not be captured; they will be created in the database; to capture older/younger siblings, add 'is older than' datum)

ENTITY is divine father of ENTITY (note: use in any circumstance in which the father is divine, and there is the possibility that a mortal step-father might also be attested.)

ENTITY is mother by parthenogenesis of ENTITY

ENTITY is wife/husband of ENTITY (note: if marriage episode is explicitly described, use 'marries'; if the data involves someone giving away a bride who is not his daughter, use ‘gives in marriage’)

ENTITY marries ENTITY (note: use only if marriage is explicitly described, otherwise use 'is wife/husband of')

ENTITY is a descendant of ENTITY (note: only use where the exact relationship between two agents is not apparent. For descendants in historical period, use 'is claimed as ancestor'.)

ENTITY is claimed as ancestor (note: use only where the claim is made in historical world; use passive form without 'by', i.e. do not record the (historical) person claiming the lineage.)

Roles and non-familial relationships

ENTITY is prophet [of] [in/on/at] (note: use to capture instances where an agent is described as having expertise in prophecy or divination, broadly defined; 'ENTITY gives prophecy' also exists to capture the specific action.)

ENTITY is lawgiver [of] [in/on/at]

ENTITY is healer [of] [in/on/at] (note: 'ENTITY heals' also exists to capture the specific action.)

ENTITY is slave [of] [in/on/at] (note: 'ENTITY enslaves ENTITY' also exists to capture the specific action.)

ENTITY is companion [of]

ENTITY is charioteer [of] [in/on/at]

ENTITY is herald [of] [in/on/at]

ENTITY is guardian [of] [in/on/at] (note: use when agent being guarded is an older adolescent; if the relationship is to a child, then use ' ENTITY is nurse')

ENTITY is nurse [of] [in/on/at] (note: use when agent being guarded is a child; if the relationship is to an older adolescent, then use ' ENTITY is guardian')

ENTITY is teacher [of] [in/on/at] (note: 'ENTITY teaches ENTITY' also exists to capture the specific action.)

ENTITY is helmsman [of]

ENTITY is priest / priestess [of] [in/on/at]

ENTITY is divine patron [of]

Comparative Relationships

ENTITY is older than ENTITY

ENTITY is contemporary of ENTITY (note: use only where no other interaction captures this connection)

ENTITY is compared to ENTITY (note: use where a passage directly compares the qualities of two entities)

Birth

ENTITY is born by autochthony [in/on/at] [from]

ENTITY is born [in/on/at]

Death

ENTITY dies by suicide [in/on/at]

ENTITY dies [in/on/at] (note: use only when ‘AGENT kills AGENT' or 'AGENT dies by suicide' etc are not appropriate)

ENTITY kills ENTITY

ENTITY is ghost (note: use only in instances where hero’s ghost is described in terrestrial realm; if agent is in (e.g.) the Underworld, use 'has post-mortem existence'.)

ENTITY has post-mortem existence (note: use in instances where hero is described in Underworld, Isles of the Blessed etc. For contexts of post-mortem existence in the terrestrial realm, use 'ENTITY is ghost')

ENTITY resurrects ENTITY

ENTITY has tomb [in/on/at] (note: use in the form 'Agent has tomb at Place', not 'Place has tomb of Agent')

ENTITY buries ENTITY (i.e. buries a body after death)

ENTITY builds tomb [of]

ENTITY mourns ENTITY

Names and Transformation

ENTITY names ENTITY [after] (note: use when an entity is either given a name, or given a new name that replaces a previous one; where the name change is on account of deification, use 'ENTITY becomes god ENTITY'; see note on passive forms below))

ENTITY changes name to ENTITY

ENTITY is called ENTITY (note: use when an entity is called by the name of another entity; if the alternative name is a stable part of that entity's identity (e.g. Paris/Alexander; Scamander/Xanthus), then use the 'alternative names' description when the entity is created; where the name change is on account of deification, use 'becomes god'; see note on passive forms below)

ENTITY is metamorphosed [into] [by] (note: see note on passive forms below)

ENTITY becomes god ENTITY

ENTITY makes immortal ENTITY (note: see note on passive forms below)

Friendly interactions

ENTITY protects ENTITY [from]

ENTITY rescues ENTITY [from]

ENTITY adopts ENTITY

ENTITY fights alongside ENTITY (note: use only when the two entities are not listed together in a datum relating to this fight.)

ENTITY avenges the killing of ENTITY

ENTITY heals ENTITY

ENTITY purifies ENTITY

ENTITY helps ENTITY (note: use only if action is not captured by a more specific formulation, or able to be captured using 'with the aid of' preposition)

ENTITY teaches ENTITY

ENTITY raises ENTITY

ENTITY bathes ENTITY [delete since covered by 'hosts'?]

ENTITY feasts ENTITY [delete since covered by 'hosts'?]

ENTITY hosts ENTITY

ENTITY supplicates ENTITY

ENTITY pledges oath with ENTITY

AGENT sleeps beside AGENT

ENTITY has sex with ENTITY

ENTITY desires ENTITY (note: use only where this relationship is not captured by another similar tie, e.g. 'has sex with', 'marries', 'rapes', 'is wife of'.)

ENTITY succeeds ENTITY [in/on/at]

ENTITY visits ENTITY (note: use only if action is not captured by a more specific formulation)

ENTITY pays tribute to ENTITY

ENTITY ransoms ENTITY [from]

ENTITY releases ENTITY [from] [to]

ENTITY acquits ENTITY

ENTITY recalls ENTITY (i.e. from exile)

ENTITY recovers the body of ENTITY [from]

ENTITY grants power [indirect obj] (note: use when a god gives gift of (e.g.) prophecy)/

ENTITY gives in marriage ENTITY [indirect obj] (note: use only where an agent gives away a bride who is not his daughter; where a father is described as giving away a daughter, use ‘marries’ or ‘is wife / husband of’)

Hostile interactions

ENTITY wounds ENTITY

ENTITY fights against ENTITY (note: use only in the context of physical fights; do not use if 'kills', 'wounds', 'attacks' etc is appropriate.)

ENTITY blinds ENTITY

ENTITY pursues ENTITY

ENTITY exposes ENTITY (note: use only in circumstances where a child is exposed - i.e. left out to die)

ENTITY kidnaps ENTITY (note: in contexts of war, especially regarding war-prizes, use 'captures')

ENTITY captures ENTITY (note: use in contexts of war, especially regarding war-prizes; otherwise, use 'kidnaps')

ENTITY rapes ENTITY (note: use in contexts of explicit sexual assault, otherwise, use 'kidnaps' or 'has sex with')

ENTITY imprisons ENTITY

ENTITY enslaves ENTITY (note: 'is slave of' also exists to capture the relationship of enslavement, especially where it is not clear that the master actually enslaved the slave.)

ENTITY offends ENTITY

ENTITY punishes ENTITY

ENTITY hunts ENTITY (note: use only in instances of hunting an animal. 'pursues' also exists.)

ENTITY is angry at ENTITY (note: in situations where agent angers agent, consider using 'insults')

ENTITY curses ENTITY (note: use in situations where 'punishes' is not appropriate)

ENTITY exiles ENTITY [from] (note: do not add destination of exilee unless that place has some connection to the exiler; use also 'travels / flees' [from] [to] to express the destination) Use ‘expels’ instead

ENTITY expels ENTITY [from] (note: do not add destination of agent expelled, unless that place has some association with the agent doing the expelling as well.)

AGENT chases AGENT [from PLACE to PLACE] (use 'AGENT pursues AGENT')

ENTITY abandons ENTITY (note: use also in instances of divorce of a spouse, as in the story of Jason and Medea in Apollod. 1.9.28)

ENTITY deceives ENTITY

ENTITY defeats ENTITY

ENTITY defeats in competition ENTITY

ENTITY wins in competition ENTITY (prize)

ENTITY competes [for] [against]

ENTITY hinders ENTITY (note: use only where no more specific tie can be used.]

ENTITY drives insane ENTITY

ENTITY plots against ENTITY

ENTITY guards ENTITY

ENTITY finds guilty ENTITY

ENTITY puts on trial ENTITY

Conversations

ENTITY addresses ENTITY (note: use only if action is not captured by a more specific formulation)

ENTITY speaks in assembly [of]

ENTITY advises ENTITY

ENTITY warns ENTITY

ENTITY gives prophecy [indirect object] [via] (note: use sparingly; not required for every instance of a prophecy in our texts, but should be limited to those places where a tie will create a significant connection between named entities. Where possible, agent who gives oracles should be the god, not his mouthpiece -- e.g. at Delphi, 'Apollo' and not 'Pythia'. The mouthpiece can be captured using 'via'.)

ENTITY sends portent [indirect object]

ENTITY threatens ENTITY

ENTITY insults ENTITY (note: the use of this tie is limited to direct verbal insults. Where an agent acts in an insulting way towards (esp.) a god by (e.g.) not giving sacrifices, boasting about their own expertise, use 'offends')

ENTITY rejects ENTITY

ENTITY gives order [indirect object]

Ritual interactions

ENTITY offers prayer [indirect object]

ENTITY offers sacrifice [indirect object] [of]

ENTITY appears [indirect object] [in/on/at] (note: use in circumstances of epiphany, dream)

ENTITY worships ENTITY

ENTITY dedicates ENITY [indirect object]

ENTITY establishes cult [of] [in/on/at] (note: if cult is brought from elsewhere, use 'brings rites')

ENTITY popularizes cult of ENTITY replace with 'develops cult'?

ENTITY develops cult [of]

ENTITY builds cult site [of] (note: if cult is brought from elsewhere, use 'brings rites')

ENTITY has cult site [in/on/at]

ENTITY is divine patron of ENTITY

Interactions involving possession, creation, usage, and gifting

ENTITY creates ENTITY

ENTITY invents ENTITY

ENTITY inherits ENTITY (note: where the inheritance is rule over a kingdom, use 'succeeds')

ENTITY destroys ENTITY

ENTITY damages ENTITY

ENTITY owns ENTITY

ENTITY throws ENTITY

ENTITY throws away ENTITY [into]

ENTITY uses ENTITY

ENTITY puts on ENTITY

ENTITY consumes ENTITY

ENTITY plants ENTITY

ENTITY wins ENTITY (note: use only if 'conquers', 'succeeds' etc are not appropriate)

ENTITY takes ENTITY [from]

ENTITY gives ENTITY [indirect object]

ENTITY exchanges gifts with ENTITY (note: use when gifts are given in both directions.)

ENTITY offers ENTITY [indirect object] (note: use only if the offer is not accepted, or promised but never delivered)

AGENT gives territory of PLACE to AGENT Delete? This interaction can be captured by 'AGENT gives PLACE'

AGENT offers territory of PLACE to AGENT (note: use only if the offer is not accepted, or promised but never delivered) Delete? This interaction can be captured by 'AGENT offers PLACE'

Interactions between individuals, sub-sets, and groups:

ENTITY leads ENTITY

ENTITY assembles ENTITY

ENTITY is part of ENTITY (note: use to express membership of agents in collectives; collectives in larger collectives; specific objects as body parts of agents, etc)

AGENT is a member of COLLECTIVE (note: do not use this tie to enrol sub-collectives in collectives; use 'is part of' instead. use 'is part of'

COLLECTIVE is part of COLLECTIVE (This is used to 'enrol' collectives as subsets of larger collectives, as in the Homeric Catalogue of Ships, in which 'The Greek contingent at Troy' is subdivided into smaller collectives)

Interactions involving connections to places

ENTITY founds ENTITY

ENTITY rules ENTITY

ENTITY resides in ENTITY (note: use only if action is not captured by a more specific formulation)

ENTITY is eponym of ENTITY

ENTITY is personification [of]

ENTITY conquers ENTITY

ENTITY settles ENTITY (note: use in circumstances of colonization where other ties (e.g. 'founds', 'conquers' is not appropriate.)

ENTITY sacks ENTITY (note: use only if there is no subsequent rule, otherwise use 'conquers')

ENTITY attacks ENTITY (note: use only if both 'conquers' and 'sacks' are not appropriate)

AGENT is local hero of PLACE (note: use only if not captured by a more specific formulation) (note: consider deleting? this could be captured by 'is associated with')

ENTITY is depicted [in/on/at] (note: see note on passive forms below)

OBJECT is a relic [in/on/at] (note: use only to capture testimony of the survival of a mythic relic in the historical period; use with a timemark where possible.)

ENTITY is [in/on/at] [near] (note: use to express topographical relationships between specific objects and places, sub-places, and landmarks)

ENTITY crosses ENTITY

ENTITY goes past ENTITY (note: use only if the agent (etc) does not visit or stop at this place)

Travel

ENTITY sends ENTITY [indirect object] [against] [from]

ENTITY searches for ENTITY [from] [to] [via]

ENTITY migrates [from] [to] [via]

ENTITY flees [from] [to] (note: prepositions 'from' and 'to' can contain multiple entities, i.e. name of agent, name of place)

ENTITY travels [from] [to] [via] (note: use only if action is not captured by a more specific formulation; prepositions 'from' and 'to' can contain multiple entities, i.e. name of agent, name of place)

ENTITY brings ENITITY [from] [to] (note: prepositions 'from' and 'to' can contain multiple entities, i.e. name of agent, name of place)

ENTITY brings rites [of] [from] [to] (note: prepositions 'from' and 'to' can contain multiple entities, i.e. name of agent and name of place)

Miscellaneous

ENTITY is associated with ENTITY (note: use only if not captured by a more specific formulation; use in relation to the Homeric Catalogue where Collectives are associated with particular placenames)

2.4 Creating a datum

Because our data model is built with flexibility in mind, you will find that data collection can be a highly creative process and that some unpredictable sentences can result. Nonetheless, this flexibility means that we have to impose some constraints on ourselves if we are to produce high-quality, useful data. Machines do not understand the meaning of our sentences, they only recognise their grammatical constructions, so we must always be using the same constructions to convey the same relationships between entities even if English actually has any number of ways of doing this. Thus:

It is very important to check usage notes for each interaction in The Bible regularly and do not simply select an interaction that appears to make sense or rely on your memory; many interactions should only be used in specific circumstances, or in specific ways.

If you encounter a something that seems unclear or ambiguous, suggest a revision to The Bible. This document collects all of our working knowledge of data collection and is only as good as we (collectively) make it.

Although the form of our datum is based on the grammar of a sentence in English, consistency of data collection practice should guide our usage, not strict grammatical accuracy. Remember that global changes to the appearance of our data can be made easily at a later date, so long as the data are all in the same form. This is particularly important in the use of prepositional phrases. Note in particular which interactions take indirect objects, and which use the preposition ‘to’; that the use of ‘by’ is highly restricted, and that some interactions incorporate ‘of’ and so use direct objects (e.g. ‘is son of’) whereas others do not an thus use the preposition ‘of’ (e.g. is prophet). For explanation of why this is the case, see above under ‘Interactions’.

You should strive to make each datum as rich as possible, since this creates more connections between entities. That said, you should aim to not proliferate data unnecessarily. Our aim is to use the interactions to reveal the relationships that comprise the mythic storyworld; do not be tempted to re-tell each myth in detail using MANTO’s particular typology. So, for example, it is common to find a scenario where one hero fights another, injures him, and then kills him. It is not appropriate to create three data in this situation (‘AGENT fights against AGENT at PLACE’; ‘AGENT injures AGENT at PLACE’; ‘AGENT kills AGENT at PLACE’) since this simply captures three entities in the same kind of relationship to one another. Rather, capture only the most significant event which captures entities in a particular relational arrangement. (As a subsidiary point, it should be noted that, while MANTO should reveal all relationships of the mythic world, it will not create a list of (e.g.) all injuries sustained in the mythic world, or all fights that take place. Capturing data with that level of granularity is beyond our capacity.)

The general rule is that for each datum you should aim to select the most precise interaction that fits the circumstance (e.g. ‘dies by suicide’ is preferable to ‘dies’). Where you need to capture a relationship between entities but cannot find an interaction that fits, there is always ‘is associated with’!

The basic fields of the datum are as follows:

Passage: start: Must use an existing type ‘Passage’. This is a required field.

Passage: end: Must use an existing type ‘Passage’. If the passage relevant to the datum does not extent beyond one line or section of text, leave blank.

Subject: Must use an existing type ‘Entity’.

Verb: Must use an existing classification ‘Interaction’. This is a required field.

Direct Object: Must use an existing type ‘Entity’. Use in instances where the interaction chosen does not require a preposition to introduce the next entity (i.e. it is used more broadly than a grammatical direct object).

Indirect Object (to/for): Must use an existing type ‘Entity’. Use in instances where the interaction chosen allows for an indirect object (see usage notes).

Note on active and passive voice: There will be instances where you cannot provide all of the entities necessary to complete the sentence structure of the datum. This is particularly the case when the agent of the action is not specified. Most of the interactions are in the active voice; a few use the passive voice where this form is more likely to be useful in practice. The database does allow flexibility, however. The agent of passive verbs may be captured using the preposition ‘by’ (e.g. ‘Actaeon is metamorphosed by Artemis’; ‘Apollo is depicted by Daedalus’). Where the interaction uses the active voice, but the subject is not known, this can simply be left blank and the datum will later be transformed into a more appropriate form (e.g. ‘---- sends portent to Agamemnon at Iulis’ will later become either ‘Agamemnon is sent a portent at Iulis’ or ‘Agamemnon receives a portent at Iulis’ vel sim.)

The following fields allow you to construct PREPOSITIONAL PHRASES by entering existing entities. For the most part, you should use the preposition that makes a comprehensible sentence, but check usage notes. Do not use these fields to express temporal relationships.

In/on/at: Use to express the place where an event takes place.

Near: Use to express physical proximity.

From: Use to express motion away from.

To (motion): Use to express motion towards.

Via: Use to capture waypoints on a journey.

With (instrument): Use to capture the instrument used in an interaction. Do not capture use of Generic Objects.

With the aid of: Use in instances where an entity (typically a god(dess)) helps generally but does not actually partake in an interaction. The interaction ‘helps’ also exists.

After:

Of: Use to capture relationships where ‘of’ is not included in the interaction.

Into: Use where ‘into’ is required (e.g. transformations) rather than ‘to’.

Against:

For:

By (agent after passive verb): Use only with interactions expressed using the passive voice.

The next fields relate to TIMEMARKS, which allow temporal relationships to be captured. Our abilities to model time in MANTO is limited by the lack of granularity available to us. For the most part, we will rely on the relative chronology of generations, and the fact that interactions between agents expresses the basic fact that those agents were contemporaries. We only need to be concerned with capturing temporal relationships when we encounter an explicit statement in a text which might not otherwise be apparent to us since it connects two seemingly unrelated aspects of the mythic world (e.g. ‘AGENT ruled Arcadia four generations before Deucalion’s Flood’). Note that the interaction ‘is contemporary of’ also exists.

Capturing this data requires several fields:

Timemark: number of generations: a free text filed. Enter using Arabic numerals.

Timemark: before/after/during the time of: Select an option

Timemark: event: Choose from existing type Entity (most likely Event, or Agent)

We also capture some FURTHER INFORMATION about the literary context of the datum. These are as follows:

Textual uncertainty: Default is ‘no’. Select ‘yes’ if there is some problem with the textual transmission, or the sense of the passage makes the datum uncertain.

Uncertainty expressed: Default is ‘no’. Select ‘yes’ if the author explicitly registers uncertainty regarding the datum.

Dispute expressed: Default is ‘no’. Select ‘yes’ if the author explicitly registers that there is some dispute regarding the datum or offers the information in a context in which it is only one of several possible scenarios.)

Note: Where several rival scenarios are offered in the same passage, each should be captured independently and tagged with ‘dispute expressed’. Any that the author expresses doubt about should also be tagged with ‘Uncertainty expressed’.

Note: the purpose of ‘Uncertainty expressed’ and ‘Dispute expressed’ is to capture the general presence of uncertainty and dispute in the source; such attitudes can take various forms and involve various rhetorical postures. We are not able to capture a more granular model of these.

Data implicit: Default is ‘no’. Select ‘yes’ if the data is not explicit, but you have logically deduced it from context. In such a circumstance, add a note or commentary to explain your decision.

The most common instance in which data is left implicit is in the case of characters whose names are not given in the text. If a name can be easily supplied from the broader tradition (e.g. at 3.25.6 Pausanias does not give the name ‘Cerberus’ in his description of the ‘Hound of Hades’) supply it and note that the data is implicit. Do not use the option for anonymous agents described above.

Source (literature): Use existing type Passage. Use to capture instances in which the author attributes information to a specific literary source.

Source (epichoric): Free text field. Use to capture instances in which the author attributes information to epichoric informants. Do not use in instances where the attribution is non-specific (e.g. ‘they say’ or ‘it is said’).

Because we are primarily interested in concrete actions, we ignore obvious uses of gods’ names as personified qualities (e.g. ‘Ares’ for war), or descriptions of personifications acting which are obviously poetic tropes (e.g. ‘Panic defeated the Greek contingent at Troy’) should not be captured.