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Pylon

Combining Text Editing and Data Management

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Abstract of the Project
Pylon is the diamond open access e-journal of the 'Papyrological Publication Platform', also known as 'P3'. The aim of the initiative is to align publication of new editions of mostly Greek, but also Latin, Coptic, Demotic and Arabic papyrological and inscriptional texts with management of papyrology's principal electronic text corpora, the Duke Databank of Documentary Papyri (DDbDP) and the Digital Corpus of Literary Papyri (DCLP), which are hosted at www.papyri.info. These Open Access/Open Source corpora are encoded in a subset of TEI-XML called EpiDoc, which is designed specifically for ancient inscriptions and papyri. Traditionally, curation of them has been in the hands of student assistants and volunteers who enter the texts manually. The P3 project simplifies this stage of post-publication data-transfer by preparing text editions slated to be published in *Pylon* for immediate transfer to papyri.info once individual journal issues are released.

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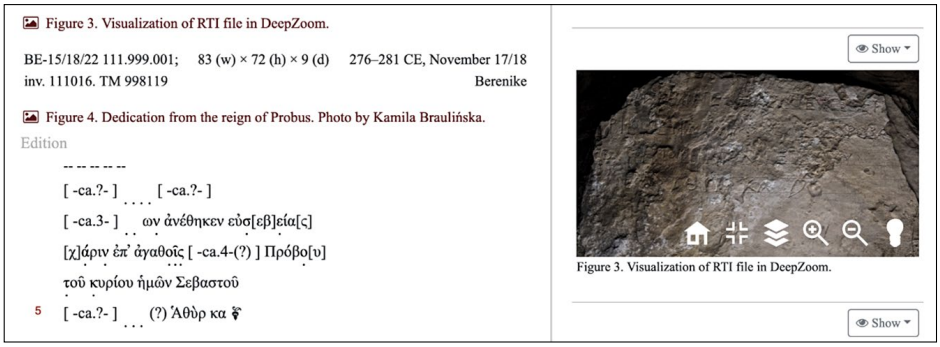

Fig. 1: Edition of Greek inscription presented next to RTI imaging embedded in an RTI viewer that allows the reader to manipulate lighting in the image.

#metadata	
Find no.	BE-15/18/22 111.999.001
Inventory no.	inv. 111016
Dimensions: height	72 cm
Dimensions: width	83 cm
Dimensions: thickness	9 cm
TM number	998119
HGV number	998119
ddb-filename	pylon. 5.6
ddb-hybrid	pylon;5;6
Material	anhydritic gypsum
Date	AD 276–281, November 17/18
Found: Date	26.01.2022

Fig. 2: Essential metadata regarding the inscribed artifact is embedded in the submitted article; the data gets transferred to the DDbDP and the table does not appear in the published article.

BE-15/18/22 111.999.001; inv. 111016	83 × 72 × 9	Berenike
TM 998119		276–281 CE, November 17/18

Fig. 3: Table containing information that will appear in the edition 'header'.

```
#text
<S=.grc
<=
1. lost.?lin
1. [.?].4[.?]
2. [ca.3].2ων ἀνέθηκεν εὐσ[εβ]είά[ς]
3. [χ]άριν ἐπ' ἀγαθοῖς [ca.4] Πρόβο[υ]
4. τοῦ κυρίου ἡμῶν Σεβαστοῦ *filler(extension)*
5. [.?].3(?) Ἁθὺρ κα *hedera*
=>

#translation
<T=.en
      <=
"… set this up as an expression of piety for the benefits … of Probus our lord Augustus…Hathyr
21 (hedera)."
=>
      =T>
```

Fig. 4: Text and translation encoded in a format that permits easy transformation to the EpiDoc XML of the DDbDP.

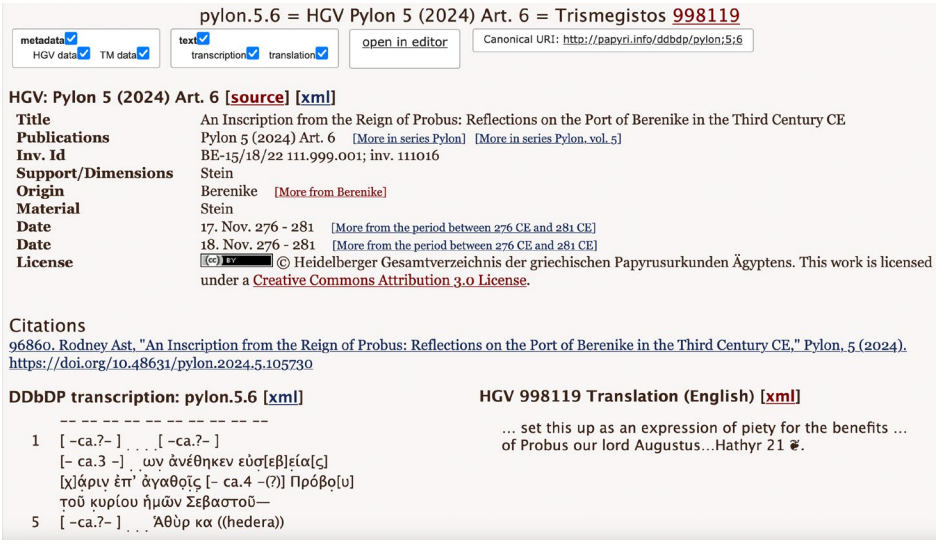

Fig. 5: HTML display of EpiDoc metadata, text and translation files in the DDbDP.

BE-15/18/22 111.999.001; 83 (w) × 72 (h) × 9 (d) 276–281 CE, November 17/18
inv. 111016. TM 998119 Berenike


Figure 4. Dedication from the reign of Probus. Photo by Kamila Braulińska.

Edition

-- -- -- -- --
[-ca.?-] [-ca.?-]
[-ca.3-] ων ἀνέθηκεν εὐσ[εβ]είa[ς]
[χ]άριν ἐπ᾽ ἀγαθοῖς [-ca.4-(?)] Πρόβο[υ]
τοῦ κυρίου ἡμῶν Σεβαστοῦ
5 [-ca.?-] (?) Ἁθὺρ κα

Translation

"… set this up as an expression of piety for the benefits … of Probus our lord Augustus…Hathyr 21 (*hedera*)."

Fig. 6: HTML display of header, text and translation in *Pylon*.

Discussion

Many, perhaps even most, self-declared e-journals do little more than make static PDFs available online. Genuine, born-digital journals, which make use of the possibilities inherent in structured marked-up files, are still rare, at least in the fields of papyrology and epigraphy. Open Journal Systems (OJS) software can accommodate such files and offers an excellent framework for the presentation of journal articles, which are well suited to the non-linear character of editions. Editing a text is, by nature, a referential process, as it involves continuous reference to the different components of the text-bearing object, be it a manuscript, inscription, tablet, papyrus roll, etc. Over the course of an edition, an editor frequently takes the reader outside the flow of the narrative to point to features of the object observable in reproductions, or to its text, or to its translation. The reader is thus constantly shifting attention to and from these different components. Online editions accommodate this multi-referentiality by offering greater ease of navigation across the various components of the edition. Moreover, they permit close interaction with visual media such as high-resolution images.

But online editions present advantages that go beyond just reader experience. Above all, and this is a point that has not been sufficiently reflected upon, they can be shared with and repurposed by other platforms, something that is not easily achieved with traditional print. The common view is that editions are fixed and unalterable, but, although a particular version of an edition might be fixed, editions—at least of ancient texts, are often evolving entities that reflect scholars' opinions about them at a given point in time. And these opinions are subject to change. Viewed in this light, it is easier to see why we might want to repurpose them elsewhere. How and for what purpose we produce editions that are easily shared among other platforms will be discussed in what follows, with special attention to a recent edition appearing in *Pylon*.

Experiencing Online Editions

In *Pylon* 5, which appeared in July 2024, R. Ast edited a Greek inscription preserved on a stone stele that had recently been excavated in a temple dedicated to the Roman goddess Isis at the Red Sea port of Berenike in Egypt. The inscription was deemed important because it represents a rare witness to activity at the port during the late third century CE, a period that was previously poorly represented in the documentary record (Ast 2024). The stele was found in a poor state of preservation, broken off at the top and with its surface badly damaged by flaking. This made decipherment of the letters difficult, and it was decided that the project's photographer, Kamila Braulińska, perform Reflectance Transformation Imaging (RTI), a method that simulates 3D scanning by producing a composite image of an object that can be viewed under different lighting simply by moving a computer mouse or track pad over the picture. This imaging turned out to be extremely helpful for the decipherment of the inscription, as it allowed Ast to read nearly the entire extant text. By embedding an RTI viewer in *Pylon*, the journal offered readers the possibility of viewing the inscription under the same conditions that facilitated decipherment of the text in the first place (Fig. 1). In that respect, the edition itself offers an important instrument to aid ongoing research.

In addition to offering new ways to visualize inscribed objects, *Pylon* makes it easier to navigate digital editions by means of embedded anchors that guide the reader between the body of the article, which is divided into paragraph-length sections, and the footnotes, and from the commentary to the text. For editions of short texts, such as the inscription from Berenike, this feature is less important than for long ones, where significant time can be spent scrolling between commentary and text; a good example of a longer text for which anchors in the commentary facilitate easier navigation is seen in Nowak/McGing 2024. Much use is also made of linking: bibliographic citations are linked to a central bibliography at papyri.info and each section of the article is made 'citable' by means of an embedded link that can be referenced in other publications.

Publishing Editions as Data Curation

Editions of individual historic documents naturally have intrinsic value of their own, but they are also part of a larger corpus of evidence that, taken as a whole, is central to ancient studies. The benefit of having access to this larger corpus has long been recognized by researchers. Indeed, much money and time has been spent over several decades on curating the documents so that, today, ca. 98 % of all published papyrus documents (over 61,000 individual editions) are stored as searchable and browsable TEI-XML EpiDoc files in the DDbDP at papyri.info. Yet, prior to the launch of the P3 project, curation of this data was largely divorced from publication. An edition was first published in print and then, at a separate stage, was entered into the online corpus. With *Pylon* we have developed a publication process that sees peer-reviewed articles, which are initially prepared in a word-processing format, transformed into TEI-XML and then published in HTML, with a PDF being generated automatically from the underlying XML. The XML data is encoded in such a way that relevant sections of it can easily be transferred to the DDbDP. Thus, publication and corpus building essentially become part of a single process.

The publication procedure can, again, be illustrated by the edition of the inscription discussed above. At submission stage, the article resembles, in many ways, any Word-generated edition: the introduction, general discussion, footnotes and commentary all appear as they would in a print edition. The biggest difference, aside from the section markers ('divs') that define subdivisions within the article, is observed in the sections comprising the edition itself. The table labeled #metadata (Figure 2), which does not appear in the publication, is essential for the DDbDP entry, while the table that follows gives object-specific metadata that constitutes the edition's 'header' (Figure 3); the Greek text and English translation are marked up in a way that make them easily transferred to the DDbDP (Figure 4).

The Figures illustrate how the text and translation sections of the submitted file (Figure 4) appear in both the *Pylon* edition (Figure 6) and the DDbDP edition (Figure 5). The contents of the metadata table create within the article TEI file a further TEI file that eventually becomes the corresponding EpiDoc file in papyri.info, 'HGV_meta_EpiDoc'. Similarly, the text and translation sections are isolated as separate TEI files that become the corresponding EpiDoc files, 'DDB_EpiDoc_XML' and 'HGV_trans_XML' (Figure 5). The complete article TEI-XML file is, of course, the basis for the display in HTML and PDF of the Pylon article (Figure 6).

A distinct advantage of online publication is that it permits wide-ranging use of data. From one Word-processed edition an XML file is produced in such a way as to provide fully structured data that is used to create the HTML and PDF version of the *Pylon* article through a transformation process within the OJS system. This is, however, not the only end product. The self-same XML file contains individual TEI files that can, without further processing, be transferred into the file structure of idp.data, the GitHub repository of papyri.info, and thus become the relevant

metadata, text and translation files required for editions in the DDbDP data repository at papyri.info. This post publication data transfer significantly expedites the dissemination of information across various platforms and makes it reusable and accessible to larger readerships.

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