



Ministero per i beni e le attività culturali e per il turismo

BIBLIOTECA NAZIONALE MARCIANA

PRESS RELEASE

Friday 29 November 2019, 5 pm

**"Digital exploration of the Afro-Eurasia in the mappa mundi of Fra Mauro "
Venice, Sansovino Library (P.tta San Marco 13 / a)**

On Friday 29 November 2019, at 5 pm, the Marciana National Library will host the event "Digital exploration of Afro-Eurasia in the mappa mundi of Fra Mauro" as part of the Study Days "Venice and the sense of the sea. Perceptions and representations" organized in collaboration with the Veneto Institute of Sciences, Humanities and Arts.

Welcome address by Stefano Campagnolo, director of the Marciana National Library and Gherardo Ortalli, President of the Veneto Institute of Sciences, Humanities and Arts. Moderator Orsola Braides (Marciana National Library, Digital Library coordinator). Introduction by Piero Falchetta (formerly National Marciana Library). The Digital project Fra Mauro will be presented by Andrea Nanetti, Nanyang Technological University, Singapore.

Free admission subject to availability of seats from Piazzetta San Marco 13 / a.

ONLINE: <https://engineeringhistoricalmemory.com/PW/index.php> (accessible from November 29, 2019).

The "Digital Exploration of Afro-Eurasia in the mappa mundi of Fra Mauro " is one of the results achieved in the two-year period between November 2017 and November 2019 by the international collaboration of the Research Group coordinated by Dr. Andrea Nanetti at the LIBER Lab of the Nanyang Technological University of Singapore (Mr. Khoi Nguyen Vu, Prof. Cheong Siew Ann, Prof. Gao Cong, Prof. Davide Benvenuti, Mrs. Liu DanYun, Mr. Victor Ong, Mrs. Ker Min Jie, Mr. Phay Han, Mr. Gerald Wee Ren Jie) with researchers from the Marciana National Library of Venice (Dr. Orsola Braides and Dr. Pietro Falchetta), from the Ca 'Foscari University of Venice (Prof. Em. Gherardo Ortalli, Prof. Tiziana Lippiello, Prof. Eugenio Burgio) and Microsoft Research (Dr. Lin Chin-Yew, Dr. Winnie Cui, Mr. Xi Chen, Mr. Chen Hailin).

The research was funded by the Ministry of Education of the Republic of Singapore (TIER 1, M4011828) and benefited from the technological solutions previously developed in 2017 by Dr. Andrea Nanetti in collaboration and with funding from Microsoft Research and Microsoft Azure for Research.

The event of Friday, November 29 (at 5pm) presents innovative digital solutions for the study, use and in general the in situ and online enhancement of the World Map of Fra Mauro



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Camaldolese seen as an extremely sophisticated visual aggregator of the geopolitical knowledge that mid-fifteenth-century Venice had of the Afro-Eurasian continent.

CULTURAL CONTEXT. The aim is to overcome the linguistic and cultural obstacles of historical research in a transcultural (re)reading of primary sources and secondary literature for the pre-modern history of Afro-Eurasia (1205-1533). Together, the results of these research practices provide tools and solutions to facilitate, in the study of historical big data, the transition from top-down approaches (based on the application of theories) to modelling based on agents and mathematical and algorithmic simulations directly related to the data of primary sources. This approach provides scholars with visualisations of multilingual and multimodal databases of primary sources and secondary literature to more quickly and more thoroughly penetrate the fundamentals of previously accumulated knowledge of places, people, things, and events in the historical landscape. The project shows how historiographies and cartographies developed by different cultures in various languages can together shed light on the Afro-Eurasian continent, its people, their interactions along intercontinental communication networks by sea and by land, as they were first identified by the German geographer Ferdinand Freiherr von Richthofen (1833-1905) in his magnum opus *China* (1877-1912).

For more information (in English), on the research project in which this digital exploration was born, reference can be made to a recent article published online on NTU Singapore Pushing Frontiers Magazine. The general project was reviewed on the Microsoft Research Blog “because of its unique and successful interdisciplinary collaboration” (Winnie Cui), and on PLOS for open and non-commercial access.

[FIGURE 1] The completion of the *mappa mundi* is dated August 20, 1460 by an inscription carved on the back. The map was made with inks and tempera paints on parchment sheets glued to a revolving circular wooden platform (about 196 cm in diameter), which is housed on an almost square wooden support (223x233 cm) with a circular opening in the center which is slightly larger than the round. The gap between the round and the support is hidden by a golden circular frame. The round aggregates around 2,800 names of places, 200 short texts in Venetian vernacular and hundreds of iconic representations of cities, ships, animals, architectural monuments, mountains, roads, rivers, etc. The four corners of the square frame are dedicated to the skies and astronomical distances (upper left corner), tides and earth (upper right corner), earthly Paradise (lower left corner), element theory and southern regions (lower right corner). For more information, among the many publications, see Gasparrini Leporace 1956; Falchetta 2006; Cattaneo 2011; Falchetta 2011; Nanetti, Cattaneo, Cheong and Lin 2015.

[FIGURE 2] For the first time all the information elements that can be read on the globe are linked to the interpretative results of the research as consolidated by Piero Falchetta in the Marciana Library (Brepols 2006 and Marciana 2011), as well as other contemporary sources such as Marco Polo’s book (edition by Burgio 2018). The individual elements have been manually linked to the relevant Wikipedia pages to provide a unique multilingual recognition. When this is not possible, users are informed and asked if they have ideas for recognition. The research continues. The online consultation of the individual elements also provides a first real-time aggregation of the results of the academic research published in this regard. The reference algorithm is constantly updated.



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[FIGURE 3] For waterways and ships—on the occasion of the study days held by the Veneto Institute of Sciences, Humanities and Arts in collaboration with the Marciana National Library—innovative animations are presented in advance, directed by Prof. Davide Benvenuti (NTU Singapore, School of Art, Design and Media) for the study and development of the world map of Fra Mauro.

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