EARLY COLONISATION*

It is commonly supposed that in the eighth century B.C. there was a 'population explosion' in Greece which moved the Greeks to send out colonies. A. J. Graham in the Cambridge Ancient History iii², 3 (1982) is typical: 'The basic active cause of the colonizing movement was overpopulation'; 'at the very time when the Archaic colonising movement began, in the second half of the eighth century, there was a marked increase in population in Greece' (p. 157). The presumed connection between overpopulation and colonisation is not immediately obvious. The evidence for the population explosion is found in the increased number of burials in Attica and the Argolid, but Athens sent out no colony before the very end of the seventh century and Argos probably none at all, certainly none in this period. So special explanations have to be formulated for Athens' and Argos' lack of colonies while their postulated 'population explosion' is presumed for Greece as a whole and called in to explain the burst of colonising in the eighth century. The hypothesis is not used for seventh-century colonisation when the number of burials declines.³

Ne supra crepidam sutor iudicet. Confronted by such a chorus, dare one dissent? Demographers encourage one. Although A. M. Snodgrass has concluded⁴ 'that in the space of two thirty-year generations, between about 780 and 720 B.C., the population (sc. of Attica) may have multiplied itself by a factor of approximately seven', J. Lawrence Angel⁵ designates 'an increase of 20–30% per generation or 1% per year' as 'astronomically rapid, in fact almost as rapid as present temporary rates for areas like Ceylon'. E. A. Wrigley⁶ asserted that 'even on the most extreme assumptions no population is likely to be able to sustain a long-term rate of natural increase as high as five percent per annum. Four percent has very rarely been attained and then only briefly; three is a rapid rate of growth; and, except in recent years in the developing countries, few populations have shown rates of growth as high as two percent per annum.' So, although Snodgrass cites⁷ the first part of this latter statement as justification for his view, a seven-fold increase in two generations (i.e. a

^{*} I read a first draft of this article to the Oxford Classical Society in 1977, on which I gratefully acknowledge helpful comments by S. Hornblower, O. Murray, C. B. R. Pelling, and my pupil, A. W. B. fforde. With the publication of John McK. Camp's article 'A Drought in the Late Eighth Century B.c.', *Hesperia* 48 (1979), 397-411, with which my article had considerable affinity, I put mine in cold storage, whence it now emerges in new form. I am particularly beholden to Simon Hornblower for his comments on this draft. I have tried to accommodate them.

¹ A. M. Snodgrass, *Archaic Greece* (1980), p. 10.

² After the period of migration, the first Athenian colony was to Sigeum, if indeed it is right to call it a colony, shortly before 600 (cf. *Pros. Att.* s.v. Φρύνων). If there is any truth in Strabo's assertions of Argive origin for Aspendus (14.4.2 667c), Tarsus (14.5.12 673c), Tralles (14.1.42 649c) and Curium in Cyprus (14.6.3 683c), it belongs either to the world of the migrations (cf. Thuc. 2.68 on Amphilochian Argos) or to the Hellenistic period (cf. *SEG* 34 [1984], 282, a decree of the late fourth century according the Aspendians Argive citizenship, and A. J. Spawforth and S. Walker, *JRS* 76 [1986], 101 and n. 22).

³ Cf. J. McK. Camp, art. cit. 400, and A. M. Snodgrass in R. Hägg (ed.), *The Greek Renaissance of the Eighth Century B.C.: Tradition and Innovation* (Stockholm, 1983), p. 170.

⁴ Op. cit. (n. 1), p. 18. (Snodgrass has the support of Robert Sallares, *The Ecology of the Ancient Greek World* [Duckworth, 1991] p. 86.)

⁵ World Archaeology 4 (1972), 97.

⁶ Population and History, p. 54.

⁷ Archaeology and the Rise of the Greek State (Cambridge Inaugural Lecture, 1977), p. 13.

sustained increase of over 3% per annum for sixty years) seems to be on the highly improbable side. So is the inference from the increased number of graves rightly drawn? Burial customs were not constant. Both cremation and inhumation appear to have co-existed; 'surface pyres', 'cremations without urns' have been suspected, and the increased number of burials discovered may reflect no more than a change in fashion. If one is not prepared to assert that the dramatic decline in the number of burials in the seventh century argues a sharp decrease of population, one should not assert that there was a population explosion in the eighth, and colonisation should be studied without such presumptions.

I

There is only one colonisation that is amply described and that is the Theran foundation of Cyrene, a curious story indeed if one believes that colonisation was caused by overpopulation. When the oracle at Delphi first gave the response 'to found a city in Libya', the Therans did not, it would appear, have any thought of sending out a colony. In the Theran version their King, Grinnus, was consulting 'about other matters' and he sought to excuse himself from taking part and to substitute Battus (Hdt. 4.150). In the Cyrenian version it was Battus himself who was consulting the oracle about his defect of speech; when Battus pointed out the irrelevance of the response, he got the same again and left abruptly in the middle of it (Hdt. 4.155.3f.). In neither version did the Therans heed the god's advice. Yet if overpopulation was the problem, there was nothing to be done save obey the oracle. Indeed one would have expected the Therans to have decided themselves to send out a colony and appeal to Delphi solely for approval. Yet the position on Thera was such that the original colonists tried shortly to return whence they had come, inexplicably if they had left intolerable overpopulation.

There are in the story told by Herodotus two indications of the condition of the population of Thera. The first is the absence of women in the story; the second is the surprisingly small number of men who set out for Libya in the first place; both are suggested by the Theran decree ordaining the despatch of the colony (Hdt. 4.153), and both argue that Thera had its population under control.

Θηραίοισι δὲ ἔαδε ἀδελφεόν τε ἀπ' ἀδελφεοῦ πέμπειν πάλῳ λαχόντα καὶ ἀπὸ τῶν χώρων ἀπάντων ἑπτὰ ἐόντων ἄνδρας. ('The Therans resolved to send men, brother from brother chosen by lot and from all the seven localities.') Herodotus continues 'Thus indeed they despatch two pentekonters to Platea.' A pentekonter carried two officers and fifty oarsmen. Herodotus allowed in his calculations for eighty men in all (7.184.3). So perhaps the common presumption of one hundred men a ship used for transport and not for war is not necessarily excessive. But even as many as two hundred is remarkably few for the number of families with more than one son on an island of 76 square kilometres.

Scholars have been reluctant to accept Herodotus' text as it stands, and have happily followed Stein in requiring a numeral and Mahaffy in inserting after $\tilde{a}\nu\delta\rho\alpha s$ a sigma (signifying two hundred), or if they dissent from that course, they insert a numeral before. But was Oliver¹¹ correct in declaring that 'a number must have been

⁸ Cf. I. M. Morris, Burial and Ancient Society: the Rise of the Greek City-State (Cambridge, 1987), and R. G. Osborne, BSA 84 (1989), 313ff.

⁹ J. S. Morrison and R. T. Williams, *Greek Oared Ships* (Cambridge, 1968), p. 47.

¹⁰ The Phocaean pentekonters in 546 had an ample cargo of women, children and portable objects of some weight (Hdt. 1.164.3).

^{11 &#}x27;Herodotus 4.153 and SEG ix 3', GRBS 7 (1966), 25-9.

mentioned when the decision was taken to send out a colony'? The Therans may not have had a number in mind, but a class of citizen, namely, those whose fathers were alive and who had a brother. If we may trust Herodotus, manning the two pentekonters happened to be the result of the method of choosing, not the aim. Nor does $\tilde{a}\nu\delta\rho\alpha_S$ require a numeral. Its position in the sentence is emphatic, and may be signifying 'Men Only'. (One notes that on the Foundation Stele, although 'men, women, boys and girls' swore curses on those who disobeyed, only those of masculine gender are to take part in the expedition.)

The plain indication of Herodotus' text is that the condition of Thera, demographically speaking, was such that very few families with two adult brothers existed in the middle of the seventh century, certainly no more than two hundred, possibly not many more than half that number. This might be explained in various ways, but one inevitably thinks of Hesiod's remark about the desirability of an 'only son' (*Op.* 376) and when one notes the absence of women in the foundation of Cyrene, there is a strong suspicion that we are dealing not with an island where the population was increasing to the bursting point and inevitable colonisation, but with an island where the level of population was kept steady by the primitive means available to the Greeks of the seventh century.

Of course, we may be deceived by the omission of women in the story. There is no hint in either Herodotus or the Foundation Stele that women would follow when once the colony had established itself, and it would seem that the Theran colonists had to forage for wives in Libya, 14 just as the Ionians did who founded the cities of Ionia (at any rate according to Herodotus (1.146), 'they set out from the city-hall of the Athenians and counted themselves the noblest of Ionians, but they did not take women to the colony; rather, they got hold of Carian women whose fathers they slew'). The evidence for intermarriage between Cyrenians and Libyan women in the later times is clear (SEG ix.1 line 3 οἱ ἐκ τῶν Λιβυσσῶν), and Pindar's Ninth Pythian Ode in honour of Telesicrates of Cyrene, a victor at the Pythian Festival of 474, declares that Telesicrates' ancestors had competed to gain the hand of the daughter of Antaeus (lines 105ff.), the Libyan giant. Of course, there is nothing to show that those who failed in the race to win this golden-haired beauty did not go back to Cyrene and marry some nice girl from Thera, but one suspects that Pindar is in his way declaring that the original settlers had to settle for Libyan women. So too Callimachus (Hymn 2.85ff.) spoke of the warriors of Ares dancing with the goldenhaired Libyan women, while they were still living at Aziris, i.e. where, according to Herodotus (4.157.3), the Theran colonists lived for their first six years on the mainland. The evidence is not conclusive, but on the whole it seems likely enough that the two pentekonters from Thera were full of men only and that no boatloads of women followed. Yet we should not think of a lot of Theran girls farewelling their own expectations and crying 'Oh, we don't want to lose you, but we think you ought to go.' The colonists took no women for there was some imbalance of the sexes on Thera, a sure mark of a population not 'exploding'.

¹² One might compare the procedure described in Dionysius of Halicarnassus, Ant. Rom. 1.16 $(\theta \epsilon \hat{\omega} \nu \ \delta \tau \omega \delta \hat{\eta} \ \kappa \alpha \theta \iota \epsilon \rho o \hat{\nu} \nu \tau \epsilon s \ d \nu \theta \rho \hat{\omega} \pi \omega \nu \ \underline{\hat{\epsilon} \tau \epsilon \iota o \upsilon s} \ \gamma o \nu \hat{\alpha} s \ \hat{\epsilon} \xi \acute{\epsilon} \pi \epsilon \mu \pi o \nu).$

¹³ Pace How and Wells Commentary ad loc. ('The number of colonists must have been fixed. This is omitted by Herodotus, unless it has fallen out of his text.'), and L. H. Jeffery, 'The Pact of the First Settlers at Cyrene', Historia 10 (1961), 139 ('The next phrase of the Greek requires a numeral to make sense'). Having supplemented the text of Herodotus, she proceeded to supplement the text of the Foundation Stele (Meiggs-Lewis, GHI no. 5) to match it.

¹⁴ F. Chamoux, Cyrène sous la monarchie des Battiades, pp. 129 and 223. Cf. J. Rougé, 'La colonisation grecque et les femmes', Cahiers d'histoire 15 (1970), 307-17.

The colonisation of Cyrene had nothing to do with 'population explosion'. It was plainly due, as all have seen, to the drought (Hdt. 4.151.1) – seven years in which no rain fell and all the trees on the island save one withered away. Yet if the drought was severe enough to oblige up to two hundred to leave the island, how could anyone remain? What real difference could the departure of such a small party make?

To the ancient Greeks pestilences and earthquakes and droughts and similar unpredictable occurrences came from the gods.¹⁵ To put a stop to such divine manifestations Delphi was consulted and the oracular advice acted upon, advice that always succeeded in curing the evil sooner or later (for such miseries in the nature of things do not last forever). But the advice not infrequently took the form of requiring scapegoats,¹⁶ and that would appear to be how the colonising party from Thera was regarded both by their fellow Therans and by themselves. The Therans would not even allow the colonists to set foot back on Thera (Hdt. 4.156.2f.); no mere formal foundation would suffice; the colonists must suffer for someone's sins. No more is heard of the drought on Thera, but when the colonists had endured two years' misery on Platea, leaving a single man there formally to maintain the colony, they went in a body to Delphi to plead for mercy, but had to return 'for the god was not letting them off the colony until they reach Libya itself' (Hdt. 4.157). In the case of Thera, in short, we are dealing with religion. The colony was intended solely to avert evil. That, at any rate, is the sense of Herodotus' story.

Π

Oracles are of limited help. They do not necessarily tell us more than how later generations conceived of their origins (though that is of not negligible value). Probably enough, in the eighth century a good number of consultations of Delphi that concerned colonisation were of the kind represented in Thucydides' account of the foundation of Heraclea in Trachis in 426 B.C.; the Spartans decided to send out the colony to that place and simply sought the gods' approval (3.92.4f.). Indeed, in the early period there were states whose citizens made long voyages for the purpose of trade. These citizens no doubt knew perfectly well where a good colonial site was to be found. Moreover even where, from the oracle preserved or fabricated, it might seem that Delphi prescribed where exactly to go, that may have been merely a matter of the form in which approval to a proposal was given. So oracular responses, genuine or pretended, are of no great use to us in determining why colonies were founded. It may, however, be noted that there are a number of cases where there seems to have been a situation not dissimilar to the Theran consultation. The Chalcidians who founded Rhegium had been sent to Delphi as a tithe because of a period of bad harvests ($\delta i \dot{\alpha} \dot{\alpha} \phi \rho \rho i \alpha \nu$). The tithing had been made in accordance with an oracle.¹⁷ The Chalcidians may not have been surprised to learn that Delphi had dealt with this refugee problem by packing them off to the West, but evidently the purpose of the oracle had been to cure the bad harvests and the colonists were scapegoats, just as Therans sent to Platea would be. That story may well be historical.¹⁸ Other cases

 $^{^{15}}$ Cf. e.g. Isoc. 11.13 (τῶν ὅμβρων καὶ τῶν αὐχμῶν... ταμίας), Hdt. 2.13.3, [Xen.] Ath. Pol. 2.6, and M. P. Nilsson, Geschichte der griechischen Religion³ i (1967), pp. 393ff.

¹⁶ R. C. T. Parker, Miasma, pp. 258ff.

 $^{^{17}}$ Parke-Wormell, The Delphic Oracle, ii no. 371 (Diod. 8.25.2 οι ἐκ τῆς δεκάτης ἀνατεθέντες Χαλκιδείς, Strabo 6.1.6 257c).

¹⁸ That the colony went from Delphi was asserted by Timaeus (*FGrHist* 566 F 43). *Pace* Parke-Wormell, op. cit. (n. 17), i.54f., we do not know that Antiochus (*FGrHist* 555 F 9) 'omitted all reference to the dedication as a motive'.

belong to the legendary past, but presumably the legends reflected the sort of thing that could and did happen. With regard to the Pelasgi, Dionysius of Halicarnassus¹⁹ recounts (Ant. Rom. 1.23f.) how in a time of drought and crop failure the Pelasgi consulted an oracle - which oracle is not stated - as to which of the gods they had offended and so incurred their sufferings and what they could do to put a stop to them; the reply came that in a period of crop-failure they vowed to sacrifice a tithe of all increase, which they proceeded to do in the case of crops and beasts but had omitted unwittingly in the case of human increase; the Pelasgians proceeded to repair this omission. In this way movement of people was conceived of as a cure for the sufferings of those who were left, a matter of religion not of economic pressure. Similar stories of scapegoats to give relief from drought, crop-failure and pestilence are to be found in the legends concerning Theseus (Plut. Thes. 15f. and Quaest. Graec. 35 = Mor. 298f.) and those concerning the foundation of Magnesia on the Meander²⁰ (FGrHist 26 F 1.29, Inschriften von Magnesia no. 17). Likewise the cure of general pestilence and crop-failure in Greece itself could be supposed to be effected by the restoration of cities (and their religious life) in the Troad (FGrHist 327 F 17). From what is said of oracles, one would never guess that over-population was the evil that needed cure.

For Plato in the Laws seeking to maintain his ideal population at the ideal figure, 'the ancient device' of sending out colonies was the way to deal with excess (740b-e), and some pages earlier the proposal is made that the settlers for the new ideal foundation should be made up of 'volunteers from all Crete, since in each city there has come to be a mass of people too large for the territory to sustain' (707e). He cannot have imagined a very large surplus in the cities, if all the cities of Crete are to be involved. Nor does he suppose that the constraints of territory are the only reason for a colony going from a single city; there may be 'the pressure of certain other such misfortunes $(\pi \alpha \theta \eta \mu \alpha \tau \alpha)$ ' (708b), the nature of which he does not specify. A similar duality is to be found in the only other general statement that has survived, i.e. the discussion of the migration of Italic peoples given by Dionysius of Halicarnassus in the introductory chapters of his Antiquitates Romanae (1.16). He speaks not only of the population of cities increasing to a point where their own produce was no longer sufficient for all but also of 'the land being ill-affected by variations of climate $(o\dot{v}\rho a\nu iois \mu \epsilon \tau a\beta o\lambda a \hat{i}s)$ and yielding a short supply of the usual crops'. In both cases some of the population was sent away, but with varying intent, for in the latter case the clear intention was to placate divine wrath and so get rid of the prevailing ill. Thus both Plato and Dionysius have in mind the sort of colonisation which is represented by the stories of the foundation of Rhegium and, as I have argued above, of Cyrene, but it is their idea of overpopulation which now calls for attention.

III

There is no precise line between a state's not being overpopulated and its being so. As the available supply of food is more thinly spread, Nature and human resourcefulness strive to establish an equilibrium between supply and demand. If there ever was a time in the archaic age of Greece when population increased by as much as a quarter of

Dionysius' ultimate source, according to Jacoby, FGrHist III b (Kommentar) 380, was Hellanicus.

20 Cf. Parke-Wormell, op. cit. (n. 17), i.52f.

^{21 ...} στενοχωρία τινὶ πολιορκηθέν γῆς ἤ τισιν ἄλλοις τοιούτοις παθήμασιν ἀναγκασθέν.

the rate postulated by Snodgrass, we may be sure that the less abundant the supply of food became, the slower the rate of increase. If warfare against neighbours or piracy could not provide, 22 lack of full nourishment prepared the way for disease to trim numbers, and when there was a shortfall, famine and pestilence had their way. So much for Nature, but human resourcefulness did not let the increase go unchecked.²³ When Hesiod (Op. 376) recommended 'the only-born son', he left his brother Perses without a poetic account of how to secure this happy state of affairs. Perhaps Perses did not need one. By the time of Aristotle (H.A. 583a21ff.) something was known of contraception, and some of this knowledge may have been ancient. One tends to assume that the sin of Onan (Genesis 38.9), coitus interruptus, would be the primitive method of birth-control, and although there are only two possible references to it in Greek medical literature of the classical age (Hipp. Genit. 5, Nat. Puer. 13 – Littré 7.476 and 490), the assumption may well be correct.²⁴ Where primitive contraception failed, abortion may have been practised, though again the evidence is thin. Aristotle (Pol. 1335b25) thought that the population could be kept in balance by this means and according to Plato (Theaet. 149c) midwives were adept. The clause of the Hippocratic oath forbidding the administration of an abortifacient to a woman²⁵ argues nothing as to the frequency of the practice, and there is no evidence at all for abortion in archaic Greece. But Romulus, according to Plutarch (Rom. 22.3), made a law permitting a man to put away his wife without restoring her dowry if she had an abortion, and even if this 'law' reflects no more than later Roman feeling, it suggests that abortion was of long standing in Rome. It may similarly have played a part in keeping population in archaic Greece in check. In any case there was always the possibility of infanticide by exposure.

How widespread in the ancient world was the practice of exposing infants is much debated, inevitably since the evidence is so inadequate. The authors of the classical period allude to exposure as if it were a generally familiar thing,²⁶ and Plato (*Rep.* 459de, 460c, 461bc) and Aristotle (*Pol.* 1335b19) do not waste words in recommending it as an instrument of population control. That the practice was widespread in the third century has been demonstrated by Tarn who adduced not only the familiar and perhaps over-worked lines of Posidippus ('Everyone rears a son even if he happens to be poor, but exposes a daughter even if he is rich') but also the evidence of inscriptions which show the most startling difference between the number of boys in a family and the number of girls, which, it seems, is only to be explained by exposure of females.²⁷ For the archaic period, exposure was a common enough feature in myths – on which Gomme²⁸ chose to pour scorn; the exposed children of these stories were indeed often boys; illegitimate children are always likely to be disposed of in one way or another; the infants exposed in myth were not exposed for economic reasons. His vigorous arguments suit fifth-century Athens, which was a

²² Cf. Thuc. 1.5.1.

²³ Cf. E. Eyben, 'Family Planning in Graeco-Roman Antiquity', Anc. Soc. 11.12 (1980-1), 5-81.

²⁴ However, M. K. Hopkins, 'Contraception in the Roman Empire', Comparative Studies in Society and History 8 (1965), 124ff. is cautious. Cf. P. A. Brunt, Italian Manpower, p. 146. Herodotus (1.61.1) does not explain how precisely Pisistratus' behaviour was οὐ κατὰ νόμον. K. J. Dover, Greek Homosexuality, p. 100 shows that other explanations are possible; cf. Ar. Pol. 1272a23–26.

The text is conveniently to be found in L. Edelstein, *The Hippocratic Oath* (Baltimore, 1943).

26 E.g. Aristophanes, *Clouds* 530f., Euripides, *Ion* 951.

²⁷ Hellenistic Civilisation³, pp. 100ff.

²⁸ The Population of Ancient Athens, pp. 79ff.

prosperous age, comparatively speaking, and so, though very much less so, was the fourth century, and exposure of infants may have been very much rarer. Indeed Pericles' citizenship law of 451/450 (Ar. Ath. Pol. 26.4) may perhaps reflect an increase in the number of Athenian women. But, earlier, things were different, and where myth presented the Greeks with the idea of a way of controlling misery by exposure of unwanted infants, why would not such a method be used? At Sparta there was a place called the Apothetae (the Dump) where unwanted offspring were thrown. Plutarch who gives this information (Lyc. 16) seems to refer only to the exposure of misshapen offspring and weaklings, but since the infant whose rearing has been approved by the elders of the tribe was promptly assigned an allotment of land $(\kappa\lambda\hat{\eta}\rho\sigma_s)$, the decision whether or not to rear a female may have been left entirely to the father. Polybius (12.6^b.8) informs us that 'with the Spartans it was traditional custom for three or four men to have the one wife'. 29 Plutarch (Lyc. 15) puts an amiable gloss on Spartan polyandry, but it seems probable enough that it belonged to a world in which there was a shortage of women. After all, exposure, especially of female offspring, was sufficient of a custom in very early Rome for Romulus, according to Dionysius of Halicarnassus (Ant. Rom. 2.15), to have passed a law against it, and that law is striking indeed. It required citizens to raise and rear all male children and the first-born girl. Any later-born females were presumably exposable; hence that penuria mulierum (Livy 1.9.1) which enforced the rape of the Sabine women. In Dionysius' account of the rape (Ant. Rom. 2.30) it is claimed such a method of securing wives was 'ancient Greek custom', but there is no knowing on what he based this claim. It cannot at any rate be proved that penuria mulierum, i.e. an imbalance of the sexes, even if only slight, was not a regular feature of archaic Greece. 30 Herodotus' remark, already adduced, about the original Ionian migrants to Miletus (1.146) shows at least how the Greeks thought about their remote past. The foundation of Locri in Italy is of especial interest. Some women did go from the metropolis with the first settlers but, as Polybius explains (12.5.6ff.), the position of women in Locrian society was exceptional, for Locrians boasted of their descent from women, not men, a thoroughly unusual state of affairs. Elsewhere it would seem women were not sent with colonies. There was perhaps a widespread imbalance of the sexes in the age of colonisation, the result of infanticide by exposure. It is no matter here whether it was practised on a large scale or not. 31 The resource was available, and overpopulation cannot have been very great.

It would seem consistent with this that such slight information as we have about the numbers involved in the colonies of the eighth and seventh centuries suggests that colonies were small.³² Apart from the petty numbers that were sent away from Thera,

²⁹ Cf. Walbank ad loc.

³⁰ For the Pelasgian theft of Athenian women, Hdt. 6.138 and for the Messenian theft of Spartan women, Strabo 6.1.6 257c, and 8.4.9 362c. Sallares, op. cit. (n. 4), p. 133 fastens on comments of Plato and Aristotle, which may be quite misleading for Archaic Greece.

³¹ D. Engels, 'The Problem of Female Infanticide in the Greco-Roman World', *C.Ph.* 75 (1980), 112–20 argued that a high rate of female infanticide could not have occurred without serious decline of population. W. V. Harris, 'The Theoretical Possibility of Extensive Infanticide in the Graeco-Roman World', *CQ* 32 (1982), 114–16 countered. Engels returned in *CQ* 34 (1984), 386–93. The fact of infanticide as a means of keeping population under control is not in doubt. Sallares, op. cit. (n. 4), pp. 102, 158ff. argues that infanticide did not become common until the Hellenistic period and that it did not happen in Classical Athens (133ff. and 151ff.). *Classical* Athens was comparatively prosperous; the world of Hesiod was grimmer. Evidence for size of families in the Attic orators is not relevant to the eighth and seventh centuries.

³² Cf. C. R. Whittaker, *PCPhS* 20 (1974), 69 for the numbers involved in the foundation of Carthage.

the only precise statement is that in Stephanus of Byzantium about Apollonia near Epidamnus to the effect that there were two hundred Corinthians involved. ³³ Since Corinth sent out so many colonies, the small number involved can hardly argue anything about the state of Corinth, demographically speaking, at the time; in any case it is not clear that the city was not a joint foundation of Corinth and Corcyra. Joint colonies in general provoke thought. When, for instance, Eretria and Chalcis combined to found Pithecusa (Str. 5.4.9 = 247c), was each city bulging with surplus population? And when colonists from Rhodes and from Crete went to Gela (Thuc. 6.4.3) did neither island have enough surplus to found a colony on its own? If these colonies were meant as a cure for demographic woes, the woes can hardly have been very great.

The whole hypothesis of colonies as a relief of surplus population is insecure. If Corinth and the states of Euboea were coming under that sort of pressure in the eighth century, one would expect other cities to be similarly affected in the course of the next century at any rate. One may leave aside the case of Athens, where it is regularly asserted that Attica was so ample that it could contain the growing population. What of Argos? There were probably no Argive colonies at all, certainly none known to us in the age of colonisation. And where are the colonies of Sicyon? The truth, one suspects, is that whether or not there had been this much talked of 'population explosion' in Greece, by the time population approached saturation point nature and human resourcefulness brought it under control and there was no great surplus that had to be exported in colonisation.

IV

Such an argument may be welcome to those who suppose that the mainspring of the colonising movement in early Greece was the desire to facilitate and extend trade. It seems likely that, in Blakeway's phrase, 'the flag followed trade', that colonies were founded in places which had been well reconnoitred by traders. In so far as the oracle at Delphi indicated sites which the consulting party did not already have in mind (and such cases may have been rare), Delphi's knowledge must have come from traders. But it by no means follows that colonies were sent for commercial purposes. After all, a regular settlement was more likely to arouse the resistance of natives than to make Matthew Arnold's 'shy traffickers' less shy. Any Greek city had to have land to support itself and so any foundation whatsoever must have consisted largely of farmers, and if the site chosen was one in common use by traders, the choice may have been made for no other reason than that it would afford easy and regular contact with the mother-city. Similarly, the most distant sites may have been chosen first because at the terminus of a trade route more ships would be likely to call than at the various stopping places en route.

inhabitants of Etruria and Campania'), and 233 for 'the only clear evidence of Greek visitors

before the arrival of the first colonists'.

³³ 'Απολλωνία, πρώτη πόλις 'Ιλλυρίας, ἣν ὤκουν 'Ιλλυριοὶ κατ' 'Επίδαμνον. ὕστερον διακοσίων Κορινθίων ἀποικία εἰς αὐτὴν ἐστάλη, ἢς ἡγεῖτο Γύλαξ, ὃς Γυλακίαν ἀνούμασε.
³⁴ Since Blakeway penned the phrase (BSA 33 [1932–3], 202), opinion has swung away from the notion of pre-colonial trade, but there is enough to suggest that the western world was well enough known before the colonies were founded. Cf. J. N. Coldstream, Geometric Greece, p. 221 ('During the first generation (c. 800–770 B.C.) and before the founding of the first colonies, Euboean merchants had already penetrated the Tyrrhenian sea, and were trading with the

Comfort has been drawn from the excavations on Pithecusa (modern Ischia),³⁵ and it has been asserted with great confidence by Boardman³⁶ that the island cannot have been

settled purely for its agricultural purposes. The volcanic island has a soil good for nothing but vines and its present booming population is the result of the tourist trade: the Euboeans came neither to make wine nor to build hotels. Its interest in the metal trade is shown by early evidence of iron-working on Monte Di Vico itself, and in an early but short-lived extension of the settlement inland...

Now it is not to be denied that there may have been among the Euboeans who went to found the colony of Pithecusa a number who intended to find their fortunes, or at any rate their livelihood, working metals. It is not to be denied because the evidence is so unsure, and certainly in the early decades of the colony there does seem to have been a lot of commercial activity. But, volcanic though the soil be, and better for vine than cereals,³⁷ the colonists did settle and did eat as well as drink and it is hardly to be thought that they did not grow their own food. So the situation may have been that an agrarian problem in Euboea was met by sending a colony to a well-known place, an off-shore island where it would be secure, and security was more important than fertility; others would continue to trade; the colonists went to cultivate. But, of course, the founding fathers may have meant to do both things. When Xenophon set out the charms of the Harbour of Calpe (Anab. 6.4.1ff.), he made clear that the site was both suitable for agriculture and so well provided with timber near the shore and cereal-producing land behind, that trade would flourish. 'Everything except olives.' His eyes were on the cereal trade with Athens and imports of Athenian olive oil, and it cannot be proved that the colonists of an earlier age were not similarly of double intent. One general argument in favour of the commercial hypothesis stands. The two great colonising states, Corinth in the West and Miletus in the East, were pre-eminent in trade, and the two things are likely to be connected. Even if their earliest foundations were purely agrarian, the products of misery, their later foundations were probably to some extent commercial, the fruits of prosperity.

There is nonetheless some reason not to invoke commerce as the motive for the earlier colonies, i.e. that they seem to have been sent out when there was some sort of agrarian crisis. The majority of the colonists to Syracuse came, according to a report in Strabo (8.6.22 380c), from the inland village of Tenea, which suggests that the village was in some sort of agrarian difficulty. The Eretrians who went to Corcyra and, when expelled, tried to return home were violently rejected (Plut. *Mor.* 293a); if the colony had been sent out for commercial reasons, one would hardly expect them to be treated as if their mother city wanted to have nothing more to do with them. The Chalcidians who fetched up at Rhegium left Chalcis in a time of crop-failure (Strabo 6.1.6 259c). Of course, agrarian difficulties may have prompted thoughts of commerce, but it seems unlikely that colonies were established for trade at the exact moment that colonists were being sent out to fresh fields and pastures new.

V

As already argued, in the case of Thera the problem was not over-population, but climatic disaster. Likewise for the colonising cities of the eighth century; no matter how fast population had advanced towards saturation point, the nearer it approached

 ³⁵ Cf. G. Buchner, Expedition 8 (1966), 4–12, and J. N. Coldstream, op. cit. (n. 34), p. 226.
 ³⁶ The Greeks Overseas, p. 166.

 $^{^{37}}$ Strabo 5.4.9 247c speaks of εὐκαρπία. J. N. Coldstream, 1.c. 'The volcanic soil of the island is – and was – suitable only for the cultivation of the vine.'

it, the more effectively famine, disease, war, and human resource would have brought it under control, but if climatic disaster struck and there were a number of bad harvests, ³⁸ a colony was an obvious way out and in an important article, 'A Drought in the Late Eighth Century B.C.' (*Hesperia* 48 [1979], 397–411) John McK. Camp has argued that Athens and nearby cities in the centre of Greece suffered for about a hundred years from the middle of the eighth century a severe drought, which led in Athens to a sharp decline in population and elsewhere provoked the despatch of colonies.

As evidence of this Great Drought (as it may be termed), Camp cites first the fact that the wells in the Athenian Agora in use in the eighth century seem to have 'gone out of use in the years around 700 B.C.' In supposing that drought had lowered the water table, he may well be right, but it is hardly proof of prolonged drought. There may have been several periods of drought. Again he is no doubt right in arguing that the votive offerings at the sanctuary, on Mount Hymettos, of Zeus Ombrios, the bringer of rain, are evidence for drought, but the near fourfold increase in the last third of the eighth century and the large number in the seventh century do not necessarily indicate one Great Drought rather than several periods of drought, while the great decline in the number of offerings in the sixth century may reflect not an absence of droughts so much as the development of more practical methods of mitigating the effects of drought than by appeal to Zeus. Finally if the increased number of graves does signify the ill effect of famine and pestilence caused by drought, there is no reason to suppose that the burials were spread evenly over the period. In short, Camp has adduced evidence for drought, but it may be for periods of drought and not necessarily for a Great Drought. Indeed if there had been the Great Drought that Camp postulates, the case of Chalcis sending a tithe of her men to Delphi in obedience to an oracle (Strabo 6.1.6 257c) is most curious; the Great Drought would have struck widely and earlier and it is hard to imagine why Chalcis in particular should so act or in particular be so treated. If there were recurrent droughts, one that particularly affected Chalcis could have evoked the recorded tithing.

Bad crops, generally due to drought, were common enough and almost regular enough in Greece³⁹ for allowance and provision to be made. Two bad years on end was becoming serious. On one occasion a two-year drought provoked the Boeotians to appeal to Delphi (Paus. 9.40.1), but really serious droughts of a duration comparable to the seven-year drought Herodotus alleges for Thera and of very wide effect were not infrequent.

Throughout Mediterranean history, there have been great droughts and consequential famines. In Braudel's great work on the Mediterranean in the sixteenth century, 40 there is reference to 'a most appalling famine in the whole of Italy' in 1554, to a serious crisis in the supply of food affecting the whole Mediterranean between 1586 and 1591, to a series of catastrophic periods of scarcity in Turkey between 1564 and 1568, 1572 and 1581, 1585 and 1590, periods comparable to Thera's seven years and to the seven 'lean years' of Joseph's administration of Egypt. "Between 1561 and 1598" according to the dispatches of the Venetian *Bailo* "there were reckoned to

³⁸ 'Αφορία described both bad harvest and crop-failure; cf. Xen. *Poroi* 4.9, where war is more serious than \mathring{a} φορίαι 'in as much as the land is not worked'.

³⁹ Cf. P. Garnsey, Famine and Food-supply in the Graeco-Roman World, p. 11 for the frequency of failure of the wheat and the barley crops in modern Greece.

⁴⁶ F. Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II* (English translation, Collins, 1972), pp. 245, 576, 593.

be ninety-four months of plague (almost eight years in all) and this figure is probably an underestimate." (Plague very probably followed on famine, which followed on drought.⁴¹) The same sort of widespread disaster can be shown for antiquity.

'The severe and world-wide famine which occurred in the reign of Claudius' according to the author of the Acts of the Apostles (11.28) is a familiar example. Under the year 51, Tacitus spoke of 'a shortage of crops (frugum egestas) and consequent hunger' (Ann. 12.43), and what occasioned the so-called Bread Riots was a crop-failure somewhere. Whether it was 'world-wide' is more doubtful. Imperial Rome relied in large measure on grain imported from Egypt, and frequently enough, as the Egyptian documents show, in consequence of what has been termed 'the low Nile' (i.e. when the Nile did not rise sufficiently to allow of normal irrigation), 42 there was famine in Egypt. Such an occasion is to be met in Pliny's *Panegyric* (§31), where he boasts of Italy sending food to nourish its normal supplier. A crop-failure in Egypt due to drought caused by conditions far to the south could sufficiently dislocate the market in cereals throughout the Mediterranean to make it seem to a man in Palestine that local shortages due to drought in Palestine⁴³ were being experienced world-wide, but the evidence of Acts does suffice to show widespread food-shortage caused by drought in the Middle East, a situation very similar to that envisaged by the story of Joseph in Egypt. Whatever is behind that, the general famine coinciding with a famine in Egypt must have been at least credible. 44 'The whole world came to Egypt to buy corn from Joseph, so severe was the famine everywhere' (Genesis 41.57). Famines in Egypt resulted from climatic variation at the sources of the Nile, but when Joseph's brothers went down like everyone else to buy corn, drought in Palestine induced them, just as earlier Abraham and Sarah were said to have gone down to escape famine (ibid. 12.10), though Isaac had stuck another one out (ibid. 26.1). Widespread drought in the Levant seems to have been a familiar idea, born of long and bitter experience of events like that recorded in the Second Book of Kings (8.1), the seven years of famine in Israel in the time of Elisha. That may have been only local. Nearer the Greek world is the famine in Anatolia in 1235 B.C., to which the King of Egypt sent a huge relief supply of corn, followed thirty years later by another famine. 45 How widespread these and other famines in Asia were felt is quite uncertain, but they do give some support to the celebrated story in Herodotus (1.94) about the migration of the Etruscans from Lydia. 'A severe shortage of corn throughout the whole of Lydia' for eighteen years is then said to have sent half the population off by sea to Italy. Whatever the truth of the story, the idea of severe climatic disaster leading to migration must have been credible. Indeed Aristotle in the Meteorologica (351b14ff.) speaks as if it was not uncommon, and Plato in the Meno (70c4) uses the metaphor of drought causing a migration of wisdom.

Within Greece itself we hear of major widespread droughts. Aristotle (*Meteor*. 360a4ff.) notes that in years of drought the drought is not necessarily uniformly felt through the affected area, but sometimes it was. The latter situation is reflected in the story told in Isocrates' *Evagoras* (§14): when 'droughts occurred amongst the Greeks and many persons had perished' and 'the magnitude of the disaster was exceeding all bounds' the leaders of the cities came to Aeacus to get him to use his

⁴¹ Cf. Hdt. 2.13.3.

⁴² Cf. J. Vandier, La Famine dans l'Egypte ancienne (Cairo, 1936).

⁴³ For droughts in Palestine, Garnsey, op. cit. (n. 39), pp. 15 and 38.

⁴⁴ 'It is impossible to draw any historical inferences from the story of "Joseph and his brethren." M. Noth, *The History of Israel*² (London, 1960), p. 118.

⁴⁵ CAH ii³, 2.360f., 369.

influence with Zeus, controller of droughts and rain. The version in Pausanias (2.29.7) makes clear that the droughts involved both the Peloponnese and an area outside the Isthmus, ⁴⁶ whilst that in Diodorus (4.61.1f.) sets it in the time of Theseus and Minos. Thus widespread drought within Greece itself had its place in legend. For the historical record we have to turn to the fourth century.

In the Leptines of 355/354 (§33) Demosthenes spoke of 'a shortage of corn throughout the human race (σιτοδεία παρὰ πᾶσιν ἀνθρώποις) the year before last', i.e. in 357/356. This does not necessarily mean that there was a general crop-failure. A 'low Nile' might have sufficed to produce such a general shortage. But in 362 and 361 it does seem as if widespread drought occurred. In the fiftieth speech of the Demosthenic corpus, the Polycles, which describes in some detail events of those years, not only is there mention of the Byzantians, the Chalcedonians and the Cyzicenes forcing the corn-ships from the Pontus to sell the cargo which had been bound for Athens (§§6, 17) but also it emerges that Maronea was affected and needed to have its corn-ships protected (§20), perhaps from Stryme which itself needed corn (§21). So it would seem that in the north-east Aegean area the corn-shortage $(\sigma \iota \tau \circ \delta \epsilon \iota \alpha)$ was general, and while one can only guess the cause one would not perhaps be guessing wildly to suppose that the trouble was climatic. For in 361 (§61) the situation in Attica was such that 'not only did the soil not produce any crop, but even the water in the wells that year gave out, so that there wasn't even a vegetable in the garden'. The years 362 and following may have been years of general climatic disaster, and it is possible that the trouble lasted until 357.

With the celebrated corn-shortage of 330 to 326 we are on surer ground. In Egypt there was a moderate famine, elsewhere ($\epsilon \nu \tau o i s \ \tilde{a} \lambda \lambda o \iota s \ \tau o \pi o \iota s$) a famine most severe ([Ar.] Econ. 1352a16 ff.). The man whom Alexander had appointed finance-officer, Cleomenes (Arr. Anab. 3.5.4), made the best of the situation (Dem. 56.7), somewhat in the manner alleged of Joseph and perhaps of many another Egyptian financeofficer, and Cleomenes may have contributed considerably to the rise in the price at Athens. But the famous inscription from Cyrene (GHI 196) which records the gifts made by Cyrene to places all over the Greek world 'at the time when the cornshortage $(\sigma \iota \tau \circ \delta \epsilon i \alpha)$ happened in Greece', makes clear that there was not merely dislocation of the normal system of distribution. The recipients include places in western and north-western Greece, Thessaly, Central Greece including Boeotian states, Opuntian Locris, the Oeteans, as well as Athens and Megara, the northern Peloponnesian states almost completely (save for Achaea and Epidaurus), and a fair sprinkling of Aegean islands including Rhodes, Cos, Crete, Thera, Cythera, Aegina, possibly Lesbos. It is likely that a number of the recipients did not normally import corn.47 The explanation is almost certainly widespread drought, with widespread failure of harvests, perhaps 'throughout the human race' in Demosthenes' phrase (20.33), 'world-wide' in the phrase of *The Acts* (11.28). The mention of four places in Crete is particularly to be remarked. One is reminded of Herodotus' story of 'a famine

⁴⁶ At 1.44.9 Pausanias said that this drought had befallen 'the Greeks'.

⁴⁷ From Xen. *Hell.* 5.4.56 and 6.1.11, Thessaly would appear to be an exporter of corn; cf. Garnsey, op. cit. (n. 39), pp. 71f., 187, 195. The comparative amounts on the Cyrene inscription are curious. Athens, by far the most populous city, received 100,000 *medimni*, Sicyon, a comparatively small state, 30,000, in Thessaly Larisa 50,000 and Atras, a very minor Perrhaebian town, 10,000, and so on. There is a useful map on p. 160 of Garnsey, showing both the incidence of gifts and the remarkable absences; e.g. if Tanagra, Plataea, Delphi, Opus received, why did not other places within that circle? The gifts may reflect the fitfulness of the drought, but it is more likely that the beneficiaries were the states that had political relations with Cyrene.

and a pestilence' of both men and cattle which desolated the island (7.171). From the fifth century, one can cite only one possible case, namely the cluster of events in the mid 440s represented by the distribution of free corn in 445/444 to a large number of the Athenian citizenry (FGrHist 328 F 119), the drawing of the colonists for Brea at that date from the two lowest property classes, poorest first (cf. Meiggs-Lewis ad GHI² 49), and the Panhellenic colony to Thurii with an assemblage of Arcadians, Achaeans, Eleans, Boeotians, members of the Delphic Amphictyony, people from Doris, Ionians, Athenians, islanders (Diod. 12.11), perhaps all evidence of a cornshortage 'throughout the human race' (cf. IG i³.31). The evidence for the fifth century is however different in kind. It is notable that although Thucydides referred to 'great droughts and consequent famines' contributing to the great sufferings of the War (1.23.3), he does not in his narrative allude to a single one of them. They were part and parcel of Greek life. That they occurred in the fifth century and indeed earlier with no less severity than in the fourth is not to be doubted.

Given the occurrence of widespread and prolonged droughts,⁴⁸ one inevitably wonders whether Greek colonisation in the eighth and seventh centuries was not in response to climatic disasters. The despatch of the Theran colony to Africa was due to drought. Perhaps that same drought was widely felt in the islands and moved other islands to colonise northwards, and if one had reliable dates for the foundations in the north by Aegean states, there might be striking coincidences. But such dates as we have are quite unreliable, and speculation whether the drought on Thera had its effect on Paros fifty miles to the north or on Andros a further fifty is useless.

With the eighth-century colonies there is striking and more reliable evidence of synchronism. If we may trust the chronological scheme furnished by Thucydides at the start of Book VI,49 a curious fact emerges. At very much the same time the Chalcidians in Euboea, the Megarians, and the Corinthians were moved to colonise (6.3.1 ff.), and, if one may trust the stories of Strabo (6.2.4 269c),⁵⁰ at the same period the Achaeans were colonising Croton. Further, according to Plutarch's Quaest. Graec. (Mor. 293) before the Corinthians established themselves on Corcyra, they had to expel Eretrians whom Eretria then refused to have back. The Corinthian foundations of Corcyra and Syracuse are synchronised by Strabo (ibid.). When the Eretrians went to the former is not clear, but their subsequent fortunes suggest that Eretria and Corinth were somehow afflicted at roughly the same time. Is it not striking that all these states, Chalcis, Eretria, Corinth, Megara, Achaea, were all similarly affected at much the same moment? It cannot be argued that Corinth and Achaea were merely copying the Euboean states' example. Pithecusae and Cumae had long enough existed for Corinthians to have the idea for themselves. The explanation suggests itself that all these states were affected by the sort of widespread drought which had been long familiar to the Greeks (cf. Isoc. Evag. 14, etc.).

There is another synchronism. Sparta attacked Messenia at roughly the same time as the first colonies were being sent off from the north of the Peloponnese.⁵¹ The

⁴⁸ One may note that Aristotle spoke of widespread drought as a regular enough occurrence. In a fragment of his treatise *On Signs* (240) he averred that when there is a drought 'in the islands' birds migrate to where they can sustain themselves, and farmers take the arrival of ravens from the islands as a 'sign' of drought and bad harvest; that is, a drought in the islands is likely to make itself felt still more widely.

⁴⁹ Cf. Dover's note on Thuc. 6.2.5 in A Historical Commentary on Thucydides, iv.

⁵⁰ But see J. N. Coldstream, Geometric Greece, p. 185.

⁵¹ The First Messenian War is a somewhat movable feast. Cf. Coldstream, op. cit. (n. 50), p. 163 and *CAH* iii², 3.323f. A date in the mid-730s for its commencement seems to be generally accepted.

drought which prompted that ancient appeal to Aeacus on Aegina involved 'the Peloponnesians' (Paus. 2.29.7), and it may be that if drought sent Corinthians and others westward, it also set the Spartans to attacking the fertile land of Messenia. (Certainly they were not strangers to food-shortage, due no doubt to drought. Aristotle [Mir. 832a20] records that on one occasion they were reduced to eating snakes.)

It may well be, one cannot say more, that these synchronisms are not mere coincidences. Certainly if plain over-population had been the root cause of colonisation (which this paper begs leave to doubt), the coincidence of so many states reaching the point of boiling over at much the same time would be greatly amazing. Given that severe and widespread droughts recurred in the Greek world, one is inevitably drawn to the hypothesis that the root cause of colonisation was climatic disaster. Only for Chalcis is it attested in the eighth century (Strabo 6.1.6 257c), but, as Thucydides shows, drought was too much part of Greek life to require mention. There was not an isolated phenomenon.

The hypothesis illuminates a curiosity of the story of the foundation of Syracuse, i.e. that most of the Corinthian settlers came from the inland village of Tenea (Strabo 8.6.22 380c).⁵² One wonders why the one village should be so favoured, or accursed. If there was a failure of the water supply there, the prominence of Teneates is intelligible. Aristotle noted the freakishness and fitfulness of droughts (Meteor. 360b4ff.). In general, what needs to be explained is why certain states did not colonise. Attica is alleged to be so ample that it could amply provide for its 'exploding' population; since so little is known of early Athens demographically speaking, the explanation is unassailable, but not necessarily correct. There was in Attica the special element of the olive, a hardy tree not readily destroyed in drought. According to Herodotus (5.82), speaking of an early period, 'there were olive-trees at that time, it is said, nowhere in the world save Athens', a curious comment from a native of Asia Minor, but presumably reflecting the fact that the olive was established in Attica more effectively in the eighth and seventh centuries than anywhere else in mainland Greece. So the effect of drought on Attic life may well have been much less severe. In the case of Argos, a lack of colonies is readily explained by its exceptionally good supply of water, lakes, rivers, and subterranean reservoirs $(i\delta\rho\epsilon\hat{i}\alpha)$ (Strabo 1.2.15 23c and 8.6.7 and 8 370 and 371c). ⁵³ As for Sicyon, although its fertility was celebrated, more especially the excellence of its pasture for horses suggests that it too was well-watered and less subject to the withering incidence of drought.⁵⁴ Such particular explanations may not be correct, but if early colonisation was, initially or largely, the response to the climatic disaster of drought, the various record of cities is at any rate not surprising.

Colonisation in the eighth and seventh centuries was, it may be posited, the cure not of the endemic evil of over-population but of the epidemic woes of climatic disaster. One last question must be faced. Why did colonisation die down? Colonies were sent out in the sixth century from eastern Greek cities, but they are principally due to the rising threat of the Kingdoms of Asia. In the fifth and fourth century, colonies and cleruchies reflect both imperial ambitions and the increase in the population of the city of Athens. But the despatch from Greece and the islands of farmers to farm in distant places petered out. Their population did not cease to absorb the available produce of the land. Droughts continued to do their worst. There may, though we barely hear of it, have been a slow, steady emigration to the

 ⁵² Cf. Ernst Meyer, RE va.1 col. 492.
 53 Cf. Hesiod, fr. 128 Merkelbach-West.
 54 Cf. A. Griffin, Sikyon, p. 30.

new cities (cf. Hdt. 4.159.2). More likely, however, as trade developed, disasters became less devastating. Food could be imported to tide a city-state over a disastrous period. If cities did not colonise to facilitate commerce, commerce made colonisation unnecessary. $To\iota \acute{o}\nu \delta'$ $\mathring{a}\pi\acute{e}\beta\eta$ $\tau\acute{o}\delta\epsilon$ $\pi \rho \hat{a}\gamma\mu a$.

University College, Oxford

G. L. CAWKWELL