



“Молитва” and “інвокація”: Two terms, two classificatory logics in Ukrainian medieval epigraphy

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Abstract. The classification of medieval inscriptions in digital epigraphic systems requires the alignment of local scholarly traditions with international standards. This issue becomes particularly acute when terminology is transferred between different classificatory frameworks. The aim of this article was to clarify the relationship between the terms “prayer” and “invocation” in the classification of graffiti from St. Sophia of Kyiv. The study was based on a comparative analysis of Korniyenko’s printed corpus and the digital portal “Inscriptions of St. Sophia”, which enabled the identification of differences in classification principles and the reconstruction of their conceptual foundations. It has been established that the terms “prayer” and “invocation” are not synonymous and reflect different classificatory logics. It has been shown that “prayer” is defined by a communicative criterion – the act of addressing God – and encompasses requests, confession, curses, and questions. In contrast, “invocation” is defined by a formal criterion – the presence of an address formula at the beginning of the text – and represents a subset of only one communicative type. The case of graffiti No. 5459 (“Lord, I am drunk”) has been analysed: in Korniyenko’s corpus, it is classified as a confessional inscription, whereas in the digital portal, it is categorised as an invocation. It has been demonstrated that both classifications are internally consistent but respond to different analytical questions, indicating that the discrepancy is epistemological rather than terminological. It has been substantiated that within Simple Knowledge Organisation System vocabularies, these

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concepts cannot be linked as `skos:exactMatch` or `skos:closeMatch`, but require a `skos:relatedMatch` relation with explicitly documented asymmetry. The practical significance of the results lies in their application to the development of controlled vocabularies and ontologies for digital epigraphy, particularly for aligning culturally grounded classification systems with international standards

Keywords: epigraphy; epistemological bases for classification; digital epigraphy; controlled vocabulary; simple knowledge organisation system

Introduction

The classification of medieval inscriptions is not merely a technical task but an epistemological problem: a category label does not simply name a type of object, but reflects the principle according to which that object is interpreted and organised. This issue becomes particularly significant in digital epigraphy, where classificatory decisions must be formalised within structured vocabularies and metadata systems. When terminology developed within one scholarly tradition is transferred into another – especially into digital infrastructures designed for interoperability – there is a risk that categories that appear equivalent at the lexical level may, in fact, encode different conceptual assumptions. In such cases, classification may become internally inconsistent, not because of error, but because different systems operate according to different classificatory logics.

The development of controlled vocabularies and ontologies for epigraphy has become a central topic in digital humanities research. According to H. Tamrazyan & E. Boros (2025), the creation of standardised vocabularies for Ukrainian epigraphy requires careful alignment between local scholarly traditions and international frameworks, as direct transfer of terminology may lead to conceptual distortion. Authors further argued that corpus-based approaches allow for the reconstruction of culturally grounded classification systems, emphasising that terminological equivalence cannot be assumed without analysis of usage and context. Similarly, H. Tamrazyan & G. Hovhannissyan (2025) demonstrate that

cultural categorisation in epigraphic digitisation must account for differences in semantic scope and classificatory principles, particularly when integrating non-Western traditions into global infrastructures.

M. Trentin & A. Felicetti (2023) examined how the CIDOC CRM ontology could be adapted to document medieval and early modern European graffiti, a form of heritage evidence that combines textual and pictorial elements and has traditionally lacked standardised recording methods. Drawing on case studies such as the monastery of Ayia Napa in Cyprus and the Saint Helena chapel within the Holy Sepulchre in Jerusalem, the authors proposed a dedicated extension, termed CRMgr, intended to capture the dual communicative nature of graffiti within a coherent semantic framework. They concluded that conventional epigraphic standards inadequately represent pictorial graffiti, often omitting around half of the medieval and early modern material from systematic documentation, and argued that their ontology offers a more integrated means of linking form, content, and spatial context, while also strengthening the sociocultural visibility of graffiti as heritage. A. Câmara *et al.* (2024) investigated the practical transformation of CIDOC CRM-based data, originating from the EU “COURAGE” project, into a property graph format suited to representing megalithic monuments. Their work focused on validating semantic consistency through SPARQL and SHACL, demonstrating how heterogeneous archaeological datasets could be unified under a shared ontological

structure. They concluded that this transformation approach enables practical, verifiable integration and sharing of disparate heritage data sources, positioning CIDOC CRM as an effective mediating layer for cross-institutional archaeological documentation, even when the underlying records originate from very different recording traditions. Y. Wang & M. Zhang (2025) explored the combination of CIDOC CRM (version 7.2) with large language models to automatically construct a knowledge graph for the immovable cultural heritage of the Liao dynasty in Chifeng, China, integrating 106 records drawn from archaeological surveys, local chronicles, and historical literature. Using GPT-based extraction together with Neo4j for storage and visualisation, they achieved a precision of approximately 0.81 and a recall of approximately 0.76 in triple extraction, and applied K-means clustering and geospatial mapping to reveal five cultural value themes and a “dual-core and ring-belt” spatial distribution pattern. The authors concluded that combining CIDOC CRM with large language models offers a feasible, if still partly manual, pathway towards scalable heritage knowledge graph construction, while noting persistent challenges around extraction reliability, entity disambiguation, and the limited generalisability of region-specific models.

Recent studies in digital epigraphy have also addressed the problem of interoperability between heterogeneous corpora. P. Liuzzo & S. Evangelisti (2021) noted that projects such as EAGLE (Europeana Network for Ancient Greek and Latin Epigraphy) have successfully harmonised epigraphic metadata across multiple datasets, but their classificatory models are largely derived from Greco-Roman material, where functional categories play a dominant role. In the Findability, Accessibility, Interoperability, and Reuse of digital assets (FAIR) Epigraphy framework (Heřmánková *et al.*, 2025), inscription types are similarly organised according to communicative function, enabling cross-cultural comparison but potentially obscuring

alternative classificatory dimensions. At the same time, research in computational semantics (Binding & Tudhope, 2022) has shown that lexical similarity does not necessarily imply conceptual equivalence, particularly in domain-specific corpora where terms may carry distinct contextual meanings.

Despite these advances, insufficient attention has been paid to how individual category labels function across different classificatory systems when applied to the same corpus. In particular, the relationship between terms derived from local scholarly traditions and those introduced from international ontologies remains underexplored. Existing studies tend to focus either on vocabulary development or on interoperability, without systematically analysing cases in which apparently equivalent terms encode different classificatory principles. The goal of this article was to analyse the semantic scope and classificatory logic of two terms – “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) – as used in Ukrainian medieval epigraphic scholarship and in the digital infrastructure of the Inscriptions of St. Sophia of Kyiv (n.d.), and to determine whether these terms can be treated as synonymous. The tasks of the research were: to establish the definition and semantic boundaries of “молитв” (molytv; prayers) and “інвокацій” (invokatsiy; invocations) in Ukrainian print scholarship and digital domain; to identify the practical divergence of the two classificatory systems and the underlying epistemological difference; and to draw consequences for digital epigraphic vocabulary design.

Materials and Methods

The object of the research was the medieval graffiti corpus of St. Sophia of Kyiv, as documented in Korniyenko’s printed publications (Korniyenko, 2010) and in the digital portal Inscriptions of St. Sophia of Kyiv (n.d.). The subject of the research was the terminological and classificatory relationship between the terms

"молитва" (molytva; prayer) and "інвокація" (invokatsiya; invocation) as applied to the classification of divine-address inscriptions in this corpus. The study was based on a comparative analysis of two corpora representing different classificatory frameworks applied to the medieval graffiti of St. Sophia of Kyiv. The first corpus consists of the seven volumes of the printed publication by V. Korniyenko (2010), comprising approximately 7,000 inscriptions with full epigraphic editions, facsimile plates, and analytical commentary. This corpus represents the established Ukrainian scholarly tradition of classifying the material according to a functional typology developed over the preceding century, from the earliest systematic framework of S. Vysotsky (1966; 1976) to V. Korniyenko (2010) seven-volume work. The category system is explicitly defined in the prefaces to Volumes II and III and remains stable across all seven volumes, comprising fifteen categories for textual inscriptions and fourteen for pictorial inscriptions.

The second corpus is the digital portal Inscriptions of St. Sophia of Kyiv (n.d.), launched in 2023 under a collaboration between the University of Gothenburg and the National Reserve "Sophia of Kyiv". At the time of analysis, the portal contained 3,702 inscriptions encoded in EpiDoc XML with structured metadata, genre labels drawn from the EAGLE Network vocabulary (Liuzzo & Evangelisti, 2021) and the FAIR Epigraphy Ontology (Heřmáňková *et al.*, 2025), and full epigraphic editions with Ukrainian and English translations. In this corpus, classification is implemented through controlled metadata fields, providing a formalised, interoperable framework for categorisation. Both corpora document the same material, the graffiti of St. Sophia of Kyiv, but classify it using different terminological frameworks. These two corpora were deliberately selected: the existence of parallel classifications of the same inscriptions allows for the isolation of terminological and epistemological variables

without the confounding factors that arise when comparing different source collections. This design reflects the broader aim of the research program of which the present article forms a part: the construction of a Simple Knowledge Organisation System (SKOS) controlled vocabulary for Ukrainian epigraphy that is interoperable with international digital epigraphic standards (Tamrazyan & Boros, 2025; Tamrazyan & Hovhannisyan, 2025).

Though the two corpora are based on the same epigraphic material, they represent different epistemic levels of classification. The printed corpus reflects a scholarly interpretative system, while the digital corpus embodies its transformation within a structured metadata environment influenced by international standards. The analysis focuses on two terms used to classify divine-address inscriptions: "молитва" (molytva; prayer) and "інвокація" (invokatsiya; invocation). The research proceeded in three stages. First, the semantic scope of "молитва" (molytva; prayer) was established through analysis of its definition, usage, and classificatory role in V. Korniyenko's corpus. Second, the term "інвокація" (invokatsiya; invocation), which is not used as a classificatory label in the printed corpus, was examined through systematic analysis of V. Korniyenko (2010) seven-volume corpus, which allowed for the establishment of the presence, absence, and contextual usage of the term across the entirety of the printed epigraphic tradition.

Third, the application of both terms in the digital corpus was analysed through a case study approach, focusing on instances in which the two classificatory systems yield divergent results. The analysis is primarily qualitative and comparative, grounded in the examination of category definitions, their scope, and their application to specific inscriptions. Where relevant, quantitative indicators – including frequency counts and percentage ratios of genre labels within the digital corpus – are employed to characterise distributional patterns.

Particular attention is paid to the classificatory principles underlying each term, distinguishing between communicative criteria (function of the inscription) and formal criteria (textual structure). The interpretive discussion draws on three interrelated theoretical frameworks. First, the framework of knowledge organisation, specifically the SKOS, is used to assess the appropriate mapping relation between the two terms: SKOS properties – including *skos:exactMatch*, *skos:closeMatch*, and *skos:relatedMatch* – provide the formal means for expressing degrees of conceptual equivalence between terms drawn from different controlled vocabularies, and their selection is determined by analysis of the terms' respective scope and definitional criteria. Second, research in computational semantics, in particular work on semantic interoperability and lexical mapping in cultural heritage vocabularies (Binding & Tudhope, 2022), informs the distinction between lexical similarity and conceptual equivalence: terms that are related at the lexical level may encode different classificatory dimensions, and this framework provides the analytical basis for identifying such divergences. Third, terminology studies – specifically accounts of domain-specific meaning construction (L'Homme, 2020) and terminological system formation (Kageura, 2022) – provide the basis for understanding how a term derives its meaning from its role within a particular disciplinary framework, and why equivalence across systems cannot be assumed without systematic analysis of usage and definition. In this study, a distinction is made between terms and concepts. A term refers to the lexical label used in the corpus, while a concept refers to the classificatory unit defined by its underlying principle. The comparison is therefore carried out at the level of conceptual definitions and classificatory application rather than lexical equivalence. This methodological design enables identification of differences in classification principles and determination of whether the

two terms can be treated as equivalent within a shared classificatory framework.

Results and Discussion

“Молитва” (molytva; prayer) in Ukrainian epigraphic scholarship: semantic scope and classificatory logic

The classification of St. Sophia graffiti has a special value for the Ukrainian epigraphic traditions. From the earliest systematic framework Ukrainian scholars have consistently treated divine-address inscriptions as a unified category, defined by the communicative act of addressing the divine, not by the formal structure of the opening. V. Korniyenko's printed corpus defines “Молитовні (Molytovni) написи (napysy), які (yakі) мають (mayut) у своєму (svoeyemu) тексті (teksti) звернення (zvernennia) до (do) Господа (Hospoda) або (abo) святих (sviatykh) та (ta) прохання (prokhannia) автора (avtora)” (Prayer inscriptions, which contain in their text an address to God or saints and the author's request). The formulation of divine-address inscriptions as a “мовний (movnyi) акт (akt), звернений (zvernenuyi) до (do) Господа (Hospoda) та (ta) святих (sviatykh)” (speech act directed toward God and saints) appears in V. Korniyenko (2010). The definition foregrounds two criteria jointly: the addressee (God or saints) and the speech act (address with a request). Crucially, the same principle of divine address governs the definition of several further categories. Curse inscriptions (написи-прокляття (napysy-prokliattia) were defined as “написи-прокляття (napysy-prokliattia), що (shcho) виявляють (vyavliayut) прагнення (prahnen-nia) їх (yikh) авторів (avtoriv) вилаяти (vylayaty) або (abo) висловити (vyslovyty) різкий (rizkyi) осуд (osud) чи (chy) обурення (oburen-nia) щодо (shchodo) вчинків (vchynkiv), здійснених (zdiisnenukh) певною (pevnoyu) особою (osoboyu), проклясти (prokliasty) винуватців (vynuvattsiv)” (curse inscriptions that reveal their authors' desire to curse or to express sharp condemnation or indignation

regarding actions committed by a certain individual, and to curse the perpetrators.). They express condemnation or cursing directed against persons, but structurally they are addressed to God, invoking divine justice against a wrongdoer, and thus share the communicative substrate of divine address (Korniyenko, 2010). Confessional inscriptions (написи-покаяння) (napysy-pokayannia) were defined as “написи-покаяння (napysy-pokayannia), в яких (yakyk) автор (avtor) зізнається (ziznayetsia) у власних (vlasnykh) гріхах (hrikhakh), констатуючи (konstatuyuchy) цей (tsei) факт (fakt) поза (poza) межами (mezhamy) молитовної (molytovnoi) формули (formuly)” (confessional inscriptions, in which the author confesses his own sins, noting this fact outside the prayer formula) (Korniyenko, 2010). Even here, the act of confession is directed at the divine presence – the inscriber is addressing God or the sacred space – and the category exists precisely because author recognises that confession and petition, though different speech acts, share the same communicative orientation.

V. Korniyenko (2010) in an analytical commentary across successive volumes, consistently describes divine-address inscriptions as a “мовний акт, звернений до Господа та святих” (movnyi akt, zvernnyi do Hospoda ta sviatykh) – a speech act directed toward God and saints. This formulation foregrounds the communicative orientation of the inscription: what matters is not the specific speech act (petition, confession, cursing) but the fact that the act is directed at a divine addressee. The well-wishing formula “Г(оспод)и помози рабу своєму” (H(ospod)y pomozu rabu svoeyemu) (Lord, help your servant), the penitential formula confessing sin – all instantiate the same fundamental communicative act of directing speech at the divine. Thus the semantic scope of “молитва” (molytva; prayer) in Ukrainian epigraphic scholarship can be characterised as follows: the term designates any inscription whose primary communicative purpose is the act of directing

speech at a divine addressee (God, saints, the Mother of God). This scope is wider than petition: it encompasses petition (помози (pomozy), help me), well-wishing (спаси і помилуй (spasy i pomylui), save and have mercy), confession (згрішихъ (zhrishykh), I have sinned), cursing, invoking divine justice, and rhetorical questions addressed to God. If one looks at the digital portal data, it can be noticed that молитва (molytva; prayer) as a genre label is assigned to 819 inscriptions – 22.1% of the entire corpus. This is by far the largest single genre category in the portal. A sample of these inscriptions confirms the range: they include petitionary prayers in Greek (Κύριε βοήθει τον σον δοῦλον, Lord, help your servant), Slavonic petitions (Г(оспод)и (H(ospod)y) помози (pomozy) рабу (rabu) своему (svoeyemu)), and inscriptions of various communicative subtypes – all classified together under the unifying criterion of divine address.

“Інвокація” (invokatsiya; invocation): Presence and absence in Ukrainian Epigraphic discourse

The term “інвокація” (invokatsiya; invocation) is not absent from V. Korniyenko (2010) publication; however, its presence there is fundamentally different from its function in the digital portal. In the seven volumes of the printed corpus, the word “інвокація” (invokatsiya; invocation) appears six times in total. All six occurrences are in a single recurring context (Vols II, III, V): the symbolic interpretation of cross drawings, following Ephrem the Syrian. V. Korniyenko (2010) writes that a cross drawing “symbolises the invocation “в ім’я Отця, і Сина, і Святого Духа” (v im’ya Ottsia, i Syna, i Sviatoho Dukha) (in the name of the Father, and the Son, and the Holy Spirit), and placed at the beginning of a line, it symbolises a speech act directed toward God and saints’ (Korniyenko, 2010). In other words, “інвокація” (invokatsiya; invocation) is the liturgical name for the symbolic act that a cross

represents – the trinitological formula that the cross drawing stands for. It is not a genre label, not a category name, and not a term applied to classify any inscription.

This is not a minor or incidental distinction. The six occurrences represent V. Korniyenko (2010) entire use of the term across seven volumes covering thousands of inscriptions. In none of these occurrences does “інвокація” (invokatsiya; invocation) appears as the name of a classificatory category, as the label for an inscription type, or as a term applied to describe a specific inscription’s communicative character. The category system the author develops – explicitly described in the prefaces to Volumes II and III, and stable across all seven volumes – contains fifteen categories for textual inscriptions and fourteen for pictorial inscriptions. Invocation is not among them, and No category corresponds to it. In the digital portal *Inscriptions of St. Sophia of Kyiv* (n.d.), by contrast, “інвокація” (invokatsiya; invocation) appears as a genre label in the controlled vocabulary. The portal assigns it to exactly two inscriptions: No. 5459 and 5666. The very small number – two inscriptions out of 3,702 – already suggests that the category’s boundaries are not yet stable in the portal, and that its application is selective and possibly inconsistent. But the more significant observation is not the count: it is that neither of these two inscriptions would receive this classification under Korniyenko’s system. Both are addressed to the divine. Both contain a confessional or penitential element. And neither is defined in Ukrainian print scholarship by the formal property of opening with an invocatory address. The introduction of “інвокація” (invokatsiya; invocation) into the portal vocabulary appears to reflect the influence of the EAGLE Network and FAIR Epigraphy Ontology (Heřmáňková *et al.*, 2025), both developed primarily for Greek and Latin epigraphic material. In classical epigraphic typology, *invocatio* designates inscriptions formally addressed to

a deity – a category defined by the structural property of the opening formula, not by the overall communicative act.

The central case: Graphiti No. 5459

Graphiti No. 5459 reads, in its interpretative edition: “Г(оспод)и пАН(ъ)” (H(ospod) y pian()). The portal translates this as “Lord, I am drunk” (Inscriptions of St. Sophia of Kyiv, n.d.). The inscription consists of two elements: the address “Господи” (Hospody) (Lord, vocative case) and the confessional statement “паний” (pianyi) (I am drunk). It is one of the most remarkable inscriptions in the corpus – a scratching on the wall of a cathedral that has the character of an involuntary confession, the inscriber addressing God while in a state of intoxication. The digital portal classifies this inscription as Invocation. The classification is internally consistent: the inscription opens with a vocative address to the divine (Г(оспод)и (H(ospod)y)), which is the formal criterion that triggers the Invocation label. From the perspective of classical epigraphic typology, an inscription that formally addresses a divine being is an invocation. The formal property is present; the classification follows. Korniyenko classifies inscriptions of this type – confessional statements made in the presence of God – as “Написи-покаяння” (Napysy-pokayannia) (confessional inscriptions) (Korniyenko, 2010). The classification is also internally consistent, but from a different starting point: the defining criterion is the communicative act – what the inscriber is doing. The inscriber is confessing- acknowledging a sin or transgression in the presence of God. The opening address “Г(оспод)и” (H(ospod)y) is not the definitional criterion; it is the addressee who makes the confession meaningful, not the formal label of the act. A confession is classified as a confession regardless of whether it opens with an explicit vocative. The communicative act – acknowledgment of sin before God – determines the category.



Figure 1. Graffiti No. 5459.

Source: V. Korniyenko (2010)

Both classifications are, within their own systems, correct. The disagreement is not between two different assessments of the same evidence but between two different questions being asked of the inscription: What formal type of text is this? – to which the answer is: an invocation (text formally addressed to God); What communicative act does this inscription perform? – to which the answer is: a confession (the inscriber acknowledges sin before God). These are not the same question, and there is no reason to expect them to produce the same answer. The formal type of the text and the communicative act it performs are different dimensions of the inscription. A confession may or may not open with an explicit vocative; an explicit vocative may or may not introduce a confession. Graffiti No. 5666 provides a further illustration: “СВАТЫИ НИКОЛА СВАТАА Б(городи)ца сьгрѣшихъ предъ вами” (Sviatyy Nykola sviataia B(horody)tsa shrieshykh pred vamy) – Saint Nicholas, Holy Mother of God, I have sinned before you. Here, the inscriber addresses a saint (Nicholas) and Holy Mother, and explicitly confesses sin. Under the formal criterion, this is an invocation: it opens with an address to holy figures. Under the communicative criterion, this is a confessional inscription: “сьгрѣшихъ (shrieshykh) предъ (pred) вами (vamy)” (I have sinned before you) is an act of confession, not petition. The portal classifies it as Invocation. V. Korniyenko’s system would classify it as “Написи-покаяння” (Napisy-pokayannia). Again, both are correct within their own systems. The divergence is systematic.

Two epistemologies of classification. The results of current analysis allow us to believe that the divergence between “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) in the classification of St. Sophia graffiti is not a terminological disagreement. It is a disagreement between two different epistemologies of classification – two different answers to the question of what a category label should encode. The Ukrainian print tradition consistently classifies inscriptions by communicative act and function: by what the inscription does in the context of sacred space. This is a functional epistemology of classification. It produces categories whose names – “молитовні” (molytovni; prayer inscriptions), “пам’ятні” (pam’yatni; commemorative), “покаяння” (pokayannia; penitential), “прокляття” (prokliattia; curses) – designate types of communicative acts. The boundary between categories is determined by what the inscriber is doing, not by how the text is formally structured. The international epigraphic vocabularies – EAGLE (Luzzo & Evangelisti, 2021) and FAIR (Heřmánková *et al.*, 2022) – were developed from Greek and Latin material and reflect a functional/formal epistemology of classification: categories are defined by structural properties of the text. *Invocatio*, *dedicatio*, *titulus*, *defixio* – these are categories whose names designate formal text types. The boundary between categories is determined by structural properties, not by the communicative act performed.

As a result of this epistemological difference, “інвокація” (invokatsiya; invocation) is not a translation of “молитва” (molytva; prayer) into the EAGLE/FAIR vocabulary – it is a partial overlap at best. “Молитва” (molytva; prayer) covers all divine-address inscriptions regardless of communicative subtype: petition, confession, cursing, well-wishing, questioning. “Інвокація” (invokatsiya; prayer) covers a formal opening type that may appear in petitionary inscriptions, confessional inscriptions, and others alike. The two terms cross-classify the material:

every Invocation is formally an instance of “молитва” (molytva; prayer) (since both involve divine address), but not every “молитва” (molytva; prayer) is an invocation (since “молитва” (molytva; prayer) includes inscriptions that do not formally invoke a divine being in the opening formula). It is also worth noting the direction of the asymmetry. “Молитва” (molytva; prayer) is the broader category: it encompasses everything that “інвокація” (invokatsiya; invocation) designates and more. “Інвокація” (invokatsiya; invocation) is not a synonym for “молитва” (molytva; prayer) in Ukrainian epigraphic scholarship – it is a subset concept that V. Korniyenko (2010) system does not need to name separately, because the defining criterion of the broader category (divine address) already captures it. The introduction of “інвокація” (invokatsiya) as a category label in the digital portal does not formalise an existing Ukrainian scholarly category. It introduces a new classificatory dimension – formal text type – that the Ukrainian tradition does not apply at the top level of inscription classification.

Implications for digital epigraphic practice and vocabulary design

The findings described above have direct consequences for anyone working with the digital portal data, and for anyone seeking to develop a controlled vocabulary for Ukrainian medieval epigraphy that is both faithful to the tradition and interoperable with international standards. The first consequence is practical. The digital portal classifies 819 inscriptions as Prayer / “Молитва” (molytva) and 2 inscriptions as invocation / “інвокація” (invokatsiya). A researcher who treats these as mutually exclusive categories will form a misleading picture of the corpus. In Ukrainian scholarly terms, the 819 Prayer inscriptions and the 2 Invocation inscriptions are all instances of the same broader category: divine-address inscriptions. The formal distinction that separates Invocation from Prayer in the portal corresponds to No distinction in V. Korniyenko (2010) analytical framework. Table 1 presents the frequency counts and percentage ratios for both genre labels within the digital corpus.

Table 1. Distribution of genre labels for divine-address inscriptions (N=3,702)

Ukrainian Term	English Equivalent	n	% of Corpus	Classification Criterion
Молитва	Prayer	819	22.1	Communicative: act of divine address (addressee = God or saints); encompasses petition, confession, cursing, well-wishing, and questioning
Інвокація	Invocation	2	0.05	Formal: presence of an opening address formula directed at a divine being; represents a subset of one communicative type only
-	Total corpus	3,702	100	-

Notes: X – at the time of analysis (N = 3,702 encoded inscriptions). Under V. Korniyenko (2010) functional classification system, both “молитва” (molytva) and “інвокація” (invokatsiya) inscriptions would be subsumed within the single category of divine-address inscriptions; the distinction between them exists only within the formal classificatory logic of the digital portal

Source: Inscriptions of St. Sophia of Kyiv (n.d.)

The second consequence concerns the design of controlled vocabularies. If one were to develop a SKOS vocabulary for Ukrainian medieval epigraphy that is both accurate to the tradition and interoperable with EAGLE and FAIR, the relationship between “молитва”

(molytva; prayer) and “інвокація” (invokatsiya; invocation) cannot be encoded as ; Baker, Bechhofer, Isaac, Miles, Schreiber and Summers 2013 :exactMatch or skos:closeMatch. The concepts are related but structurally asymmetric: “молитва” (molytva; prayer) is

broadier in scope; “інвокація” (invokatsiya; invocation) is a subset defined by a different criterion. The appropriate mapping is skos:relatedMatch, with a scope note documenting the epistemological difference (Tamrazyan & Hovhannisyan, 2025; Tamrazyan & Boros, 2025). Furthermore, FAIR defines “invocation” as “inscriptions invoking divine or supernatural powers for assistance or protection, petitions or requests addressed to a deity or divine entity” (Heřmánková *et al.*, 2022). This definition specifies petitionary or protective speech acts, not simply formal divine address. Under this definition, inscription No 5459 (“Lord, I am drunk”) would not qualify as an invocation – it is a confession, not a petition. The portal’s application of “інвокація” (invokatsiya; invocation) to both inscriptions is thus inconsistent not only with V. Korniyenko (2010) system but also with the FAIR Epigraphy definition of the term it is supposed to instantiate. This suggests that the category boundaries in the portal are not yet stabilised, and that the importation of international vocabulary has proceeded without a systematic check against either the source definitions or the target tradition.

More broadly, the case of “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) illustrates a general problem in the digitisation of epigraphic traditions whose material was classified under a functional logic: the importation of formally defined categories from classical epigraphic typology does not simply add new labels to an existing system. It introduces a different classificatory dimension – formal text type – that cuts across the existing categories in ways that are not transparent to the researcher. A corpus that was classified by communicative act becomes, in its digital form, partially classified by communicative act and partially by formal text type, with no indication of where the shift occurs or why. The results of this study demonstrate that the apparent equivalence between the terms no “молитва” (molytva; prayer) and “інвокація” (invokatsiya;

invocation) reflects not a simple terminological variation but a deeper misalignment between classificatory principles. This finding contributes to current discussions in digital epigraphy and knowledge organisation concerning the relationship between domain-specific classification systems and their implementation within interoperable digital infrastructures.

Recent research in digital epigraphy has emphasised the importance of standardisation and interoperability through controlled vocabularies. The FAIR Epigraphy framework (Heřmánková *et al.*, 2025), building on the EAGLE project, defines inscription types according to their primary societal function and content (Orlandi *et al.*, 2017). This approach corresponds closely to the functional classification observed in Ukrainian epigraphic scholarship, where categories such as “молитва” (molytva) are defined by communicative intent rather than formal structure. Similarly, P. Liuzzo & S. Evangelisti (2021) highlight that epigraphic vocabularies are designed to capture meaningful distinctions in how inscriptions function within historical contexts, rather than merely their formal features. At the same time, recent studies have shown that the process of implementing such vocabularies in digital systems may introduce shifts in classification logic. M. Doerr (2009) argues that when conceptual models are translated into operational metadata structures, simplifications or reinterpretations may occur, leading to discrepancies between theoretical definitions and practical usage. In a similar vein, C. Binding & D. Tudhope (2022) note that interoperability frameworks often require the transformation of domain knowledge into standardised fields, which can result in the loss or reconfiguration of culturally specific distinctions.

The present study provided a concrete example of this phenomenon. While both Ukrainian epigraphic tradition and international frameworks such as FAIR rely on functional criteria for classification, the digital portal

“Inscriptions of St. Sophia” introduces the term “інвокація” (invokatsiya) as a genre label based on a formal textual feature – the presence of an initial address formula. This shift illustrates how classification can be reconfigured at the level of implementation, even when the underlying ontological frameworks are, in principle, compatible. This observation is consistent with broader findings in knowledge organisation research. P. Fafalios *et al.* (2023) demonstrate that mapping between vocabularies often involves asymmetrical relationships that cannot be adequately captured by equivalence properties such as skos:exactMatch. Instead, they advocate for more flexible representations that preserve differences in conceptual scope. The conclusion of the present study – that “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) require a skos:relatedMatch relation with documented asymmetry – directly supports this position.

From the perspective of terminology studies, the divergence between the two terms can be understood as a case of domain-specific semantic differentiation. M. L’Homme (2020) emphasises that terms derive their meaning from their role within a conceptual system, and that apparent lexical equivalents may correspond to different conceptual structures in different domains. Similarly, K. Kageura (2022) argues that terminological systems are shaped by disciplinary practices and cannot be assumed to be universally transferable. In this context, the difference between “молитва” (molytva) and “інвокація” (invokatsiya; invocation) reflects the coexistence of two classificatory dimensions: communicative function and formal structure. Recent work in digital humanities has also highlighted the importance of preserving such multidimensionality. C. Binding & D. Tudhope (2022), P. Fafalios *et al.* (2023) argue that cultural heritage vocabularies must accommodate multiple perspectives rather than impose a single unified classification system. E. Hyvönen (2023) similarly stresses that

semantic interoperability depends on the explicit modeling of conceptual differences, not their elimination. The findings of the present study reinforce these arguments by demonstrating that the coexistence of multiple classificatory logics is not a problem in itself, but becomes problematic only when these logics are conflated without explicit distinction.

An important contribution of this study is its methodological focus on a micro-level comparison of category labels within a single corpus. While many studies address ontology design at a general level, fewer examine how individual terms function within specific classificatory systems and how their meanings shift when transferred between them. By analysing the application of “молитва” (molytva) and “інвокація” (invokatsiya) to the same inscriptional material, this study shows how conceptual differences manifest in practice, leading to divergent yet internally consistent classification outcomes. It is important to emphasise that the findings do not suggest that one classification system is more correct than the other. Rather, they demonstrate that each system answers a different analytical question: the functional approach classifies inscriptions according to their communicative purpose, while the formal approach classifies them according to textual structure. Both approaches are methodologically valid, but they are not interchangeable. The problem arises when terms associated with one approach are introduced into another without explicit recognition of their underlying classificatory principles. These results have direct implications for the development of digital epigraphic vocabularies. They suggest that vocabulary alignment should be treated as a process of conceptual negotiation rather than simple term matching. In practical terms, this requires explicit definition of classification criteria, careful documentation of conceptual scope, and the use of mapping relations that preserve differences rather than obscure them. More broadly, the study highlights the need for digital epigraphy

to move beyond purely technical models of interoperability and to engage more directly with the epistemological foundations of classification. The case of “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) thus illustrates a general challenge in the digital representation of cultural heritage: the integration of heterogeneous knowledge systems requires not only shared vocabularies, but also an awareness of the conceptual assumptions embedded within them. Future research may extend this approach by examining other terminological pairs across different epigraphic traditions and by developing modeling strategies that allow multiple classificatory dimensions to coexist within interoperable frameworks.

Conclusions

In the present article, two terms were examined – “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) – that appear in the classification of medieval graffiti from St. Sophia of Kyiv and argued that they encode fundamentally different classificatory logics rather than synonymous concepts. “Молитва” (molytva; prayer), as used in Ukrainian epigraphic designates divine-address inscriptions defined by a communicative criterion: the act of directing speech at God or saints. This criterion unifies petition, confession, cursing, well-wishing, and questioning. “Інвокація” (invokatsiya; invocation), as introduced into the digital portal from EAGLE and FAIR vocabularies, designates inscriptions defined by a formal criterion: the presence of a direct address formula in the opening. The two terms classify the material along different dimensions.

The results of the analysis allows to conclude that the introduction of “інвокація” (invokatsiya; prayer) into the digital portal’s genre vocabulary does not formalise an existing Ukrainian epigraphic category. It introduces a new classificatory dimension – formal text type – that is foreign to the functional logic of the Ukrainian print tradition. The term appears

six times in all of publications, always as a liturgical noun denoting a trinitological formula, never as a category label. Its absence from the category system is not a gap; it is a classificatory choice reflecting the functional epistemology that governs the Ukrainian tradition. A controlled vocabulary for Ukrainian medieval epigraphy cannot treat “молитва” (molytva; prayer) and “інвокація” (invokatsiya; invocation) as equivalent. More generally, the findings of this article suggest that the importation of vocabulary from classical epigraphic typology into the classification of medieval Eastern Christian graffiti requires explicit justification and documented mapping, not default adoption. The communicative logic of sacred graffiti – inscriptions scratched on cathedral walls as acts of divine address, confession, and intercession – reflects a practice and a purpose that is not fully captured by the formal categories developed for public monumental inscriptions in the Greco-Roman world. Recognising this difference is a prerequisite for building digital resources that are both interoperable with international standards and faithful to the tradition they represent. The article is part of a broader research programme focused on developing a corpus-based SKOS vocabulary for Ukrainian epigraphy as a structured, machine-readable knowledge organisation system aligned with international semantic infrastructures. The next steps involve creating a controlled vocabulary with stable URIs and mappings to existing ontologies such as EAGLE, Getty AAT, and CIDOC CRM, followed by its expansion and validation across epigraphic corpora and related traditions.

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Conflict of Interest

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“Молитва” та “інвокація”: два терміни – дві класифікаційні логіки в українській середньовічній епіграфіці

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Анотація. Класифікація середньовічних написів у цифрових епіграфічних системах потребує узгодження локальних наукових традицій із міжнародними стандартами. Особливо гостро ця проблема постає при перенесенні термінології між різними класифікаційними моделями. Метою статті було з'ясування співвідношення між термінами «молитва» та «інвокація» у класифікації графіті Святої Софії Київської. Дослідження ґрунтувалось на порівняльному аналізі друкованого корпусу В. В. Корнієнка та цифрового порталу «Написи Святої Софії», що дозволило простежити відмінності у принципах категоризації написів та виявити їхні концептуальні основи. Встановлено, що терміни «молитва» та «інвокація» не є синонімічними і відображають різні класифікаційні логіки. Показано, що «молитва» визначається за комунікативним критерієм – актом звернення до Бога – і охоплює прохання, сповідь, прокляття та запитання. Натомість «інвокація» визначається за формальним критерієм – наявністю формули звернення на початку тексту – і становить підмножину лише одного комунікативного типу. Проаналізовано конкретний випадок графіті № 5459 («Господи, я п'яний»), який у друкованому корпусі класифікується як сповідний напис, а в цифровому порталі – як інвокація. Доведено, що обидві класифікації є внутрішньо узгодженими, однак відповідають на різні аналітичні запити, що свідчить про епістемологічний характер розбіжності. Обґрунтовано, що у словниках простої системи організації знань ці поняття не можуть бути пов'язані як *skos:exactMatch* або *skos:closeMatch*, а потребують встановлення зв'язку *skos:relatedMatch* із фіксацією асиметрії їхнього обсягу. Практична цінність результатів полягає у можливості їх використання при розробці контрольованих словників і онтологій для цифрової епіграфіки, зокрема для коректного узгодження локальних класифікацій із міжнародними стандартами

Ключові слова: епіграфіка; епістемологічні основи класифікації; цифрова епіграфіка; контрольований словник; проста система організації знань