

Decline or Deindustrialization? Notes on the Entangled Histories of Levantine and European Industries in the Late Middle Ages

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ABSTRACT

Die Auffassung von einem Niedergang der spätmittelalterlichen Industrien in Ägypten und Syrien wurde kritisiert und es wurde vorgeschlagen, die beobachteten Entwicklungen als Transformation zu interpretieren. Dieser Beitrag schlägt einen Vergleich vor: Ägypten und Syrien deindustrialisierten sich als Teil einer zentralisierten, bürokratischen Wissensgesellschaft. Das kann mit guten Gründen als erfolgreiche Anpassung gewertet werden, doch die Levante verlor dabei ihre wirtschaftliche Vormachtstellung im industriellen Bereich. Die Juniorpartner in Europa, wohin die Produktion gleichsam ausgelagert wurde, übernahmen zunehmend die Führung. Diese Sichtweise maßt sich nicht an, die bestehenden Erklärungsansätze zu ersetzen, sondern will diese höchstens mit einem Beitrag zur Debatte ergänzen und dabei zum Nachdenken über unsere eigenen postindustriellen Gesellschaften einladen. Indem der Beitrag neben dem Europa-Ostasien-Vergleich auch auf den Vergleich zwischen Westeuropa und der islamisch geprägten Levante im späten Mittelalter eingeht, lässt sich neben relativ selbständigen Entwicklungspfaden vor allem auch die Interaktion und wechselseitige Prägung zwischen verschiedenen Wachstumsmodellen erkennen.

A focus on the so-called Great Divergence risks constructing the European economic and military “ascent” as an independent, sui generis and irreversible phenomenon grounded in specific European characteristics. In contrast, by looking at the “Small Divergence”, i.e. the diverging trajectory of economic and in particular industrial development between Western Europe and the Islamic Levant in the late medieval period, we might observe a different image of a mature, retiring, deindustrializing entity that is passing the

baton to a junior partner. This image does not highlight two discrete and separate paths but rather reveals tightly interlaced tracks of development and offers a slightly modified explanation for the “European ascent”.

Avant Propos: From Great to Small Divergence

Several scholars have attempted to explain diverging paths of development between Europe, or the West, and the so-called Rest – the East, or China. Historians such as Kenneth Pomeranz¹ and Roy Bin Wong,² as well as social scientists such as Karl August Wittfogel or Charles Murray,³ and economists have contributed to the debate.⁴

Various economists and economic historians have worked on the related topic of the European/Western “miracle”, suggesting a variety of reasons for its development. Charles B. Blankart has highlighted geographically fostered structures of small statehood and federalism.⁵ And Regina Grafe⁶ (also controversially Niall Ferguson)⁷ has emphasized the importance of inner-European competition (one of Ferguson’s “killer apps”) between economic actors, institutional solutions, and small states (cf. also Oliver Volckart’s studies).⁸ Although European geography certainly shaped Europe’s history, this does not explain why and how it allowed Europe’s industrial growth to seemingly overtake that of its competitors during the relatively short period between 1350 (with regard to the Middle East) and 1500 or even 1750 (with regard to China and India) to roughly 1850–1900 when the United States started to challenge European hegemony.⁹ This happened in the historical context of a very particular, dynamic stage of European unity that combined fragmentary tendencies marked by state formation, multicentric urban growth and competition with unifying elements such as Christianity, the Church, and the umbrella of the fading Roman Empire. These provided a pitched battleground and a common set

- 1 K. Pomeranz, *The Great Divergence: China, Europe and the Making of the Modern World Economy* The Princeton economic history of the Western world, Princeton (N.J.) 2000.
- 2 R. Bin Wong, *China Transformed: Historical Change and the Limits of European Experience* 5th print ed., Ithaca 2012; see also his contribution in this volume issue.
- 3 K. A. Wittfogel, *Die orientalische Despotie: eine vergleichende Untersuchung totaler Macht*, Frankfurt a. M. etc. 1977; Ch. Murray, *Human Accomplishment: The Pursuit of Excellence in the Arts and Sciences, 800 B.C. to 1950*, New York 2003.
- 4 They did so with beautiful but varying success, which is, however, not the concern of this essay.
- 5 Ch. B. Blankart, *Föderalismus in Deutschland und Europa* (Neue Studien zur Politischen Ökonomik 1), Baden-Baden 2007.
- 6 R. Grafe, “Was There a Market for Institutions in Early Modern European Trade,” in *Union in Separation: Diasporic Groups and Identities in the Eastern Mediterranean (1100–1800)*, ed. by G. Christ et al., Roma 2015, pp. 593–609, here mainly 595.
- 7 N. Ferguson, *Civilization: the West and the Rest*, London 2011.
- 8 O. Volckart, *No Utopia: Government Without Territorial Monopoly in Medieval Central Europe*, in: *JITE* 158 (2002) no. 2, pp. 325–343, who describes this complicated state convincingly although I do not agree with his conclusions.
- 9 Both in and outside Europe, there are different trajectories according to countries and industrial sectors. Germany’s industrialization, for instance, takes off a bit later perhaps, but it retains a leading position in some sectors for much longer – even today.

of rules, thereby connecting emerging polities within a wider, relatively integrated economic area, through common language, spiritual and legal reference points, and a set of shared, though hotly debated, values and traditions.

Yet, as important as these trans-European connections were, it was the trans-Mediterranean connection that brought Europe in contact with advanced industries also supplied them that superior products and eventually allowed the related knowledge to trickle into Europe. Prasannan Parthasarathi and Giorgio Riello's work entangles the history of cotton production between India and England in the (early) modern period and looks at transfers of technology, know-how, products, and hence market leadership.¹⁰ Parthasarathi emphasized the role of both the environment and the states/governmental bodies in forcing economic change. However, much less research has been done on what one might call the entanglement and trans-Mediterranean connections that catalysed European industrial growth in the late Middle Ages. This "small" or trans-Mediterranean divergence between southern/central Western Europe and the Arabic-Islamic world in the later Middle Ages, however, is crucial for appreciating how European industries entered upon a path leading to a phase – although short-lived and transient – of industrial world leadership in the nineteenth and twentieth centuries.

Introduction

Although Claude Cahen has argued that the small or Mediterranean divergence was a problem of European ascent rather than Oriental decline, the chronicles do not suggest this reading.¹¹ Therefore, I will be seeking to contribute not to a history of diverging paths but to a history of entanglement and redistribution which relied on negotiating and rearranging economic resources and roles. This may also, I hope, form a small contribution to a history of economic macro cycles in industrialization and deindustrialization. This study considers how decline and ascent can be entangled and, how the industrial baton was passed from one region to the other.

Economic historians, most notably Eliyahu Ashtor, matching contemporary Mamluk narrative accounts with data from European archives identified an economic but also political decline of the Arabic-Islamic Mediterranean (and indeed the data on demographic decline and the decline of arable land seems extensive enough). More recently, historians have focused on the rather successful adaptation of the Mamluk political elite to the new circumstances and insisted on ascertaining a successful transformation and

10 P. Parthasarathi, *Why Europe grew rich and Asia did not: global economic divergence, 1600–1850* Cambridge 2011, and see also his contribution in this volume; Giorgio Riello and Prasannan Parthasarathi (eds.), *The Spinning World: A Global History of Cotton Textiles, 1200–1850* (Pasold studies in textile history 16), Oxford 2009.

11 C. Cahen, *Quelques mots sur le déclin commercial du monde musulman à la fin du Moyen Age*, in: *Studies in the Economic History of the Middle East from the Rise of Islam to the Present Day*, ed. by M. A. Cook, Oxford 1970, pp. 359–366; see below note 18 on Shatzmiller's critic of a "misconstrued link."

even successful proto-modern state formation that is seemingly in contradiction with the decline hypothesis.¹²

I do not seek to tackle this problem holistically. It will have to be relegated to another time to argue that the transformation of Mamluk rule was successful insofar as it kept the Mamluks in power. This transformation, however, did not address any of the underlying structural problems triggering the decline and merely helped Egypt's economy to a comfortable retirement. Nevertheless, I would suggest, that the two concepts of transformation and decline are complementary rather than mutually exclusive. Taken together they describe quite accurately a particular state of economic development – a kind of post-industrial age.

Indeed, Western Europe, in this case Venice, did benefit from this decline. Thanks to the strong entanglement between the Mamluk and Southern European economies and the eagerness of Western actors to comply with the needs of the Levantine economies, they were entrusted with the outsourced industrial production. The European “miracle” thus ought to be comprehended as a convergence of *sui generis* European factors and the successful appropriation of the cultural and economic resources of the Levant. First, I will revise some of the main positions regarding this decline and contrast these positions with some of the arguments put forward against them. I will then analyse Veneto-Mamluk trade patterns to highlight elements of this entanglement by focusing on rugs and other fabrics that were traded between Venice and the Mamluk Empire in the early fifteenth century.

The Decline Hypothesis and its Critics

Before we can set out to explore this hypothesis more closely, one word on the demographic and climatological developments with which Egypt had to grapple may be in order. In the fourteenth century, Egypt was hit hard by the onslaught of plague, which aggravated a situation of slow and rather disadvantageous climate change that had decreased and continued to decrease the resilience of Egyptian irrigation agriculture.¹³ Climate change had impacted on the amplitude of Nile flood minima and maxima, with an altered wind regime placing increasing stress on farmland. Subsequent outbreaks of the plague and other epidemics from 1347 onwards reduced the Egyptian population by about a half.¹⁴ Stuart Borsch has demonstrated how the agricultural yield declined sharply.¹⁵

Within this context of demographic and agricultural decline combined with political turmoil, historians in the 1970s and 1980s, with an interest in economic history, no-

12 See below for references and a more detailed discussion of these positions.

13 G. Christ, *King of the Two Seas: Was There a Mamluk Maritime Policy in the Late 14th Century?* Ulrich Haarmann Memorial Lecture, Berlin (forthcoming).

14 S. J. Borsch, *The Black Death in Egypt and England: a Comparative Study*, Austin 2005, p. 15.

15 Borsch, *The Black Death*, p. 54.

ticed an industrial decline. Claude Cahen, in his seminal 1970 essay on the “commercial decline,” argues that there were two reasons why the Islamic world fell behind Europe: it had abandoned Mediterranean navigation and embraced a speculative and consumption-driven economic policy / culture. He opines that the lack natural resources (mining) contributed only in a minor way to this situation. He also rejects the argument that the Islamic mentality contributed to the decline.¹⁶

In comparative studies based on Levantine sources and extensive research in European archives, Eliyahu Ashtor identifies an industrial decline in the Islamic Middle East. Based on an extensive source base, he argues that Levantine industries fell behind Western industries, which started producing the same products but did it more effectively. He also argues that Mamluk industries were hampered by governmental interference, heavy taxation, and difficulties in harnessing water power, and he convincingly details these developments for various industries such as sugar, paper, glass, soap, and textile.¹⁷

Maya Shatzmiller challenges the decline hypothesis and more explicitly the link to European ascent, which she calls a “misconstrued link.” While I would agree with the latter, I am not sure about the former.¹⁸ The arguments she musters do not conclusively falsify the decline hypothesis – and were actually put forward in similar forms by the scholars she critiques. She points, for instance, at the fact that imports from Western Europe went hand in hand with exports to Western Europe, which was not denied by either Ashtor or Cahen. Ashtor actually underlined repeatedly that there was a relative change, i.e. in the ratios of import versus export of industrial products.¹⁹ She also rejects the notion that the Islamic states were hostile to trade or that Islamic law might restricted the Islamic world in fact. Cahen had actually argued that favouring of the speculative practices, which would include trade, over production was a problem and he sharply rejected the notion that Islam or Islamic law had anything to do with the decline.²⁰

In line with a generally critical view of Ashtor and other scholars of that generation, Francisco Apellániz has suggested a rethink of the economic developments of the late Mamluk Empire as an overall successful transformation from a capitalistic economy dominated by grand merchants to a state-capitalistic economy that was more directed.

16 C. Cahen, *Quelques mots*, pp. 359–366.

17 E. Ashtor, *Levant Trade in the Later Middle Ages*, Princeton (N.J.) 1983, pp. 200–216; id., *A Social and Economic History of the Near East in the Middle Ages*, Berkeley / Los Angeles / London 1976, pp. 305–309; id., *The Economic Decline of the Middle East during the Later Middle Ages – An Outline*, in: *Asian and African Studies: Journal of the Israel Oriental Society* 15 (1981), 253–286. See also a good discussion of his research in Y. Lev, Eliyahu Ashtor (1914–1918) and the History of the Mamlūk Sultanate, in: *Egypt and Syria in the Fatimid, Ayyubid and Mamluk Eras VII. Proceedings of the 16th, 17th and 18th International Colloquium Organized at Ghent University in May 2007, 2008 and 2009*, ed. by U. Vermeulen, et al., (*Orientalia Lovaniensia Analecta* 223), Leuven 2013, pp. 469–494.

18 M. Shatzmiller, *A Misconstrued Link: Europe and the Economic History of Islamic Trade*, in: *Relazioni economiche tra Europa e mondo islamico, secc. XIII–XVIII*, ed. by S. Cavaciocchi, atti della “trentottesima settimana di studi” 1-5 maggio 2006, Fondazione Istituto Internazionale di Storia Economica “F. Datini”, Prato: Serie 2, Atti delle “settimana di studi” e altri convegni (38), Firenze 2007, pp. 237–415.

19 Ashtor, *Economic Decline*, *passim*.

20 Cahen, *Quelques mots*, para 4: “Ni la religion, ni le Droit de l’Islam n’y sont pour rien.” The duplex negatio might be ambiguous at first but it can only really mean: “Neither religion nor law of Islam have anything to do with it.”

However, he does not engage with the specific arguments relating to industrial decline.²¹ Similarly, Jo van Steenberghe, rethinking the political history of the Mamluk Sultanate, forms a less pessimistic view of Mamluk decline and suggests that the Mamluk system successfully developed in the fourteenth and fifteenth centuries towards an early modern state, again without specifically addressing the question of industrial decline.²²

The notion of a decline of industries (or some might prefer the term “manufacture”) might be that controversial because it is connected to a notion of economic or even general decline in the Islamic world. A decline in intellectual vigour of, say, legal reasoning and Hadith science was noted by nineteenth century Orientalists such as Ignác Goldziher. Although scholars seem to be uncomfortable with this hypothesis, I am unaware of a convincing refutation of Goldziher’s core argument.²³

The possibility of a change in the practice of Islamic law, i.e. in legal reasoning, would have far-reaching consequences as it would unhinge the cardinal point of contention in the debate over the role of Islamic law, which has taken an essentialist turn in the wake of the controversial hypothesis by Timur Kuran. Kuran suggests that Islamic law, in particular inheritance law, formed a restriction on the economic development of the Islamic world. According to him, the rigidity of Islamic inheritance law (*per se*) seriously jeopardized the growth of sizeable companies that could have competed with European firms, which was in turn responsible for the Islamic world falling behind Europe.

The refutation of Kuran’s work by Shatzmiller sets out to prove (based on discrete historical evidence but in a similarly apodictic, essential vein) that Islamic inheritance law was not seriously impeding investment and hence economic growth in fifteenth-century Granada (which is certainly convincing: as it also did not in the Umayyad and Abbasid period or in modern Lebanon).²⁴ Abdul Azim Islahi points out that Islamic inheritance law in practice could even be advantageous for capital accumulation by protecting estates, bringing it closer to hybrid (Southern) European models of estate management, e.g. the Italian *fraterna*. This was an estate of limited liability for debts incurred by the single heirs or stakeholders and jointly administered between them. It was a common arrangement in the period, e.g. in late medieval Venice.²⁵ It also remained dominant in the laws of feudal succession until the nineteenth century (giving rise to the famous *Kleinstaaterei* in Germany and regulating the various princes’ share in royal sovereignty

21 F. J. Apellániz Ruiz de Galarreta, *Pouvoir et finance en Méditerranée pré-moderne: Le deuxième état Mamelouk et le commerce des épices (1389–1517)*, Barcelone 2009.

22 K. D’huister, J. van Steenberghe, and P. Wing, *The Mamlukisation of the Mamluk Sultanate? State Formation and the History of Fifteenth Century Egypt and Syria*, in: *History Compass* (2016, forthcoming); J. van Steenberghe, *Order out of chaos: patronage, conflict, and Mamluk socio-political culture, 1341–1382* (*The medieval Mediterranean* 65), Boston (MA) 2006.

23 I. Goldziher, *Muhammedanische Studien*, Halle a. S 1889, 2. Teil, pp. 267 seqq.; cf. W. A. Graham, *Traditionalism in Islam: An Essay in Interpretation*, in: *Journal of Interdisciplinary History* 23 3 (1993) 3, pp. 95–522.

24 M. Shatzmiller, *Economic Performance and Economic Growth in the Early Islamic World*, in: *JESHO* 54 (2011), pp. 132–184.

25 M. Weber, *The history of commercial partnerships in the Middle Ages*, ed. by Lutz Kaelber, Lanham (Md) 2003, III.8, Original: id., *Zur Geschichte der Handelsgesellschaften im Mittelalter nach südeuropäischen Quellen*, Stuttgart 1889.

in France). Kuran's overdrawn conclusion that Islamic law jeopardized early modern "Islamic" growth thus needs revision. Nevertheless, the question of what hindered pre-modern economic growth in the so-called Islamic world remains unanswered. Contrary to what Kuran's critics tend to imply, he certainly knows his sources – e.g., on the urban economy of Istanbul – very well and his findings on economic stagnation and decline in this context are convincing; however problematic his conclusions, he is actually trying to resolve a "real" historical problem.²⁶

Goldziher's findings on the mutability of Islamic law provide a clue for the riddle. Albeit unchanging in essence and in its core texts, legal reasoning did change significantly and with it the interpretation and application of the law, which was therefore flexible from place to place and over time. Interestingly, in his highly critical review of Kuran's 2010 monograph Abdul Azim Islahi emphasizes precisely that point. He refutes what he perceives as an attack on Islamic law (i.e. its foundations) by identifying phenomena of decline (with regard to legal reasoning) in Islamic law in that period of "decline".²⁷ Hence, Islamic law was not the problem but perhaps the problem was, at least partially, how Islamic law dealt with dilemmata arising from new challenges in this period and in certain places.²⁸

Deindustrialization: Egypt's Move towards a Post-Industrial Economy

I suggest that it was not so much industrial decline as it was deindustrialization that befell the Mamluk Empire – that is, an economic transformation to a knowledge-based service economy with high public expenditure and a relatively high level of central state interference. A system dominated by lawyers and specialist bureaucrats. Egypt was a highly sophisticated, mature, "optimized"²⁹ economy that reacted in a very different way to the challenges of the fourteenth century than did parts of Europe, e.g. England.³⁰ Levantine industries were technologically very advanced and characterized by a high degree of division of labour. It was, in other words, an optimized, but as a result also highly sensitive, system that was strongly affected by external shocks such as the plague.³¹

26 T. Kuran, *Mahkeme kayıtları ışığında 17. yüzyıl İstanbul unda sosyo-ekonomik yaşam/yayına hazırlayan Timur Kuran = Social and economic life in seventeenth-century Istanbul: glimpses from court records* Tarih/history/ Genel yayın 2021–2022; 2104–2105, İstanbul 2010.

27 A. A. Islahi, Book review: The long divergence: how Islamic law held back the Middle East by Timur Kuran, in: MPRA Paper No. 42146, October 2012, https://mpra.ub.uni-muenchen.de/42146/1/MPRA_paper_42146.pdf

28 Goldziher, *Muhammedanische Studien*, 2. Teil, pp. 267 seqq.

29 Optimized in terms of a high degree of division of labour, urbanization (i.e. clustering of productive resources) and highly effective forms of resource allocation, not least in terms of water in the irrigation agriculture.

30 Cf. J. A. Tainter, *The Collapse of Complex Societies* New studies in archaeology, [11th repr.] ed., Cambridge 2004).

31 For the sophistication of Levantine industries at the time, see, for instance, Ashtor, E. Ashtor, *Levantine Sugar Industry in the Later Middle Ages – An Example of Technological Decline*, in: *Israel Oriental Studies* 7 (1977), pp. 226–280, here p. 245; M. Lombard, *Études d'économie médiévale*. Vol. 3.: *Les textiles dans le monde musulman du 7^e au 12^e siècle* (EHESS, Centre de recherches historiques. Civilisations et sociétés 61), Paris 1978. It can be somewhat compared to the state of Western finance at the brink of the 2008 crisis: a highly sophisticated, over-

Irrigation agriculture had expanded by almost 50 per cent in the first phase of Mamluk rule, which made the system both highly sophisticated and effective under optimal conditions but also extremely vulnerable.³² Public expenditure was comparatively high, which again reduced resilience.³³ The Mamluk elite was not a landed gentry but an allogenic meritocratic class of wage earners and public servants, who collectively controlled the agricultural resources without owning them. Stuart Borsch has argued that this considerably reduced the resilience of the Egyptian economy and especially agriculture compared to England with its considerably lower (central) public expenditure and property rights delegated to a relatively broad class of landed nobility and gentry. It should be added though that in Egypt – in the wake of the climate changing since around the year 1000, which put additional strain on irrigation agriculture – such delegation would not have allowed for the further expansion of the system, i.e. the continuous optimization of water usage, which required centrally coordinated and well-financed canal projects. In order to maintain a trajectory of growth, central coordination was needed and in the wake of the partial breakdown of the system, devolution of property (or instead fiscal) rights took place (as will be discussed below).³⁴

Therefore, the effect of the outbreak of the plague in the mid-fourteenth century and that of subsequent waves of epidemics seemed to have been that this highly sophisticated and as it were over-optimized agricultural system, which had operated at the very limits of its capacity, was severely hampered by the demographic decline. This occurred not so much because of a decline in demand for agricultural products but because the labour for the upkeep of the irrigation systems was wanting and partly collapsed. Wide stretches of agricultural land were no longer irrigated, they had ceased to be controlled by the Mamluk system and were taken over by Bedouins as pasture land. The remaining population in these collapsing areas moved to the cities, mainly Cairo. This influx of rural population, however, did not help to mitigate the effect of the plague in Cairo with regard to industries. Levantine industries seemed to have been strongly concentrated in main cities and were particularly hard hit by losing roughly half of their workforce. It seems that contrary to European rural immigrants coming, for instance, to Venice, the migrants arriving in Cairo did not have transferable skills which would allow them to become craftsmen.³⁵ Also, while such skills in home spinning and weaving might have been suitable for the nascent European industries of cheap cloth, the production of high-quality silk products required more specialized skills. Another aggravating factor might have been

optimized system with no redundancies that could be profoundly shaken by a comparatively minor shock, cf. N. Taleb, *The Fourth Quadrant: A Map of the Limits of Statistics*, in: *Edge* (15 September 2008), Phronetic rules.

32 S. J. Borsch, *Environment and Population: The Collapse of Large Irrigation Systems Reconsidered*, in: *Comparative Studies in Society & History* 46 (2004) 3, pp. 451–468; cf. Borsch, *Black Death*, p. 15 seq., 39; Eliyahu Ashtor, *A Social and Economic History of the Near East in the Middle Ages*, Berkeley/Los Angeles/London 1976), p. 316 seqq.

33 H. Rabie, *The Financial System of Egypt A.H. 564–741/A.D. 1161–1341*, London 1972, p. 43 seq., 149.

34 Borsch, *Black Death*, p. 19, 54 and passim.

35 F. Ch. Lane, *Venice*, p. 170; I. M. Lapidus, *Muslim Cities in the Later Middle Ages*, Cambridge (Mass) 1984, p. 83.

that the textile industries were concentrated in coastal cities such as Alexandria, which did not attract as many immigrants as Cairo.

Although some immigrants had scholarly credentials (such as, for instance, the famous Egyptian bureaucrat-scholar Qalqashandî),³⁶ the rest had only agricultural skills. While the scholars could pursue careers in one of the many institutions of higher learning and the expanding administration, the farmer's set of skills were more difficult to market in the city. Some of the hardy former farm hands might have found employment using their transferable skills as porters, donkey drivers, and similar lowly professions. Others – still considered lowly by the *‘ulamâ* but not entirely unattractive – might have found jobs as hunters, dog handlers, or footmen in the service of an emir. Some others might not have had this chance and joined the ranks of the *beggars/h'arâfîsh*.³⁷ In view of these options, the farmer-migrant might have found that it was neither easy nor particularly desirable or rewarding to learn the necessary and by no means trivial skills needed for industrial production and then to join more or less exclusive guilds (the highly skilled silk weavers or goldsmiths were considered less desirable crafts). In any case, the costs for skilled industrial labour seemed to have risen and the industrial workforce was apparently not only never restored but continued to decrease over the course of the fifteenth century.³⁸ The Mamluk chronicles report on the increasing problems afflicting the Levantine economy. In addition to the irregular Nile floods causing famines, the Mamluk lawyer and chronicler Maqrîzî highlights another factor aggravating the situation, thereby turning crisis into catastrophe; rapacious taxations and corrupt public servants that ruin agriculture and industries.³⁹ This is also echoed by the famous North African thinker Ibn Khaldûn:

Eventually, the taxes will weigh heavily upon the subjects and overburden them. [...] The result is that the interest of the subjects in cultural enterprises disappears, since when they compare expenditures and taxes with their income and gain and see the little profit they make, they lose all hope [dhahâb al-âmâl]. Therefore, many of them refrain from all cultural activity [lit. civilisation/culture (also, in modern usage: national wealth) declines/diminishes: iantaqîs'a 'l-‘umrân]. [...] People scatter everywhere in search of sustenance, to places outside the jurisdiction of their present government.⁴⁰

36 C. E. Bosworth, al-Qalqashandî, in: Encyclopaedia of Islam, ed. by P. J. Bearman, Th. Bianquis, and C. E. Bosworth, E. van Donzel, W.P. Heinrichs, 2nd ed., Leiden, pp. 509a–510b.

37 On the later term *h'arâfîsh*: W. M. Brinner, The Significance of the "H'arâfîsh" and their "sultan, in: JESHO 6 (1963), pp. 190–215; Lapidus, Muslim Cities, p. 84; id., The Grain Economy of Mamluk Egypt, in: JESHO 12 (1969) I, pp. 1–15, here 12 seq.; B. Shoshan, Popular culture in Medieval Cairo, Repr ed., Cambridge etc. 1996, pp. 62 seqq.

38 The wage data is debated: Borsch, Black Death, pp. 103–108, an updated set in id., Subsisting or Succumbing? Falling Wages in the Era of Plague, in: ASK Working Paper 13 (2014) indicates a short term rise but then long-term decline in wages for custodians, doorkeepers, water-carriers and readers which would be expected as the workforce for these professions in Cairo was boosted by rural migrants, cf. M. Shatzmiller, Economic Performance and Economic Growth in the Early Islamic World, in: JESHO 54 (2011), pp. 132–184, here p. 143 pointing at A. Sabra, Poverty and Charity in Medieval Islam: Mamluk Egypt 1250–1517, Cambridge 2000, pp. 121–123.

39 A. Allouche (ed. and transl.), Mamluk economics: A study and translation of al-Maqrîzî's "Ighâthah", Salt Lake City 1994.

40 Ibn Khaldun, Muqaddima translated by F. Rosenthal, vol. 2, pp. 90 seq., 92, 104 (possibly inspired by Hesiod);

One might add to this apt analysis that people also joined the government and its expanding bureaucracy and intricate system of clientele or the government-sponsored academic knowledge economy. Ibn Khaldūn, of course, did so too and thus understandably did not emphasize this delicate matter.

Yet how could it be possible that an economy would allow for such vast bureaucracy and academic pursuit in times of demographic and agricultural decline? In order to understand this aspect of the Mamluk shift towards a post-industrial society, we must consider the Egyptian system of a powerful tax-raising state ruled by an allogenic elite that did not own the land that fed them. This elite could thus in theory not bequeath their positions of power to their offspring. Although this was not always quite true, there was a tendency among Mamluk elite to incorporate their offspring, the *awlād an-nās*, into the civilian, *‘ulamā* elite, which was strongly dominated by lawyers. Intermarriage with local notables and training as legal scholars were successful strategies for the transmission-cum-transformation of status from Mamluks to their sons. They often tried to buttress this transmission of elite status by providing their offspring with material resources. They successfully withdrew wealth (including state land attributed to them as a fief ([*iqṭāʿ*], thereby turning it into *milk* [private property]) from the fiscal base of the state and additionally protected it by turning it into pious foundations. This was an effective way of transmitting wealth to the next generation while protecting it against the fiscal authorities and the looming threat of reappropriation by the state/empire.⁴¹ It also hedged against offspring squandering their legacy. The “waqfized” assets financed pious institutions that typically included institutions of higher learning with training in Islamic law as the core curriculum.⁴² As an important side effect, it prevented the splitting of the estate among the heirs, as stipulated by Islamic law, while creating positions and thus rents for subsequent generations of the family.⁴³ Konrad Hirschler gives a vivid description of the ensuing sophisticated knowledge economy providing jobs for the civil elite and the literate middle class.⁴⁴ This system not only enabled wealthy families to transmit elite status from generation to generation through higher education,⁴⁵ but it also created opportunities for meritocratic newcomers, thus adding a degree of social

Arabic: ‘Abd ar-Rahmān Ibn Khaldūn, Muqaddimah Ibn Khaldūn, Beirut 1996, 263. *‘Umrān* is a key concept in Ibn Khaldūn’s thought. The Muqaddima (lit. introduction preceding but also concluding the historical study *kitāb al-cibār*) is really the science of *cumrān basharī*, of human civilization, roughly divided into nomadic (*cumrān badawī*) and urban civilization (*cumrān hād’arī*). It is an affirmative substantivation (of the form typical for adjectives) of the root c-m-r, meaning to live long, to be cultivated, as well as to build.

41 I. Daisuke, The Establishment and Development of al-Dīwān al-Mufrad: Its Background and Implications, in: Mamlūk Studies Review X (2006), pp. 117-140, p. 121; id., Land Tenure, Fiscal Policy and Imperial Policy in Medieval Syro-Egypt, Exeter 2015, 177 seqq., 184 seqq.

42 M. Chamberlain/D. Morgan, Knowledge and Social Practice in Medieval Damascus, 1190–1350 (Cambridge 1994), p. 15.

43 Although in practice cooperation with Mamluks as actual power projectors was crucial for the smooth running of a waqf, Daisuke, Land Tenure, 183, 196 seq.,

44 K. Hirschler, The written word in the Medieval Arabic lands. A social and cultural history of reading practices, Edinburgh 2012).

45 Chamberlain, pp. 4–7.

mobility to the system.⁴⁶ Overall, it might have aggravated the above-mentioned increase in post-plague labour costs.⁴⁷

The lawyer/ Islamic scholar became the dominant figure of the upper-middle and non-Mamluk upper class (*‘ayān*) besides the merchant (and often they were combined in the same person). Due to its close links to the Mamluk establishment (*al-khâs’s’a*), Mamluk urban and imperial culture was accordingly, and arguably, permeated by legalism. Mamluk chronicles commenting on the autocratic rapacity of Mamluk rulers were written by lawyers who were actually quite well represented in the Mamluk system of power. That is why they were interested in power and that is why they dared to write such texts, which are as much indicative of rapacity as of a free “press”/ public opinion that was able to criticize it.

This might have had different effects with regards to deindustrialization. It might have fostered an over-sophistication of legal culture with legal scholars, who abstained from greater innovation and instead annotated text with glosses and the glosses with post-glosses, compiled thematic collections, etc.⁴⁸ The strategic alliance between (military) rulers/ power brokers and lawyers/ *ulama*⁴⁹ might also have fostered bureaucratic growth, clientele network-driven lobbyism,⁵⁰ careerism,⁵¹ heavy taxation, as well as meritocratic permeability, increased importance (and marketing) of higher education,⁵² and centralization, or might not.

Outsourced Industries and Niche Production

The Levantine economy had to adapt to this situation. Adaption was made easier by the massive influx of specie and consumer goods through the international spice trade between India and Europe for which Egypt was an almost obligatory *passage obligé* in the late Middle Ages. The balance of payment surplus allowed Egypt to leave pricy industrial production of cheaper goods for mass consumption to their European partners through the mediation by Venice, its main trading partner.

Nascent industries in Europe thus had a chance to expand. The plague had produced a very significant change within Europe. Some (by far not all) regions and particularly cities of Western Europe were able to rapidly overcome the external demographic shock

46 I. M. Lapidus, *Muslim Cities in the Later Middle Ages*, Cambridge, Mass 1984, pp. 187 seq.

47 M. Shatzmiller, “Economic Performance”, p. 143; cf. A. Sabra, *Poverty and Charity in Medieval Islam: Mamluk Egypt 1250–1517*, Cambridge 2001.

48 I. Goldziher, *Muhammedanische Studien*, Halle a. S. Niemeyer, 1889.

49 Cf. I. M. Lapidus, *Muslim Cities in the Later Middle Ages* (MIT, Joint Center for Urban Studies), Cambridge, Mass. 1984, p. 141 seq..

50 Cf. Winslow Williams Clifford, *State Formation and the Structure of Politics in Mamluk Syro-Egypt, 648–741 A.H./1250–1340 C.E.*, ed. by Stephan Conermann, Göttingen/Bonn 2013, p. 97 seq.

51 *Ibid.*, pp. 225 seqq.

52 Cf. K. Hirschler, *The Written Word in the Medieval Arabic lands. A Social and Cultural History of Reading Practice*, Edinburgh 2012.

of the plague thanks to strong immigration from the countryside. In some cases, this even led to a net growth of cities in the second half of the fourteenth and in the fifteenth century, thereby mitigating the rise of labour costs. Furthermore, in Europe it was easier to substitute human labour with animal power (e.g., from horses, thanks to the invention of the horse collar) or water power, thanks to the availability of fast-flowing water, which, for instance, revolutionized the English cloth industry. With regard to fuel (crucial for glass as well as soap production), Europe had another competitive edge over the Levant.⁵³

Industrial power increasingly moved from Southern to Northern Europe. This is at the very heart of the Lopez / Miskimin vs. Cipolla debate over a depression of the late Middle Ages or, in their words, of the Renaissance. The more sophisticated a socioeconomic-political system was, the more it seemed to have suffered. Sicily or Tuscany, on which Lopez and Miskimin focused, were hit hard by the plague. Cipolla's refutation looks at other parts of Europe that took a different trajectory – e.g., England – which were not as “optimized” and thus more resilient than Tuscany or the Middle East. For England or other less “sophisticated” nascent economic areas of Central and Northern Europe – e.g., the textile industries of upper Germany,⁵⁴ England,⁵⁵ and the Veneto⁵⁶ – this was a vital chance. These areas could draw on a rural population surplus with transferable artisanal skills that could replenish, or rather replace, urban crafts diminished by the plague. Thus they triggered a new economic growth and nascent industrialization. These industries could, furthermore, draw on more readily available water power. Labour costs increased, to be sure, but from a very low level and relatively slowly.⁵⁷ This potential for growth combined with an increased demand – not least from the Levant – were good conditions for the expansion of European industries.⁵⁸

As a result, the patterns of trade changed over the late Middle Ages. Increasingly, industrial products were imported from Western Europe while raw material, including spices,

53 Ashtor, *Levant Trade*, pp. 200-216; E. M. Carus-Wilson, *The Woolen Industry* (chap. IX), in: *The Cambridge Economic History of Europe*, vol. II, ed. by E. Miller, C. Postan, and M. M. Postan, 2nd ed., Cambridge 1987, pp. 613-90, here 669 seq.

54 J. H. Munro, “South German Silver, European Textiles, and Venetian Trade with the Levant and Ottoman Empire, c. 1370 to c. 1720: A non-Mercantilist Approach to the Balance of Payments Problem, in: *Relazioni economiche tra Europa e mondo islamico, secc. XIII–XVIII*, ed. by S. Cavaciocchi, atti della “trentottesima settimana di studi” 1-5 maggio 2006, Fondazione Istituto Internazionale di Storia Economica “F. Datini”, Prato: Serie 2, Atti delle “settimane di studi” e altri convegni (38), Firenze 2007, pp. 907-926, here 914 seq.

55 In fact, here we notice a similar shift from the old cloth-producing centres of Oxford or London towards the North, e.g. the Yorkshire dales, Carus-Wilson, *The Woolen Industry*, pp. 673–682; cf. Borsch, *Black Death*, p. 63..

56 For the history of the industries of the Veneto, see P. Lanaro, *At the Center of the Old World: Trade and Manufacturing in Venice and the Venetian Mainland (1400–1800)*, Centre for Reformation and Renaissance Studies, Toronto 2006; for the silk industry: L. Molà, *The silk industry of Renaissance Venice*, Baltimore 2000, see also B. Lambert, and K. Anne Wilson (eds.), *Europe's Rich Fabric: The Consumption, Commercialisation, and Production of Luxury Textiles in Italy, the Low Countries and Neighbouring Territories (Fourteenth–Sixteenth Centuries)* Abingdon 2015.

57 For England: Borsch, *Black Death*, pp. 104-108, cf. J. E. T. Rogers, *On a Continuous Price of Wheat for 105 Years, from 1380 to 1484*, in: *Journal of the Statistical Society of London* 27 (1864) 1, pp. 70–81, here 72 seq.

58 Cf. also B. J. P. van Bavel and J. Luiten van Zanden, *The Jump-Start of the Holland Economy during the Late Medieval Crisis, c. 1350–c. 1500*, in: *The Economic History Review* 57 (2004) 3, pp. 503-532.

either locally sourced (such as cotton or alkali) or provided through transit trade (spices), were exported. The Mamluk chronicles are fairly outspoken about this: According to Ibn 'Imad al-H'anbalî there were, by the end of the fourteenth century, 14,000 looms in Alexandria still. By 1434, there were only 800 left.⁵⁹

One might first be tempted to identify patterns of colonial trade (finished goods from the motherland vs. raw materials from colonies). Yet this is not the case; such conversion never fully occurred. The table below illustrates that a number of (industrial) products were traded in both directions and that industrial production continued.⁶⁰ Levantine industries reinvented themselves on a different (smaller) scale, probably in particular niches, where they could still compete.

This is also suggested by the more nuanced account of the Veneto-Cretan Emmanuele Piloti who described the decline of the Alexandria textile industry in the early fifteenth century. He contrasts the declined state with an even higher, fantastic number of looms in the past (80,000) but he also mentions that some production of high-quality textiles continued on a lower level with exports to the court in Cairo but also to North Africa, Syria, and Turkey.⁶¹

The papers of the merchant and consul Biagio Dolfin, preserved in the State Archive of Venice, allow us to further appreciate these trade patterns.⁶² The table above is based on tax declarations and cargo lists preserved among his papers and supplemented by information drawn from other primary or secondary sources.⁶³ It provides us with a snapshot tableau of a transitional point in the process transforming the Oriental economy towards a post-industrial economy around 1419.

59 M. Chapoutot-Remadi, *Réflexions sur l'industrie textile dans le monde musulman au Moyen Âge. À propos d'un livre récent*, in: *Annales. Économies Sociétés Civilisations* 35 (1980) 3-4, pp. 504-511, here 506; Subhi Yanni Labîb, "Iskandariyya," in *Encyclopaedia of Islam*, ed. by P. J. Bearman, Th. Bianquis, C. Edmund Bosworth, E. van Donzel, W. P. Heinrichs, 2nd ed., Leiden, pp. 132a, here 135a; cf. E. Ashtor, *Levantine Sugar Industry*, 263 seq.

60 This is also confirmed for the time around 1500, B. Arbel, *The Last Decades of Venice's Trade with the Mamluks: Importations into Egypt and Syria*, in: *Mamlûk Studies Review* VIII (2004) 2; cf. E. Ashtor, *A Social and Economic History of the Near East in the Middle Ages*, Berkeley/Los Angeles/London 1976, p. 307.

61 That this was specialized high-quality production is not only suggested by deliveries to the Mamluk court but also the curious remark that there were exports to Syria despite the textile production in Damascus. "Et si labeurent en Alexandrie toile soubtile à grant quantité et de grant valeur; et celles se mande par la voye de mer en Barbarie, en Tunes, en Surie et en Turquie. (...) Par la information que je eulx de personnes pratiques, eulx que anciennement laboroyent en Alexandrie .lxxx.mille ateliers de soye et de lin. Mais à le présent, pource que la terre est déshabitée, se labeure à petite quantité. Ilz y font draps de soye, desquelx besoigne quilz fournissent la court du Cayre; et le demorant le mandent par mer en Barbarie, en Tune, en Surie et en Turquie, nonobstant que à Damasque se labeure draps de soye à grant quantité." Emmanuele qd. Minelli Piloti, *Traité d'Emmanuel Piloti sur le passage en Terre Sainte*, ed. by Pierre-Herman Dopp, Louvain 1958, pp. 89-91.

62 For Biagio Dolfin and his papers, see G. Christ, *Trading Conflicts. Venetian Merchants and Mamluk Officials in Late Medieval Alexandria (The Medieval Mediterranean 93)*, Leiden 2012.

63 Archivio di Stato di Venezia (ASVe), Procuratori di San Marco, Commissarie miste, b. 181, fasc. XIII, "carichi". For an introduction to the genre of cargo lists, see B. Arbel, *Les listes de chargement de navires vénitiens (XV^e-début du XVI^e siècle): un essai de typologie*, in: *Chemins d'outre-mer. Études d'histoire sur la Méditerranée médiévale offertes à Michel Balard*, ed. by D. Coulon, C. Otten-Froux, P. Pagès, and D. Valérián (*Byzantina Sorbonensia* 20), Paris 2004, pp. 31-50.

Exports to Europe	Imports into Egypt
Spices	Money, precious metals (mainly gold, copper)
Cotton	Cloth: cotton/fustian, woolen
Potash, cassia fistula, ⁶⁴ etc.	Wine, oil, honey, nuts, cheese
Soap	Soap
Luxury goods: silks (velvet), jewels, carpets, ironware	Luxury goods: silks (velvet), amber, fur, falcons ⁶⁵
Glass	Glass
Slaves	Slaves ⁶⁶
Paper (not exported but produced for local consumption)	Paper (certainly for use by Venetian diaspora, probably also for sale)
Sugar (higher quality?)	Sugar (lower quality?) ⁶⁷

On the import side, we find pretty much what we expect to find: substantial quanti-

64 Golden shower tree (canafistola).

65 On the falcon trade, see H. A. Shehada, *Traded Animals and Gifts between the Venetians and the Mamluks*, in: *Venetian Rule in the Eastern Mediterranean 1400–1700: Empires, Connectivities and Environments – Festschrift in Honour of Benjamin Arbel*, ed. by G. Christ, Leiden, in preparation.

66 Cf. G. Christ, “Sliding Legalities: Venetian Slave Trade in Alexandria and the Aegean,” in *Slavery and the Slave Trade in the Eastern Mediterranean (c.1000–1500 CE)*, ed. by Ch. Cluse and R. Amitai (*Cultural Encounters in Late Antiquity and the Middle Ages*), Turnhout, forthcoming, pp. 210–229.

67 *Ibid.*, p. 260–262; it seems that the Madeira sugar eventually put strong pressure on Egyptian sugar, perhaps again because of cheaper labour costs (slaves) in Madeira.

68 “A] In Cristo nomine 1419 carico della nave paron messer L Faglier vienie da Viniexia Modon et Candia (...) Al Arcangeli, Chiaro veluti tela 1 per valor 30 denari grossi meso a so conto (...) Al Zorzi, Francesco veluti tela 1 per valor di denari (...) Al Zorzi, Francesco charicha tela 1 per valor di denari (...) Al Contarini, Carlo savoni sacchi 207 ca. 42, Al Contarini, Carlo rame in foglia ballete piccole 4 (...) Al Contarini, Carlo ambra barili 1 per valor di denari Al Contarini, Carlo duc. 500 g 1 Al Contarini, Carlo duc. 350 g 1 meso a so conto (...) Al Ziorzi, Marco duc. 500 g 1 meso a so conto Al Contarini, Giacomo meli ca. 75 Al Contarini, Giacomo zisalghallo barili 5 Al Contarini, Giacomo chonche sacchi v 813 Al Contarini, Giacomo veludi tola 1 meso a so conto Al Michiel, Polo sete di cavallo bl 5 Al Michiel, Polo zisalghallo car. 4 Al Michiel, Polo veludi tela 1 per valor di duc. 250 meso a so conto Al Bon, Francesco duc. 1400 g 2 Al Bon, Francesco duc. 500 g 1 Al Bon, Francesco duc. 700 g 1 Al Bon, Francesco duc. 650 g 1 Al Bon, Francesco duc. 450 g 1 Al Spera, Maffeo duc. 500 g 1 Al Bembo, Lorenzo qd. Marco duc. 300 g 1 Al Bembo, Lorenzo qd. Marco duc. 500 g 1 Al Bembo, Lorenzo qd. Marco duc. 300 g 1 Al Bembo, Lorenzo qd. Marco duc. 1000 g 1 Al Bembo, Lorenzo qd. Marco duc. 1100 g 2 Al Donado, Francesco duc. 500 g 1 Al Emo, Giacomo duc. 500 g 1 Al Bembo, Lorenzo qd. Marco duc. 500 g 1 Al Malerbi, Filippo di tela 1 per valor di duc. 250 Al Malerbi, Filippo di tola 1 per valor di duc. 300 Al Malerbi, Filippo di pani 2 meso a so conto Al Canal, Nadal da duc. 500 g 1 Al Canal, Nadal da duc. 2000 g 4 Al Canal, Nadal da duc. 500 g 1 Al Canal, Nadal da duc. 700 g 1 B Al Donado, Francesco ? duc. 1200 g 2 Al Donado, Francesco duc. 1100 g 2 Al Donado, Francesco duc. 500 g 1 Al Emo, Giacomo duc. 500 g 1 Al Emo, Giacomo duc. 2000 g 4 Al Emo, Giacomo duc. 800 g 1 Al Emo, Giacomo duc. 300 g 1 Al Emo, Giacomo duc. 500 g 1 Al Emo, Giacomo duc. 500 g 1 Al Emo, Giacomo duc. 500 g 1 Al Emo, Giacomo duc. 700 g 1 Al Emo, Giacomo veludi tela 1 quello e di denari di grossi 5 Al Emo, Giacomo pani balle 3 meso a so conto Al Bernardo, Piero duc. 500 g 1 Al Bernardo, Piero duc. 470 g 1 Al Michiel, Angelo duc. 500 g 1 Al Michiel, Angelo duc. 800 g 2 Al Michiel, Angelo oglio in garre 33 meso a so conto Al Gusmeri, Antonio duc. 500 g 1 Al Gusmeri, Antonio duc. 2092 g 4 Al Gusmeri, Antonio duc. 2500 g 5 Al Falier, Alessandro savoni casse 30 meso a conto Al Falier, Luca (che sono in doana) meli ca. 50 Al Falier, Luca (che sono

ties of bullion and wool fabrics; but also luxury goods such as amber, Venetian velvet and other silken textiles,⁶⁸ and glass,⁶⁹ as well as cheaper textiles such as upper German fustian,⁷⁰ Italian cotton,⁷¹ English wools,⁷² and soap⁷³ imported into Egypt. Then there were also the agricultural goods imported into Egypt by the Venetians: oil, honey, cheese, almonds, and wine in considerable quantities.⁷⁴ Apparently sugar was also imported, although it was not represented in the cargo lists examined here.⁷⁵ We can distinguish roughly two categories that respond to two types or systems of trade. One was the Venetian trade and navigation system of the grand commerce that was based on galleys and cogs; the other was the Veneto-Cretan regional trade system that consisted mainly of shipping agricultural goods. The two systems, however, were deeply interconnected with goods of the grand commerce transported/smuggled by regional ships and some of the foodstuff being re-exported from Egypt towards Yemen and India, and thus they contributed to paying for the Venetian spice trade deficit.⁷⁶

The export side, however, is more surprising. Besides the prominently featured spices and raw materials (cotton, ashes), it also reproduced some of the same industrial products of the import side, although arguably of higher qualities: soap, glass (at least until the late

in doana) pani balle 3 Al Falier, Luca (che sono in doana) tele 106 balle 4 Al Falier, Luca (che sono in doana) istagno in pani p. 10 Al Falier, Luca (che sono in doana) fustani peze 5 Al Falier, Luca (che sono in doana) carte balle 4 mesi a conto de ser Francesco Zorzi perché luy promeso i dity consolazi che fono bx. 3 k. 18 panvolo 1 zircha di suo in nave (...)" Simplified, partial transcript: Al=Alexandria, g=groppo i.e. bullion, duc.=ducats p.=panni, i.e. cloth, ca.=caratelli, bx.=bisanti, k.=karati, cargo list of the ship of Luca Falier, 29 May 1419, ASVe, Procuratori di San Marco, Commissarie miste, b. 181, fasc. XIII "carichi", f. [9]; cf. also cargo list, galley Dandolo, 11 Oktober 1419, ASVe, Procuratori di San Marco, Commissarie miste, b. 181, fasc. XIII "carichi", f. [8].

69 Felice de Merlis: Prete e notaio in Venezia ed Ayas 1315–1348, ed. by A. Bondi Sebellico, *Indici a cura di A. Mozzato, Fonti per la storia di Venezia. Sez. III—Archivi notarili*) Venezia, Comitato per pubblicazione delle fonti della storia di Venezia/Viella, 1973, 1978, 2012 §§ 30 seq., 36, 39 seqq.; D. Jacoby, *Raw Materials for the Glass Industries of Venice and the Terraferma, about 1370—about 1460*, in: *Journal of Glass Studies* 35 (1993), pp. 65–90; id. *Research on the Venetian glass industry in the Middle Ages*, in: *Journal of Glass Studies* (1991): 119–121.

70 See above note 69. It is difficult, however, to distinguish wool from fustian, which both seem to be named by the rather unspecific term *panni*.

71 See above note 69, cf. M. Fennell Mazzaoui, *The Italian Cotton Industry in the Later Middle Ages, 1100–1600*, Cambridge 1981; E. Ashtor, *The Venetian Cotton Trade in Syria in the Later Middle Ages*, *Studi medievali* 17 (1976) 2, pp. 675–715; J.-K. Nam, *Le commerce du coton en Méditerranée à la fin du Moyen Âge* (The Medieval Mediterranean, Peoples, Economies and Cultures, 400–1500, 68, Leiden 2007).

72 See above, note 69, cf. Carus-Wilson, *The Woolen Industry*.

73 See for instance, cargo list, galley Dandolo, 11. Oktober 1419, ASVe, Procuratori di San Marco, Commissarie miste, b. 181, fasc. XIII "carichi", f. [8] cf. note 70; "A In Cristo nomine 1419 caricho della nave paron messer L Faglier vienie da Viniexia Modon et Candia (...) Alessandria: Zorzi, Francesco savoni carateli 28 (...) Contarini, Carlo savoni sachi 207 charateli 42."

74 See note 69, and cargo List of a griparia patron Chocho di Famagusta, 17.11.1419, ASVe, Procuratori di San Marco 181, Commissarie miste, b. 181, fasc. XIII "carichi": "Ser Chyareo rezeppa in pyu volte +49 butti di oleo +23 chare-telly di mely"; listing honey and cheese, Vasili Zondanillo: cargo list of a griparia, 05.05.1419, ASVe, Procuratori di San Marco, Commissarie miste, b. 181, fasc. "1419," int. 14, f. [159]; on the wine trade, see Christ, *Trading Conflicts*, pp. 167–174.

75 Ashtor, *Levantine Sugar*, p. 260; cf. M. Ouerfelli, *Le sucre: production, commercialisation et usages dans la Méditerranée médiévale* (The medieval Mediterranean 71), Leiden 2008.

76 S. Y. Labīb, *Handelsgeschichte Ägyptens im Spätmittelalter (1171–1517)*, Wiesbaden 1965, p. 239.

fifteenth century),⁷⁷ high-quality silk fabrics and sugar.⁷⁸ Paper was probably no longer exported but was still produced for internal consumption.⁷⁹ In addition, there were also some products over which the Levantine industries retained their competitive edge, for instance the production of rugs and oriental metalwares.⁸⁰

In a letter sent from Alexandria to Venice, Biagio Dolfin described some objects he purchased in Alexandria for his wife and which he intended to send to Venice: 3 pieces of velvet; 1 great rough rug; 1, particularly the small multicoloured rug as a door mat; 1 small rug (*tapedo*); and 1 rug in two pieces, possibly for a boat (made the same way as the bigger one for the house).⁸¹ The remark regarding its possible usage on the boat

77 R. E. Mack, *Bazaar to Piazza: Islamic Trade and Italian Art 1300–1600*, Berkeley 2002, p. 8; for the earlier history of glass in the Eastern Mediterranean: E. M. Stern, *Medieval glass from the Athenian Agora (9th–14th c.) and some thoughts on glass usage and glass production in the Byzantine Empire*, in: *Glass in Byzantium – Production, Usage, Analyses: International Workshop Organized by the Byzantine Archaeology Mainz, 17th–18th January 2008*, Römisch-Germanisches Zentralmuseum = *Glas in Byzanz – Produktion, Verwendung, Analysen: Internationaler Workshop der Byzantinischen Archäologie Mainz, 17.–18. Januar 2008*, Römisch-Germanisches Zentralmuseum, ed. by J. Drauschke et al., RGZM-Tagungen 8, Mainz 2010, pp. 107–120; B. Zorn (ed.), *Glass along the silk road from 200 BC to AD 1000. International Conference Within the Scope of the ‘Sino-German Project on Cultural Heritage Preservation of the RGZM and the Shaanxi Provincial Institute of Archaeology, December 11th–12th 2008 (RGZM-Tagungen 9, 2010)*; B. Borell, *Trade and glass vessels along the Maritime Silk Road*, in: *Glass along the silk road from 200 BC to AD 1000*, *ibid.*, pp. 127–142; L. Biek, Justine Bayley, *Glass and other Vitreous Materials*, in: *World Archaeology* 11 (1979) 1, *Early Chemical Technology*, pp. 1–25.

78 “Mercatores (...) tam vi, tam emptione et contra coram omnimoda voluntate, accipere zucharos in maxima quantitate coacti sunt.” forced sales of Mamluk sugar to Venetians: letter to the Sultan, 03.09.1418, ASVe, Procuratori di San Marco, Commissarie miste, b. 180, fasc. III, f. 6; G. M. Thomas and R. Predelli (eds.), *Diplomatarium veneto-levantinum sive acta et diplomata res venetas graecas atque levantis illustrantia a. 1351–1454*, pars II Deputazione veneta di storia patria, Venezia 1899, p. 170.

79 The paper used by Biagio Dolfin and the Venetian community in Alexandria is of Venetian (Veneto) provenance. First, for a while, parallel production and consumption of paper prevailed; A. Michiel remarks that Venetians did not use Arabic paper. Later, this seems to change, cf. F. Babinger, *Papierhandel und Papierbereitung in der Levante*, in: *Aufsätze und Abhandlungen zur Geschichte Südosteuropas und der Levante von Franz Babinger*, ed. by H.-J. Kissling, München 1962–1976; F. Babinger, *Appunti sulle cartiere e sull’importazione di carta nell’impero ottomano specialmente da Venezia*, *ibid.*; letter by Angelo Michiel qd. Luca an Dolfin, Biagio qd. Lorenzo, 21.08.1419, ASVe, Procuratori di San Marco, Commissarie miste, b. 181, fasc. 15, int. d, f. [16]: “E e sia zerto, che fazo quello <ch>e posso, di trovar la verità (...) se volle, ve scrivo, mandeme charta.”; cf. E. Ashtor, *Levantine Sugar Industry*, p. 270.

80 On metalwares see U. Ritzerfeld, *The Language of Power: Transgressing Borders in Luxury Metal Objects of the Lusignan*, in: *Medieval Cyprus. A Place of Cultural Encounter*, ed. by S. Rogge and M. Grünbart, Münster 2015, pp. 277–308; S. Auld, *Renaissance Venice, Islam and Mahmud the Kurd: A Metalworking Enigma*, London 2004; J. W. Allan, *The Influence of the Metalwork of the Arab Mediterranean on that of Medieval Europe*, in: *The Arab Influence in Medieval Europe*, ed. by D. Albertus Agius, Reading 1994, pp. 44–62; *id.*, *Sha’ban, Barquq, and the Decline of the Mamluk Metalworking Industry*, in: *Muqarnas* 2, pp. 85–9; J. de Hond and L. Mols, *A Mamluk Basin for a Sicilian Queen*, in: *The Rijksmuseum Bulletin* 59 (2011) 1, pp. 6–33; for rugs see below.

81 “Anchor la mando ch’io chargado suso la galia Dandola in uno sachu doplo da piper et signado del mio segno charato uno de lira che se lire (abbreviation) 200 a sotel anchor suso la dita tapedo uno in do pezi che sè fato a la sisa (geographical name?) de quello grandò che’ò in chaxa et questo serà ben per la barcha over per quello che le voia arechordandove che queste do chose sia rechomandade al dito patron da cha” Dandolo et anche al nostro ser Zan Moresin et sia? pagado el dito ser Zane et Marcho Dolfin che quando le suo chose se meterà in barcha che li faza meter anche le dite mie si che ve pago se procharar che Pasqaliga abia le dite chose.” Dolfin, Biagio qd. Lorenzo, 05.11.1419, ASVe, Procuratori S. Marco, Comm. miste, b. 181, fasc. 15, int. e, f. [6]; on women as receivers as Oriental luxury goods see also: F. Bianchi and D. Howard, *Life and Death in Damascus: The Material Culture of Venetians in the Syrian Capital in the Mid-fifteenth Century*, in: *Studi Veneziani* 46 (2003), pp. 233–300, here: p. 240.

highlights the character of these goods use of rugs, as highly coveted luxury goods for prominent public display to enhance status and wealth.

The importance of such prestigious high-value Levantine products is also evidenced by an inventory listing several rugs alongside an “Damascene” candlestick base.⁸² The prestige of rugs and high-quality “Oriental” silk products is further substantiated by its prominent display in painting (fig. 1).



Fig. 1: G. Bellini, *Madonna and Child enthroned*, c. 1470, National Gallery, London,⁸³

Yet rugs are not the only hint of the existence of a highly specialized luxury goods industry in Egypt that was thriving in the face of general industrial decline. Probably con-

82 Inventory: “Nobila domina Pasqualiga Dolfin (...) 2 candelieri grandi damaschini, uno zexendello damaschin, (...) 2 carpete grande a varor, (...) 4 pezzi de tapedi grandi, carpeta pizola (...) Giovanni de Buoxis, inventory of the inheritance of Pasqualiga Dolfin, 6 March 1421, ASVe, Procuratori di San Marco, Commissarie miste, b. 180, fasc. XI, f. [3].

83 https://upload.wikimedia.org/wikipedia/commons/8/8b/Gentile_Bellini_Madonna_and_Child_Enthroned_late_15th_century.jpg, accessed 24.12.2016; H. Lang, *The Import of Levantine Goods by Florentine Merchant Bankers: The Adaption of Oriental Rugs in Western Cultures*, in: *Union in Separation*, pp. 505-525

nected to the shortage of labour mentioned above, entrepreneurs, such as the Damâminî in Alexandria, in the textile sector gave up the production of cheap wools and began specializing in high-quality silk, which apparently still outrivalled Western copies.⁸⁴ There were thus both Western and Levantine velvet, although the Western product clearly emulated and imitated the Levantine product (fig. 2, 3).

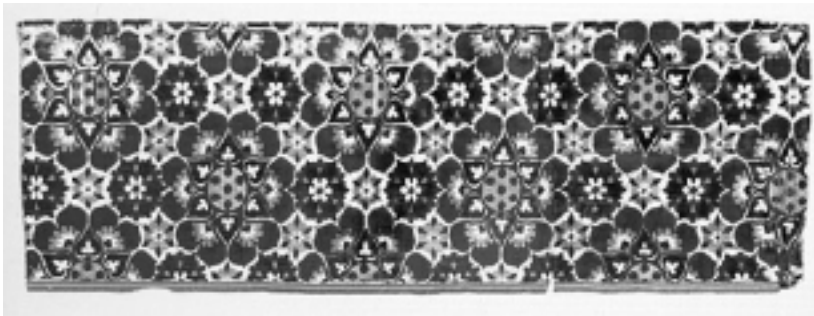


Fig. 2: Velvet fragments with Medici arms, 1440–1500, Florence or Venice⁸⁵

In Alexandria, a state-run textile manufacture that probably produced honorary robes of crucial importance for Mamluk courtly and diplomatic procedure still existed.⁸⁶ The Mamluk chronicles give us a good description of the manufacture that eventually shut down under sultan al-Ashraf Barsbay (1422–1438).⁸⁷

Although the micro-historical character of the documentation requires cautious reasoning, Venetian imports of rugs, high-quality silks, soap, glass, and metalware certainly seem to hint at the fact that Mamluk industrial decline was not necessarily linked to a loss of skills or sophistication and was probably not perceived as such in the West. It is indeed very unlikely that Venetians perceived the Levantine industries as declining at all – certainly not qualitatively. They carefully tried to imitate Levantine products, which they perceived as being superior and eminently desirable.

84 Subhi Yanni Labīb, Iskandariyya, in: *Encyclopaedia of Islam*, ed. by P. J. Bearman, Th. Bianquis, and C. E. Bosworth, E. van Donzel, W. P. Heinrichs, 2nd ed., Leiden, p. 135a.

85 Silk, metal thread L. 31 in. (78.7 cm), W. 21 in. (53.3 cm), Fletcher Fund, 1946 (46.156.118), <http://www.metmuseum.org/toah/works-of-art/46.156.118>, accessed 24.12.2016

86 On the honorary robe (khil'a) in the Mamluk system, see L. A. Mayer, *Mamluk costume: a survey*, Genève 1952; N. A. Stillmann, *Khil'a*, in: *Encyclopaedia of Islam*, ed. by P. J. Bearman, Thierry Bianquis, and C. E. Bosworth, E. van Donzel, W. P. Heinrichs, 2nd ed., Leiden 2013; Bethany J. Walker, "Rethinking Mamluk Textiles," in: *Mamlūk Studies Review IV* (2000), pp. 167-217; M. Springberg-Hinsin, *Die Khil'a: Studien zur Geschichte des geschenkten Gewandes im islamischen Kulturkreis (MISK 7)*, Würzburg 2000; W. Diem, *Ehrendes Kleid und ehrendes Wort: Studien zu tašrif in mamlukischer und vormamlukischer Zeit (Abhandlungen für die Kunde des Morgenlandes 54.2)*, Würzburg 2002.

87 M. Müller-Wiener, *Eine Stadtgeschichte Alexandrias von 564/1169 bis in die Mitte des 9./15. Jahrhunderts. Verwaltung und innerstädtische Organisationsformen*, Berlin 1992, pp. 61, 237, 239.

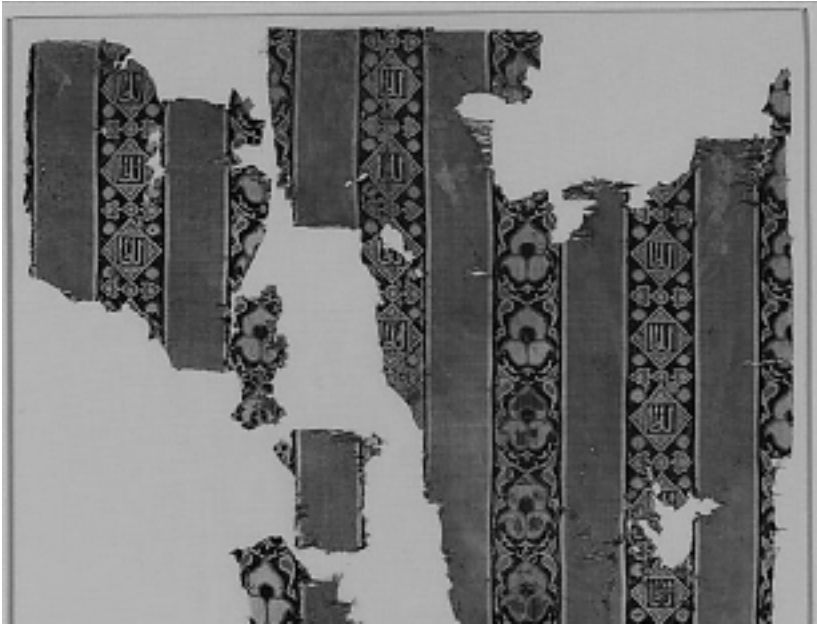


Fig. 3: Mamluk textile fragment, 14th century⁸⁸

Conclusion: Deindustrialization rather than Industrial Decline?

The positions criticizing the notion of Mamluk decline do not succeed in fully dismantling the arguments supporting the decline hypothesis. I would suggest, however, the instinctive is true in its own right. Although Ashtor's theses are factually sound, the notion of decline is misleading. The successful "transformation" did not address any of the underlying structural problems that had triggered decline in the first place. But it did help Egypt's economy to a comfortable early retirement as a post-industrial knowledge and service economy. I do not want to paint a picture of a glorious Mamluk period but I feel that there is something to be gained in modifying the notions of decline or transformation into something closer to a Levantine "autumn of the Middle Ages" might emerge.⁸⁹

88 Accession Number: 1979.462.2, <http://www.metmuseum.org/Collections/search-the-collections/140010356>. The word sultan in the lozenges might hint at usage by sultans or as honorary robes (on which note below) of the highest rank bestowed by the sultan..

89 J. Huizinga, *Herfsttij der middeleeuwen: studie over levens- en gedachtenvormen der veertiende en vijftiende eeuw in Frankrijk en de Nederlanden*, Amsterdam 1997; English with a somewhat misleading title coming closer to decline: id., *The Waning of the Middle Ages. A Study of the Forms of Life, Thought, and Art in France and the Netherlands in the Fourteenth and Fifteenth Centuries* 6. ed. (Harmondsworth: Penguin Books, 1976); Huizinga does not use the term "waning" but "autumn"; he focuses on the saturation of a culture that incubates new forms – a new culture.

Venice could benefit from this development. Thanks to the strong entanglement of the Mamluk and Venetian economies, Venice was the natural pre-industrial partner to take over the production of some goods and the import of others produced in other parts of Europe. Slowly but surely, Western European actors took over production on behalf of the Levantine world. First wool and fustian fabrics, then increasingly also more sophisticated silks were produced in Venice and elsewhere in Italy and Europe. Also paper, glass, soap, and sugar were increasingly produced in Europe and (in the case of the latter) in the new Atlantic colonies of Europe. The European “miracle” was dependent after all; it resembles in some ways the story of the Asian economic ascent of the late twentieth century. European factors of success converged with an opportunity provided by a deindustrializing Levant, which was outsourcing production to Europe.

This is corroborated by the great appreciation for Levantine and Oriental products. Rugs were probably not coveted as exotic, rustic goods but as highly sophisticated products of a world that was seen as culturally superior. And, although, they are not industrial products they emphasize that Venetians at least did not perceive the Levant as a vanishing or declining culture but one from which there was much to learn and to emulate.