

Elsevier L^AT_EX template[☆]

Elsevier¹

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Abstract

This template helps you to create a properly formatted L^AT_EX manuscript.

Keywords: `elsarticle.cls`, L^AT_EX, Elsevier, template

2010 MSC: 00-01, 99-00

1. The Elsevier article class

Installation. If the document class *elsarticle* is not available on your computer, you can download and install the system package *texlive-publishers* (Linux) or install the L^AT_EX package *elsarticle* using the package manager of your T_EX
5 installation, which is typically T_EX Live or MikT_EX.

Usage. Once the package is properly installed, you can use the document class *elsarticle* to create a manuscript. Please make sure that your manuscript follows the guidelines in the Guide for Authors of the relevant journal. It is not necessary to typeset your manuscript in exactly the same way as an article, unless
10 you are submitting to a camera-ready copy (CRC) journal.

[☆]Fully documented templates are available in the *elsarticle* package on CTAN.

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¹Since 1880.

Functionality. The Elsevier article class is based on the standard article class and supports almost all of the functionality of that class. In addition, it features commands and options to format the

- document style
- 15 • baselineskip
- front matter
- keywords and MSC codes
- theorems, definitions and proofs
- lables of enumerations
- 20 • citation style and labeling.

2. Front matter

The author names and affiliations could be formatted in two ways:

- (1) Group the authors per affiliation.
- (2) Use footnotes to indicate the affiliations.

25 See the front matter of this document for examples. You are recommended to conform your choice to the journal you are submitting to.

3. Material and methods

Our principal case study examines the variation of the amphorae production located in Baetica (currently Andalusia, south Spain). During the Roman
30 Empire, this ancient province was an important support for the production and distribution of the olive oil to the rest of the Empire, from the Ist to the IIIrd centuries. For this reason, a large-scale infrastructure of amphorae production was develop in this area with more than 80 workshops currently located along

the Guadalquivir river and its tributary Genil. (citar Berni, Remesalin and En-
35 riquito).

The majority of amphorae identified in this area belong to Dressel 20 typol-
ogy divided into different sub-typologies (Martin-Kilcher bibliografia). This
amphora type was used mostly to transport olive oil for around 300 years. It
means that olive oil was an important product in the roman empire because it
40 was used in different aspect of the roman daily life such as consumption, lighting
and hygiene to satisfy the high demand of Roman Empire. (extenderse)Most of
them, were identify with stamp meaning a important economic market (Xavi).
(contar historia de roma)

We analyse a dataset of 470 amphorae collected from 5 different workshops
45 excavated. The workshops were located in Malpica, Cerro del Beln, Parlamento,
Villaseca and Las Delicias. The choice of these workshops was due to two rea-
sons. First, most of the workshops were not excavated being impossible the
study of the archaeological material. Second, the workshops were selected in
order to analyse the variability depending on the distance of each workshop.
50 (measurements)

Eight different measurements were taken for each amphorae sample of the 5
workshops studied. Most of them were focus on the rim sherds whose fragments
were the most preserved on the sample (explicar tambin la variabilidad). Han-
dles measurement were excluded from the study because the sample study was
55 low. The measurements were divided into exterior diameter, inside diameter,
rim height, rim width, shape width, rim inside height, rim width and protruring
rim. Finally, multivariate methods were used to explore these metrical differ-
ences.

In our study, we have only selected three variants according with three cen-
60 turies (Dressel B: I; Dressel C: I-II; Dressel D: II; Dressel E: III) defined by Berni
(bibliografa de Berni) . We excluded the rest of variants from our analysis

PCA

Principal Component Analysis (PCA)

The majority of amphorae excavated belong to Dressel 20 divided into dif-

65 ferent sub-typologies defined by Martin-Kilcher (bibliografa.

4. Bibliography styles

There are various bibliography styles available. You can select the style of your choice in the preamble of this document. These styles are Elsevier styles based on standard styles like Harvard and Vancouver. Please use BibTeX to
70 generate your bibliography and include DOIs whenever available.

Here are two sample references: [? ?].

References