DIGITAL MAPPING OF THE UKRAINIAN SACRED MONODY

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Abstract. *The LU-BIRD project aims to preserve and promote Ukraine's medieval artistic heritage through the digital mapping of the Lyubachiv Irmologion of 1674, a key manuscript of liturgical monody created by Pavlo Smerechanskyi. This richly decorated collection, housed in the Lviv Historical Museum, reflects both artistic elegance and historical significance. The project will offer free public access to the Irmologion in various digital formats — images, editable texts, and machine-readable music files — supporting research, education, and cultural dissemination. By digitizing, editing, and publishing the chants and texts, LU-BIRD will remove barriers to heritage access and stimulate scholarly and creative exploration across disciplines. The outcomes will strengthen the study of Ukrainian identity, preserve rare manuscripts, and foster linguistic and musicological research, while contributing to the expansion of educational resources and the safeguarding of national cultural memory.*

Keywords: *Ukrainian identity, Lyubachiv Irmologion, digital heritage, medieval music, facsimile edition, musicology, manuscript preservation, chant digitization, cultural memory, digital humanities*

Ukrainian art is vividly represented in the liturgical plane, in particular in the medieval monody – unison liturgical singing. This is an iconic singing repertoire, preserved in handwritten notated collections of the 16th-18th centuries – irmologions, which, in addition to being purely liturgical, also served as a singing textbook for all Ukrainian children. Therefore, the number of irmologions grew rapidly, and the musical motifs and poetic vocabulary of the repertoire were quickly mastered. In the future, this significantly influenced the content and form of numerous literary, artistic and musical genres of Ukrainian culture.

For research, we chose the Lyubachiv irmologion of 1674, created by Pavlo Smerechanskyi. It is kept in Lviv in the Historical Museum (RUK 103), its repertoire is one of the most complete, and the text is written in a small semi-script with elements of cursive, very clear and easy to read (Fig. 1). The collection is decorated with skillful ornamental screens, initials and decorations on the margins. All this,

along with calligraphic writing, distinguishes the Lyubachiv irmologion of 1674 as a particularly elegant and, at the same time, capacious collection.

The goal of LU-BIRD is to preserve and disseminate the Ukrainian medieval artistic heritage by mapping the part of Lyubachiv Irmologion of 1674 with the help of digital tools. The Lyubachiv Irmologion will be accessed freely, in various digital formats:

- Book`s pages as the pictures, in image file format.
- Chants as a sequence of pictures, as an image archive.
- Chants in score-edited format.
- Chants in interchangeable, machine readable format (MIDI, MusicXML).
- Chant's texts in text editable format.

Figure - 1. A page of Lyubachiv irmologion

To reach the goal, the key tasks are:

- To take high resolution photos of the pages of Lyubachiv Irmologion, which is now preserved in Lviv Historical Museum (RUK.103).
- Combine pictures into sets to map a single chant.
- Create editable version of each chant, and also in other popular file formats, such as PDF, MIDI, MusicXML.
- Create editable version of each chant.
- Develop a LU-BIRD project website with digital mapping of Lyubachiv Irmologion with chants of different formats.
- Disseminate the results of the project via preparing and submitting a research papers to the scientific Journal and present the results at the scientific conference.

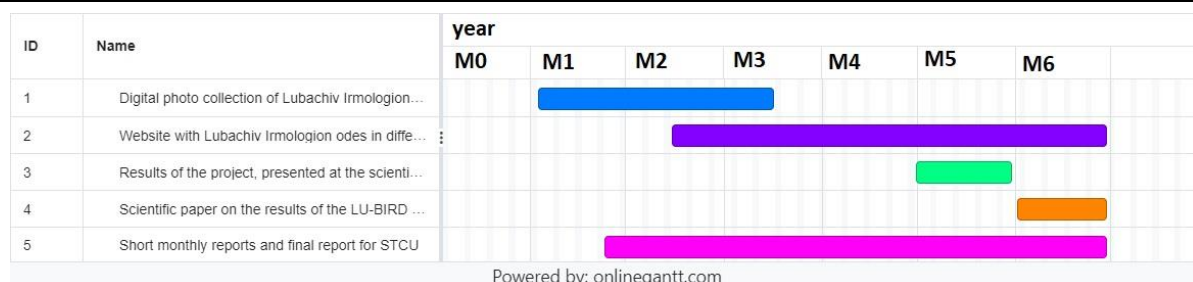To present the **schedule** of the LU-BIRD we used the Gantt chart at Figure 2.

Figure 2 - The Gantt chart of the LU-BIRD project

The project will begin with a kick-off meeting, where the team will review the overall scope, discuss the timeline, and align on key objectives and expectations. Following this, the design phase of the LU-BIRD website will be completed, establishing a strong digital platform for the project's future developments.

Once the website is in place, a digital version of the Lyubachiv Irmologion in pictures will be carefully prepared and uploaded, ensuring easy access through the site. In addition, the chants from the Lyubachiv Irmologion will be digitized in picture form and made available online for a wide audience.

The project will also create a digital, interchangeable version of each chant from the Lyubachiv Irmologion, which will be uploaded to the website to allow for flexible and user-friendly interaction. Alongside this, an editable text version of every chant will be prepared and published on the platform to support deeper research and creative use. The project's progress and outcomes will be presented to the academic community during a scientific conference, and the final results will be submitted in the form of a research paper to a scientific journal for publication. The preservation of Ukraine's medieval national artistic heritage will be another key achievement, ensuring that these unique cultural artifacts will endure. By digitizing manuscript materials and making them accessible online, the project will remove traditional barriers and offer scholars, students, and interested individuals convenient, unrestricted access to these valuable sources. This will encourage their integration into academic research across a wide range of humanities disciplines.

Educational programs across various fields — including practical and performing arts — will be enriched through the expansion of available resources. The physical preservation of the Lyubachiv Irmologion of 1674 will be secured through its facsimile publication, allowing safe study while protecting the original

manuscript. Additionally, the project will result in the creation of a lexical dictionary based on 17th-century language, paving the way for future linguistic research. It will also lead to the compilation of a musical and intonational dictionary of the 17th century, which will stimulate new musicological research and deepen understanding of national musical thought.

Conclusions. The LU-BIRD project aims to preserve and disseminate this cultural heritage through the digital processing of the Lyubachiv Irmoloi. The result of the project will be free online access to the Irmoloi in various digital formats (page images, collections of chants in the form of images, sheet music, MIDI, MusicXML, text format).

It is expected that the LU-BIRD project will contribute to a deeper understanding of Ukrainian identity, the preservation of cultural heritage, ensuring wide access to valuable sources, enriching educational programs, the physical preservation of the original through a facsimile edition, as well as the creation of a lexical and musical-intonational dictionary of the 17th century.

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ЦИФРОВЕ ВІДОБРАЖЕННЯ УКРАЇНСЬКОЇ САКРАЛЬНОЇ МОНОДІЇ

Рябінець Х.Я, Шестакевчи Т., Сиротинська Н

Анотація. *Проєкт LU-BIRD має на меті збереження та популяризацію середньовічної мистецької спадщини України шляхом цифрового картографування Любачівського ірмологіона 1674 року, знакового рукопису літургійної монодії, створеного Павлом Смеречанським. Ця вишукано оздоблена збірка, що зберігається у Львівському історичному музеї, поєднує художню довершеність із історичною цінністю. Проєкт забезпечить вільний доступ до ірмологіона в різних цифрових форматах — зображеннях, редагованих текстах і машинозчитуваних музичних файлах, — підтримуючи наукові дослідження, освіту й культурне*

поширення. Оцифровуючи, редагуючи й публікуючи наспіви та тексти, LU-BIRD усуватиме бар'єри до спадщини й активізує міждисциплінарні наукові та творчі пошуки. Результати проєкту поглиблять розуміння української ідентичності, збережуть рідкісні рукописи й сприятимуть розвитку лінгвістичних та музикознавчих досліджень, розширюючи освітні ресурси й укріплюючи національну культурну пам'ять.

Ключові слова: *українська ідентичність, Любачівський ірмологіон, цифрова спадщина, середньовічна музика, факсимільне видання, музикознавство, збереження рукописів, оцифрування наспівів, культурна пам'ять, цифрові гуманітарні науки.*

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