Learning to Write, Read and Speak Arabic Outside of Early Modern Universities

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Manuscript libraries in major European cities with strong holdings of Arabic, Turkish and Persian texts often include dictionaries, vocabularies, little conversation booklets and the occasional grammar in one or more of these three languages.

A number of the surviving texts, in particular dictionaries, are linked to university teaching of those languages or to major research and publication projects of the sixteenth and seventeenth centuries, such as the Polyglott Bible. Many of those objects do not belong in these two intellectual circles but rather are anonymous products whose origins cannot be determined with certainty. Most of them were written by authors who had not grown up in the Middle East and had no substantial training in writing in one of the scripts used there. Others clearly come from Arab Christians who had moved to Europe, as a good number had done in those two centuries working for university scholars or the big research and publication projects. The majority of those rarely studied and often unfinished collections of efforts to learn some Arabic, Turkish or Persian were compiled by travelers to and residents in the Ottoman and Safavid Empires or North African cities.

In addition to Arabic, Turkish or Persian, Syriac and at times Coptic and occasionally Armenian and Ethiopian share the same space with such documents in Arabic. This linguistic environment indicates that learning how to write, read and speak Arabic outside the early modern university took place most often outside Catholic or Protestant territories, within the Ottoman Empire and at times in North African cities or even in the Safavid Empire. People dabbling in Arabic or trying to learn it with some dedication often learned at least one more local language, depending on the place where they had settled for long enough to find books or humans who would teach them. When these travelers to foreign shores came home they brought their notes and manuscripts with them, keeping them as a memory of long gone days. A few of them used their newly acquired language skills as an important element of their future professional career. Others used them as marks of culture and claims for fame. A third group forgot the little they had sought to learn as soon as they left their temporary domicile behind.

In a time where language schools like Berlitz, travel guides like Planet Earth or conversation guides and little pocket dictionaries did not exist, acquiring the necessary language skills for communicating in a foreign land was fraught with difficulties. The lack of understanding of the structural differences between Indo-European and Semitic languages and the belief in their own cultural and educational superiority induced some travelers to insist that Arabic or Turkish should be taught to them according to the rules of Latin grammar. Compilers of dictionaries often chose their own vernacular or Latin as the organizing principle of their work and tried to present Arabic accordingly as a verb in the infinitive, a noun, an adjective or an adverb. Sometimes, the compiler 'explained' Arabic pronunciations through Hebrew or Greek letters with further comment. If the compiler had been born in an Arab province of the Ottoman Empire, North Africa or Safavid Iran, he privileged Arabic as the organizational principle and sorted everything according to roots. Mixed forms can also be found, in particular where more than two languages are involved. Here, Arabic and Latin (or vernacular) alphabets and grammars are used together, pointing to the cultural origin of the compiler.

Material from Spain constitutes, at least partly, a specific case. Here, several anonymous Arabic-Latin or Arabic-Castilian dictionaries were compiled much earlier than in other European regions. I will refer to one of them in this paper, because it turned out that it was the basis of an anonymous Arabic-Latin dictionary in the Bavarian State Library.¹ This is the Arabic-Latin-Arabic dictionary, which some historians have attributed to Raimondo Martí (d. c.1286) and suggested that he compiled it in 1275 for missionary purposes. Others have rejected this proposal.² The unknown author brought together Arabic and Latin ideas of how to structure a glossary. Another fascinating aspect of this vocabulary is its content of Arabicized words from Mozarab Romance dialects as well as from Latin and Berber languages in addition to words, which owe their origin to Persian, Greek and in one case possibly also to Aramaic and came with Arabic speakers from the East to the Iberian Peninsula.³ So far only one copy is known in the Riccardiana in Florence, edited by Schiaparelli in

1 BSB, MS Cod. arab. 906.

2 For a survey of the problems see F. Codera, *Discursos leído ante la Real Academia Española*, Madrid, 1910, pp. 16–17. Unfortunately, I did not find a more recent such survey, although there are brief notes or references to the work in articles by F. Corriente, 'Notas de lexicología hispanoárabe', *Vox Romanica*, 29, 1980, pp. 183–210 (200–210) and R. Szpiech, 'Citas árabes en caracteres hebreos en el *Pugio Fidei* del Dominico Ramón Martí: entre la autenticidad y la autoridad', *Al-Qantara*, 32, 2011, pp. 71–107 (73, n. 5). I thank José Luis Mancha, Sevilla for his help.

3 Corriente, 'Notas de lexicología hispanoárabe', pp. 200–201, n. 24.

1871.⁴ With the Munich copy, a second, heavily modified version is now available. Strictly speaking this dictionary from Munich is not entirely a product of the early modern period. I will nonetheless present it as my first example of activities since it was copied or at least acquired in that time as a source for learning Arabic.

Many dictionaries, such as the one I present as my second example, are incomplete. Some were compiled or continued by several people and a good number are not only bi-, but multi-lingual. Phrasebooks are often much shorter than dictionaries, consisting at times of a very few sentences only. Grammars are the rarest object penned down by such authors. Those that I have seen were, as a rule, compiled or copied in Paris or another city in Europe. Owners of such manuscripts were either their authors or students of a regular course in Europe. Sometimes, a physician like Andrea of Udine bought or inherited such a work.⁵ In the case of Andrea, the manuscript contains two different texts. The main text is Bishop Agostino Giustiniani's (1470–1536) Latin grammar of Arabic to which fragments of Arabic grammatical texts in Arabic are added. The latter contains interlinear Latin translations with Spanish and Latin notes and a few words in Arabic by the European annotator. Since the handwriting uses the Maghribi ductus, the BSB catalogue suggests that the manuscript was compiled in Morocco. It is, however, not only clearly the hand of a European, but has a colophon at the end that dedicates the work to Cardinal Egidio da Viterbo (1472–1532) in Rome.⁶ Moreover, at the end, the declination of the verb *našara*, 'to win', in an Arab hand is added with explanations according to Arabic grammar. A Greek provided Greek translations and explanations on folios 1^v and 2^r and a Latin hand gave some grammatical identifications and a few translations of the Greek terms.⁷

The early producers and users of such language tools were missionaries, merchants, aspiring diplomats, private travelers and prisoners. A primary purpose of these language studies consisted in providing missionaries with

4 C. Schiaparelli, *Vocabulista in arabico*. Pubblicata per la prima volta sopra un codice della Biblioteca Riccardiana di Firenze, Florence, 1871.

5 BSB, MS Cod. arab. 920, unpaginated. The manuscript contains several paginations in Latin hands. The entry by Andria of Udine follows after the first set of paginated folios.

6 Ibid., p. 6, counted from the left cover. For Giustiniani's and Viterbo's interest in the Qur'an see T.E. Burman, *Reading the Qur'an in Latin Christendom, 1140–1560*, Philadelphia, 2007, pp. 149–77.

7 BSB, MS Cod. arab. 920, fols 1^v–5^r. At some point, the dictionary came into the hands of J.A. Widmanstetter (1506–1557) who annotated it. R.J. Wilkinson, *Orientalism, Aramaic, and Kabbalah in the Catholic Reformation: The First Printing of the Syriac New Testament*. Leiden, 2007, p. 48, fn 68.

enough knowledge for talking to the people whom they wished to convert. Hence, dictionaries dedicated mainly to this end contain a substantial amount of words or phrases on religious issues. A second purpose, not very different from the first, was to help a private traveler to learn to communicate with local officials, physicians, caravan guides and inhabitants of towns and villages. This kind of work often contains material not found in this quantity in dictionaries, phrase books or grammars produced by missionaries, for instance words about geography, plants, animals and the heavens. A third purpose, again not very dissimilar to the previous two, was to allow European visitors or residents to participate in social events, buy slaves on the slave market or engage in illicit affairs.⁸ A fourth purpose, however, differed substantially from the three preceding ones and produced a profoundly different result with regard to the breadth and depth of the acquired linguistic and cultural knowledge. This purpose was the education of future diplomats, translators or secretaries of embassies. Only very few documents of this type seem to exist.

In addition to these general characteristics of early modern tools of language studies produced by Catholic or Protestant visitors to, or residents in, the Middle East and North Africa, three features are of particular interest to today's students of early modern intellectual history. Many vocabularies, phrasebooks and grammars show the very limited range of knowledge the compiler had acquired and his lack of continuity and consistency. Learning Arabic seems to have been in most cases not more than a very limited pastime. Even in conditions where a basic knowledge of spoken daily expressions would be quite helpful the extent of familiarity with Arabic and Turkish or Arabic and Persian was very small. The third example that I will present below is a manuscript in which the German traveler Hans Ulrich Krafft (1550–1621) from Ulm offers specimens in Arabic, Turkish and Syriac reporting how he learned to write in an Ottoman prison at Tripoli.

The few works that are substantial in volume and comprehensiveness were compiled by interpreters of embassies, travelers with university education or missionaries. In their case, the study of any of the named languages went beyond the acquisition of expressions for daily necessities. They reflect their compilers's specific concerns and goals, which is the second feature of interest for today's students of early modern intellectual history. A third point of interest for an intellectual history of early modernity are the forms of knowledge and beliefs that are inscribed in the dictionaries, among them Aristotelianism, religious convictions and political assumptions, but also cultural customs

⁸ See, for instance BnF, MS Français 703, fols 128^v–128^r.

and prejudices. My fourth example will present a brief survey of one of these substantial dictionaries.

An Early Modern Apparently Disorderly Manipulation of the 'Vocabulista in Arabico'

MS Munich, Cod. arab. 906 contains 166 folios. Written in Maghribi/Andalusi ductus by a European hand not fully in command of writing Arabic, it provides no author's name or title. In 1578, it was approved by the Jesuit father Canisius and in 1595 it was included in the library catalogue by someone in the Jesuit house in Munich.⁹

This dictionary follows in large parts the Arabic-Latin half of the Arabic-Latin, Latin-Arabic vocabulary described above. On the first level of its organization, it applies this vocabulary's appropriation of the Arabic alphabet as the main principle. But the copy the writer of the Munich text used was incomplete and apparently misbound, since the order of the Arabic alphabet is not always preserved. It is also possible that some of these deviations result from errors in the binding of the Munich codex itself. Examples of the broken order of the Arabic alphabet are that words for the letters *sīn* and *shīn* follow the letter *qāf*, while words for the letter *qāf* are placed after words for the letter *mīm*. Other violations of the Arabic alphabetical order occur in the third letter of the Arabic root.

Several deviations from the Arabic style of compiling dictionaries reflect Latin customs. The order of the folios follows a left-to-right habit as does the placement of the Arabic words on each folio. The writer did not put the Arabic words on the right, but on the left side of the folio. In this respect too, the anonymous copyist (or his predecessor/s) followed the decisions made by the original compiler. The choice of grammatical forms also reflects Latin custom. The majority of the Latin words in the dictionary are verbs, which this compiler identified with Arabic verbal nouns. In addition to verbs and nouns, the dictionary provides sometimes short expressions like *idhā qala* [sic] = *quando dixit* and comments by a user.

The diacritical points in Arabic follow Maghribi/Andalusi style. However, some of the letters either look the same when they should differ such as *ghayn* and *qāf* or miss some of their arcs or strokes such as *ṣād* or *qād*. The dictionary contains numerous spelling mistakes, confusions of verbal nouns from different roots and mistranslations. Some items like the deleted *ut ob* after *cornutus*

⁹ BSB, MS Cod. arab. 906, unpaginated, last folio.

for *Abū Qūzūn*, many missing Latin translations as well as entries that are misplaced by one line prove that this exemplar is a copy. The ancestor from which the scribe copied was obviously incomplete. This applies in particular to the letters *sīn*, *shīn*, *qāf* and *mīm*. Some of the lacunas can be found in the extant manuscript of the dictionary in Florence. In other cases, the Munich version provides translations lost in the Florence copy.

The most surprising element of the dictionary is its deviation from the Arabic alphabet mostly in the third consonant of the root. At a first glance, this feature looks like an extremely erratic copying of the original word list. After a systematic inquiry it turns out to be the result of a reordering of the Arabic words according to the alphabetic sequence of their Latin translations following a second order sequence, namely the sequence of the second letter of the Arabic words according to the Arabic alphabet. This means that for each letter of the Arabic alphabet the Arabic words are ordered in groups according to the second Arabic letter. Within each group they follow the Latin alphabet of their translations. Some examples show that the copyist of the Munich version did not originate this adaptation of the original dictionary to a secondary Latin reordering. One of them is found in the place 81 of *barā*. In the Munich manuscript the translation of this word is *apodisia*. It follows *burnūs* translated as *cappa uel clamis* as number 80. According to the secondary Latin order, *apodisia* should follow, however, as number 71 after *burūqa* for *aperire*. Nonetheless, the position of *barā* as number 81 is correct, since the meaning as given in the Florence manuscript of Martí's dictionary is *cedula*.¹⁰

An Anonymous Seventeenth-Century Dictionary

Many early modern Arabic dictionaries are anonymous and hence difficult to identify with regard to their authors and places of compilation. BnF, ms Arabe 4353 is an incomplete French-Italian-Arabic dictionary written by several hands with a few Turkish additions in transliteration. It comes from Colbert's collection of Oriental manuscripts (old siglum 4882) and is arranged according to the French alphabet. Words like capital, compter/computare, compte/conti, concurrence/concurrenza, consul/consule, credit/il credito authorita, embassade/embacata, modelle, negoce/negocio, orfobre/orefice, parfun/perfumo, or pirate/pirata leave little doubt that someone with mercantile interests had a hand in its compilation.¹¹ Beyond trading, the compiler had an interest in

10 Ibid., Schiaparelli, *Vocabulista in arabico*, pp. 35, 37.

11 BnF, ms Arabe 4353, fols 56^r, 57^r, 58^r, 63^r, 75^r, 92^r, 153^r, 157^r, 163^v, 166^v, 171^v.

talking about education, knowledge, health and nature. Moreover, he felt he needed Arabic in cases of social as well as sexual entertainment (courtesy, dancing, elegant, eloquent, kissing, caressing, deflowering, having a concubine, eunuch, to invite).¹² Further domains of interest of the compiler were intelligence (spying, conspiring, being discreet), military and other technical things (engineer, inventor, machine, munition, navigation, printer), political and social affairs (France, magistrate, monarchy, noblesse) and the arts (comedy, sculptor, painter, painting, literature, music, epigram).¹³

The words belonging to intellectual and health topics comprise planets, eclipses, mathematics, horology, medicine, diseases, experiments, plants, animals, schools, teaching, students, magnets, compasses, gravity, minerals and philosophy.¹⁴ While they do not suffice for a more extensive discussion of detailed knowledge of these areas, an owner of this dictionary could at least tell a doctor about his dysentery, epilepsy, hydropsy, measles, melancholy, paralysis or the plague, talk about the humours and ask for a remedy in general or a syrup in particular.¹⁵ In philosophy he knew words for definition, doctrine, element, reason, accident, essence, intelligible, necessity, infinity or nothingness, although they do not always express what the French or Italian speaker had in mind.¹⁶ In the mathematical sciences, he could multiply or divide, speak about parallels, ask about the stars, the constellations, the heavens, the equinoxes and instruments, or inquire about the latest information in cosmography.¹⁷ Again, not all chosen Arabic words confer correctly the desired meaning.

Another sample highlights particular preferences of the early modern intellectual discourse such as curiosity or novelty. The first is rendered as *ghayya* (error, sin, taste, inclination, liking).¹⁸ This choice does not manage to transport the new, positive meaning of the French and Italian word, but remains stuck in its ambiguity as something morally reprehensible and something of a more neutral value. Novelty is described as *ḥājjā jadīda*, which seems to be a mistake for *ḥujja jadīda* (a new argument or proof).¹⁹ This translation situates novelty squarely within the realm of scholarly discourse and misses the word's

12 Ibid., fols 24^v, 32^v, 58^r, 75^v, 79^r, 81^r, 92^v, 95^v, 135^r.

13 Ibid., fols 16^r, 53^r, 56^r, 65^r, 79^r, 102^v, 106^r, 111^v, 123^r, 130^v, 136^v, 137^r, 138^r, 139^r, 146^r, 154^r, 156^v, 156^r, 157^v, 158^r, 168^r.

14 Ibid., fols 15^r, 17^r, 38^r, 55^r, 76^r, 91^v, 104^r, 105^v, 109^v, 113^v, 128^v, 130^v, 133^v, 146^v, 149^v, 149^r, 150^r, 153^v, 156^r, 157^v, 165^v, 168^r, 170^r, 172^v.

15 Ibid., fols 90^r, 111^v, 134^v, 149^v, 150^v, 150^r, 165^v, 170^v.

16 Ibid., fols 16^r, 81^r, 88^r, 92^v, 107^r, 137^r, 138^r, 157^r, 159^r.

17 Ibid., fols 38^r, 65^r, 73^v, 108^v, 111^v, 138^v, 156^v, 160^v.

18 Ibid., fol. 78^v.

19 It might also be possible that the form in the dictionary reflects a dialectal form.

much larger extension into the realm of production of all kinds of goods and items.²⁰ Hence, if the compiler of the dictionary indeed cooperated with a local these examples reflect the cultural ambiguities and dissonances that are characteristic for the second half of the seventeenth century, but not always already visible in dictionaries produced in the first half or earlier.

The anonymous compiler was not only interested in rational knowledge and mercantile and adventurous pursuits. He also considered terms like magic, magician, miracle, marvel, monster, to distil, to embalm, giant, heresy or mystery as worth learning.²¹

Much of the corresponding Arabic vocabulary represents the terminology found in Arabic dictionaries or scholarly and literary texts. In some cases, the compiler may not have been certain about disciplinary boundaries or meaning at large. Examples are *culture/cultura* translated as *falāḥa* (agriculture), *discipline/disciplina* for *tadbīr*, *adab* (arrangement, regimen, regulation; literature, decorum, culture, refinement), *essence/essenza*, *chastenza* for *mādah* [sic] (matter, substance, stuff), *estudier*, *studiare* for *qarā* (to receive hospitably, to entertain), which is presumably a spelling mistake for *qara'a* (to recite, to read) or *histoire/historia* for *qīṣṣa* (story).²² Numerous cases deviate clearly from the language attested in written texts. It is not always possible to decide whether such terms represent the spoken language or are literal renderings into or depictions in Arabic of the content of the French or Italian terms. Examples are the translation of *philosophe* by *muḥibb al-ʿilm* (the lover of knowledge), *muqābalat al-naǧm* (meeting of the star) for *constellation*, *munāṣafa* (half-and-half) for *equinoxe/equinoxio*, *sāqil al-kilām* (sic) (*ṣāqil al-kalām* = refined in speech) for *elegant* or *katibat al-milād* (written document of birth) for *genealogy*.²³ Other words like *daulphin/delphine* are simply transliterated (*dawlqīn*, sic).²⁴ The frequent usage of short vowels different from those used in such cases in classical Arabic point to an oral environment, perhaps a cooperation with an Arabic native speaker.²⁵ In one case, the compiler's sources left him

20 BnF, MS Arabe 4353, fol. 159^r. One of the anonymous reviewers suggested that *ḥāja jadida* could also be a slightly misspelled representation of the Maghrebi dialectal expression *ḥāja jadīda*, which could indeed mean 'something new', 'a novelty'. However, a final solution of this problem would require more research into Petit de la Croix's knowledge of dialectal Arabic, which cannot be done at the moment.

21 Ibid., fols 92^r, 103^v, 127^v, 132^v, 146^r, 151^v, 156^r.

22 Ibid., fols 78^v, 102^v, 107^r, 109^v, 132^r.

23 Ibid., fols 65^r, 92^v, 111^v, 127^r, 170^r.

24 Ibid., fol. 79^r.

25 Ibid., fols 38^r, 56^r, 71^r, 92^v, 137^r, 138^r.

without a reply: there is no equivalent for *machine/machina* entered in the dictionary.²⁶

While a good number of those cases may have been comprehensible to an educated Ottoman, some choices will have puzzled or misled him as to what the Frenchman wished to know. Examples are *jamʿ al-dunya* (the whole of the world) for *cosmographie*, *munāṣṣaf* (the halved one) for crescent and its feminine form for equinox or *wa-lā-wāḥid* (and a no-one) for zero.²⁷ A small group of words left me baffled. *Mubandaq* for *desnaturé* may be related to *bundūq* = bastard.²⁸ *Itmām* (completion, perfection, conclusion, consummation, fulfilment, et al.), however, has no link with 'definition'.²⁹

Hans Ulrich Krafft's Efforts to Learn How to Write and Read Arabic and Turkish

Hans Ulrich Krafft came from a well-established Lutheran Patrician family of Ulm. His father was the mayor of the city, the city's main judge and head of the city council. Hans Ulrich was destined to follow his family's mercantile tradition and learned the necessary skills, including languages in the service of relatives who ran the business in Lyon and Florence. In 1573 he entered the service of the merchant family Melchior Manlich & Co. who entertained trade with Aleppo, Tripoli and Famagusta in the Ottoman Empire. Krafft wished to visit the sultan's lands and thus agreed to head these three trading factories. Only one year after his arrival in Tripoli in September 1574, the firma Manlich & Co. went into bankruptcy. As a result Krafft and two other employees of the Manlich enterprise were confined in the debtor's prison in Tripoli. The latter two died there. Krafft managed to gain his freedom in 1576 and returned home via Genoa. Late in his life he wrote a travel account which was printed in 1861.

In this travel account Krafft also describes the level of the knowledge of Arabic that he acquired between 1573 and 1576. While he was able to conduct a small exchange of simple sentences at the end of his imprisonment in 1576, he still needed a translator for a more complicated conversation.³⁰ Krafft described how he learned to read and write Arabic and Turkish in a special

26 Ibid., fol. 146^r.

27 Ibid., fols 73^v, 77^r, 111^v, 159^r.

28 Ibid., fol. 96^v.

29 Ibid., fol. 81^r.

30 *Reisen und Gefangenschaft von Hans Ulrich Kraffts, aus der Originalhandschrift*, ed. K. Haszler, Stuttgart, 1861, pp. 167–8, 181–2.

chapter of his account. He reports that he decided to learn these languages during Leonard Rauwolf's (1535–1596) absence from Tripoli in 1575. Rauwolf, a physician and brother-in-law of Melchior Manlich, famous for his travel account and herbals, had joined the voyage as an expert in drugs and medicinal plants, which he was allegedly exploring during his excursion. Together with Krafft, a polite, calm and humble Arab of about fifty years was arrested, who watched him writing on a beehive a letter in German. Through a Jewish prisoner this Arab investigated what Krafft was doing. When he heard that the German merchant was writing a letter he ridiculed him for the speed with which he wrote, saying that nobody could read such a handwriting. Krafft proposed to teach the Arab how to write German letters if he would teach him his alphabet. The two agreed and through the Jewish mediator Krafft asked for the alphabet. The Arab wrote each letter on a piece of paper and Krafft set its Latin pronunciation below it.³¹ It took Krafft three weeks until he could write an entire word, finding the four positions of each letter (in isolation, before or after a letter, between two letters) difficult to grasp. In the travel account, the alphabet is presented in the first position only, followed by the author's name written in Arabic but wrongly vocalized.³² In the very brief manuscript Cod. arab. 926 of the Bavarian State Library (13 folio) a description of this learning process is found under a title similar to that of the respective chapter in the account. 'Volggt Ein Kurtzer Einfeltiger bericht der Arabischen Schrift'.³³ There, three positions of each letter (beginning, middle, end) are given.³⁴ Moreover, the vocalization of Krafft's name differs from that in the account and is even less correct than the latter one.³⁵ Although Krafft claims in the travel account that he wrote his report about the Arabic alphabet on November 12, 1575 in the prison of Tripoli, the extant manuscript is a copy, which he produced at the end of January 1579 in Augsburg.³⁶ With this date, the report in the account about Krafft's efforts to learn how to write and read Arabic and Turkish ends. Except for the list provided for the units, tens, one thousand, ten thousand and one hundred thousand, the manuscript does not contain other information beyond the Arabic script and how to pronounce the letters. Thus, we can

31 Ibid., p. 200.

32 Ibid., p. 201.

33 BSB, MS Cod. arab. 926, fols 4^r–12^v.

34 Ibid., fol. 4^r.

35 Ibid., fol. 12^v.

36 Ibid., fols 2^r–3^v, 13^v.

assume that Krafft did not find another occasion to improve his knowledge of the two languages.³⁷

François Pétis de la Croix's (1653–1713) French-Latin-Arabic Dictionary

François Pétis de la Croix's French-Latin-Arabic dictionary of 1,905 pages is in a class of its own.³⁸ It is the fruit of his ten-year educational stay in the Ottoman and Safavid Empires. He also wrote a grammar and selected short pieces of text for exercises. The dictionary does not impress merely by its length, and hence the number of words collected and identified with French terms. It is a truly unique product of French-Arabic-Turkish-Persian collaboration over the decade of learning that the French son of a court translator of Arabic and secretary of the French embassy in Istanbul spent on the orders of Colbert. While many other bi- or tri-lingual dictionaries produced by travelers to, or residents in, the Ottoman and Safavid Empires during the seventeenth century contain a vocabulary filled with traces of oral communication and intellectual themes deviating philologically from the scholarly languages used at the madrasas and in scholarly texts, De la Croix's great dictionary impresses us by its rich familiarity with the intellectual heritage and practice of these elite groups. This comment points to the cultural distance that exists between many dictionaries (grammars and phrasebooks) produced by Catholic and Protestant visitors to the two Islamic societies and dictionaries produced by Arabic Christians in Europe or Muslims in the Middle East. In De la Croix's dictionary this abyss has been considerably diminished. It is not altogether absent, but Catholic and Muslim concepts, goals and customs coexist in it side by side.

The extent of De la Croix's familiarity with Muslim intellectual, philological, religious and cultural customs was already recognized by the diplomatic success he achieved as a negotiator of the French crown. His dictionary provides us with a glimpse into the domains of the rational, traditional and mystical disciplines which he studied with Muslim teachers. I cannot summarize in this short article the whole wealth of the 1,905 pages, but I can illustrate it by a few examples which cannot be found in most of the other dictionaries of the seventeenth century.

37 Ibid., fol. 2^v.

38 Bibliothèque des Missions Étrangères, MS 1069.

The dictionary is ordered after the French alphabet. It begins with the preposition 'à' and ends with the term 'zone'. For Arabic nouns De la Croix provides the singular and at least one plural. He presents verbs in the third singular of the perfect and the imperfect of the root. This is the standard of Arabic dictionaries. He vocalizes all words and provides further reading help like the *shadda* (sign to double a consonant) or the *sukūn* (sign that a consonant carries no vowel). He presents entire phrases expressing Muslim as well as Christian religious formulas like *bi-ʿawni llahi wa-tawfīqihi* (with God's help and his support) = *Dieu aidant* or *ṣahara lahu wa-tarā lahu fī shakl al-ḥamāma* (He appeared to him and he saw him in the form of a dove) = *Il luy apparut en forme de Colombe*.³⁹ Occasionally, De la Croix also presents a short exchange of such formulas, pronounced, for instance, at the end of a meeting. An example is *raḥmakumi llah* (may God have mercy upon you) = *Dieu vous Benisse*, Réponse: *ujurkumi llah* (answer: may God reward you).⁴⁰ He wished to talk about people on the fringes of the religious communities like *athée* = *mulḥad* (sic for *mulḥid*) or *zindīq*, whom he explained as someone who had no religion and no (legal) school (*mā lahu dīn wa-lā madhhab*) or those who overdid? their religious commitment like bigots = *marāʿī* or *ṣālūs* ([sic]; *murʿan?*, hypocrite).⁴¹

The last two examples highlight the cultural incommensurability of a number of words and expressions which De la Croix wishes to teach his readers in Arabic. The way he overcomes or circumvents such unsolvable difficulties shows his intellectual agility as well as his limits. While censorship, for instance, did not exist in an institutionalised form in the Ottoman or Safavid Empires, De la Croix nonetheless wished to translate *censure* into Arabic. He chose as a close relative *inkār* = disavowal, rejection, negation et al.⁴² Prohibition (*taḥrīm*, *manʿ*) would have been a closer fit. The translation of *zurrāfa* [sic] as camel, leopard and giraffe may combine the star constellation of camelopardalis introduced in 1624, the ancient idea of the giraffe as an animal with the body of a camel and the fur of a leopard, and the early modern realisation that this was not the case. The entry also reflects the Arabic origin of the word giraffe.⁴³ When De la Croix wished to render the title of the French kings (hereditary since the 15th century) *le roi tres chretien* (so), he chose the somewhat surprising description: *ʿaẓīm al-rūm malik afrānjeh*

39 Ibid., pp. 27, 61.

40 Ibid., p. 149.

41 Ibid., pp. 97, 156.

42 Ibid., p. 219.

43 Ibid., p. 230.

[sic] (the greatest of Rome [or: Christendom?], the French/Christian king).⁴⁴ Whether his Ottoman or Safavid interlocutors immediately understood that *sharāb al-taffāḥ* [sic] was the alcoholic drink *cidre de pommes* has to remain an open question.⁴⁵ Equally unclear is what kind of mathematical concept such interlocutors would have attributed to *tanāsub* (proportionality, to be in proportion, harmony), when De la Croix meant *cymetrie* (a French neologism of the sixteenth century (?); symmetry, i.e. the property that something does not change under the impact of a transformation).⁴⁶ A last example of the cultural problems of translating is De la Croix's decision to identify *citation* with *isnād* and *shahāda*. Both Arabic words have meanings that differ from that attached to the new early modern practice of adding references to books and authors as side- or footnotes to a printed text. *Isnād* is a chain of witnesses for a report, story or information. *Shahāda* designates either the Islamic creed that there is no God but God, or the giving of testimony in a juridical context.⁴⁷

Terminology of interest for a history of the intellectual and institutional relations between France, the Ottoman and the Safavid Empires encompasses words for new Catholic institutions and the intention to convert people as well as the many terms for animals, remedies, plants, mathematics, astronomy, astrology, and geography. Examples for efforts to communicate new developments and desires in religious domains are *La Sacrée Congregation de propaganda fide* translated as *al-majma'u l-muqaddas alladhī 'alā nashri l-imāna* [sic] (the holy society, which is for the proclamation of the faithfulness, instead of *īmān* = faith; this shift from *īmān* to *imāna* (instead of *amāna*) may be the slightly mistaken result of his knowledge of Persian, where *amāna* also can mean faith or religion), *nouveau converti a la rel. catholique* translated interestingly with the Shi'i formula *qarīb al-ahd bi l-dīn* (of recent conversion/with little experience in religious matters), *carme religieux* (*karmalītān*), *huguenot* (*lūtrān laṭārana*), *Jesuite* (*yasū'i 'isāwī*).⁴⁸ Parallel to this presentation of Christian interests, there are also terms and expressions that explain Islamic traditions and differences between religious groups in India. This latter phenomenon is of interest since according to British and Indian historians of colonial India the terms *Hindu* and *Hinduism* as a label of a religious and cultural identity were only introduced by the British in the early nineteenth

44 Ibid., p. 264.

45 Ibid., p. 267.

46 Ibid., p. 268.

47 Ibid., p. 272.

48 Ibid., pp. 205, 321, 350, 853, 866.

century.⁴⁹ Among Islamic religious information we find *les hadits sont les fondements du Mahometisme* (*al-ḥadīth madād al-islām*) or *limbe séjour des ames depuis la mort jusqu'au jour du jugement selon les mahometans* (*al-barzakh*).⁵⁰ The differentiation between Muslim Indians and Hindus is made as follows: Indien mussulman (*hindī*), Indien Idolatre (*hindū*).⁵¹

A selection of the fascinating scientific, medical, geographical, technical and philosophical vocabulary, which is strongly visible in Pétis de la Croix's dictionary, is given in the following table. It consists of words and themes of ancient Greek, medieval Arabic or Latin and early modern European vernacular origin. A good part of the ancient and medieval vocabulary or topics is the shared knowledge of Pétis de la Croix and his teachers in the Ottoman and Safavid Empires. A fair amount of the early modern vocabulary belongs to Christian cultures in Europe and had to be explained to the Muslim scholars. Pétis de la Croix made different choices, already visible in the religious terminology described above. They include transliterations, explanations, translations and identifications. There are a number of clear mistakes, which either indicate that the two interlocutors did not fully understand each other or which might have been the result of copying mistakes or the faulty use of Arabic-Arabic, Turkish-Arabic or Persian-Arabic dictionaries. An example is the identification of *impair* with *watar* (chord). The translation of *curcubite* as pumkin rather than alembique, which the explanatory *vase de chimie* prescribes, is difficult to explain. Perhaps Pétis de la Croix drew a picture and his teacher thought it was a gourd, the other meaning of *curcubite*. In other cases Pétis de la Croix surprisingly opted for a lengthy explanation instead of a possible short literal translation, as for instance when he explained *indivisible* with *mā huwa qābil al-taqṣīm* instead of choosing one of the other, much shorter possibilities like *bi-lā qisma* or *ghayr maqṣūm*. Perhaps these kinds of terms or expressions belong to an early phase in the compilation of the dictionary. In addition to them there are a few orthographic deviations from classical Arabic such as the omission of a middle or a final *hamza* or of a *sukūn*. The spelling of expedition as *tanfīz* instead of *tanfīdh* seems to confirm an oral background to at least parts of the Arabic translations.

49 <<http://www.britannica.com/EBchecked/topic/266312/Hinduism>>, accessed 30 April 2015; R. Verma, *Faith and Philosophy of Hinduism*, New Delhi, 2009, pp. 1, 204.

50 Ibid., pp. 729, 988.

51 Ibid., p. 898.

French	Arabic	English equivalents ^a	MS Paris, Bibliothèque des Missions Étrangères, 1069
les colures	<i>dā'iratā l-sumūt</i>	(equinoctial and solstitial) colures// the two circles of the colures	p. 286
cone, cylindre	<i>makhrūt makhrūtāt</i>	cone, cylinder// cone	p. 313
conjonction des planetes	<i>qirān wa'ttiṣāl</i> <i>kawākib</i>	conjunction of the planets// conjunction and connection of the stars	p. 322
consultation de medecin	<i>istiḡḡā</i>	consultation of a physician// exigency, need, requirement	p. 335
corail	<i>murjān</i>	coral// small pearls, corals	p. 355
corps elementaire	<i>ṭalal, ḥūbā ḥūbāwāt</i> (sic)	elementary body// ruins, remains; soul + pl	p. 361
cosmographie	<i>rasm al-dunyā, qiyās</i> <i>al-arḍ bi'l-handasa</i>	cosmography// drawing of the world, measurement of the earth through geometry	p. 365
cucurbite vase de chimie	<i>qar'a</i>	cucurbit (pumpkin, gourd, flask for destillation) chemical flask// pumpkin, gourd	p. 408
curer les dents	<i>khalla yakhallu</i> <i>al-isnān bi'l-miswāk</i> [...]	to clean the teeth// he cleaned, he cleans the teeth with a little stick	p. 412
la plus bas declinaison du soleil	<i>ghāyat al-inḥiṭāt</i>	the lowest declination of the Sun// the extreme of the declination	p. 431
diametre	<i>quṭr ṣallin</i> (sic)	diameter// diameter of a shadow	p. 508
dissection	<i>tashrīḥ</i>	dissection// anatomy, in modern Arabic also dissection	p. 521
dissertation	<i>baḥṭh mubāḥatha</i>	dissertation// search, quest, investigation, inquiry, study; discussion	p. 522
distiller	<i>qaṭṭara yaqaṭṭiru</i>	distil// he filtered, refined, distilled/he filters, refines, distils	p. 524

French	Arabic	English equivalents ^a	MS Paris, Bibliothèque des Missions Étrangères, 1069
divination	<i>faṭḥ al-fāl</i>	divination// fortunetelling	p. 527
pierre	<i>ḥajjar al-maṭar</i>	heliotrope, bloodstone//	p. 572
eliotrope		the stone of rain	
epicurien	<i>bayṭarānī, baṭnānī</i>	Epicurian// ??	p. 625
épilepsie	<i>ṣaraʿ ṣurūʿ</i>	epilepsy// epilepsy + pl	p. 625
équilibre	<i>mutakāfī</i> (sic)	balanced// equivalent, being in equilibrium, reciprocal	p. 631
Etna	<i>jabal al-nār</i>	Etna// the mountain of fire	p. 647
expedition	<i>tanfīz</i> (sic, tanfīdh), <i>itmām</i>	expedition// execution, accomplishment, discharge; completion, accomplishment, execution	p. 669
experimenter	<i>jarraba yaḥjarribu,</i> <i>imtaḥana</i> <i>yamtaḥīnu,</i> <i>ikhtabara yakhtab-</i> <i>iru, balā yablū</i>	to experiment// he tested, tried out/he tests, tries out; he tried out, tested/tries out, tests; he explored, tested, tried out, examined/ explores, tests, tries out, examines; he tested, tried/tests, tries	p. 669
factum	<i>muṣarraḥ</i>	fact// announced, known, openly declared	p. 682
faute, erreur	<i>ghalaṭ aghlāt, zilla</i> <i>zallāt, zalal, taqṣīr</i> <i>taqṣīrāt</i>	fault, error// mistake mistakes; slip, lapse; slip, laps, error; failure	p. 695
fleau de balance	<i>rāsu l-mīzān</i> (sic)	tip of the balance	p. 719
fluxion	<i>nuzala</i> (sic) <i>nawāzil</i> (correct: <i>nazla</i> <i>nazalāt</i>), <i>ḥāḍir</i> <i>ḥuḍūr, tasqīt, zakma</i> <i>zūkām</i>	inflammation// mishap, calamity (cold, catarrh); present, ready, sedentary?; collapse, miscarriage?; cold, catarrh	p. 723
foetus embryon	<i>al-janīn al-matak-</i> <i>hallaf</i> (sic) <i>fī baṭn</i> <i>ummihi</i>	fetus, embryo// the embroy, (which) stays/is left behind in the belly of its mother	p. 723

French	Arabic	English equivalents ^a	MS Paris, Bibliothèque des Missions Étrangères, 1069
géographie	<i>taqwīm al-buldān</i>	geography// the almanac/ survey of countries	p. 783
gingembre	<i>zinjībīl</i>	ginger// ginger	p. 785
globe	<i>kurrat al-arḍ</i>	terrestrial globe//	p. 788
terrestre		the sphere of the earth	
guérison	<i>shifā, dār al-shifā</i> (sic)	healing// healing, the house of healing	p. 813
herboriste	<i>‘ushbī‘ ashāb</i> (sic), <i>bayyā‘u mufradāt al-ṭibb</i>	vendor of herbs// herbal plants; vendor of the simples of medicine	p. 835
hermaphrodite	<i>juntha jināth</i>	hermaphrodite// hermaphrodite + pl	p. 837
les quatre humeurs	<i>al-arba‘ ṭabā‘ī‘</i> <i>al-dam al-sawdā</i> <i>al-ṣafra al-balgham</i> , <i>al-arba‘ akhlāṭ</i> <i>līl-jasadi al-ḥayyi</i>	the four humours// the four natures - blood, the black bile, the yellow bile, the phlegm; the four ingredients/ humours of a living body	p. 856
hydraulique	<i>mā‘ī</i>	hydraulic// liquid, fluid, hydraulic	p. 859
impair	<i>fard afrād, watar awtār</i>	impair// impair + pl, chord + pl	p. 877
imprimerie	<i>maṭba‘</i>	print shop//	p. 885
lieu		print shop	
indivisible	<i>mā huwa qābil al-taqṣīm</i>	indivisible; it is not subject to division	p. 901
infect	<i>wakhim, mintin</i> (sic)	infect// unhealthy, indigestible, dirty; stinking, rotting, putrid	p. 905
infini	<i>ghayr muntanāhī; ghayr dhī intihā; lā yu‘addu wa-lā yuḥaddu</i>	infinite// without ending; not possessing an end/termination; it is not measured and not terminated / limited	p. 907
ingenieur	<i>muṣannif al-ālāt al-ḥarbiyya wa-mī‘mār al-ḥuṣūn al-musanbī‘a</i> (?)	engineer// compiler/composer of war instru- ments and architect of the heptagonal (= <i>musabī‘a</i>) fortresses	p. 910

French	Arabic	English equivalents ^a	MS Paris, Bibliothèque des Missions Étrangères, 1069
insecte	<i>hāma hawām</i> (sic), <i>ḥasharāt al-arḍ lā ya'qalu</i> (sic)	insect// head, crown, vertex; the insects/vermin of the earth without the faculty of reason (?)	p. 916
les intelligences et les ames celestes	<i>al-'uqūl wa'l-nufūs</i> <i>al-falakiyya</i> , <i>al-rūḥāniyyāt</i> <i>al-'ulwiyya wa'l-sufliyya</i>	the celestial intellects and souls// the celestial intellects and souls; the upper and the lower spirits/souls/ essences (?)	p. 923
inventeur	<i>mukhtariʿ</i> , <i>mubriʿ</i>	inventor// inventor/creator, skillful/proficient (person)	p. 933
journal	<i>daftar yawmī</i>	journal// a daily notebook/ register	p. 942
laboratoire	<i>ḥānūt ḥawānūt</i> , <i>kārkhāneh</i> , <i>dār al-shughl</i>	laboratory// shop + pl, workshop, house of occupation (work)	p. 957
languette de la balance	<i>lisān al-mizān</i>	languet of the balance// languet of the balance	p. 964
laxatif	<i>mushil</i>	laxative// purgative, laxative	p. 970
lunette	<i>naẓāra</i> (sic), <i>naẓẓāra</i>	telescope// binocular, telescope	p. 1007
d'approche machine	<i>ālā ālāt</i>	machine// instrument + pl	p. 1011
la pierre magique	<i>al-jawhar</i> <i>al-muṭalasm</i>	the magical stone// the talismanic/amulet stone	p. 1012
marée flux et reflux	<i>maddun wa-jazru l-baḥr</i>	the tides, ebb and flow// rise (of the flood) and the ebb of the sea	p. 1031
la mécanique	<i>ʿilm al-ālāt</i>	mechanics// the science/ knowledge of the instruments	p. 1043
un meridien	<i>khaṭṭu nusfu</i> (sic) <i>al-nahār</i>	a meridian// the line of the half of the day	p. 1055
metaphisique	<i>ʿilm al-kalām</i>	metaphysics// the science/ knowledge of kalām (rational theology)	p. 1061

French	Arabic	English equivalents ^a	MS Paris, Bibliothèque des Missions Étrangères, 1069
microscope	<i>zujājatun; takburu</i> (sic) <i>fihā</i> <i>al-manẓūrāt</i>	microscope// (glas) bottle, flask; magnifier (?) in which is the observed (object)	p. 1064
le 1 ^{er} mobile	<i>falak al-aflāk, falak</i> <i>al-aṭlas</i>	the primum mobile, empyreum// the highest orb, the orb of atlas	p. 1975
ovale	<i>dā'ira mustaṭīlat</i> <i>al-shakl</i>	oval// the circle in an oblong/elongated form	p. 1175
perspective	<i>'ilm al-manṭūrāt</i> (sic, <i>al-manāẓir</i>)	optics// the science/knowledge of the (observed/ seen objects)	p. 1257
physicien	<i>'arīf bi'l-ṭabī'iyyāt</i>	physicist// knowledgeable in the natural (sci- ences)/(natural philosophy)	p. 1271
verole	<i>jadarī</i> (sic)	variola, smallpox, chickenpox// smallpox	p. 1854
via lactea	<i>darb al-tabbāna</i>	the Milky Way// the Milky Way (literally: narrow path of straw?)	p. 1862
université	<i>dār al-'ilm</i>	university// the house of knowledge	p. 1885
livre de voyage relation	<i>kitāb mā jarī</i> <i>mā jarīyyāt,</i> <i>tagharraba 'ana</i> <i>l-awṭān fī ṭalab</i> <i>al-'ulā wa-sāfir</i> (sic) <i>fafī al-asfār khams</i> <i>fawā'id, tafarraju</i> (sic, <i>tafarruj</i>) <i>ghammun</i> <i>wa'ktisābu</i> <i>ma'ishatin wa'l-'ilm</i> <i>wa'l-adabu wa'l-</i> <i>ṣuḥba mājīdu</i>	travel account, book on voyages// book on what happens in the (course of) events; to go (or be) far from home in the search of exaltedness and something unveiled (sic), and in the books (of the Scriptures) are five benefits: observation (sightseeing), grief/anxiety/distress, acquisition of livelihood, knowledge and education, and the companion- ship is praiseworthy/laudable	p. 1897
zodiaque	<i>minṭaqat al-burūj</i>	zodiac// zodiac	p. 1905

a The first of the English equivalents translates the French, the second after // the Arabic. The spelling follows that of the dictionary. The translations try to avoid modernisms.

This list is of course neither comprehensive nor does it reflect all layers of the impressive knowledge of Arabic and Islamic cultures that Pétis de la Croix had acquired during his long stay in the Ottoman and Safavid Empires. This cannot be achieved until the dictionary is published. The list nevertheless shows the broad range of interests that he pursued and how he tried to create possibilities for communicating them. It also highlights the problems he encountered, the misunderstandings caused by the cultural, economic and religious differences and the forms in which he and his partners tried to overcome or circumvent them.