

PERSEPOLIS FORTIFICATION ARCHIVE PROJECT

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The inscription on the tomb of Darius I near Persepolis invites readers to consider the reliefs on the tomb's façade in order to understand how far Persian conquest and control reached (fig. 1). Work published this year by Persepolis Fortification Archive (PFA) Project editors Mark B. Garrison (Trinity University, San Antonio) and Wouter F. M. Henkelman (École Pratique des Hautes Études, Paris) on sealed bullae from the reign of Darius II (fig. 2), invites readers to consider the images impressed on those bullae in order to appreciate how far the PFA's implications reach across space and time.¹

The discovery that the seal used by Aršāma, satrap of Egypt in the late 400s BCE, had already been used on Fortification tablets by another Aršāma two generations earlier (fig. 3) was described in the *OI's Annual Report 2012-13* (pp. 105ff.) and illustrated in the *Annual Report 2014-15* (p. 144, fig. 1). Now, Garrison and Henkelman unfold the implications of that discovery with a full description of the seal; a presentation of the documentary dossiers of the two Aršāmas in Aramaic, Elamite, and Babylonian; an excursus on Aramaic seal inscriptions in the PFA; an exposition of the travels of the satrap Aršāma's Egyptian minion, Nakhtḥor, in the context of the PFA's rich evidence for travels under satrapal orders; a survey of satraps in the reign of Darius I and the network of communications among them; and an appendix on the seals used by other satraps and satrap-level administrators. The seal of Aršāma opens a window to the organization, logistics, and expression of Achaemenid Persian control.

As this volume shows, the stream of PFA-related publications continues to flow, even in a year when a pandemic made research visits to Chicago impossible for some Project members, severely restricted access to the tablets for most, and slowed work from home for all, so that primary recording of Fortification tablets came to a standstill and processing of existing records advanced slowly.

Despite the limitations of home internet connections, indefatigable student worker Young Bok Kim (NELC) processed Polynomial Texture Mapping (PTM) scans of about four thousand surfaces of almost four hundred Elamite Fortification tablets and uploaded them to OCHRE. Kim's work has cut

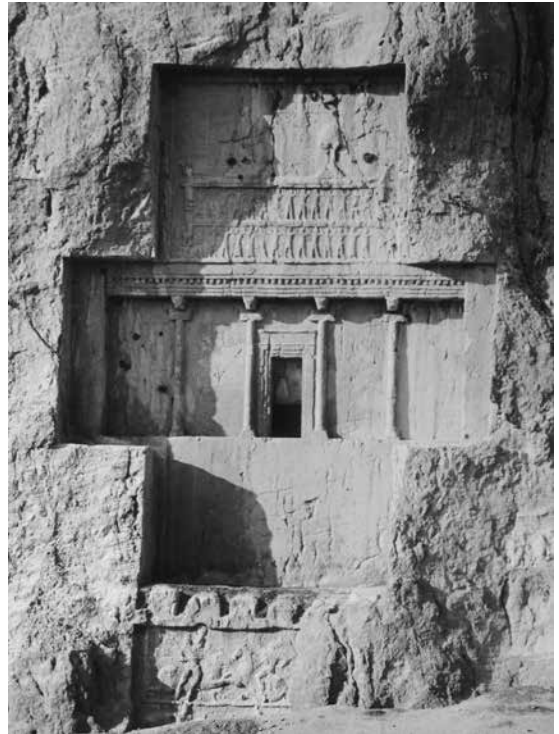


FIGURE 1. Tomb of Darius I at Naqš-e Rostām, near Persepolis. Oriental Institute Photograph.



the long-standing backlog of unprocessed PTM scans by half. Since production of new scans is suspended, he expects to clear the backlog entirely about the end of this calendar year. One of the emergency priorities of the PFA Project has been to make records of the tablets that will be useful when the tablets themselves are not accessible. Now, the importance of these high-quality images for continuing research has been dramatically affirmed.

Veteran student worker Teagan Wolter (NELC), facing not only home internet limits but also unforeseen effects of software updates, entered, glossed, and parsed about fifty new Elamite texts in OCHRE. She completed and/or corrected many others (including corrections that stem from my collations and re-collations). She added new lemmas and new forms to OCHRE's Elamite glossary.

PFA Project editors Annalisa Azzoni (Vanderbilt University), Elspeth Dusinberre (University of Colorado), and Mark B. Garrison continued to prepare a volume cataloging the 708 seals represented by impressions on the monolingual Aramaic Fortification tablets. Garrison concentrated on writing commentaries on seal usage, style, and iconography. Oriental Institute postdoctoral fellow Delphine Poinot returned to work on a subcorpus of PFA seals, the stamp seals that represent single animals, studying iconography, style, and usage and making final collated drawings. These seals form one

FIGURE 2. Letter-bulla Sigill.Aram. V, obverse, with an impression of the seal of Aršāma.

Bodleian Library Pell. Aram. V. Image: Bodleian Library, Oxford; Bodleian Libraries, University of Oxford.



FIGURE 3. Collated drawing of the inscribed seal of Aršāma, PFS 2899*, by Mark B. Garrison.

of the largest thematic groups in the PFA seal corpus, more than four hundred items—that is, about one in ten of the seals cataloged until now (fig. 4).

One of the volumes mentioned in the OI's *Annual Report 2019–20* appeared in 2021² with articles by Azzoni, Garrison, and Henkelman that include new PFA texts and seals. Since new evidence often entails a need for still more supplementary evidence and analysis, one supplementary article by Henkelman on palynological and lexical evidence bearing on fruit growing at Persepolis also appeared.³ I added another article about administrative recording of fruit production that documents a newly defined category of interim accounts (illustrated in fig. 2 of last year's annual report) and treats related formal and lexical matters, along with editions and illustrations of thirty-eight new Elamite Fortification documents.⁴

In another vein, looking at how the documents are written leads to insights about the people who produced the documents. Considering the syllabary of the Elamite Fortification texts, I concluded that at least some of the writers of the texts were conversant with a larger repertoire of the Mesopotamian syllabary than they ordinarily used to produce receipts, accounts, and tables⁵; to paraphrase Dr. Spock, they knew more than we think they did. Henkelman, considering the use of determinatives (that is, signs used as semantic classifiers rather than as representations of syllables), observed that scribes in the settlements around Persepolis tended to mark the months of the Achaemenid calendar grammatically as



FIGURE 4. Stamp seal PFUTS 0595s, impressed on uninscribed Fortification tablets, showing a crouching goat or ibex with sweeping horns and an elongated body. Drawing by Delphine Poinsot.



Figure 5. Cover of *Šāh va nokhbeḡān dar šāhanšāhī-ye Hakhāmanešī* (*King and Elite in the Achaemenid Empire*, Henkelman 2021b), with Fārsī translations of studies by PFA Project editors.

animate beings, but scribes at Persepolis itself marked them as inanimate, thus hinting at both professional and social differences.⁶

Lectures and conference papers arising from the PFA Project were mostly presented remotely. They include a lecture series by Henkelman and another by Garrison delivered to Fudan University, Shanghai, on the PFA, the seals, and the Achaemenid world; Henkelman's lectures on the PFA and Iranian religion delivered to the University of Zürich, on the PFA and palynological evidence to the German Archaeological Institute, and on the PFA and the institutional landscape to the Cambridge Ancient Near Eastern Seminar. Garrison and Christina Chandler (Bryn Mawr) presented a paper on inscribed seals in the PFA to the annual meeting of the American Schools of Oriental Research (ASOR) in November 2020.

In preparation for the next meeting of ASOR is a paper reporting early findings of the Deep Scribe Project, a collaboration between OCHRE Data Research and Computer Sciences (see OCHRE Data Service section in this report). Drawing on tagged images of Elamite Fortification tablets, the investigators find that artificial intelligence tools are not only effective at automating sign detection and classification but also learn mathematical representations of the data that seem to align with human scholars' suppositions about how signs are grouped and classified. For the time being, at least, the Robot Overlords are content with humble human wedge-watchers.

Representing the generational change in PFA work, Christina Chandler will submit and defend her PhD dissertation on the 207 inscribed PFA seals documented until now, as this report appears. In May 2021, PFA Project alumnus Rhyn King defended his dissertation simultaneously at the University of Chicago and the *École Pratique des Hautes Études*; it treats the houses of satraps in the structure and dynamics of the Achaemenid Empire and draws extensively on PFA evidence both to frame the topic and to document satrapal networks, assets, and powers.

Chief Conservator Laura D'Alessandro packed about twenty-six hundred Elamite Fortification tablets and several hundred monolingual Aramaic Fortification tablets for return to the National Museum of Iran. Student worker Grace Clements (CMES) compiled images to accompany the packing list. The balance of this second shipment, altogether about thirty-five hundred items, will be packed by the end of the summer, ready to send to Iran when export licenses are issued and public-health conditions permit. In the meantime, a large step in making the significance and richness of the PFA known to Persian-language readers is a volume edited by Henkelman with translated articles by Azzoni, Garrison, Henkelman, and me, including some articles that laid the groundwork for the PFA Project as early as 1991 (fig. 5).⁷

Endnotes

- ¹ Garrison, Henkelman, and Kaptan 2020.
- ² Agut-Labordère et al. 2021.
- ³ Henkelman 2021a.
- ⁴ Stolper forthcoming a.
- ⁵ Stolper forthcoming b.
- ⁶ Henkelman forthcoming.
- ⁷ Henkelman 2021b.

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