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The Last Decades of Venice's Trade with the Mamluks: Importations into Egypt and Syria

For hundreds of years, Venetians and Mamluks were engaged in an economic partnership based on a fundamental interdependence of two economic systems that were both linked to many other commercial networks. During the fifteenth century, Venetian merchants and entrepreneurs became the main middlemen between the territories subject to Mamluk sultans and western Europe.

The basic characteristics of the commercial relations between Mamluk lands and Venice stem from their dependence on the continuous presence of Venetians in Egypt, Syria, and Palestine. This presence had two main components: on the one hand merchants, commercial agents, and official representatives (consuls and vice-consuls) staying in the main centers of commercial activity, importing and exporting goods and keeping constant contacts with their partners in Venice and in other centers of international trade; and on the other hand, periodic visits of Venetian ships, including both the state-owned and regulated commercial galleys, particularly those operating on the Alexandria, Beirut, and *trafego* galley lines,¹ and the privately-owned round ships.² The latter were also of two kinds: those visiting the Levantine ports in preestablished periods (*mude*) in spring and autumn, and those that were not dependent on a state-regulated sailing schedule. Thus, Venetians functioned not only as exporters of goods from Venice to the East and from the East to Venice, but also as importers of Western goods and products into Egypt and Syria. No Egyptian or Syrian merchant is known to have been involved in this trade with the West beyond the boundaries of Mamluk territories.

The activities of Venetian merchants in Mamluk lands were often disturbed or disrupted, owing to disagreements with Mamluk sultans as to the conditions regulating their activities and to harassments by Mamluk officials, who considered European merchants easy prey to extortion. In particular the policy inaugurated by Sultan Barsbāy in the 1420s and pursued by his successors, forcing the Venetians

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¹The *trafego* line linked Venice, the Maghreb, and the Mamluk ports. On the system of the merchant galleys, see Frederic C. Lane, *Venice, A Maritime Republic* (Baltimore and London, 1973), 124–31, 337–52.

²Round ships is a term used in Mediterranean shipping to distinguish a certain type of ship (roundish in form, propelled by sails) from another type, namely galleys, which were long in form and could be operated either with sails or with oars.

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to buy part of the large quantities of pepper they were always exporting from Mamluk territories from the sultan's warehouses at a high price, was the source of many difficulties. But notwithstanding several moments of crisis, trade always continued, and Venetians never disappeared from the scene for long periods.

During the last twenty years of the Mamluk Sultanate, there were further internal and external factors that threatened to destroy this commercial relationship altogether. On the Egyptian and Syrian side, the death of Sultan Qāyṭbāy in 1497 was followed by approximately four years of violent power struggles over the sultan's throne. The accession of Qānṣūh al-Ghūrī in 1501 seemed to stabilize the political situation inside the sultanate, but other destabilizing forces continued to disrupt trading activities in the region, particularly the rise of the Safavid power in the east and the ensuing military struggle between Safavid Persia and the Ottoman Empire.

At the very same time, in a coincidence that could not have been any worse from both the Mamluk and the Venetian standpoints, the Portuguese caravels began bringing spices to Lisbon through the new sea route around Africa. Mamluk efforts to oust the Portuguese from the Indian Ocean ended in failure, and in 1513 and again in 1516, the Portuguese penetrated the Red Sea, causing damage to Muslim shipping centered around Jidda. In 1513, the Portuguese also reconquered Hormuz.³

During those years, Venice had to face one of the most difficult phases in its history. The Italian wars that had begun in 1494 with the French invasion of Italy, the war against the Ottoman Empire that lasted from 1499 to 1503, and even more so, the war of the league of Cambrai, which began in 1509 with the loss of all Venetian territories in the Italian mainland, necessitated enormous investment in armies and military equipment. Loss of income, heavy taxation, and forced public loans led to a serious financial crisis.⁴ International trade, the basis of the republic's power and wealth, could not be pursued without great difficulty during those years, since many of the products exported from Venice to the east originated from or passed through lands that had become enemy territory, either in the Balkans and the eastern Mediterranean, where the Ottomans constituted a threat, or in the *Terra Firma* and the Alps controlled by the European enemies of Venice.

Confronted with these great difficulties and even by the same threats, such as the rise of Ottoman power and the Portuguese presence in the Indian Ocean, one

³Subhi Y. Labib, *Handelsgeschichte Ägyptens im Spätmittelalter (1171–1517)* (Wiesbaden 1965), 453–61.

⁴Frederic C. Lane, "Venetian Bankers," *Journal of Political Economy* 45 (1937), reprinted in *Venice and History: The Collected Papers of Frederic C. Lane* (Baltimore, 1966), 70–72, 79–80; Gino Luzzatto, *Storia economica di Venezia dall' XI al XVI secolo* (Venice, 1995), 221–38.

would have expected more collaboration between Venetians and Mamluks. Yet that was not the case. Qānṣūh al-Ghūrī intervened on two occasions to stop trading relations with Venice. In 1503 he claimed that goods included in the tribute paid by Venice to the sultan in recognition of Mamluk suzerainty over Cyprus were of bad quality, and two years later he tried to raise substantially the quantity of pepper that Venetians were required to buy directly from him.⁵ In 1510 another crisis developed on account of Venetian contacts with the Safavids.⁶ Consequently, no galleys were sent to Alexandria and Beirut in 1505, to Alexandria in 1506, and to Beirut in 1510. These and further pauses in the functioning of the Alexandria and Beirut lines for other reasons were signs of crisis in the trade between Venice and the Mamluks.⁷

Under such unfavorable conditions Venetian merchants tried to continue their activities in Mamluk territories. Impressed by the dramatic character of military events and political upheavals, we tend to underestimate the peaceful and often uneventful activities of merchants. But international trade is actually the visible aspect of very strong forces of supply and demand, of patterns of consumption and basic needs that are remarkably resilient. Wars eventually end, regimes change, political leaders rise and fall, but, as we shall see, such patterns of material life cannot easily be swept away.

For the last twenty years of the Mamluk Sultanate, we are lucky enough to have a considerable amount of source material that allows us to study in detail the Venetian trading system in general and the commercial exchange with Mamluk territories in particular. Venetian sources are rich and diversified in this respect, including

⁵Marino Sanuto [Sanudo], *I diarii*, 58 vols. (Venice, 1879–1902), 5:114–15; Maria Pia Pedani Fabris, “Gli ultimi accordi tra i sultani mamelucchi d’Egitto e la repubblica di Venezia,” *Quaderni di studi arabi* 12 (1994): 57–60; Francesco Gabrieli, “Venezia e i Mamelucchi,” in *Venezia e l’Oriente tra tardo medioevo e Rinascimento*, ed. Agostino Pertusi (Florence, 1966), 427; John Wansbrough, “A Mamluk Ambassador to Venice in 913/1507,” *Bulletin of the School of Oriental and African Studies* 26 (1963): 503–30.

⁶Francesca Lucchetta, “L’affare Zen” in Levante nel primo Cinquecento,” *Studi Veneziani* 10 (1968): 109–219.

⁷In addition to the years mentioned above, no galleys were sent to Alexandria in 1508, 1509, 1513, 1514, and 1515. See Claire Judde de Larivière, “Entre bien public et intérêts privés: Les pratiques économiques des patriciens vénitiens à la fin du Moyen Age,” Ph.D. diss., Université Toulouse II-Le Mirail, 2002, 1:80. However, trade on board round ships, more difficult to follow, did not stop, and as of 1514 the galleys lost their monopoly on transporting spices, which could henceforward be shipped, alongside other goods, on private Venetian ships: Frederic C. Lane, “Venetian Shipping during the Commercial Revolution,” in *Venice and History*, 14 (originally published in *American Historical Review* 38 [1933]: 219–39).

official documents related to trade, commercial correspondence, notarial acts, judicial records, and diaries. These have already been the subject of substantial research, sometimes in combination with Mamluk narrative sources, and it is not my purpose here to return to the well-known themes that have occupied historians of these issues for many decades. In fact, most studies dedicated to this commercial system have focused essentially on trade in products that were exported from the East into Europe. A great amount of research has been carried out, for example, on the spice trade and its vicissitudes following the Portuguese discovery of the route around Africa to the Far East. In a recent book on Venetian trade in late fifteenth-century Syria, it is stated that "the main scope of Venetian presence in Syria was not to sell [imported] products; on the contrary, the foremost aim of the Venetians was to buy several high-quality products and to sell them in Venice with great profit."⁸ I am not entirely convinced that this distinction rightly reflects the attitude of Venetians engaged in trade with Mamluk territories. As we shall see, much attention was paid to, and an impressive amount of capital invested in, products imported into Mamluk lands. These, however, have attracted relatively little attention by historians, and the few studies that do treat such arguments are not focused on a limited time span of about twenty years, which is precisely the aim of the present paper.

Among the many Venetian sources that shed light on importations into Egypt and Syria during the last twenty years or so of the Mamluk Sultanate I have chosen to focus especially on two types that are of particular interest in this regard. The first includes cargo lists and references to the cargo of ships sailing to Egypt and Syria, included in the diaries of Domenico Malipiero, Girolamo Priuli, and Marino Sanudo. All three were Venetian patricians who recorded, often on a daily basis, the developments of their times, including trade and shipping. Malipiero's work, which is actually halfway between a chronicle and a diary, covers the period between 1457 and 1500,⁹ Priuli's diary, part of which has been lost, covers the period between 1494 and 1512,¹⁰ and Sanudo's diary, the most impressive of the three, covers the years between 1496 and 1533.¹¹ From these diaries I have been able to extract seven detailed cargo lists as well as ten more

⁸Eric Vallet, *Marchands vénitiens en Syrie à la fin du XVe siècle* (Paris, 1999), 88–89.

⁹Domenico Malipiero, "Annali veneti dall'anno 1457 al 1500 del senatore Domenico Malipiero, ordinati e abbreviati dal senatore Francesco Longo, con prefazione e annotazioni di Agostino Sagredo," *Archivio storico italiano* series 1, vol. 7, pt. 1 and pt. 2 (1843): 1–1138.

¹⁰Girolamo Priuli, *I diarii (1494–1512)*, ed. Arturo Segre (vol. 1) and Roberto Cessi (vols. 2 and 4), *Rerum italicarum Scriptores*, vol. 24, pt. 3 (Città di Castello and Bologna, 1912–36). The third volume, covering the period between September 1506 and May 1509, has been lost. Vols. 5–8, treating the period between October 1509 and July 1512, remain unpublished.

¹¹See above, n. 5.

succinct descriptions of cargoes of merchant galleys that sailed from Venice to Alexandria and to Beirut between 1495 and 1515. The cargoes of galleys sailing on the *trafego* line, which ran between Venice, the Maghreb, Egypt, and Syria, are never referred to, most probably because their role in carrying Western goods to the lands of the Mamluk Sultanate was negligible. Altogether, the cargoes of twenty out of thirty-two galley convoys that sailed to Syria and Egypt during those two decades are described, at least to some extent, by the diarists (some of the descriptions refer to both lines). These descriptions have been put together in Appendix A. Another cargo list used here belongs to a private ship that sailed to Syria in 1499.¹² The second type of sources includes two merchant manuals (*Tariffe*) of the late fifteenth and early sixteenth centuries: the unpublished "Tarifa" [sic] of 1494, bearing the name of Lorenzo Rimondo [Arimondo] and mainly concerned with Alexandria, and Bartolomeo de' Paxi's *Tariffa*, first published in Venice in 1503. Both of them offer very precious and generally up-to-date information on Venetian trading activities at the turn of the sixteenth century.¹³ Their lists of products imported into Egypt and Syria are included in Appendix B. Other sources, Venetian and Arabic, and, of course, several modern studies, have been used to try and clear up questions concerning the role of Cyprus in this commercial relationship, as well as the provenance and the patterns of consumption of goods imported into Mamluk lands.¹⁴ This last aspect, however, still remains greatly unexplored.

Before turning to analyze the material drawn from these two types of sources, it is necessary to refer to their reliability. The cargo lists found in the Venetian diaries are not directly drawn from the ships' manifests, but rather indirect reconstructions, mostly based on reports that the captains of galley convoys sent from the ports of Istria, before sailing to the East.¹⁵ As far as the items mentioned in the lists are concerned, there is no reason to doubt the veracity of data provided by the diarists. More caution should be applied when using the quantitative data included in these lists, in view of the rather uncertain course they had passed

¹²Benjamin Arbel, "Attraverso il Mediterraneo nel 1499: una nave veneziana naufragata a Cipro e il suo carico," in *Le vie del Mediterraneo: Idee, uomini, oggetti (secoli XI–XVI)*, ed. Gabriela Airaldi (Genoa, 1997), 103–15.

¹³Lorenzo Rimondo, "Tarifa de prexi e spese achade a metter e ttrar marchadantie di la terra de Alexandria e altrri lochi etc.," Biblioteca Nazionale Marciana, Venice, MS It. VII 545 (7530); Bartolomeo de' Paxi, *Tariffa de pexi e mesure del prestantissimo miser Bartholomeo di Paxi da Venetia* (Venice, 1503).

¹⁴My thanks go to Housni al-Khateeb Shehada for helping me locate and use the Mamluk sources.

¹⁵On these and other types of cargo lists, see Benjamin Arbel, "Les listes de chargement des bateaux vénitiens: un essai de typologie," in *Mélanges en l'honneur de Michel Balard, Byzantina Sorbonensia* (forthcoming).

before ending up in these diaries. This uncertainty is reflected in the inconsistencies between different reports referring to the same convoy, when available.¹⁶ Except for a short analysis of overall figures referring to the comprehensive value of cargos and precious metals shipped eastward, we shall therefore forego quantitative speculations, contenting ourselves with identifying those products that appear time and again on these lists, and using the numerical data mainly to get a general idea of the order of magnitude of the shipments concerned. For the sake of brevity, this reservation will not be repeated henceforward whenever numbers taken from these lists are cited.

The two commercial manuals present a different problematic. As for Rimondo's *Tariffa*, thanks to Ugo Tucci we may consider it one of the new types of manuals that appeared in the Venetian commercial milieu at the end of the fifteenth century, being composed by Venetian factors overseas (in this case by Lorenzo Arimondo who was active in Alexandria) and intended for practical use by these agents. We may therefore consider it to authentically reflect the Egyptian market for Venetian imports during those years.¹⁷ Paxi's book, on the other hand, has been attributed by Tucci to another category of manuals, which mainly served for training of young merchants. But Tucci also emphasized that the training of merchants necessitated up-to-date instruments,¹⁸ and there is no reason to exclude the possibility that an impressive work like that of Paxi genuinely reflected the movements and content of Venetian trade in the Levant at the time of its first appearance in print (1503). In the prologue to his work, Paxi declares that it was the fruit of long and serious effort and laborious study (*grave e longa mia faticha e laborioso studio*).¹⁹ In fact, there are several indications that Paxi's book was indeed the consequence of a genuine effort to provide up-to-date material on the world of international trade in the period of its original publication. Tucci has noted, for example, the updating of the measure for oil in Constantinople,²⁰ and Paxi's careful reference to the spice *kanter* [= *qintār*] of Damascus,²¹ to which I may add the absence of Coron and Modon, the important Venetian ports in the southern Peloponnese,

¹⁶See, for example, Appendix A, for Malipiero's and Priuli's reports on the galleys sailing to Alexandria in summer 1498, and Sanudo's and Priuli's reports on the Alexandria convoy of 1511.

¹⁷For problems related to the use of merchant manuals, with special emphasis on the Venetian ones, see Ugo Tucci, "Tariffe veneziane e libri toscani di mercatura," *Studi veneziani* 10 (1968): 65–108, esp. 92–97; idem, "Manuali di mercatura e pratica degli affari nel medioevo," in *Fatti e idee di storia economica nei secoli XII–XX: Studi dedicati a Franco Borlandi* (Bologna, 1976), 215–31.

¹⁸Tucci, "Manuali," 220.

¹⁹Paxi, *Tariffa*, 1v.

²⁰Tucci, "Manuali," 226.

²¹Tucci, "Tariffe veneziane," 107–8.

which had been lost in 1500, and which were not re-integrated into the post-war system of Venetian commerce.²² Admittedly, the opening of the Atlantic spice-route to India is not yet reflected in this book,²³ but this is quite understandable, considering its date of publication.²⁴ In any event, our scope in using this sort of source is limited to defining the main categories and nature of goods imported by Venetians to the Mamluk lands, and possibly to tracking down their provenance. For this purpose, and although no systematic research has yet been carried out to corroborate this hypothesis, I tend to consider the first edition of Paxi's manual as a trustworthy presentation of the contents of Levantine trade in general, and of importations into Mamluk lands in particular, in the late fifteenth and the first years of the sixteenth century. A comparison between the lists of goods shipped to the Levant that are included in these manuals with the cargo lists of galleys sailing to those parts, as well as with other commercial papers, seems to corroborate this hypothesis.

The cargo lists of Venetian merchant galleys sailing eastward, and the cargo list of a round ship wrecked off Cyprus on its way to Syria, present a quite coherent picture of which products were expected to find buyers in eastern markets. A first group of such items includes different kinds of metals and their products.

Precious metals constituted a most important item among Venetian importations into Egypt and Syria. Gold reached Venice mainly from the Maghreb and from Hungary, and silver from the Tyrol, and probably also from Serbia and Bosnia.²⁵ They were exported to Mamluk lands in the form of silver and gold coins (including Mamluk *ashrafīs*),²⁶ silver ingots, silver and gold artifacts, and even as gold dust

²²Benjamin Arbel, "The Ionian Islands and Venice's Trading System during the Sixteenth Century," *Acts of the Sixth International Panionian Congress*, 1997 (Athens, 2001), 2:147–60. The war with the Ottomans was concluded in 1503.

²³Tucci, "Tariffe veneziane," 97.

²⁴Only in July 1501, two years after the event, was the news about Da Gama's return from India confirmed in Venice. Besides, though no spices were found in Alexandria in 1499, the quantities of spices that reached Venice from Alexandria and Beirut in 1500 and 1502 were far greater than those reaching Lisbon. See Ruggiero Romano, Alberto Tenenti, and Ugo Tucci, "Venise et la route du Cap: 1499–1517," in *Mediterraneo e Oceano Indiano: Atti del sesto colloquio internazionale di storia Marittima*, ed. Manlio Cortelazzo (Florence, 1970), 109–12.

²⁵Eliyahu Ashtor, *Les métaux précieux et la balance des paiements du Proche-Orient à la basse époque* (Paris, 1971), 41–42, 46, 50.

²⁶See Fernand Braudel and Alberto Tenenti, "Michiel da Lezze, marchand vénitien (1497–1514)," in *Wirtschaft, Geschichte und Wirtschaftsgeschichte: Festschrift zum 65 Geburtstag von Friedrich Lütge*, ed. Wilhelm Abel et al. (Stuttgart, 1966), 43 (1497), 62 (1507), 71 (1511).

(*tiber*) that reached Alexandria from Tripoli on board Venetian galleys.²⁷ These distinctions are not reflected in the cargo lists of our diarists, who preferred to express the overall value of precious metals sent on board these ships in terms of Venetian ducats. This does not mean, however, that the entire sum referred to consisted of gold ducats. In fact, silver ingots and coins are never mentioned separately in the cargo lists, although we know for certain that they were shipped to Mamluk territories in great quantities.²⁸ The Venetian mint even issued special silver coins for exportation to the Levant, worth less than the standard silver coins circulating in Venice.²⁹ In a commercial letter sent from Famagusta to Venice in 1511 it was reported that the galleys sailing that year to the Levant were carrying silver coins to the value of 100,000 ducats.³⁰ And at the beginning of the sixteenth century, a French observer noted that in the Venetian mint, silver ingots weighing about 25 marks each (some 6 kg.), were especially produced for exportation to the Levant, to a total annual amount equivalent of about 800,000 ducats.³¹ A great part of those must have reached Mamluk territories.

Though not bothering to distinguish between gold and silver, our diarists do, however, use other distinctions that cannot be easily understood. For example, with reference to the Beirut galleys of November 1502 and to the Alexandria galleys of March 1503 and of March 1511, Priuli distinguishes between what he calls *aver di cassa a nollo* or *al nolo*, and *aver di cassa di marcadanti*; Sanudo, on the other hand, uses different distinctions in 1501 and 1511, referring to *aver di cassa d'avisio* and *aver di cassa in scrigni*.³² These distinctions may partly be understood if we consider that cash money or silver ingots transported on the

²⁷See Appendix B-I.

²⁸For overall estimations of precious metals shipped to Egypt and Syria during the period under examination, see Appendix C. For silver, see Ashtor, *Les métaux précieux*, 50; and Frederic C. Lane, *Venice, A Maritime Republic*, 287, 299. E.g.: expressing his dissatisfaction with the fact that Venetians unloaded their ships at Tripoli instead of Beirut in 1499, the governor of Damascus seized 52 sachets (*gropi*) of silver coins kept by Venetian merchants (Malipiero, "Annali," 649); see also the list of coins sent in 1505 by Michiel da Lezze on board the Barbary galleys, where the value of each coin sachet is expressed in ducats, specifying at the same time that they actually contained silver coins (*Mozenigi*) (Braudel and Tenenti, "Michiel da Lezze," 57).

²⁹Sanudo mentions a decision taken in March 1498 by the Council of Ten in this regard: Sanudo, *I diarii*, 1:903.

³⁰Ugo Tucci, "Monete e banche nel secolo del ducato d'oro," in *Storia di Venezia dalle origini alla caduta della Serenissima*, vol. 5, *Il Rinascimento: Società ed economia*, ed. Alberto Tenenti and Ugo Tucci (Rome, 1996), 785.

³¹Frederic C. Lane and Reinhold C. Mueller, *Money and Banking in Medieval and Renaissance Venice*, vol. 1, *Coins and Moneys of Account* (Baltimore and London, 1985), 165.

³²See Appendix A.

galleys were subject to freight charges. When writing about the quantity of gold and silver (referred to as "ducats") on the Alexandria galleys of 1498, Priuli comments that the sum might be much higher than 240,000 ducats, because "they always declare a lower sum, since they have to pay freight charges" (*sempre se dice de menno [sic] per el pagar del nolo*).³³ The sums mentioned by the diarists should therefore be taken as estimates, including a sum on which freight charges were paid, according to the report (*aviso*) of the convoy's captain, and an additional sum, which could not be accurately evaluated, since it pertained to gold and silver kept in private strong-boxes (*scrigni*) on board. Another expression found in Priuli's diary with reference to the Alexandria convoy of 1510, namely *traze le galie di nolo, d'aviso*, does not appear to refer to specie shipped on board, but rather to the sums owed to the galleys on account of freight charges.

In any case, huge amounts of silver and gold yearly reached Egypt and Syria not only on board state galleys, for which we have more information, but also on the privately-owned ships, though on the whole it can be surmised that the latter carried smaller amounts of precious metals, since spices, normally shipped on galleys, were much more expensive than goods exported from Mamluk lands on round ships, and galleys were also better protected against pirates. As a rule, sums sent to Alexandria were higher in comparison with those sent to Syria.

The fact that large quantities of gold and silver were imported annually by Venetians into Mamluk lands is often referred to as a reflection of Venice's unfavorable trade balance with the Mamluks. Without discarding this claim altogether, it seems that behind this steady flow of precious metals into Mamluk territories there is another economic factor. Precious metals, even in the form of coins, were considered a commodity, similar to copper, tin, or woolens. Merchants had to pay freight charges for gold or silver coins shipped on the galleys, and when reaching Egypt, they were also subject to customs dues.³⁴ Even more significant is the fact that during the period under consideration, it was more profitable to export silver to the East than gold. This can be inferred, for example, from a remark made by Marino Sanudo in August 1498, writing that considerable quantities of old coins and gold were sent on the galleys sailing to Alexandria; however, he writes, one could not expect to make a profit out of these gold pieces (*di li qual*

³³Priuli, *I diarii*, 1:94.

³⁴On freight charges on coins, see, for example, the account made in 1413 at Ḥamāh by Lorenzo Priuli, where a sum is accounted for the payment of freight for a sachet containing 200 ducats: Archivio di Stato di Venezia (hereafter: ASV), Miscellanea di carte non appartenenti ad alcun archivio, busta 18. In Alexandria, gold ducats were subject to a customs due of 1 per cent, whereas silver coins and ingots had to pay 1 ducat for every 6 *rotoli zeroi* [=raṭl jarwī] and 1 ounce (1 ducat for 12 *lire grosse*). See Paxi, *Tariffa*, 49r.

ori non si farà bene).³⁵ In fact, it is very likely that the large sums expressed in ducats were actually often brought eastward in the form of silver coins and silver ingots.³⁶ On silver ingots exported to Alexandria, which had 60 karats of copper per mark of silver (the same alloy as the *Marcelli* coins in Venice), Venetians could make a profit amounting to 4-5 per cent when selling them in Alexandria. This is explicitly stated in Paxi's commercial manual, though with reference to the past, before a slight change in the standard weights of silver was introduced.³⁷ But it can be surmised that profit could still be substantial, considering the great sums involved. These profits seem rather low in comparison with those that could be enjoyed from other branches of trade, but silver (like gold) was a merchandise that Venetians could dispose of immediately, whereas in the case of other goods it was not always certain when and at what price they could be sold.

Besides for coinage, silver and gold were widely used by the Mamluks for many purposes, such as robes of honor, riding outfits, writing instruments, and various ornaments.³⁸ Briefly, silver was in demand and was more valuable in the East than in Europe. Moreover, this demand for silver in Mamluk territories seems to have been connected to an even higher demand in India and the Far East, ensuring the constant flow of this metal from Venice into Egypt and Syria, and most probably also farther eastward.³⁹

Among other metals shipped eastward, copper in particular was highly sought after in Mamluk lands, since all lists discovered so far include at least one sort of copper cargo, and mostly more. During the fourteenth and early fifteenth century, Italian merchants imported copper into Egypt from the northern shores of Anatolia.⁴⁰

³⁵Sanudo, *I diarii*, 1:1032.

³⁶In 1497, no ingots could be found for shipment to the East. See Appendix A-III.

³⁷Paxi, *Tariffa*, 49r.

³⁸Taqī al-Dīn Aḥmad ibn 'Alī al-Maqrīzī, *Al-Mawā'iz wa-al-I'tibār fī Dhikr al-Khiṭaṭ wa-al-Āthār* (Cairo, 1996), 2:3:158–59, 170–71; Leo A. Mayer, *Mamluk Costume: a Survey* (Geneva, 1952), 25 (silver and golden belts), 35 (spurs overlaid with silver or gold); Carl Petry, "Robing Ceremonials in Late Mamluk Egypt: Hallowed Traditions, Shifting Protocols," in *Robes and Honor: The Medieval World of Investiture*, ed. Stewart Gordon (New York, 2001), 363 (golden sword, gold saddle, gold insignia).

³⁹Ashtor, *Les métaux précieux*, 52; idem, "Ma'din," *The Encyclopaedia of Islam*, 2nd ed., 5:963b; J. Michael Rogers, "To and Fro: Aspects of Mediterranean Trade and Consumption in the 15th and 16th Centuries," *Revue du Monde Musulman et de la Méditerranée* 55–56 (1990): 61, 63. Rogers' statement that Venetian merchants settled their purchases in gold (*ibid.*, 63) seems to be based on the wrong assumption that all the sums of cash and other forms of precious metals shipped eastward, which are expressed in ducats, represent real gold coins.

⁴⁰Philippe Braunstein, "Le marché du cuivre à Venise à la fin du Moyen Age," in *Schwerpunkte der Kupferproduktion und des Kupferhandels in Europa 1500–1650*, ed. Hermann Kellenbenz (Vienna, 1977), 85; Ashtor, "Ma'din," 963b.

Yet the conquest of Constantinople in 1453, and the gradual closing of the Black Sea to Italian ships, may have enhanced the importance of copper imported by the Venetians to Egypt and Syria from Europe, where copper production considerably expanded precisely during those decades.⁴¹

Quantities mentioned in our sources are impressive. In 1496, according to Malipiero, the galleys left in Alexandria no less than 10,000 *qinṭārs* of copper, equivalent to some 954 tons;⁴² in 1501, 381 tons were sent to Beirut; in 1503, Priuli noted in his diary that the copper exported to Egypt, all sent by one Venetian merchant, Michiel Foscari, amounted to 1,000 *miera* (about 477 tons), in addition to 400 *miera* loaded on private ships and 300 more awaiting further passage, altogether about 811 tons.⁴³ In 1510, the value of copper exported to Alexandria on board the galleys was estimated by Sanudo at 50,000 ducats.⁴⁴ Comparing these impressive quantities to the much lower ones included in two late fourteenth-century cargo lists of the Alexandria galleys—about 212 *miera* (94.6 tons) and 70 *miera* (33.3 tons) in 1395 and 1400 respectively—one may wonder whether what seems to be a spectacular increase really represents a marked rise in the demand for copper in Egypt and Syria towards the end of the Mamluk period.⁴⁵

Most of the copper shipped eastward had originated from the Tyrol and from Slovakia and was brought to Venice by German merchants. It could have reached Venice in various forms, but part of it may have undergone some industrial

⁴¹It has been estimated that between 1460 and 1530, the production of European copper had quintupled: J. U. Nef, "Mining and Metallurgy in European Civilization," *Cambridge Economic History of Europe*, vol. 2 (Cambridge, 1952), 469–70.

⁴²Copper was weighed in Venice in thousandweights (*miera*) of *lire di grossi*; each *miera* was equivalent to around 477 kg. In Alexandria it was weighed in *qinṭārs jarwī* (in Venetian terminology: *canter ceroi* or *geroi*), each one of which was equivalent to around 95.4 kg. Paxi, *Tariffa*, 7v, 44r; *Lettres d'un marchand vénitien: Andrea Berengo (1553–1556)*, ed. Ugo Tucci (Paris, 1957), 357; Eliyahu Ashtor, "Levantine Weights and Standard Parcels: A Contribution to the Metrology of the Later Middle Ages," *Bulletin of the School of Oriental and African Studies* 45 (1982): 473.

⁴³Priuli, *I diarii*, 2:255. Between 1495 and 1503, Michiel Foscari exported to Alexandria 1555 tons of copper. See Braunstein, "Le marché du cuivre," 92.

⁴⁴Sanudo, *I diarii*, 9:516. See also Ashtor, *Les métaux précieux*, 58–64. Though mainly brought on board Venetian ships, copper could occasionally reach Egypt on board other vessels (*ibid.*, 64). See also *idem*, "Profits from Trade with the Levant in the Fifteenth Century," *Bulletin of the School of Oriental and African Studies* 38 (1975): 253–54. Since Ashtor does not specify what the original terms translated by him as "copper plates" and "polished plates" were, his data should be treated cautiously.

⁴⁵Jacques Heers, "Il commercio nel Mediterraneo alla fine del sec. XIV e nei primi anni del XV," *Archivio Storico Italiano* 113 (1955): 167. If the amount of copper shipped in 1395 and 1400 can really be considered "important quantities" (*ibid.*), how should we describe the shipments of 1497 and 1503, which were about eight or nine times as big?

process in Germany, in Venice itself or in its neighboring territories, before being sent eastward in the form of semi-finished or finished products.⁴⁶ It is indeed listed under different headings in the cargo lists: the greatest quantities appear to have been shipped as copper "loaves" (*rami in pan*), most likely raw copper packed in baskets or cases; another common form of shipment included copper bars (*rami in verga*); copper wire (*fil di rame*) was also often shipped on galleys sailing to the east; another category included "worked copper" (*rami lavoradi*). The significance of the latter can be deduced from a passage in Paxi's manual mentioning "worked copper products, that is coppers" (*rami lavorati, zoè caldiere*). Ugo Tucci explains that this term signifies semi-finished copper vessels, ready for further elaboration by Egyptian or Syrian coppersmiths.⁴⁷ Some of these vessels could have been made of brass, an alloy widely diffused in Mamluk lands for various purposes.⁴⁸ Another copper product shipped to Mamluk ports was verdigris (*verdirame*), a green crystallized substance formed on copper by acetic acid. It could have been produced from copper in Venice or Murano, before being shipped eastward.

The uses of all these kinds of copper (*nuḥās*), brass (*shabah, bīrinj*), and

⁴⁶Braunstein, "Le marché du cuivre," 86–88. Copper also reached Venice by sea, on board the Flanders galleys; see *ibid.*, 86, and Ugo Tucci, "Il rame nell'economia veneziana del secolo XVI," in *Schwerpunkte der Kupferproduktion*, 102.

⁴⁷Tucci, "Il rame," 96.

⁴⁸Michael Rogers suggests that the absence of zinc from bills of lading means that much of the *rami* must actually have been brass, yet zinc was only identified as a distinct metal at a much later stage; cf. Rogers, "To and Fro," 65. The Beirut galleys of 1498 are said to have carried 164 baskets (*coffe*) of copper loaves, whereas those sailing to Alexandria that year had, according to Sanudo, 1,168 (according to Malipiero—1,100) copper baskets on board. The cargo list of 1499 includes 19 packs of "worked copper" (*rami lavoradi*) sent by Antonio Negro to his son Alvisé in Beirut (Arbel, "Attraverso il Mediterraneo," 113). In 1500, the galleys of Beirut had 354 cases of copper loaves (*rami in pan*), and 51 cases of copper bars for Alexandria; the Alexandria galleys of the same year carried 1,234 baskets (*coffe*) of copper loaves, 40 loads of copper bars, 30 of "worked copper," and 28 of copper wire. The Alexandria galleys of 1501 had 800 *miera* (some 381 tons) of copper loaves on board (all of them shipped by the firm Agostini dal Banco), and those sailing to Beirut an unspecified quantity of the same. The Beirut galleys that departed in November 1502 had on board 233 cases of copper loaves, 5 of worked copper, and 12 bundles of copper wire. The galleys of Alexandria that sailed in March 1503 (originally the 1502 galleys) had 2,463 cases of copper loaves, 188 bundles of copper bars, 76 bales of worked copper, and 24 bundles of copper wire. The galleys of Alexandria that sailed in October 1503, though rather poor and empty, nevertheless carried 268 copper baskets. In 1504 the Alexandria galleys carried 500 copper baskets. In 1510, the galleys of Alexandria had on board 316 baskets of copper loaves, 327 barrels of copper bars, 16 bales of worked copper (*rami lavoradi*), and 14 bundles (*fardi*) of copper wire. The galleys of Alexandria sailing in 1511 had 505 lots of copper rods, 527 cases of copper loaves, 106 of worked copper, and 9 cases of verdigris. The Beirut galleys of 1513 carried 77 copper loaves and 2 bundles of copper wire. For references to the galleys' cargo lists, see Appendix A.

derived products in Egypt and Syria were, of course, manifold, such as the minting of coins (both small coins—*fulūs*—and silver coins with copper alloy), military uses, house utensils and ornamental objects, the roofing of mosques and palaces, as well as for medical use and for dyeing (in the case of verdigris). Copper was regularly accepted as barter payment in exchange for pepper and other spices in Syria and Egypt.⁴⁹ Copper objects also seem to have served as status symbols. In his fifteenth-century description of Cairo, al-Maqrīzī's mentions ornamented copper objects carried in a procession, as well as copper watering vessels in the stables of a prominent amir.⁵⁰

Tin was also a common cargo on Venetian ships sailing to Egypt and Syria. Paxi mentions Flanders as the origin of tin bars imported into Syria, but that must have been associated with the fact that Venice imported tin on board the Flanders galleys, which also called on English ports. In fact, most of the tin traded by Venetians must have originated from Cornwall.⁵¹ According to Paxi, tin reached Alexandria in the form of rods (*in verga*).⁵² This important material could, of course, be used for preparing bronze (*ṣafr*), but it has been pointed out that in fifteenth-century Egypt bronze appears to have been replaced by leaded brass.⁵³ However, tin was also used for tinning of copper vessels, kitchen utensils, and implements. Eric Vallet suggests that since it always followed woollens in price lists of merchants' letters, it was, among non-precious metals, the greatest in demand on the Syrian market of the early 1480s.⁵⁴

Steel (*azzali*), probably produced in the area of Brescia, appears only once in our lists.⁵⁵ It was, of course, an important material for Mamluk armorers, and Egypt and Syria might have been supplied with it from other sources. On the other hand, tinned iron plates always figure in these cargo lists, where they appear under three headings: *banda larga*, *banda raspa'*, and *piastre di laton*.⁵⁶ Iron

⁴⁹Tucci, "Il rame," 97.

⁵⁰Al-Maqrīzī, *Khīṭaṭ*, 2:3:110.

⁵¹The galleys sailing to Beirut in 1498 carried 22 bundles (*fardi*) of tin. The ship wrecked in 1499 had 8 bundles of tin [bars?] sent by Marcantonio Morosini to Syria: Arbel, "Attraverso il Mediterraneo," 113. The 1500 galleys of Beirut had 112 such bundles; the galleys sailing to Beirut had 130 tin bundles (*fassi*) on board. The 1503 galleys of Alexandria carried 182 bundles; the 1510 galleys of Alexandria carried 45 cases (*casse*). The 1511 cargo list of the galleys of Alexandria has 106 packages; the Beirut galleys of 1513 carried 11 bundles of "fine tin."

⁵²Paxi, *Tariffa*, 43v.

⁵³Rogers, "To and Fro," 64, based on P. T. Craddock, "The Copper Alloys of the Medieval Islamic World Inheritors of the Classical Tradition," *World Archaeology* 9, no. 1 (1979): 68–79.

⁵⁴Vallet, *Marchands vénitiens*, 84.

⁵⁵20 *azalli* packages figure in the cargo list of the Alexandria galleys of 1511.

⁵⁶The galleys sailing to Alexandria in 1498 had 71 bundles of *banda larga* and those sailing to

mainly reached Venice from Styria and Carinthia, and its tinning was probably carried out in Venice itself, or in the Venetian mainland.⁵⁷ The importation of iron plates into Egypt and Syria must have been intended for specific purposes, whose exact nature can only be guessed at this stage. Military uses have certainly to be taken into consideration, but civil uses, for construction and for all sorts of instruments and utensils should not be excluded either.

Lead, most probably brought from the Balkans, can also occasionally be found in those cargo lists.⁵⁸ Lead was used for the production of leaded brass, for water conducts in aqueducts, for public and private baths, for roofing of important buildings, and generally for protecting iron from corrosion.⁵⁹ A kind of lead, called *raṣāṣ qal'ī*, served for manufacturing breast chain-mail.⁶⁰

Information on further uses of lead in these regions can be found in the thirteenth-century pharmaceutical treatise of Ibn al-Bīṭār (died in 1248), who was also active in Damascus. The fact that it was still relevant in the later Mamluk period and even afterwards is attested by the medical treatise of a sixteenth-century doctor from Antioch, Dā'ūd al-Anṭākī (died in 1599). The latter distinguished between two different qualities of lead (*raṣāṣ*): *asrab* and *qal'ī* (a synonym for *qaṣḍīr*). The former was of inferior quality, not fully distilled, and could be easily processed by smiths. The pharmaceutical uses of lead were manifold. It was ground into different ointments (especially for cosmetic purposes), rendering them more effective, and also used for disinfecting wounds and stopping bleeding. It served against various skin diseases, against tumors, especially in the sexual organs, against hemorrhoids, against stings of scorpions, and against masturbation of

Beirut, 63 barrels of *banda*. The 1499 cargo list has 6 barrels of *banda raspa'* sent to Beirut by Hieronimo and Jacomo Striga: Arbel, "Attraverso il Mediterraneo," 113. The 1500 galleys of Beirut had 18 barrels of *banda raspa'*; those sailing to Alexandria that year had 50 bundles of *banda larga*. The galleys of Alexandria departing in March 1503 had 282 bundles of *banda larga* on board. The Alexandria galleys of 1510 had 4 barrels of *banda raspa'*. The Alexandria galleys of 1511 had 19 barrels of *banda raspa'* and 57 packages of *banda larga* as well as *piastre di latton*. The Beirut galleys of 1513 carried 15 bundles of *banda larga*, and 2 of *banda raspa'*. Paxi explicitly explains the term *banda larga* as tinned iron (*Banda larga zoè ferro restagnado*): Paxi, *Tariffa*, 51r.

⁵⁷Philippe Braunstein, "Le commerce du fer à Venise au XVe siècle," *Studi Veneziani* 8 (1966): 268, 277. Michiel Foscari, whom we have already encountered as a copper exporter to Egypt, was also involved in iron production and exportation: he invested in mines, controlled the processing of iron at Belluno, and exported iron products to Crete and the Levant (*ibid.*).

⁵⁸Paxi gives equivalents for weight units of Ragusa and Alexandria with reference to lead. See Paxi, *Tariffa*, 44r. The galleys sailing to Alexandria in 1498 carried 55 lots (*pr.*) of lead; the Beirut galleys of 1500 had 32 m. [*miera?*] of lead; the Alexandria galleys of 1510 had 130 "pieces."

⁵⁹Ashtor, "Ma'din," 963b.

⁶⁰*Al-Munjid fī al-Lughah wa-al-A'lām*, 28th ed. (Beirut, 1986), 654.

adolescents. Putting five *dirhams* under someone's pillow could cause hallucinations, and a few drops sprinkled into one's ear were considered an effective protection against murder. Rings made of lead were considered effective against becoming overweight. It was also used in agriculture, to prevent fruits from falling immaturely, and in small quantities it was used as a pesticide.⁶¹

Mercury also seems to have been in demand both in Syria and Egypt, since it figures on four of our cargo lists.⁶² Mercury veins were discovered in 1490 at Idria, in the province of Gorizia, and later it was from there that Venetians acquired this material.⁶³ Among other purposes, especially gilding,⁶⁴ mercury (*zi'baq*) was commonly used in Mamluk lands for medical purposes, such as against lice (in combination with other substances), for treating dermatological problems, as well as against muscle and joint pains. It was used externally against bad smells and swollen throats.⁶⁵ Mercury also served for preparing cinnabar (*zenabrii*), or mercuric sulfide (vermilion), a decorative dyestuff figuring on several of these cargo lists,⁶⁶ which was produced on the island of Murano.

Textiles of various types constituted an important component of Venetian shipments to Syria and Egypt. Most of them were woolens of different qualities and provenance. Eliyahu Ashtor dedicated a long and detailed study to the exportation of Western textiles to the Muslim Orient in the later Middle Ages, a study that opens much wider vistas than our cargo lists, which hardly specify the origins of these products.⁶⁷ Only cloths made in Venice and a few specific types of cloth are occasionally listed separately. Such is the case of kerseys, which were

⁶¹Dā'ūd ibn 'Umar al-Anṭākī, *Tadhkarat Ūlī al-Albāb wa-al-Jāmi' lil-'Ajab al-'Ujāb* (Beirut, n.d.), 1:168; cf. Ḍiā' al-Dīn Abī Muḥammad 'Abd Allāh Ibn Aḥmad al-Andalusī al-Māliqī Ibn al-Bīṭār, *Al-Jāmi' li-Mufradāt al-Adwiyah wa-al-Aghdhiyah* (Beirut 1992): 1:434–37.

⁶²The galleys sailing to Beirut in 1498 had 35 lots of mercury according to Sanudo and 63 *boioli* (vases) of the same product according to Malipiero; in 1500 the Beirut galleys had 248 barrels marked "for Alexandria"; in 1503 the Alexandria galleys—60 barrels; in 1510, 50 barrels were sent to Alexandria, and in 1511, 251 [barrels?].

⁶³Philippe Braunstein, "Zur Frugeschichte des Bergbaus und Quecksilberhandels von Idria," *Neues aus Alt-Villach*, vol. 2, *Jahrbuch des Stadtmuseums* (Villach, 1965), 41–45.

⁶⁴Rogers, "To and Fro," 64.

⁶⁵*Zi'baq* was widely used for dermatological purposes, both for humans and non-human animals: Ibn al-Bīṭār, *Al-Jāmi'*, 1:487–88; al-Anṭākī, *Tadhkarat Ūlī al-Albāb*, 1:184.

⁶⁶On the Venetian production, see Luzzatto, *Storia economica*, 180. In 1498, 27 lots of cinnabar were sent to Beirut; in 1500 the Beirut galleys carried 256 cases and those sailing to Alexandria, 307 cases. In 1503 the Alexandria galleys had 78 barrels of cinnabar on board; in 1510 the Alexandria galleys had 44 cases, and in 1511, 21 cases, 5 of which belonged to Michiel da Lezze. See Braudel and Tenenti, "Michiel da Lezze," 71. See also Rogers, "To and Fro," 64.

⁶⁷Eliyahu Ashtor, "L'exportation de textiles occidentaux dans le Proche Orient musulman au bas Moyen Age (1370–1517)," in *Studi in memoria di Federigo Melis* (Naples, 1978), 2:303–77.

relatively cheap woolens originally produced in England but subsequently imitated in many other places.⁶⁸ The latter may probably be identified with the woolen cloth called *al-jūkh*, the use of which became so widespread in al-Maqrīzī's time.⁶⁹ Some lists also mention separately linen cloths (*tele*), serge cloths (*sarze*), and *grixi*, or *grisi*, which were cheap woolens, as well as a few specific types of garments, imported in small quantities, such as *bernusi* (women's gowns known in the east as *burnus*), *carpette* (most likely also women's garments), and *gonele de griso* (probably a type of men's coats).⁷⁰

Since our cargo lists provide only a little information on the origin and type of cloth sent to Egypt and Syria, it is worthwhile to cite the relevant paragraphs of Paxi's *Tariffa*, more helpful in this regard. Among those sent to Alexandria, he mentions:

Fine Venetian cloths, scarlet and dark blue (*paunazi*) cloths, Paduan scarlet cloths, Brescian cloths, "bastard" cloths, Southampton cloths (*panni santani*), *rocha* cloths,⁷¹ cloths from Geneva and from Feltre, that is dyed *bianchete* [a type of cheap cloth], and other kinds of cloths.⁷²

⁶⁸The galleys sailing to Alexandria in 1498 had 71 bales of cloths on board, while those sailing to Beirut had 418 bales; the ship wrecked in 1499 had 6 bales and one bundle of woolens sent to Syria: Arbel, "Attraverso il Mediterraneo," 113. The 1500 Beirut galleys had 400 bales of *panni* and those sailing that year to Alexandria, 133 bales; the galleys sailing to Beirut in October 1501 carried 330 bales of woolens; the Beirut galleys of 1502 had 560 bales of *panni* on board; those that sailed to Alexandria in 1503 had 127 bales. The Beirut galleys of 1504 had 450 bales; the Alexandria galleys of 1510 had 180 bales of Venetian woolen "of various sorts," 110 bales of woolens originating from Western Europe (*panni di Ponente*) of various sorts, and 100 bales of kerseys. The Alexandria line of 1511 had 134 bales of woolens on board; and the Beirut galleys of 1513 carried 241 bales.

⁶⁹Al-Maqrīzī, *Khiṭaṭ*, 2:3:159; Mayer, *Mamluk Costume*, 25; Ashtor, "L'exportation," 305.

⁷⁰See the list of the Beirut galleys of 1502 (12 bales of *sarze*, 11 of *tele*, and 11 rolls of *grixi*), and the Alexandria galleys of 1510 (8 bales of *bernusi*) and 1511 (2 packings of *gonele de griso*). For *bernussi*, see Salvatore Battaglia, *Grande dizionario della lingua italiana* (Turin, 1961–2002), 2:186; for *sarze*, *ibid*, 17:580; for *carpetta*, see Nicolò Tommaseo and Bernardo Bellin, *Nuovo dizionario della lingua italiana* (Turin, 1865), 1:1253; on *griso* (pl. *grisi*), see Achille Vitali, *La moda a Venezia attraverso i secoli: Lessico Ragionato* (Venice, 1992), 210.

⁷¹*Rocha* may derive from *roça*, i.e., madder, meaning cloths dyed with this material. According to another interpretation, not entirely contradictory, this term denotes low-quality cloths. I am grateful to Dr. Edoardo Demo and Dr. Andrea Mozzato for their assistance in trying to sort out the expressions related to woolens in Paxi's *Tariffa*.

⁷²Paxi, *Tariffa*, 48r.

Woolens exported to Damascus are listed by him as follows:

Fine Venetian cloths, some scarlet, some dark blue, Paduan "bastard" cloths, fine Florentine cloths, Brescian cloths, narrow cloths from Bergamo, washed and sheared (*bagnadi e cimadi*), expurgated cloths from Bergamo (*panni bergamaschi tiradi*), Guildfort cloths (*panni Zilforto*), Southampton cloths, *sesse* [Essex] cloths,⁷³ Saint Ursula cloths, narrow Geneva cloths, full-size cloths from Majorca (*panni maiorini integri*), large Geneva cloths, half-size cloths from Majorca (*panni mezzi maiorini*), cheap cloths of the *Fontego* (*panni de fontego*), large Flemish serge cloths, narrow Flemish serge cloths, *panni zinese le vestrine*,⁷⁴ hemp cloths.⁷⁵

Shorter lists are given by Paxi for Aleppo and Tripoli, though with slight variations, as for instance concerning the colors preferred on the Aleppo market: beside the dark violet (*paonazo*) and scarlet, typical for Venetian cloth also shipped to Egypt, we have azure, white, and green, as far as Florentine cloth was concerned.⁷⁶ Judging by a few merchant letters written in Syria in 1484, Western woolens sold on the Syrian market at that time were those from Bergamo, Brescia, and Vicenza in the Venetian mainland, as well as cloths from Geneva, Southampton, Essex, the cloths known as *panni bastardi*, cloths of the *fontego*, and serges.⁷⁷

Silk cloth of various types was imported in smaller quantities than woolen cloth to the Mamluk East. Our cargo lists mention gold cloth (*panni d'oro*) or simply "silk cloth" (*panni di seta*), very likely products of Venice's important luxury industries, exported for the refined Mamluk clientele.⁷⁸ Al-Maqrīzī explicitly

⁷³The term *sesse* sometimes denotes oriental textile, but in the present case it is obviously a Western product sent eastward. Cf. *Ambasciata straordinaria al sultano d'Egitto (1489–1490)*, ed. Franco Rossi (Venice, 1988), 225; John Wansbrough, "A Mamluk Letter of 877 (1473)," *Bulletin of the School of Oriental and African Studies* 24 (1961): 209, citing Quatremère.

⁷⁴The significance of these terms remains to be elucidated.

⁷⁵Paxi, *Tariffa*, 54r.

⁷⁶*Ibid.*, 56r–56v.

⁷⁷Vallet, *Marchands vénitiens*, 281, 288, 297, 300–1. On *panni bastardi*, see Ashtor, "L'exportation," 346–48. According to Ashtor, *panni de fontego* were of the cheapest sort (*ibid.*, 313).

⁷⁸The 1500 Beirut galleys had 6 cases with *pani d'oro et de seda* and those sailing to Alexandria, 7 cases of silk cloth (*pani de seda*). The Beirut galleys of 1502 had 10 cases of silk cloth; the galleys sailing to Alexandria in 1503 had 3 cases of silk cloth and one of gold cloth. The Alexandria galleys of 1510 had 2 cases of silk cloth whereas those of 1512 had 15 cases with silk and gold cloth. At the beginning of the sixteenth century there were as many as one thousand silk looms in Venice: Luzzatto, *Storia economica*, 176. See also Luca Molà, *The Silk Industry of*

mentions silk cloths worn by Mamluk amirs as being of Rūmī, that is European, origin.⁷⁹ We can partly overcome the succinct character of our lists with the help of the report on gifts presented in 1489–90 by the Venetian ambassador to Mamluk officials, which included luxurious silk cloths,⁸⁰ and also with the help of Paxi's *Tariffa*, mentioning, for the Alexandria market, damask (*damaschi*), velvet (*veludi*), and cloth of gold (*panni d'oro*) and of silver (*panni d'arzeno*).⁸¹ For Damascus Paxi provides a slightly different and more detailed list, probably reflecting the tastes of local clients: to Damascus, the Venetians sent, besides damask and velvet, also gold brocade, *campo d'oro*, and silver brocade.⁸²

Another category of luxury items included furs. We know, for example, from al-Maqrīzī's writings that during his times, Egyptians of both sexes, especially but not exclusively Mamluks, used to ornament their clothing with furs of different sorts. The bestowal by the sultan of robes lined with expensive furs was customary as a reward for service, confirmation of an elite status, reconciliation, and restoration.⁸³ Another indication of the special interest of Mamluks in furs is the fact that they were exempt from customs dues when imported to Alexandria.⁸⁴ This weakness for Western furs seems to have been well known in Venice, for when Venetian ambassadors came to Egypt to negotiate with the Mamluks they brought along with them great amounts of furs to be presented to the sultan and his officials.⁸⁵ Our cargo lists mention sables (*zebellini*) and vairs (*vari*), which according to Paxi's book were imported either raw or dressed.⁸⁶ To these we may

Renaissance Venice: The Challenge of Innovation in a Mercantilist Economy 1450–1600 (Baltimore-London, 2000).

⁷⁹Al-Maqrīzī, *Khīṭaṭ*, 2:3:369.

⁸⁰*Ambasciata straordinaria*, 78–83.

⁸¹Paxi, *Tariffa*, 48r–48v.

⁸²*Ibid.*, 54r. For Aleppo and Tripoli, see *ibid.*, 56v.

⁸³*Ibid.*, 168–69, 369; Mayer, *Mamluk Costume*, 14, 19, 23, 25; Petry, "Robing Ceremonials," 363–64, 367–70.

⁸⁴Paxi, *Tariffa*, 50.

⁸⁵In 1489, Ambassador Pietro Diedo brought along 3,000 pieces of vairs and 80 of sables: *Ambasciata straordinaria*, 79. In 1512, Ambassador Domenico Trevisan brought as presents 120 sables, 4,500 vairs, and 400 ermines: Jehan Thénard, *Le voyage d'outremer . . . 1512 suivi de la relation de l'ambassade de Domenico Trevisan au Soudan d'Égypte*, ed. Charles Schefer (Paris, 1884), 187.

⁸⁶The 1500 Beirut galleys had 2 cases of marten's furs and 3 of vairs; those sailing to Alexandria in the same year had 4 cases containing "zebelini armilini" and 2 containing vairs; the 1502 Beirut galleys had 9 barrels of vairs; the 1503 Alexandria galleys carried 8 barrels of vairs; the 1511 Alexandria galleys had 2 cases of marten furs and 19 of vairs; and the Beirut galleys of 1513 had 4 barrels of vairs, one case of ermines, and one of sables.

add common marten furs (*martore*), stone marten [=beech marten] furs (*fuine*), and ermines (*ermellini*), mentioned in Paxi's manual among goods imported to Alexandria. It would be useful to identify the kinds of furs imported by the Venetians with those mentioned by al-Maqrīzī.⁸⁷ Vair (*varo*) must correspond to *sinjab*, whereas ermine (*ermellino*) probably corresponds to *qamāqin* (=mod. Arabic: *qāqūm?*). Sable (*zibellino*) is normally translated as *sammūr*, but the same Arabic term is also given as a translation for common marten (*martone*).⁸⁸ *Fuina* denotes stone marten fur, though Dozy suggested that it was beaver fur, corresponding to al-Maqrīzī's *qirḍ aswad*, or *qundus*.⁸⁹ *Washaq*, another sort of fur mentioned by al-Maqrīzī, seems to be lynx fur. If it denotes European lynx and not the Middle Eastern caracal, it is not clear to which sort of furs mentioned in Venetian sources it corresponds.

Hats are also encountered on board ships sailing to Alexandria. Our lists include both *capelli* and *barete*, which seem to represent two different kinds of headgear.⁹⁰ Venetian hat manufacturing seems to have undergone an impressive expansion around the turn of the sixteenth century. According to a petition presented by the hatters to the Venetian government in 1506, the number of workshops producing headgear in Venice had risen within a few years from 5 to over 80.⁹¹ Was this impressive expansion somehow related to a demand for Venetian hats in Mamluk territories? Were the green, blue, and red hats mentioned by al-Maqrīzī as being fashionable in his times imported by the Venetians?⁹²

A kind of textile not intended for clothing, but often exported to Egypt and Syria, is hemp cloth (*canevaza*, pl. *canevaze*). This coarse material was produced in Venice from hemp grown around Montagnana, in the Venetian mainland.⁹³ It served particularly the Venetians themselves, for preparing sacks and packages for goods exported by them westwards. This was especially important for the exportation of raw cotton and cotton thread, shipped in great quantities from Syria

⁸⁷ Al-Maqrīzī, *Khīṭaṭ*, 2:3:168–69.

⁸⁸ Mayer, *Mamluk Costume*, 23; Rāshid Barrāwī, *Qāmūs al-Nahḍah al-‘Arabīyah* (Cairo, 1983), 674, 968; Reinhart Pieter Anne Dozy, *Dictionnaire détaillé des noms des vêtements chez les Arabes* (Amsterdam, 1845), 358–59.

⁸⁹ Dozy, *Dictionnaire détaillé*, 328.

⁹⁰ The galleys sailing to Alexandria in 1503 had nine bales of *capelli* on board; those sailing there in 1510 had 21 cases of *barete*, and the ones sailing to the same port in 1511 carried 12 cases of *barete*.

⁹¹ Judde de Larivière, "Entre bien public et intérêt privés," 354–55.

⁹² See al-Maqrīzī, *Khīṭaṭ*, 2:3:168–69. On Mamluk headgear, see Mayer, *Mamluk Costume*, 27–32.

⁹³ Frederic C. Lane, "The Rope Factory and Hemp Trade in the Fifteenth and Sixteenth Centuries," in *Venice and History*, 373–74 (originally published in *Journal of Economic and Business History* 4 (1932): 830–47).

and Palestine on board Venetian vessels.⁹⁴

Various glass products, originating from Venice's famous glass manufactories at Murano,⁹⁵ were also common on board Venetian ships sailing to the Mamluk Sultanate.⁹⁶ Michael Rogers wrote that by the fifteenth century the Mamluk market had already been enslaved to Venetian glass exports, and our cargo lists seem to corroborate this statement.⁹⁷ Among the goods imported to Damascus and Tripoli, Paxi's manuals mentions "common glass" (*veri comuni*), rosaries (*paternostri*) made of yellow glass, and glass crystal (*veri cristalini*).⁹⁸ Among those imported to Alexandria, Rimondo's "Tarifa" makes reference to "glass for mirrors" (*veri da spechio*) and to "worked glass" (*veri lavoradi*).⁹⁹ Vases made of glass crystal also seem to have been in demand in the Mamluk lands.¹⁰⁰

The term *veri cristalini*, or *cristall[li]*, as it appears on our cargo lists, is worthy of some further comment. The word *cristalli* had manifold meanings in Italian writings of the early modern period. It could denote products made of rock crystal or of glass crystal, as well as of mirrors, phials, lenses, drinking glasses, glass panes, and even saltpeter.¹⁰¹ However, in the late fifteenth century Venetian context, *cristallino* or *cristallo* were terms used to denote a special kind of high-quality colorless and transparent imitation of rock-crystal, invented in Venice during the second half of the fourteenth, and further improved during the first half of the fifteenth, century.¹⁰² The term *Veri cristall[li]ini* seems to have denoted

⁹⁴The ship wrecked in 1499 had 2 *ruotoli* of canvas on board: Arbel "Attraverso il Mediterraneo," 113. The Beirut galleys sailing in November 1502 had 85 *baloni* of canvas on board; the Alexandria galleys of 1503 had 3 *balle*; and the Beirut galleys of 1513—10 *ruotoli*. Cf. Ashtor, "L'exportation," 367–69.

⁹⁵On the Murano glass industry, see particularly Luigi Zecchin, *Vetro e vetrai di Murano: Studi sulla storia del vetro* (Venice, 1987–90); Rosa Barovier Mentasti et al., ed., *Mille anni di arte del vetro a Venezia* (Venice, 1982); Rosa Barovier Mentasti, *Il vetro veneziano* (Milan, 1982).

⁹⁶The ship wrecked in 1499 carried 6 barrels of rosaries: Arbel, "Attraverso il Mediterraneo," 113. The Alexandria galleys of 1500 carried 3 cases of *christalli*; the Beirut galleys of 1502 had 11 barrels of rosaries and 5 cases of *lavori de cristalo*. The galleys sailing to Alexandria in 1503 carried 12 cases of glass products; the 1510 Alexandria galleys had 3 cases of *cristali* and those of 1511 had 85 cases of glass rosaries. The Beirut galleys of 1513 had 4 cases of glass products (*veri*) and 20 of rosaries.

⁹⁷Rogers, "To and Fro," 68, n. 16.

⁹⁸See Paxi, *Tariffa*, 54r–54 v, 108r.

⁹⁹*Ibid.*, 56v; Rimondo, "Tarifa," fols. XVIII, XLIV.

¹⁰⁰On arrival at Jaffa in July 1480, the captain of the Venetian pilgrims' galley sent vases made of glass crystal (*vasi christalini*) to the *dawādār* of Damascus, to ensure favorable treatment of the pilgrims. See Santo Brasca, *Viaggio in Terrasanta*, ed. L. Momigliano Lepschy (Milan, 1966), 63.

¹⁰¹Battaglia, *Grande dizionario*, 3:980–82.

¹⁰²Luigi Zecchin, "Il 'Vetro cristallino' nelle carte del Quattrocento," in his *Vetro e vetrai di*

various objects made of crystal glass, as can be inferred from a commercial letter sent to the Levant in March and April 1511, announcing the shipment of two cases of *veri cristalini*, one containing 1,000 *stagnaele* and 30 *angistere* and the other one containing 1,000 *stagnaele* and 40 *angistere* with a stem and a gilded rim (*da pé con la bocca indorata*)—all terms designating different sorts of glassware.¹⁰³ The same passage also helps us to get an idea about the quantities of products contained in those “cases” mentioned in our cargo lists.

Al-Maqrīzī’s description of Cairo, as well as a series of letters sent in 1512 by Martino Merlini, a Venetian merchant in Venice, to his brother and business partner Giambattista, then residing in Syria, help us clarify the nature of those *cristalli*, and also shed some light on Mamluk consumption of Venetian luxury products. From al-Maqrīzī’s work we learn that during his times crystal (*ballūr*) was used as a status symbol by the upper classes of Mamluk society. For example, brides of prominent families were traditionally presented with a sort of bed or divan called *dikkah*, which was paraded in the streets of Cairo. Al-Maqrīzī mentions a granddaughter of one of the sultans who received as a wedding present such a *dikkah* made of crystal, on which there were other precious objects, such as a crystal vessel painted with figures of birds and animals.¹⁰⁴

Martino Merlini’s commercial correspondence is of great interest in many respects. It reveals the *modus operandi* of the Venetian entrepreneur who encouraged his brother to carry out a thorough market research concerning the demand for what he called “*lavori di cristalo smaltadi*,” that is, enameled crystal objects. Giambattista was required to send to his brother (most probably his elder brother) a detailed report concerning the types of such merchandise which were mostly sought after in Syria, to find out who and what kind of people possessed them, as well as to specify the kinds and quantities of such products in their possession. He was also encouraged to address one of the amirs and ask him what kind of new product he would like to have, and to send to Martino a model made of wood, or a drawing of the same, so that the expert manufacturer of these crystal objects,

Murano, 1:229–33; David Jacoby, “Raw Materials for the Glass Industries of Venice and the Terraferma, about 1370–about 1460,” *Journal of Glass Studies* 35 (1993): 86–87.

¹⁰³Giovanni Dalla Santa, “Commerci, vita privata e notizie politiche dei giorni della Lega di Cambrai (da lettere del mercante veneziano Martino Merlini),” *Atti dell’Istituto Veneto*, series 9, vol. 1 (t. 76), part 2 (1916–17): 1575, note. The term *Angistere* (*Angastare*, *inghistere*, *angastera*) denoted a spherically-shaped bottle with a long narrow neck; see Luigi Zecchin, “I primi cristalli muranesi in Oriente,” in his *Vetro e Vetrai*, 1:244; idem, “Vetriere muranesi dal 1276 al 1482,” *ibid.*, 3:5; idem, “Cesendelli, Inghistere, moioli,” *ibid.*, 3:162–65; Harold Newman (with additions by P. V. Albonico), *Dizionario del vetro* (Milan, 1993), 18; Brovier Mentasti, *Il vetro veneziano*, 44. *Stagnaele* could denote drinking glasses made of opaque white glass (worked with tin oxide).

¹⁰⁴Al-Maqrīzī, *Khiṭaṭ*, 2:3:171.

Vetor di Anzoli, could produce it back in Murano.

In another letter of the same year, Martino asked his brother to acquire a suit of Mamluk armor, and if he were unable to do so, to bring with him to Venice a model made of leather or cloth and a drawing of the same. Merlini intended to produce, with the help of Vetor de Anzoli, whom he described as "the one who makes the most beautiful crystal artifacts sent to that land" (i.e., the Mamluk Sultanate), a suit of armor made of crystal, with a helmet made of enameled silver, and possibly also inlaid with precious stones. Such a product, Martino wrote ironically, would not be fit for defense, but would be a magnificent and unique piece that could be worn by a sultan's slave in a parade,¹⁰⁵ "as is the habit among the Mamluks to parade their beautiful crystal artifacts, such as saddles, breastplates or corsets, and scimitars, which have no other use than adornment."¹⁰⁶ Martino was hoping to draw a profit amounting to one thousand ducats from such an affair, and he also encouraged his brother to find a way of convincing the Safavid ruler of Persia to acquire a similar artifact, which would raise the profit to about three or four thousand ducats.¹⁰⁷ Martino's reference to crystal saddles is confirmed by Ibn Iyās's description of the procession organized by Sultan Qānṣūh al-Ghūrī on 15 Rabi' al-Ākhar 922/17 May 1516, when leaving Cairo for his battle against the Ottomans.¹⁰⁸ Briefly, Mamluk sultans and amirs seem to have been the clients of these expensive and extravagant glass-crystal artifacts, representing wedding gifts or different instruments of Mamluk horsemanship, produced especially for this market in Venice's glass manufactories at Murano, and shipped, alongside other glass products, to Egypt and Syria on board the state galleys. As a matter of fact, objects made of glass crystal were often decorated with elaborate trailing, with enamelling and gilding and with filigree decoration.¹⁰⁹

Coral of the red, black, and white sorts, originating in the western Mediterranean, could also often be found on board these ships.¹¹⁰ The most important sources of

¹⁰⁵"vestir uno schiavo che vadi davanti el soldan per una ponpa e zentileza."

¹⁰⁶"chome i uxano portar dele altre belle chosse in destra, chome xè le selle, e i torsi e samitare, che è fate de cristalo, le qual non se adoperano in altro salvo che in adornamento."

¹⁰⁷Dalla Santa, "Commerci," 1566–69; also cited in Zecchin, "Il vetro muranese negli scritti del Cinquecento," in his *Vetro e vetrai di Murano*, 1:234. On Mamluk armor and arms, see Mayer, *Mamluk Costume*, 37–48.

¹⁰⁸Muḥammad ibn Aḥmad ibn Iyās al-Ḥanafī, *Badā' i' al-Zuhūr fī Waqā' i' al-Duhūr*, ed. Muḥammad Muṣṭafā (Cairo, 1984), 5:41 ("surūj balūr muzzayak [muzzayan?] bi-dhahab").

¹⁰⁹Zecchin, "Il 'Vetro cristallino,'" 232 (*lavori cristallini da dorar e da smaltar*); idem, "Cristallini dorati e smaltati," in his *Vetro e vetrai*, 3:109–13, with a photo (p. 113) of a late fifteenth-century enamelled cup produced in Venice and found in Syria; Harold Newman, *An Illustrated Dictionary of Glass* (London, 1977), 81, 327; idem, *Dizionario del vetro*, 113.

¹¹⁰The galleys of 1496 left 36 cases of coral in Alexandria. The Beirut galleys of 1498 carried 11

Mediterranean coral were off the shores of the kingdom of Tunisia, Sardinia, Corsica, Sicily, Provence, and Liguria. The best and probably richest source was the Tunisian one off Marsá al-Kharaz (today in Algeria), and its main clients were in the Mamluk Levant. From the 1430s until the 1460s the Tunisian coral fisheries were dominated by the Genoese, but from the 1470s the Venetians succeeded in breaking the Genoese monopoly on the lease of coral extraction in Tunisian waters. The shipment of coral and coral products on Venetian vessels to Mamluk lands during the last decades of the fifteenth century was therefore linked to a direct involvement of Venetians in the extraction of this natural product in the area considered to produce its best quality. Yet, although there were also coral artisans in Venice, part of the coral products shipped on board Venetian galleys to Egypt and Syria seems to have originated from other sources of supply.¹¹¹

Paxi's commercial manual mentions four different sorts of coral brought by Venetians to Alexandria—*coralli in branca* (coral twigs), *toro* (probably polished coral), *bastardo* (broken pieces of coral), and *zoppe*, a term whose significance remains unclear.¹¹² A substantial part of these materials seems to have been imported as rosary beads, called *bottoni de coralli*, which, as he specifies, were beads (*pater nostri*) that were supposed to be round and thick (*tondi e grossi*) and above all, have a good color.¹¹³ Paxi's remark that such beads were being acquired in great quantities in Genoa and Sicily indicates that the Venetian grasp of Tunisian coral did not exclude the possibility of acquiring coral products for the Mamluk markets from other sources. Besides, although the Venetians enjoyed a hegemony in Mamluk western trade, other entrepreneurs could also take part in this field, as exemplified in a contract for the sale of coral artifacts in Cairo, stipulated in 1482 between two Neapolitans (one of whom was a jeweler).¹¹⁴ Such alternative sources of supply must have grown in importance after the retreat of the Venetians from

cases of coral; the Beirut galleys of 1500 carried 17 cases of coral, and those sailing that year to Alexandria carried 9 cases of coral. The galleys sailing to Alexandria in 1503 carried one case of coral; the 1511 Alexandria galleys had 4 cases of coral beads; the Beirut galleys of 1513 carried 13 cases of coral, 19 of coral beads, and 5 of a similar product.

¹¹¹On the geography and history of coral fisheries in the fifteenth-century Mediterranean, see Giovanni Tescione, *Italiani alla pesca del corallo ed egemonie marittime nel Mediterraneo* (Naples, 1940), xlviii–lvii, 35–60; Bernard Doumerc, "Le corail d'Ifriqiya à la fin du Moyen-Âge," *Bulletin archéologique du Comité des travaux historiques et scientifiques* 19/B (1983): 9–12; Damien Coulon, "Un élément clef de la puissance commerciale catalane: le trafic du corail avec l'Égypte et la Syrie (fin du XIVe–début du XVe siècle)," *Al-Masāq* 9 (1996–97): 99–149. On Venetian production of coral artifacts, see Luzzatto, *Storia economica*, 183.

¹¹²Paxi, *Tariffa*, 47r. Paxi once refers explicitly to *coralli barbareschi*; see *ibid.*, 54v.

¹¹³*Ibid.*, 43r, 47r, 48v.

¹¹⁴Tescione, *Italiani*, 45.

direct exploitation of the Tunisian coral reefs around the turn of the sixteenth century.¹¹⁵

Besides rosaries, jewelry, and talismans, coral was widely used in the Islamic world for medical purposes, as a collyrium against eye diseases, against hemorrhage and blockage of the urinary tract, and against epilepsy and mental illnesses. The broken coral imported by the Venetians could have served for such therapeutic purposes. Coral was also widely used as an amulet against various troubles, such as snake bites and malaria, and was believed to be an aphrodisiac.¹¹⁶

Amber, which also seems to have enjoyed a regular demand in Mamluk markets, came from the Baltic regions, and reached Venice either through German merchants active in the *Fondaco dei Tedeschi*, or on board the Flanders galleys.¹¹⁷ Fifteenth-century Venice was famous for its artistic works of amber,¹¹⁸ and at least part of the cargoes exported to Syria and Egypt must have included such artistic artifacts.¹¹⁹ Cairo had a special amber market, and according to al-Maqrīzī, even commoners used to wear amber necklaces and ornament their homes with amber objects.¹²⁰ Yet it is possible that amber, like coral, was also shipped eastward as a raw material, since it also served medical purposes. Amber was believed to be effective as a hemostatic and astringent, and in solving problems of the urinary tract. It was also used to prevent vomiting and against hemorrhoids, as well as for curing broken bones.¹²¹

Two more typical industrial products made in Venice and its mainland territories

¹¹⁵Doumerc, "Le corail d'Ifriqiya," 482.

¹¹⁶A. Dietrich, "Mardjān," *EF*², 6:556a; al-Anṭākī, *Tadhkarat Ūlī al-Albāb*, 1:75; Tescione, *Italiani*, xxxv.

¹¹⁷Paxi refers to "ambra fina de Fiandra" among goods imported to Alexandria: *Tariffa*, 43r. Venetian merchants in Syria distinguished between "amber from Lübeck," or "amber of the fontego," and "amber from Bruges": *Documenti per la storia economica dei secoli XIII–XVI*, ed. Federico Melis (Florence, 1972), 186 (letter from Damascus, 1484); Vallet, *Marchands vénitiens*, 297, 300–1.

¹¹⁸Luzzatto, *Storia economica*, 183.

¹¹⁹The Beirut galleys of 1498 carried 7 bales of worked amber, and 12 bales of raw amber (Malipiero mentions only the latter in barrels). The ship wrecked in 1499 carried one barrel of amber: Arbel, "Attraverso il Mediterraneo," 113. The Beirut galleys of 1502 had 9 barrels of amber products (*ambra lavorata*) and 3 more of raw amber; the 1511 Alexandria galleys had 2 cases of amber.

¹²⁰Al-Maqrīzī, *Khīṭaṭ*, 2:3:166–67. For further data and comments, see Ibn Iyās, *Journal d'un bourgeois du Caire*, tr. and ed. Gaston Wiet (Paris, 1955), 1:289–90 and n. 1.

¹²¹M. Plessner, "Kahrubā," *EF*², 4:445b; al-Anṭākī, *Tadhkarat Ūlī al-Albāb*, 1:276–77. On amber originating from the Far East and the Indian Ocean, see Floréal Sanagustin, "Parfums et pharmacologie en Orient médiéval: savoirs et représentations," in *Parfums d'Orient*, ed. Rika Gyselen (Bures-sur-Yvette, 1998), 191–92.

respectively were soap and paper, also encountered on board galleys and ships sailing to the lands of the Mamluks. The solid white Venetian soap was made of olive oil from Venetian colonies in Greece and alkali ashes imported from Syria. Paxi calls these soaps "*savoni bianchi da navegar*," indicating that they were mainly produced for exportation.¹²² To have an idea on quantities of this product exported eastward, we may use the example of a few shipments for which the weight is provided by our sources. The galleys of 1496 brought 200 *miera* (60 tons) of soap to Alexandria and in 1511, our sources mention two shipments to Alexandria, both carried out by the same merchant: the first of 11,701 kg, and the second (on another galley of the same *muda*) of 5,279 kg.¹²³ In other words, a single Venetian merchant shipped about 17 tons of soap to Alexandria in a single *muda*.¹²⁴

Paper shipments from Venice to Mamluk territories also seem to have been quite regular.¹²⁵ This also was undoubtedly a product of Venetian industries in the mainland territories of the republic.¹²⁶ The examination of water-marks has shown that during the Ottoman period, paper used in Egypt was to a great extent of Venetian origin,¹²⁷ and it is most likely that the preponderance of Venetian importations of this material had already begun under the Mamluks.

¹²²Paxi, *Tariffa*, 46v.

¹²³Braudel and Tenenti, "Michiel da Lezze," 71. The quantities are given in Venetian *lire sottili*. The first shipment had 38,875 net *lire* and the second—17,540. The Venetian *lira sottile* was equivalent to 0.301 kg: Paxi, *Tariffa*, 49v, and Tucci, *Lettres d'un marchand vénitien*, 354. These soaps were packed in sacks, whereas the cargo list of the same galleys included in Sanudo's diary mentions only soap in cases (*casse*). Cf. Appendix A.

¹²⁴More information on soap shipments: the galleys sailing to Alexandria in 1498 had 573 sacks of soap and those sailing there in 1500 had 62 cases of soap on board. In 1503 the galleys brought 378 cases of soap to Alexandria; the 1511 Alexandria galleys had 602 cases of soap on board.

¹²⁵The ships wrecked in 1499 carried altogether 10 bales of paper belonging to two different merchants: Arbel, "Attraverso il Mediterraneo," 113. The galleys sailing to Beirut in 1500 carried 42 bales of paper; the Alexandria galleys of 1503 carried 23 bales of paper; the 1510 Alexandria galleys had 8 paper bales on board. See also Luzzatto, *Storia economica*, 180, and for evidence on earlier years of the fifteenth century: Eliyahu Ashtor, "The Venetian Supremacy in Levantine Trade: Monopoly or Pre-Colonialism?," *Journal of European Economic History* 3 (1974): 26, n. 85.

¹²⁶Michela dal Borgo, "Cinque secoli di produzione cartacea nei territori della Repubblica di Venezia," in *Charta: Dal papiro al computer*, ed. Giorgio Raimondo Cardona (Milan, 1988), 180–87; Ivo Mattozzi, "Il distretto cartai dello stato veneziano: Lavoro e produzione nella valle del Toscolano dal XIV al XVIII secolo," in *Cartai e stampatori a Toscolano: Vicende, uomini, paesaggi di una tradizione produttiva*, ed. Carlo Simon (n.p., 1995), 23–65.

¹²⁷Ugo A. Zanetti, "Filigranes vénitiens en Egypte," in *Studi albanologici, balcanici, bizantini e orientali in onore di Giuseppe Valentini* (Florence, 1986), 437–99.

The importation of soap and paper, as well as of sugar (imported from Cyprus), was mentioned by Ashtor as a reflection of the decline of Levantine industries that had produced these items in the past.¹²⁸ Although it can be shown that soap was still produced in the late fifteenth century in Syria,¹²⁹ no such evidence exists, to the best of my knowledge, for paper, and the imported quantities cited above, especially in the case of soap, may support Ashtor's claim.

Spices, dyes, pigments, perfumes, and drugs normally traveled westward, but a few such products of western provenance were nearly always to be found on board Venetian ships sailing eastward. Such is the case of saffron, originating, according to de' Paxi, from the region around L'Aquila in the Abruzzo.¹³⁰ It served for cooking, for medical purposes, for cosmetics, for dyeing, and even for perfume, and must have had special importance considering Mamluk preference for the yellow color.¹³¹ An Egyptian chronicler records how in 855/1451, while celebrating the rise of the Nile, Egyptians happily threw saffron at one another.¹³² This habit could have continued in later years, encouraging further importation by the Venetians. Other dyes often shipped to these lands were realgar (*risegallo*, or *sandarac*), the red pigment or varnish that could be produced artificially but which, apparently, was also extracted from the raisin of the Moroccan *callitris quadrivalvis*,¹³³ *sbiacca*, a carbonate of lead used as a white color, both as a varnish and whitewash for walls, and for paints and cosmetics,¹³⁴ and finally, what our sources call *grepola*, or *tartaro*, which seems to be a crust accumulating on the sides of wine casks, a substance that apparently was in demand in the Mamluk

¹²⁸ Ashtor, "The Venetian Supremacy"; idem, "Levantine Sugar Industry in the Later Middle Ages: a Case of Technological Decline," in *The Islamic Middle East, 700–1900: Studies in Economic and Social History*, ed. Abraham P. Udovitch (Princeton, 1981), 91–132.

¹²⁹ On soap manufacturing at Tripoli, See Vallet, *Marchands vénitiens*, 188, based on Paxi, *Tariffa*, 44r.

¹³⁰ Armando Saponi, "I beni del commercio internazionale nel Medioevo," *Archivio storico italiano* 113 (1955): 25–26; Paxi, *Tariffa*, 48r.

¹³¹ See Henri Bresc, "Les entrées royales des Mamlûks: Essai d'approche comparative," in *Genèse de l'Etat moderne en Méditerranée* (Rome, 1993), 91.

¹³² Abū al-Maḥāsīn Yūsuf Ibn Taghrībirdī, *Ḥawādith al-Duhūr fī Madā al-Ayyām wa-al-Shuhūr* (Cairo, 1990), 330.

¹³³ One and a half bales of saffron were shipped in 1510 to Alexandria; 12 bottles of *risegallo* were transported on the ship wrecked in 1499: Arbel, "Attraverso il Mediterraneo," 113; 3 barrels of *risegalli* were sent to Alexandria in 1503; 12 cases of the same product were on board the Alexandria galleys in 1510, and 35 *risegal* packages of unspecified nature on those of 1511. J. Michael Rogers identifies realgar as the natural orange-red sulfide of arsenic (As₂S₂): Rogers, "To and Fro," 70, n. 42.

¹³⁴ Battaglia, *Grande dizionario*, 2:202 (*Biacca*). In 1502 the galleys sailing to Beirut had 135 barrels containing this product.

Levant, and must have served medical purposes.¹³⁵

The Alexandria galleys of 1510 carried 90 cases of sulfur, and Paxi's manual also mentions this material among those commonly exported from Venice to Alexandria and Damascus.¹³⁶ Sulfur was used for bleaching, for the preparation of gun-powder and fireworks, as fumigation to expel vermin from houses, and in medicine against skin diseases and stings of poisonous animals, in electuaries against fever, cough, asthma, tetanus, and dropsy, as well as in magic.¹³⁷

Among foodstuffs shipped by the Venetians to the lands ruled by the Mamluks, a special place was reserved for chestnuts. This merchandise does not figure in our cargo lists for the simple reason that special ships were required to transport it. Such ships were even called "the chestnut ships," and they seem to have sailed from Italy to Mamluk territories on quite a regular basis. For the two last decades of the Mamluk Sultanate I have found evidence for shiploads of chestnuts sent to Syria in 1509, 1510, and 1516, but these were very likely not the only vessels used for the same purpose during those years.¹³⁸

According to Bartolomeo de' Paxi, the best chestnuts exported to Egypt and Syria originated from the area of Bologna, the valley of Lamone, and the territory of Imola. The same author mentions, besides fresh chestnuts, also dried chestnuts, and chestnuts boiled in wine, of which only small quantities were exported eastward for obvious reasons.¹³⁹ Chestnuts seem to have mainly served as a substitute for grains in periods of scarcity. One may wonder whether the expansion of cotton fields in later medieval Syria was carried out at the expense of grain fields, thus creating periods of scarcity and necessitating resorting to substitutes of this kind.

It is remarkable to observe to what extent the information included in Paxi's commercial manual corresponds to the cargo lists of our three diarists and to other testimonies that reflect the actual operation of importations into Egypt and Syria. The cargo lists, however, are incomplete (the diarists sometimes admit it), partly, but not only, because galleys were intended for the shipment of special kinds of goods. Judging by the information included in our two commercial manuals, the range of products imported by Venetians to Mamluk lands on board different kinds of vessels was actually much wider. Appendix B includes Paxi's lists of goods imported into Damascus, Aleppo, and Tripoli, and a list of goods mentioned

¹³⁵See the cargo list of the Alexandria galleys in 1500, 1510, and 1511. On the meaning of the word, see Battaglia, *Grande dizionario*, 7:35.

¹³⁶Paxi, *Tariffa*, 49r, 53v.

¹³⁷M. Ullmann, "al-Kibrīt," *Et*², 5:88b.

¹³⁸Sanudo, *I diarii*, 8:11 (1509); *ibid.*, 11:740 (return of a chestnut ship in January 1511); *ibid.*, 24:19, 221 (the chestnut ship back in Cyprus in January, and in Venice in March 1517).

¹³⁹Paxi, *Tariffa*, 44v–45r, 54r.

(though not listed) in his manual and in Rimondo's "Tarifa" of 1494 as imported to Alexandria. Besides the products already mentioned, Paxi mentions olive oil of various provenances (from Tripoli and Tunis in Barbary, Seville, Majorca, and Puglia);¹⁴⁰ horse hair and pig hair (*seta de cavallo*, *seta de porco*);¹⁴¹ Cypriot sugar; molasses (*gotare*) from Palermo;¹⁴² honey of different provenances (Bologna, Dalmatia, Catalonia);¹⁴³ wax, originating from Ragusa;¹⁴⁴ Malmsey wine (most probably imported from Venetian Crete);¹⁴⁵ currants from Smirne;¹⁴⁶ mastic from Chios;¹⁴⁷ walnuts (*noxe*) from the Marche and hazelnuts (*noselle*) from the Kingdom of Naples;¹⁴⁸ [dried] figs from Venetian Dalmatia;¹⁴⁹ dried plums from Naples or Sicily;¹⁵⁰ almonds from Apulia and from Provence (especially for Damascus, in years of scarcity);¹⁵¹ pine kernels (*pignoli*); cheese (most probably imported from Crete);¹⁵² bells; fustian cloth; camlets; silk cloth known as *camocati* (probably imported from Cyprus);¹⁵³ box-tree wood; needles; thimbles;¹⁵⁴ antimony sulfide (*cophalo*, the Arabic *kuḥul*), a typical Catalan chemical, used in the Levant as a cosmetic and for collyrium; orpiment (arsenic trisulfide used as yellow dye) from Salonica;¹⁵⁵ *dragante*, a raisin brought from Greece, serving as an energizer and

¹⁴⁰Ibid., 44r, 49v; Ashtor, "Profits," 253.

¹⁴¹Horse-hair (*seta de cavallo*) is also mentioned in the cargo list of the Alexandria galleys that departed from Venice in November 1500; 24 barrels of pig's hair (*seta de porcho*) were sent on galleys to Alexandria in 1503.

¹⁴²Paxi, *Tariffa*, 44r. For Cypriot molasses, see below, 66 and n. 168.

¹⁴³Ibid., 46r–46v.

¹⁴⁴Ibid., 44r. See also Luzzatto, *Storia economica*, 180.

¹⁴⁵Benjamin Arbel, "Riflessioni sul ruolo di Creta nel commercio mediterraneo del Cinquecento," in *Venezia e Creta: Atti del convegno internazionale di studi, Iraklion-Chanià, 30 settembre–5 ottobre 1997*, ed. Gherardo Ortalli (Venice, 1998), 249.

¹⁴⁶Paxi, *Tariffa*, 46r ("from Anatolia"), 50r ("from Smirne").

¹⁴⁷Ibid., 47r.

¹⁴⁸Ibid., 6r, 45v, 49v.

¹⁴⁹Ibid., 3v, 46r.

¹⁵⁰Ibid., 46r.

¹⁵¹Ibid., 6r, 44r, 49v. Seven barrels of almonds were on board the ship wrecked off Cyprus in 1499: Arbel, "Attraverso il Mediterraneo," 113.

¹⁵²Arbel, "Riflessioni," 249.

¹⁵³On this product, see Wilhelm Heyd, *Histoire du commerce du Levant au Moyen Age* (Leipzig, 1886): 2:697–98.

¹⁵⁴A barrel of thimbles (*diziali*) was sent to Syria on board the ship wrecked off Cyprus in 1499; see Arbel, "Attraverso il Mediterraneo," 113.

¹⁵⁵Paxi, *Tariffa*, 44r.

refresher, in preparing a dark blue dye, and probably also as a mordant;¹⁵⁶ *zafari*, a dark blue cobalt-based dyestuff used for painting on glass; blue glaze (*smalta azuro*), undoubtedly for producing enameled glass;¹⁵⁷ *loldano* (*ladanum*), a Cypriot raisin used for medical purposes and for incense;¹⁵⁸ tinned iron wire (*filo de loton*);¹⁵⁹ alum, acquired in Constantinople;¹⁶⁰ timber from Anatolia and Rhodes;¹⁶¹ tinned iron basins; and a product called *gozime*, or *gozeme*, which I have not been able to identify.¹⁶²

Rimondo's "Tarifa" of 1494 also mentions among the goods imported to Alexandria wether wool; lead oxide (*mor da sangue*); *roza*, which might signify rose water; sesame; *tigname*, an aromatic bark used for incense; Barbary hides; coarse woolen cloth or blankets (*s[ch]iavine*); cotton; linen; nut-galls; and *largado*, another product which I have been unable to identify.

The fact that many of these products do not figure in our cargo lists is no proof that they were not imported to Egypt and Syria in the period under consideration. We have very little evidence on private ships active in this period, and even the cargo lists of the galleys that have been analyzed above are not comprehensive, and often include generic terms, such as *merce*, or *aver sottil*, which may comprise many of the items mentioned in the two merchant manuals.

Any discussion of Venetian importations into Mamluk lands should not omit Cyprus, which became a Venetian territory *de facto* in 1473 and *de jure* in 1489. The island, situated merely sixty miles off the Syrian coast and not very far from Egypt, was not only an important emporium and way station on the routes of Venetian ships sailing between Venice and Mamluk territories, but also a source of supply for the latter. This historical aspect of the easternmost colony of Venice is hardly known and difficult to follow. We have, however a few indications pointing to the close mercantile contacts, especially with Syria, carried out on board small local vessels, operated by Syrian Christians, who were inhabitants of Famagusta. The captain of Famagusta reported, for instance, in October 1500 that between four and six boats arrived from Syria every week with foodstuffs.¹⁶³ In

¹⁵⁶Ibid., 48r; Battaglia, *Grande dizionario*, 4:996.

¹⁵⁷Paxi, *Tariffa*, 108r.

¹⁵⁸Ibid., 47r.

¹⁵⁹Ibid., 48v, and Appendix B at the end of the present article.

¹⁶⁰Paxi, *Tariffa*, 47v–48r.

¹⁶¹Ibid., 49r.

¹⁶²Ibid., 47v; Rimondo, "Tarifa," fol. XVIIIv.

¹⁶³Sanudo, *I diarii*, 3:1120.

September 1502, the captain reported that boats owned by Syrians reach Cyprus on a daily basis.¹⁶⁴ In 1510, the governors wrote to Venice that many poor people in Cyprus depended for their living on trade with Syria.¹⁶⁵ This activity was carried out on small vessels, and only exceptionally left any traces in written documents, but a few archival sources allow us to get an idea about the nature of this trade, and particularly on importations from the island into Syria and Egypt. In 1504, a few Cypriots of Syrian origin complained that the Venetian consul in Damascus compelled them to pay dues on salt, sugar, honey, and molasses, which they imported into Syria, and even on cash money exported from that country.¹⁶⁶ Salt was indeed one of the island's main export products, and its exportation to Syria (as also to Anatolia) was regulated by a periodical lease to private individuals.¹⁶⁷ In 1514, Cypriot molasses was also exported into Egypt, a piece of information corroborating the testimony of our two *Tariffe* in this regard.¹⁶⁸

Contraband trade between Syria and Cyprus, as, for instance, the exportation of wheat, normally forbidden to be exported to non-Venetian territories, should also be taken into consideration, considering the relatively short distances separating the island from the shores of the Mamluk Sultanate. In 1509, for example, the governors of Cyprus reported bringing to trial exporters of 60,000 *mozza* of grains.¹⁶⁹ On some occasions grains were officially sold to the Mamluks, as for instance in 1513, when barley crops were abundant on Cyprus and great shipments were carried out to Syria, both by the governors and by private individuals.¹⁷⁰ The Venetian Council of Ten later authorized the governors of the island colony to export to Syria or Turkey up to 40–50,000 *mozza*, instructing them to prevent private individuals from competing with the public exportations.¹⁷¹ Later that year the Council of Ten authorized two Venetian patricians who held in lease public estates on Cyprus to export up to 20,000 Cypriot *mozza* of barley "to Syria or

¹⁶⁴Ibid., 4:486.

¹⁶⁵Ibid., 11:266.

¹⁶⁶Ibid., 5:944.

¹⁶⁷Benjamin Arbel, "Venetian Cyprus and the Muslim Levant, 1473–1570," in *Cyprus and the Crusades*, ed. Nicolas Coureas and Jonathan Riley Smith (Nicosia, 1995), 172; reprinted in Benjamin Arbel, *Cyprus, The Franks and Venice* (Aldershot, 2000), article XII.

¹⁶⁸Three vessels waited at Paphos for over three months before being able to cross over to Damietta, with a cargo of molasses "and other drugs," finally sailing towards the end of March 1514: Archivio di Stato, Venezia (hereafter: ASV), Lettere ai Capi del Consiglio dei Dieci (hereafter: Lett. Capi X), busta 288, nos. 101–2.

¹⁶⁹Ibid., fol. 69.

¹⁷⁰In May 1513, 1,000 *ashrafis*, the return of a barley shipment to Syria, were sent from Cyprus to Venice: *ibid.*, nos. 86–88.

¹⁷¹ASV, Consiglio dei X (hereafter: X) Misti, reg. 36, fol. 63v (30 Aug. 1513).

Turkey.¹⁷² But grains were also imported from Mamluk lands, as reported in the following year by the governors—who bought 10,000 *mozza* in Damietta and were hoping to obtain more from Syria.¹⁷³ During that summer, following a locust plague that ruined Cypriot harvests, ships loaded with Syrian wheat reached Cyprus on a daily basis, until the crisis related to Venetian contacts with Persia temporarily disrupted collaboration with the Mamluks.¹⁷⁴

Since 1426, Cyprus had been paying tribute to the Mamluk sultan, and its rulers were bound to send yearly to Cairo luxury cloths, mostly produced and dyed on the island, to the value of 8,000 ducats. After taking control of the island, Venice continued to pay this tribute. The main occupation of the camlet and samite industries in Nicosia seem to have been connected to this yearly dispatch of luxury cloths to the Mamluks.¹⁷⁵

Commercial contacts between Venice, Venetian Cyprus, and the Mamluk territories also had an interesting monetary consequence. Mamluk coins, such as *ashrafīs* and *maydīns*, circulated in Cyprus, necessitating official intervention to regulate their circulation and make arrangements for evaluating those coins, which must have had different alloys and weights.¹⁷⁶ *Ashrafīs* are also occasionally encountered on ships sailing from Venice eastward, indicating that the circulation of Mamluk gold coins was not limited to lands ruled by the sultan and its close neighbors.¹⁷⁷

Finally, one cannot disregard the role of Venetian shipping in trade between different Muslim lands, and even between different Mamluk territories. The galleys of the *trafego* line, to which we have devoted too little attention in this paper, connected the Maghreb with Egypt and Syria, and were a convenient means of transportation for Muslim traders, besides their role in the Venetian trading system. Private Venetian ships also sailed between different ports of the Muslim Mediterranean.¹⁷⁸ It is therefore not surprising to find in Paxi's manual, in addition

¹⁷²Ibid., fols. 80–80v (28 Sept. 1513).

¹⁷³Sanudo, *I diarii*, 11:265–66. See also Arbel, "Venetian Cyprus and the Muslim Levant," 172.

¹⁷⁴Sanudo, *I diarii*, 11:656.

¹⁷⁵Arbel, "Venetian Cyprus and the Muslim Levant," 161–62. Following is a list of such cloths sent from Cyprus by the Venetians to the sultan as tribute (plus presents) for the two previous years (the sultan expressed his dissatisfaction about their quality): zambeloti di Cypro per presente-peze 40; zambeloti per le page-peze 582; campo d'oro-pichi 200 quarte 3; damaschini-pichi 42; Raso venetian-pichi 103; panni de lana acoloradi-pichi 318 3/4; Sanudo, *I diarii*, 5:114–15.

¹⁷⁶ASV, Lett. Capi X, busta 288, no. 91 (14 Dec. 1513).

¹⁷⁷Braudel and Tenenti, "Michiel da Lezze," 43 (1497), 71 (1511).

¹⁷⁸E.g., Sanudo's report in mid-April 1497 about the shipwreck off Tripoli of a private vessel owned by Priamo Contarini, sailing from Alexandria to the Maghreb with merchandise belonging to Moors: Sanudo, *I diarii*, 1:605.

to olive oil imported from Barbary (Tripoli and Tunis), gold dust (*tiber*) imported likewise from Tripoli, or currants imported from Smirne, also linen, a product acquired in Alexandria, and imported by Venetians into Tripoli in Syria, and a product called *muchara*, mentioned among those imported from Damietta into the same Syrian port town.¹⁷⁹ The cotton mentioned in Rimondo's manual as imported into Egypt also could have originated in Syria.

What general conclusions can be drawn from this material? The difficult political and military background certainly had negative repercussions on Venetian importations into Egypt and Syria. The Alexandria line in particular was often interrupted, and Venice's dire straits opened new opportunities to its commercial rivals. Priuli and Sanudo noted in their diaries the activity of French and Genoese ships in the course of Venice's war with the Ottomans in 1500 and 1501, carrying copper, woolens, corals, and specie to Syria and Egypt and exporting cotton and spices.¹⁸⁰ However, it does not seem that the French or the Genoese were able to replace the Venetians as the chief trading partners of Egypt and Syria on a regular and continuous basis. For example, in 1505, to cover a debt owed to him by the Venetians for forced sales of his pepper, the sultan confiscated goods belonging to Venetian merchants in Alexandria and Cairo in order to sell them in public auctions. According to merchants' letters from Cairo, the woolens and hazelnuts thus sold enjoyed excellent prices, since shortages of certain goods had developed in the Egyptian markets following the temporary absence of Venetian ships.¹⁸¹ The rich shiploads of the galleys sailing to Alexandria in 1510, which, according to Sanudo, carried goods to the value of 300,000 ducats, may also indicate that shortages of certain products had developed in Egypt during the previous two years, when no galleys had been sent eastward. Despite the difficulties, Venetians and Mamluks thus continued to depend on one another down to the end of the Mamluk Sultanate. This impression would be even stronger if we took into consideration importations on board private ships that were functioning alongside the galleys, and especially during years when galleys were not sent eastward.¹⁸²

In view of this interdependency, a crisis in Venetian-Mamluk trade may also

¹⁷⁹See Appendices A and B-I. Could this term signify marine shells (*maḥārah*, pl. *maḥārāt*)?

¹⁸⁰Priuli, *I diarii*, 1:259; *ibid.*, 2:42–43, 65; Sanudo, *I diarii*, 3:687, 1121.

¹⁸¹Priuli, *I diarii*, 2:401.

¹⁸²E.g., the report of the Venetian consul in Alexandria, dated 26 March 1503, on the arrival there of "Moras's ship," loaded with 240 barrels of oil, a ship loaded with copper belonging to Michiel Foscarei, a *barzoto* loaded with hazelnuts, and another [Venetian?] ship with hazelnuts (*noxele*) from Sicily; Sanudo, *I diarii*, 5:34–35.

indicate a crisis in the Mamluk economy in general. Ashtor's suggestion that Mamluk external trade in the late fifteenth century was flourishing may be erroneous, being based on rather scanty evidence. In view of the great geopolitical, commercial, and military upheavals characterizing those years, it is difficult to accept the claim that the last decades of the Mamluk Sultanate were characterized by commercial and industrial prosperity that had no precedent in the earlier Bahri Mamluk period.¹⁸³

That does not mean the international trade became insignificant, particularly as far as local demand for certain products was concerned. Assuming that not only the cargo lists, but also the two *Tariffe*, represent a real (though quantitatively incomplete) picture of the importations into Egypt and Syria in the late fifteenth and early sixteenth centuries, the number, variety, and also the value of products shipped to the Mamluk Levant is impressive indeed.

In three cases, our cargo lists contain estimates for both precious metals and other merchandise sent to Alexandria.¹⁸⁴ In 1486 Malipiero remarked that little money was sent to Egypt whereas the goods shipped there were evaluated by him at 230,000 ducats; in 1496, 220,000 ducats worth of gold and silver were sent to Alexandria, but 50,000 came back, which leaves us with 170,000 ducats as against 150,000 invested in goods sent to the same destination; and in 1510, according to Sanudo, only 52,000 ducats of gold and silver were sent to Egypt whereas the goods shipped there were evaluated by the diarist at no less than 300,000 ducats (including copper worth 50,000 ducats).¹⁸⁵ Regardless of the question of the balance of payment between Venice and the Mamluk Sultanate,¹⁸⁶ our diarists' evaluations do indicate that the economic importance of goods other than gold and silver imported by Venetian merchants into Egypt (and most probably also to Syria) during those years was far from negligible. It would be, of course, hazardous to judge by these few cases, but the tendency of sending smaller amounts of specie and precious metals on the state galleys sailing eastward indicates an increase in the relative importance of other products shipped on the same vessels during the last decades of Mamluk rule,¹⁸⁷ and probably a growing importance of barter transactions in the East. The decline in gold and silver shipments was both a sign of economic difficulties on the Venetian side, and a grave problem for the Mamluks.

¹⁸³Cf. Ashtor, *Levant Trade*, 510–11; Robert Irwin, "Egypt, Syria and Their Trading Partners," in *Carpets of the Mediterranean Countries 1400–1550*, ed. R. Pinner and W. B. Denny (London, 1986), 78.

¹⁸⁴See Appendix C.

¹⁸⁵It should, however, be taken into consideration that no galleys sailed to Beirut in 1510.

¹⁸⁶See R. S. Lopez, "Il problema dei bilanci dei pagamenti nel commercio di Levante," in *Venezia e il Levante fino al secolo XV*, ed. Agostino Pertusi (Florence, 1973), 431–51. See also my remarks above, 43–46.

¹⁸⁷See Appendix C.

It must have been relatively easier for Venetian merchants to acquire on credit in Venice goods that were meant to be sent eastward, but were they able to do the same with gold and silver? Thus, with less gold and silver arriving from the West, Mamluk capacity to finance trade with India and southeast Asia, and most likely also their ability to confront the Portuguese and the Ottomans, were restricted.¹⁸⁸

Of course, some goods, particularly those that are not mentioned in the cargo lists, were probably only occasionally sent eastward, or else were shipped on board round ships, for which we have only one cargo list at our disposal. However, the fact that not a few products could be found time and again in substantial quantities on galleys and ships sailing both to Syria and Egypt point to well-established patterns of consumption of goods originating from Venice and the West, and to the dependence of the Mamluk market on Venetian importations of certain products. Among those, raw materials, especially metals, occupy a prominent place. Copper in different forms, tinned iron, tin, lead, and mercury seem to have been in constant demand both in Egypt and Syria, and this demand must have only grown when Venetian galleys were unable to reach the ports of the Mamluk Levant. It is also noteworthy that the old restrictions on provision of strategic materials to the Mamluks were ineffective, especially during years in which Venice and the papacy were at war. Indeed, such products were openly exported to the Mamluks.¹⁸⁹

It has also been noted that in spite of the general crisis, luxury items for the Mamluk elite, such as silk cloth and furs, or extravagant artifacts made of glass crystal, continued to reach the ports of Egypt and Syria, but we have no way of checking whether consumption of these goods declined towards the end of the Mamluk period. Michael Rogers has claimed that "consumers of luxuries are tenacious and imaginative in their efforts to keep up their standards of living,"¹⁹⁰ and it may well be the Mamluk upper classes also behaved that way despite the financial difficulties characterizing the last decades of the Mamluk Sultanate.

Luxury goods undoubtedly offered the Venetian merchants prospects for great profits, but that did not cause them to neglect other opportunities. For instance, among the woolens imported into Egypt and Syria we encounter kerseys and *grisi* (*grixi*), which were considered to be common cloths; rosary beads made of glass

¹⁸⁸Rogers, "To and Fro," 66.

¹⁸⁹In view of the huge amounts of copper shipped regularly to Egypt and Syria, the accusation brought against Michiel Foscari, reported by Sanudo in October 1503, of having shipped prohibited goods (i.e., copper) into Egypt, looks more like lip service or even a personal vendetta, rather than an indication of Venetian policy to implement the old restrictions. See Sanudo, *I diarii*, 5:162. Cf. Braunstein, "Le commerce du fer," 288–89.

¹⁹⁰Rogers, "To and Fro," 66.

and even amber can also be considered as rather inexpensive merchandise. And an unknown portion, which could be substantial, of the above-mentioned raw materials probably found its way to small manufacturers for production of common utensils. Among the foodstuffs, chestnuts and other sorts of nuts, and occasionally grains, can also be considered as products that had a wider consumption. It would therefore not be erroneous to state that Venetian importations into Mamluk lands reached, either directly or indirectly, a considerably wide spectrum of Mamluk society.

One has also to take into consideration that at least part of the products imported by the Venetians into Egypt and Syria were re-exported to other lands. This may be the case of some of the silver, copper, tin, brass, mercury, cinnabar, woolens, dyestuffs, mastic, mirrors, beads, verdigris, and other goods for which we have evidence of exportation to India via Aden during the fifteenth and the first years of the sixteenth century.¹⁹¹ According to a German merchant manual of the early sixteenth century, a merchant buying spices in Cochin was required to pay for half of it, or at least one third, in copper.¹⁹² Part of this copper must have reached India through the lands of the Mamluks.

It is also important to note that the appearance of a certain product in a list of imported goods cannot by itself constitute sufficient proof of its scarcity in Mamluk territories. Similar products, or different sorts and qualities of the same products, could be imported and exported at the same time. This is especially true of luxury goods, which could have attracted the refined tastes of an elite clientele. For example, a small ship (*schirazo*) from Constantinople that anchored in July 1484 at Saline, in Cyprus, was said to have sailed from Damietta loaded with wheat (sold on Cyprus) and salt. But it was actually on its way to Tripoli in Syria, where soap was intended to be loaded, to be shipped to Constantinople.¹⁹³ We may surmise that both the salt and the soap concerned were local products. Soap from Tripoli was probably not expensive enough or refined enough for the tastes of certain clients in Egypt, who preferred the product imported from Venice.

Finally, it is tempting to try and compare imports into Syria with those into Egypt. As far as precious metals were concerned, it is possible that the smaller quantities of silver imported into Syria, compared with those shipped to Alexandria, have something to do with the lower value of silver in the northern territories of the Mamluk empire, where silver also arrived from Persia and central Asia.¹⁹⁴ However, we should not forget that a large part of the money paid for spices in

¹⁹¹Labib, *Handelsgeschichte Ägyptens*, 130; Rogers, "To and Fro," 61, 63, 65–66.

¹⁹²Braunstein, "Le marché du cuivre," 91.

¹⁹³Melis, *Documenti*, 200.

¹⁹⁴*Ibid.*, 52–53.

Alexandria was used to cover purchases of these precious goods from their importers into Egypt, whereas much of the gold and silver imported into Syria remained in the land itself, since it was invested in acquiring cotton and cotton products as well as alkali ashes for the Venetian glass and soap industries.

All shipments of Venetian soap discovered so far were made to Egypt, and none to Syria. Likewise, both Rimondo's and Paxi's commercial manuals mention soap among the products imported into Egypt but omit it from the list of importations into Syria. Is it because of protective measures for the soap industry at Tripoli, or was the latter competitive enough in Syria to prevent Venetian importers from trying to market their own soap there? As for woolens, it should be noted that the list of woolen cloths imported, according to de' Paxi, into Damascus, Aleppo, and Tripoli, is longer and more diversified than the similar list referring to Alexandria. Certain kinds of silk cloth in demand in Damascus, as well as colors preferred in the Aleppo market, are also worthy of attention. However, the limited quantity of relevant data on these issues requires great caution in drawing any definitive conclusions. It is also possible, for example, that higher customs dues in Alexandria, compared to those in Syria,¹⁹⁵ may have played a role in merchants' considerations as to the destinations of their shipments. In fact, rather than helping us formulate clear answers, the material presented here raises a series of questions. The data included in these few cargo lists are also insufficient for drawing any serious quantitative conclusions, especially since we do not have comparable data from the decades preceding the period treated here. They do provide, however, many elements for further research on patterns of material life and consumption during the last decades of Mamluk rule.

¹⁹⁵ Ashtor, "Profits," 267.

APPENDIX A: CARGOES OF VENETIAN GALLEYS SAILING TO BEIRUT AND ALEXANDRIA, 1495–1513, ACCORDING TO THE DIARISTS MALIPIERO, PRIULI, AND SANUDO

I–II. AUGUST 1495: INFORMATION ON THE GALLEYS TRAVELING TO ALEXANDRIA AND BEIRUT

Le gallie de Alexandria, che sono quatro, et da Barutto altrettante, partirono nel mese di agosto secondo il consueto et piui riche assai di quello che cadauno pensava, che per le guerre et angarie accadute pensavano non dovessero andar si riche; quelle de Alexandria de contanti ducati 190,000, rami in pani mura [*sic*, should be *miera*] 1,100, ogli botte 500, le galee da Baruto richissime al'uxato et alitri danari et robe assai, che non si pol chusì dirle, perché non se intende la veritade.

Priuli, *I diarii*, 1:30

III–IV. 1496: INFORMATION ON CARGOES SENT TO ALEXANDRIA AND BEIRUT

Nonostante che in 18 mesi sia sta' messo quatornese decime a Monte Nuovo e sie perse ai Governadori, è sta' manda' in Alessandria su queste galie 220,000 ducati e a Barutho 120,000, senza quei che è sta' mandai in Soria per le nave . . .
. . . galie d'Alessandria . . . torna in drio 50,000 ducati de contadi; e dise che resta in Alessandria 1,000 bote de ogio, 10,000 cantera de rami e 200 miera de saoni, 36 casse de corali e altre merce, in tutto per cento e cinquantamile ducati . . .

Malipiero, "Annali," 629, 634–35

V–VI. 1497: PRECIOUS METALS SENT TO THE EAST

A 22 d'Avosto [1497] è sta' manda' con le quattro galie d'Alessandria tresentomile ducati de contadi senza le merce; e a Baruthi sessantamile. Non se ha possudo haver arzenti in pezza, che è sta' pagadi cinque ducati e vinti un grosso la marca; et è sta' fatto gran quantità de moneda; e per questo, è abondantia de monede forestiere: testoni de Milan, da trenta soldi l'un; Bolognesi, Ferraresi, Mantoani; carlini papali da 12 e da 20; e de bezzi di Alemagna.

Malipiero, "Annali," 640

VII–VIII. SUMMER 1498: CARGOES OF THE GALLEYS SAILING TO ALEXANDRIA AND BEIRUT
 A. MALIPIERO'S REPORT

El cargho delle galie che va in Alessandria, è de contadi dusementomile ducati, settanta una bala de pani, mile e cento coffe de rame, cinquecento e settanta tre sachi de saoni; e quelle che va a Baruthi, sessanta mile ducati de contadi, quattrocento e disdotto bale de pani, cento e sessantaquattro coffe de rami, dodese barili de ambra, sessantatre barili de banda, vintisette casse de cenapri, sessanta tre bojoli de argento vivo.

Malipiero, "Annali," 646

B. PRIULI'S REPORT

AUGUST 1498: CARGO LIST OF THE BEIRUT GALLEYS, CAPTAIN GABRIEL BARBARIGO, AND OF THE ALEXANDRIA GALLEYS, CAPTAIN PIETRO LANDO

Ali XII detto de agosto se partì tutte le gallie deli viagii, zoè le ultime, et per lettere da Puola se intende le gallie da Baruto aver tra argenti et ongari a nolo de gallia duc. 55,000 et in cassa de marchadanti et tanse ducati 15,000, in tuto ducati 70,000 de contanti, pani per Soria balle 418, rami in pani coffe 164, stagni fardi 22, corali casse 11, ambra lavorata bale 7, ambra greza balle 12, zenabrii C.i 27, argenti vivi C.i 35, et altre simile cosse et marchadantie al uxato che ogni anno se manda.

Le gallie de Alexandria hano tra argenti e monede et venetiani ducati 190,000 a nollo di gallia et in cassa de marchadanti et tanse duc. 50,000, in tutto duc 240,000 de contanti, benché se judicha sia stato molto piui, perché sempre se dice de menno [*sic*] per el pagar del nolo. Rami in pani coffe 1,168, piombi pr. 55, banda larga fassi 71, et altre merchadantie, che solenno andar ogni anno pani balle 71.

Priuli, *I diarii*, 1:94

IX. NOVEMBER 1500: CARGO LIST OF THE GALLEYS OF BEIRUT, CAPTAIN MARINO DA MOLIN

Panni	bal. 400	Rami in verga per Alexandria	c. 51
Zenabrii	c. 256	Zebellini	c. 2
Stagni	ff. 112	Pani d'oro et de seda	c. 6
Banda raspa'	bl. 18	Vere per Famagosta	c. 2
Piombi	m. 32	Merze	c. 24
Argenti vivi per Alexandria	bl. 248	Velli	c. 1
Rami in pam	c. 354	Chanevaze	r. 22

Per Cipro Famagosta

Chanevaze	r. 30	Ambra	bl. 13
Fero	f. 10	Coralli	c. 17
Grisci	r. 12	Sarze	bl. 9
Pani	bl. 25	Cartte	bl. 42
Merze	f. 3	Rami lavorati	bl. 9
Chorezuoli	bl. 1	Vari	3
Banda larga	f. 48	Aver di cassa a nollo	50,000
Fil de rame	f. 33	Aver di cassa per Zipro	10,000

Priuli, *I diarii*, 2:74

X. NOVEMBER 1500: CARGO LIST OF THE GALLEYS OF ALEXANDRIA, CAPTAIN ALVIXE ZORZI

Rami in pam	chofe 1,234	Seta de cavalo	c. 2
Rami in verga	c. 40	Choralli	c. 9
Rami lavorati	c. 30	Zebelini armilini	c. 4
Fil de rame	c. 28	Vari	c. 2
Banda larga	ff. 50	Pani de seda	c. 7
Zenabri	casse 307	Christalli	c. 3
Saponi	c. 62	Aver di cassa a nolo duc.	100,000
Pani	bl. 133	Aver di cassa di	
Gripolla	bl. 9	marchadanti d'avixo duc.	40,000

Priuli, *I diarii*, 2:74

XI–XII. OCTOBER 1501: CARGOES OF THE GALLEYS SAILING TO ALEXANDRIA AND BEIRUT

Il charigo dele gallie de Alexandria, che partironno a questi giorni fo ducati 80,000 a nolo et ducati 40,000 in cassa di marchadanti, in tutto ducati 120,000 di contadi; rami in pam miera 800, tutti in una persona deli Agostini dal Bancho. Altre sorte de merze al'uxatto.

Il charigo dele gallie da Barutti che partironno a questi giorni fo tra nollo di gallia et cassa de marchadanti de contadi ducati 18,000, per Rodi ducati 8,000 venetiani di zecha, panni balle 330, stagni fassi 130, rami in pam et altre sorte merze al'uxato.

Priuli, *I diarii*, 2:183

XIII. NOVEMBER 1502: CARGO LIST OF THE GALLEYS OF BEIRUT, CAPTAIN POLLO VALLARESSO

Pani	bl. 560	Pani de seda	casse 10
Rami in pani	chase 233	Carpette	bl. 3
Rami lavorati	chasse 5	Paternostri	barili 11
Fil di rame	fassi 12	Lavori de cristalo	casse 5
Sarze	balle 12	Merze	casse 13
Telle	balle 11	Aver sotil	casse 7
Canevaze	baloni 85	Sbiacha	barili 135
Vari	botte 9	Aver di cassa per Rodi duc.	5,000
Ambra lavorata	bl. 9	Aver di cassa a nollo duc.	25,000
Ambra greza	bl. 3	Aver di cassa di marcadanti	5,000

Per Corfu

Pani	bl. 22	Velli	casse 13
Capelli	bl. 5	Grixi	rodoli
Savoni	casse 11		11

Priuli, *I diarii*, 2:254

XIV. MARCH 1503: CARGO LIST OF ALEXANDRIA GALLEYS, CAPTAIN SEBASTIAN MORO

Rami in pani	chasse 2463	Vari	casse 12
Rami in verga	fassi 188	Merze	casse 3
Rami lavorati	balle 76	Rixegelli	bl. 3
Filo di rame	fassi 24	Capelli	bl. 9
Stagni	fassi 182	Pani de seda	cassete 3
Banda larga	fassi 282	Pani d'oro	cassetta 1
Arzenti vivi	barili 60	Corallo	cassa 1
Zenabrii	barili 78	Canevaze	bl. 3
Savoni	casse 378	Aver di cassa a nollo	
Pani	bl. 127	per duc.	70,000
Vaio	botte 8	Aver di cassa de marchadanti	
Sede de porcho	barili 24	per duc.	30,000
Carte	bl. 23		

Priuli, *I diarii*, 2:255

XV. OCTOBER 1503: CARGOES OF ALEXANDRIA GALLEYS, CAPTAIN PANGRATIO GIUSTINIAN
 Le gallie de Alexandria etiam questo anno andorrono al suo viazo, et respecto il consueto, foronno poverissime et solamente ducati 35,000 de contadi a nolo de gallia et ducati 5,000 in chassa de marchadanti, rami cofe 268 et altre fussare; et mai per aricordo de marchadante andorrono le piui povere gallie per uno viazo in Alexandria. . . .

Priuli, *I diarii*, 2:303

XVI–XVII. 28 SEPTEMBER–3 OCTOBER 1504: DEPARTURE OF THE BEIRUT AND ALEXANDRIA GALLEYS

adi 28 settembre . . . partironno duo gallie da Venetia al viazo consueto de Barutti, capittanio ser Antonio Morexini, cum la muda, in borssa, il suo charigo veramente pani bl. 450 et altre merze, secondo il consueto, danari in cassa, zoè aver di cassa per ducati 30,000 in zercha. . . .

[3 October] . . . se partironno a questi giorni tre gallie al viazo di Alexandria, capitano ser Polo Calbo, cum charigo de ducati 70 mila de conttadi et coffe 500 rami in zercha, et altre droge, et panni assai; tamen fu tenuto cum veritade poverissimo viazo.

Priuli, *I diarii*, 2:355–56

XVIII. 6–15 FEBRUARY 1510: GALLEYS SAILING TO ALEXANDRIA, CAPTAIN LORENZO LOREDAN

A. GENERAL EVALUATION [6 FEB.]

In questa note partì la galia di Alexandria ultima di sora porto, patron ser Mafio Bernardo, molto richa et carga . . . Et nota dite galie di Alexandria porta de ducati 50 milia ducati di rami, e merze e panni per ducati 250 milia.

Sanudo, *I diarii*, 9:516

B. CARGO LIST [15 FEB.]

Panni di più sorte		Savoni, casse et sachi	No. 410
da Veniexia	balle 180	Rami in pan	coffe 316
Charisee	balle 100	Rami in verga,	
Panni di più sorte		barili e fardi	No. 327
di Ponente	balle 110	Zenabri	casse 44

Arzenti vivi	barili 50	Resegal	casse 12
Banda larga	fardi 89	Zafaran	balle 1 1/2
Stagni	casse 45	Cristali	casse 3
Rami lavoradi	balle 16	Carte	balle 8
Fil di rame	fardi 14	Merze	casse 15
Banda raspa'	barili 4	Panni di seda	casse 2
Piompi [<i>sic</i>]	peze 130	Aver di cassa	
Alumi	botte et casse...	d'aviso per duc.	40,000
Solfari	casse 90	Aver di cassa	
Barete	casse 21	in scrigni per duc.	10,000
Bernusi	balle 8	Traze le galie	
Gripola	casse 24	di nolo, d'aviso duc.	2,500

Sanudo, *I diarii*, 9:536–37, with a slight correction on the basis of Sanudo's autograph manuscript in Biblioteca Nazionale Marciana (Venice) MS It. VII 237 (9224), fol. 34v [*resegal*, instead of *Zisegal* in the printed edition]

XIX. 23 MARCH 1511: CARGO LIST OF THE ALEXANDRIA GALLEYS, CAPTAIN PIERO MICHIEL

A. SANUDO'S REPORT

Rami in verga	505	Gonele de griso	2
Rami in pam	casse 527	Paternostri de vero	casse 85
Arzenti vivi	251	Sede da cavalo	barili 1
Zenabri	casse 21	Ambra	2
Rami lavoradi	106	Panni de seda e d'oro	casse 15
Barette	casse 12	Banda raspa'	19
Pani de lana	134	Gripola	28
Vari	19	Banda larga	57
Ver de rami	casse 9	Zebelini	casse 2
Azalli	20	Piastre de laton	casse 27
Botoni di corallo	casse 4	Merze casse	
Stagni	106	Aver di nollo per cassa	
Savoni	casse 602	di merchadanti d'aviso, duc.	90,000
Risegal	35		

Sanudo, *I diarii*, 12:77–78

B. PRIULI'S REPORT

Da Puola veramente secondo il solito si hebbe il carigo delle galie quale andavano al viaggio de Alexandria, capitano ser Piero Michiel, chome apar qui a carta 119. Et haveranno al nolo tra arzenti lavorati et danari contadi ducati 90,000, et in chassa di marchadanti ducati 16,000, tuta volta se iudichava certissimamente fusseno in tuto ducati 120,000 de contadi et arzenti lavorati, quali se potevano reputare danari . . . Et cum le sopradicte galie etiam andorono merze assai, id est pani de piui sorte bale 234, stagni fassi 236; rami in pam choffe 250; et rami in verghe fassi 250; arzenti vivi et zenabri bogiulli 350 in zircha; et rami lavoradi et altre robe assai secondo il solito che furono stimate riche galie a questi tempi

Biblioteca del Museo Civico Correr (Venice) MS P.D. PD 252-c, vol. 6, fol. 128v

XX. SEPTEMBER 1513: SPECIE AND GOODS ON THE BEIRUT GALLEYS, CAPTAIN MARCANTONIO DA CANAL

Da sier Marco Antonio da Canal, capitano di le galie di Baruto, date . . . a Puola. Avisa il cargo dile do galie sue, ch'è di contadi ducati 10 milia e merzi ut in poliza, e col nome di Dio fanno vela a buon viazo . . .

1513, adì 18 Septembrio, ai scogi di Puola

cargo di galie do di Baruto, capitano sier Marco Antonio da Canal

Panni	bale 241	Botoni di coralo	casse 5
Ambra	casse 22	Botoni di coralo [<i>sic</i>]	casse 19
Vari	bote 4	Armellini	casse 1 1/2
Veri	casse 4	Zebelini	casse 1 1/2
Merze	casse 3		
Rami	C.o 77	Canevaze	ruodoli 10
Banda larga	fassi 15	Pater nostri	casse 20
Banda raspa	fassi 3	Aver sotil, zercha	ducati
Fil di rame	fassi 2		6000
Stagno fin	fassi 11	Aver di cassa	ducati
Corali	casse 13		10,000

Sanudo, *I diarii*, 17:79, 82, with slight corrections on the basis of Sanudo's autographic manuscript in Biblioteca Nazionale Marciana (Venice) MS It. VII 245 (9232), fol. 50v [concerning the numbers of cases of *Armellini* and *Zebelini*]

APPENDIX B: IMPORTATIONS INTO MAMLUK LANDS ACCORDING TO THE *TARIFFE***I. GOODS IMPORTED INTO SYRIA ACCORDING TO BARTOLOMEO DE' PAXI (1503)****A. PRODUCTS IMPORTED INTO DAMASCUS¹⁹⁶**

Arzento di bolla che sono dela liga de marzelli	Toro Bastardo
Stagni in verga de Fiandra	Zopa Zafran [<i>sic</i>]
Stagni de fontego	Botoni de coralli
Arzenti vivi	Coralli pescadi
Rami in pan	Ambra zalla de Fiandra
Piumbi	Ambra greza fina
Rami tiradi in fil rosso	Ambra lavorada
Fil de loton zallo tirado	Ambra mezana de Fiandra
Fil de ramo rosso tirado	Smalto azuro
Rami de bolla	Bacille de loton
Banda larga, zoè ferro stagnado	Tigname
Grepola zoè tartaro	Cristallo
Cophali mordasangue	Paternostri zalli
Cenabrio in pan	Carta da scrivere
Verderamo in udre	Tele de molte sorte
Solphari	Canevaze
Arsenico	Zuchari fini de Cypri
Sulimado	Miele [<i>sic</i>] de Dalmatia; ma nota che voleno esser bianci e duri
Oropiumento	Veri cristalini
Lume de rocha	Vari fini de pelo
Oio de tigname Cera de Natolia et d'altri loghi	E vari fini de coro
Mastici	E zibelini
Coralli, zoè brancha	Armellini

De molte sorte de panni de lana fano per Damascho, ma se trazeno da Venesia e da altri loghi qui di soto darò noticia de tute sorte fano per li, e prima:

Panni fini da Venesia	Alcuni Pauonaci panni paduani
Alcuni scarlati	bastardi

¹⁹⁶The first grouping of products, up to "armellini," probably refers to wares imported into Damascus, since it is located between detailed information on trade with Damascus and additional lists of products imported into that city.

Panni da Fiorenza fini
 Panni bressani
 Panni bergamaschi stretti, bagnadi e
 cimadi
 Panni bergamaschi tiradi
 Panni Zilforto
 Panni Santoni
 Panni sesse
 Panni Santorsola

Panni genevrini stretti
 Panni maiorini integri
 Panni genervini larghi [sic]
 Panni mezi maiorini
 Panni de fontego
 Sarze de Fiandra large
 Sarze de Fiandra strete
 Panni zinese le vestrine
 Canevaze

*Panni de seda li quali fano per Damascho e se trazeno da Venesia e de altri
 loghi, e prima:*

Veludi de più colori
 E damaschini de piu colori
 Brocha d'oro

Campo d'oro
 E brocha d'arzento

Alcuni fructi fano per Damascho, e prima:

Maroni, ma voleno essere del conta' de
 Bologna overo della valle de Lamone
 et del conta de Imola, et questi sono li
 migliori, et durano più che altri fructi
 de altri loghi
 Castagne seche mondade
 Castagne cote in vino ma poche se
 ne conduse

Mandole comune de Puia quando
 Damascho non fa
 Noselle da Napoli quando manchano
 a Damascho ne vene portado
 Miele biancho duro del conta' de
 Bologna overo de Dalmatia o de
 Catalogna, questi sono le meior de
 tutti li altri mieli

Molte merce de fontego se fano per
 Damascho
 Lavor de lotoni assai

Pater nostri zalli de vero
 Banda raspada de fontego

Merce milanese de più sorte, come sono:

deziali de loton
 Campanelle

Alchuni aghi
 Anchora alchune altre merce milanese

Paxi, *Tariffa*, 53v–54v

B. PRODUCTS IMPORTED INTO ALEPPO

Merce e panni che fano per Alepo

Prima panni fini da venesia scarlati
 pavonazi, panni da Fiorenza,
 la mazor parte azuri biavi et verdi,
 panni bastardi bagnadi, zimadi,
 panni bastardi de Fiandra tiradi,
 che non siano bagnadi ne zimadi,
 panni zenevrini largi, panni maiorini,
 panni santoni, panni bergamaschi
 tirade ogni color
 Arzenti de bolla de liga del marcello
 Ducati d'oro de zeche venetiani
 Stagni de Fiandra stagni de fontego
 Banda raspada
 Bacille de loton

Cotoni [sic, but: Botoni] per coralli
 ma volleno essere tondi e grossi
 et de bon color
 Grepola
 Carta da scriver
 Zibilin
 Loldano
 tigname
 Ambra lavorada de ponente
 Vari
 Panni de seda, zoè veludi e damaschini
 panni d'oro
 Merce de fontego de più sorte
 Merce milanese de ogni sorte
 Canevaze

Paxi, *Tariffa*, 56r–56v

C. PRODUCTS IMPORTED INTO TRIPOLI

Robe, zoè merze e panni che fano per Tripoli de Soria, e prima:

Arzenti de bolla
 Panni bergamaschi bagnadi zimadi
 Panni zervevini
 Panni visentini streti
 Panni fini scarlati
 Panni santoni
 Panni visentini alti
 Panni bastardi
 Panni bressani et quarantani
 Panni de seda
 Panni de oro
 Canevaze
 Ambra lavorada
 Loldano
 Panni de fontego
 Vari

Stagni
 Panni paduani
 Zibelini
 Rami lavoradi
 Rami in caphe
 Tigname
 Vari cristalini de ogni sorte
 Zuchari
 Muchara de Damiata
 Lini de ogni sorte de Alixandria
 Veri comuni
 Orzo
 Sal de Corfu
 Risi
 Paternostri de vero
 Carta da scrivere

Arzento vivo
Noselle da Napoli overo de Cicilia

Et tute le sopradite robe fano per Alepo

Paxi, *Tariffa*, 56v

II. GOODS IMPORTED INTO ALEXANDRIA ACCORDING TO RIMONDO'S AND PAXI'S MERCHANTS MANUALS

A. PRODUCTS IMPORTED INTO ALEXANDRIA MENTIONED IN RIMONDO'S 1494 "TARIFA" (ARRANGED HERE IN ALPHABETICAL ORDER ACCORDING TO THE ORIGINAL SPELLING)

Anbra	Lana di Chastron
Armelini	Largado in zare
Arzenti vivi	Lini
Bastardi	Loldano
bazilli	Mandolle senza schorzo
Biacha	Mastizi
Bossi	Mieli in udri
Canbelotti	Mieli in zare
Cartte	Mieli in zarotti
Cera	Mor da sanguì
Chamocho	Nosse (Noxe)
Chanevaze	Noxelle
Chastegne	Oglio in botta
Chorali in brancha	Oglio in udri
Choralli	Oglio in zare di Sibia
Cibibo	Oglio magrabi in zare
Cofolli	Oropimentto
Coralli in fil, zoè pater nostri	Pani
Dragantti	Pani di seda
Eoro	Pelle di Barbaria
Fige	Pignulli
fil di rame	Piombi
Formazi	Rami
Formazi in ff.	Rixegall
Fostagni	Roza
Galle	S[ch]iavine
Gottare in zare	Savoni in sachi da Venetia
Gottare zoè melazi in charatelli	Seda di porcho e di chavallo
Gottoni	Solfari
Gozema	Stagni

Sussimani	Verdirami
Sussine (susine)	Veri da spechi
Tigname (tegnose)	Vini
Tta . . . tir	Zafaran
Ttartaro	Zafari
Ttavole di rame	Zope
Vari crudi e chonzi	

Rimondo, "Tarifa," fols. 10r–28v, 40v–41v

B. GOODS MENTIONED BY PAXI AS IMPORTED TO ALEXANDRIA (ARRANGED HERE IN ALPHABETICAL ORDER ACCORDING TO THE ORIGINAL SPELLING)

Armellini	Martoni
Arzenti in piatini de bolla	Mastici da Sio
Arzenti lavoradi	Miele de Dalmatia
Arzento vivo (arzenti vivi)	Miele in caratelli [from] Romagna e [il] Bolognese
Bacili de loton	Miele in udre de Cipri overo d'altro logho
Banda raspada	Miele in Zara
Bossi	Monede [such as] Marcelli e Mozenighi
Botoni de coralli, zoè pater nostri	Nose dela Marcha
Canevaze	Noselle integre del Reame de Napoli
Castagne zoè maroni	Noselle rotte da Napoli
Cenabrio	Noxe de la Marcha da Recanati overo da Fermo
Cere	Oio de Maiolicha
Cibibo de Natolia dal'Ismir	Oio de Puia dela misura de Bari
Cophali	Oio de Sibia
Coralli	Oio de terra de Barbari
Draganti	Oio in udri
Ducati d'oro in groppo	Oio magarbin da Tripoli de Barbaria e da Tunis
Fige	Oro lavorato
Filo de loto	Oropimento
Formazo	Panni de lana de molte sorte
Fuini	Panni de seda
Gotare	Piombi (piumbi)
Gozime	Rame (ramo) philado
Grepola, zoè tartaro	
Landano	
Lignami [from] Natolia over Rodi	
Lume de rocha [from] Constantinopoli	
Mandole comune de Puia rotte	

Risagallo	Tiber de Tripoli di Barbaria
Rame in pan (in panno)	Vari crudi e conzi
Savoni bianchi da Venesia (da navegar)	Verderamo
Sbiaca	Vini malvasie
Sede de Cavallo	Zafari
Sede de porco	Zafran
Solphari	Zibelini
Stagni in verga	
Susine seche da Napoli overo da Cicilia	

Extracted from Paxi, *Tariffa*, pp. 43v–50r

APPENDIX C: OVERALL VALUE OF PRECIOUS METALS AND GOODS SHIPPED TO THE MAMLUK EAST, ACCORDING TO THE VENETIAN DIARIES (EXPRESSED IN DUCATS)

Year	Alexandria		Beirut	
	Prec. Metals	Goods	Prec. Metals	Goods
1423				200,000
1486	"little money"	230,000		
1495	190,000			
1496	220,000 <u>-50,000</u> 170,000	150,000	120,000	
1497	300,000		60,000	
1498	200–240,000		60–70,000	
1499	no galleys		no galleys	
1500	140,000		50,000	
1501	120,000		18,000	
1502			25–30,000	
1503	100,000 <u>-50,000</u> 50,000			
1504	70,000		30,000	
1510	52,000	300,000		
1511	90,000 [Sanudo]			
1511	90+30,000= 120,000 [Priuli]			
1513			10,000	