



Aethiopica 28 (2025)

International Journal of Ethiopian and
Eritrean Studies

DARIA ELAGINA, University of Münster and University of Hamburg

Personalia (Academic News)

Bāhira ḥassāb: Knowledge Transmission in Ethiopia and Eritrea

From Antiquity to Modern Times

Aethiopica 28 (2025), 209–211

ISSN: 1430-1938; eISSN: 2194-4024

Edited in the Asien-Afrika-Institut
Hiob-Ludolf-Zentrum für Äthiopistik
der Universität Hamburg
Abteilung für Afrikanistik und Äthiopistik

by Aaron Michael Butts

in cooperation with

Bairu Tafla, Ludwig Gerhardt, Hewan Semon Marye,
Susanne Hummel, and Alexander Meckelburg

Editorial Team

Sophia Dege-Müller, Karin Ghion-Hamadu

Personalia

Academic News

Bāhira ḥassāb: Knowledge Transmission in Ethiopia and Eritrea From Antiquity to Modern Times

DARIA ELAGINA, University of Münster and University of Hamburg

A new project ‘Bāhira ḥassāb: Knowledge Transmission in Ethiopia and Eritrea From Antiquity to Modern Times’ funded within the Emmy Noether program of the German Research Foundation (Deutsche Forschungsgemeinschaft (DFG) – Project number 536604808)¹ was launched in January 2025 at the Institut für Ägyptologie und Koptologie, at the University of Münster. The junior research group under the lead of Daria Elagina aims at a comprehensive study of the scope, origin, and transmission of the corpus of texts and graphical elements in Ethiopic manuscripts culture which conveys traditional knowledge pertaining to the calendar, chronology, astronomy, cosmology, astrology, meteorology, divination, physical and metaphysical spaces, and many more aspects. The research group conventionally refers to this corpus as *bāhira ḥassāb* (‘Sea of computus’).

Departing from the study of the relevant manuscripts and their detailed description, the research group aims to create for the first time a comprehensive repertory of the texts, tables, and diagrams belonging to this corpus, to study the range of their topics, and to document their historical development. The project team will largely build upon the seminal contributions by the outstanding mathematician and historian of science Otto Neugebauer who provided a valuable analysis of the data from the mathematical and astronomical point of view and thus solid theoretical grounds for further philological and cultural-historical analysis.² The main goal of the project is to obtain a systematic and comprehensive understanding of *bāhira ḥassāb* as a world culture phenomenon and a non-Western epistemic tradition.

¹ <https://gepris.dfg.de/gepris/projekt/536604808?language=en>.

² See, for example, O. Neugebauer, *Ethiopic Astronomy and Computus*, Österreichische Akademie der Wissenschaften, philosophisch-historische Klasse, Sitzungsberichte, 347, Veröffentlichungen der Kommission für Geschichte der Mathematik, Naturwissenschaften und Medizin, 22 (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 1979).

The project is subdivided into a reference project and two sub-projects which approach the study of the corpus from different perspectives. The reference project of Daria Elagina focuses on re-assessing *bāḥra ḥassāb* as a knowledge corpus in its entirety and on the process of its transmission and development in Christian Ethiopia and Eritrea as the local epistemic tradition. Since many elements of this corpus are of foreign (e.g. Hellenistic, Arabic, or European) origin, the reference project also has a special focus on the process of reworking and adaptation of knowledge and on the development of unique cross-cultural ideas within the Ethiopian tradition.

In the sub-project ‘Mathematical Procedures’, Augustine Dickinson studies the texts and graphical elements related to divination and calendric calculations (e.g. ‘*Awda nagašt*’).³ As the developer of a useful digital calendar tool for conversion of Ethiopian dates to the Gregorian/Julian or Islamic calendar with calculation of other calendric parameters such as lunar year, solar and lunar epacts, etc.,⁴ Dickinson in the coming years will also expand the application and usability of this tool within the frames of this sub-project.

The sub-project ‘Manuscriptological and Textual Study of ‘*Abušākər*’ will be launched in the year 2026. This sub-project will focus on the manuscriptological and textual analysis of ‘*Abušākər*,’⁵ a long chronographic and chronological treatise composed in Arabic and translated into Ethiopic in the sixteenth century. The sub-project is expected to provide a new basis for evaluating the influence of the treatise on *bāḥra ḥassāb* and its reception in general.

The project collaborates with various institutions, projects, and individual researchers at national and international level, including the Centrum für Geschichte und Kultur des östlichen Mittelmeerraums (GKM) and the Institut für Planetologie at the University of Münster, Exzellenzcluster Understanding Written Artefacts at the University of Hamburg, Max-Planck-Institut für Wissenschaftsgeschichte, and the research projects based at l’Observatoire de Paris. Digital descriptions of the relevant manuscripts, works, and graphical elements (tables and diagrams) are being gradually supplied to the TEI XML database of the long-term project *Beta maṣāḥəft*, based at the Hiob Ludolf Center for Ethiopian and Eritrean Studies at the University of Hamburg.

³ C. Conti Rossini, ‘Lo ‘awda nagast scritto divinatorio etiopico’, *Rassegna di Studi Etiopici*, 1/2 (1941), 127–145.

⁴ A. Dickinson, *Ḥassāba Zaman – An Ethiopian/Eritrean Calendar*, <https://cal.ethiopicist.com/>, accessed on 10 July 2025.

⁵ The content analysis was provided in O. Neugebauer, *Abu Shaker’s ‘Chronography’: A Treatise of the 13th Century on Chronological, Calendrical, and Astronomical Matters, Written by a Christian Arab, Preserved in Ethiopic*, Österreichische Akademie der Wissenschaften, philosophisch-historische Klasse, Sitzungsberichte, 498 (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 1988).

Personalia

The project team also strives for inclusion of the tradition of *bāhra ḥassāb* in interdisciplinary and intercultural research on Computus, divination, historical epistemology, and similar topics, from which it has been almost completely excluded so far. Already in the first months of the project, Elagina and Dickinson presented on the tradition of Christian Ethiopia and Eritrea at the workshop ‘The Visual Scribe: Tables and Diagrams in Middle Eastern Manuscripts’ organized by the project ‘Zodiac – Ancient Astral Science in Transformation’ at the Institute for the History of Knowledge in the Ancient World, Freie Universität Berlin, in cooperation with the Institute for Advanced Studies, Princeton, and at the 13th International Conference on the Inspiration of Astronomical Phenomena (INSAP 2025), at Queen’s University Belfast.

The project hopes to make significant contribution to the field of Ethiopian and Eritrean studies, and in broader perspective, to the further development of the recently established ‘History of Knowledge’ (‘Wissensgeschichte’) by offering a detailed analysis of an African epistemic tradition.

Obituaries

In memoriam Francis Anfray (1926–2022)

CHIARA ZAZZARO, Università di Napoli ‘L’Orientale’

Francis Anfray was a distinguished French archaeologist and pioneer in the study of the ancient cultures of Ethiopia and Eritrea. His long career left a lasting impact on the archaeology of the Northern Horn of Africa, particularly through his extensive excavations and numerous publications on the archaeological sites of Aksum, Yəḥa, Adulis, and Mätära.

He started his career in Paris and pursued further studies at the École biblique in Jerusalem. In 1958, he moved to Ethiopia to join the archaeological section of the Institut éthiopien d’études et de recherches. He contributed to the creation of the National Museum of Ethiopia in Addis Abäba, for which he was awarded the prestigious Prize Trust by Emperor Ḥaylä Śəllase I.

Between 1959 and 1963, Anfray directed important excavations in northern Ethiopia at sites such as Mätära, Yəḥa, and Adulis. At Mätära, he carried out four extensive campaigns, the results of which he published in the *Annales d’Éthiopie* between 1963 and 1965. In Aksum, he excavated Dungur palace (1966–1968), a