

Towards an outline of central and southern Portugal potamonymy

Para um perfil da potamonímia do centro e do sul de Portugal

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ABSTRACT: Within the set of river names of Portugal, those of the northwest usually stand out because of their archaism. However, rivers located to the south of the Mondego basin and the Central System are no less interesting, as they reveal great etymological heterogeneity, ranging from a few that fit into the pre-Latin substrates to several names that underwent Arabization between the 8th and 13th centuries. Several items also stand out, which are more recent and result from the expansion of the Galician-Portuguese dialects to the south, in the context of the medieval Christian conquest and colonization. This article, which draws on previous research (ROCHA, 2017), sets out an outline of the central and southern Portuguese potamonym by classifying each item etymologically and ascribing them to the stratigraphy and the history of transmission of the current toponymy in the territory in point.

RESUMO: Em relação ao conjunto onomástico formado pelos nomes dos rios (potamónimos) de Portugal, destacam-se normalmente os do noroeste pelo arcaísmo. Contudo, os potamónimos localizados a sul da bacia do Mondego e do Sistema Central não são menos interessantes, pois revelam grande heterogeneidade etimológica, abrangendo desde um pequeno grupo enquadrável nos substratos pré-latinos a um reportório alterado pela arabização ocorrida na região entre os séculos VIII a XIII. Sobressai ainda um largo número de nomes de criação mais recente, criados pela implantação a sul dos dialetos galego-portugueses, assim configurando um processo de colonização linguística decorrente da conquista cristã medieval. O presente trabalho, baseado noutro anterior (ROCHA, 2017), propõe definir um perfil da potamonímia centro-meridional portuguesa por meio da classificação etimológica de cada item e do seu enquadramento tanto na estratigrafia como na história de transmissão da toponímia que hoje se regista no território em apreço.

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1 Introduction

Portugal's river names (potamonym)¹, as well as other referential toponymic categories, are divided into two major groups in terms of their history and geographic distribution. While names of the North frequently contain pre-Latin elements and numerous morphemes and lexemes of Latin origin, those of the South show traces of Arabic, if not entirely Arabic segments. This observation reinforces the widespread view of the Portuguese Middle Ages, when the Christian and Romanic North is opposed to the Muslim and Arabian South. The awareness of this difference seems to arise mainly from the scarcity – but not absence, as Serra (1967) reveals – of the toponymy of Arabic pattern in the northern lands and its increasing frequency from the Coimbra region towards Lisbon, the Alentejo and the Algarve.

Toponomastic research contributes to a finer definition of this contrast, with emphasis on less publicized aspects of the linguistic history of the southern Portuguese lands. Studies such as those by Lautensach (1960), Lopes (1968) and Terés (1986) provide evidence of the deep Arabization of potamonyms in central and southern Portugal, in line with the general profile of the entire toponymy of the other central and southern Iberian regions. However, in Portugal, this set of potamonyms was deeply changed by the expansion of the Galician-Portuguese dialects to the south as a

¹ In this work, the term *potamonym* applies to the name of a river and is equivalent to *hydrotoponym* in the sense of 'proper name referring to a river' (cf. RAPOSO *et al.*, 2013, p. 1019; see also ROCHA, 2017, p. 30). *Potamonyms* or *hydrotoponyms*, therefore, denote a class of proper names which is different from the class of common nouns that denote different modes of presentation or accumulation of water, the *hydronyms* such as *fonte* ('source, fountain'), *rio* ('river'), *ribeiro* ('river, stream'), *regato* ('stream'), *arroio* ('brook'), *lagoa* ('lagoon'), *lago* ('lake'), *golfo* ('gulf'), *mar* ('sea'), *oceano* ('ocean'), etc. A. Almeida Fernandes (1952) uses the term *hydronym* as a designation for any form or extension of water, and *hydrotoponym* as a toponym which includes a hydronym.

result of the advance of the northern Christian military power (cf. MARSÀ, 1960; FERNANDES; CARDEIRA, 2013; FERNANDES; CARDEIRA, 2017).

This is the horizon of the discussion in this article, which is carried out in three parts. The first part is a brief review of historical and theoretical aspects concerning the emergence and stabilization of the current southern Portuguese toponymy and its documentary significance. The second part is devoted to the methodological approach of the main historical-linguistic strata which form the current potamonymy of central and southern Portugal. The third part proposes a historical outline of central and southern Portuguese potamonymy, drawing on the data collected and analyzed in Rocha (2017), a study on which most of this article is based.

2 Assumptions of a study of southern Portuguese potamonymy: history, geography, etymology, and stratigraphy

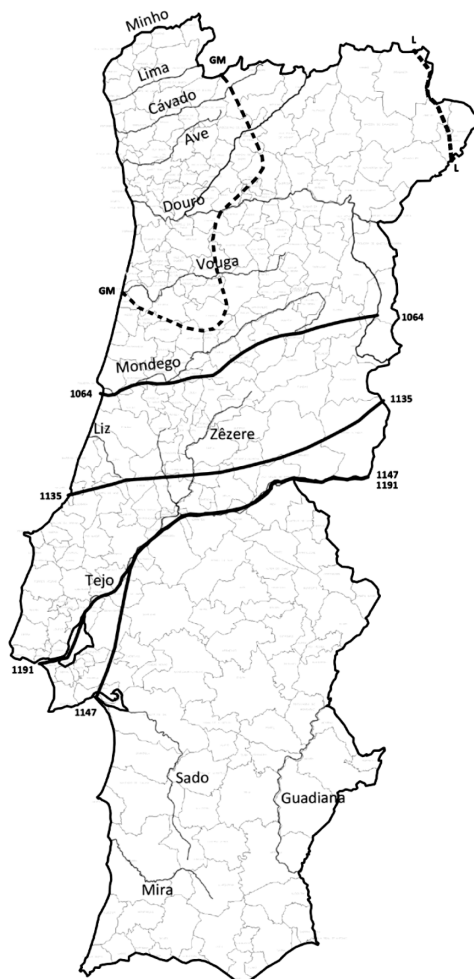
The traces of mainland Portugal Arabization are closely linked to the Christian conquest and expansion in medieval Iberian Peninsula. This long historical process is represented in Figure 1, a map by Fernandes and Cardeira (2013, p. 8; 2017, p. 154).

The map distinguishes three major lines of advancement in the Christian conquest, as commented by Fernandes and Cardeira (2013, p. 2):

The Christian Conquest took place in phases (with advances and retreats) over space and time, having stabilized in the Douro river around the year 1000. The [unbroken] lines represent its military borders (the extremes) south of the Vouga river, from 1064 (date of definitive possession of Coimbra) to 1249 (with the conquest of the Algarve): in 1135 the construction of the Leiria castle by Afonso Henriques, who would become the first king of Portugal, ensures the colonization south of Coimbra, and in 1147, the defense of the Tagus line allows the colonization of territories in Extremadura and Ribatejo. In 1191, during the reign of Sancho I, part of the Alentejo and the Algarve was equally conquered, but the Almohad counterattack pushed Portuguese rule back to the Tagus. Not before the mid-13th century would King Afonso III recover these territories. Colonization

will accompany the movements of the Conquest and with it the spread of Galician-Portuguese.

Figure 1 — Stages of Christian conquest between the 11th and 13th centuries in Portuguese territory.



Source: Fernandes and Cardeira (2013, p. 8; 2017, p. 154).

Focusing on the boundaries between Christians and Muslims in the 11th to 13th centuries, Fernandes and Cardeira consider an intermediate line between the Mondego basin and the Tagus basin, from Leiria approximately to the current village of Penamacor (Castelo Branco). However, that the temporality of this intermediate border seems much shorter than that of other conquest fronts, as pointed out by Barbosa (2008, p. 67). The author argues that, in this long military process, the rivers

Douro, Mondego and Tejo were the defining axes of three consecutive borders which reached further south, thereby always encompassing land on each river left bank:

Geographic accidents are sometimes used to mark, at certain moments in the history of the struggle between Islam and Christianity, the dividing lines between the contenders. With regard to Portuguese territory, until the 12th century, three moments of territorial advance are usually mentioned: the conquest of the 'Douro line', in the 9th century; the conquest of the 'Mondego line', in the 11th century; and finally the conquest of the 'Tagus line' in the 12th century. In reality, however, each of these three rivers, with their walled cities and their fortresses that guarded the easiest points to cross, only marked the northern boundary from which (in the Christian case) the territory was safe. Consequently, the river was part of a more complex defensive system that, in the case of the Mondego, extended through the Sistema Central mountain range.

The Christian front was, therefore, not simply made of a series of schematic lines or barriers; on the contrary, it was made by stretches of land which are likely to have been inhabited and prone to cultural exchanges, at least minimally. Barbosa's words suggest that although the conflict became radical in the 12th and 13th centuries (cf. PICARD, 2000, p. 87-106), these borders were conducive to prolonged contacts, both in the Christian and Muslim sides, which are linguistically documented by the current toponymy. Nevertheless, where the Arab-Muslim rule was stable and prolonged, i.e., south of the Mondego basin and especially from the Tagus valley, the geographical names show strong Arab interference or innovation – and the potamonymy is no exception. In fact, the southern Portuguese potamonymy developed and settled in lands of linguistic colonization, with names from the advance of the Galician-Portuguese dialects added alongside arabicized names. This movement is associated with the Christian conquest. As Castro (2006, p. 8) observes, when comparing the linguistic history of Lisbon with that from the north of the Vouga river:

[...] A native of Lisbon, who descends from many generations of inhabitants of the capital or the south of the country, speaks a language that is not autochthonous and does not originate from the Latin spoken there during the Roman Empire, but which was transplanted from Galécia Magna after the Christian reconquest. Just as the language spoken in Rio de Janeiro or Maputo was carried there from Portugal.

In fact, most southern Portuguese toponyms have, alongside several Arabic and arabicized names, numerous linguistic traces and items related to Christian colonization.

There are other factors in the making of the repertoire of central and southern Portuguese potamonyms. Alternative potamonyms (polyonymy) are frequently assigned to the same river. This was the case with many rivers of medium and small length, which were less prone to administrative language standardizing. However, administrative reasons may have suppressed polyonymy by selecting a single denomination which was thereby generalized to the entire watercourse. A case in point is *Odiege*, a potamonym of Arabic configuration, which today seems forgotten and replaced by *Ribeira de São Brissos* (cf. Relatório Toponímico de Portugal Continental – RTP² – and Carta Militar de Portugal – CMP – 1: 25 000)³.

Demographic fluctuations in some regions or changes in their population will eventually affect toponymy in general, including potamonymy, thus resulting in cases of substitution. This article does not delve into this aspect, but, for example, in Alentejo, the Christian conquest may have favored the erosion and demise of Arabic toponymy in the Middle Ages by dismantling the settlement and agricultural patterns of the Arab-Islamic period. (cf. BOISSELIER, 1999, p. 179-180). However, the

² Published in 1967 by the Cartographic Service (Serviço Cartográfico do Exército) of the then Ministry of the Army of Portugal (Ministério do Exército).

³ Leão (1610, p. 32) and Castro (1762, p. 134) include *Odiege*. However, in the 19th century, neither did Leal (1875) nor Baptista (1876: 15) register it; they mentioned, instead, *ribeira de São Brissos* (*ribeira* = stream, river) and *ribeira de Alcáçovas* which, by the manner of their description, seem to substitute for the aforementioned Arabic or arabicized name.

permanence of an important population is not incompatible with cases of toponymic substitution or loss of names in the South. There is evidence of several cases of toponymic loss when comparing the medieval toponymic repertoires with those fixed during the modern and contemporary times (cf. SOUSA, 2003).

Finally, notwithstanding some long rivers, the climate, geology and relief in these central and southern lands create short watercourses with irregular flow and prolonged droughts. Consequently, in terms of selecting names by river length, a southern potamonymic repertoire is likely to be less bulky than that referred to northern Portugal. The RTP (p. IV) suggests this, because, among its categories, the category of “river”, which applies to watercourses of medium length and is different from the category “brook, stream, small watercourse”, covers a number of southern rivers which is clearly lower than that of rivers assigned to regions in the north of the Mondego basin (cf. ROCHA, 2017).

Several of these historical and geographical variables are in some way inscribed in contemporary toponymy or in documents from the past. Such documents provide multilingual material containing frequent cases of semantic opacity in modern Portuguese. Toponymic analysis and interpretation often involve linguistic blends which result from events and periods of cultural and linguistic contact between populations. Since this is a task that raises questions about the origin and evolution of words, including toponyms as a subclass of proper nouns, the present study adopts an etymological standpoint to provide an account of the origin and history of sets of words, or of an individual word (cf. CAMPBELL; MIXCO, 2007, s.v. etymology)⁴. In addition, by showing traces of the different languages historically spoken in central and southern Portuguese, the study of potamonyms requires a stratification of

⁴ See also Viaro (2011, p. 24 and 99). On the interdisciplinary nature of toponymy studies (i.e., toponomastics) and the role of the diachronic vision of its methods, see Carvalhinhos (2009) and Torrado Pablo (1999). For the contribution of toponomastics to language history in Galicia, see Martínez Lema (2014 and 2018).

linguistic diachrony and the use of terms such as stratum, substrate, superstrate and adstrate⁵, understandably recurrent in the history of linguistic contacts to which the lexicon (with onomastics) seems especially permeable.

3 Criteria for identifying the stratigraphic make-up of Portuguese central-southern potamonymy

In the study of potamonymy in the south of the Mondego basin and the Central System – *i.e.*, the central-southern Portuguese potamonymy, to borrow a term coined by Cintra (1971), who opposed the central-southern Portuguese dialects (dialetos centro-meridionais) to the northern dialects (dialetos setentrionais) – the interpretation and classification of its names takes into account the linguistic consequences of three remarkable historical processes, namely, the Roman, Arab and Christian conquests. Among these three moments, the Arab-Islamic occupation seems to act as a layer that shaped or erased the marks of Latinization which the territory had previously known. The expansion of the kingdom of Portugal, in turn, brought its Galician-Portuguese modalities to the south and determined adaptations, substitutions and creations that also altered the aspect of most of the central-southern potamonymy.

Attention should also be paid to the classifying criteria of potamonyms: the difference between, on the one hand, the etymology and linguistic transmission of a river name, and, on the other hand, the emergence of its potamonymic use. These perspectives are intertwined, but there are cases in which a detoponymic origin may

⁵ See Campbell and Mixco (2007), who define these terms, still used in the literature: “When an earlier language influences a later language which moves into its territory (causing its extinction or becoming dominant), the earlier language is called a *substratum*. [...]”; “In language contact, a superstratum language (or superstrate language) is the language of an invading people that is imposed on an indigenous population and contributes features to the indigenous people’s population. This takes place where a more powerful or less prestigious language comes to influence a more local, less powerful or prestigious language, as in cases of conquest or political domination. [...]”; “In language contact, a language that influences a neighboring language or languages. Often it is assumed the language has relatively equal prestige with those it influences [...]”. On the borrowing of the notion of stratigraphy into language history and philology, see Aebischer (1978).

be documented either by written sources or by inferences which draw on physical and geographical evidence. For instance, although *Alvor* (Faro) is Arabic etymologically, its toponymic use is likely to have preceded its potamonymic use (cf. ROCHA 2017, p. 314). The present discussion focuses on the etymology and history of linguistic transmission of each potamonym, regardless the details concerning its potamonymic function.

3.1 Pre-Arabic potamonymy in the south of the Mondego and the Central System: The pre-Latin and Latin romance contribution

The thesis on which this article is based (ROCHA, 2017) shows that the geographical distribution of potamonyms of pre-Latin roots and stems reflects the physical and cultural contrast between the north and south of Portugal, as noted in section 2. Thus, while the number of potamonyms of Indo-European origin or morphologically indo-europeanized increases in the north of the Tagus, this etymology becomes much more uncertain as regards potamonyms of pre-Latin origin in central and southern Portugal. Indeed, especially on the southern coast, from Lisbon to Faro, Indo-Europeanization may be unlikely before Romanization in addition to the vestiges of a prolonged or intense use of Arabic. If potamonyms associated with the great rivers – Tagus and Guadiana, which should, in fact, be contextualized in the southern inland – are likely to have undergone an earlier Indo-Europeanization, the etymologies of other names in the region are extremely dubious in terms of their clear connection to linguistic strata prior to Arabicization⁶.

This uncertainty surrounding the origin of the central and southern potamonymic roots and stems seem to reflect the linguistic map which might be reconstructed with the support of classical sources. Regarding the Portuguese coast

⁶ The potamonyms *Tejo* and *Guadiana* could even be irrelevant in the discussion of pre-Latin Indo-Europeanization of central and southern Portugal, as they may have been borrowed by non-Indo-European populations established downstream of these rivers or simply transmitted in Roman times.

from Douro to Guadiana, these documents suggest a complex linguistic context which encompasses speakers of non-Indo-European languages⁷. In this respect, the name *Sizandro* (north of Lisbon) is especially interesting, as it appears isolated in the Portuguese and Iberian context⁸. Villar (2000, p. 342-343) assigns *Sizandro* to a non-Indo-European root, whose distribution area coincides with that of the series in *-ipo/-ippo*, which includes *Olisipo*, to the south, and *Colippo*, further north, both related to the languages of Asia Minor (VILLAR, 2000, p. 118)⁹.

Arabicization is also relevant in this discussion, as it has left a strong phonomorphological imprint, translated into the creation of hybrids in which the oldest material has been integrated and shaped by the Arabic structural patterns. This hinders the etymological examination of probably hybrid potamonyms, as is the case of those with the Arabic formant *ode- /odi-* (from *wādī* 'river, valley' – cf. subsection 2.2.2). *Degebe* (found in medieval documents as *Odigebe*), *Divor* (*Odivor* in the Middle Ages and still today), *Odearce*, *Odeleite* and *Odivelas* belong to a series that includes other examples (*Odelouca*, *Odiege* and *Odiáxere*) and integrate totally opaque second elements. These potamonyms may eventually have even more obscure origin due to the lack of documentation, the silence of the sources consulted or the apparent absence of relationship with the toponymy of other Portuguese or peninsular regions. While *Divor* and *Odeleite* seem to be connected to, respectively, *Ibor* (Cáceres) or the Andalusian *Guadalete*¹⁰, the rest of the series resists such an analysis. However, it is

⁷ On southern Portugal toponymy and its relationship with ethnicities that the Classical sources call *Turduli*, see Guerra (1998, p. 707-709).

⁸ The ending *-andro* also appears in the potamonym *Lisandro* (Lisbon), although in this case (and even in *Sizandro*'s) a late scholarly intervention – yet to be clarified (cf. ROCHA 2017, p. 417 and 430) – cannot be ruled out.

⁹ On the series defined by the ending *-ipo/-ippo*, recurrent in southwestern Iberia – *Bevipo* (probably Alcácer do Sal), *Calipo* (perhaps the current river Sado), *Colippo* (current Leiria), *Olisipo* (> Lisbon) – see Guerra (1998, p. 338-339, 370-371, 406-407, 467-469), Hoz (2005, p. 72), Hubschmid (1960, p. 482), and Villar (2000, p. 87-118).

¹⁰ See Castaño Fernández (2004) and Gordón Peral and Ruhstaller (1991).

worth noting that the Arabization of southern Portugal accompanied forms of land occupation that may well have led to renaming elements of local physical geography¹¹.

As for the local Latin heritage which coexisted with the implantation of Arabic – the so-called Mozarabic romance or, following Corriente (2003), the Romandalusi (or Andalusian romance) – the literature usually points out several examples of morphemes and lexemes of this type of Latin origin. Piel (1976) provides some clues that are directly related to the medieval romance dialectology in Portugal, including the conservation of intervocalic -L- and -N- in Latin or Latinized toponyms¹²: *Coína* (Setúbal), *Fontanas* (Évora), *Fontanelas* (Lisboa), Mértola (Beja). More recently, Azevedo (2005) presented important contributions to the study of central Portugal toponyms in the romance spoken in the early medieval County of Coimbra, culturally linked to Mozarabism. However, in Rocha (2017), there are no clear examples of central-southern potamonyms with roots ascribable to the local Latin heritage.

In short, in contrast to the potamonyms in the north of the Mondego and the Central System, which form a conservative onomastic set of strong Indo-European linguistic interference, the potamonymy of southern Portuguese regions provides elements that are certainly of great antiquity, but whose etymology is unsure. They were profoundly modified by Latinization, followed by a long process of

¹¹ New settlements in Gharb Al-Andalus also involve Berber groups and clans, as Picard (2000, p. 280) points out: “At least until the 10th century, a strong clan cohesion (*qawm*) dominated the social life of the localities and zones where the Arab and Berber groups settled, mainly based on their military role, within the framework of the *junī* and the garrison of the *Thughūr* (border regions). This cohesion often had the effect of provoking reactions to preserve their autonomy vis-à-vis the central power. It also had as a corollary a collective development of the lands which were granted to them. [...] [It] is this diffusion of which we find traces in the gentile toponymy of southern Portugal (Beni + personal name), despite the vagaries of this field of research, in particular in Portugal: *Benfarras*, *Benafim*, *Benagil*, *Bensafrim* and other anthroponyms of this type are present in the region of Silves.” This suggests that groups of Arabs and Berbers would have ignored the toponymy they eventually found in use in the lands granted to them.

¹² See also Carvalho (1959).

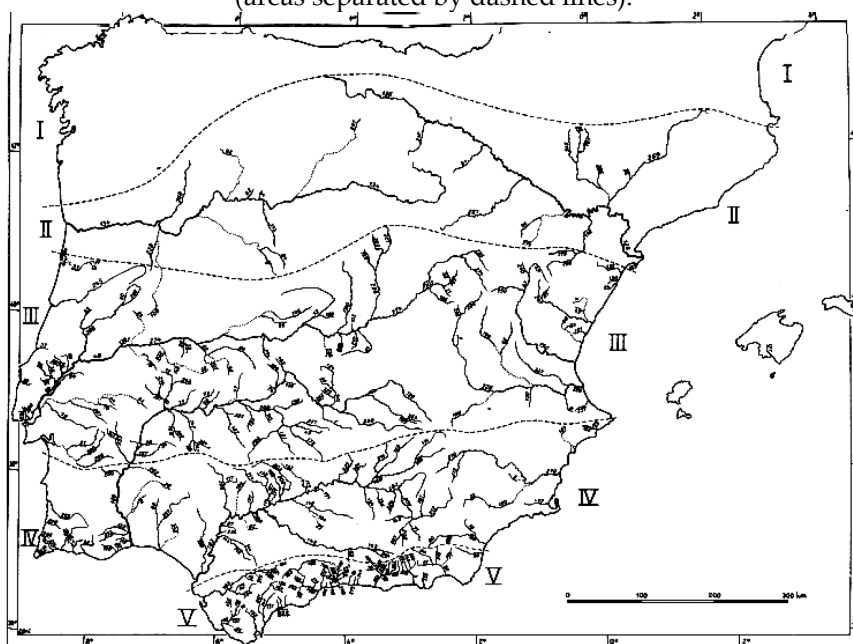
Arabicization, initially under conditions of bilingualism (see VICENTE, 2005, p. 45-59).

3.2 The Arabization of central and southern Portuguese potamonymy: Density and distribution

This subsection addresses the important Arab or arabicized toponymic and potamonic heritage of central and southern Portugal. A simple examination of the peninsular southern potamonymy reveals how the Arab modeled or even obliterated the ancient pre-Roman and Romanized potamonymy, as pointed out by Lautensach (1954 and 1960), Lopes (1968), Piel (1976) and Terés (1986).

Unsurprisingly, the same tendency of Portuguese toponymy, which was previously recognized by Vasconcelos (1918, p. 60/61), is confirmed by Lautensach's studies (1954 and 1960). His account of the contemporary distribution of Arabic and arabicized potamonym in the peninsular territory shows that these names become more frequent from north to south (cf. Lautensach's, 1960, p. 32-33), thereby allowing the entire Peninsula to be divided into five zones of Arabization: zone I (extreme North, up to 41° – 42° 30' N): without Arabic interference; zone II (north half, up to 41° N), where most of the great rivers and their great tributaries show arabicized names (purely Arabic cases in Aragon); zone III (south half up to 38° 30' N), whose watercourses also have arabicized names, but with an important number of entirely Arabic tributaries; zone IV (much of the South up to 37° 10' N), where there are some Arabized names for large rivers (Guadalquivir); zone V (from 37° 10' N to the extreme south), where watercourses have mostly Arabic names. This distribution is displayed by a well-known map in Lautensach (1960, p. 32/33) and reproduced in Figure 2.

Figure 2 – Distribution of Arabic and arabicized hydrotoponyms in the Iberian Peninsula
(areas separated by dashed lines).



Source: Lautensach (1960, p. 32-33)¹³

In Figure 2, the western strip occupied by the current Portuguese territory is covered by zones I-IV, i.e., by four of the five areas that Lautensach distinguished based on the intensity of Arabization. Drawing on Lautensach (1954 and 1960), it can be said that the potamonym of most regions of the North of Portugal never or rarely reveals Arabic linguistic material, but this becomes more frequent in the Douro valley to the south and in the eastern regions of Trás-os-Montes, as shown in the map¹⁴.

¹³ Each river represented on the map is associated with a number referring to an Arabic or arabicized name mentioned in an alphabetical list (LAUTENSACH, 1960, p. 32). Figure 2 does not show these numbers clearly, but this is irrelevant to this discussion.

¹⁴ The map in Figure 2 comes from Lautensach (1960, p. 32-33) and presents small differences in relation to a previous version contained in Lautensach (1954, p. 239-240), and later reproduced by Vernet Ginés (1960, p. 577). In the 1954 version, zone I, i.e., the “extreme north”, constituted a strip of peninsular territory north of the 43° / 42° 30' north latitude whose potamonym did not show Arab interference. In the 1960 version (LAUTENSACH, 1960, p. 32), the boundary of zone I goes down to the west almost to the mouth of the Douro, thus including the current Portuguese districts of Viana do Castelo, Braga and areas of the Porto and Vila Real. It should be noted that Lautensach (1954 and 1960) is mistaken when considering the names of zone II and some others in zone III as arabized: in fact, there is no evidence that *Douro*, *Sabor* or *Mondego* owe their configuration to Arabic phonetics, which suggests that they should not be seen as the potamonym *Tejo*, which is deeply altered by Arabization.

Lautensach's 1960 map, which represented the dispersion area of a list of 290 potamonyms, had an earlier version in Lautensach (1954), which considered 271 items. The 1960 list and map seem to correspond to a correction of the 1954 material: for example, the 1954 map marks the river 232 as *Nerja*, which is clearly an error, as there is no record of such tributary of the lower Guadiana; the 1960 version indicates, in the same location, the potamonym *Odearça*, which is the correct name of this river.

In any case, accepting the 1960 list as Lautensach's correct and final version, its comparison with RTP (1967) and the short repertoire commented by Rocha (2017) may be helpful as an assessment of its accuracy¹⁵. This is shown in Table 1.

Table 1 – Arabization zones in Portugal and distribution of potamonyms.

Lautensach 1960	RTP + CPM 1:25 000	Rocha 2017	
Zone I	–	–	
Zone II	Duero (Douro) Massueime Sábôr	rio Douro rio Massueime rio Sabor	Douro [non-Arabic] Massueime Sabor [non-Arabic]
Zone III	Albahaca [sic; ?] Alcabriche [sic] Alcáçovas Alcântara [sic] Alcarrache Alcobaça Alcobertas Alcôfra [sic] Alconchel Alcorrego Alfanzila Alforfa Alfusqueiro Alge Algés	[not available] ribeira de Alcabrichel ribeira das Alcáçovas só como topónimo ribeira de/rio Alcarrache rio Alcobaça ribeira das Alcobertas rio Alcofra [placename] Ribeira de Alcôrrego [not available in RTP] ¹⁶ ribeira da Alforfa rio Alfusqueiro ribeira de Alge ribeira de Algés	– Alcabrichel [Arabo-Romance hybrid] – – Alcarrache Alcobaça [Arabo-Romance hybrid?] Alcobertas – – – – – – Alfusqueiro [Arabo-Romance hybrid] – Algés

¹⁵ For Rocha's (2017) study, see section 4.

¹⁶ Lautensach (1960) finds *Alfanzila* in the Tagus valley, in the Abrantes region. It is a microtoponym, the same to which Silveira (1937, p. 87) assigns the variant *Alfranzília* and relates to Arabic *khanzir* 'pig, wild boar', pointing out that "[...] designates a *caneiro*, or small channel, and a *cachão*, a cascade, in the Tagus, below Belver, in the limits of Alvega – known as *Alfanzil* in the studies for the navigability of the Tagus [...] and *Alffanzira* in a document of 1414 [...]". The RTP, published in 1967, only registers *Alfanzina* as a placename in the municipality of Lagoa (district of Faro; cf. CMP 1:25 000, folio 604), a form that has an evident phonetic similarity to *Alfanzila*.

	Almadafe	ribeira de/do Almadafe	–
	Almanzor[sic]	rio Almansor, ribeira do	Almançor
	Almoster	ribeira de Almoster	–
	Almuro	ribeira do/de Almuro	–
	Alpiarça	[only as a placename]	–
	Alpreade	ribeira de Alpreade	–
	Alviela	rio Alviela	Alviela
	Asseca	[only as a placename]	–
	Azambuja	ribeira de/da Azambuja	–
	Baraçal	ribeira do Baraçal	–
	Enxarrique	ribeiro do Enxarrique	–
	Guadelim	ribeira de Godelim/Guadelim	–
	Jamôr [sic]	rio do Jamor	Jamor [non-Arabic?]
	Mondego	rio Mondego	Mondego [non-Arabic]
	(O)degebe	rio Degebe	Degebe
	Odivelas [Beja]	ribeira de/rio Odivelas	Odivelas [Arabo-Romance hybrid?]
	Odivelas [Lisboa]	ribeira de Odivelas	Odivelas [Arabo-Romance hybrid?]
	(O)divôr [sic]	ribeira Divor, do Divor	Divor [Arabo-Romance hybrid?]
	Pernes	[only as a placename]	–
	Tajo (Tejo)	rio Tejo	Tejo [pre-Latin with Arabic interference]
	Xarrama	ribeira de/rio Xarrama	Xarrama
	Xévora	rio Xévora	Xévora
	Zêzere	rio Zêzere	Zêzere [non-Arabic]
Zone IV	Alcantarilha	ribeira de Alcantarilha	–
	Alferce	[only as a placename]	–
	Algibre ¹⁷	ribeira de Algibre	–
	Almádena	ribeira de Almádena	–
	Almargem	ribeira do Almargem	–
	Asseca	ribeira da Asseca, rio Sequa	Sequa [probably Arabic]
	Beliche	ribeira de Beliche	Beliche [obscure]
	Budens	ribeira de Budens	–
	Bugaya [sic]	[not mentioned]	–
	Foupana	ribeira de Foupana	Foupana [probably non-Arabic]
	Guadiana	rio Guadiana	Guadiana [Arabo-Romance hybrid]
	Odearça	ribeira de Odearce/Odearça	Odearce [Arabic hybrid?]
	Odeáxere	ribeira de Odeáxere/Odiáxere	–
	Odeleite	ribeira de Odeleite	Odeleite [Arabic hybrid??]
	Odelouca	ribeira de Odelouca	Odelouca [Arabic hybrid?]
	Odemira	só topónimo	Mira [non-Arabic]

¹⁷ Herewith a list of errors in Lautensach (1954 and 1960): *Alburrel* (19 in 1954 and 1960); *Albahaca* (No. 8 in both versions); *Nerja* (No. 232 in 1954); *Bugaya* (117 in 1954; and 123 in 1960); *Zafrilla* (No. 266 in 1954; No. 285 in 1960). There are also fluctuations in name form or spelling: *Algibre* (No. 57 in 1954) and *Algibe* (No. 58, in 1960). Lautensach (1960, p. 24) registers *Algibe*, which he goes on to mark twice on map 5 (*ibidem*) with number 58 – once, as the name of a sub-tributary of the Tagus in the Spanish province of Cáceres and, another time, as *Ribeira de Algibre* (Algarve). This is clearly a mistake, because in the same list, with the number 59, there is *Algibre*, which was already mentioned in Lautensach (1954, p. 240) as the name of the Algarvian watercourse.

	Odeseixe [sic]	só topónimo	–
	Zafrilla [sic]	[not mentioned]	–

Source: created by the author.

Table 1 shows that the Portuguese potamonyms included in Lautensach's peninsular potamonym repertoire (1960, p. 32) are generally included in the RTP, and therefore form an onomastic group in use (at least administratively) until the late 1960s¹⁸. On the other hand, the confrontation of Lautensach's list with Rocha (2017) leads to question whether a few potamonyms are the result of direct attribution in the period of Arab-Muslim military and administrative domination. As shown in section 4, Rocha (2017) identifies 24 potamonyms constituted entirely or partially by Arabic morphology (4.99% of a total of 481 potamonyms studied), and none is found in the north of the Douro¹⁹; it is, therefore, to the south of this river that the potamonymy reveals the Arab impact until it intensifies in the Tagus basin, with the appearance of the element *odi-* /*ode-* (sometimes reduced to *d-*), which, only occurring once (*Odivelas*, in Lisbon) on the north bank of the Tagus, becomes frequent in Alentejo (*Odivelas*, *Degebe*, *Divor*) and in the Algarve (*Odeleite*).

Lautensach's lists (1954 and 1960) thus seem to draw from a broad, arguable definition of potamonymy of Arabic origin, since it includes onomastic units without

¹⁸ However, it is possible that certain potamonyms with lesser projection in general linguistic use may be likely to variation – from segment changes to onomastic unit substitution.

¹⁹ Lautensach (1960) certainly went too far by inserting *Sabor*, *Douro* and *Mondego* in his list of arabicized potamonyms, since these names do not exhibit the typical arabicized traces detectable in southern potamonyms. It seems Lautensach's criteria for Arabization made him classify as arabicized items found in Arab sources, a criterion which is not indicative of their Arabic origin or influence: *Douro* is the result of *Doiro*, regular evolution of *DURIU-, Latin form of an item of likely pre-Latin origin; *Sabor* is attested by forms with intervocalic -L- intervocalic and is likely to evolve from a pre-Latin name, perhaps related to the Proto-Indo-European root **salt-* 'torrent, river'; and *Mondego* stems regularly from *MUNDAECU-, probably a hypocoristic form of MUNDA, attested in Roman times. The density of arabicized potamonyms in zone II and in the northwest margin of zone III, as Lautensach proposes, therefore appears to be lower than the one that suggests his onomastic list and map.

this origin, even though Arab sources attest to them²⁰. Instead, Pocklington's (2018, p. 298) definition of Arabic toponymy seems advisable: "'Arabic toponymy will be the set of place names created by the Andalusian Arabs during the centuries in which their language was used in the Peninsula [...]", and "[t]he Arab denominations introduced after the Christian conquest in the places in which the Arabic-speaking population remained - sometimes for several centuries". Therefore, non-Arabic toponyms altered by Arabic phonetics and phonology and toponyms created with common lexicon of Arabic etyma after the Christian conquest should be excluded from a study of the Arabic and arabicized potamonymy.

3.2.3 Arabic phonological interference

Several pre-Arabic names feature Arabic phonological interference. The case of *Tejo* (Tagus) is evident, for it displays the result of the frequent replacement of Latin G by the Arabic pre-palatal affricate /ğ/ (cf. CORRIENTE, 2003, p. 34) and the phenomenon of imala, i.e., the raising of /a/ and/or /i/ (idem, p. 23; *Tajo*, in Castilian, did not undergo imala – see STEIGER, 1991, p. 314-332). *Erges* (Castelo Branco) may have also undergone such an influence (cf. ROCHA, 2017, p. 304).

The analysis of more archaic central and southern potamonyms – e.g., *Tejo*, *Guadiana*, or *Arade* – seems more adequate if they are viewed as the result of an interaction between two ways of transmission that shaped the current form: on the one hand, influence of Latin and Romance, in its diatopic variation, which comprehends two major systems, the inherited Romandalusi and Galician-Portuguese; on the other hand, the interference of Arabic in its Andalusian varieties, acting as a stratum that

²⁰ Only by mistake is a place name an Arabism because it occurs in Arab sources. It is, therefore, more than debatable to include the potamonyms *Douro* and *Sabor* in a dictionary of Arabic in the Portuguese language (cf. ALVES, 2013).

assimilated forms likely modified by the southern Romance dialects and handed down to local forms of Galician-Portuguese that evolved into Portuguese.

The distinction between the different linguistic strata which interact in the make-up of the potamonyms in the south of the Mondego basin must, therefore, correspond to a temporal sequence consisting of three stages. Each stage has left the traces of their typical phonological processes: the Latin-Romance stage, including the Germanic period, whereby southern Romance may reflect contacts with Arabic and give rise to Romandalusi dialects; the Arabic stage, which interfered with the transmission of forms whether processed or not by Romandalusi dialects; and, finally, from the 11th to the 13th centuries, Galician-Portuguese, and then by clearly Portuguese modalities.

The sequence represented by Table 2 is the typical transmission chain of a potamonym in most of the region south of the Tagus, where Arabicization was likely completed by the end of the 12th century (VICENTE, 2006, p. 32), and followed by a Re-romancization as a result of the Christian conquest (the so-called Reconquista) in the mid-1100s. Each stage is defined by morphological adaptations and specific phonetic phenomena as shown in Table 2.

Table 2 – Examples of etymological chain of transmission with identification of phonological traits and intervening morphemes.

Pre-Latin stems and affixes	Latin_Romance stratum			
	Latin-romance stage	Arabic stratum	Galician-Portuguese/Portuguese stages	
	phonomorphologic adaptation	– imala; – substitution of /dʒ/ ou /ʒ/ for /g/	phonomorphologic adaptation	
<i>Tejo</i>	*tag-	<i>Tagus</i>	<i>Taḡu, Taḡo</i>	<i>Tejo</i>

Source: created by the author based on Rocha (2017, p. 637).

The three stages indicated in Table 2 appear to be globally valid only for the south of the Douro; in certain areas to the north, although Arabic or Arabicized elements are not unknown in toponymy in general and potamonymy in particular, they emerged mainly from Arabic anthroponymy (cf. SERRA, 1966)²¹.

However, Arabic interference in southern potamonyms rooted in pre-Latin and Latin-Romance strata may not be easily identified. In some potamonyms which include segments and units that may have been arabicized, such as *Tejo* and *Guadiana*, it is difficult to recognize phonological or morphological marks of this process. These are names not mentioned by Lautensach (1960), such as *Arade*, *Caia*, *Coina*, *Marateca*, *Mira*, and *Sor*. These items are generally considered to be pre-Latin (cf. ALARCÃO 2004, p. 320; BASCUAS, 2002, p. 9; FERNANDES, 1999; GUERRA, 1998, p. 253/521/522; LOPES, 1968, p. 100/122; MACHADO, 2003; VASCONCELOS, 1905, p. 59/60; 1931, p. 40; 1926, p. 328; 1991, p. 236), and are found in historically arabicized territory, although no clear linguistic features of this circumstance exist. It may well be that they did not require radical adaptations to the structural patterns of Arabic and Andalusian Arabic dialects, nor later changes to the Galician-Portuguese dialects spoken by the Christian conquerors. This point remains open to discussion.

3.2.2 The *ode-/odi-* element and the hybrid potamonyms

Another constraint to identify arabicized potamonyms is this: since several of these names do not seem to be directly created by medieval Arabic-speakers, several cases are likely to result from toponymic transfers, probably much later than the Christian conquest. This may well be the case with *Alcobaça*, *Alcobertas* or *Almaceda*, which must have been first used as placenames. This, therefore, reduces the number

²¹ Thus, in the region between Minho and Douro (or a little further south, down to Vouga) and, perhaps covering the Vila Real district of Trás-os-Montes, two stages are considered, the Latin and the medieval Portuguese (or Galician-Portuguese) without discontinuity; since the transmission process is not permeated by Arabicization.

of Portuguese potamonyms to which a full Arabic origin can be assigned with certainty.

This conclusion is extendable to the series presenting the element *ode-/odi-*, as it seems to be frequently followed by an older non-Arabic segment. In the RTP, *Odemira* and *Odesseixe* stand out as toponyms that were former potamonyms, while the current corresponding potamonyms are *Mira* and *Seixe*, whose origin still awaits clarification: *Mira* has been related to the Roman toponym *Miróbriga* and, therefore, to roots and radicals of pre-Latin Indo-European languages²²; *Seixe* seems to be related to *seixo* (MACHADO, 2003), from Latin *SAXU-* ‘pebble’ (cf. COROMINES; PASCUAL, 2012 s.v. *saxífraga*), but the lack of documents hinders its etiology²³. In other cases, the second element is even more obscure: this is the case with *Odivelas* (in the districts of Lisbon and Beja), as well as with *Odearce* (Beja), *Odiáxere* (Faro), *Odeleite* (Faro) and *Odelouca* (Faro), as, for the time being, there is no explanation for the segments -*arce*, -*áxere*, -*leite* and -*louca*, respectively. The *Guadiana* form, which replaced the oldest *Odiana*, presents the *guadi-* variant, of Castilian origin, and the -*ana* element, which consensually identifies with the well attested *Ana* or *Anas* river from the sources of Antiquity (cf. GUERRA, 1998, p. 278-280).

It is plausible that these potamonyms are mostly related to pre-existing toponyms; and, therefore, a list of the Arab and arabicized potamonymy of central-southern Portugal may prove to be not only very different from Lautensach's proposal (1954 and 1960), but also more restricted. Besides, potamonyms from the common lexicon of Arabic origin are not considered in this article – e.g., *Azenhas* and *Alcaide* (in

²² See Guerra (1998, p. 535-537), and Rocha (2017, p. 235/236).

²³ The term *etiology* applies to the investigation of the circumstances or motivations in creating a placename (cf. TERRADO PABLO, 1999, p. 125). There is a record of both *Odemira* and *Mira* as the name of the same river (cf. BAPTISTA, 1876, p. 140), which makes it possible to suppose that *Odesseixe* and *Seixe* also stood or have stood for the same potamonym. However, no confirmation of this hypothesis was found in the sources consulted.

Leiria) – because it is doubtful that they bear witness to denomination in an Arabic linguistic context or in situations of Arabic-Romance bilingualism.

As stated earlier, the element *ode-/odi-* may occur outside potamonymy, as some of its compounds have been converted into placenames (cf. RTP and CMP 1:25 000, by the CIGeoE-SIG visualizer): in addition to the aforementioned *Odemira* (Beja), *Odesseixe* (Beja), this group includes *Odelouca* (Faro) and *Odiáxere* (Faro), which, however, continue to be associated with rivers – such as *ribeira* ('stream') *de Odelouca*, *ribeira de Odiáxere* and *ribeira de Odivelas*²⁴.

The element *ode-/odi-* occurs practically only south of the Tagus, not counting any contemporary or historical cases above the Montejunto-Estrela line. In fact, except for *Odivelas*, immediately north of Lisbon, this element does not seem to occur north of the Tagus. In comparison with the Castilian cognate form *guad-/guadi-* (which also originates in the andalusi *wādī-* 'river, valley' form and whose dispersion area in the central-eastern peninsular extends beyond the Central System), *ode-/odi-* concentrates in the southwestern peninsular corner²⁵. *Guad-/guadi-* mostly prevails in dialectally Castilian regions, although *odi-* also occurs, as *Odiel* provides evidence in the province of Huelva. As Terés comments (1986, p. 263):

²⁴ The RTP shows two records of *Odivelas*: that of the district of Lisbon is more prominent as a placename than the one associated potamonym, *rio* ('river') *Odivelas*; in the region of Beja, *Odivelas* is a river and a homonymous village on its banks.

²⁵ Terés (1986, p. 31 and 263-264), which includes Portuguese potamonyms in his analysis and systematization of *wādī* derivatives, explains that in Arabic the generic designation 'river' or 'current of water' is *an-nahr*; while *al-wādī* has another application in Arabia: "[...] it denotes the channel or bed that opens in broken terrain, between lateral heights – a channel that is often dry, or with intermittent water – and as such it is recorded in the toponymic terminology of the Arabian Peninsula, even in Yemen. Later on, its use was extended to other territories of the Islamic Empire and it is still alive in various regions of Asia and Africa, particularly in Morocco, where it designates both channels or depressions of similar characteristics to those primitive, and perennial streams of water that constitute properly the rivers." As in Maghreb, there was an equal preference for *wādī* in the Arabic of Al-Andalus,, as Terés points out (idem, p. 33): "[...] the *Wādī* voice would be more rooted in the speech of the peninsular territories more linguistically Arabicized, that is, it would be a more Andalusian expression [...]." See also Fernandes *et al.* (2006, p. 69).

In Portugal [...] the names of rivers with the initial *Od-* component are found from the extreme south of the territory up to the line of the Tajo; in Spain, we have them in the province of Huelva, centered on the river basin of Odiel, and on the other side of the Arroyo de Oda-Verata, at the end of Oropesa (Toledo), in the drainage basin of the Tagus [...].

The potamonyms *Degebe* and *Divor*, respectively documented as *Odigebe* and *Odivor*, must be added to the *ode-/odi-* series (cf. ROCHA, 2017). The apheresis of the initial *o-* in these names seems to be due to its reanalysis as an article defined in descriptive sequences: “*ribeira de Odigebe / Odegebe*” > “*ribeira do Digebe / Degebe*”; “*River of Odivor*” > “*river of Divor*”. Another case is that of *Arade*, attested in the Middle Ages as *Oidaradi*, *Widaradi* and *hudiaradi*, i.e., preceded by *ode-/odi-* (MACHADO, 2003). The potamonymic series under discussion was, therefore, more numerous than today; and, in fact, Lopes (1968, p. 27), who refers to such names (with the exception of *Odearce*) includes *Odiaz*, which has no record in the RTP. Although Machado (2003) identifies *Odiaz* with *Odiais*, in the municipality of Alcácer do Sal, the RTP and CMP 1:25 000 (consulted by the CIGeoE-SIG visualizer) do not include or locate any of these forms. Perhaps they are related to *Odiege*, another forgotten potamonym recorded by Castro (1762, p. 134), who locates it in Montemor-o-Novo. Today it seems to have been replaced by *rio de São Brissos* and *ribeira de Alcáçovas*.

Silveira (1935, p. 267) proposed an analysis of these potamonyms as syntagmatic units formed by *água* ‘water’, occurring as a classifier – *água de*, equivalent to *rio* (‘river’) or *ribeira de* (‘river, stream’) – and a second generally opaque element: *Água Diana*, as an alternative to *Guadiana*.

As such, there are several central-southern potamonyms that reveal the interaction between the Arabic stratum and the dialectal modalities covered by Latin-Romance stratum. These hybrids are divided into two fundamental types, as shown in Table 3.

Table 3 – Hybrid potamonyms with Arabic morphology.

article <i>al</i> + entirely or partially non-Arabic item (pre-Latin or Latin-Romance)	<i>Alcabrichel</i> (Lisboa), <i>Alcarrache?</i> , <i>Alcobaça?</i> (Leiria), <i>Alcobertas</i> (Santarém), <i>Alcubelas</i> (Lisboa), <i>Alenquer?</i> (Lisboa), <i>Alfusqueiro</i> (Aveiro), <i>Almaceda</i> (Castelo Branco), <i>Almonda?</i> (Santarém), <i>Alpedriz</i> (Leiria), <i>Alviela</i> (Santarém)
<i>od(e/i)-</i> + non-Arabic item (pre-Latin or Latin-Romance)	<i>Degebe?</i> (Évora), <i>Divor</i> (Évora), <i>Guadiana/Odiana</i> (Portalegre), <i>Odearce?</i> (Beja), <i>Odeleite?</i> (Faro), <i>Odivelas</i> (Lisboa), <i>Odivelas</i> (Beja)

Source: created by the author.

The hybrid status is questionable in several cases, as the question marks point out in the table, according to reasons set out in Rocha (2017, p. 185-604). However, the first time of hybridism apparently concentrates in Lautensach's (1960) zone III, an impression reinforced by the form *Alponsur*, a medieval variant of the potamonym *Ponsul*, in the Castelo Branco region (MACHADO, 2003). The examination of this type of potamonym – or rather, of toponym, since it generally alludes to places (*Alcobertas*, *Almaceda*, *Alpedriz*) – suggests the likelihood of the non-Arabic elements accepting the Arabic definite article *al-* regardless of whether they involve common nouns or proper nouns. In fact, this hypothesis may well be supported by evidence given by the pair *Viaster* and *Albiaster* (Coimbra), which have been replaced by *Fornos* (placename and potamonyms), in high-medieval documents referring to the region of Coimbra (cf. MACHADO, 2003; ALARCÃO, 2005, p. 77). These forms are odd, because in Arabic, as in other languages, the definite article (cf. CORRIENTE, 2002, p. 59-60) does not associate with proper nouns, and so, if the Arabic element is actually the definite article, they still await an explanation.

3.3. Post-Arab toponymy in central and southern Portugal

This is an area of study that is yet to systematically explore the Portuguese mainland, at least from a strictly linguistic point of view. However, concerning the

Peninsular context, also covering Portugal, Marsà (1960, p. 615-646) collects several examples of the first stage of this type of toponymy, which he dubs as the “toponymy of the Reconquista”. His study includes the toponymy of Arabic etymology, rooted in Arabic military terminology; in addition, it presents interesting data for the Latin-Romance toponymy of Galician-Portuguese origin: for instance, the toponymic fixation of *castro* ‘fort’ (Castro Verde, Castro Marim), *castelo* ‘castle’ (Castelo Branco), *torre* ‘tower’ (Torres Novas, Torres Vedras) replicating cases that are also found in northern regions (MARSÀ, 1960, p. 621-625; see also SALEMA, 2016); or *atalaia* ‘watchtower’, as evidence of integrated use of an Arabism in the Galician-Portuguese Romance²⁶. Marsà (1960, p. 635) also explores the contribution of ethnonyms such as *Francos* – although *Franco* and its inflections should not always be ethnically interpreted (cf. MACHADO, 2003) – as well as the dispersal of Christian and northern names, as in the case of *Marim* in Castro Marim and several others such as *Paio Pires* (Setúbal), or *Gomes Eanes* (Beja), formed by onomastic material of northern provenance (MARSÀ, 1960, p. 637)²⁷.

These trends are not clearly outlined in the context of potamonymy. Indeed, in Rocha (2017), 75 out of 141 central-southern potamonyms are trackable in Latin-Romance strata, either in the early Romandalusi dialects or in the later Galician-Portuguese dialects. However, most of this Latin-Romance group is made up of 71 relatively transparent items, which can be interpreted diachronically and diatopically by Portuguese common lexicon or onomastics. These are forms that fit into the Galician-Portuguese system, although the likelihood that some are inherited should be considered, as they may be cognates of Galician-Portuguese forms. They may well

²⁶ It was also not possible to confirm in other sources the mediocrity of these examples taken by F. Marsà. Incidentally, the several cases of *Atalaia* in central-southern Portugal are difficult to assign, as they also result from creations carried out in the Arab period (cf. MARSÀ, 1960, p. 618-620 and RTP).

²⁷ It is unclear the connection of *A dos Francos* to the ethnonym *Franco*, as it may be the toponimization of the surname *Franco*. In addition, the structure *A de...* (*A dos Negros*, *A dos Cunhados*) may be relatively recent. These are questions which are not possible to delve into here.

represent units of southern Iberian Romance (or Romandalusi in a later stage) whose conversion to Portuguese (or Galician-Portuguese) may have occurred by simple transposition or (minimal?) adaptation, perhaps due to phonic and semantic similarity or analogy. This is, however, a hypothesis that remains unexplored in this article. In section 4, details are provided on the geographic distribution of these potamonyms.

4. A profile for the central-southern potamonym of continental Portugal

In the study of potamonymy, it is necessary to consider the relationship between the extension of watercourses and the trends of etymological and stratigraphic distribution of the named watercourses. In the case of the Portuguese mainland, studies and comments assess an important part of potamonymy as an archaic onomastic heritage²⁸, especially when it comes to the names of the most extensive rivers, with a greater presence and stability in the political-administrative tradition (since the names of less extensive rivers and with less historical-administrative relevance would supposedly be unstable and liable to changes).

Checking these considerations, Rocha (2017) collects and comments 481 potamonyms extracted from RTP, where potamonyms are distributed in three classes of watercourses – *rio importante* ('important river'), *rio* ('river') e *ribeiro, ribeira, pequeno curso de água* ('brook, stream, small water course') –, herewith identified as type I, type II and type III respectively. Rocha (2017) only selects the first two types, and reveals that that type I comprises 18 potamonyms, attested, directly or indirectly, either in ancient sources (such as *Ave, Douro, Lima, Minho, Mondego, Tâmega, Tejo, Vouga* and, partially, *Guadiana*)²⁹ or in medieval documents (*Alva, Cávado, Coa, Dão, Sabor*). This

²⁸ Regarding the potamonym *Dão*, Silveira (1940, p. 383) remarks: "Almost all the names of our rivers of any magnitude, except those of Arabic origin in the South, belong to the pre-Roman indigenous languages; which are unknown, thus making everything that can be said about their meaning very uncertain."

²⁹ See section 3.2.2.

opaque set is connected to the pre-Latin strata, not interpretable according to Latin common lexicon or Latin onomastics, in particular, those names which are connected to Hispanic Latin; in addition, cases which are solely attested by medieval sources do not generally correspond to German anthroponymy, nor to units of Arabic origin. There are four hydronyms left – *Mira*, *Sado*, *Sorraia*³⁰, *Zêzere* –, three of which have an obscure origin, although they are probably inscribed among pre-Latin names; only *Sado* seems to be outside this group, in an unlikely relationship with both the pre-Latin strata and the Latin heritage.

Three of the four cases that raise the greatest doubts as to their origin – *Sorraia*, *Sado* and *Mira* – together with *Tejo* and *Guadiana*, constitute the small potamonymic group which is representative of type I in the southern half of Portugal. This is likely the result of the climate and terrain constraints on central and southern river networks (see section 2). In addition to these physical and geographical factors, there is the prolonged interference of Arabic; however, the lack of documentation does not support any clear or hypothetical transmission continuity, thus obscuring etymological relationships and, in other cases, breaking with the typical toponymic series of the pre-Latin and Latin-Romance strata.

In contrast, the much more numerous rivers of shorter length – type II potamonyms (from around 20 to around 100 km) – are guided by etymological heterogeneity, as shown in Rocha (2017). Indeed, type II includes names that both date back as far as Antiquity and can be ascribed to the clearly Portuguese historical periods. As the number of names under analysis increases, so does the stratigraphic diversity of their distribution. Table 4 quantifies these observations by presenting a general picture which a condensed version of a table from Rocha (2017, p. 606).

³⁰ *Sorraia* is a case of agglutination of two names, *Sor* and *Raia*. The former may well belong to the pre-Latin stratum, and the latter is apparently more recent, perhaps a unit of the Latin-Romance stratum (see ROCHA, 2017, p. 474-475 and 440-441).

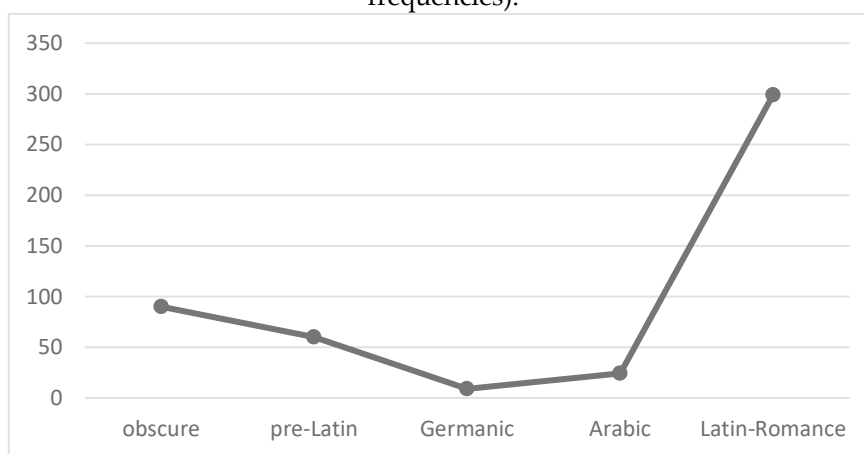
Table 4 – Geographical and linguistic distribution of the potamonyms of mainland Portugal.

	obscure		pre-Latin		Germanic		Arabic		Latin-Romance/ Portuguese		total
	n	%	n	%	n	%	n	%	n	%	
North (Braga, Bragança, Porto, Viana do Castelo e Vila Real)	36	17.91%	21	10.45%	6	2.99%	0	0.00%	138	68.66%	201
Center-North (Aveiro, Coimbra, Guarda e Viseu)	21	15.11%	26	18.71%	3	2.16%	3	2.16%	86	61.87%	139
Center (Castelo Branco, Leiria, Lisboa e Santarém)	20	19.42%	5	4.85%	0	0.00%	13	12.62%	65	63.11%	103
Center-South (Évora, Portalegre e Setúbal)	7	38.89%	3	16.67%	0	0.00%	4	22.22%	4	22.22%	18
South (distritos de Beja e Faro)	8	40.00%	2	10.00%	0	0.00%	4	20.00%	6	30.00%	20
NATIONAL OUTLINE	92	19.13%	57	11.85%	9	1.87%	24	4.99%	299	62.16%	481

Source: based on Rocha (2017, p. 606).

This table is translated into Graph 1.

Graph 1 – Distribution of potamonyms in mainland Portugal by linguistic strata (absolute frequencies).



Source: Rocha (2017, p. 611).

Graph 1 represents the distribution of potamonyms in this article by linguistic strata and shows that the Latin-romance stratum (covering the most recent periods, already Portuguese) is the most significant in the Portuguese mainland, followed by far by the pre-Latin, Arabic and Germanic strata.

From the descriptive and stratigraphic point of view, Table 4 and Graph 1 show the clear predominance of potamonyms related to items of the Latin-Romance

common lexicon and onomasticon, which are in clear majority throughout Portugal's mainland (299 potamonyms, reaching 62%). However, there are potamonyms of obscure origin, i.e., of an unidentifiable stratum even in comparison with toponyms of extra Portuguese regions or not mentioned in the ancient and medieval sources consulted. It is a group with a significant frequency (92 names, *i.e.*, 19.13%) in the central, central-south and south regions, and stems from the difficulty in registering the constituents of the southernmost Portuguese potamonyms, on the one hand, in a linguistic family or sub-branch and, on the other hand, in the deep alteration that Romandalusi and Andalusian Arabic may have caused in cognate or similar morphemes, as compared to names of Center-North and North.

Besides, the more archaic pre-Latin names (57 potamonyms, *i.e.*, 11.85%) are concentrated in the northern half of Portuguese territory; they are attested by Antiquity sources or probably exist because of linguistic reconstruction, with transmission exclusively or mainly in Latin-Romance³¹. Pre-Latin potamonyms are followed by the Arabic heritage (24, *i.e.*, 4.99%), while the Germanic stratum has a small share (9 names, 1.87%).

Table 4 and Graph 1 show a territorial distribution defined by the different stages of the territorial expansion of Portugal, along five regions: North, Center-North, Center, Center-South and South. These regions are mainly limited by geographical criteria: river valleys (in the case of the Douro, the Mondego, the Tagus, and, not so clearly the Sado and its tributaries) and orographic accidents (the Sistema Central mountain range), which are considered barriers or transition zones – even though the

³¹ Considering the density of pre-Latin toponymy in present-day Galicia, as argued by Bascuas (2002, 2006, 2014), drawing on hypothesis of the old European (see KRAHE 1964), it is to be expected that a similar situation will also be found north of the Douro, for northern Portugal has not experienced consistent or prolonged Arab occupation. However, Rocha (2017) revealed that it is the northern regions of ancient Lusitania, most exposed to the upheavals of the struggles between the Christian North and the Muslim South, that provide a significant number of pre-Latin names and obscure names that can relate to this stratum.

South region is defined mainly in terms of its belated Christian conquest. The distinction of three southern regions has the disadvantage that occurrences are scarce, and, therefore, cause percentage distortions that prevent safe comparisons. However, there is a clear contrast between the two regions further north and the remaining three in the south direction: while Arabic potamonymy has little expression in the first, the regions south of the Mondego basin and the Sistema Central show a greater frequency of Arabic or arabicized names. It is also worth mentioning the large number of hydrotoponyms whose origin is obscure and which are not clearly related to linguistic units or features identifiable as typical in the strata under discussion.

From the stratigraphic points of view, therefore, the potamonyms in discussion are ranked quantitatively as follows:

1st – Potamonyms of Latin-Romance origin, frequent throughout the continental territory.

2nd – Less frequent pre-Latin potamonyms, dispersed throughout the territory.

3rd – Arabic names (or partially Arabic and, therefore, hybrids), with less widespread distribution: from the left bank of the Douro, they occur sporadically in the Center-North region (examples are *Alfusqueiro*, in Aveiro, or *Múceres*, in Viseu), becoming numerous in the Center, the Center-South and the South, where compounds of *ode-/odi-* (*Odeleite*, *Odivelas*) are typical.

As shown in Table 4 and Graph 1, a category is assigned to onomastic units of Germanic origin, yet their little significance would recommend their inclusion in the Latin-Romance stratum, precisely to emphasize their diminished importance when compared to the other types³². In any case, the Germanic contribution is irrelevant,

³² The Germanic impact on anthroponymy and, later, on toponymy does not indicate a real linguistic contact, following an eventual implantation of Germanic dialects in Portuguese territory. The sources consulted are silent on the possibility of the continued use of these dialects. Therefore, there would not even have been conditions for a Germanization or a Germanic interference with the same depth as that of Arabization.

with the potamonymy of mainland Portugal never suggesting direct naming by speakers of Germanic dialects³³.

As pointed out earlier, only 38 (7.88%) of the 481 hydrotoponyms under scrutiny refer to water courses south of the Tagus; and even if potamonyms are added for rivers flowing in the regions immediately south of the Montejunto-Estrela system but north of the Tagus – Leiria, Lisbon, Santarém and Castelo Branco, adding 103 names – the total of 141 hydrotoponyms (38 + 103) does not exceed 30% of the selected nomenclature³⁴. Table 5 provides a schematic account of the etymological classification of this group as well as its history of transmission (cf. Table 2, in section 3.2.3).

Table 5 – Classification of Portuguese south-central potamonyms regarding etymology and history of transmission³⁵.

potamonyms	naming linguistic origin					transmission history		
	obsc.	pre-Lat.	Ar.	Ger m.	Lat.-Rom.	Lat.-Rom. I	Ar.	Lat.~Rom. II
Açude (Ls)					X			X
Águas Belas (Lr)					X			X
Alcabrichel (Ls)			X		(X)	?	X	X
Alcaide (Lr)			?		X		?	X
Alcarrache (Év)			X				X	X
Alcoa (Lr) – cf. Alcobaça			X					X
Alcobaça (Lr)			X		(X)		X	X
Alcobertas (St)			(X)		X		?	X

³³ A detoponymic potamonym, resulting from the conversion (transfer) of a toponym which in turn is of Germanic or other anthroponomic origin, may be relatively recent. In other words, its onomastic history may globally be more remote and related to pre- or non-Portuguese material, yet its history as a potamonym can be included in that of the Portuguese language.

³⁴ However, that the district of Lisbon aligns with Leiria and administrative units further to the north, as it has 37 potamonyms, thus reflecting oceanic climate conditions. This observation meets the geomorphological perspective of H. Lautensach, who suggested the inclusion of the Lisbon peninsula and a large part of that of Setúbal in the northern part of Portugal (cf. RIBEIRO; LAUTENSACH; DAVEAU, 1987, p. 135).

³⁵ The abbreviations in parentheses refer to the central and southern Portuguese administrative units (*distritos*) where these rivers run: Bj = Beja; CB = Castelo Branco; Év = Évora; Fr = Faro; Lr = Leiria; Ls = Lisbon; Pt = Portalegre; St = Santarém; Sb = Setúbal. The Xs in parentheses indicate the inclusion of pre-Arabic or non-Arabic linguistic material. The sign ? indicates the possibility of etymological inclusion of an item in a stratum or its likely adaptation to a language expanded after that stratum. Lat.-Rom. I represent Latin-Romance dialects spoken before or after the Arab conquest; Lat.-Rom. II corresponds to the spread of Galician-Portuguese dialects and their later development into Portuguese.

Alcubela (Ls)			X		(X)		?	X
Alenquer (Ls)	X						?	X
Almaceda (CB)			X		(X)	?	X	X
Almançor (Év, St)			X				X	X
Almonda (St)		?	X			X	X	X
Alpedriz (Lr)			X		X	?	X	X
Alviela (St)			?		X	?	X	X
Alvor (Fr)			X				X	X
Anços (Lr, Co)		X				X		X
Antas (Lr)					X			X
Arade (Fr)		X				?	X	X
Ardila (Bj)	X						?	X
Areia (Lr)					X			X
Arnoia (Lr)	X	?				?		X
Arunca (Lr, Co)		X				X	?	X
Azenhas (Lr)					X			X
Baça (Lr) (cf. Alcobaça)	X						?	X
Bazágueda (CB)	X					?	?	X
Beliche (Fr)	X					?	?	X
Bogota (Ls, Lr)	X					?	?	X
Boiçã (Lr)					X			X
Bouco (Ls)					X			X
Caia (Pt)		X				?	?	X
Cal (Lr)					X			X
Calçada (Ls)					X			X
Carapua (St)	X				?	?	?	X
Carvalho (St)					X			X
Castanheira (Lr)					X			X
Centeio(St)					X			X
Chança (Bj)					X	?	?	X
Chãos (Lr)					X			X
Coina (Sb)		X				X	?	X
Corga (Lr)					X			X
Corte (Fr)					X			X
Costa (Ls)					X			X
Coz (Lr)	X					?	?	X
Crós Cos (Ls)	X					?	?	X
Cuco (Ls)					X			X
Degebe (Év)		?	X		?	?	X	X
Divor (Év, St)		?	X			?	X	X
Erges (CB)	X	?				X	?	X
Esperança (Lr)					X			X
Fanadia (Lr)					X			X
Ferrel (Lr)					X	X	?	X
Fonte Santa (Lr)					X			X
Foupana (Fr)	X				?	?	?	X
Galvão (Ls)					X			X

Gilão (Fr)	X				?	?	?	X
Grande (Ls)					X			X
Grande da Pipa (Ls)					X			X
Guadiana (Pt, Év, Bj, Fr)		(X)	X			X	X	X
Igreja Velha (Lr)					X			X
Jaleca (St)	X				?			X
Jamor (Ls)	X					?	?	X
Judeu (Sb)					X			X
Junceira (Lr)					X			X
Lama (Lr)					X			X
Lavandeira (Lr)					X			X
Lena (Lr)		X				X	X	X
Lis (Lr)		X				?	?	X
Lisandro (Ls)	X	?				?	?	X
Loures (Ls)	X				?	?	?	X
Louriceira (Ls)					X			X
Lousa (Ls)					X			X
Maior (St)					X			X
Marateca (Év, Sb)	X	?				?	?	X
Mata (Ls, St)					X			X
Matos (Ls)					X			X
Meimoa (CB)			X				X	X
Meio, rio do (Lr)					X			X
Mira (Bj)		X				X	X	X
Moita					X			X
Monte do Marquês (Bj)					X			X
Mourual (St)	X				?	?	?	X
Nabão (Lr)		X				X	?	X
Ocresa (CB)	X					?	?	X
Odearce (Bj)			X			?	X	X
Odeleite (Fr)		?	X		?	?	X	X
Odivelas (Bj)		?	X			?	X	X
Odivelas (Ls)		?	X			?	X	X
Ota (Ls)	X		?				?	X
Pedralhos (Lr)					X			X
Pedrulhos (Ls)					X			X
Penegral (St)					X	?		X
Pequeno (Ls)					X			X
Pisões (Lr)					X			X
Ponsul (CB)	X							
Ponta do Jardim (Lr)					X			X
Porto (Sb)					X			X
Raia (Év)	X				?	?	?	X
Raimunda (Ls)					X			X
Real (Lr)					X	X		X
Rebelos (Lr)					X			X
Risco (Ls)					X			X

S. Domingos (Lr)					X			X
S. Vicente (Lr)					X			X
Sado (Bj, Sb)			X			?	?	X
Safareja (bj)	X		?		?		?	X
Safarujo (Ls)	X		?		?		?	X
Salema (Ls)	X		?				?	X
Sangue (Ls)					X			X
Sanguinheira (Lr)					X			X
Santo (St)					X			X
Santo António (Ls)					X			X
Seco (Fr)					X			X
Seco (Lr)					X			X
Sequa (Fr)			X				?	X
Sever (Pt)	X				?	?	?	X
Silveira (Ls)					X			X
Sizandro (Ls)	X	?				?	?	X
Sobral (Ls)					X			X
Sobreira (Lr)					X			X
Sor (Pt, Év)	X	?				?	?	?
Sorraia (Pt, St, Ls)					X (composto)			X
Tábuas (Lr)					X			X
Tejo (CB, Pt, St, Ls, Sb)		X				X	X	X
Tera (Év)	X					?	?	X
Terges (Bj)	X					?	?	X
Tornada (Lr)					X			X
Torto (Bj)					X			X
Torto (CB)					X			X
Torto (Év)					X			X
Torto (St)					X			X
Toxofal (Ls)	X		?		?	?	?	X
Trancão (Ls)					X			X
Travessa (Ls)					X			X
Tripeiro (CB)					X			X
Valverde (Ls)					X			X
Vascão (Fr)	X				?	?	?	X
Velho (Lr)					X			X
Vergado (Lr)					X			X
Xarrama (Év, Sb)	X					?	?	X
Xévora (Pt)	X	?				?	?	?

Source: created by the author.

In Table 5, the potamonyms of the most recent Latin-Romance stratum (from the introduction and entrenchment of the Galician-Portuguese dialects onwards) are concentrated in the regions (distritos) of Leiria (29 names) and Lisbon (24 names) and

make up a set of 53 potamonyms. In relation to the potamonyms of the remaining administrative regions, the absolute frequencies of the units, always small, do not allow conclusive comparisons to be made. Even so, while Santarém exhibits a majority of names assignable to Portuguese period of the Latin-Romance stratum (8 potamonyms in a group of 14), Castelo Branco stands out for its obscure or more archaic names (5 in a total of 9 potamonyms), thus connecting to the territories to the west and north; and the southern distritos (Beja, Évora, Faro, Portalegre and Setúbal) represented by a total of 38 potamonyms show a more individualizing rather than numerous Arabic heritage (8 potamonyms), as this does not surpass the set of names of obscure origin (15 names) and those from the Latin-Romance strata (10 names, eight of which are identifiable with the Portuguese common lexicon). Table 6 lists the delexical and deonomastic potamonyms which fit into the linguistic context created by the medieval Christian conquest.

Table 6 — Delexical and deonomastic potamonyms of the Galician-Portuguese stratum.

Leiria (43)	<i>Águas Belas</i> (rio das), [<i>Alcaide</i> (rio)], <i>Antas</i> (rio das), <i>Areia</i> (rio da), <i>Azenhas</i> (rio das), <i>Cal</i> (rio da), <i>Castanheira</i> (rio da), <i>Chãos</i> (rio de), <i>Corga</i> (rio da), <i>Esperança</i> (rio da), <i>Fanadia</i> (rio da), <i>Fonte Santa</i> (rio da), <i>Igreja Velha</i> (rio da), <i>Junceira</i> (rio da), <i>Lama</i> (rio da), <i>Lavandeira</i> (rio da), <i>Meio</i> (rio do), [<i>Pedralhos</i> (rio de)], <i>Pisões</i> (rio dos), <i>Ponta do Jardim</i> (rio da), [<i>Real</i> (rio)], <i>Rebelos</i> (rio dos), <i>S. Domingos</i> (rio de), <i>S. Vicente</i> (rio de), <i>Sanguinheira</i> (rio da), <i>Seco</i> (rio), <i>Sobreira</i> (rio da), <i>Tábuas</i> (rio das), <i>Tornada</i> (rio da), <i>Velho</i> (rio), <i>Vergado</i> (do)
Castelo Branco (9)	<i>Torto</i> (rio), <i>Tripeiro</i> (rio)
Lisboa (37)	<i>Louriceira</i> (rio da), <i>Lousa</i> (rio de), <i>Mata</i> (rio da), <i>Matos</i> (rio dos), <i>Pedrulhos</i> (ribeira de), <i>Pequeno</i> (rio), <i>Raimunda</i> (rio da), <i>Risco</i> (rio do/vala do), [<i>Sangue</i> (rio)], <i>Santo António</i> (rio de), <i>Silveira</i> (rio da), <i>Sobral</i> (rio do), <i>Trancão</i> (rio), <i>Travessa</i> (rio da), <i>Valverde</i> (rio de)
Santarém (14)	<i>Carvalho</i> (rio do), <i>Centeio</i> (rio/rio do), <i>Jaleca</i> (rio da), <i>Maior</i> (rio), <i>Mata</i> (rio da), <i>Penegral</i> (rio do), <i>Santo</i> (rio), <i>Torto</i> (rio)
Setúbal (4)	<i>Judeu</i> (rio), <i>Moita</i> (rio), <i>Porto</i> (rio do)
Portalegre (5)	–
Évora (9)	[<i>Raia</i> (ribeira da)], <i>Torto</i>

Beja (11)	[<i>Chança</i> (rio)], <i>Monte do Marquês</i> (ribeira), [<i>Safareja</i> (rio)], <i>Torto</i> (rio), [<i>Vascão</i> (ribeira do)]
Faro (9)	<i>Corte</i> (ribeira da), [<i>Foupana</i> (ribeira da)], <i>Seco</i> (rio)

Source: created by the author.

N.B.: In the left column, figures in parentheses indicate the totals corresponding to each region (*distrito*). The *distritos* are located from north to south and from west to east.

Yet the regions covered by the *distritos* of Lisbon, Leiria, Santarém and Castelo Branco can be considered to make up a transition region or a sub-region within the whole of the territory south of the Mondego valley and the Sistema Central (central mountainous system), as displayed in Table 7.

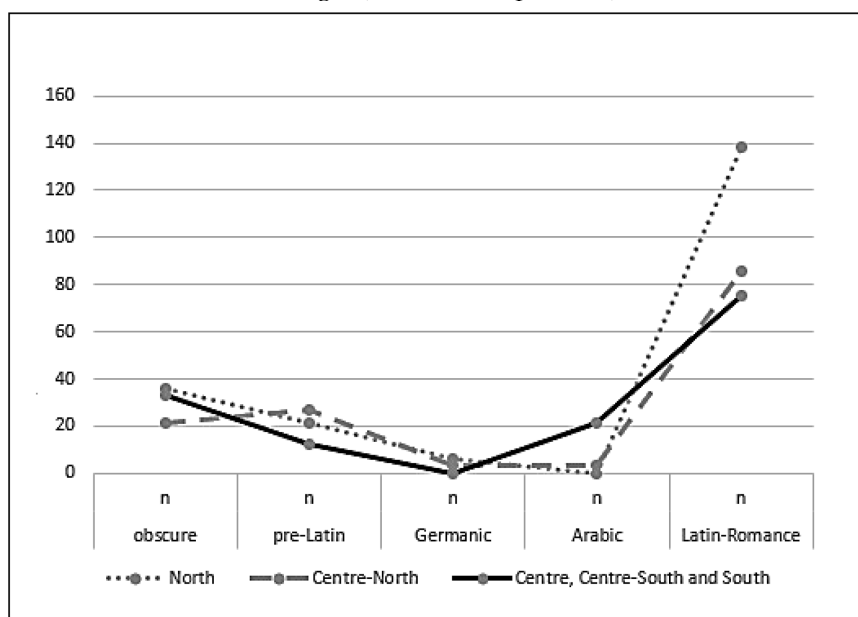
Table 7 – Geographical and linguistic distribution of potamonyms the center and south of mainland Portugal.

	obscure		pre-Latin		Germanic		Arabic		Latino-Romance/ Portuguese		total	
	n	%	n	%	n	%	n	%	n	%		
Leiria	5	6,98%	3	11,63%	0	0,00%	4	9,30%	31	72,09%	43	
Castelo Branco	4	44,44%	1	11,11%	0	0,00%	2	22,22%	2	22,22%	9	
Lisboa	9	24,32%	0	0,00%	0	0,00%	4	10,81%	24	64,86%	37	
Santarém	2	14,29%	1	7,14%	0	0,00%	3	21,43%	8	57,14%	14	
	Center	20	19,42%	5	4,85%	0	0,00%	13	12,62%	65	63,11%	103
Setúbal	0	0,00%	1	25,00%	0	0,00%	0	0,00%	3	75,00%	4	
Portalegre	3	60,00%	2	40,00%	0	0,00%	0	0,00%	0	0,00%	5	
Évora	4	44,44%	0	0,00%	0	0,00%	4	44,44%	1	11,11%	9	
	Center-South	7	38,89%	3	16,67%	0	0,00%	4	22,22%	4	22,22%	18
Beja	4	36,36%	1	9,09%	0	0,00%	2	18,18%	4	36,36%	11	
Faro	4	44,44%	1	11,11%	0	0,00%	2	22,22%	2	22,22%	9	
	South	8	40,00%	2	10,00%	0	0,00%	4	20,00%	6	30,00%	20

Fonte: based on Rocha (2017, p. 606).

The contrasts pointed out, between national and regional distribution, become more noticeable in Graph 2.

Graph 2 – Comparison of the regional and stratigraphic distribution of potamonyms in mainland Portugal (absolute frequencies).



Fonte: Rocha (2017, p. 613).

In Graph 2, where potamonyms from Center, Center-South and South regions are grouped in order to balance samples, the regional distribution of potamonyms does not differ significantly from the national trend represented in Graph 1, except in what concerns the Arabic stratum, absent to the north of the Douro, evidenced by some cases south of the Douro up to the Mondego, and clearly represented to the south of the latter. In Graph 2, the contribution of the Arab stratum to the profile of potamonymy in the southern regions of Portugal is clearly significant – i.e., in the distritos of Leiria, Castelo Branco, Lisbon, Santarém, Setúbal, Portalegre, Évora, Beja, and Faro. In effect, there are 21 Arabic potamonyms, which translates to 14.89% of the total river names in the set of regions. In this territory, however, there is a high number of potamonyms without safe etymology, classified as obscure, along with the predominance of the names of the Latin-Romance stratum, similarly to what occurs in the districts of the North and Center-North. In addition, the grouping of rivers in Leiria and Lisbon corresponds to a sizeable amount of potamonyms, which encompass

potamonyms created later in the Latin-Romance stratum, and most likely assignable to the Galician-Portuguese period or to fully Portuguese linguistic periods.

Given the intrinsic solidarity of potamonymy with all toponymy, Table 3 and Graphs 1 and 2 suggest a stratigraphy of the Portuguese river names as a revision of Leite de Vasconcelos' broadest typology (VASCONCELOS, 1918, p. 58-63; VASCONCELOS, 1931, p. 139- 148), as proposed in Table 8.

Table 8 – Vasconcelos typology (1918, p. 58-63 and 1931, p. 139-148) compared to an alternative proposal for stratigraphic characterization of mainland Portugal potamonymy.

Etymological typology of Portuguese toponymy in Vasconcelos (1931, p. 139-148)	Proposal of stratigraphic characterization of mainland Portugal potamonymy (ROCHA, 2017, p. 615)
pre-Roman names	pre-Latin strata ³⁶
Roman names	Latin-Romance stratum
Germanic names	
Arabic names ³⁷	Arabic stratum
Names from different origins	
Portuguese names proper	

Source: Rocha (2017, p. 615).

There are, however, notable differences between Leite de Vasconcelos typology and Rocha's stratigraphic proposal (2017, p. 615). Thus, it is worth noting, in the right column in Table 7, the null contribution of names of Germanic origin to Portuguese potamonymy. In turn, the Latin-Romance stratum mentioned in the right column corresponds to different etymological types of names: in fact, the Latin background comprises elements and morphemes of the common lexicon that the literature has been identifying separately, such as the elements of the Germanic dialects that onomastics

³⁶ Strictly speaking, the term *pre-Latin* should be understood as a plurality, since multilingualism or multidialectalism in the same linguistic family (or subfamily) would constitute the linguistic situation prior to Romanization and, later, to some extent, its contemporary.

³⁷ Leite de Vasconcelos defines three zones according to the degree of Arabization (VASCONCELOS 1931, p. 143-147): north of the Douro, with little Arabic influence; between Douro and Mondego and south of this river (Beira region), an area that belonged "from the 8th and 12th century, sometimes to the Arabs, sometimes to the Christians"; Portuguese Estremadura and the region south of the Tagus.

and toponymy identify mainly in the Portuguese northwest, as well as those which for centuries have been the privileged vehicle for transmitting a set of items which Piel (1989, p. 12/13) dubbed as the “Arabic lexical alluvium”. This does not preclude that, in Table 7, an Arabic layer is considered from the toponymic point of view, representative of the interference or the effective use of the Arabic language by the populations of the southwest corner of the Iberian Peninsula. This stratum is marked either by the anthroponymic toponymy that had an impact even north of the Douro (*cf.* SERRA, 1967), or by items belonging to the common lexicon that were absorbed by the fundamentally Latin stratum. Despite this, the alternative stratigraphic proposal in Table 7 emphasizes that a Latin-Romance stratum cannot be separated into different sub-strata, precisely because of the difficulty in safely identifying the specific features of the Gharb Al-Andalus Romance dialects. In view of this constraint, it will be preferable to include the vestiges of such dialects in the dialectal continuum of late Hispanic Latinity, which interacted with both the romance forms of the Galician-Portuguese system and with Arabic in all its variation.

Nor does the stratigraphy proposed in the right column of Table 7 consider a Portuguese stratum – “the real Portuguese names” as Vasconcelos (1931, p. 139-148) puts it – in contrast to the others. As with the French potamonyms (*cf.* Lebel 1956, p. 8), a Portuguese stratum could be considered and subdivided into medieval and modern stages. However, the task of distinguishing such secondary strata is an operation that should consider the dialectal distribution of Portuguese from its early Galecian origins to the rise of the kingdom of Portugal, thus requiring the questioning of the historical periodization of Portuguese. Yet this procedure is justified above all by the lack of clear differentiation between the common Latin-Romance lexicon and the common lexicon formed in the context of exclusively Portuguese stage. In fact, from the point of view of diatopic variation, the archaisms of middle, classic or contemporary Portuguese, taken individually or in subsets, continue to be inscribed in the Latin-Galecian or

Hispanic background, as several studies by Piel pointed out (see PIEL 1989, p. 11/12). If there is any distinction between the Latin-Romance layer and the Portuguese sub-layer, this seems to be more operative in the perspective of a periodization of Portuguese than in stratigraphic classification, as several lexical items, notwithstanding toponymically entrenched as opaque items to several contemporary speakers, still exist dialectally as transparent names.

5 Final remarks

Throughout this article, the inspection of central-southern Portuguese potamonymy raised a few questions, with emphasis on Arabization. These are aspects which requires a historical-linguistic approach, including a philological framework, mainly centered on the peninsular Middle Ages. In fact, while the toponymy of much of the northern half of mainland Portugal is of Latin inheritance, without more recent creations, the southern half of Portugal presents completely opaque potamonims doubly altered, since they were subject to Latinization and Arabization. Furthermore, it owes much to toponymic creations produced within the Portuguese language.

The present article also supports that the study of potamonymy and toponymy in general is essentially diachronic, requiring constant interdisciplinary contributions from history and geography. While not denying the viability of a synchronic approach, from the perspective of contemporary toponymic uses (cf. SALEMA, 2016), it seems, however, crucial to accept that the object of toponomastics belongs in heritage studies, which primarily require a historical approach.

Finally, the discussion that has been carried out argues for the close solidarity of potamonymy studies with those of the local toponymy. On the one hand, the potamonims associated with extensive rivers can serve as a source of toponymic creation – river names are at the origin of cases of toponymic conversion (e.g., *Odemira* and *Odesseixe*) or appear as modifiers that determine toponyms (*Santa Margarida do*

Sado / Sadão, São Romão de Sádão, Ponte de Sor). However, and as is often the case, it also appears that potamonyms of less extensive course are often named after pre-existing toponyms. Examples include: *rio da Fanadia* or *rio de Ferrel* (Leiria), *Almaceda* (Castelo Branco), *rio (da) Ota* (Lisbon), *Alcobertas* (Santarém), probably *rio Coina* or *ribeira de Coina*, and *rio da Moita* (Setúbal), *rio (da) Marateca* (Évora, Setúbal), *rio Monte do Marquês* (Beja), and *rio Alvor* (Faro).

In short, this study reveals that the potamonym of central-southern mainland Portugal mirrors and confirms a linguistic history much more dynamic than that of the Portuguese territories north of the Mondego valley and the Sistema Central mountain range.

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