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THE PLAGUE OF 542: NOT THE BIRTH OF THE CLINIC*

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ABSTRACT

Drawing on questions raised by Foucault's *Birth of the Clinic*, this paper looks at the accounts of the bubonic plague which struck Constantinople in 542, and reflects on the range of responses to the epidemic. Although there were attempts to find a scientific explanation of the disease, not surprisingly little progress was made, and thus the epidemic did not give a boost to the development of clinical medicine. Nevertheless, the plague forced Justinian to reform the system of health care and to give more attention to community health. The plague also made an impact on the social, economic and religious geography of the empire.

1. Celestial causes

Fred Hoyle and Chandra Wickramasinghe touted the idea that influenza epidemics are attributable to viruses which strike earth from outer space. How else could flu epidemics break out on Tristan da Cunha beyond the incubation period of viruses that might have been imported by passengers

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1 M. Foucault, *Naissance de la clinique* (Paris 1963) is available in an English translation by A.M. Sheridan Smith, *The Birth of the Clinic* (New York 1973, London 1975). Foucault wrote that his book was about space, language, death and the gaze. He showed how the modern clinical hospital grew out of the emergence of clinical medicine in France (but not only in France) in the eighteenth century. Clinical medicine also generated new power relations, as the patient became an object of scientific enquiry, the poor in this way repaying their benefactors and society.
or crew on the most recent ship to reach the island?² Such an idea would not have seemed strange to some commentators on plague in antiquity, when foul air was commonly seen as the cause of the spread of disease. What precisely caused the disease was a matter of speculation, since it was beyond observation: rival theories of contagion centred on deviant atoms and air-borne seeds.³

When bubonic plague struck Constantinople in 542,⁴ there were obviously those who thought that the plague came from heaven in a theological sense; but there were others who sought an explanation in the natural order. Thus Procopius, writing c. 550, is dismissive of the rationalisations of the ‘physiologists’—physiologia here denoting not what we mean by the term, but rather the study of the rational operation of the universe. Procopius goes on to list the variables that could be excluded as causal factors: geography, ethnicity, season, gender, age, habitat, lifestyle, temperament, activities.⁵ He repeats the point that it could strike at any time of the year. So, he concludes, any ‘sophist’ or ‘meteorologos’ may offer his evaluation of such factors, but he will content himself with a simple account of the development of the epidemic and of its effects on humans. In the passage summarised, Procopius refers to the plague as an act of God, his formulation in the two key phrases⁷ being compatible with Christian terminology, but not an affirmation of Christian belief. It is true that in the

⁵ Procopius, Bella 2.22.1.
⁶ Bella 2.22.3-4.
⁷ Bella 2.23.1 and 2; cf. 18, but the phraseology becomes non-committal at 23.15 and 16.
Anecdota (Secret History) Procopius includes the plague in a long series of (natural) disasters – floods and earthquakes – which affected various communities in the Roman empire, not only when Justinian was emperor, but also in the period when he shared the administration with Justin.\textsuperscript{8} Leven interprets this passage as proof that Procopius' attitude was not agnostic.\textsuperscript{9} But over against the reasonably objective account in the Wars, this passage in the rumbustuous Secret History is illogical and manifestly denunciatory. While Procopius introduces the section with the line, 'I shall show you what troubles he landed people in by his deeply-concealed powers and demonic nature', the supposed Christian interpretations of these disasters are couched in views attributed to sections of the population: some claimed that they were caused by his demonic presence; others believed that the Divine (τὸ θεῖον and not ὁ θεός) hated his actions and turned away, leaving the empire to the abominable demons. This may be taken as evidence of the way people spoke in the period 542-c. 550, but does not appear to be a reliable guide to Procopius' own religious beliefs.

Where in the Wars Procopius distances himself from the theorising of sophists and 'meteorologoi'\textsuperscript{10} he is obviously intentionally echoing Thucydides 2.48.3, who leaves it to any doctor or layman to explain the cause of the epidemic of 430 BC. Thucydides disingenuously disavows any

\textsuperscript{8} Anecdota 18.36-45. Justinian was successively Comes, Magister militum praesentalis and finally co-emperor with Justin.

\textsuperscript{9} K-H. Leven, 'Athumia and philanthropia: social reactions to plagues in late antiquity and early Byzantine society', in Ph.J. van der Eijk et al. (eds.), Ancient Medicine in its Socio-Cultural Context: Papers Read at the Congress held at Leiden University 1992 (Amsterdam 1995), Vol. 2, 393-407, esp. 398. Leven was taking issue with P. Allen, 'The “Justinianic” plague', Byzantion 49 (1979) 5-20, who labelled Procopius agnostic and noted the same approach in Agathias, Historiae 5.10.7-10, where Agathias disclaims any intention to adjudicate between rival theories on the causes of the plague, since that would be beyond his capabilities, or irrelevant to his immediate task. Insofar as Procopius and Agathias are 'agnostic' in their treatment of the deep cause of the plague, the influence of Thucydides is clear, but one might also say that they follow in the tradition reflected in, if not created by, Galen. In his De propriis placitis (On my own opinions), edited, translated and commented on by V. Nutton (Berlin 1999), Galen says that he does not now whether there is anything external to the universe; he believes that there are creative forces imminent in the universe, but considers that the substance of the divine is unknowable (De propr. placitis 2.1-3).

\textsuperscript{10} Procopius, Bella 2.23.5. The OED s.v. meteorologian cites a line of Purchas written in 1614: 'The “Athenians persecuted Naturall Philosophers, and Meteorologians, as adversaries to Divinitie.’ Purchas and Procopius had two roughly similar groups of philosophers in mind.
medical understanding; Procopius distances himself from those whose speculations ranged from metaphysics and perhaps cosmology to astrology.\textsuperscript{11} By implication Procopius indicates that there were those whose accounts of the heavenly origins of the plague were more (pseudo-) scientific than theological. The picture was confusing, because in this Graeco-Roman setting writers sought explanations of the plague that were rational and exculpated the divine: thus the concern was to balance science and theology.\textsuperscript{12}

Procopius, like Thucydides, proceeded to offer a detailed description of the plague. There is no good reason to dismiss Procopius’ account as a pale copy of Thucydides:\textsuperscript{13} there are too many points of difference in detail and structure. But Procopius’ account is, like Thucydides’, complex, with a mix of sober scientific reporting and rhetorical elaboration. While Thucydides begins by disavowing special medical knowledge, Procopius echoes ‘Christian polemic against scientific or pseudo-scientific thinking’,\textsuperscript{14} but both authors are feigning modesty as was conventional in the\textit{ captatio benevolentiae}, a rhetorical device to win the reader’s sympathy.

2. The clinical gaze

Procopius’ account is sufficiently detailed and comprehensive to satisfy modern writers on medical history that it was indeed bubonic plague,
though there is less agreement on the specific variants that are attested.\textsuperscript{15} But of relevance to this paper is the point that Procopius steers clear of metaphysical accounts and comes down to what Foucault has called ‘the clinical gaze’. Procopius indicates sets of variables that could be of clinical significance: symptoms; factors that could be proximate causes of contagion, such as physical contact with the afflicted or deceased (\textit{Wars} 2.22.23); modes of treatment of the sick; prophylactic measures (22.34); time elapsed between manifestation of the disease and death (22.30); and effects that remained with those who survived (22.37-39). There was, says Procopius, no discernible consistency in these variables by which one could arrive at a cause of the epidemic. But, significantly, all the variables imply that there were both close observation and some experimentation.

The clinical gaze is more directly indicated in \textit{Wars} 2.22.29, where Procopius says that some of the physicians, who were at a loss because of their lack of understanding of the symptoms, and who thought that the critical point of the disease was centred in the bubonic swellings, decided to engage in post-mortem investigations. When they prized open some of the swellings, they found a strange sort of carbuncle (\textit{anthrax}) that had grown inside. Bratton explains that ‘this was ... the remains of the swollen lymph node, probably darkened by haemorrhages produced by the toxins given off by the high concentrations of bacteria within the infected organ.’\textsuperscript{16} This pathological discovery did not leave them a lot wiser, nor did it result in any curative procedure, but it can be seen as a minor point in the evolution of clinical medicine. Perhaps it is a mark of progress that Procopius does not, as Galen did, associate ‘anthrakes’ with black bile.\textsuperscript{17} The doctors could be forgiven for not making the connection between the plague and rats and fleas, and in any case when bubonic plague developed into pneumonic plague, the disease could be transmitted without the agency of fleas.

Procopius’ account shows that medical study of the plague generally focused on the sequence of symptoms and the patterns of development of the disease in individuals; in other words the focus was more on the history


\textsuperscript{16} Bratton (note 15) 120.

\textsuperscript{17} Galen, \textit{De differentiis febrorum} 2.11, ed. Kühn (note 3), Vol. 7, 376, on which see R.E. Siegel, \textit{Galen's System of Physiology and Medicine} (Basel 1968), esp. 282.
of the disease. Thus Procopius follows in the tradition stretching back through Galen to the Hippocratic school in emphasising prognosis – the establishment of records, and hence patterns, by which a doctor might with some confidence determine whether the immediate case had a reasonable chance of survival.\(^{18}\) But the physicians who conducted post-mortem investigations were more interested in the localisation of symptoms, and thus, as Foucault would put it, the geography of the symptoms. Their working hypothesis seems to have been that the disease might be localised where the symptom was localised.

The bubonic swellings did not occur only in the groin but also inside the armpit, and, in some cases, beside the ears and at various points on the thighs, says Procopius (\textit{Wars} 2.22.17), and as is consistent with bubonic plague. Thus the physicians would have seen that it was not an affliction of one particular part of the body. There is no indication that the physicians went on to investigate what the sites of the swellings had in common. There is also no indication that anyone made a connection between the site of the swelling and the possible primary source of infection, a flea-bite.

Of course, the physicians faced a more complicated situation because it would appear that the variant form, pneumonic plague, was also present. Pneumonic plague is suggested by Procopius’ references to panic attacks as some rushed to get into the open air (\textit{Wars} 2.22.21 and 24), presumably trying to get air. Admittedly, ‘air hunger’ can be a symptom of bubonic plague,\(^{19}\) and Procopius states that no physician or carer contracted the disease by touching a plague sufferer or corpse (22.23). The claim that no physician contracted the plague through contact with a sufferer may be significant, and tell against the presence of pneumonic plague, if the claim is true and Procopius’ definition of a physician was precise. But Procopius’ statement would also admit the possibility that there were doctors and carers who were deemed to have

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contracted the disease, but not by contagion, in which case the statement has less value as evidence that the pneumonic strain of plague did not reach Constantinople.

In any case, Procopius mentions that in some cases a symptom was a rash of black pustules (22.22 and 30), which suggests that septicaemic (otherwise referred to as vesicular or carbuncular) plague was a variant that surfaced in 542. Thus the point remains that post-mortem examinations of bubonic swellings would not have provided an explanation of the plague, which would at the same time explain the variant forms that the plague may have manifested in Constantinople.

T.S. Miller argues that Justinian was responsible for the birth of the clinic as an institution that would provide care for the sick, engage in research and provide training for doctors. It would make an uplifting story if the plague provided the stimulus for scientific investigation which encouraged Justinian to create the precursor of the teaching hospital. However, in the first place, the crucial administrative reform to which Miller refers – namely the transfer of civic physicians to ecclesiastical hospitals – was, according to his own reconstruction, introduced about ten years before the plague, and in any case Justinian’s supposed empire-wide reform of c. 532 is seen by Nutton as a construct resting on flimsy foundations and negated by provisions for civic physicians enshrined in the Code of 534. Furthermore, it was some considerable time before a system was formalised whereby training in theory and a lengthy practical apprenticeship led to final examination and certification. That seems to be

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20 Grmek (note 3, esp. 66) notes that Procopius was too steeped in classical readings to accept the idea that a disease which spread so fast could be attributed to contagion.


24 Nutton (note 23).
explicitly attested first in a decision of an ecclesiastical synod of 1140. But the idea must go back at least to 1136, the date of the foundation of the Pantokrator teaching hospital in Constantinople. Secondly, as we have seen, physicians learnt little from the plague either about its aetiology or about appropriate treatment. Thirdly, Miller’s interpretation of the evidence relating to hospitals in Justinian’s reign seems to go beyond what the evidence allows. Critical to Miller’s case about the Sampson Xenon is the association of the archiatroi with the hospital, but the first direct reference to archiatroi being obliged to assist at the Sampson is set in the context of the reign of Maurice (582-602), and the earliest direct attestation of surgery at the Sampson Xenon adduced by Miller appears to be the operation conducted on the genitals of the deacon Stephen in the reign of Heraclius (610-641).

The failure of the physicians in this crisis to demonstrate their dispensability or to add significantly to medical science surely retarded the development of the clinic, and in the following period Christian healers were vocal in their claim to be as effective as those who charged money for their services as doctors. The debate, if it can be called that, was not so much about the rival merits of alternative medical techniques as between Christian charity and professional private enterprise. Of course, the view that the doctors ‘failed’ is a judgement from a modern perspective. At the time, doctors were still only expected to offer a prognosis and assist, if possible, but were not expected to risk their lives if the prognosis was unfavourable.

26 In the world of Islam, the teaching hospital has a longer history, beginning in the ninth or tenth century.
The ‘clinical gaze’ was limited, and this had a bearing on the status of the sick. For the clinic turns the sick into ‘patients’, the object of the clinical gaze, the subject of experimentation, and the recipients of instruction. The physician is the authority, and the patient submits to his direction. Furthermore, in the system where the state, or, for that matter private medicine establishes a scientific clinic, the patient must submit to being the exhibit. As Foucault notes, the poor, by providing the spectacle of suffering, provided the information that made investment in hospital care viable. Justinian was some way from creating the model of clinic which Foucault was describing, but Procopius’ reference to pathological investigations of the bubonic swellings marks an early stage in the development of the clinic. Those who fell sick in the pandemic of 542 forfeited the right to determine how they should be buried, and how their corpses should be treated. But the scale of the disaster and the small base of scientific medicine meant that for the most part the sick remained just that and did not become ‘patients’. Furthermore, the physicians learnt little from the plague, and thus for 542 the record remains predominantly one that reflects the view of the sick rather than the top-down approach of the physician.

3. Clinical medicine and hospitals

Still, even if this was not an episode in which professional doctors proved the value of their science, by 542 the status and salaries of the highest ranking doctors had risen to impressive levels, and, whatever their actual contribution, Greek physicians still enjoyed a reputation for competence.

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30 CJ 1.27.41 gives the remuneration packages for the doctors in the new prefecture of Africa; cf. V. Nutton, in L.I. Conrad, M. Neve et al. (eds.), *The Western Medical Tradition 800 BC to AD 1800* (Cambridge 1995) 71-87, esp. 83; see also J. Korpela, *Das Medizinpersonal im antiken Rom* (Helsinki 1987), esp. chap. 6; and on the further development of a hierarchy in the medical profession, V. Nutton, ‘From Galen to Alexander, aspects of medicine and medical practice in late antiquity’, *DOP* 38 (1984) 1-14. Advancement of the profession had received a boost in Rome by Valentinian I’s provision for archiaters in 368. Valentinian had also addressed the familiar problem of balancing professional responsibilities to the poor with the natural lure of private practice: *CTh* 13.3.8-9; cf. O. Temkin, *Hippocrates in a World of Pagans and Christians* (Baltimore 1991). In Justinian’s day there were still slave doctors – Justinian set a price limit on them of 10 solidi
Thus, for example, in 545 Chosroes signed a treaty with Justinian in return for money and the services of the physician Tribunus. Furthermore, there were good reasons in the aftermath of the plague for the emperor to develop health-care facilities not only in Constantinople, but also more generally in the empire. The plague probably did check the pace of migration to the capital and other cities, but the process was unstoppable, and the migrants would always include numbers of asylum-seekers. For these the xenones provided accommodation as hostels and care for the sick, and I suggest that they could act as a form of quarantine facility. Nutton takes Miller to task for treating xenones as primarily hospitals, rather than as hostels, as opposed to hospitals (nosokomeia) and poorhouses (ptocheia), but the great hospitals of Constantinople, the Sampson and the Eubulus, are referred to as xenones, and physicians are associated with xenones in other contexts. Furthermore, although there were separate terms for hostels, poorhouses and hospices/hospitals, Procopius shows that the xenones could be multi-functional. Thus Miller seems justified in seeing the development of hospitals as a concern of Justinian. Nutton implies that the occurrence of only about six references to hospitals in Procopius’ Aedificia reflects limited importance attached to the provision of hospitals, but one may question whether Procopius intended his listing of new and renovated buildings to be complete and exclusive. One must also avoid the fallacy of anachronistic association: in the era of clinical medicine the hospital is the locus of therapy; in the pre-clinical era therapy was more likely to be found at home by those who could afford it: the hospital was more likely to be the place where the needy received care, medical or otherwise. Nevertheless, it does appear that Justinian took steps to promote centres where physicians offered therapy and contributed to

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31 Procopius, Bella 2.28.8-10. A similar story is told about the doctor Stephen, who was sent by Byzantine officers to urge Chosroes to call off the siege of Edessa (Bella 2.26.31-38).
32 Nutton (note 23), esp. 219.
33 In 537 Justinian made the director (xenodochos) of the Samson general director of the other hospices in Constantinople (Novel 59.3).
34 (a) Chronicon Paschale 622; Theophanes 184; (b) Phoebammon was an archiatros and ran a xenon, as emerges from his will (note 34 infra), lines 185 and 191. T.S. Miller, ‘Byzantine hospitals’, DOP 37 (1984) 53-63, esp. 56, cites Miracula S. Artemii, ed. A. Papadopoulos-Kerameus (St Petersburg 1909), Mir. 22.28-31.
35 Procopius, Aedificia 1.2.14-17; 1.11.25-7; 4.10.21.
36 Nutton (note 23) 219.
public health.

The story is not limited to the institutions for which Justinian took direct responsibility, for two trends in medical care were discernible: first, the continued development of sizeable hospitals, and, secondly, the shift away from reliance on medical professionals of high status to the development of primary health care at local level, by the requirement that those under holy orders should accept responsibility for their neighbours. John of Ephesus refers to two types of hospital run by the church: hospitals run by those in holy orders, and diaconates run by lay people, who commonly took the title philoponoi.Justinian certainly promoted the development of hospitals, orphanages and poorhouses.

Procopius claimed that Justinian cut off allowances that had been paid to doctors (and also teachers) in the cities of the Empire. But the term archiatros continued to be used, and T.S. Miller has suggested that what Justinian actually did was to transfer these physicians from the responsibility of city councils to that of the local hospitals, which would generally have been under ecclesiastical control. To accommodate Nutton’s objections to Miller’s hypothesis, noted above, we might see Justinian’s action as applying to some, but not all, civic physicians. Of immediate relevance to the programme of action carried through in the aftermath of the first wave of the plague is a section of a law of 546 relating to the organisation of hospitals and similar institutions. Justinian ruled that no one appointed to the directorship of such an institution should be asked to make a payment to any agent of his appointment, and this covered both clerics and lay persons. The implication of the law, thus interpreted, is that the quality of the health care in the hospitals was to be improved by the transfer of physicians from municipal to hospital service.

This rule would have covered both hospitals created on his own authority in the major centres, and hospitals established under the authority of bishops in lesser centres. And this was in the context of a trend for cities

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38 Novels 120 and 131.
40 Miller (note 34) 53-63, esp. 56 and 62. For continuation of the term ‘archiatros’ he cites, for example, *Miracula Artemii*, nos. 22, 28-31.
41 Novel 123, esp. section 16.
in the empire to come more under the control of bishops, and less under the power of imperial officials.\(^4^2\) The interlocking of Christian charity, professional medicine and imperial control is well illustrated by the will of Phoeambamon of Antinoopolis, prepared in AD 570. Phoeambamon, like his father before him, held the title archiatros, chief physician, and in that capacity he apparently received an annual salary of 60 solidi (line 290). The family had established a hospital, and Phoeambamon in his will urged his brother to take over the management of the institution.\(^4^3\)

4. Crisis management

However, in 542 the crisis in Constantinople was not limited to purely medical issues, and Justinian naturally looked elsewhere for someone to manage and coordinate the relief measures. His choice was one Theodorus, who was a referendarius.\(^4^4\) Justinian had reduced the establishment of referendarii to eight,\(^4^5\) and their duties centred on receiving petitions for presentation to the emperor, and on transmitting responses and mandates to his subjects.\(^4^6\) Two referendarii were directly attached to the emperor’s office,\(^4^7\) and the referendarius was thus well placed to manage an emergency, but it was not one of the most senior offices in Constantinople, and the implication is that Justinian did not wish to exaggerate (or perhaps admit) the scale of the problem. Theodorus himself was not a figure of high profile.\(^4^8\)

Theodorus was given funds and troops to ensure that no corpses were left without proper burial. New burial sites were opened,\(^4^9\) but the use of

\(^4^2\) Averil Cameron, ‘Images of authority’, *Past and Present* 84 (1979), esp. 28.
\(^4^4\) Procopius, *Bella* 2.23.6.
\(^4^5\) Novel 10 (535).
\(^4^6\) *CJ* 1.15.2 (527); Novel 10 (535).
\(^4^7\) A.H.M. Jones, *The Later Roman Empire* (Cambridge 1964) 575 and 1236.
\(^4^8\) He is attested in the same office in 536, when he delivered messages to the synod of Constantinople, and is not attested directly again after 542; cf. J.R. Martindale, *Prosopography of the Later Roman Empire* (Cambridge 1992), Vol. 3B, 1248-49, s.v. Theodorus 10 (and possibly 12).
\(^4^9\) Burials were now allowed in designated areas inside the Constantinian walls (*Theophanes*, ed. C. de Boer [Leipzig 1883] 423), though Justinian had not long before
fortification towers at Sycae as silos for corpses proved to be an ill-
considered solution. The relevant point for this paper is that just as the
plague occupied households, so it changed and delimited the burial areas.
The plague in a way changed the urban geography.

To some extent Justinian benefited from legislation which he had
already introduced to ensure that any citizen of Constantinople would be
entitled to a basic funeral at no cost, for in 537 he revived and extended an
earlier scheme of having a number of workshops/shops (ergasteria) under
the control of the Church, which would be exempt from taxation, while
obliged to provide services to the community. Justinian raised the number
of ergasteria to 1,100, close to the total which had functioned in
Anastasius’ day. Of these, 800 were to provide funerals for any citizens,
irrespective of their economic status, and 300 were to pay the salaries of
various categories of clerics, whose duties would include attendance at
funerals. The avowed purpose of this law was to stop extortion from
mourners, and thus to ensure that poverty would not deny a deceased
person a burial. Justinian omits to spell out that the free burials were
according to Christian rites.

In a further Novel of 537, Justinian had prescribed penalties against
any creditor who harassed the family of a terminally ill man, or, on the
grounds of an alleged debt, engaged in any action to delay or obstruct the
funeral ceremonies of the deceased. These measures may have helped to
some extent in the crisis of 542, but as the daily count of the dead rose
supposedly to 5,000 and then to over 10,000, the scale of the problem was

confirmed the ban on burials there: Novel 59, with C. Dagron, ‘Le christianisme dans la
ville byzantine’, DOP 31 (1977) 1-25, esp. 16-17.

Procopius, Bella 2.23.8-11.

194-95, with the estimate that there may have been up to 100 such commercial premises
lining the Mese between the Milion and the Forum of Constantine.

Novel 43 with 59.7. Dagron (note 49), esp. 22 notes that the Church by such a scheme
provided a compensatory mechanism that helped the social inequalities to continue.

Novel 59, preface.

Novel 60.

that the enumerators stopped counting when the number of deaths reached 230,000. The
total population of Constantinople before the plague is a matter of dispute, and such high
mortality figures would only be possible if the higher modern estimates of the total
population are accepted, such as E. Stein’s estimate of around 600,000. The issues are
such that Justinian still had to pay for the burials of those who left no one to take care of the funeral arrangements.\textsuperscript{56} Furthermore, those who organised funerals in 542 raised their prices because their services were in such high demand, and, according to John of Ephesus, they were able to charge from 5 even up to 10 \textit{solidi} per corpse; and he adds that these high charges were encouraged by the amount of money allocated to the \textit{referendarius}.	extsuperscript{57} Thus Justinian's prompt financial assistance fuelled inflation in burial costs.

In the short term, Justinian was equally unable to prevent racketeering, and the consequent steep rise in prices: so much is indicated by his subsequent attempt at price-fixing.\textsuperscript{58} There was no quick solution to the problems in Constantinople of shortages and the rapid rise in costs of basic foodstuffs and services. But as the death rate rose, fixed and moveable property could have poured onto the market, and for some types of property it was not a seller's market. Thus, in the chaotic economic conditions, there was the potential for both the enrichment of the wealthy who survived, and some measure of redistribution of wealth, and there must have been shifts in the demographic settlement pattern in the city.

Furthermore, while deaths from the plague reduced the population of Constantinople by about 50\%, or so Procopius claimed (\textit{Anecdota} 18.44), many will have fled, which would have made it easier to manage the crisis in the city.\textsuperscript{59} The high mortality rates, especially in the cities and more populous settlements, had the potential to reduce demand in relationship to agricultural products and raw materials, and thus there were self-regulating factors in the situation.\textsuperscript{60} Nevertheless, the plague created chaotic conditions in the short term and Justinian had to take active measures to

\begin{footnotesize}
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\item Procopius, \textit{Bella} 2.23.8.
\item Novel 122.
\item Depopulation and decay were not the invariable and directly correlated consequences for cities and settlements in the eastern provinces, but the picture seems to be generally true, as emerges from surveys by, for example, W. Liebeschuetz, ‘Late late antiquity in the cities of the Roman Near East’, \textit{Mediterraneo Antico} 3 (2000) 43-75, and C. Foss, ‘The Near Eastern
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promote stability. In this light we should see his bid in 544 to return prices and wages to their ‘traditional’ levels (Novel 122).

The *Life of St Nicholas of Zion* provides anecdotal evidence of how the plague affected local economies in the empire. Farmers living near Myra in Lycia decided that they could best avoid bubonic plague by staying away from the city, and so there was a shortage of corn, wine and wood. The citizens were persuaded that this boycott of Myra was orchestrated by Nicholas from his monastery, Holy Zion (at Karabel, north of ancient Tragalassos, c. 20 km west of Finike), and petitioned their archbishop to have him arrested.61 Ironically, Nicholas of Zion was also known for his hostility to physicians for the high fees they exacted,62 while he would work a medical miracle for free, as when he gave sight to a blind man with the help of oil from the vigil lamp of St Theodore.63

The impact of the plague on the economic geography is further illustrated by the measures which Justinian took to confront the shrinking revenue base. He needed funds to meet the cost of remedial action for the plague.64 With regard to taxation, Procopius says that Justinian made no concession to landowners: they were still required to pay annual taxes and meet ad-hoc requisitions; and they were also obliged to pay tax on neighbouring land which had been abandoned.65 The additional direct tax, known as *epibole*, was imposed on farmers bordering on abandoned or unproductive land, in proportion to their own tax liability.66 The principle was not new, as it was applied by the Ptolemies and adapted by Constantine,67 but Justinian clearly confirmed the continuance of this...
additional tax by revising the rules in 545. The Novel of 545 would seem to cover the case of a viable farm, with real assets, left by an owner who had disappeared or died without an heir. This makes sense in the context of the plague. Justinian’s rules worked to the advantage of wealthy landowners, who could afford to increase their tax obligation with the prospect of increased assets and profits. Agricultural production and revenue could be increased or maintained. It suited Procopius’ purposes in the Anecdota to focus on the negative, punitive implications of the epibole system, which has a bearing on how Procopius reflected on the plague.

Assets that could be transferred to those paying taxes on abandoned land included slaves, and this reflects another problem with which Justinian had to cope, for Procopius refers to the number of slaves left without masters.

5. Coping with hysteria

The religious geography adds other dimensions to the effects of the plague. In the context of the plague, John of Ephesus was made a bishop, and effectively given free rein to cleanse Asia Minor of paganism. John and his keydeacons, with their gangs of monks, raided pagan villages, destroying altars and temples, and cutting down sacred trees, and in part two of his Ecclesiastical History John specifically mentions this activity in the context of 542. Observers might understandably have seen the victims of this official campaign against pagans as scapegoats for the plague, though Justinian seems to have been careful, at least in Constantinople, not to identify scapegoats.

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68 Novel 128, esp. 7-8; further refined in Praetorian novels 166 and 168.
69 Novel 128.8.
70 Procopius, Bella 2.23.4.
72 M. Maas, John Lydus and the Roman Past (London 1992) 76 refers to ‘riots ... against “pagans” in the countryside’ in the eastern provinces. I propose to discuss elsewhere Justinian’s concern, at least in Constantinople, to avoid scapegoating.
A contrasting picture illustrates further the individualisation of community experiences of, and reactions to, the plague, and the role of Christianity in providing a framework for diverse ways of managing the crisis. Theodore of Sykeon in Galatia was about 12 when the plague first struck his village. His life was spared and he later moved to Ankara, but when he inherited money from his grandmother, he established a monastery near Sykeon. Then the plague struck Ankara again, and the Protectors of the city appealed to the saint to return and save the city. He agreed and prescribed a mass procession, followed by prayers of intercession. The epidemic ended, and Theodore saved the cattle by sprinkling them with holy water. The Hypapante or feast of the Presentation of the Lord celebrated in February 543 was probably used as a closure rite in Constantinople to mark the end of the worst of the plague. Such community rites serve to illustrate how the plague retarded centripetal forces in the empire, and strengthened differentiation. The shift towards community individualisation was quite different from what Foucault sees as the consequence of clinical medicine, which is the categorising and objectifying of the individual by a central authority. Without clinical medicine there was no rationale for imperial control in plague management; and public health has much to do with ‘policing’, which in the longer term would have required resources beyond Justinian’s means. Thus, if there was centralised control (albeit only at the regional level), the authority was likely to be the church rather than the emperor’s officials; and in the pre-clinical world of late antiquity the sufferer or suffering community was to the Church as the penitent was to God.

73 The primary source is the life of Theodore, chapters 8 and 45, ed. A.J. Festugièrè, Vie de Théodore de Sykéon (Brussels 1970), text in Vol. 1. I owe the reference to C. Foss, ‘Late antique and byzantine Ankara, DOP 31 (1977) 29-87, esp. 56-57.
74 M. Meier, ‘Kaiserherrschaft und Volksfrömmigkeit im Konstantinopel des 6. Jahrhunderts n. Chr.’, Historia 51 (2002) 89-111 deals with Justinian’s reshaping of the Feast, when he moved it to 2 Feb. (Theophanes a.m. 6034) and strengthened the emphasis on Mary. Meier tends to suggest that this was in response to the plague, but the changes came in February 542, and thus ahead of the impact of the plague. Justinian’s concerns were rather with the preceding series of natural disasters, but the new Hypapante feast helped when the plague struck.
75 To adapt Garzya’s line: the sinner was to Christ the Saviour as the sick man was to the doctor (note 25, 339-40). Foucault (note 1), chap. 2. By late antiquity, there was a reasonable understanding of urban pollution as a threat to health, but limited scope for addressing the problems; cf. V. Nutton, ‘Medical thoughts on urban pollution’, in V.M.
For some, the endless cycle of disease, natural disaster and violence was too much. Post-traumatic stress disorder led in some cities to mass hysteria. In the aftermath of the plague, we have a bizarre confirmation of the psychological impact which the plague, together with the other disasters of the age, made upon the general population in the story of the collective madness which struck the cities of Constantina, Edessa, Carrhae, Martyropolis, and, most seriously, Amida in the year 560. Amida had lost 30,000 in the plague years, was in the eighth year of famine and then received false information that the Persians had invaded their territory. Mass hysteria took over as adults began acting like dogs, sheep and hens, and children were free of all normal restraints; those who remained sane narrowly averted a massacre and the vandalisation of the whole city. According to one tradition, it took the return to Amida of Jacob Burd’aya, a convert to Chalcedonism, to exorcise the city, and so restore it to normality. The Life of Theodore of Sikyeon, perhaps completed in the 640s, and therefore much later than the texts on which we have focused, contains numerous tales of the saint exorcising demons when whole communities became possessed. Hysteria moved in where medicine failed.

To summarise, the plague invited the clinical gaze, but yielded little benefit to scientific medicine. Nevertheless, even if that failed to promote the development of the clinic, the plague forced Justinian to remodel health care in the Empire, and to promote both professional and primary health care. The plague in many ways changed urban, economic and religious geography, retarding centripetal forces and strengthening local community centres.

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97 The primary sources are pseudo-Dionysius of Tell-Mahre, *CSCO* 140/53, pp.115-16 (in the translation by W. Witakowski [Liverpool 1996] 104-05); Michael of Syria 9.32 and *Chron. ad 1234*, LXII.
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