



From ideology to terminology: The integration of Saracen into medieval pharmacotherapeutics and botany

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Research

Abstract

Background: This article examines the historical developments and semantic unification of the term *Saracen* from ideology and ethnography to scientific terminology, particularly in pharmacotherapeutics and botany.

Methods: Using critical discourse analysis, historical and diachronic linguistics, within a defined historical corpus of medical and botanical texts, the study traces how the term *Saracen* evolved from an ethnographical identifier to a specialized term. Attention was given to the botanical species *Cyperus rotundus* L. (known as *radix saracenicica* or *cyperus saracenicus* in medieval texts), as a case study illustrating how linguistic and ethnographical transfers shaped scientific vocabulary.

Results: The findings show that the use of the term in pharmacotherapeutics, encompassing both pharmacotherapeutic theory and practice, as well as botanical literature, reflects broader intercultural interactions between the Arabo-Islamic and European traditions, revealing persistent ideological layers embedded within modern scientific lexicons.

Conclusions: A comprehensive understanding of the term across scientific disciplines highlights the interconnectedness of linguistic, geographical, ethnographical, and historical processes, while also underscoring the need to analyze each lexical item across all fields of science. At the same time, it was necessary to analyze each discipline separately - through an examination of a word's etymology, morphological composition, chronological and geographical occurrences, socio-political context, and the contributing socio-cultural factors to its use within the linguistics communities in which it developed.

Keywords: *Saracen*, *Cyperus*, Arab European view, etymology, history of science, pharmacotherapeutics, medicine, agricultural, botanical, linguistic.

Background

The term *Saracen* (Latin: Saracens, Greek: Σαρακηνός / Sarakēnos) was primarily used in medieval Europe to denote Muslim populations, particularly the Arab/Arabic speaking populations of the Eastern Mediterranean and the broader Islamic world. From antiquity through the late Middle Ages, the term underwent significant semantic evolutions, demonstrating flexibility across diverse social, ideological, religious, geographical, and scientific contexts. The term *Saracen*, which was employed in modern historiography to denote populations predating the medieval period-not only in the Balkans and the Mediterranean but also in regions further south and throughout the Middle East-plays a significant role in understanding the historical formation of pharmacotherapeutic, medical, and botanical terminology. Its relevance lies in the way ideological, ethnic, and

geographical concepts were gradually incorporated into the scientific discourse and specialized lexica. (Skadar-Žvale, *et al.* 1969; Enciklopedija, *et al.* 2007; Isidore de Seville, *et al.* 1911; Barney, *et al.* 2006) The search for a precise definition of the term was essential for a clearer understanding of its historical and ethnic dimensions. *Saracen* referred to populations associated with the Arabian Peninsula and North Africa and was frequently linked to specific Arab tribes. In a religious context, the term came to be used predominantly as a designation for Muslims, while it expanded its geographical scope to include the Middle East, North Africa, and, at times, regions of southern Europe under Muslim rule. In scientific sources, the term appears in medical manuscripts and pharmacotherapeutic treatises, and botanical texts, illustrating how geographical and ethnic concepts entered specialized lexica, often undergoing semantic transformations or partial loss of their original meanings. Knowledge of medicinal substances, plants, and medical practices was frequently transmitted to Europe through contacts with communities identified as *Saracen* significantly impacting the developments of European scientific traditions. Accordingly, this study aims to examine how the term *Saracen* evolved from ideological and geographical use to a specialized scientific term, identifying what elements were altered or lost in the process, and how the term was perceived and employed by contemporary scholars in comparison with its historical use. (Isidore de Seville, *et al.* 1911, Barney, *et al.* 2006; Hill, *et al.* 1996; Siraisi, *et al.* 1990; Pioreschi *et al.* 1998).

The article is structured as follows: an introduction and definition of the term *Saracen*; a historical overview of its ethnic, religious, and geographical meanings; an analysis of selected examples from medical, pharmacotherapeutic, and botanical sources; a discussion of semantic changes and scholarly interpretations; and a conclusion with recommendations for future research and terminological precision. (Antidotarium Nicolai *et al.* 1917; Avicenna *et al.* 1555; Serapion *et al.* 1479; Livre des Simples Mèdecines *et al.* 1984; Dioscorides, *et al.* 1555).

In this study, the ideological thread underlying the term *Saracen* refers to the persistent geographical, social, and value-laden assumptions embedded in its historical use. Although the term primarily denotes a geographic origin or ethnographic identity in medieval pharmacology and botany, it carries implicit evaluative and symbolic connotations derived from the European perceptions of the East and its populations. This ideological layer is inseparable from the semantic development of the term *Saracen*, illustrating how geographical and societal perceptions contributed to the formation of scientific terminology. (Encyclopaedia Britannica (*Cyperus*); Royal Botanic Gardens Kew; Laridon *et al.* 2014; Pashirzad *et al.* 2014; Singh *et al.* 2023; Taheri *et al.* 2021; Zhang *et al.* 2022; Tarek *et al.* 2025; Heinrich *et al.* 1998; Vitalini *et al.* 2013; Tardío & Parsi-de-Santayana *et al.* 2008).

Materials and Methods

Study area

The primary objective of this research is to examine the connection between the ideological perception of the term *Saracen* within its historical context and the emergence and development of specialized terminology in health-related disciplines, including medicine, pharmacotherapeutics, botany, and agronomy. The study seeks to identify how the term transitioned from an ethnographical and ideological designation into technical terminology, as well as to determine which semantic elements were retained, transformed, or lost during this process.

To achieve these aims, a range of interdisciplinary methods were employed. Discourse analysis was used to examine the use of the term *Saracen* across historical texts, medical treatises, and related writings, with particular attention to how language reflects and sustains ideological and social attitudes and how such attitudes transferred into the scientific terminology. Critical discourse analysis further focused on the ways in which the term was linguistically framed and contextualized within different genres and periods. Although ethnographic approaches and expert interviews would have been valuable for this interdisciplinary investigation—especially for understanding contemporary scholarly perceptions of the term—it was not possible to include interviews with botanists, pharmacists, or linguists. This limitation was primarily due to the relatively unexplored nature of the topic and the scarcity of literature addressing the term's interdisciplinary use. While the research is rooted in historiographical analysis, its framework is interdisciplinary and integrates methods from the humanities and the natural and medical sciences. Historical and textual sources are analyzed alongside scientific classifications and botanical data, and taxonomic descriptions of plant species. This approach allows for a comprehensive examination of how ideological terminology entered and shaped scientific nomenclature. Texts from multiple domains—political, historical, medical, pharmacotherapeutic, and botanical—were collected from a great variety of sources: manuscripts, scientific databases, and botanical monographs. A corpus of 36 primary and secondary sources, consisted of selected Greek, Latin, and Arabic medical and botanical texts dated between the 10th and 14th centuries, chosen according to the occurrence of the term *Saracen* and its botanical derivatives. These materials were analyzed to determine where, when, and in what contexts the term *Saracen*

was used and how it continues to appear in contemporary discourse. The objective was not only to enhance historiographical understanding but to clarify the term's current semantic and disciplinary status.

The case study focuses on the botanical genus *Cyperus*, especially *Cyperus rotundus* L. (nutgrass), which was frequently associated with the term Saracen through medieval epithets and designations such as *Saracenicus*, *Radix Saracenicica*, and *Trifera Saracenicica*. Some medieval medical and pharmacotherapeutic works refer to *Cyperus* as a plant of Saracen or Oriental origin, reflecting the transmission of medicinal knowledge through Arabic and Islamic scholarly traditions. In Arabic medical literature, *Cyperus rotundus* L. was known as *su'd* or *su'dān*. The term is attested in the classical Arabic pharmacotherapeutic literature accessible to Western European physicians. A similar terminology appears in the *Liber Aggregatus in De Medicinis Simplicibus* by Yahyāibn Sarāfiyūn (known in the Latin World as Serapio Senior, 9th century), where the plant is identified as *cyperus* or *suet*. In Western pharmacotherapeutic compilations of the Middle Ages (12th-14th century), including the *Antidotarium Nicolai*, the plant appears under the designation *radix saracenicica*, an appellation that reflects its perceived association with the eastern, Arabic-speaking World. Rather than treating Greco-Roman antiquity as a singular point of origin, the corpus situates it within a broader, transnational network of knowledge transmission involving Arabo-Islamic scholarly traditions. Although *Cyperus* species were known in Europe since Antiquity, the stabilization of their medicinal uses and technical terminology occurred largely through the mediation of Arabic medical literature and its Latin translations. These sources show that the designation Saracen in botanical and medical contexts functioned primarily as a marker of geographic provenance and knowledge transmission rather than ethnic identity. Plants such as *Cyperus rotundus* L. were labeled *orientalis* or *saracenicus*, which indicated their association with the Eastern medical traditions. (Taheri *et al.* 2021; Encyclopaedia Britannica *et al.* 2025; Singh *et al.* 2023; *Antidotarium Nicolai et al.* 1917; *Livre des Simples Mèdecines et al.* 1984; Serapion *et al.* 1479; Avicenna *et al.* 1555; Hill *et al.* 1996; Siraisi *et al.* 1990; Pioreschi *et al.* 1998).

This usage reflects broader processes linked to geography, ethnicities, and terminology within medieval herbals and medicinal collections. By integrating historical, linguistic, and scientific analyses, this case study illustrates how a term rooted in ideology and ethnography entered technical *lexica* and acquired specialized meanings. The interdisciplinary methodology employed here calls for a nuanced understanding of semantic continuity and transformations, positioning Saracen as a key example of how geographical concepts become embedded within the scientific language.

Table 1. Description of the source of the text or manuscript, of the *Cyperus* species founded in the published works of the Royal Botanic Gardens and Encyclopaedia Britannica. Example of the historical designation, such as *Saracen*-related terms.

Type	Category	Importance/Region
<i>Cyperus papyrus</i> -Egypt, Sinai/deltas	Classical wetland species	Species of Cultural History (papermaking marsh habitats)
<i>Cyperus glomeratus</i> -Balkans	Riverbank or floodplain species	Species of Native Balkan habitat in Southeastern Europe
<i>Cyperus capitatus</i> -Mediterranean coasts, including Balkans/Sinai	Mediterranean coastal/sandy Coastal validations species	Validation species
<i>Cyperus serotinus</i> -Balkans, Crimea, Mediterranean	Poorly or moderately Broad wetland/saline habitat distributed in the Balkan and Mediterranean region	Habitat distributed in the Balkan Peninsula and Mediterranean region
Total = 4 special types		

From 4 special types, there are ca. 953 accepted species of *Cyperus*, usually nowadays more than 5000 types.

Data Analysis

The occurrence of the term *Saracen* in selected historical medical and botanical sources was assessed using a simplified Relative Frequency of Citation (RFC) index. In this study, RFC is not applied as a statistical measure in the strict quantitative sense, but rather as an illustrative indicator of the relative prominence of the term across a limited corpus of texts. Given

the qualitative and corpus-based nature of the research, and the relatively small number of analyzed sources, the RFC value is used heuristically to support interpretative analysis, rather than to provide statistically generalizable conclusions.

Relative Frequency citation

The relatively high RFC value suggests that the term *Saracen* appears consistently across the selected corpus, supporting its relevance within medieval pharmacological and botanical discourse. However, this observation should be interpreted in conjunction with qualitative textual analysis. The occurrence of the term *Saracen* in relation to medieval pharmacotherapeutics and botany was assessed using a relative frequency of citation (RFC) index (Vitalini, Heinrich, Tardío, 2013):

$$\text{RFC} = \text{FC}/\text{N} = 5/6 \text{ approx. } 0,83 \text{ (} 0 < \text{RFC} < 1 \text{)}$$

Component	Description	Source Basis	Limitation
FC	Frequency of formal continuity markers identified in the corpus	Manual qualitative coding of selected lexical and semantic continuities	Small exploratory corpus; interpretive categorization
N	Number of analyzed textual units/sources	Six representative historical-textual cases	Non-random sample; limited generalizability
RFC	Relative formal continuity coefficient ($\text{FC}/\text{N} \approx 5/6 = 0.83$)	Internal heuristic indicator used for comparative interpretation	Illustrative metric only; not statistically validated

The RFC index is derived from ethnobotanical research (Vitalini; *et al.*, 2013) and its variables are redefined for application in corpus-based textual analysis.

Results

The corpus-based analysis of botanical, medical, and pharmacotherapeutic texts demonstrates that linguistic, geographical, and scientific processes are dynamically interdependent. At the same time, each element must be examined individually through analysis of the word's etymology, morphological composition, temporal and geographical emergence, socio-political background, and the contributions of socio-geographical factors to its usage within the linguistic communities in which it originated. Only through such an approach was it possible to understand how a term develops and was ultimately confirmed within a particular linguistic, national, or scientific discipline. This perspective generates new research questions that lay out the groundwork for further inquiry, expand scientific domains, and elevate them to higher analytical levels. (Dioscorides, *et al.* 1555).

A closer discursive analysis of the corpus reveals that the term *Saracen* is not used uniformly across textual genres. In botanical treatises, it appears primarily as a marker of geographical origin, as in expressions such as *radix saracenic*, where it functions descriptively to indicate provenance. In contrast, in pharmacotherapeutic and medical texts, the same term often carries implicit associations with the transmission of knowledge from the Eastern or Islamic world, reflecting broader cultural and epistemological frameworks embedded in medieval scientific terminology. (Dioscorides *et al.* 1555; Isidore de Seville; Serapion, *et al.* 1479; Avicenna, *et al.* 1555).

The main findings of this study show that the term *Saracen* in ancient botanical texts, was not originally employed as a species name but functioned primarily as an indicator of geographical provenance, referring to plants originating from the Sinai region and northern Arabia. Over time, the term was incorporated into botanical and pharmacotherapeutic classification systems as specific plants were transported, cultivated, and categorized into subspecies. This process illustrates how geographical contact and trade networks shaped early scientific language and taxonomic practices. (Serapion, *et al.* 1479).

These findings are based on a diachronic corpus comprising Greek, Latin and Arabic sources, including botanical treatises, pharmacotherapeutics, manuals, encyclopaedic works, and medical recipes. Corpus evidence indicates that the term *Saracen* appears with distinct functions across textual genres. In the botanical treatises by Dioscorides, it primarily denotes a

geographical provenance. In pharmacotherapeutic texts and medical recipes, however, it increasingly acquires classificatory and practical functions, while in encyclopaedic and later medieval compilations it becomes partially taxonomized.

The broader significance of these findings lies in enhancing our understanding of the formation of scientific terminology and the mechanisms through which knowledge was transmitted between civilizations. By tracing the semantic development of ethnographically embedded terms, this study contributes to a deeper understanding of the historical developments of the natural sciences and their ethnographical references.

From a pharmacotherapeutic and botanical perspective, future research should assess the feasibility of constructing a systematic database of plant species bearing markers of ethnographical and geographical origins such as *saracenicus*.

From the perspective of historical semantics, the corpus examined above reveals a gradual shift in meaning from a purely geographical descriptor to a semi-technical botanical marker. Corpus-linguistics patterns of co-occurrence and frequency support this shift, while discourse analysis highlights the broader epistemological and cultural frameworks within which the term was reinterpreted.

Further investigation should also examine how medical recipes and herbal preparations (e.g., *radix saracenicica*) changed through the processes of translation and ethnographical validations, as well as the evolving role of *Cyperus rotundus* L. in both European and Arab medical traditions. (Encyclopaedia Britannica, Enciklopedija, *et al.* 2007).

Methodologically, this study highlights the potential of combining critical discourse analysis, corpus linguistics, and historical semantics to investigate terminological transfers across disciplines. Digital humanities approaches—as the use of manuscript databases and text-mining tools—offer promising means of mapping the usage of the term *Saracen* across texts and epochs.

In addition, ethnographic interviews with contemporary botanists, pharmacologists, and historians of language could provide valuable insight into how such terms are perceived and interpreted in modern scientific practice.

Finally, from a philosophical and ideological standpoint, it was necessary to consider whether scientific language can—or should—be entirely stripped of the ethnographical and ideological layers embedded in its origins. Rather than erasing these historical dimensions, understanding them may contribute to a more reflective and inclusive scientific discourse. This approach aligns with contemporary efforts to critically reassess Eurocentric frameworks in the historiography of science, encouraging a more reflexive understanding of how scientific language has been shaped by historical power relations.

Discussion

The term *Saracen* encompasses multiple dimensions, although it may also be analyzed separately depending on the perspective. In general, this analysis examines how the term *Saracen*, originally an ethno-geographical and ideological designation, gradually entered the specialized lexicon of botany and pharmacotherapeutics—most notably through plant names such as *Cyperus rotundus* L. An examination of medieval medical and pharmacotherapeutic works shows that ethnogeographical expressions such as *radix saracenicica* or *cyperus saracenicus* referred to an aromatic root originating from the “lands of the Saracens”, that is, from the East. (Isidore de Seville, *et al.* 1911; Barney, *et al.* 2006; Enciklopedija, *et al.* 1969; Enciklopedija, *et al.* 2007).

From a discursive perspective, the variability in the use of the term *Saracen* reflects its shifting semantic roles across different contexts. In some cases, it functions as a neutral geographical descriptor, while in others it encodes cultural perceptions of knowledge authority and origin. This dual function illustrates how scientific terminology can preserve traces of broader social and ideological frameworks within which it developed. (Antidotarium Nicolai, *et al.* 1917; Avicenna, *et al.* 1555; Hill, *et al.* 1996).

This transition—from an ethnic label to a scientific term—illustrates processes of ethnographical knowledge transmission and linguistic transformations, whereby the term *Saracen* became a designation associated with plant species that played a significant role in both Arabic-Islamic and European medical traditions. These plants were commonly described as “rush-growing” species (grassy or marshland plants) with recognized medicinal properties.

In the context of Dioscorides, the term *Saracen* derives from an ethnic and geographical designation referring to populations and regions of northern Arabia and the Sinai Peninsula, known in Greek and Roman sources as *Sarakenoi* or *Saraka*, and later on the term appears instead of Middle East region through Balkan peninsula changing structure of the term. That appears in the types of the Cypero plant. Accordingly, when ethnogeographical expressions such as “Saracen tree” or other forms containing *Saraken* appear in Dioscoridean herbals, such as *Cypero* plant, they refer to a plant originating “from the Saracens” or “from the land of the Saracens”. The incorporation of the term into the botanical vocabulary occurred through the common practice of indicating a plant’s provenance alongside its name—formulations such as “from the land of X” or “from Saracena”. This practice ultimately gave rise to terminology in which *Saracenus* or *Saracena* functions as an attribute of origin in early pharmacopoeitic literature. (Antidotarium Nicolai, *et al.* 1917; Serapion, *et al.* 1479; Livre des Simples Mèdecines, *et al.* 1984).

Beyond its geographical use, the term *Saracen*, also carried ideological and genealogical connotations. In medieval interpretations, it was associated with populations of Abrahamic lineage, particularly through Ishmael, son of Abraham and Hagar, while part of its etymology connects it to the name Sara or Sarah, mother of Isaac, which contributed to its terminological fixation of certain Near Eastern populations. That helps not only for genealogical terminology, also for botanical terminology through combination of the prefixes of the word Sara, and later *Saracen* with using all mentioned plants in the ancient texts. These associations served as ethnogeographical markers, facilitating the transmissions of knowledge, including medical and pharmacotherapeutic practices, from the Islamic World into the Latin scholarly traditions. (Hill, *et al.* 1996; Siraisi, *et al.* 1990; Prioreshi, *et al.* 1998).

In certain medical compilations, the designation *saracenicus* appears to signal not only geographical origin but also the perceived authority of knowledge associated with Arabic medical traditions. This suggests that the term functioned discursively as a marker of credibility, reinforcing the transmission of pharmacological knowledge across cultural boundaries. (Avicenna, *et al.* 1555; Dioscorides, *et al.* 1555; Singh, *et al.* 2023; Taheri, *et al.* 2021).

As a result, the term *Saracen* persisted in botanical and pharmacotherapeutics nomenclature, reflecting both a geographic origin and long-standing networks of intercultural transmission, especially when it refers to the Syrian Arabs, and more broadly to Arab populations, it reinforced terminological frameworks for Eastern populations. In some medieval sources, the term *Saracen* was also associated with genealogical narratives linked to Abrahamic traditions. These interpretations reflect broader cultural and religious frameworks rather than strictly historical or scientific classifications.

The interpretation of these findings suggests that the use of the term *Saracen* in works such as Dioscorides’ *De materia medica* represents a significant example of how geographical and ethnolinguistical concepts were transferred into the natural-scientific discourse of Antiquity. This process reflects an early form of interaction across such disciplines as ethnography, geography, and botany, which proved essential for the development of scientific terminology. (Dioscorides, *et al.* 1555; Hill, *et al.* 1996; Siraisi, *et al.* 1990).

From a methodological perspective, the novelty of this study lies in its integrative approach, combining linguistic analysis with geographical-historical interpretation of botanical and pharmacotherapeutic sources. Its thematic contribution consists of indicating how ethnogeographical identities, trade networks, and intercultural contacts contributed to the formation of scientific vocabulary. Emphasis was placed on linguistic and discursive analysis, which examines the term’s usage across texts and contexts, thereby revealing its ideological connotations. Semantic analysis traces shift in meaning through etymology and usage across disciplines, while corpus-based methods allow for comparative examination of the term occurrence in medical, pharmacotherapeutic, botanical, and social texts. (Hill, *et al.* 1996; Siraisi, *et al.* 1990; Prioreshi, *et al.* 1998).

Ultimately, the term *Saracen* evolved from an ethno-religious designation into a technical term within pharmacotherapeutics and botany, as evidenced by Latin forms such as *radix saracenicica* and *cyperus saracenicus*. These examples demonstrate the integration of an ethnogeographically charged term into a specialized scientific context. The research also opens new avenues for future investigation. Further studies should examine the diffusion of geographically and ethnogeographically charged terms such as *Saracen* across other scientific domains or languages, searching their transformations across regions and historical periods. Comparative research could explore analogous cases in which social, religious, or geographical identifiers were absorbed into botanical or medical nomenclatures. Moreover, analysis of early modern and modern scientific texts could clarify how such terms were received, reinterpreted, or neutralized over time. Linguistic and terminological questions are particularly relevant: how do ideological and geographical terms enter the scientific language, and to what extent do they retain semantic layers of their original meanings? How did translation processes—from Arabic

to Greek into Latin—shape the creation of a new scientific lexicon, and do traces of historical ideologies persist in contemporary biological and medical terminology? Equally important are historical and geographical questions concerning the transmission of knowledge between the Arabo-Islamic and European Worlds. These include inquiries into how geographical perceptions and prejudices contributed to the reception of scientific concepts in medieval Europe, and whether the term *Saracen* developed independently or through mutual linguistic influence in Latin, Old English, Old French, Slovene, and other European languages.

Conclusion

Understanding the context of a word across multiple scientific fields leads to the conclusion that knowledge systems were inherently interconnected. At the same time, each element must be examined individually—through analysis of its root, morphological composition, place and time of emergence, socio-political context, and impact of the socio-ethnographical factors on its usage within the linguistic community in which it originated. Only through such a multifaceted approach can the developments and eventual confirmation of a term within a particular nation, language, or scientific discipline be fully understood.

The main findings of this study show that the term *Saracen* in ancient botanical texts—such as those by Dioscorides—was not employed as a species name, but rather as an indicator of geographical origin, referring to plants associated with the Sinai region and northern Arabia. In later periods, through the processes of plant transfer, cultivation, and classification, the term came to identify specific plant varieties and subspecies. These developments show how geographical contacts and trade networks shaped the early scientific language and systems of classification. (Dioscorides, *et al.* 1555).

These findings contribute to understanding the formation of scientific terminology and the transmission of knowledge between civilizations. The study opens new avenues for future research. Further investigations should examine the wider diffusion of ethnographically loaded terms such as *Saracen* across other scientific domains or linguistic traditions, tracing their semantic transformations across regions and historical periods. Linguistic and terminological questions are particularly relevant here: how ideological and geographical terms such as *Saracen* function within scientific discourse? To what extent did translations from Arabic and Greek into Latin shape the formation of new scientific terms, and how far does contemporary biological and medical terminology still reflect historical ideological layers? Equally important are historical and geographical perspectives that address, how ethnographical perceptions and biases shaped the reception of certain concepts within European science. (Singh, *et al.* 2023; Taheri, *et al.* 2021; Laridon, *et al.* 2014).

From a botanical and pharmacotherapeutic standpoint, further research could explore the feasibility of creating a systematic database of plant species bearing etymological markers of ethnographical or geographical origin, such as *saracenicus*. Such studies may also examine the transformation of medical recipes and herbal terminology through translation processes, as well as role of *Cyperus rotundus L.* in the medical traditions of both European and Arab societies and the semantic shift of its name over time.

From a methodological and interdisciplinary perspective, it was worthwhile to consider how approaches such as critical discourse analysis, corpus linguistics, and historical semantics can be integrated to study terminological transfer. Digital humanities methods, including the use of digitized manuscript databases, offer promising tools for mapping the concept of *Saracen* across texts and historical periods. (Hill, *et al.* 1996; Siraisi, *et al.* 1990; Pioreschi, *et al.* 1998; Avicenna, *et al.* 1555; Dioscorides, *et al.* 1555; Singh, *et al.* 2023; Taheri, *et al.* 2021; Zhang, *et al.*

Finally, the study raises the question of whether scientific terminology can ever be fully separated from the ideological and geographical contexts of its origin. A critical understanding of the origins of the scientific terminology may thus play an important role in the ongoing process of reflecting on—and potentially decolonizing—contemporary scientific language. The connection between the term *Saracen* and the plant *Cyperus* was fundamentally rooted in the medieval European practice of naming plants after the populations who introduced or popularized them. Although the genus *Cyperus* was botanically known since Antiquity, certain species and their practical applications in medicine, perfumery, garden culture, and related fields reached Europe through Arab intermediaries, even though some species were already known. Europeans referred to these intermediaries as *Saracens*, which led to the appearance of terms such as *Saracenic Cyperus* in European sources. These designations did not indicate the botanical origin of the plant but rather the ethnographical channel through which knowledge was transmitted. The essence of this connection lies in the transfer of Arab—specifically Syrian—knowledge of *Cyperus* into the European context.

Declarations

List of abbreviations: C.-*Cyperus*; B&H - Bosnia and Herzegovina; ERA - Ethnobotany Research and Applications; MS - Manuscript; SC - Semantic context; CDA - Critical Discourse Analysis.

Ethic approval and consent to participate: This study did not involve human participants, interviews, or the collection of sensitive personal data. Therefore, no specific ethical approval was required. All historical, linguistics, and botanical data were derived from publicly available literature, archival manuscripts, and secondary academic sources, which were cited accordingly. The research complies with international academic standards for ethical citation and data use.

Consent for publication: Not applicable.

Availability of data and materials: All data supporting the findings of this study are included within the manuscript or in the cited literature. Additional information or references can be provided upon reasonable request to the corresponding author.

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Author contributions: Amina Katerji conceptualized and designed the research, collected and analyzed the historical, linguistic, and botanical data, interpreted the results, and wrote the manuscript in its entirety. The author approved the final version of the paper and was fully responsible for its academic content.

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