





**Skenè Texts DA - CEMP**  
**Classical and Early Modern Paradoxes in England**  
General Editor Silvia Bigliuzzi





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**A Feast of Strange Opinions: Classical  
and Early Modern Paradoxes on the  
English Renaissance Stage**

Edited by Marco Duranti  
and Emanuel Stelzer



Edizioni ETS

## S K E N È Theatre and Drama Studies

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## **CEMP - Classical and Early Modern Paradoxes in England**

The series of CEMP volumes offers studies and fully annotated scholarly editions related to the CEMP open-access digital archive. This archive includes texts pertaining to the genres of the paradox, of the paradoxical fiction, and of the problem, which were published in England in the sixteenth and seventeenth century, and which are currently unavailable online and/or not open access (<https://dh.dlss.univr.it/bib-arc/cemp>). Our digital archive features diplomatic, semidiplomatic, and modernised editions of selected works, furnished with critical apparatuses and editorial notes, alongside related documentary materials, which, in turn, are relevant to poetic and dramatic texts of the English Renaissance. These texts provide fundamental testimony of the early modern episteme, functioning as a hinge joining widespread forms of the paradoxical discourse in different genres and texts and within the development of sceptical thinking.

The project is part of the Skenè Centre as well as of the Project of Excellence Digital humanities applied to foreign languages and literatures (2018-2022) Department of Foreign Languages and Literature at the University of Verona (<https://dh.dlss.univr.it/en/>).





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### **3. Paradoxes in Drama and the Digital**



# Searching for Ritual Paradoxes in Annotated Ancient Greek Tragedies

GLORIA MUGELLI AND FEDERICO BOSCHETTI<sup>1</sup>

## Abstract

In the corpus of the extant Attic tragedies, rituals and religious events are widely represented: the characters and the chorus very often discuss religion, and the dramatic plots often include actual ritual scenes, in some cases performed directly on stage. Considering that ancient tragedies took place during the religious festival in honour of Dionysus, the playwrights often constructed enthralling ritual paradoxes based on the contrast between the tragic events staged in the theatre and the festive context of the city. The characters often claim the incompatibility between the rituals performed on stage, such as supplications, or off stage, such as gory sacrifices, and the religious festival. The study of the ritual and religious elements in tragedy requires an accurate analysis of themes and motifs within the entire corpus, facilitated by digital resources and computational instruments. EuporiaRAGT is a digital annotation and retrieval system for ancient Greek tragic texts, designed according to the Euporia method which allows domain experts to build their own annotation system, following their specific research needs. In this essay we show how the EuporiaRAGT system was designed to carry out research on ritual dynamics inside and outside the tragic scene: the research focuses on the irregularity of tragic rites, and on the contrast between the ritual practices represented in tragedy, and the ordinary ritual practice that took place in the Athenian dramatic festivals. After illustrating the research objective, our essay discusses the principles with which the EuporiaRAGT system was designed. We then show how the EuporiaRAGT retrieval system, exploiting an ontology for query expansion, can be used to search for interesting phenomena in the dramatic texts of the tragedy such as paradoxical clusters of different and mutually incompatible rituals.

KEYWORDS: ancient Greek tragedy; digital humanities; textual annotation; ontology; ancient Greek religion

<sup>1</sup> Gloria Mugelli authored sections 1, 4 and 5, whereas Federico Boschetti authored sections 2 and 3.

## 1. Introduction: Ancient Greek Tragedy and Ritual Norm

Greek tragedy is permeated by rituals and religion, at all levels: in a theatre that was part of a sanctuary, the actors and the chorus (one of the many ritual choruses composed by citizens) staged plots rich in religious facts, in front of an audience taking part to a festival at the very moment of the dramatic performance.<sup>2</sup> Reading the texts of the extant tragedies, we are confronted with different scenes having to do with ritual and religion: characters often comment or discuss religious facts, and various rituals are performed on and off stage. These scenes cannot be considered as evidence of ancient rite, nor as fragments of a hypothetical manual of the ritual practices of the ancient Greeks: we are rather faced with variations and deviations from a hypothetical ritual norm (Di Donato 2010).<sup>3</sup> Moreover, we have a substantial difference in knowledge from the audience for which ancient Greek tragedies were written and performed: first of all, the citizens of fifth-century Athens had a ritual know-how, derived from having participated in various religious rites and celebrations.<sup>4</sup> Secondly, while attending the dramatic performances the audience was having a ritual experience, since the dramatic contest took place during a festival in honour of the god Dionysus (Mugelli 2020), one of the various religious festivities the citizens attended every year. The Athenian sacred calendar and the sacred calendars of the demes included several public festivals in which a large number of rituals were performed. Athenian citizens would attend all the public religious festivals and daily performed various domestic rituals.<sup>5</sup>

In many cases, tragedians exploited the ritual knowledge of the spectators as a means of constructing ritual paradoxes, based on

<sup>2</sup> On the role of religion in Greek tragedy see Sourvinou-Inwood 2003. Calame 2017 focuses on the dynamics of the tragic choral performance as a ritual performance. The reference study on the festive context in which dramatic performances took place is Pickard-Cambridge 1968.

<sup>3</sup> The very concept of ritual norm can be questioned with regard to Greek religion: see Brulé 2009; Chaniotis 2009.

<sup>4</sup> On the concept of the ritual experience of the spectators, see the studies on the festivals in tragedy collected by Taddei 2020.

<sup>5</sup> On the notions of 'public' and 'private' religion in ancient Greece, see Dasen and Piérart 2013.

the contrast between the tragic events staged in the theatre and the festival for Dionysus during which the dramatic contests took part. The characters often point out, for example, that what is happening in the drama is absolutely not suitable for a religious festival. These claims of ritual incompatibility are particularly frequent in reference to the rituals performed on stage.

The rituals which, in the dramatic action, take place off the tragic scene (i.e. the cases in which characters are said to be absent because they are carrying out a ritual) can be part of the ordinary “festival rituals”: off-stage, the characters can perform animal sacrifices, offerings, feasts, oracle consultations, although not always with positive results.<sup>6</sup> On the other hand, if ritual speech acts are excluded (such as omens, maledictions and prayers),<sup>7</sup> two types of rituals are mainly represented onstage: ritual supplications and rituals related to death, such as lamentations, funerary rites and those performed for the cult of the dead.

These two types of rituals are profoundly incompatible with religious festivals and normal ritual activities, performed both publicly and privately. Ritual supplication involves the ‘invasion’ of a sacred space by the suppliants (Giordano 1999; Naden 2013). Being in contact with the sacred space, the suppliants are protected by Zeus, and their presence is binding for whoever is in the sacred space: rejecting the suppliants, or worse, removing them by force and causing them harm while they are in the sacred space could cause contamination.<sup>8</sup> For this reason, the major Greek sanctuaries took measures to prevent supplications from being made on the occasion of the great festivals (Sinn 1993).

<sup>6</sup> The mechanism of the so-called “corrupted ritual”, as studied by Zeitlin 1965, is well known: in many cases, ordinary rituals such as sacrifices are not carried out correctly, but are actually used as a backdrop for violent actions. On the concept of perverted ritual in general cf. Henrichs 2004.

<sup>7</sup> On the problem of ritual speech acts in tragedy, particularly when performed by the chorus, see Taddei 2016.

<sup>8</sup> Due to this characteristic of a ritual with a high risk of failure, which at the same time provides for a verbal confrontation in which the advisability of welcoming the suppliant is judged, the supplication is a very effective dramatic tool (Kopperschmidt 1971).

Funerals, funerary rituals, and the expression of mourning in general were heavily regulated in fifth-century Athens (Frisone 2000; Blok 2006).<sup>9</sup> The state of mourning obviously precluded entry into the sanctuaries and participation in the great religious festivals (Gherchanoc 2011; 2012).

The presence onstage of suppliants and mourners generates an interference with the ordinary ritual activity. As we shall see in the examples discussed later, the characters point out that the ritual action on stage is absolutely not a festive action and that supplications and funerary rituals often interrupt and disturb the ordinary ritual activity that they would intend to perform.

Highlighting this interference could have a double effect: within the storyline it accentuated the tragic nature of the events represented, while in the context of the tragic performance considered in its entirety as an experience this interference directly affected the spectators, who attend the performance and are simultaneously taking part in a religious festival. Read through this mechanism of *mise en abyme*, the clusters of incompatible rituals sound paradoxical and they may enlighten us on the ritual function of the dramatic representations in the festival of Dionysus.

The method applied for the recognition and description of rites in ancient Greek tragedy can be traced back to the analysis of specific themes (rites and their scenic or extra-scenic contexts) and motifs (ritual elements). Promoted by Positivism and Structuralism, thematic analysis has been attacked by Deconstructionism, which detected a dogmatic association between interpretations (passed off as factual phenomena) and the object of study. In the last decades thematic criticism is experiencing a revival (Pellini 2008; Ciotti 2014) also for the study of the classics.<sup>10</sup> But the identification of themes and motifs must be just a starting point for the philologist. Indeed, it is functional to retrieve *loci paralleli* based on the similarity of meaning instead of verbatim repetitions.

<sup>9</sup> Also see Shapiro 1991 and Pedrina 2001 on the iconography of mourning in Greek pottery.

<sup>10</sup> The Memorata Poetis Project (<http://www.memoratapoetis.it>) provides a large thematic analysis for Ancient Greek, Latin, Italian, English and Arabic collections of short poems.



The research conducted on the surviving tragic texts is based on the overlapping of themes and motifs belonging to different and incompatible ritual fields, and which for this reason have a paradoxical outcome. This type of research can be supported by a digital annotation system, designed for mark-up and retrieval of those themes and motifs, which can be used as a hermeneutical tool<sup>11</sup> as well as a means of organising knowledge.

This essay illustrates the development of EuporiaRAGT, an annotation system for Greek tragic texts originally designed as support for doctoral research; the design process of EuporiaRAGT followed the various stages of reading the *corpus* of ancient Greek tragedy, marking relevant *phenomena* and retrieving series of significant passages.

After discussing the criteria used to design the system, and after briefly describing the annotation process and the process of structuring the tag in an ontology, we will focus on the retrieval system, which exploits the ontology for query expansion.

In the second part of the essay, we will see the system in action, discussing some examples of ritual clusters retrieved through the search engine. Focusing on the results of different types of queries we will see how the system can be used to experiment with associations of different concepts and phenomena, such as the problematic overlapping of ordinary and festive rituals with rituals inappropriate to the context of the festival. In the combination of tags there is obviously a subjective component, dictated by the specific needs of the research; at the same time the annotation is not interpretive in itself, and can be adapted to answer different research questions.

## 2. Annotating Literary Texts by Euporia

Accurate textual annotation is a crucial activity in digital philology, because the automated analyses applied to texts by computational linguists (Mitkov 2022; Ježek-Sprugnoli 2023) are currently

<sup>11</sup> The term “hermeneutical tool” is used in the sense introduced by Rockwell-Sinclair 2022 to define the Voyant Tools for investigations in literary corpora.

satisfactory for distant reading (Glaubitz 2018) on large corpora as a whole, but less than acceptable for close reading applied to literary works on which a large number of critical studies and scientific literature exist.

Annotation is defined by the World-Wide Web Consortium (<https://www.w3.org>) within the Web Annotation Data Model as a relation among textual or multimedia resources: zero or one body resource is linked by reference to one or more target resources (<https://www.w3.org/TR/annotation-model/#terminology>). The annotation can be inline, if it is intermixed to the target text, or stand-off, if it refers to the target text in a separate document. The former is suitable to describe the physical structure of documents, such as the division into pages, columns, lines, or to describe the logical structure of works, such as the division into acts, scenes, speeches and verses. The latter is suitable to associate linguistic, stylistic, metric or rhetoric analyses and in general any kind of extrinsic information or interpretation. The annotation can concern any aspect of textual studies, both on the level of expression and on the level of content. On the level of expression, some examples are the annotation of variant readings, of morpho-syntactic features or of metric analysis. On the level of content, some examples are the annotation of named entities, of metaphors or of themes and motifs.

Since 2015, members of the Collaborative and Cooperative Philology Lab (CoPhiLab) of the Institute for Computational Linguistics “A. Zampolli” (CNR-ILC), and members of the Anthropology of the Ancient World Lab (LAMA) of the University of Pisa, have been collaborating to create and maintain an annotation system called Euporia (from εὐπορία, which means “easiness”).

### 3. Methodology

The pillars of Euporia are: a) stand-off annotation through Domain-Specific Languages (Parr 2018) (DSLs); b) use of close vocabularies to represent textual facts (such as variant readings) and use of open vocabularies to express interpretations (such as themes and motifs); c) review cycles to assess the open vocabularies and consistency

check on the annotations; d) organisation of controlled vocabularies into top ontologies and domain ontologies; e) output in XML-TEI or other standard formats; f) embedding of the application inside an XML native database management system, such as eXist-db (<http://exist-db.org>), in order to exploit a ready-made environment for searching and visualising results.

In the field of Digital Humanities and in particular in the subfield of digital philology, texts and annotations are mainly encoded in XML-TEI (<https://tei-c.org>), which allows to structure the information according to the Ordered Hierarchy of Content Objects (OHCO) model, with a controlled vocabulary of domain terms reflected by the TEI tag set, possibly abridged. For instance, speeches are contained by `<sp>...</sp>` or paragraphs are contained by `<p>...</p>`. But even if digital philologists are used to XML, the mark-up is verbose and complex annotations rapidly lose readability. On the other hand, the use of graphic interfaces to insert data that are automatically transformed in XML-TEI requires software developers and slows down the annotation process. Euporia suggests an alternative solution through DSLs. Domain-Specific Languages are formal languages optimised for a particular domain of application or domain of knowledge. DSLs are concise and familiar to the domain expert, because they are based on their common practices and formalisms, but in addition they are machine-actionable. DSLs are defined by a formal grammar (usually a context-free grammar) that determines both syntax and the lexicon of the language. A traditional critical apparatus can be transformed into a DSLs, if a formal grammar defines unambiguously that the apparatus is made by a sequence of variant readings, and that variant reading is made by a reference to the text, one or more words, and the *sigla* of manuscripts.

Whereas a critical apparatus encodes a limited number of textual operations (such as interpolations, omissions, substitutions or transpositions), an index of themes and motifs requires a large number of descriptors. Due to the well-known issues posed by the hermeneutic circle, it is impossible to know the whole without knowing (at least a sample of) the parts but it is impossible to know the parts without knowing (at least blurrily) the whole. Translated in our domain, it is impossible to know a corpus (under

a specific aspect, such as the ritual inside or outside the stage) without knowing in depth the single tragedies, but it is impossible to describe in depth the ritual aspects of the single tragedies without knowing, at least vaguely, the patterns repeated inside the whole corpus. Similarly to CATMA (Computer Assisted Text Markup and Analysis, <https://catma.de>), Euporia promotes the creation of new descriptors (Mugelli et al. 2016) during the process of annotation: an open vocabulary that evolves until the complete analysis of the corpus.

The evolution of the descriptors that identify themes and motifs (or any other kind of analysis) is monitored during the review cycles, which constitute the milestones of a project based on Euporia (usually after one quarter, half, three quarters, and completion of the process of annotation). During the review, keywords in context and their frequencies are evaluated. The productivity of each descriptor is assessed: descriptors with few occurrences can be subsumed by more productive descriptors (e.g. *#cruor* → *#sanguis*) or can be split into a couple of descriptors.

When the set of descriptors is stable (usually by approaching the end of the annotation process), the descriptors are organised within a domain ontology (Mugelli et al. 2021; 2017), in order to identify the relations among them. Relations may be taxonomic (e.g. *#equus -est* → *#animal*) or transversal (e.g. *#deus\_recipiens -recipit* → *#sacrificia*). The creation of ontological relations among the original descriptors enhances the search engine, because implicit information (e.g. the fact that a horse is an animal) do not need to be encoded many times during the annotation process, but only within the ontology. The search engine can expand a query by exploiting the ontological relations in order to retrieve, for instance, all the specific animals (*#capra*, *#columba*, etc.), which are involved in *#sacrificia*.

A Domain-Specific Language is interpreted by a parser, which transforms the original annotation in an Abstract Syntax Tree (AST), according to the (context-free) grammar that defines the language. The tree structure of an AST can be easily serialised in XML and, through XSLT stylesheets, transformed in XML-TEI (Bambaci et al. 2018) or other standard formats, such as XML-OWL. The possibility to export a DSLs in standard formats or import standard formats in

our DSLs is crucial to grant data interchange among applications and promote the interoperability.<sup>12</sup>

Finally, Euporia is not a stand-alone application, but it is a methodology and a prototype<sup>13</sup> to create apps inside eXist-db (<http://exist-db.org>), which is a native XML database. The advantage of this solution is that the app shares the secured access with the other apps inside the platform and the annotations created through Euporia and saved as XML documents, can be elaborated through xquery, which is a query language integrated into eXist-db, and the results can be visualised in HTML with a few lines of xquery code.

Due to the flexibility of Euporia, since 2015 many projects of students and scholars have been developed, among others: EuporiaQohelet, to study multilingual variants of *Qohelet*; EuporiaRhetorica, to study the Latin rhetorical lexicon; EuporiaEco, to study variants between the first and the second edition of *Il Nome della Rosa* by Umberto Eco; EuporiaEdu, to allow students to annotate linguistic and stylistic aspects of ancient Greek and Latin literary texts.<sup>14</sup>

#### 4. Euporia in Action: Annotating Retrieving Paradoxes

In this section we will see the retrieval system into action, discussing some examples of queries returning clusters of incompatible rituals.

The examples follow this pattern: we start with a specific research question, which arises from the reading of the tragic texts. In any case, the question is related to the original research domain (the tragic ritual dynamics), but the phenomenon was not directly marked in the text (i.e. there is no specific keyword marking these phenomena). The research question is then translated into a

<sup>12</sup> Interoperability is one of the four pillars of FAIR data (<http://bit.ly/3ZzSv4w>), which must be Findable, Accessible, Interoperable and Reusable.

<sup>13</sup> The prototype can be downloaded from <https://github.com/CoPhi/euporia>.

<sup>14</sup> Projects based on Euporia have been presented during a cycle of webinars in 2021 and the recordings are available at <https://cophilab.ilc.cnr.it/euporia-2021> (Accessed 7 November 2023).

query, which combines some keywords from the tagset and uses the ontology for query expansion. We will then discuss the more relevant tragic passages resulting from the research.

The search results are not meant to be exhaustive, i.e. they do not necessarily represent the complete tragic evidence related to specific *phenomena*. Our goal is rather to show that the system can be used to broaden the perspective on the text and to retrieve relevant passages to a specific research problem.

a) Not in the Mood for a Ritual

The first example concerns the paradoxical situation in which a character, despite being in a sacred place or on a ritual occasion, is not in the mood to perform the ritual and therefore claims his or her inadequacy for the ritual action.<sup>15</sup>

According to what we discussed in the introduction, the ritual inadequacy of the character on stage corresponds to his paradoxical position with respect to the festive occasion in which the tragedy is performed: pointing out his non-ritual mood, the character stands in contrast to the spectators who instead should have a joyful and exuberant attitude, in line with the Dionysian character of the festival.<sup>16</sup>

Following the approach with which we designed EuporiaRAGT, this kind of cluster is not marked *per se* (i.e. there is no tag marking the presence of a mood-inappropriate character within a ritual): tags that are too specific and too dense with information could make the annotation less cohesive and at the same time too interpretive, and therefore scarcely reusable.

Our retrieval method is therefore based on the combination of elements that are most likely mentioned in the text, which allow us to trace these *phenomena*. In this case, an effective marker of the emotions of a tragic character is the mention in the text of tears: due to the presence of masks and the environment in which the performances took place the characters frequently verbalised their

<sup>15</sup> On the right ritual mood to participate in a festival, see Taddei 2010 who also analyses the pleasure effect deriving from a well-performed ritual.

<sup>16</sup> See Loscalzo 2008 on the behavior of the audience in the ancient Greek theater.

emotions, signalling in words when they are crying (Medda 1997).

Tears can be a ritual object, precisely in the context of the non-festive rites frequently taking place on the tragic scene: in the context of funerary rituals, in addition to being an expression of emotion, weeping is ritualised in the form of lamentation. In supplication rituals tears can be a persuasive strategy, as well as a marker of the suppliants' condition.

Fig. 1 shows the results of search on the EuporiaRAGT retrieval system of the co-occurrences of the tag marking tears (#*lacrimae*) in the presence of a ritual. The system exploits the ontology to expand the query to all possible ritual activities present in the annotation.

**Euporia Search**

<p>ritus lacrimae lacrimae 0 0 0 0 Search</p> <p><b>sacrificia</b></p> <p><b>chorea</b></p> <p>E.El. 181 δάκρυα - 183 ἥμαρ.</p> <p><b>ritum_facere_non_posse</b> E.El. 175 οἶα - 189 ὀλοοῦα.</p> <p><b>choros</b> E.El. 175 οἶα - 189 ὀλοοῦα.</p> <p><b>feriae</b> E.El. 175 οἶα - 189 ὀλοοῦα.</p> <p><b>lacrimae</b> E.El. 181 δάκρυα - 183 ἥμαρ.</p> <p><b>animus_agents</b> E.El. 181 δάκρυα - 183 ἥμαρ.</p> <p><b>ritus_temptus</b> E.El. 183 το - ἥμαρ.</p> <p><b>feriae</b></p> <p>E.El. 181 δάκρυα - 183 ἥμαρ.</p> <p><b>ponge</b></p> <p>E.Ia. 1487 δάκρυα</p> <p>E.Ia. 1490 πῶρ' - πρῆμα.</p> <p><b>supplicatio</b></p> <p>E.An. 92 δακρυόμακτα.</p> <p>E.An. 116 κροαμαί.</p> <p>E.An. 417 δακρυά - λειψών</p> <p>E.An. 533 δάκρυον</p> <p>E.He. 298 οἶα - δάκρυ.</p> <p>E.He. 760 οἶα - δάκρυ.</p> <p>E.He. 166 δάκρυον</p> <p>E.He. 173 δάκρυα.</p> <p>E.He. 195 δάκρυα - δάκρυα</p> <p>E.He. 937 δακρυόα - ἥμαρ</p> <p>E.He. 948 οἶα' - ῥαδύρα</p> <p>E.He. 951 δάκρυα - ἥμαρ</p> <p>E.He. 991 δακρυόα</p> <p>E.He. 98 δακρυόα - 100 ἡμαρ.</p> <p>E.Hd. 1208 παλιόν - 1210 ἐξβύλλων</p> <p>E.Hd. 129 ἵασι - δάκρυα</p> <p>E.Ia. 1215 δάκρυα - παρῖθο</p> <p>E.Ia. 1242 σενδάκρυον.</p> <p>E.Io. 1369 κατ' - δάκρυα.</p> <p>E.IT. 703 δάκρυα'</p> <p>E.O. 677 ε - πῶρ.</p> <p>E.O. 1410 ὄμαρ - 1411 πρῶμαρμένον.</p> <p>E.Pb. 1567 δάκρυα</p> <p>E.Su. 21 ὄμμα - τέρψων</p> <p>E.Su. 49 δάκρυα - βλαφῆρα.</p> <p>E.Su. 80 εα - 82 οἶα</p> <p>E.Su. 96 οἶατῶν - δάκρυα.</p> <p>E.Su. 284 ἑμῶν - δάκρυον.</p> <p>E.Su. 289 ἑμῶα - 290 παρημῆη.</p> <p>S.OT. 66 παλιὰ - δακρυόα</p> <p><b>mens</b></p> <p>E.Ai. 598 κωτῶρ - βλαφῆρα.</p> <p>E.He. 458 δάκρυα</p> <p><b>puccatio</b></p> <p>E.Su. 21 ὄμμα - τέρψων</p> <p><b>ustratio</b></p> <p>E.El. 658 κατ' - τῶνον.</p>	<p><b>ritus_functio</b></p> <p>E.Ai. 176 δάκρυα</p> <p>E.Ai. 183 μῶν - 185 ὄμαρ.</p> <p>E.He. 1547 ἐπιβλήσεντι - τῶμαρ.</p> <p>E.Hd. 1361 δάκρυον.</p> <p>E.IT. 703 δάκρυα'</p> <p>E.Su. 773 δακρυόα</p> <p>E.Su. 978 δάκρυον</p> <p>S.Pb. 360 κατ' - σείνον.</p> <p><b>hachcharalia</b></p> <p><b>supplic</b></p> <p>E.Ai. 1487 δάκρυα</p> <p>E.Ia. 1490 πῶρ' - πρῆμα.</p> <p><b>oblatio</b></p> <p><b>tilatio</b></p> <p>E.IT. 173 οἶα - οἶμα.</p> <p><b>deorum_cultus</b></p> <p>E.El. 194 δάκρυα - 195 ἡμῶν.</p> <p><b>divinatio</b></p> <p><b>lamentatio</b></p> <p>A.Ag. 1490 δακρυόα</p> <p>A.Ag. 1514 πῶρ' - δάκρυα</p> <p>A.Ch. 333 παλῶδακρυαί - πρῆμα</p> <p>A.Ch. 449 παλῶδακρυαί</p> <p>A.Ch. 508 τῶμαρ - ὀδομακτα.</p> <p>A.Py. 400 δακρυόα</p> <p>A.Py. 539 δακρυόα - 540 τέρψων.</p> <p>A.Py. 1038 δάκρυα - ἡμῶν.</p> <p>A.Py. 1039 ἡμαρ - ὄμαρ.</p> <p>A.Su. 919 δακρυόα</p> <p>A.Su. 72 ἀπαρῶδακρυαί - παρῖθο.</p> <p>E.An. 92 δακρυόμακτα.</p> <p>E.An. 1201 δακρυόα - δάκρυα.</p> <p>E.Hd. 651 παλῶδακρυαί</p> <p>E.He. 760 οἶα - δάκρυα.</p> <p>E.Hd. 1361 δάκρυον</p> <p>E.Pb. 1363 δάκρυα</p> <p>E.Pb. 1441 δακρυόα.</p> <p>E.Su. 80 εα - 82 οἶα</p> <p>E.Su. 971 ἐπιβλήσεντι - δάκρυα</p> <p>E.Su. 978 δάκρυον</p> <p>E.T. 315 εἶα - δάκρυα</p> <p>E.T. 351 δάκρυα - ἀντολλῶμα</p> <p>E.T. 468 δάκρυα</p> <p>S.Ai. 289 δάκρυα</p> <p>S.An. 881 ἀδακρυαί</p> <p>S.El. 805 δάκρυα - δάκρυα</p> <p>S.Pb. 360 κατ' - σείνον.</p> <p><b>hospitalitatis_vinculum</b></p> <p><b>ius_larandum</b></p> <p><b>purificatio</b></p> <p><b>postuorum_cultus</b></p> <p>A.Ch. 82 δάκρυα - ἡμῶν</p> <p>A.Ch. 152 ἡμαρ - παρημῆη</p> <p>A.Ch. 333 παλῶδακρυαί - πρῆμα</p> <p>A.Ch. 449 παλῶδακρυαί</p> <p>A.Ch. 508 τῶμαρ - ὀδομακτα.</p> <p>E.El. 91 δάκρυα - ὄμαρ.</p> <p>S.El. 906 γαῖα</p> <p>S.El. 906 δάκρυα.</p>
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Fig. 1. Tears in a ritual context

As expected, most of the rituals involve mourning rituals and supplications.

However EuporiaRAGT retrieves some rites that usually exclude tears, such as choruses, festivals and processions (marked with the transliteration of the Greek term *pompe*), highlighted in Fig. 1; the case of ritual hospitality, also marked with the Greek term *xenia*, is problematic and will be discussed separately.

The character of Electra experiences the different phases and the different modes of mourning. Both in Aeschylus' *Choephoroi* and in Sophocles' and Euripides' *Electra*, before Orestes' return Agamemnon's daughter is left alone in celebrating the funeral rites for her murdered father. In the three tragedies, however, we can observe a progressive marginalisation of the mourning theme (for example, in Sophocles and Euripides the tomb is not represented on stage), and a progressive isolation of Electra's character (Medda 2013).<sup>17</sup>

In Sophocles, the girl complains that while she stubbornly mourns her dead father, Aegisthus and Clytemnestra celebrate feasts rejoicing at the murder (Soph. *El.* 280-281).

In Euripides, however, there is a further gap, which exacerbates the ritual cluster we have been talking about: the festivals from which Electra is excluded are not hypothetical sacrilegious celebrations in honour of a murder, but ordinary religious festivals of the city of Argos, the *Heraia*.<sup>18</sup> Electra cannot take part in those festivals together with all the Argive girls of her age (including the women of the chorus), because her tears are not suitable for the ritual.

οὐκ ἐπ' ἀγλαΐαις, φίλαι,  
 θυμὸν οὐδ' ἐπὶ χρυσέοις  
 ὄρμοις ἐκπεπτόταμαι  
 τάλαιν', οὐδ' ἰστᾶσα χοροῦς  
 Ἄργείαις ἅμα νύμφαις  
 εἰλικτὸν κρούσω πόδ' ἐμόν.  
 δάκρυσι νυχέ-  
 ω, δακρύων δέ μοι μέλει

<sup>17</sup> On Electra's lamentation see Foley 2001, 150. On the character of Electra and the permanence of mourning in tragedy on a general level see Loraux 1999, 46-70.

<sup>18</sup> See Amandry 1980. On the *Heraia* in Euripides' *Electra* cf. Taddei 2020, 73-92.



δειλαία τὸ κατ' ἥμαρ.  
 σκέψαι μου πιναρὰν κόμαν  
 καὶ τρύχη τάδ' ἐμῶν πέπλων,  
 εἰ πρόποντ' Ἀγαμέμνονος  
 κούρα 'σται βασιλεία  
 τᾶ Τροία θ', ἅ 'μοῦ πατέρος  
 μέμναται ποθ' ἀλοῦσα.  
 (Eur. *El.* 175-89)

[ELECTRA No finery, my friends, no golden necklaces give flight to my wretched heart; nor setting dances along with the brides of Argos shall I pound out my whirling step. In tears I spend my nights, tears are my sorrowful care day after day. (Cropp 2013)]

In the passage from the exodus of Euripides' *Iphigenia in Tauris* in which Iphigenia, followed by the chorus, leads a procession which, while assuming the characteristics of a wedding procession, is in fact a sacrificial procession, that leads her to the sacrificial altar.<sup>19</sup>

The final part of the tragedy, following the exit of the chorus, poses many problems both from a philological and ritual point of view, which do not strictly concern the object of this study. In reading this passage, we are interested in the interference between an ordinary festive ritual (the sacrificial procession of the Great Dionysia ended right in the sanctuary of Dionysus adjacent to the theatre, and included the participation of young girls) and the mournful events represented in the drama.

In preparing the final procession as an ordinary, joyful and festive ritual, such as a wedding procession can be, Iphigenia wants to avoid any possible ritual interference with the mourning register, which should actually characterise her exit from the scene, and refuses to cry.

ὦ πότνια πότνια μᾶτερ, οὐ δάκρυά γέ σοι  
 δώσομεν ἀμέτερα·  
 παρ' ἱεροῖς γὰρ οὐ πρόπει.  
 (Eur. *IA* 1487-90)

<sup>19</sup> The overlap between marriage and human sacrifice in *Iphigenia at Aulis* is well known, see Foley 1985, 65-105. On tragic processions see Kavoulaki 1996.

[IPHIGENIA O lady, lady mother, I shall not give you my tears; for it is not fitting at holy rites. (Collard and Morwood 2017)]

Finally, we are focusing briefly on the two passages that associate tears with the ritual of hospitality. In its initial stage, the ritual has the characteristics of a ritual supplication: to ask for hospitality, the *xenos* assumes the position of a suppliant (Giordano 1999) and can therefore use tears as a means of persuasion, as Menelaus does in Eur. *Hel.* 458.

In Euripides' *Alcestis*, there is a real problem of ritual incompatibility: in this tragedy, Heracles is a guest in Admetus's house, where he participates in a banquet unaware of Alcestis' death (Eur. *Al.* 747-762, cf. Segal 1992). The hero sings drunk, disturbing lamentations about the newly deceased hostess. Thus, in the house of Admetus, two opposing registers overlap: the chaotic one of the Dionysian symposium, which characterised many phases of the Great Dionysia, and the register of mourning, which dominated the tragic scene.

#### b) I Am Not Coming for the Festival

As a second example, we will deal with passages in which a character enters into a sacred space, pointing out at the same time that he does not want to perform a ritual.

The theatre of Dionysus is part of the sacred space of the sanctuary of Dionysus, whether we look at the sanctuary as an architectural space or as a space ritualised by the presence of the festive Athenians, who concluded the great procession of the Great Dionysia there.

In the fictitious space of the preserved dramas, sanctuaries in honour of the god Dionysus are never represented; at the same time, tragedies often take place in sacred spaces, including the major, renowned sanctuaries visited by all Greeks.

In this case, we will perform a three-variable query on the database. The query in Fig. 2 combines all the rituals (*#ritus*) that are rejected or criticised (*#ritum\_aspernari*) with the mention of the sacred place (*#locus\_sacer*).

The retrieved passages all belong to Euripides’ *Suppliant Women*. The tragedy is set in the sanctuary of Eleusis, frequented by the entire Athenian population on the occasion of various rituals and festivals, and known above all as the setting for the Eleusinian Mysteries (Clinton 1993; Goff 1995).

Euripides’ *Suppliant Women* is not set during the Mysteries, but during the festival of the *Proerosia*, a harvest-related festival that took place between Athens and Eleusis, and included the offering of first fruits (*aparchai*; Robertson 1996). The situation presented by Euripides is exceptional: not only is it set right during the festival, but the supplication that takes place onstage interrupts the ritual.

Aethra, the Athenian queen mother of Theseus, arrives in Eleusis with one of the offerings of the *Proerosia* and is surrounded and blocked by the suppliants, mothers of the seven Argives who died in Thebes, mourning for their children.

In the three passages from the first episode (111, 173, 230), Theseus blames the suppliants for resorting to a ‘violent’ ritual strategy. Criticisms of the supplication are a recurring rhetorical tool in tragedy, and they cannot be traced back to the dramatic mechanism we are studying.

In the parodos, the chorus of the mothers performs the ritual of supplication by falling at Aethra’s feet and drawing her attention to their miserable appearance: black clothes, wrinkled face wet with tears, their body has suffered the blows and scratches typical of those who perform the lamentation.

### Euporia Search

tritus	ritum_aspernari	locus_sacer	0	0	0	0	Search
<b>sacrificia</b>							
chorea							
feriae							
E.Su. 63 δαίωας - ούχ.							
<b>pompe</b>							
<b>supplicatio</b>							
E.Su. 63 δαίωας - ούχ.							
E.Su. 111 πάρεξ - γόνυ.							
E.Su. 173 προεβέβηματ' - μιστήρια.							
E.Su. 230 μάντεων - ἀτιμάσας							

Fig. 2 Rejected or criticised rituals in sacred places

In performing the supplication and making their request, the women of the chorus emphasise that their arrival in the sanctuary is not for ritual reasons, but out of necessity:

ΧΟΡΟΣ ὀσίως οὔχ, ὑπ' ἀνάγκας δὲ προπίπτου-  
 σα προσαιτοῦσ' ἔμολον δε-  
 ξιπύρους θεῶν θυμέλας·  
 (Eur. *Supp.* 63-5)

[CHORUS Not in a holy manner have I come to the gods' altars which receive the fire, but out of necessity. (Morwood 2007)]

The words of the chorus in the *parodos* has an echo in the first episode, when Theseus notices that the women's mourning clothes are not at all suitable for the festival (πεπλώματ' οὐ θεωρικά, 97).

In this case, therefore, the chorus of the tragedy itself appears to be 'intruded' into the festive context, and indeed its presence in the theatre generates the interruption of a festival. Again, even if the interrupted festival is not a Dionysian ritual occasion, the scene must have been very engaging and problematic for the spectators of the drama, sitting in the theatre in their best clothes, taking part in the Dionysia.

### c) Ritual Absence

In Greek tragedy the characters mention rituals that do not take place, at least as much as they speak of the rituals they perform on and off the scene: the funeral for Polynices and the denied wedding for Iphigenia are an emblematic case of the cumbersome absence of some rituals. In Fig. 3 we see the first items of the result list for a query on rituals whose absence is marked in the text.

We have highlighted in the list only the results concerning rituals that are present in the great festivals (processions, sacrifices, choruses and celebrations in general). We are not discussing marriage and funeral rites, the absence of which, as we have seen in the two previous examples, is particularly significant for the characters, but it does not interfere with the feast for Dionysus.

## Euporia Search

tritus	ritus_absentia	ritus_absentia	0	0	0	0	Search
<b>sacrificia</b>							
<b>chorea</b>							
A.Su. 681 ἄχορον - ἀκίθαριν							
A.Su. 681 ἄχορον							
E.Hr. 892 τυμπάνων - 893 ὄρουσθ							
E.Io. 1474 οὐδὲ - χορευμάτων							
E.Ph. 792 οὐδ' - δίνω.							
E.Ph. 1265 ἐν - χορείαις							
E.Rh. 376 ἐν - 377 χορεύσει.							
E.Tr. 121 ἀχορεύτους.							
E.Tr. 1071 χορῶν - 1072 κέλαδοι							
S.El. 1067 ἀχόρευτα							
S.Oc. 1222 ἄχορος							
<b>feriae</b>							
E.Ph. 785 Βρομίου - 788 χοροποιοί.							
s E.Ph. 1 ὦ - 1766 στεφανούσα.							
domus E.Ph. 1 ὦ - 1766 στεφανούσα.							
altaria E.Ph. 1 ὦ - 1766 στεφανούσα.							
statua E.Ph. 1 ὦ - 1766 στεφανούσα.							
apollo E.Ph. 1 ὦ - 1766 στεφανούσα.							
ritus_absentia E.Ph. 785 Βρομίου - 788 χοροποιοί.							
bacchanalia E.Ph. 785 Βρομίου - 788 χοροποιοί.							
feriae E.Ph. 785 Βρομίου - 788 χοροποιοί.							
dionysus E.Ph. 785 Βρομίου							
charites E.Ph. 788 ἐν - χοροποιοί.							
chorus E.Ph. 788 ἐν - χοροποιοί.							
ritum_agens E.Ph. 788 ἐν - χοροποιοί.							
E.Tr. 452 ἐκλέλοιψ' - ἠγαλλόμην.							
E.Tr. 1075 Φρυγῶν - 1076 πηθεῖ.							

Fig. 3. Ritual absence

In Euripides' *Trojan Women*, the ritual inactivity of the war-torn city of Troy is pointed out.

Cassandra, for example, gives up her role as a prophetic of Apollo: she takes off her prophetic bandages and renounces the festivals, which will no longer be held.

ΚΑΣΑΝΔΡΑ ὦ στέφην τοῦ φιλτάτου μοι θεῶν, ἀγάμματ' εὖια,  
 χαίρετ'· ἐκλέλοιψ' ἑορτάς, αἷς πάροιθ' ἠγαλλόμην.  
 (Eur. *Tro.* 452-3)

[CASSANDRA Garlands of the god I love so well, prophetic spirit's dress, leave me, as I leave those festivals where once I was so proud.]

The problem of the absence of the gods does not concern only Cassandra and her relationship with Apollo. The theme of the city abandoned by its gods often emerges in the text of the *Trojan Women*: the altars are deserted, and all ritual and festive activity is now abandoned.

In this case, the interference with the contemporaneity of the spectators' experience consists not only in the association with the festival, but specifically with the ritual and celebrations that occur in a context of war.

ΧΟΡΟΣ φροῦδαί σοι θυσίαί χορῶν τ'  
 εὔφημοι κέλαδοι κατ' ὄρ-  
 φναν τε παννυχίδες θεῶν,  
 χρυσέων τε ξοάνων τύποι  
 Φρυγῶν τε ζάθεοι σελᾶ-  
 ναι συνδῶδεκα πλήθει.  
 μέλει μέλει μοι τάδ' εἰ φρονεῖς, ἄναξ,  
 οὐράνιον ἔδρανον ἐπιβεβῶς  
 αἰθέρα τε πτόλεως ὀλομένης,  
 ἄν πυρὸς αἰθομένα κατέλυσεν ὄρμά.  
 (Eur. *Tro.* 1070-80)

[CHORUS Gone are your sacrifices, the choirs' glad voices singing, for the gods night long festivals in the dark; gone the images, gold on wood laid, the twelves of the sacred moons, the magic Phrygian number. Can it be, can it be, my lord, you have forgotten, from your throne high in heaven's bright air, my city which is ruined and the flame storm that broke it.]

In the *Trojan Women*, there is obviously the mechanism of *mise en abyme* determined by the fact that the Trojan War is a mythical event, distant in time and space from the present of the spectators. However, the Athenian citizens are facing the Peloponnesian War. We are confronted here with the paradox of a city at war which, while celebrating a festival, imagines another, more ancient city which, defeated after a long war, can no longer celebrate any festivals.

The passage from Euripides' *Phoenician Women* is the most interesting, and allows us to move towards our conclusions. War with its deaths and sufferings not only excludes rituals and festivals in general, as emerges in the *Trojan Women*, but it also conflicts with the specific world of Dionysian ritual. The god Ares, in this tragedy, is said to be the opposite of the god Dionysus: he does not take part in the festivals of Bacchus, where a significant part of the ritual pleasure consists in wild dances and choruses.

ΧΟΡΟΣ ὦ πολύμοχθος Ἄρης, τί ποθ' αἶματι  
καὶ θανάτῳ κατέχη Βρομίου παράμουςος ἑορταῖς;  
οὐκ ἐπὶ καλλιχόροις στεφάνοισι νεάνιδος ὥρας  
βόστρυχον ἀμπετάσας λωτοῦ κατὰ πνεύματα μέλπη  
μοῦσαν, ἐν ᾗ χάριτες χοροποιοί,  
ἀλλὰ σὺν ὀπλοφόροις στρατὸν Ἀργείων ἐπιπνεύσας  
αἶματι Θήβας  
κῶμον ἀναυλότατον προχορεύεις.  
(Eur. *Phoe*, 784-91)

[CHORUS Ares, who brings us trouble, lover of blood and death, why stand away from Bromius' feasts? Never, when dances are fair and the girls are crowned, do you loosen your locks and sing to the breath of the pipe which the Graces have given for dancing. No, you rouse the host, the armed host of Argos, against our Theban blood. You dance first in the dance that knows no music.]

In this case, the interference moves on three levels: the ritual, the war, but also the tragic performance in itself. In fact, through the references to the choruses, the dances, and the art of the Muses, we witness a mechanism of self-referentiality of the tragic chorus (Henrichs 1994): the musical and choral part is in fact the more traditionally ritual part of the tragic performance, as the spectators assist and take part in various choral performances on many ritual occasions (see Calame 1994; 2013a; 2013b; 2017).

Furthermore, Ares is described as the one who leads a κῶμον ἀναυλότατον (791), a *komos*, a noisy and agitated ritual procession (taking place in particular in the Dionysian festivals) that does not involve the use of the flute (*aulos*). The *aulos* is both the festive and the Dionysian instrument par excellence, and it is often used as a self-referential instrument for the tragic chorus.<sup>20</sup>

<sup>20</sup> The αὐλός is the most common musical instrument in ancient Greece, and the ritual instrument par excellence. It was used to accompany different kinds of choral performance and was played during processions and throughout the sacrificial procedure: see Papadopoulou 2004; Papadopoulou and Pirenne-Delforge 2015; Goulaki-Voutira 2004; Kubatzki 2016. As a versatile instrument, and particularly suited to accompany the πομπή, the αὐλός is also used during the funeral ritual, both during the ἐκφορά (Solon imposed a maximum of ten *aulos* players), and during the πρόθεσις – see

## 5. Conclusion

This last example allows us to focus on the last dramatic cluster, which is perhaps the densest in meaning and also the most characteristic of Greek tragedy as a ritual performance. The mournful events that occur in tragedy, including funeral rituals and lamentations, are often associated with the musical and choral register of tragedy.

Nicole Loraux (1999) has studied the mournful sound register of tragedy in its Dionysian dimension, in particular as regards the contrast between the register of the lyre, the Apollonian instrument par excellence, and that of the *αὐλός* characterising tragedy.

On the one hand, the mournful song of tragedy is often defined as a song without a lyre. The tragic sound *αὐλός*, on the other hand, is often described as baleful, mournful, out of tune: the passage from the *Phoenician Women* that we have discussed echoes a passage from the *Seven Against Thebes*, in which the dirge of the chorus is intoned, as in a mournful *ξυναυλία*, to the sound of the spears of the two brothers clashing (Aesch. *Sept.* 835-9). Also in Sophocles' *Ajax* (1199-204), the death of the hero is represented as an exclusion from the ritual pleasure, *terpsis*, of the symposium, another characteristic Dionysian ritual in which the *αὐλός* makes its appearance. Finally, in the *Trojan Women*, during the lament of Hecuba (120ff.) which mentions the mournful and dance-less muse of the defeated, reference is made to the fatal paeon, sung to the sound of the *αὐλός*, which accompanies the arrival of the Greeks and the defeat of Troy.

So when it is not cited to point out its absence (together with the absence of choral performances, songs, and festivals) the tragic *aulos* is contrasted with the ritual and musical pleasure of the ordinary ritual activity.

In conclusion, the series of clusters we have discussed point out the disturbing register of the tragic performance and its contrast with the festive context, and in this way they demonstrate, through

Retief and Cilliers 2010. At the same time, the *αὐλός* characterises Dionysian rituals, from the symposium to orgiastic rites (during which it was combined with *τύμπανον* and *κρόταλα*). On the form of the *αὐλός* see Anderson 1994, 180-2 and Hagel 2010, 327-32.



the paradoxical extraneousness of the tragedy to its ritual context, that attending the tragic performances was an extremely specific form of ritual activity for Dionysus, very different from the Dionysian activity performed during the festival.

The approach we adopted in building the system, discussed in §2 and §3, and the actual information extraction methodology we saw it in action in §4, make it clear that the set of examples discussed in this essay, retrieved with the EuporiaRAGT system, is not meant to be neither an exhaustive set of all the ritual paradoxes in tragedy, nor a heuristic result per se.

The discussion of the individual cases reveals that the knowledge of the domain (in this case the tragic texts and the dynamics of the Greek rite) is an essential requirement at all levels of the process, both as a prerequisite of the annotation process, in constructing the query and in reading the results. The EuporiaRAGT system thus works as a support for the hermeneutic work on texts, allowing the user to organise knowledge and interrogate information in a complex way, obtaining interesting results not only when we are looking for simple evidence of a specific *phenomenon*, but also when it comes to working on problematic, exceptional or paradoxical cases.

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