

SECCIÓN MONOGRÁFICA  
«DIALECTOLOGÍA HISTÓRICA Y FUENTES ESCRITAS: REGISTROS  
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**Towards a Diachronic Study of Moroccan Arabic: On Some Vernacular  
Dialectal Features of the Sixteenth-Century Arabic Materials Preserved in  
the Arquivo Nacional da Torre do Tombo\***

Hacia un estudio diacrónico del árabe marroquí: Acerca de algunos rasgos  
dialectales en los documentos árabes del siglo XVI conservados en el Arquivo  
Nacional da Torre do Tombo

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**Abstract**

The aim of this paper is to explore an early sixteenth-century epistolary corpus in order to obtain linguistic data on the varieties of Arabic that were spoken at the time in the geographic area of present-day western Morocco. It also attempts to shed light on the historical development of several dialectal features that may help us better understand the evolution of Arabic dialects in Morocco, and in the Maghreb region as a whole. The study is based on linguistic analysis of some of the Luso-Moroccan letters preserved in the Arquivo Nacional da Torre do Tombo (Lisbon).

**Keywords:** Historical linguistics; Moroccan Arabic; Middle Arabic; Torre do Tombo; Digital archives.

**Resumen**

El presente artículo se propone hacer un rastreo a través de un corpus epistolar del siglo XVI, con el fin de obtener algunos datos lingüísticos acerca de las variedades árabes que se hablaban en esa época en la parte occidental de Marruecos. Asimismo, este estudio trata de arrojar luz acerca del desarrollo histórico de varios rasgos dialectales, los cuales pueden ayudarnos a comprender mejor la evolución de los dialectos árabes en Marruecos y en el Magreb. Nuestro estudio se basa en el análisis lingüístico de algunas de las cartas luso-marroquíes que se conservan en el Archivo Nacional de la Torre do Tombo (Lisboa).

**Palabras clave:** lingüística histórica; árabe marroquí; árabe medio; Torre do Tombo; archivos digitales.

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## 1. Introduction

The main concern of historical, or diachronic, linguistics is to understand how language changes over time. Changes in sound, grammar and meaning are an inevitable fate for any living language. Various intra-linguistic and extra-linguistic forces such as drift, contact and convergence, among others, drive speakers to consciously or unconsciously operate changes in their speech. These changes are more noticeable over the long term, and the study of earlier stages of a given language variety can thus yield important data for explaining the way in which its current features have developed over time. In this regard, historical records represent an invaluable source for linguists seeking to unearth the history of a language. As far as Arabic vernaculars are concerned, finding reliable sources can be a difficult task, since diglossia clearly played an important role in the stylistic choices made by scribes, and standard variants were thus very often preferred over colloquial ones in written productions.

In spite of that, there are a considerable number of historical written sources in which dialectal features are combined with standard ones, giving rise to an intermediate mixed variety. This blend of Classical Arabic and colloquial Arabic is generally referred to in the literature as Middle Arabic.<sup>1</sup> Along with narratives of European travellers and diplomats, as well as accounts of former captives,<sup>2</sup> Middle Arabic texts represent one

of the main sources for documenting the history of Arabic dialects. Unfortunately, such written outputs are extremely scarce for earlier periods. This is particularly true for Maghrebi dialects, for which sources only become abundant after the sixteenth century.<sup>3</sup>

To the best of my knowledge, the earliest known text containing linguistic features from Moroccan Arabic is a book on the history of the Almohad dynasty written by an author named al-Baydaq, who lived in the twelfth century.<sup>4</sup> Colin's linguistic analysis of this document uncovers a number of interesting colloquial traits, most of which are shared by the majority of present-day Maghrebi dialects.<sup>5</sup> The same can be said, to some extent, of other twelfth and fourteenth century sources, which mainly consist of treatises on *lahn al-`amma* 'errors of language made by the common people', hagiographies and epic poetry.<sup>6</sup>

Further and much sounder linguistic evidence on Moroccan Arabic is provided by official and private correspondence between Morocco and European nations (mainly Portugal, Spain, France, England and the Netherlands). This epistolary category of documents becomes abundant from the sixteenth century onwards, and a significant number of them can be found today in European national archives and libraries such as Spain's Archivo General de Simancas<sup>7</sup> and Real Biblioteca del Escorial, the Dutch Nationaal Archief (The Hague)<sup>8</sup> and the UK's National Archives (London).<sup>9</sup>

<sup>1</sup> The term Middle Arabic generally refers to any attested written Arabic sample predating the nineteenth century that exhibits deviations from the Classical Arabic norm, and whose linguistic features cannot be easily ascribed either to Classical Arabic or to colloquial Arabic. This mixed variety reflects the interferences resulting from the diglossic situation that characterizes most Arabic-speaking societies: see Lentin, "Middle Arabic", p. 216. On the ambiguity of the term Middle Arabic and the confusion that may arise from its use, see Larcher, "Moyen arabe", pp. 579-583.

<sup>2</sup> The following Western sources are relevant to Moroccan Arabic: Moüette's *Relation de la captivité du Sieur Moüette* is an ex-captive's account that includes a French-Moroccan Arabic wordlist; Høst's *Efterretninger* consists of a travel narrative written by the then Danish vice consul in Mogador (Essaouira), and contains some linguistic notes that have been studied by Aguadé ("Texto danés"); and Price's "Dialogues in the vulgar Arabick of Morocco" is a short article in which the author, a British orientalist, provides a few Moroccan Arabic words and phrases. A linguistic analysis of this latter work can be found in González Vázquez & Fernández Benítez, "William Price". Finally, Dombay's *Grammatica mauro arabicae* is considered to be the first descriptive grammar of Moroccan Arabic. This work also includes a Latin-Moroccan Arabic thematic vocabulary. For a brief linguistic analysis of this grammar, see Guerrero, "Gramática de árabe marroquí".

<sup>3</sup> See Aguadé, "Maghrebi dialects", p. 32; and Vicente, "Sur la piste de l'arabe marocain", p. 115. The only exception is Andalusí Arabic, a peripheral Maghrebi variety whose linguistic documentation dates back to the early tenth century: see Vicente, "Sur la piste de l'arabe marocain", p. 104.

<sup>4</sup> See Vicente, "Sur la piste de l'arabe marocain", p. 104.

<sup>5</sup> See Colin, "Notes de dialectologie arabe", pp. 104-120.

<sup>6</sup> See, for example: al-Laḥmī, Ibn Hišām (second half of the twelfth century), *Al-madḥal 'ilā tqwīm al-lisān wa-ta'lim al-bayān*; al-Bādīsī, 'Abd al-Ḥaqq (early fourteenth century), *Al-maqṣad aš-šarīf w-al-manza 'al-laṭīfī t-ta'rīf bi-šulāḥā' ar-Rīf*; az-Zarhūnī; and al-Kaṭfī 'Abd Allāh (fourteenth century), *Mal'abat al-Kaṭfī az-Zarhūnī*. For an overview of the colloquial features found in these and other Moroccan medieval sources, see Vicente, "Sur la piste de l'arabe marocain". For a linguistic study of the *Mal'abat al-Kaṭfī az-Zarhūnī* see Turner, "The Arabic of Mal'abat".

<sup>7</sup> Some of the Moroccan letters preserved in the Archivo General de Simancas have been edited by Garcia-Arenal et al., *Cartas marruecas*.

<sup>8</sup> For some examples of the Moroccan letters preserved in this archive, see de Castries, *Archives et bibliothèques des Pays-Bas*, vols. I, II, III, IV and V.

<sup>9</sup> A number of the Arabic documents emanating from Morocco and preserved in the National Archives can be found in Hopkins, *Letters from Barbary*, while others are reproduced in de Castries, *Archives et bibliothèques d'Angleterre*, vols. I and II.

This study seeks to uncover clues regarding the historical development of several linguistic features that can be regarded as characteristic of the mainstream dialects of present-day Moroccan Arabic. In order to do so, I intend to examine and analyse, from a linguistic perspective, some of the Luso-Moroccan letters preserved in the Arquivo Nacional da Torre do Tombo. The paper is structured as follows: section 2 provides background information regarding the corpus of letters studied, and examines the main topics they cover; section 3 presents a brief description of the historical context of these documents; and section 4 consists of a linguistic analysis and a discussion of the findings. The following conspicuous features of Moroccan Arabic are addressed: 1) fricative harmony involving the word *ḡūḡ* ‘two’; 2) presentative *rā-*; 3) the preverbal durative aspect markers *ta-* and *ka-*; and 4) the annexation particles *d-* and *dyāl*. Finally, in section 5 I offer some concluding remarks and discuss the implications of this study for the diachrony of Moroccan Arabic and Maghrebi Arabic as a whole.

## 2. Corpus

Digitization and digital archiving are wonderful research tools that give researchers access to large amounts of historical documents without having to pay a physical visit to the institutions in which they are held. Thousands of archives, libraries and museums worldwide have undertaken projects to digitize part of their collections. They include the Arquivo Nacional da Torre do Tombo (hereafter TDT) in Lisbon, which holds several remarkable collections of documents relating to various events in the history of the so-called “Portuguese discoveries”. Such manuscripts include a Luso-Moroccan epistolary corpus classified under the rubrics 891.2 *Documentos em caracteres árabes provenientes dos lugares de África* (“Documents in Arabic script from the posts of Africa”),<sup>10</sup> and 877 *Cartas dos Governadores de África 1501/1642* (“Letters from the governors of Africa”).<sup>11</sup> Most of these letters are preserved in the *Núcleo antigo* (formerly known as *Documentos orientais*) fonds, and relate to the Portuguese presence in

several harbour towns along the Atlantic coast of Morocco and in their respective hinterlands. From north to south, these towns are Azemmour, Mazagan (region of Doukkala), Safi (region of Abda) and Massa (region of Massa).



Figure 1. Map showing the main Portuguese enclaves in central and southern Morocco.

The corpus is made up of a total of seventy documents and consists mainly of letters, along with a few treatises. Although the date of composition is not always specified, they can be estimated as dating to between 1502 (the oldest dated document) and 1530 (the latest dated document).<sup>12</sup> The authors themselves are not always mentioned, but we know that the scribes included various kinds of individuals who, due to their strong command of foreign languages, could be asked to undertake interpreting and translating tasks. Many of these *lymgoas*<sup>13</sup> ‘interpreters’ were Jewish traders with a Sephardic background who were in the service of the Portuguese monarchs and Moroccan sultans. This was, for example, the case of Musa Dardeiro<sup>14</sup> and Yahya Adibe,<sup>15</sup> whose work as interpreters,

<sup>12</sup> Only one letter has been dated back to 1488: see Guerrero, “Analyse linguistique”.

<sup>13</sup> Also written as *lingoas*. For an overview of the various profiles of interpreters in the Portuguese seaborne empire during the sixteenth century, and the functions they fulfilled, see Couto, *The role of interpreters*.

<sup>14</sup> Dardeiro occupied the position of official interpreter in the city of Safi from 1511 to the end of 1512, when he was killed in Almedina (north-eastern Safi) on the orders of Yahya u Ta’ fūft. Dardeiro was succeeded by another Jew, João Cotrim: see de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 366-369.

<sup>15</sup> Adibe was appointed as official interpreter of Azemmour on September 9, 1514. He also appears to have carried out

<sup>10</sup> This collection consists of a total of sixty-eight documents, all of which are written in Arabic. It is worth mentioning that some of these letters are stored together with their respective sixteenth-century Portuguese translation.

<sup>11</sup> This collection comprises 459 documents, only two of which are written in Arabic: *Colecção de cartas, Núcleo Antigo 877, n.º 2*; and *Colecção de cartas, Núcleo Antigo 877, n.º 22*.

messengers and even diplomats is sometimes mentioned in the TDT Arabic materials. But *alfaques* must also have played an important role in carrying out interpretation and translation tasks. These were officials who specialized in redeeming captives, and could earn large sums of money by speculating on the amount of the ransom. Since arranging the payment involved negotiation with the kidnappers, these agents had to be able to speak Arabic fluently.<sup>16</sup> More interesting but less well-known is the case of non-Jewish official interpreters<sup>17</sup> such as Inácio Nunes Gato,<sup>18</sup> Francisco de Lemos,<sup>19</sup> and Francisco de Aguiar.<sup>20</sup> Where and how did they learn Arabic? Did they study this language in Portugal before being sent to Africa? If so, how did they manage to learn the local dialect? Perhaps they simply picked it up through interacting with native speakers? If so, in what context? Perhaps during

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intelligence and diplomatic missions: see de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 490, 605 (note 2), 609 (note 1).

<sup>16</sup> On some of these *alfaques*, see Guerrero, “Analyse linguistique”.

<sup>17</sup> The assumption that they were neither Jewish nor Muslim is made on the basis of their Christian names. It is however possible that they were former Jews or Muslims who had converted or been forced to convert to Catholicism. Oddly enough, among all the identified non-Jewish official interpreters, only one had a Muslim name: Muḥammad bin Qāsim ar-Ru‘ayni. Ar-Ru‘ayni occupied the position of official interpreter at the Portuguese Royal Chancellery, and was thus based in Portugal: see de Cénival, *Archives et bibliothèques de Portugal*, vol. I, p. 23. He is the author of three documents dated August 16, 1486, October 16, 1488, and April 22, 1504: see de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 14, 26, 98. Another Muslim interpreter, although an unofficial one, was a man named Sulaymān. He was Yaḥya u Ta‘fūft’s interpreter and accompanied him on his journey to Portugal: see de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 607, 629.

<sup>18</sup> Nunes Gato was appointed official interpreter on March 8, 1552. He was said to be so good at speaking Arabic that he could have long conversations with native speakers without them suspecting he was Portuguese: see Ricard, *Archives et bibliothèques de Portugal*, vol. V, pp. 68-69.

<sup>19</sup> Francisco de Lemos was interpreter to John III of Portugal. Some of the sixteenth-century Portuguese translations of the TDT Luso-Moroccan letters include the words *Francisco de Lemos a treladou* (“translated by Francisco de Lemos”). He must have been a nobleman of the Royal House, since he is referred to with the title *fidalgo da casa d’el Rey* in a letter in Portuguese from Inácio Nunes Gato: see Ricard, *Archives et bibliothèques de Portugal*, vol. III, p. 441; and de Cénival et al., *Archives et bibliothèques de Portugal*, vol. II (2), p. 597. Lemos was also the recipient of some of the analysed letters: see Guerrero, “Edición”.

<sup>20</sup> Aguiar was a Portuguese knight and an Arabic interpreter based in Azemmour: see Ricard, *Archives et bibliothèques de Portugal*, vol. V, p. 82, (notes 1, 120).

captivity?<sup>21</sup> Learning more about the biographies of these men would certainly help us to better interpret some of the linguistic data provided by the Luso-Moroccan letters in Arabic script in the TDT archives.

The first thing that catches the researcher’s eye when examining these documents is without doubt the variety of language in which they are written. Almost all of them exhibit varying degrees of deviation from the Classical Arabic norm, ranging from simple grammatical errors to extensive use of terms, expressions and syntactic constructions from the spoken language. Spelling practices also sometimes deviate from the standard orthography and may be shaped by the phonetic and morphophonemic rules of colloquial Arabic.<sup>22</sup> Thus, although the vernacular influences observed are uneven and vary widely from one document to another, it can be safely stated that the overwhelming majority of the Moroccan letters preserved in the TDT archives belong to the category of Middle Arabic.

The documents cover a wide range of subjects, from diplomacy and military affairs to complaints and requests. There are, for instance, two letters of complaint in which the inhabitants of Safi and Massa inform Manuel I of all the injustices they are suffering under Portuguese rule. In other letters, the sender (usually an allied chieftain) places an order for a given commodity (e.g. clothes) or asks the Portuguese for money. There are also a number of documents where the recipient is requested to intercede in a dispute or to persuade the king to bestow a favour on someone. Several others consist of intelligence reports and accounts of enemy movements, and there are also legal acts such as the ratification of a treaty whereby the inhabitants of Azemmour recognise John II’s sovereignty over their city, and a set of legal ordinances issued by Yaḥya u Ta‘fūft for the tribe of al-Ḥāreṭ.

While the TDT Arabic materials have previously attracted a great deal of scholarly interest, they have never, to the best of my knowledge, drawn the attention of linguists interested in Arabic dialectology.<sup>23</sup> Previous studies of these

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<sup>21</sup> Former captives who served as interpreters include Antonio Barroso, a Portuguese man from Tangiers who was captured by the Qaid of Ksar el Kebir and made to become his squire: see Ricard, *Archives et bibliothèques de Portugal*, vol. III, p. 162, (note 1).

<sup>22</sup> On the spelling features exhibited by the TDT materials, see Guerrero, “Analyse linguistique”.

<sup>23</sup> A preliminary linguistic study of some of these letters

documents have mainly focused on their value for revealing the details of the Portuguese presence in north-western Africa and for enhancing our understanding of sixteenth-century Moroccan history. The first attempt to examine the TDT Arabic materials was made as early as the last decade of the eighteenth century, when the Lisbon Royal Academy of Sciences, seeking to shed some light on the history of the Portuguese seaborne empire, entrusted Father João de Sousa — a Portuguese Franciscan brought up in Syria who held the position of royal interpreter — with the challenging task of reading, editing and translating a selection of the Arabic documents preserved in the TDT archives.<sup>24</sup> Thirty of the fifty-eight documents edited by de Sousa originate from Morocco, while the remaining twenty-seven relate to various coastal areas of the Indian Ocean, stretching west-to-east from Mozambique to the Gulf of Malacca. Unfortunately, de Sousa's reading of the originals of these letters was mostly incorrect, and his edition is therefore highly inaccurate and suffers from serious errors that make it useless for research purposes.<sup>25</sup> It was not until the first half of the twentieth century that a more thorough and accurate edition of some of the Luso-Moroccan documents kept in the TDT archives was published. This arduous task was accomplished by the authors of *Sources inédites de l'histoire du Maroc*,<sup>26</sup> a colossal undertaking that involved editing, translating and compiling thousands of historical documents relating to Morocco held across several European national archives. This unique work included the editing and translation into French of a total of thirty Luso-Moroccan documents belonging to the TDT Arabic materials. Another five letters were recently edited and translated into Spanish.<sup>27</sup> However, this leaves over half of the corpus (thirty out of seventy documents) still awaiting publication.<sup>28</sup>

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can be found in Guerrero, "Analyse linguistique". For a detailed analysis of document PT/TT/CART/891.2/46, see Francisco "A letter by Yahya u-Taʿfuft".

<sup>24</sup> See de Sousa, *Documentos arabicos*.

<sup>25</sup> De Sousa went as far as adding dates and phrases of his own invention: see Aubin, "Torre do Tombo", p. 184.

<sup>26</sup> See de Cénival, *Archives et bibliothèques de Portugal*, vols. I, II (1), II (2).

<sup>27</sup> See Guerrero, "Edición". For a detailed overview of the documents that have been edited and the ones that remain unedited, see Guerrero, "Analyse linguistique".

<sup>28</sup> It is important to note that I was unable to identify five of the thirty letters published by de Cénival et al. If I am not mistaken, these five letters are not included among the seventy digitized documents available from the TDT archives website.

### 3. Historical background<sup>29</sup>

This section aims to provide a brief overview of the historical context of the epistolary corpus studied.

The conquest of Ceuta in 1415 marked the beginning of the Portuguese expansion in Africa. As this military operation was motivated by economic and geostrategic interests rather than by religious ones, the Portuguese quickly recognised the importance of taking over other Moroccan ports west of Ceuta in order to flank Castile and ensure their hegemony in Atlantic Africa. They therefore occupied Ksar es Seguir in 1458, and Tangiers and Asilah in 1471. By the end of the fifteenth century, the Wattasid Sultanate of Fes was not strong enough to exert effective control over the vassal kingdom of Marrakesh, nor able to fend off the constant raids launched by Castilians and Portuguese on the Moroccan coast. In 1486, fearing they would suffer the same fate as the people of Anfa,<sup>30</sup> the inhabitants of Azemmour offered to become vassals and tributaries of John II of Portugal in exchange for protection. In response to these signs of political instability and military weakness, and driven by commercial greed, the Portuguese decided to set up trading posts further south: Massa (1497), Santa Cruz do Cabo de Guér (1505), Mogador (1505) and Aguz (1506). A few years later, they took possession of Safi (1508), occupied Azemmour (1513) and built a citadel in Mazagan (1514).

The first half of the sixteenth century saw the peak of Portuguese maritime exploration around the world. Stretching from Brazil to the trading post of Nagasaki (Japan), the Portuguese seaborne empire was one of the largest and most thriving of its time. The Portuguese crown's monopoly over the spice trade was critical to this economic success, which entailed an increasing need for gold and slaves, the main sources of funding for the costly trading expeditions that were sent across the Indian Ocean. The *feitorias* of Mazagan, Safi, Massa and Aguz, among others, provided the Portuguese with cloths, rugs and horses, which they exchanged for enslaved people and gold in Arguin (Mauritania), and at other trading stations

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<sup>29</sup> For an introduction to the history of the Portuguese presence in Morocco, see de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. VII-XVI; 1-3. For an overview of the *alcaide* Yahya u-Taʿfuft, see Racine, "Yahya-u-Taʿfuft and Portuguese noble culture", pp. 71-88.

<sup>30</sup> Anfa (present-day Casablanca) was pillaged and razed to the ground by a Portuguese fleet in 1469.

on the west coast of Africa, such as São Jorge da Mina (Ghana). The country's possessions in central and southern Morocco seem to have been an essential cog in the economic machine of early sixteenth-century Portugal, a fact that accounts for its tenacity in maintaining a presence in a land that was not easy to control. Alliances with indigenous tribes also proved crucial to subduing the territory and preventing rebellions. The most important of these so-called "Moors of Peace" was without doubt Yahya u Ta' fūft, a Berber leader who led local forces against hostile tribes and won Manuel I's confidence to the extent of being appointed *alcaide* of Doukkala. But envy and covetousness pushed some Portuguese city governors to accuse u Ta' fūft of treason, which diminished his reputation among some tribe members and led to his assassination in 1518. U Ta' fūft's murder marked a turning point in the Portuguese presence in Morocco, since it was to him, rather than to the Portuguese crown, that many of the Doukkala tribes had submitted. As a consequence, they chose to switch sides and ally with the Saadi troops who chased the Portuguese out of Santa Cruz do Cabo de Guer in 1541, and, shortly after, forced them to abandon Safi and Azemmour.

It was in this intercultural context of trade, war and alliances that the Luso-Moroccan letters held in the TDT archives were produced.

(1)

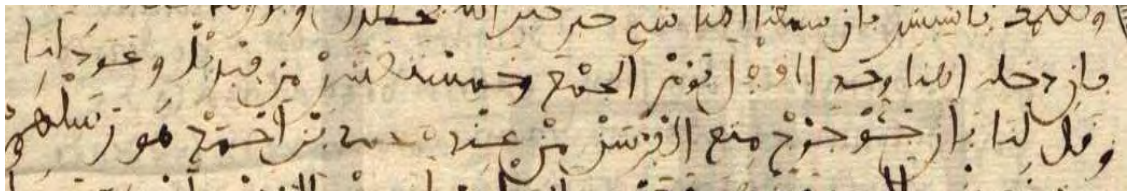


Figure 2. Letter from Yehuda b. Zammiro (32).<sup>32</sup>

<i>wqal</i>	<i>lnā</i>	<i>bān</i>	<i>ġaw</i>	<i>ġwġ</i>	<i>mt</i> <sup>31</sup>	<i>ālfrsan</i>
and.3MSG-say.PF	to-1PL	with.that	3MPL-come.PF	two	POSS	DEF-horsemen
<i>mn</i>	<i>'nd</i>	<i>Ĥmd(?)</i>	<i>ban</i>	<i>Āĥmad</i>	<i>huw</i>	<i>rasalhum</i>
from	at	Ĥmed(?)	son	Āĥmad	3MSG	3MSG-send.PF

<sup>31</sup>He told us that two horsemen came on behalf of Ĥmed (?) ben Āĥmad, he sent them<sup>32</sup>

#### 4. Linguistic analysis

This section analyses a set of linguistic features (one phonetic and three morphosyntactic) that occur in some of the TDT Luso-Moroccan Arabic letters. These features were chosen because of their being quite useful for the classification of present-day Moroccan Arabic varieties.

##### 4.1. Fricative harmony

A salient semantic innovation attested in most Maghrebi dialects is the use of reflexes of Old Arabic *\*zawġ* 'pair, spouse' to express the numeral 'two' (Aguadé, "Maghrebi dialects", p. 52). The stem of this lexical item includes a sequence of sibilant segments, i.e. a voiced alveolar fricative /z/ and, depending on the dialect variety, either a voiced palato-alveolar affricate /ǧ/ or a voiced alveo-palatal fricative /ž/. Since the treatment of this co-occurrence of homorganic consonants is subject to cross-dialect variation, it can be used as a phonetic variable for discriminating between different Maghrebi dialects. Broadly speaking, *\*zawġ* is subject to sibilant harmony in Tunisian and Libyan varieties (*zūz/zōz*), undergoes fricative harmony in the majority of the Moroccan ones (*žūž*), and remains stable in (most but not all) Algerian vernaculars (*zūġ/zūž*).

As is the case in other Middle Arabic samples emanating from North Africa, the use of *\*zawġ* for 'two' is widely attested in the TDT materials.<sup>31</sup> This numeral is in fact consistently spelled as زوج (*zawġ*) across the corpus. I have only identified one occurrence (1) where it is orthographically rendered by جَوْج (*ġwġ*), i.e. with a *ġīm* instead of the etymological *zāy*.

Further evidence regarding the antiquity of the assimilation of a historical *\*z/* to a subsequent *\*ǧ/*

<sup>31</sup> For examples, see Guerrero, "Analyse linguistique".

<sup>32</sup> *Carta de autor desconhecido. Coleção de cartas. Núcleo Antigo 891, mç. 2, n.º 32. PT/TT/CART/891.2/32* (un-edited). A digital version of the entire document is available from <https://digitalr.arquivos.pt/details?id=3908310>. This letter is full of dialectalisms and was written by a Jew called Yehuda b. Zammiro. A partial translation of this document is provided in Colin, "Juifs nomades". I thank Felipe Benjamin Francisco for drawing my attention to this article.

can be found in the captivity narrative of Germain Moüette,<sup>33</sup> a Frenchman who was kidnapped by Ottoman pirates in 1670 and forced into slavery upon his disembarkation in Salé. Moüette lived there and in other Moroccan cities, and had several masters over the course of about eleven years. It was during his long stay in Morocco that he learned to speak Arabic. The account of his captivity includes a thirty-two-page *dictionnaire* listing a number of words and phrases in the vernacular language. Among these, we find on page 341 the sentence *Mejougé-inti 'Eftu-marié' (mžuwwəž ənti? 'are you married?')*. The occurrence of forms such as *žūž* and *mžuwwəž* in the above-mentioned historical sources could imply that, by the sixteenth/seventeenth century, some Moroccan varieties already displayed a fricative reflex of Old Arabic \*/ǧ/. Evidence for this is provided by the fact that regressive assimilation of sibilant /z/ only occurs in dialects exhibiting a fricative reflex of Old Arabic \*/ǧ/.<sup>34</sup>

#### 4.2. The particle *rā-*

The vast majority of Maghrebi vernaculars make use of the discourse particle *rā-*, which is believed to ultimately derive from the imperative *\*ra* of the verb *\*rāā* ‘to see, to look’.<sup>35</sup> As shown in (2), (3) and (4), this particle mostly occurs with variable suffixed pronouns that usually refer to the subject of the utterance.

	SG	PL
1	<i>rāni</i>	<i>rāna</i>
2	<i>rāk</i>	<i>rākum</i>
3M	<i>rāh</i>	<i>rāham</i>
3F	<i>rāha</i>	

Table 1. Inflectional paradigm of the particle *rā-* in the dialect of Anjra: see Vicente, *Anjra*, p. 109.

(2) *rāni mxaššma m 'āk* ‘I am really angry with you’: see Caubet, “Deixis”.

<sup>33</sup> See Moüette, *Relation de la captivité du Sieur Moüette*. For an overview on the linguistic value of Moüette’s French-Moroccan Arabic *dictionnaire*, see González Vázquez, “El árabe marroquí visto por un cautivo francés del siglo XVII”.

<sup>34</sup> On this, see Guerrero, “Reflexes of Old Arabic \*/ǧ/”, pp. 148-149. On consonant harmony involving sibilants and fricatives in Moroccan Arabic, see Heath, *Jewish and Muslim dialects*, pp. 133-134.

<sup>35</sup> See Marçais, “Les dialectes occidentaux”, p. 599; and Fischer, *Die demonstrativen Bildungen*, p. 186.

(3) *rāh ma-ši ma 'qūl!* ‘It is not really possible!’: see Caubet, “Deixis”.

(4) *al-qarāwīyīn rāha f-Fās* ‘(the University of) al-Qarawīyyin is located in Fes’: see Caubet, “Deixis”.

In addition to this, a fossilized form of the 3MSG *rāh* may also be used as an invariable particle whatever the gender and number of the subject, as in (5) and (6).

(5) *rāh kāyna l-hufra!* ‘watch out! there is a hole!’: see Guerrero, *Larache*, p. 119.

(6) *rāh l 'abt m 'a bh'āk* ‘I played with your father’: see Guerrero, *Larache*, p. 120.

As can be seen in the examples above, and in Moroccan dialects, the particle *rā-* can function both as a presentative and as an expressive marker. This deictic value gives rise in turn to various modal functions such as opposition or reassertion among others.<sup>36</sup>

The use of the particle *rā-* is not attested outside the Maghreb region, a fact that has prompted some scholars to regard it as a conspicuous feature of present-day Maghrebi varieties.<sup>37</sup> However, the presence of similar grammaticalized uses of the verb *\*rāā* in several Middle Eastern varieties suggests instead a shared innovation or common inheritance.<sup>38</sup> In some dialects of Oman (7) and the north-easternmost parts of Arabia (8), the fossilized 2ndMSG imperfective *tarā* can for example serve as a presentative.<sup>39</sup>

<sup>36</sup> See Caubet, “Deixis”. The use of presentative *rāh* is described as early as in Dombay, *Grammatica mauro arabicae* (p. 32), the first grammar of Moroccan Arabic. According to the famous Austro-Hungarian orientalist, *rāh* means *ecce* ‘behold’ and is employed with an active participle to indicate that an action is being done in the present or has already been completed.

<sup>37</sup> See Marçais, “Les dialectes occidentaux”, p. 599. Different usages of the particle *rā-* have been reported for the Arabic varieties spoken in Libya, Tunisia, Algeria, Morocco and Mauritania. On the other hand, it is worth noting that the discourse marker *ra* is not found in Maltese and Andalusī Arabic, the only two Maghrebi varieties that can be regarded as “pure” pre-Hilali since they were spared the wave of Arabicization triggered by the Hilali invasions.

<sup>38</sup> “Given that *ra(a)* is found throughout the Maghreb (and only there), one could consider it a characteristic trait of Northern African Arabic. However, the diverse manifestations of this trait in the Maghrebian dialects on the one hand, and the similarities between Maghrebian *ra(a)* and ‘Middle-Eastern’ *tara(a)* on the other hand, show that this trait is far from useful for purposes of distinction”: see Taine-Cheikh, “Grammaticalized uses of the verb *ra(a)*”, p. 154.

<sup>39</sup> It should be noted that the use of a cognate of *tarā*, i.e. *ṭra*, as a discourse particle has also been reported for some Tunisian dialects: see Taine-Cheikh, “Grammaticalized uses of the verb *ra(a)*”, p. 149.

- (7) *awwal tarāhum yita 'bo, yištāḡlu lākin yiḡaṣlu* ‘In the old days, they had a hard life, they’d work but they did get something’: see Holes, “Šūr”, p. 92.
- (8) *tarākom šāhedīn* ‘you are witnesses’: see Cantineau, “Parlers de nomades”, p. 199.<sup>40</sup>

Interestingly, numerous occurrences of an almost identical grammaticalized form of the verb

pendent personal pronoun and the predicate, as in (9), (11) and (12).

As regards its meaning, this particle seems to be mainly used as a grammatical strategy for marking predicate focus. Moreover, as shown in (9) and (12), it may also act as a copula in clauses with non-verbal predicates.

(9)

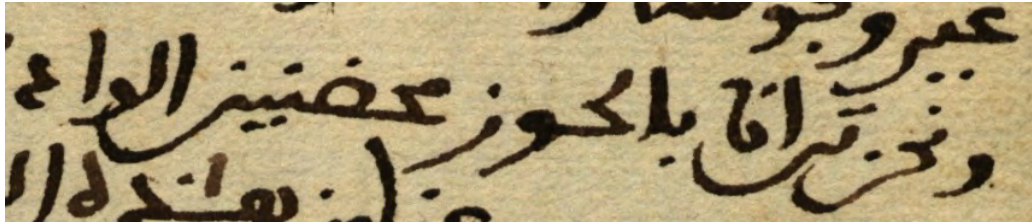


Figure 3. Letter from Yahya u Ta'füft to his uncle and the inhabitants of Sernou (2G).<sup>41</sup>

ونحن ترانا بالكوز محضنين الواد

<i>wnḥn</i>	<i>trānā</i>	<i>bālḥwz</i>	<i>mḥḍnyn</i>	<i>ālwād</i>
and-1PL	2SG-see.IPF-1PL	in-DEF-Haouz	embrace.AP-PL	DEF-river

‘We are in the Haouz<sup>42</sup> camping on the bank of the river’

(10)

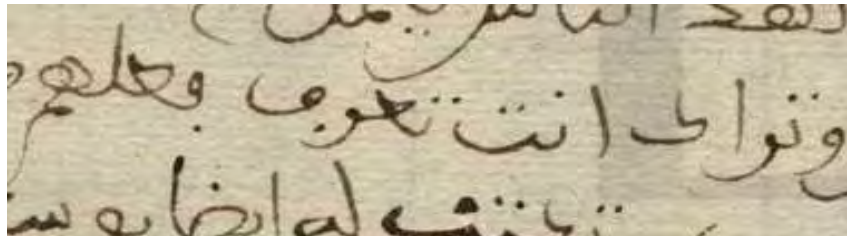


Figure 4. Letter from unknown author (36).<sup>43</sup>

وتراك انت تعرف بعلمهم

<i>wtrāk</i>	<i>ānt</i>	<i>t'rf</i>	<i>f'lh</i>
and-2SG-see.IPF-2SG	2MSG	2SG-know.IPF	misdeed-3PL

‘You already know their misdeed’

\**rāā* can be found in some of the Luso-Moroccan letters held in the TDT archives. As can be observed in (9), (10), (11), (12) and (13), the particle ترا (*trā*) usually appears at the beginning of the sentence, and is attached to a suffixed pronoun that is co-referent with the subject of the sentence. Quite often, ترا (*trā*) is placed between an inde-

<sup>41</sup> *Carta de Yheatáfu para um mouro de Sernou, seu tio, em que lhe dizia que não tivesse medo das novas que havia do rei de Fez e o advertia do que deveria fazer no caso que ele passasse. Coleção de cartas, Núcleo Antigo 877, n.º 2. PT/TT/CART/877/2* (edited by de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 514-517). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=4717035>.

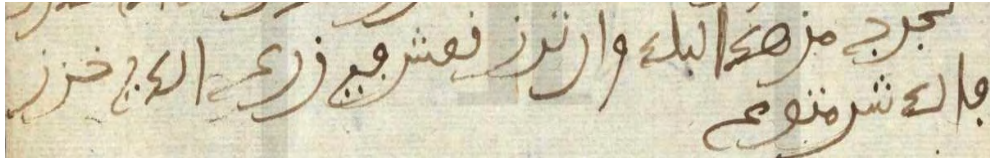
<sup>42</sup> A plain south of Marrakesh.

<sup>43</sup> *Carta de autor desconhecido. Coleção de cartas, Núcleo Antigo 891, mç. 2, n.º 36. PT/TT/CART/891.2/36* (edited by Guerrero, “Edición”). A digital version of the entire document is available from <https://digitarq.arquivos.pt/viewer?id=3908314>.

<sup>40</sup> Quoted in Taine-Cheikh, “Grammaticalized uses of the verb *ra(a)*”, p. 146.



(11)

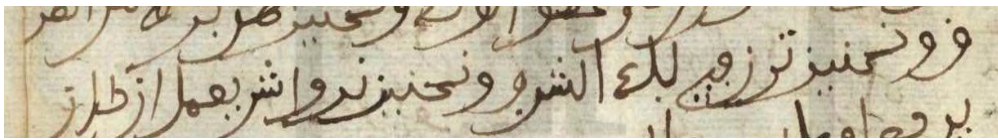
Figure 5. Letter from Yahya u Ta' fūft to Manuel I (45).<sup>44</sup>

وان ترن نعش في زرع الذي خزن بالدشر متوع

<i>wān</i>	<i>trn</i>	<i>n'š</i>	<i>fy</i>	<i>zr'</i>	<i>āldy</i>	<i>hzn</i>	<i>fāldšr</i>	<i>mtw'</i>
and-1SG	2SG-see. IPF-1SG	1SG-live. IPF	on	seeds	REL	3MSG- store.PF	in-DEF- village	PL- POSS

'I am surviving on the seeds that were stored in [their] village[s]'

(12)

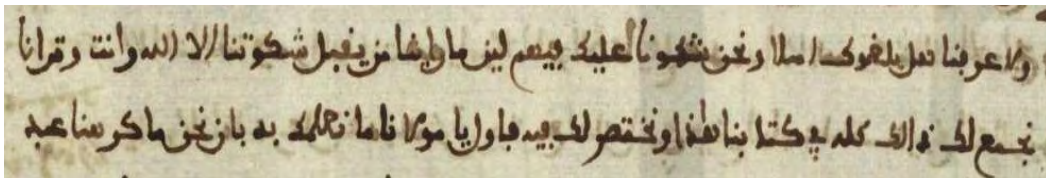
Figure 6. Letter from Yahya u Ta' fūft to Manuel I (45).<sup>45</sup>

ونحنين ترن في بلد الشرب

<i>wnhny</i>	<i>trn</i>	<i>fy</i>	<i>bld</i>	<i>āšrf</i>
and-1PL	2SG-see.IPF-1PL	in	town	DEF-Sharif

'We are in the town of the Sharif'

(13)

Figure 7. Letter from the inhabitants of Safi to Manuel I (48).<sup>46</sup>

وترانا نجمع لك ذلك كله في كتابنا هذا

<i>wtrānā</i>	<i>nǧm'</i>	<i>lk</i>	<i>dālk</i>	<i>klh</i>	<i>fy</i>	<i>ktābnā</i>	<i>hādā</i>
and-2SG-see. IPF-1PL	1PL-gather. IPF	for- 2SG	that	all-3MSG	in	letter-1PL	this

'We are gathering for you all that [information] in this letter'

<sup>44</sup> *Carta de Cide Jáhia ao rei de Portugal. Coleção de cartas, Núcleo Antigo 891, mç. 2, n.º 45. PT/TT/CART/891.2/45* (edited by de Cénival et al., *Archives et bibliothèques de Portugal*, vol. II (1), pp. 153-160). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908323>.

<sup>45</sup> On this letter, see note 44.

<sup>46</sup> *Carta dos moradores de Safim ao rei D. Manuel I apresentado queixa de Diogo de Azambuja. Coleção de cartas, Núcleo Antigo 891, mç. 2, n.º 48. PT/TT/CART/891.2/48* (edited by de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 177-202). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908326>.

The utterances in (14) and (15) provide examples where *ترا* (*trā*) occurs on its own, i.e. with no attached pronoun. In such cases, the semantic meaning of the verb *\*rāā* ‘to see’ is not fully blurred, and the particle is thus used to draw the

reader’s attention to what is said in the sentence that immediately follows. This use of *ترا* (*trā*) as a kind of enunciative particle clearly recalls the pragmatic properties exhibited by the fossilized *rā* in some Maghrebi vernaculars.<sup>47</sup>

(14)

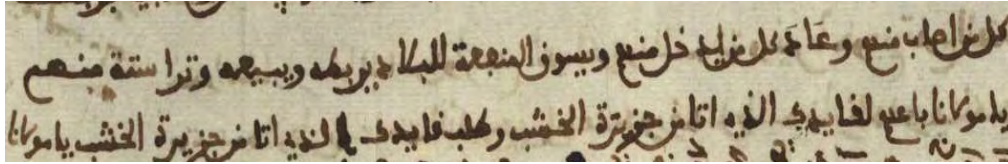


Figure 8. Letter from the inhabitants of Safi to Manuel I (48).<sup>48</sup>

وترا ستة منهم يا مولانا باعهم لفايدك الذي اتا من جزيرة الخشب					
<i>wtrā</i>	<i>sth</i>	<i>mnhm</i>	<i>yā</i>	<i>mwlānā</i>	<i>b'hm</i>
and-2SG-see.IPF	six	of-3PL	voc	master-1PL	3MSG-sell.PF-3PL
‘Behold, o our Master, he sold six of them’					
<i>lqāydk</i>	<i>āldy</i>	<i>ātā</i>	<i>mn</i>	<i>ǧzyrh</i>	<i>ālḥšb</i>
to-governor-2SG	REL	3MSG- come.PF	from	island	DEF-wood
‘to your governor who came from the island of Madeira’					

(15)

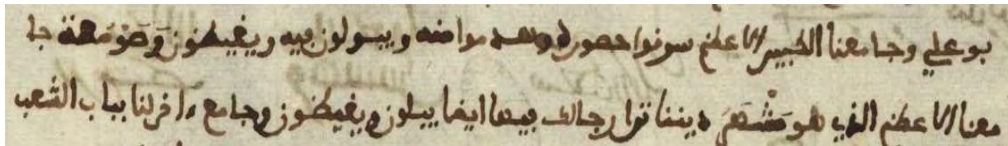


Figure 9. Letter from the inhabitants of Safi to Manuel I (48).<sup>49</sup>

وَصَوْمُعَة جَامِعِنَا الْكَبِيرِ الْأَعْظَمُ سَرَفُوا حَصْرَ فَوْعِدِ مَوَاضِعِهِ وَيَسْلُونُ فِيهِ وَيَغِيضُونَ وَصَوْمُعَة جَامِعِنَا الْكَبِيرِ الْأَعْظَمُ هِيَ نَا تَرَا رَجَالِكُ فِيهَا أَيْضًا يَبْلُونُ وَيَغِيضُونَ وَجَامِعُ الْفَرْشَانَا بَابِ الشَّعْبِ						
<i>wšawmu'h</i>	<i>ǧām'nā</i>	<i>ālā'ḍm</i>	<i>āldy</i>	<i>hw</i>	<i>mašharu</i>	
and-minaret	mosque-1PL	DEF-great	REL	3MSG	symbol	
<i>dynnā</i>	<i>trā</i>	<i>rǧālk</i>	<i>fyhā</i>	<i>āyḍā</i>	<i>yblwn</i>	<i>wyǧyḍwn</i>
religion-1PL	2SG-see.IPF	men-2SG	in- 3FSG	also	3PL-urinate. IPF	3PL-defecate. IPF
‘Behold, your men also urinate and defecate in the minaret of our great mosque, which is the symbol of our religion’						

<sup>47</sup> See Procházka & Dallaji, “*rā-* in the Arabic dialect of Tunis”, p. 53.

<sup>48</sup> On this letter, see note 46.

<sup>49</sup> On this letter, see note 46.

In fact, the behaviour of *ترا* (*trā*) in the study corpus of letters mimics relatively closely the syntactic functions of Maghrebi *rā-* and Middle Eastern *tarā*. Since phonetic reduction is a common phenomenon in the later stages of grammaticalization,<sup>50</sup> it is not unreasonable to assume that the presentative *rā-* of modern Maghrebi dialects reflects an attrition of the first segment of 2MSG imperfective *\*tarā* ‘you see’<sup>51</sup> This hypothesis challenges the traditional view whereby *rā-* derives ultimately from the imperative form *\*ra*. In this regard, it should be noted that the imperative of the verb *rāā*, though attested in grammatical treatises, is highly unusual.

1	2	3
Semantic bleaching	Phonetic reduction	Pharyngealization?
<i>*tarā</i>	<i>ra</i>	<i>rā</i>

Table 2: Possible grammaticalization path of the presentative *rā-*.

#### 4.3. Durative aspect markers

The study corpus of letters also provides interesting data regarding one of the most conspicuous

morphosyntactic features of Moroccan Arabic: preverbal *ta-* and *ka-*. It is a well-known fact that most Moroccan varieties use particles that are prefixed to the imperfective verb in order to convey different aspectual, modal and tense meanings. Among other functions, these preverbs (as they are generally referred to in the literature) are used to express the habitual and the progressive, or to talk about facts and general truths. The occurrence of these particles in the corpus is extremely rare: *ta-* occurs twice, and *ka-* only once.<sup>52</sup> Such a limited number of examples admittedly requires us to exercise caution when interpreting this data. However, the context of the utterances seems to indicate that here these particles represent durative aspect markers. In (16), *تا* (*tā-*) appears to denote iteration since it occurs in a sentence describing the frequency with which someone receives his wage. Interestingly, *تا يصرف* (*tāyṣrf*) is preceded by what seems to be the strikethrough of the bare imperfective verb form *يصرف* (*ṣrf*). Unless I am very much mistaken, this suggests that, on second thought, the scribe judged it necessary to emphasize the monthly recurrence of the payment, and consequently re-wrote the same verb form with a durative aspect marker attached to it.

(16)

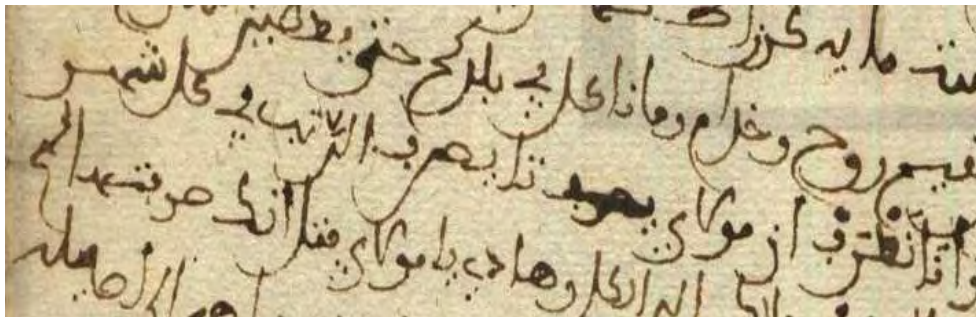


Figure 10. Letter from someone named ‘Abd Allāh to John III (10).<sup>53</sup>

	أنا نعرف أن مولاي يصرف تا يصرف الراتب في كل شهر							
<i>’anā</i>	<i>na ’raf</i>	<i>’an</i>	<i>mwly</i>	<del><i>tāyṣrf</i></del>	<i>ārratb</i>	<i>fy</i>	<i>kl</i>	<i>šhr</i>
1SG	1SG-know. IPF	that	master- 1SG	PREVB- 3MSG- spend.IPF	DEF- wage	in	every	month
	‘I know that my Master pays [my] wage every month’							

<sup>50</sup> See Heine & Narrog, “Grammaticalization”, p. 413.

<sup>51</sup> It is worth mentioning that this etymology has already been suggested by Grand’Henry: “[...] the linkage between the dialectal use of *rā* and the imperative of the Classical *ra’ā* should not, in my opinion, be taken for granted. The etymological form may well be the imperfect of the Classical *ra’ā*, i.e. *tarā* ‘you see’”: see Grand’Henry, “The function of ‘ra’ā’ in Spoken Arabic”, p. 62.

<sup>52</sup> It is worth noting that *ta-* occurs in two letters signed by someone named ‘Abd Allāh, while *ka-* appears in a letter from John II of Portugal to the inhabitants of the city of Safi. For an inventory of the durative aspect markers of Moroccan Arabic, see Heath, *Jewish and Muslim dialects*, p. 210.

<sup>53</sup> *Carta do tio do Xarife, escrita ao rei D. João III. Coleção de cartas, Núcleo Antigo 891, mc. 2, n.º 10. PT/TT/CART/891.2/10 (unedited). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908288>.*

The same particle appears in the utterance in (17), which corresponds to the exclamatory question asked by the servant of a man whose home is being searched by Portuguese security officers. Here *tā* (تَا) seems to be used to express the progressive.

(17)

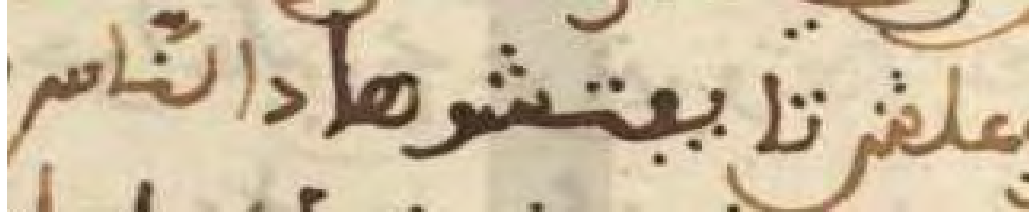


Figure 11. Letter from someone named ‘Abd Allāh to an unknown recipient (39).<sup>54</sup>

	علش تايفتشو هاد الناس			
ʿlš	tāyftšw	hād	ānnās	
on.what	PREVB-3PL- <i>seek</i> .IPF	this	DEF-people	
‘What are these people looking for?’				

The example in (18) is a statement of the fact that the whole city of Safi serves John II of Portugal. The value of the particle *k* (ك) that is prefixed to the imperfective verb form *yħdmnā* (يخدمنا) could therefore convey a gnomic or habitual value.

(18)

	والمدينة المذكورة وناسها وجميع احوالها وجميع ما فيها كذا مجموع كيخدمنا <sup>55</sup>				
wālmdynh	ālmkwrh	wnāshā	wġmy <sup>ʿ</sup>	āħwāzhā	
and-DEF-city	DEF-mentioned	and-people-3FSG	and-all	territories-3FSG	
wbġmy <sup>ʿ</sup>	ma	fyhā	kḏā	mġmw <sup>ʿ</sup>	kyħdmnā
and-with-all	what	in-3FSG	likewise	the.whole	PREVB-3MSG-serve.IMP-1PL

‘The aforementioned city, its people, its surrounding territories, and everything it contains is in our service’

#### 4.4. Genitive particles *d-* and *dyāl*

Possessive and genitive relationships can be expressed in colloquial Arabic by means of different annexation particles that intervene between the two members of an analytic construction. In Moroccan Arabic, there are three such genitive exponents: *ntā* ‘

*dyāl* and proclitic *d-*. The first one predominates in the dialects spoken in the far north-eastern region, although it also appears patchily in some Bedouin-type varieties of central and southern Morocco, as well as in the Jebala region. The particles *dyāl* and *d-*, meanwhile, cover all of Morocco down to Guelmim and can be seen as Moroccan “standard”

forms, which explains why many Arabic speakers perceive them as being a hallmark of present-day Moroccan Arabic.<sup>56</sup> More specifically, *dyāl* and *d-* are particularly common among speakers of the

<sup>54</sup> *Carta de autor desconhecido. Coleção de cartas, Núcleo Antigo 891, mç. 2, n.º 39. PT/TT/CART/891.2/39* (edited by Guerrero, “Edición”). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908317>.

<sup>55</sup> Letter from John II to the alcaide of Safi and its inhabitants. Unidentified document edited by de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 25-30.

<sup>56</sup> *ntā* ‘ can also surface as *tā* ‘ and, less frequently, *mtā* ‘. For more details regarding the geographic distribution of these genitive markers in Morocco, see Heath, *Jewish and Muslim dialects*, pp. 461-462.

so-called pre-Hilali (hereafter first-layer) varieties, i.e. the offshoots of the dialects brought into North Africa during the early Muslim conquests. This fact is consistent with what we know so far about the distribution of *d-* and *dyāl* outside of Morocco. These two genitive exponents only occur patchily in several first-layer dialects spoken along the coastal strip of Northern Algeria. West to east, these vernaculars are Ghazaouet (*di*, *dyāl*),<sup>57</sup> Nedroma (*di*, *dyaal*),<sup>58</sup> Tlemcen (*dī*, *eddi*, *ddi*, *de*),<sup>59</sup> Cherchell (*dyāl*),<sup>60</sup> Muslim Algiers (*dyāl*),<sup>61</sup> Jewish Algiers (*di*, *de*, *dyāl*),<sup>62</sup> Dellys (*dyāl*),<sup>63</sup> Jijel (*eddi*, *dyāl*),<sup>64</sup> El-Milia (*di*, *dīl*, *dyāl*),<sup>65</sup> and Skikda (*dī*).<sup>66</sup> There is some obscurity and controversy surrounding the historical origin of these annexation particles, which are undoubtedly genetically related to each other. Most scholars hold the view that *d-* and *dyāl* represent a development from the relative pronoun *\*allaḏī*, which displays two main reflexes in Maghrebi Arabic: *ḏli* and *ḏdi*.<sup>67</sup> This hypothesis is supported by the following facts:

1) The vast majority of Semitic languages possess genitive exponents that ultimately developed from a relative marker, e.g.: Hebrew *šel*, Assyrian *ša*, Aramaic *dī*, Ge'ez *za'ental'ella*, and Harsusi *d*.

2) Unlike *dyāl*, *d-* can never receive a suffixed pronoun, a syntactic constraint that hints at a possible grammaticalization of *\*allaḏī li* ' (the one) that is to/for', i.e. a combination of a relative plus the preposition *\*li*: *\*allaḏī li > ḏdi l > dīl*.<sup>68</sup>

3) In some dialects (Jijel, Skikda), *ḏdi/ḏli* may function both as a relative and as a possessive particle.

A major stumbling block to this etymology is the lack of compelling arguments to explain the shift from *dīl* to *dyāl*.<sup>69</sup> This problematic *a*-vowel

has led Heath and Ouhalla to propose an Arabic-external origin instead. These two authors argue for a morphological borrowing from Late Latin *dē* in constructions such as Spanish *de él* 'of him', a pronominal prepositional phrase then borrowed as *dyāl* by speakers of early Moroccan Arabic.<sup>70</sup> While this hypothesis is not wholly implausible, and partially accounts for the geographic distribution of *d-* and *dyāl*, the development from a relative marker cannot be immediately dismissed. I acknowledge that desyllabification of the *i*-vowel in *dīl > dyāl* is difficult to explain, but this does not mean such a shift is impossible. Sound changes can sometimes be fanciful enough to produce puzzling morphological forms. Moreover, I find it difficult to understand why some speakers of early Moroccan Arabic would have borrowed a genitive exponent from another language when they probably already had one of their own. Evidence for this is provided by the fact that cognates of *\*matā* 'belongings' are widely used as annexation particles in Andalusī Arabic, Siculo-Arabic and Maltese, all first-layer varieties that may reflect some features from an archaic stage of Maghrebi Arabic, since they remained relatively impermeable to the influence of the Hilali wave of Arabicization.<sup>71</sup> On the other hand, the claim by Heath and Ouhalla that the genitive markers *d-* and *dyāl* spread from Morocco or al-Andalus to as far eastward as the Algerian city of Skikda is not sufficiently evidenced to rule out the opposite having in fact happened, i.e. that this feature spread from east to west.

Whatever the case, the clear connection between these genitive markers and the relative pronoun *\*allaḏī* should not be overlooked. Further evidence for this link can be found in the Luso-Moroccan letters held in the TDT archives. In fact, *متاع (mtā')* is the most typical annexation particle in these documents. It occurs in almost all of the letters and in some cases even displays plural inflection, *متاوع (mtāw')*, a morphological property that indicates a high degree of grammaticalization.<sup>72</sup> However, the study corpus also includes a few instances of *dyāl* and proclitic *d-*. The latter appears as *د (d)* in the

<sup>57</sup> See Hocini, *Ghazaouet*, p. 73.

<sup>58</sup> See Ammour, *Nedroma*, p. 64.

<sup>59</sup> See Marçais, *Tlemcen*, p. 172.

<sup>60</sup> See Grand'Henry, *Cherchell*, p. 121.

<sup>61</sup> See Marçais, "El-Milia", p. 1055.

<sup>62</sup> See Cohen, *Juifs d'Alger*, pp. 324-325.

<sup>63</sup> See Souag, "Dellys", p. 164.

<sup>64</sup> See Marçais, *Djiddjelli*, pp. 418-421.

<sup>65</sup> See Marçais, "El-Milia", p. 1053.

<sup>66</sup> See Ostoya-Delmas, "Philippeville", p. 81.

<sup>67</sup> *ḏdi* can be safely ascribed to first-layer Moroccan and Algerian varieties since it has never been recorded in Hilali dialects. The hypothesis that *d-* and *dyāl* are derived from a relative pronoun was first proposed by Dombay (*Grammatica mauro arabicae*, pp. 27-28) and later developed by Kampffmeyer ("Südarabisches"), Marçais ("El-Milia") and Colin ("Notes de dialectologie arabe"). The aforementioned works are quoted in Heath, "D-possessives".

<sup>68</sup> Such an analytical construction was not unknown in Andalusī Arabic: see Corriente, *Sketch*, p. 125, 98f (quoted in Eksell, "D/L particles", p. 38).

<sup>69</sup> See Aguadé, "Maghrebi dialects", p. 54.

<sup>70</sup> See Heath, "D-possessives"; and Ouhalla, "Andalusī-Moroccan Arabic".

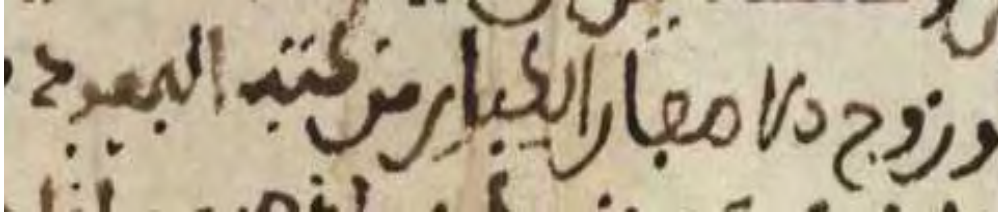
<sup>71</sup> See Aguadé, "Maghrebi dialects", p. 34. Egyptian Arabic also displays a possessive marker (*bitā'*) harking back to *\*matā'*. This geographic spread across North Africa might hint at a common inheritance rather than a shared innovation.

<sup>72</sup> On the use of *متاع (mtā')* as a genitive marker in the TDT Arabic materials, see Guerrero, "Analyse linguistique".

numeral phrase provided in (19), while it is written as *ادي* (*ādy*), with an *ʿalif* preceding the *dāl*, in the example in (20). This spelling likely suggests an attempt to render graphically the relative marker *ʿaddi*. This assumption is further corroborated by the shape taken by the relative marker in (21).<sup>73</sup>

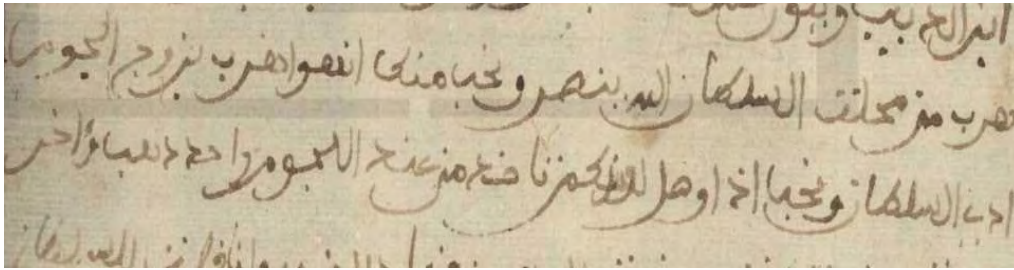
The sentences in (22) and (23) contain occurrences of what seems to be an earlier form of present-day *dyāl*. Interestingly, this possessive marker is spelled in these examples with an *ʿalif* and, in the case of (23), a *šadda* on the *dāl*. Moreover, the instance in (22) includes a *lām* after the

(19)

Figure 12. Letter from the inhabitants of Massa to Manuel I (43).<sup>74</sup>

وزوج دالاصغار الكبار من كتب اليهود					
<i>wzwġ</i>	<i>dlāsfār</i>	<i>alkibār</i>	<i>mn</i>	<i>ktb</i>	<i>ālyhwd</i>
and-two	GEN-DEF-volumes	DEF-big-PL	of	books	DEF-Jews
‘And two big volumes of the books of the Jews’					

(20)

Figure 13. Letter from Ben Lahsen Zanbak to the captain of Azemmour (52).<sup>75</sup>

هرب بزوج الجوم ادي السلطان				
<i>hrb</i>	<i>bwzġ</i>	<i>ālgwm</i>	<i>ādy</i>	<i>alslān</i>
3MSG-run.PF	with-two	bridles	GEN	DEF-sultan
‘He ran away with two bridles belonging to the Sultan’				

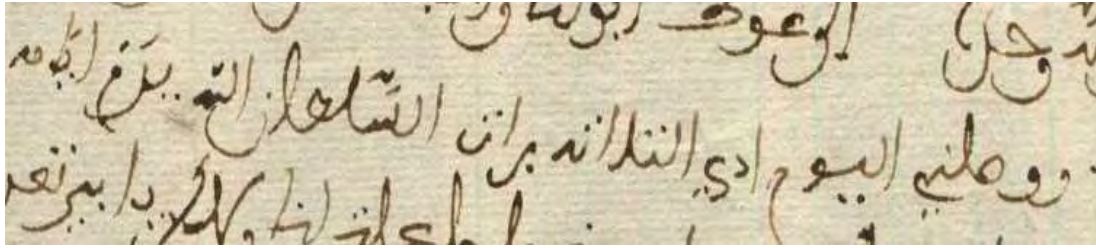
<sup>73</sup> Numerous instances of the use of *ادي* (*ādy*) as a genitive marker can be found in letter 32 (on this document, see note 32): وَمَعَهُمْ شَيْءٌ مِنَ الْبُرُغْيَانِ ‘there were a few shepherds with them’, 6000 sheep’. Also worth mentioning is the following example taken from letter 25: فَنُرِيدُ مِنَ اللَّهِ وَمَنْ كَمَالَ ‘I ask God and your worship to resolve the dispute [that exists] between me and these rebels with a letter from the king [John III] or from [his treasurer] Fernando Alvares’: see *Carta de João Álvares de Azevedo para o alcaide Cide Nasar (de Fez?)*. *Colecção de cartas, Núcleo Antigo 891, mç. 2, n.º 25*. PT/TT/CART/891.2/25 (unedited letter). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908303>. It is worth mentioning that several occurrences of an annexation particle *ادي* are also attested in a sixteenth-century diplomatic letter from the viceroy of Tlemcen to Charles V, cf. Esmā Larbi, “L’arabe de Tlemcen au XVIe siècle à travers une lettre diplomatique” (paper presented to the *Groupe Linguistique d’Études Chamito-Sémitiques* on 31st March 2022.

*ʿalif*. As shown above, this way of writing the two first segments of *dyāl* (i.e. *ادي*, *ادي*) recalls

<sup>74</sup> *Carta dos moradores de Messa a D. Manuel Ier*. *Colecção de cartas, Núcleo Antigo 891, mç. 2, n.º 43*. PT/TT/CART/891.2/43 (edited by de Cénival, *Archives et bibliothèques de Portugal*, vol. I, pp. 233-247). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908321>.

<sup>75</sup> *Carta de Mohamed ben Lahsen Zanbak, secretário do Xarife de Fez, a António Leite, capitão de Azamor*. *Colecção de cartas, Núcleo Antigo 891, mç. 2, n.º 52*. PT/TT/CART/891.2/52 (edited by de Cénival et al., *Archives et bibliothèques de Portugal*, vol. II (2), pp. 500-505). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908331>.

(21)

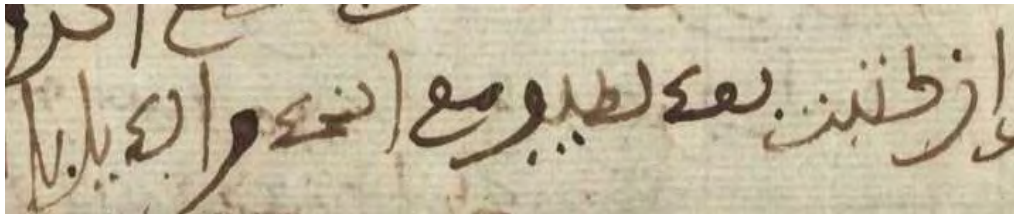
Figure 14. Letter from Muḥammad ‘Ali al-Qbayli? to Pero Correa.<sup>76</sup>

ووصلني اليوم ادي التلاته برات السلطان

<i>wwšlny</i>	<i>ālywm</i>	<i>ādy</i>	<i>ātlāth</i>	<i>brāt</i>	<i>āssulṭān</i>
and-3MSG-arrive.PF-	DEF-day	REL	Tuesday	letter	DEF-sultan
1SG					

‘I have received today, Tuesday, the Sultan’s letter’

(22)

Figure 15. Letter from Yaḥya u Ta‘fūft to Manuel I (45).<sup>78</sup>

ان كتبت بعد لطيف مع الخدم الديل

<i>ān</i>	<i>ktbt</i>	<i>b’d</i>	<i>ltyf</i>	<i>m’</i>	<i>ālḥdm</i>	<i>āldyl</i>
1SG	1SG-write.PF	then	to-guest-[1SG]	with	DEF-servant	GEN-[1SG]

‘Then I wrote (a letter) to [my] guest through [my] servant’

(23)

يحسب نفسه انه اديانا<sup>79</sup>

<i>yhsb</i>	<i>nfsḥ</i>	<i>ānnh</i>	<i>āddyāl nā</i>
3MSG-consider-IPF	REFL-3MSG	that-3MSG	GEN-1PL

‘He considers himself one of us’

the graphic appearance of the relative pronoun \**alladī* (الذي).<sup>77</sup>

Further evidence to support the possible development of *d-* and *dyāl* from a relative marker is found in later sources for the study of Moroccan Arabic. These two annexation particles are for example well

attested in the Arabic words and phrases that appear throughout Germain Moüette’s captivity narrative.<sup>80</sup> Interestingly, in the examples given by Moüette, *d-* only occurs before nouns (24), whereas *dyāl* is exclusively used with suffixed pronouns (25).

(24) *Demen-hadac* ‘whose is this?’ (p. 331),<sup>81</sup> *Metecal-de déheb* ‘2 Ecu gold ducaton’ (p. 340), *Malē-del-benin* ‘master bricklayer’ (p. 349), *Soradel-boten* ‘belly button’ (p. 351), *Biot-del-marquē* ‘black pitch’ (p. 354), *Frac-delhamē* ‘pigeon chick (=squab)’ (p. 354), *Lemelay delbarot* ‘gunpowder salt (=saltpetre)’ (p. 357), *Serac-delma* ‘water thief (=syringe)’ (p. 358).

<sup>76</sup> *Carta de Muhamed Aly Cately a D. Pedro de Mascarenhas. Coleção de cartas, Núcleo Antigo 891, mç. 2, n.º 21. PT/TT/CART/891.2/21* (unedited document). A digital version of the entire document is available from <https://digitarq.arquivos.pt/details?id=3908299>.

<sup>77</sup> I came across further occurrences of a likely proto-form of *dyāl* in letter 25 (on this document, see note 73): الخيل ادليك ‘your horses/horsemen’, ارجل ادليك ‘your men’.

<sup>78</sup> On this letter, see note 44.

<sup>79</sup> On this letter, see note 55.

<sup>80</sup> See Moüette, *Relation de la captivité du Sieur Moüette*

<sup>81</sup> The emphasis in these examples is mine.

(25) *Ajay chouff Romain dienna* ‘come see our Christian!’ (p. 198), *Di ellum* ‘theirs’, *Di ella* ‘hers’ (p. 330), *Diello* ‘his’, *Dienna* ‘ours’, *Dielli* ‘mine’ (p. 331), *Diellec* ‘yours’, *Dielcum* ‘yours (pl.)’ (p. 332).<sup>82</sup>

Examples in Dombay’s grammar also seem to hint at a similar syntactic constraint on the use of *d-* (26) and *dyāl* (27) in late eighteenth-century Moroccan Arabic.

(26) سفر ذا الكتاب *sifr del-kitāb* ‘the volume of the book’, المتقال ذا الذهب *elmitskāl ded-deheb* ‘gold coin’ (p. 25), كرموس ذا النصاري *kermūs den-nasāra* ‘Barbary fig’ (p. 70), خزانه ذا الكتب *chyzāna del-kutub* ‘book cupboard (=library)’ (p. 78), موموا العين *mūmū del-āin* ‘pupil’ (p. 85).

(27) كتاب ذىالك *kitāb dīoeli* ‘my book’, كتاب ذىالك *kitāb dīoelcum* ‘your book’ (p. 28).

## 5. Conclusions

This paper explores an early sixteenth-century epistolary corpus with a view to obtaining data on the Arabic dialects of late medieval Morocco and thus gaining further insight into the historical development of four striking features of Moroccan Arabic. The following conclusions can be drawn from the present study:

**5.1.** The occurrence of جَوْجُ (ǧwǧ) ‘two’ in one of the letters of the corpus suggests that, by the early sixteenth century, some dialects of Moroccan Arabic must have experienced a phenomenon of consonant harmony involving sibilants. This feature may also be connected to the possible presence of a fricative reflex of \*/ǧ/ in these dialects, which is more likely to trigger assimilation of an adjacent sibilant.

**5.2.** The corpus includes recurrent occurrences of a discourse particle ترا (*trā*) that harks back to the verb \**rāā* ‘to see’. Thus, and contrary to common opinion, there are reasonable grounds to believe that the presentative *rā-* of modern Maghrebi dialects could have originated from the 2ndMSG imperfective \**tarā*, rather than the imperative \**ra*. This hypothesis is consistent with the discourse functions shown by *tarā* in some Middle Eastern varieties. In the light of these findings, the following sequence of events can be assumed: the expression \**tarā* ‘you see’ was first bleached of its lexical meaning, then underwent phonological erosion of the 2nd p. verbal prefix *ta-*, and was eventually reduced to the discourse particle *rā-*.

**5.3.** Analysis of the TDT materials shows that the occurrence of durative aspect markers in these texts is extremely rare, with only two instances of *ta-* and one of *ka-* found. Despite this admittedly meagre evidence, it can be inferred that the use in Moroccan Arabic of highly grammaticalized particles denoting some kind of aspectual value goes back to at least the beginning of the sixteenth century.

**5.4.** The token frequency of the genitive markers *d-* and *dyāl* in the letters analysed is noticeably low compared to that of \**matā*. The reasons for this are unclear. On the one hand, it might be evidence of the greater diffusion of \**matā* at that time. On the other, \**matā* might simply reflect a stylistic tendency, since it is very common in North African Middle Arabic sources. In any case, the orthographic representations of *d-* and *dyāl* as ادي / اديال and اديال / اديال respectively, may lend support to the hypothesis whereby *d-* ultimately derived from a relative marker, and *dyāl* from the fusion of a relative marker and a preposition.

## Bibliography

- Aguadé, Jordi, “El árabe marroquí según un texto danés del siglo XVIII”, in A. Agud et al. (eds.), *Séptimo centenario de los estudios orientales en Salamanca*, Salamanca, Ediciones Universidad de Salamanca, 2012, pp. 185-192.
- Aguadé, Jordi, “The Maghrebi dialects of Arabic”, in Clive Holes (ed.), *Arabic historical dialectology: Linguistic and sociolinguistic approaches*, Oxford, Oxford University Press, 2018, pp. 29-63.
- Ammour, Naima, *A Sociolinguistic Investigation of Language Variation in the Speech Community of Nedroma*, Magister thesis, University of Tlemcen, 2012, [on line], available on: <http://dspace.univ-tlemcen.dz/bitstream/112/2041/1/na3oum%20thesis.pdf> [consulted 13/12/2022].
- Aubin, Jean, “Les documents arabes, persans et turcs de la Torre do Tombo”, in G. Bouchon, M.N. Paerson & J. Aubin (eds.), *Mare Luso-Indicum. Etudes et documents sur l’histoire de l’Océan indien et des pays riverains à l’époque de la domination portugaise*, Volume II, Geneva–Paris, Librairie Droze, 1973, pp. 183-187.
- Cantineau, Jean, “Études sur quelques parlers de nomades arabes d’Orient”, *Annales de l’Institut d’Études Orientales d’Alger*, II-III (1936-1937), pp. 1-118, and 119-237.
- Caubet, Dominique, “Deixis, aspect et modalité, les particules *hā-* et *rā-* en arabe marocain”, in M.A. Morel & L. Danon-Boileau (eds.), *La deixis*, Paris, P.U.F., 1992, pp. 139-149.
- Cohen, Marcel, *Le parler arabe des Juifs d’Alger*, Paris, Librairie Ancienne H. Champion, 1912.

<sup>82</sup> See Dombay, *Grammatica mauro arabicae*.



- Colin, Georges S., “Notes de dialectologie arabe: I. Les trois interdentes de l’arabe hispanique, II. Sur l’arabe marocain de l’époque almohade”, *Hespéris*, 10 (1930), pp. 91-120.
- Colin, Georges S., “Des Juifs nomades retrouvés dans le Sahara marocain aux XVI<sup>e</sup> siècle”, in R. Ricard & H. Terrasse (eds.), *Mélanges d’études luso-marocaines dédiés à la mémoire de David Lopes et Pierre de Cénival*, Lisbon–Paris, Portugália editora–Les Belles Lettres, 1945, pp. 53-66.
- Corriente, Federico, *A Grammatical Sketch of the Spanish Arabic Dialect Bundle*, Madrid, Instituto Hispano-Árabe de Cultura, 1977.
- Couto, Dejanirah, “The Role of Interpreters, or Linguas, in the Portuguese Empire During the 16th Century”, *E-Journal of Portuguese History*, 1, 2 (2003), pp. 1-10 [online], available on: [https://www.brown.edu/Departments/Portuguese\\_Brazilian\\_Studies/ejph/html/winter03/html/couto\\_main.html](https://www.brown.edu/Departments/Portuguese_Brazilian_Studies/ejph/html/winter03/html/couto_main.html), [consulted 13/12/2022].
- de Castries, Henry, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Saadienne. Archives et Bibliothèques des Pays-Bas*, Vols. I-V, Paris–The Hague, Ernest Leroux–Martinus Nijhoff, 1906-1920.
- de Castries, Henry, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Saadienne. Archives et Bibliothèques d’Angleterre*, Vols. I-II, Paris–London, Ernest Leroux-Luzac et C<sup>ie</sup>, 1918-1925.
- de Castries, Henry, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Saadienne. Archives et Bibliothèques d’Angleterre*, Volume II, Paris–London, Ernest Leroux-Luzac et C<sup>ie</sup>, 1925.
- de Cénival, Pierre, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Sa’dienne. Archives et Bibliothèques de Portugal*, Volume I (July 1486 - April 1516), Paris, Paul Geuthner, 1934.
- de Cénival, Pierre, Lopes, David & Ricard, Robert, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Sa’dienne. Archives et Bibliothèques de Portugal*, Volume II, Part I (May 1516 - December 1526), Paris, Paul Geuthner, 1939.
- de Cénival, Pierre, Lopes, David & Ricard, Robert, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Sa’dienne. Archives et Bibliothèques de Portugal*, Volume II, Part II (January 1527 - December 1534), Paris, Paul Geuthner, 1946.
- Dombay, Franz L. von, *Grammatica linguae Mauro-arabicae juxta vernaculi idiomatis usum. Accessit vocabularium Latino-Mauro-Arabicum*, Vindobonae, Camesina, 1800.
- Eksell, Kerstin, “D/L-particles in Arabic dialects: a problem revisited”, in Janet Watson & Jan Retsö (eds.), *Relative clauses and genitive constructions in Semitic*, Oxford, Oxford University Press, 2009, pp. 35-49.
- Fischer, Wolfdietch, *Die demonstrativen Bildungen der neuarabischen Dialekte. Ein Beitrag zur historischen Grammatik des Arabischen*, ‘s-Gravenhage, Mouton, 1959.
- Francisco, Felipe B., “Some Moroccan dialectal features on a letter by Yahya u-Ta’fufft (16th century)”, in C. Berlinches Ramos, M. Benítez Fernández & J. Guerrero (eds.), *Proceedings of the 14th Conference of the International Association of Arabic Dialectology*, (forthcoming).
- García-Arenal, Mercedes, Rodríguez Mediano, Fernando & El Hour, Rachid, *Cartas marruecas: Documentos de Marruecos en Archivos Españoles (Siglos XVI-XVII)*, Madrid, Editorial CSIC, 2002.
- González Vázquez, Araceli, “El árabe marroquí visto por un cautivo francés del siglo XVII: Estudio histórico, social y cultural del *Dictionnaire François-Arabe* de Germain Moüette”, *Miscelánea de Estudios Árabes y Hebraicos, Sección Árabe-Islam*, 63 (2014), pp. 65-90.
- González Vázquez, Araceli & Benítez Fernández, Montserrat, “British 18th-Century Orientalism and Arabic Dialectology: William Price of Worcester and his ‘Dialogues in the Vulgar Arabick of Morocco’ (1797)”, *Historiographia Linguistica*, 43, 1 (2016), pp. 61-97.
- Grand’Henry, Jacques, *Le parler arabe de Cherchell (Algérie)*, Louvain-la-Neuve, Université Catholique de Louvain, 1972.
- Grand’Henry, Jacques, “The function of ‘ra’ā’ in Spoken Arabic”, in (unknown editor), *Proceedings of the Ninth Seminar for Arabian Studies held at the School of Oriental & African Studies and the Institute of Archaeology*, London on 7th-9th July, 1975, 1976, pp. 62-68.
- Guerrero, Jairo, “La gramática de árabe marroquí del austríaco Franz von Dombay”, in A. Agud et al. (ed.), *Séptimo centenario de los estudios orientales en Salamanca*, Salamanca, Ediciones Universidad de Salamanca, 2012, pp. 241-250.
- Guerrero, Jairo, *El dialecto árabe hablado en la ciudad marroquí de Larache*, Zaragoza, Prensas de la Universidad de Zaragoza, 2015.
- Guerrero, Jairo, “Reflexes of Old Arabic \*/ǧ/ in the Maghrebi Dialects”, *Arabica*, 66 (2019), pp. 137-170.
- Guerrero, Jairo, “Edición y traducción de cinco cartas en árabe medio ‘marroquí’ (S. XVI) conservadas en el Archivo Nacional de la Torre do Tombo”, *Al-Qanṭara*, 43, 1 (2022), pp. 1-13.
- Guerrero, Jairo, “Analyse linguistique d’un corpus épistolaire en moyen arabe: les lettres luso-marocaines conservées aux archives nationales de la Torre do Tombo”, *Arabica*, 70, (2023), pp. 69-112.
- Heath, Jeffrey, *Jewish and Muslim Dialects of Moroccan Arabic*, London, Routledge-Curzon, 2002.
- Heath, Jeffrey, “D-possessives and the origins of Moroccan Arabic”, *Diachronica*, 32, 1 (2015), pp. 1-33.

- Heine, Bernd & Narrog, Heiko, “Grammaticalization and linguistic analysis”, in Bernd Heine & Heiko Narrog (eds.), *The Oxford handbook of linguistic analysis*. 2<sup>nd</sup> edition, Oxford, Oxford University Press, 2015, pp. 407-428.
- Hocini, Abdelkader, *A Sociolinguistic Study of Ghazaouet Speech Community. Phonological, Morphological and Lexical Variation*, Magister thesis, University of Tlemcen, 2011 [on line], available on: <http://dspace.univ-tlemcen.dz/bitstream/112/3609/1/hocini-abdelkader.pdf> [consulted 13/12/2022].
- Holes, Clive, “An Arabic Text from Šūr, Oman”, in Clive Holes & Rudolf de Jong (eds.), *Ingham of Arabia: A Collection of Articles Presented as a Tribute to the Career of Bruce Ingham*, Leiden–Boston, Brill, 2013, pp. 87-107.
- Hopkins, J.F.P., *Letters from Barbary 1576-1774: Arabic Documents in the Public Record Office*, London, Oxford University Press, 1982.
- Høst, Georg Hjørsing, *Efterretninger om Marókos og Fes samlede der i landene fra anno 1760 til 1768*, Copenhagen, N. Möller, 1779.
- Kampffmeyer, Georges, “Südarabisches. Beiträge zur Dialektologie des Arabischen III”, *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 54, (1900), pp. 621-660.
- Larcher, Pierre, “Moyen arabe et arabe moyen”, in *Arabica*, 48, 4 (2001), pp. 578-609.
- Lentin, Jérôme, “Middle Arabic”, in *Encyclopedia of Arabic Language and Linguistics*, III, Leiden–Boston, Brill, 2007, pp. 215-224.
- Marçais, Philippe, “Remarque sur un fait syntaxique du parler arabe d’El-Milia”, *Revue Africaine*, 79, 2 (1936), pp. 1047-1055.
- Marçais, Philippe, *Le parler arabe de Djidjelli (Nord constantinois, Algérie)*, Paris, Maisonneuve, 1956.
- Marçais, Philippe, “ʿArabiyya III. – Les dialectes arabes. 3. – Les dialectes occidentaux”, in *Encyclopédie de l’Islam* (2<sup>nd</sup> ed.), Leiden–Paris, Brill-Maisonneuve et Larose, 1975, pp. 597-601.
- Marçais, William, *Le dialecte arabe parlé à Tlemcen. Grammaire, textes et glossaire*, Paris, Ernest Leroux, 1902.
- Mouïette, Germain, *Relation de la captivité du Sieur Mouïette dans les Royaumes de Fez et de Maroc, où il a demeuré pendant onze ans*, Paris, 1683 (A PDF version of a manuscript held by the Bavarian State Library is available on: [https://archive.org/details/bub\\_gb\\_2SxDAAAACAAJ/page/n3](https://archive.org/details/bub_gb_2SxDAAAACAAJ/page/n3) [consulted 13/12/2022].
- Ostoya-Delmas, S., “Notes préliminaires à l’étude des parlers de l’arrondissement de Philippeville”, *Revue Africaine*, 82, (1938), pp. 60-83.
- Ouhalla, Jamal, “The origins of Andalusi-Moroccan Arabic and the role of diglossia”, *Brill’s Journal of Afroasiatic Languages and Linguistics*, 7, (2015), pp. 157-195.
- Price, William, “Dialogues in the vulgar Arabick of Morocco. Communicated by Mr. W. Price, of Worcester”, in William Ouseley (ed.), *The Oriental Collections: Consisting of Original Essays and Dissertations, Translations and Miscellaneous Papers*, Volume I, London, Cadell and Davies, 1797, pp. 84-85 and 109-111.
- Procházka, Stephan & Dallaji, Ines, “A functional analysis of the particle *rā-* in the Arabic dialect of Tunis”, *Zeitschrift für arabische Linguistik*, 70, (2019), pp. 44-72.
- Racine, Matthew T., “Service and Honor in Sixteenth-Century Portuguese North Africa: Yahya-u-Ta’fuft and Portuguese Noble Culture”, *The Sixteenth Century Journal*, 32, 1 (2001), pp. 67-90.
- Ricard, Robert, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Sa’dienne. Archives et Bibliothèques de Portugal*, Volume III (January 1535 - December 1541), Paris, Paul Geuthner, 1948.
- Ricard, Robert, *Les sources inédites de l’histoire du Maroc. Première série – Dynastie Sa’dienne. Archives et Bibliothèques de Portugal*, Volume V (Additional documents, 1552-1580), Paris, Paul Geuthner, 1953.
- Souag, Lameen, “Notes on the Algerian Arabic Dialect of Dellys”, *Estudios de Dialectología Norteafricana y Andalusí*, 9, (2005), pp. 151-180 [on line], available on: <https://www.uco.es/ucopress/ojs/index.php/edna/issue/view/776> [consulted 13/12/2022].
- Sousa, Father João de, *Documentos arabicos para a historia portugueza. Copiados dos originaes da Torre do Tombo com permissão de S. Magestade, e vertidos em portuguez por ordem da Academia Real das Sciencias de Lisboa por Fr. João de Sousa. Correspondente do Número da mesma Academia, e Interprete de Sua Magestade para a Lingua Arabica*, Lisbon, Academia Real das Sciencias, 1790.
- Taine-Cheikh, Catherine, “Grammaticalized uses of the verb *ra(a)* in Arabic: a Maghrebian specificity?”, in Mena Lafkioui (ed.), *African Arabic: Approaches to Dialectology*, Paris, De Gruyter Mouton, 2013, pp. 121-159.
- Turner, Mike, “The Arabic of Mal’abat al-Kaffī az-Zarhūni (Morocco, 14th century)”, *Zeitschrift für Arabische Linguistik* 75, 1 (2022), pp. 40-66.
- Vicente, Ángeles, *El dialecto árabe de Anjra (Norte de Marruecos). Estudio lingüístico y textos*. Zaragoza, Universidad de Zaragoza, 2000.

Vicente, Ángeles, “Sur la piste de l’arabe marocain dans quelques sources écrites anciennes (du XII<sup>e</sup> au XVI<sup>e</sup> siècle)”, in Mohamed Meouak, Pablo Sánchez & Ángeles

Vicente (eds.), *De los manuscritos medievales a internet: la presencia del árabe vernáculo en las fuentes escritas*, Zaragoza, Universidad de Zaragoza, 2012, pp. 103-120.