

# Preliminary remarks on the role of disease in the history of the Golden Horde

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The important effects of epidemics and larger-scale pandemics are well known from studies on the history of disease. There is an especially rich literature devoted to the social, political, and economic consequences of the Black Death of the mid-14th century in Western Europe.<sup>1</sup> The problem of disease in Central Asian history, however, has rarely been considered. Given this gap in the historical literature, the important data, observations, and even hypotheses regarding epidemics in Central Asian history contained in the works of William McNeill<sup>2</sup> and Michael W. Dols<sup>3</sup> merit further consideration. In this paper I summarize the views of these two scholars and offer some observations regarding the impact of the Black Death on the history of one state in particular, the Golden Horde. These remarks are of a preliminary nature and the prelude to a more detailed future study.<sup>4</sup>

There is no consensus among scholars on the geographic extent and mortality rate of historical pandemics prior to the 14th century. Even the causes of later pandemics are open to debate: inconclusive descriptions in the sources often make it impossible to determine what disease may have been responsible for a particular outbreak.<sup>5</sup> As a result, smallpox, measles, bubonic plague and other diseases have all been suggested as responsible for some of the major pandemics prior to the 14th century.

Dols writes that the first major pandemic recorded in history occurred in 541–42, during the reign of the Byzantine emperor Justinian (r. 527–65). He considers this outbreak to have originated in central or eastern Africa.<sup>6</sup> Outbreaks of disease remained a constant problem in the Middle East. Major epidemics are reported for 627–28 in Ctesiphon; 638, 639 in Syria, Iraq, and Egypt; 688–89 and then again in 706 in Basra; 716–17 in Iraq and Syria; and every 10 years thereafter under the ‘Abbāsids. Although there was a major outbreak of plague in Egypt in 1258–59, there was no further outbreak for another 100 years.<sup>7</sup>

McNeill paints a much broader picture of epidemics in history. He reproduces evidence from the 11th-century Chinese encyclopedist, Ssu-ma Kuang, and other sources, detailing high rates of mortality in China attributable to outbreaks of disease.<sup>8</sup> Additional sources allow the compilation of a list of epidemics in

China, including clusters of major pandemics, beginning as early as 243 BC and continuing until the 20th century.<sup>9</sup> As for the great plague during the time of Justinian, McNeill considers this pandemic to have been bubonic plague with effects in the west limited to the Mediterranean region. By the early 13th century, this first great wave of bubonic plague had run its course: the last Christian references to the plague are in 767 and there are no Arab references to plague in the period immediately preceding the outbreak of the Black Death in the 1340s.<sup>10</sup>

Of direct concern to historians of Central Asia is McNeill's argument that the rise of the Mongol world empire in the 13th century brought together several circumstances resulting in the transmission of the bacillus responsible for bubonic plague, *Yersinia pestis*,<sup>11</sup> to Europe in the 14th century. At the time of the rise of the Mongol world empire, one of the natural foci of the bacillus *Yersinia pestis* among communities of burrowing rodents was probably located in the borderland between India, China, and Burma in the Himalayan foothills; the other focus, as already mentioned, was in Africa.<sup>12</sup> The Eurasian steppelands between Manchuria and the Ukraine were almost certainly not yet a focus of plague, according to McNeill.<sup>13</sup> Although he believes that Mongol troops could have come in contact with this infected region as early as 1252–53, McNeill writes that the spread of this bacillus by human beings to the steppe region must have taken place shortly before 1331, the first year of a major outbreak of bubonic plague in Hopei, China. This epidemic repeated itself in 1353–54, spreading widely throughout China.<sup>14</sup>

### The plague spreads westward

The spread of bubonic plague did not, however, limit itself to China: both McNeill and Dols are in agreement over the westward course of this outbreak through Central Asia.<sup>15</sup> The tombstones and bones of the Nestorian gravesites near Issiq K l reveal that an outbreak of bubonic plague took place there in 1338–39.<sup>16</sup> The accounts of Ibn al-Ward <sup>17</sup> and Maqr z <sup>18</sup> confirm that the disease began in Central Asia and that it had been raging there for 15 years. Bubonic plague then struck the cities of the Golden Horde, including Saray and Astrakhan. From Astrakhan the plague spread through the Caucasus to Azerbaijan and Greater Armenia. The Italian commercial centres of the Crimea became the point of transmission of the Black Death to the Middle East and Europe. Italian merchants had been expelled from Tana (Azaq) in 1343, and they were besieged in the fortified city of Jaffa in 1343 and then again in 1345–46. During the siege of 1345–46 the bubonic plague appeared in the Mongol army as well as the rest of the Golden Horde.<sup>19</sup> Through their strong resistance, and perhaps due to the weakened state of the blockading army, the Genoese were able to lift the siege. Many Genoese fled to Constantinople, taking the infection with them. By 1347, the plague had reached Italy and Egypt. The ravages of the Black Death were upon Europe and the Middle East.<sup>20</sup>

Despite the absence of a body of historical literature devoted to the impact of disease on Central Asian history, it is possible to outline a series of hypotheses on the impact of the Black Death on the Golden Horde based on scholarship on the effects of bubonic plague in Western Europe, China, and the Middle East. In fact, such a line of inquiry has already been suggested by McNeill, who proposes but does not elaborate on a number of hypotheses for the Golden Horde and other territories in Central Asia.<sup>21</sup> The possible results of the Black Death that I would like to examine at this time include:

- (1) Large-scale depopulation.
- (2) Resultant instability of political structures.
- (3) Cultural and technological regression.
- (4) Population pressure.<sup>22</sup>

The first hypothesis, large-scale depopulation, must be considered one of the most significant results of the Black Death and other pandemics in history.<sup>23</sup> It has been reckoned that in Byzantium the epidemic of 541–42 reduced the population of the affected areas by 20–25%, and in the period 541–700 it helped reduce the population a total of 50–60%.<sup>24</sup>

The Black Death of the mid-14th century had similar consequences. In 1331, the first year of the outbreak of bubonic plague in Hopei, China, nine-tenths of the population are said to have died. During the second wave of the epidemic in 1353–54, the Chinese sources claim that two-thirds of the population died.<sup>25</sup> The population of Egypt may have declined one-quarter to one-third as a result of the Black Death.<sup>26</sup> For Europe it has been estimated that approximately one-third of the population died in the period 1346–50.<sup>27</sup>

There can be no doubt that the effects of the Black Death on the population in the territories of the Golden Horde and the rest of Central Asia must have been equally severe. It has already been seen that the Black Death visited numerous population centres in the southern regions of the Golden Horde. The same account of Maqrîzî cited earlier mentions depopulation in the steppe region prior to the arrival of the Black Death in the Middle East.<sup>28</sup> According to Ibn al-Wardî, when the outbreak arrived in the 'land of Özbek' (*bilâd Uzbek*) in Rajab 747/October–November 1346, the villages and towns were emptied of their inhabitants. The same account also refers to a report from a *qâdî* in the Crimea estimating 85,000 dead.<sup>29</sup>

Additional evidence comes from the Russian territories to the west, where the Russian chronicles report numerous occurrences of plague in cities throughout Russia accompanied by a high rate of mortality.<sup>30</sup> Following the first appearance of plague in Polotsk in 1349, it visited Pskov, Novgorod, Smolensk, Kiev, Chernigov, Suzdal' 'and the whole Russian land' in 1352 before finally reaching Moscow in 1353. It visited Pskov again in 1360, and in 1364–66 it visited Nijniy Novgorod and every major city of northeastern Russia. Many subsequent recurrences are documented in the sources.<sup>31</sup>

The appearance of the Black Death throughout the territories neighbouring the Golden Horde suggests that the pandemic must have left its mark on the northern

territories of the Golden Horde as well because, to paraphrase a remark by Gustav Alef, the great pandemic that played such havoc in Russia was not stopped by some eastern iron curtain.<sup>32</sup> Although the earliest wave of plague striking in 1349 is considered by many to have arrived in Russia from the west, there is still some question over whether this wave might not have come from the south, that is from an affected area of the Golden Horde such as the Crimea.<sup>33</sup> What is more, the Russian sources offer valuable confirmation of several additional episodes of the Black Death in the Golden Horde in the 14th century. The wave of 1364 is said to have originated in Saray,<sup>34</sup> and the wave of 1374 is said to have struck not only the 'entire Russian land', but the Golden Horde as well.<sup>35</sup> A final wave of the 14th century is said to have struck the Golden Horde in 1396.<sup>36</sup> In view of the evidence on the initial impact of the Black Death in the southern Golden Horde in 1346, a possible wave spreading north in 1349, and confirmations of plague elsewhere in the Golden Horde in 1364, 1374, and 1396, I consider it reasonable to assume that the Black Death visited most if not all of the western territories of the Golden Horde in this period.<sup>37</sup>

### **Demographic decline and unstable political structures**

The initial wave of bubonic plague in Western Europe was also followed by recurring waves of bubonic plague or other diseases leading to a long-term demographic decline.<sup>38</sup> It has been documented for Britain that the population continued to decrease for another 100–133 years, that is five or six generations after the initial wave of epidemic. The British population reached its low point sometime between 1440–80; it was only after this time that it began a slow recovery.<sup>39</sup> Similarly, it is considered that the Russian population did not return to its pre-Black Death level until about 1500.<sup>40</sup> Recurrences of plague—by now a fact of life in Europe, Russia, and the Middle East<sup>41</sup>—can only have served to worsen an already bad situation in the Golden Horde as well. If such lasting demographic effects can also be accepted for the Golden Horde, then in the 1340s the population of the Golden Horde must only have been at the beginning of a long period of steady decline.

At the same time, one should also exercise caution in discussing a possible initial reduction of 20–45% (the figure for Britain)<sup>42</sup> in the population of the Golden Horde or other territories in Central Asia. It has been pointed out that while some communities in Europe experienced total extinction, others—such as Milan—seem to have escaped entirely.<sup>43</sup> The reasons for such variation are complex and can include the path along which the bacillus is spread by humans and fleas.<sup>44</sup> Historically, ports of call for merchant shipping and the coastal regions near them have been more likely to be the scene of outbreaks of plague.<sup>45</sup> Such differences offer a basis for hypothesizing that different areas of Central Asia suffered different degrees of devastation, or sometimes even none at all. Such variation would result in demographic differentiation between the various regions of Central Asia, including differing impacts on the dense urban popula-

tion, the less dense agricultural population, and what was probably the least dense population of all, the nomadic population. I will return to this point below.

Another direct consequence was the instability of political structures resulting from the demographic disaster brought on by bubonic plague.<sup>46</sup> An argument has also been made for a reduction in available military manpower affecting the ability of the Mongol world empire to administer its various territories.<sup>47</sup> Clearly the loss of life affected the ruling classes as well as the lower social classes. Such an explanation has been offered for the premature deaths of members of the Mongol Yüan dynasty in China before the arrival of the Black Death in the territories of the Golden Horde.<sup>48</sup> In Moscow, the Black Death was responsible for the deaths of Grand Duke Semen, his only two sons, his brother Andrey, and Metropolitan Feognost, all in 1353.<sup>49</sup>

In the case of the Golden Horde, one can clearly argue the total fragmentation of centralized authority in the period following the outbreak of the Black Death in the Golden Horde in 1345–46 or earlier.<sup>50</sup> As is well known, Özbek Khan (r. 1313–41) can be considered one of the most successful khans in the history of the western half of the Golden Horde (also known as the 'White Horde' or the 'Khanate of Qıpçaq').<sup>51</sup> His fame did not derive from his longevity in office alone: Özbek was firmly in control of the tribal establishment in the Golden Horde,<sup>52</sup> he was successful in his efforts to Islamize the state, a high culture began to develop, and he was able to preserve the integrity of most of the territories under his control.

Özbek was succeeded first by his son Tinıbek (r. 1341–42) and later by another son Janıbek (r. 1342–57). Even though it was in the early part of Janıbek's reign that bubonic plague first visited the western territories of the Golden Horde, it is clear that there was internal stability in the Golden Horde for much of his reign. For example, the pattern of tribal organization which I term the 'four-bey system' was in operation during his reign.<sup>53</sup> The two-year reign of his son and successor Berdibek (r. 1357–59), however, preceded the complete and utter collapse of centralized authority, the Golden Horde. This time of 'great trouble' in the Horde (*velikaya zamyatnya* as the Russian sources term it) has never been explained satisfactorily.

The usual interpretation of the turmoil in the Golden Horde beginning at the end of the 1350s has involved only Berdibek's murder of his father in 1357, the subsequent murder of Berdibek by his own son Qulpa in 1359, then the murder of Qulpa, and so on. Although this may be the stuff of which Greek tragedies are made, it is not fully convincing as the major mechanism for the complete disintegration of centralized authority in the Golden Horde. This was not the first time that the rulership of the Golden Horde changed hands under violent circumstances: Noğay's long career of manipulating khans is the outstanding example of this.<sup>54</sup>

Usually, the political unity of the Golden Horde was preserved by the confederation of the four major 'ruling tribes' within the state. Following Berdibek's death, each of the four major tribal leaders supported a different individual for the position of khan without any long-term internal resolution of

this conflict, and with these events the political integrity of the Golden Horde was lost forever.<sup>55</sup> It seems that the death of large portions of the ruling élite had an even greater impact on the Golden Horde than on surrounding states such as Russia since central authority in the Golden Horde rested on the consensus of different sociopolitical groups within the state. The usual struggle between factions competing for power within the state could only have been exacerbated by the interruption of continuity in the ruling hierarchies of the Çingisid dynasty and the 'ruling tribes'. The argument noted above regarding the decimation of the military forces may have also contributed to the breakdown in centralized government. Clearly the Black Death should be one of the factors we consider when examining the destruction of many of the traditional political structures of the Golden Horde in this period.

A third significant consequence of the Black Death which must be considered is cultural and technological regression.<sup>56</sup> In Western Europe recurring waves of plague had a devastating effect on the major concentrations of the artisan, merchant and learned classes in urban centres. Urban centres in the Golden Horde were likewise home to classes of individuals with extensive educational backgrounds or highly developed skills.<sup>57</sup> The Black Death, which affected urban areas in the Golden Horde, as already noted, must have had devastating results particularly for these classes. McNeill has already suggested that depopulation may have been a more important factor in the decline of urban centres in the western steppe region than the campaigns of Tamerlane (Temürleng or Timur, d. 1405). He offers the interesting observation that while urban centres in Anatolia and India recovered quickly from Tamerlane's attacks and the transfer of artisans, the cities of the Golden Horde did not.<sup>58</sup>

There is also evidence to suggest that, as is the case of the Latin literary language in Europe, technological regression disrupted the development of a Turkic literary language and even literacy in the Golden Horde.<sup>59</sup> Perhaps an even closer parallel to the decline of Latin as a literary language as well as a good example of technological regression is provided by the Turkic funerary inscriptions from Volga Bulgaria. In this region Arabic-script inscriptions in Arabic or Turkic language on coins, tombstones, etc. date from as early as the 10th century while the last inscription dates from 1357.<sup>60</sup> In the city of Bulğar itself the earliest tombstone dates from 1271, while the last ones date from 1356.<sup>61</sup> At this time there were two separate Turkic languages or dialects used in inscriptions in this area: one was Volga Bulgarian (a language whose closest modern relative is Chuvash)<sup>62</sup> and the other was a language which may be considered an ancestor of modern Kazan Tatar.<sup>63</sup> By 1356–57, just over one decade following the earliest occurrence of the Black Death in the territories of the Golden Horde, there is a sudden end to the practice of writing funerary inscriptions in this northern region of the Golden Horde. At the same time, Volga Bulgarian ceases to exist as a written language.<sup>64</sup> This information should be seen as supporting the argument that the Black Death struck the northern territories of the Golden Horde, including Volga Bulgaria.

The fourth and final point is the possible creation of population pressure through demographic differentiation.<sup>65</sup> As pointed out earlier, different geographic areas can suffer different effects from the outbreak of bubonic plague, with the possibility of some areas totally escaping the effects of the disease. Also, it is likely that most if not all of the western territories of the Golden Horde were devastated by bubonic plague, probably losing anywhere from 20–45% of its population at the outset (if we are to judge by the experience of other regions of the world) or even more. We know less, however, about the effects of bubonic plague on the eastern half of the Golden Horde known as the 'Blue Horde' or on other regions of Central Asia. Could it be that some regions did not suffer as greatly from the effects of bubonic plague? If that is possibly the case, the resulting imbalance in population can serve to explain a particular set of migrations which occurred in the second half of the 14th century.

The death of Berdibek was followed by two decades of anarchy and fragmentation of all centralized authority in the Golden Horde. Although the tribal leader Mamay achieved a position of dominance, Mamay himself was never more than the leader of a single 'ruling tribe'. He was an *ulus bey* as Edigü would later be, or as was Mamay's contemporary in the Çağatay Khanate, Tamerlane. No Çingisid from the western half of the state seems to have achieved a position of dominance in the western territories of the Golden Horde again.<sup>66</sup>

Just as the now-debilitated Golden Horde is beginning to experience increased resistance on the part of the subject Russian principalities and the Lithuanian expansion into the south (1362, 1399),<sup>67</sup> from the 1360s to 1370s on it also begins to experience a series of attacks from the east. First Urus Khan and then Toqtamış lead campaigns against the core territories of the western half of the Golden Horde. It must be noted here that the sources give two different interpretations regarding the origins of Toqtamış. Although one source tradition offers a western origin (that is the 'White Horde' or the Khanate of Qıpçaq), a different source tradition, the one usually accepted, offers an eastern (or 'Blue Horde') origin.<sup>68</sup> For the purpose at hand it is not important which was the case. What is important, however, is that when Toqtamış is *de facto* or *de jure* ruler in the western territories in the 1380s and part of the 1390s, he is supported by a confederation of four 'ruling tribes' consisting of the Şirin, Arğın, Barın, and Qıpçaq. It has been shown that these four tribes migrated to this territory at the end of the 14th century with Toqtamış.<sup>69</sup> The same four tribes will later form the basis of the khanates of the Crimea, Kazan, and part of the khanate of Kasimov.<sup>70</sup>

The significance of this fact becomes clear only when it is recognized that the original confederation of four tribes in the Golden Horde was probably quite different. It can be shown that the four tribes of the nomadic Great Horde of the 15th century were the Qıyat, Mangıt, Sicivut, and Qongrat.<sup>71</sup> If we consider the nomadic Great Horde to be the last remnant of the earlier Golden Horde and its direct continuation, then these four tribes (the Qıyat, Mangıt, Sicivut, and Qongrat) must also have been the original tribes of the Golden Horde. This may be considered just one example of a movement of population to an area depopulated by the Black Death.<sup>72</sup> It is possible that other movements of

population in the steppe region during the period 1350–1500 can also be attributed to pressure to move into depopulated areas.

I conclude by noting that the preliminary interpretations offered in this paper fall outside the mainstream traditional interpretations of the history of the Golden Horde in the second half of the 14th century. Clearly, the Black Death of the mid-14th century resulted in a period of intense social and economic transformation in Central Asia which deserves further attention; and the reader is reminded that the Black Death was not the only recorded epidemic with a significant impact on the history of Central Asia.

### Notes and references

1. For a recent discussion of the Black Death as a historical problem see R. S. Gottfried, 'Black Death', *Dictionary of the Middle Ages*, ed. J. R. Strayer, ii (New York, 1983), pp 257–267; and *The Black Death. Natural and Human Disaster in Medieval Europe* (New York, 1983). For an up-to-date review of the literature on the history of disease in general, including the Black Death and its consequences, the reader is referred to the bibliographical essay in A. G. Carmichael, *Plague and the Poor in Renaissance Florence*, Cambridge History of Medicine (Cambridge, 1986), pp 166–175.
2. *Plagues and Peoples* (Garden City, NY, 1976).
3. *The Black Death in the Middle East* (Princeton, 1977).
4. Many of the views expressed by Dols and McNeill have recently been challenged: see J. Norris, 'East or West? The geographic origin of the Black Death', *Bulletin of the History of Medicine* 51 (1977), pp 1–24; M. W. Dols, 'Geographical origin of the Black Death: Comment', *Bulletin of the History of Medicine* 52 (1978), pp 112–113; and J. Norris, 'Response', *Bulletin of the History of Medicine* 52 (1978), pp 114–120. I hope to address the issues raised in this debate in a future study as well as in my forthcoming study of the Golden Horde in the 13th–14th centuries (SUNY Press, forthcoming).
5. See also Carmichael, *Plague and the Poor in Renaissance Florence*, pp 10–26.
6. *The Black Death in the Middle East*, pp 13–15. McNeill (*Plagues and Peoples*, pp 110–112) postulates northern India as another point of origin for this outbreak.
7. *The Black Death in the Middle East*, pp 18–35.
8. *Plagues and Peoples*, pp 117–120; cf. Norris, 'East or West? The geographic origin of the Black Death', pp 3–6.
9. *Plagues and Peoples*, pp 259–269. See also Gottfried, *The Black Death*, pp 4–15.
10. *Plagues and Peoples*, p 141.
11. This bacillus was formerly known as *Pasteurella pestis* until 1971 and is still often cited as such in the historical literature. See Carmichael, *Plague and the Poor in Renaissance Florence*, pp 6–7.
12. Cf. Norris, 'East or West? The geographic origin of the Black Death'.
13. *Plagues and Peoples*, pp 140–141. There is evidence from an earlier period supporting this view: according to Theophylactus Simocatta's notice on the Western Türk embassy of 598 to the Emperor Maurice (r. 582–602), the Türk are said to boast that in the region of Issiq Köl they had never seen the occurrence of contagious disease since the earliest times. See E. Chavannes, 'Documents sur les Tou-kiue (Turcs) Occidentaux', *Documents sur les Tou-kiue (Turcs) Occidentaux. Recueillis et commentés. Suivi de Notes additionnelles* (St Petersburg, 1900 and 1903/Paris, nd), p 248; and Dols, *The Black Death in the Middle East*, p 16. See also the Russian translation of this source: Feofilakt Simokatta, trans. S. P. Kondrat'ev, *Istoriya, Pamyatniki srednevekovoy istorii narodov Tsentral'noy i Vosotchnoy Evropi* (Moscow, 1957), p 161. I would like to thank C. I. Beckwith for directing me to his discussion of a source which mentions the presence of plague in Tibet in 739–40 in connection with the death of the Princess Chin-ch'eng; see his 'The revolt of 755 in Tibet', *Contributions on Tibetan Language, History and Culture. Proceedings of the Csoma de Kőrös Symposium held at Velm-Vienna, Austria, 13–19 September 1981*, ed. E. Steinkellner and H. Tauscher, i, Wiener Studien zur Tibetologie und Buddhismuskunde 10 (Vienna, 1983), pp 1–16, especially pp 7–8.
14. *Plagues and Peoples*, pp 142–145.
15. *Plagues and Peoples*, pp 144–146; and *The Black Death in the Middle East*, pp 35–50. Cf. the views of Norris, 'East or West? The geographic origin of the Black Death', which contradict many of the arguments offered here by McNeill and Dols.
16. McNeill, *Plagues and Peoples*, pp 145–146; and Dols, *The Black Death in the Middle East*, pp 48–50; but cf. Norris, 'East or West? The geographic origin of the Black Death', p 10. For a description of these



- inscriptions and further bibliography, see T. W. Thacker, 'A Nestorian gravestone from Central Asia in the Gulbenkian Museum, Durham University', *The Durham University Journal* 59 (1967), pp 94–107; and my article in the Róna-Tas Festschrift cited below (n. 64).
17. According to Ibn al-Wardī the plague began in the 'land of darkness', probably meaning Inner Asia (see the references in Dols, *The Black Death in the Middle East*, p 40; and McNeill, *Plagues and Peoples*, p 144). A translation of the full passage (including references to China, India, the land of Özbek [*bilād Uzbek*], Transoxania, the Persians, Xiṭā, the Crimea, Rûm, Cyprus, and the Arab lands) is available in M. Dols, 'Ibn al-Wardī's *Risālah al-naba' ian al-waba'*, A translation of a major source for the history of the Black Death in the Middle East', *Near Eastern Numismatics, Iconography, Epigraphy and History. Studies in Honor of George C. Miles*, ed. D. K. Kouymjian (Beirut, 1974), pp 443–455, especially p 448 (for a reference to the original text of the *Risāla* in Ibn al-Wardī's *Dīwān* see p 446 n 16). The major portion of the *Risāla* is also reproduced in Ibn al-Wardī, *Tārīx Ibn al-Wardī* (Baghdad, 1969), ii, pp 501–504, which is identical with the *Tatimmat al-muxṭaṣar fī axbār al-baṣār* (Baghdad, 1970), ii, pp 497–500. (Cf. the reference in Dols, *The Black Death in the Middle East*, p 51 n 16, to the *Tatimmat al-muxṭaṣar*, Baghdad, 1969, ii, pp 501–506.) On the works of Ibn al-Wardī see the references in M. Ben Cheheb, 'Ibn al-Wardī', *Encyclopaedia of Islam*, iii (Leiden, 1971), pp 966–967.
  18. According to Maqrīzī it had begun in the lands of the Great Khan, that is in the land of Xiṭā and Muḡul, after which it reached the land of Özbek. See *As-sulūk li-ma'rīfat duwal al-mulūk*, ii/3, ed. M. M. Ziada (Cairo, 1958), p 773; and Dols, *The Black Death in the Middle East*, pp 40–41.
  19. Maqrīzī (*As-sulūk li-ma'rīfat duwal al-mulūk*, ii/3, p 773) gives the date 742/1341–2 for the arrival of the Black Death in the land of Özbek.
  20. Dols, *The Black Death in the Middle East*, pp 50–67. Cf. Gottfried, *The Black Death*, pp XVI and 22–32.
  21. *Plagues and Peoples*, pp 168–175.
  22. I will not discuss the well-known economic consequences of the Black Death here. For an overview of these consequences see P. Ziegler, *The Black Death* (New York, 1969), pp 232–251; Dols, *The Black Death in the Middle East*, pp 255–280; and Gottfried, *The Black Death*, p 135 ff.
  23. Ziegler, *The Black Death*, pp 224–231; and Gottfried, *The Black Death*, pp 134–136.
  24. J. C. Russell, 'That earlier plague', *Demography* 5:1 (1968), pp 174–184, especially p 180; and Dols, *The Black Death in the Middle East*, p 17.
  25. McNeill, *Plagues and Peoples*, pp 143–144.
  26. Dols, *The Black Death in the Middle East*, pp 212–223, especially p 218.
  27. McNeill, *Plagues and Peoples*, pp 149–150.
  28. *As-sulūk li-ma'rīfat duwal al-mulūk*, ii/3, pp 773–774; and Dols, *The Black Death in the Middle East*, pp 40–41.
  29. See Dols, *The Black Death in the Middle East*, pp 51–52 n 60 (citing the *Tatimmat al-muxṭaṣar fī axbār al-baṣār*) and n 61 (citing the *Tārīx Ibn al-Wardī*, ii, p 492, which is identical with the *Tatimmat al-muxṭaṣar*, ii, p 489; see n 17 above on the references in Dols to both these works). Although Dols states in n 60 that Russian scholars have used the translation of Ibn al-Wardī in the collection of extracts and translations of sources published by V. G. Tizengauzen, *Sbornik materialov otnosyashchikhsya k istorii Zolotoy ordi*, i: *izvlecheniya iz sochineniy arabskikh* (St Petersburg, 1884), there is no such translation. There is, however, a reference to the works of Ibn al-Wardī and Abū l-Fidā' accompanying a reference to plague in 1348–49 by 'Aynī in a selection from his '*Iqd al-Jumān*', Ar. p. 497–498/trans. pp 529 (see p 498 n 1). According to this report the plague came to Syria and Egypt from the north.
  30. Western scholars have only recently begun to pay attention to the consequences of the Black Death in Russia. See G. Alef, 'The crisis of the Muscovite aristocracy: a factor in the growth of monarchical power', *Forschungen zur osteuropäischen Geschichte* 15 (1970), pp 15–58, especially p 36 ff [reprinted in *Rulers and Nobles in Fifteenth-Century Muscovy* (London, 1983), V]; L. N. Langer, 'The Black Death in Russia: its effects upon urban labor', *Russian History* 2 (1975), pp 53–67; and 'Plague and the Russian countryside: monastic estates in the late fourteenth and fifteenth centuries', *Canadian-American Slavic Studies* 10 (1976), pp 351–368; and J. T. Alexander, *Bubonic Plague in Early Modern Russia. Public Health & Urban Disaster* (Baltimore, 1980).
  31. On the course of the Black Death through the territories of Russia see F. A. Derbek, *Istoriya chumnikh ēpidemiy v Rossii s osnovaniya gosudarstva do nastoyashchogo vremeni*, Seriya doktorskikh dissertatsiy dopushchennikh k zashchite v Imperatorskoy voenno-meditsinskoy akademii v 1904–05 uchebnom godu 14 (St Petersburg, 1905), pp 14–25; Alef, 'The crisis of the Muscovite aristocracy', pp 37–38; Langer, 'The Black Death in Russia', pp 55–61; and the map in 'Plague and the Russian countryside', p 368; and Alexander, *Bubonic Plague in Early Modern Russia*, pp 12–15.
  32. 'The crisis of the Muscovite aristocracy', p 36.
  33. See Langer, 'The Black Death in Russia', pp 56–57; and Alexander, *Bubonic Plague in Early Modern Russia*, p 13.

34. Langer, 'The Black Death in Russia', p 57. I am grateful to George Mellinger for drawing my attention to the numismatic evidence he has presented in a paper entitled 'The Silver Coins of the Golden Horde, 1310-1358' (American Numismatic Society, summer 1986). Mellinger believes that two types of Golden Horde coinage, the first minted in Saray in the year 746/1345-46 (and continued from 752/1351-52 to 754/1353) and the second minted in 749/1348-49, reflect the havoc caused by the Black Death in the Golden Horde. I direct the reader to the published version of Mellinger's paper 'The silver coins of the golden horde: 1310-1358; *Archivum Eurasiae Medii Aevi*, 7 (1987-1991), pp. 153-211. On the coinage of this period see also A. G. Mukhamadiev, *Bulgaro-tatarskaya monetnaya sistema XII-XV vv.* (Moscow, 1983), pp 81-85.
35. Derbek, *Istoriya chumnikh épedemiy v Rosii*, p 23; and Langer, 'The Black Death in Russia', p 57.
36. Derbek, *Istoriya chumnikh épedemiy v Rosii*, p 25; and Alexander, *Bubonic Plague in Early Modern Russia*, p 15.
37. I am referring to the western half of the Golden Horde known initially as the *ulus* of Joçi and later as the *ulus* of Batu, the 'Khanate of Qıpçaq', or the 'White Horde' (as opposed to the eastern half known later as the *ulus* of Orda or the 'Blue Horde'). On this identification see n 51 below.
38. Gottfried considers the recurring waves of epidemic more significant for long-term demographic decline than the initial wave itself (*The Black Death*, pp XVI-XVII and 130-135).
39. McNeill, *Plagues and Peoples*, p 150.
40. Langer, 'The Black Death in Russia', p 62.
41. Langer, 'The Black Death in Russia', pp 55-61; Dols, *The Black Death in the Middle East*, pp 223-231; and McNeill, *Plagues and Peoples*, pp 149-153.
42. McNeill, *Plagues and Peoples*, p 149.
43. McNeill, *Plagues and Peoples*, p 147.
44. S. R. Ell, 'Interhuman transmission of medieval plague', *Bulletin of the History of Medicine* 54 (1980), pp 497-510.
45. McNeill, *Plagues and Peoples*, pp 113-114; and Norris, 'East or West? The geographic origin of the Black Death', p 16.
46. McNeill, *Plagues and Peoples*, p 81; and Gottfried, *The Black Death*, pp 146-152.
47. McNeill, *Plagues and Peoples*, pp 168-170. See also Maqrîzî, *As-sulûk li-ma'rifat duwal al-mulûk*, ii/3, p 773 and n 4.
48. Dols, *The Black Death in the Middle East*, p 41. J. W. Dardess, *Conquerors and Confucians. Aspects of Political Change in Late Yüan China* (New York, 1973), p 55, does not indicate disease as the cause of death of the individuals concerned.
49. Alef, 'The crisis of the Muscovite aristocracy', p 38.
50. For the traditional surveys of the political history of the Golden Horde in the period following the death of Özbek see V. L. Egorov, *Istoricheskaya geografiya Zolotoy Ordî v XIII-XIV vv.* (Moscow, 1985), p 207 ff; and 'Razvitie tsentrobejnikh ustremleniy v Zolotoy Orde', *Voprosi Istorii* 1974:8, pp 36-50, especially p 44 ff; G. A. Fedorov-Davidov, *Obshchestvennyy stroy Zolotoy Ordî* (Moscow, 1973), p 145 ff; B. D. Grekov and A. Yu. Yakubovskiy, *Zolotaya Orda i ee padenie* (Moscow-Leningrad, 1950), p 261 ff; C. Halperin, *Russia and the Golden Horde. The Mongol Impact on Medieval Russian History* (Bloomington, 1985), p 54 ff; M. Kafalı, *Altın orda hanlığının kuruluş ve yükseliş devirleri* (Istanbul, 1976), p 82 ff; A. N. Nasonov, *Mongoli i Rus' (Istoriya tatarskoy politiki na Rusi)* (Moscow-Leningrad, 1940/The Hague-Paris, 1969), p 117 ff; M. G. Safargaliev, *Raspad Zolotoy Ordî, Uchenie zapiski Mordovskogo gosudarstvennogo universiteta* 11 (Saransk, 1960), p 101 ff; Spuler, *Die Goldene Horde*, p 99 ff; I. Vásáry, *Az Arany Horda* (Budapest, 1986), p 117 ff; and G. Vernadsky, *The Mongols and Russia, A History of Russia*, iii (New Haven, 1953), p 204 ff.
51. The identification of the 'White Horde' and the 'Blue Horde' (in my opinion the *ulus* of Batu and the *ulus* of Orda, respectively) remains controversial. On the early history of these divisions see T. Allsen, 'The princes of the left hand: an introduction to the history of the *Ulus* of Orda in the thirteenth and early fourteenth centuries', *Archivum Eurasiae Medii Aevi* 5 (1985 [1987]), pp 5-40. Cf. most recently Vásáry (Az Arany Horda, p 129 ff), who follows Yakubovskiy (*Zolotaya Orda i ee padenie*, pp 262 ff. and 295 ff) in identifying the western half of the Golden Horde as the 'Blue Horde'. For criticisms of this theory see Vernadsky, *The Mongols and Russia*, p 139; and U. Schamiloğlu, 'Tribal politics and social organization in the Golden Horde', PhD dissertation (Columbia University, 1986), pp 163-171; and my forthcoming study of the Golden Horde.
52. 'Tribal politics and social organization in the Golden Horde', pp 150-155.
53. 'Tribal politics and social organization in the Golden Horde', pp 158-159. For general remarks on the 'four-bey system' see also U. Schamiloğlu, 'The *Qaraçı* beys of the later Golden Horde: notes on the organization of the Mongol world empire', *Archivum Eurasiae Medii Aevi* 4 (1984), pp 283-297; and 'Altın Orda Hanlığı ve Halef Devletlerinde Türk Kabile Teşkilâtı', forthcoming in the proceedings of the

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- VI. Uluslararası Türkoloji Kongresi (Istanbul, 1988). (The latter article, which I do not cite in the following notes, offers references relevant to a number of the points discussed below.)
54. See in addition to the general surveys noted above N. I. Veselovskiy, *Khan iz temnikov Zolotoy ordi. Nogay i ego vremya*, Zapiski Rossiyskoy akademii nauk, VIII, 13:6 (Petrograd, 1922); and 'Tribal politics and social organization in the Golden Horde', pp 129-148.
  55. 'Tribal politics and social organization in the Golden Horde', p 172 ff.
  56. McNeill, *Plagues and Peoples*, p 107; and Gottfried, *The Black Death*, pp 152-156 (but cf. pp 141-142).
  57. On the cities of the Golden Horde see Egorov, *Istoricheskaya geografiya Zolotoy Ordı v XIII-XIV vv.*; and the works of G. A. Fedorov-Davydov, including [G. A. Fyodorov-Davydov], *The Culture of the Golden Horde Cities*, British Archeological Reports, International Series 198 (Oxford, 1984); and [G. A. Fedorov-Davydov], *Städte der Goldenen Horde an der unteren Volga*, Materialien zur Allgemeinen und Vergleichenden Archäologie 11 (Munich, 1984).
  58. McNeill, *Plagues and Peoples*, p 169.
  59. I have argued this in 'The *Umdet ül-ahbar* and the Turkic narrative sources for the Golden Horde and the later Golden Horde', *Central Asian Turkic Monuments*, ed. H. B. Paksoy (Istanbul, 1992, pp 157-163).
  60. On the dating of Arabic-script inscriptions in this area see A. Róna-Tas and S. Fodor, *Epigraphica bulgarica*, Studia Uralo-Altaica 1 (Szeged, 1973), pp 38-40.
  61. D. G. Mukhametshin and F. S. Khakimzyanov, *Épigraphicheskie pamyatniki goroda Bulgara* (Kazan, 1987), p 120.
  62. On these inscriptions see F. S. Khakimzyanov, *Yazık épitafiy Voljskikh Bulgar* (Moscow, 1978).
  63. On these inscriptions see F. S. Khakimzyanov, *Épigraphicheskie pamyatniki Voljskoy Bulgarii i ikh yazık* (Moscow, 1987).
  64. For additional details on Volga Bulgarian and other Middle Turkic languages see 'The end of Volga Bulgarian', *Varia Eurasistica. Festschrift für Professor András Róna-Tas* (Szeged, 1991), pp 157-163.
  65. See also McNeill, *Plagues and Peoples*, pp 169-173.
  66. 'Tribal politics and social organization in the Golden Horde', p 172 ff.
  67. See J. Pelenski, 'The contest between Lithuania-Rus' and the Golden Horde in the fourteenth century for supremacy over Eastern Europe', *Archivum Eurasiae Medii Aevi* 2 (1982), pp 303-320.
  68. For a discussion of the sources see 'Tribal politics and social organization in the Golden Horde', pp 179-184.
  69. Abdülqaffar Kırımı, ed. N. Asım, *Umdet üt-tevarih*, Türk Tarih Encümeni Mecmuası, İlave (Istanbul, AH 1343), pp 48, 55, and 79; Kafalı, *Altın orda hanlığı*, pp 31-47 and 101-114, especially p 42; H. Inalcık, 'The Khan and the tribal aristocracy: the Crimean Khanate under Sahib Giray I', *Harvard Ukrainian Studies* 3-4/i (1979-80), pp 445-466; and 'Tribal politics and social organization in the Golden Horde', p 183.
  70. 'Tribal politics and social organization in the Golden Horde', pp 45-56.
  71. *Pamyatniki diplomaticheskikh snosheniy moskovskogo gosudarstva s krımskoyu i nagayskoyu ordami i s Turtsiyei*, ii, ed. G. O. Karpov, Sbornik Imperatorskogo Russkogo istoricheskogo obshchestva 95 (St Petersburg, 1895), p 20. See also V. E. Siroechkovskiy, 'Mukhammed-Giray i ego vassalı', *Uchenie zapiski Moskovskogo ordena Lenina gosudarstvennogo universiteta im. M.V. Lomonosova* 61: Istoriya 2 (1940), pp 3-71, especially pp 38-39; and the index to *Altın orda hanlığı* for the tribes indicated ('Kıyat', 'Kongirat', 'Mangıt', and 'Secut').
  72. Cf. McNeill, *Plagues and Peoples*, pp 170-171.