Management in Antiquity: Part 1 – The Binds of Geography

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Contents

Introduction 2
Managerial and Economic Performance in Antiquity: Methods, Sources, and Difficulties 7
The Binds of Geography: Life Within the Civilized Frontier 10
The Binds of Geography: Life Beyond the Civilized Frontier 15
Conclusion 19
Cross-References 20
References 21

Abstract

In this first chapter on management in antiquity, we provide an overview of the different types of economic and managerial systems that existed in Europe and the Mediterranean Basin between 4000 BC and AD450. Within what we call the "civilized frontier" (Egypt, North Africa, the Middle East, the Mediterranean littoral, and Europe west of the Rhine), we can detect three types of economies: those based on irrigated agriculture (Mesopotamia and Egypt), dry-land wheat farming (southern Europe and the Middle Eastern hill-country) and maritime commerce (Greece, Phoenicia, Carthage). Beyond the "frontier" were societies constructed around either pastoral activity or subsistence agriculture. Despite their achievement, none of these societies proved capable of breaking the shackles imposed by geography and a preindustrial technological base. In all societies, the bulk of the population lived from the land. Even in Rome, the most sophisticated society of antiquity, living standards for all but a tiny elite were barely above subsistence. In no society can see effective systems of management directed towards a competitive market economy. In the final analysis, the managerial record of antiquity is one of failure rather than enduring achievement.

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Introduction

Intellectually and linguistically, the modern world owes an immeasurable debt to the societies that flourished in the Middle East, and across the Mediterranean basin, from around 4000 BC. To the Sumerians – who built an enduring civilization between 4000 and 2000 BC by draining the swamps and irrigating the deserts of lower Mesopotamia – we owe the foundations of Western principles of mathematics, as well as both the potter's wheel and wheeled transport. To the Phoenicians – a Canaanite-speaking people whose maritime culture, advancing from its original base in Lebanon and Palestine, bestrode the entire Mediterranean basin between 1500 BC and 300 BC – we owe our traditions of phonetic writing. From the Greek and Hellenistic societies that came to dominate the eastern Mediterranean, and the Latin culture which rose to dominate the entire Mediterranean world, we derive principles for geometry, architecture, philosophy, logical inquiry and deduction, medicine, and politics. Our modern political systems are also framed within the language of ancient Greece and Rome. From *demos*, the Greek for people, and the political practices of Periclean Athens during the fifth century BC, we derive our original concepts of democracy. From *civis*, the Latin word for citizen, we derive not only our understandings of citizenship, premised on a legal system of rights and responsibilities, but also the very concept of civilization. For the ancient Greeks and Romans, as with us, the term "civilization" implied more than a people joined by a common system of culture, language, history, and belief. It implied a world built around city life, with all the shared benefits of literature, politics, education, and social interaction which were its inevitable handmaidens. As Richard Koerner (1941/1966: 8) remarked, "Urbanization was a fundamental principle of Roman policy." Behind the Roman armies that advanced into North Africa, Spain, the Balkans, Dacia (Romania), Gaul (France) and Britain came the accoutrements of urban life: permanent buildings, aqueducts, amphitheatres, administrators, crafts-people, merchants, money-lenders, and, perhaps most importantly, urban consumers. Although, as Braudel (1986/1990: 98) noted, the towns of the western half of the Empire "suffered enormously" from the Germanic invasions of the third century AD – and even worse depredations following the Germanic *Volkerwanderung* that began with a massed crossing of the frozen Rhine on the last day of 406 – the urbanized culture that Rome created survived even after the western Empire was militarily and politically destroyed. Significantly, this urbanized remnant – initially far stronger in the Greek-speaking Byzantine Empire that survived the fifth century invasions – provided a refuge for new patterns of religious belief as well as for traditions of literacy and learning. Although most towns of any size provided homes for a bevy of Jewish traders, craft workers, and Rabbinical scholars, it was proponents of the new

Christian faith that predominated. Mediated by Greek-speaking patriarchs in the eastern Mediterranean who laid the foundations for Greek and Russian Orthodoxy, and Latin-speaking theologians such as St Augustine and St Benedict in what came to be regarded as Western Christendom, the abbots and bishops of this new faith created powerful supranational institutions that permanently restricted the political and moral authority of dynastic rulers.

Given the intellectual, linguistic, and cultural debt that we owe to antiquity, it is hardly surprising that many trace the institutions and practices of modern business and managerial endeavor to antiquity. At first glance, the case for so doing appears overwhelming. As noted above, many of the intellectual and cultural underpinnings of our world are the legacy of antiquity. The Egyptian pyramids, and the architectural marvels of Periclean Athens and imperial Rome, remain a perpetual source of wonderment. Most first year management textbooks portray the tasks entailed in building antiquity's architectural marvels – tasks that entailed planning, organizing, leading and controlling – as evidence of management's ancient origins (see, for example, Bartol et al. 2005: 5). Similarly, in Morgan Witzel's (2012: 7) *A History of Management*, we are told that although management emerged as a "discipline" in the nineteenth century, most preindustrial societies boasted successful examples of "management." Even among the scholars of antiquity, there are more than a few who make the case that the Hellenistic and Roman world boasted most of the entrepreneurial and managerial attributes of modern industrial capitalism. Writing in the 1920s, Rostovtzeff argued that the Hellenistic states that emerged in the wake of Alexander the Great's conquests (336–323 BC) produced a flourishing "city-capitalism" associated with an "unprecedented" growth in "commerce, industry, and agriculture." Under the auspices of imperial Rome, Rostovtzeff continued, "a strong and numerous city-bourgeoisie" became "the leading force in the Empire" (Rostovtzeff and Fraser 1926/1957: xiv, 103). More recently, in a study entitled *The Roman Market Economy*, Peter Temin (2012: 2) has suggested that "markets knit the Roman economy together . . . ordinary Romans lived well . . . They lived well as a result of extensive markets, competitive advantage, and technological change." In the face of established opinion that water-mills only became commonplace in the medieval era, both Lewis (1997) and Wilson (2002) contend that this Roman invention was widely adopted during antiquity, the latter claiming that its utilization represented a technological "break-through" (Wilson 2002: 11).

The claims as to the commercial, managerial, and technological achievement of antiquity falter when exposed to even cursory scrutiny. Although the smelting of metals – first of copper, then of bronze and iron – was a characteristic feature of Middle Eastern and European cultures from 3500 BC onwards, analysis of Greenland's ice cores indicates that the tonnage produced was miniscule until the years of the late Roman republic, when a spike in lead isotypes derived from the imperial silver-lead mines of southern Spain found their way to Greenland as atmospheric pollution. The spike in industrial smelting – which provided the coinage that was the life-blood of commercial exchange in a world devoid of paper money, bills of exchange and cheques – is also indicated by analysis of Spain's Rio Tinto mines, analysis that reveals some 6–16 million tons of silver and copper slag left as residue (Wilson 2002: 25–26. 29). This Roman mining and smelting achievement was, however, economically unsustainable. Not only did Roman mining efforts consume prodigious amounts of slave labor they were also only technically feasible in landscapes that allowed hydraulic sluicing to remove the initial layers of overburden (Wilson 2002). By AD 180 the Spanish mines were abandoned, leading to a collapse in output, a debasement of the currency and a steady reversion to a barter economy during the late Empire. Indicative of the Empire's failing fortunes, the silver *denarius* that was the standard instrument of exchange across the Mediterranean world, comprised only 4% silver in AD270. A century and a half earlier the figure had been 97% (Wilson 2002: 27).

The inability of even the Roman economy, with its unprecedented resources, to sustain the coinage necessary for basic commerce points to more generalized failings. With limited access to metal goods, and the casting of iron remaining an unknown skill to the ancient world, achievements in manufacture and, more particularly, agriculture were severely constrained. The population of Roman Italy during the reign of Augustus Caesar (28 BC – AD 14) probably amounted to no more than six million people, a total significantly less than that which today resides in Hong Kong (7.4 million). Of Italy's six million people, a third were probably slaves (Hopkins 1978: 68). Even where technological innovation was applied, it led to no generalized transformation. In the case of water-mills, Saller (2002: 265–266) estimates that even if this form of technology was commonplace – which he doubts – its effect on overall economic growth across the course of the Roman Empire would have amounted to "a rate less than 0.025% per year." Trapped within the confines of a preindustrial society, most members of the societies of antiquity lived in poverty and misery. In the case of imperial Rome, Schiedel and Freisen (2009: 84) estimate that at the height of empire somewhere between 65% and 82% of the population lived at or below subsistence level. In such circumstances, great displays of wealth – such as those evident in the holiday villas of the Roman elite at Pompeii – could only be achieved by extreme disparities in income, Schiedel and Freisen (2009: 76) concluding that the prosperous Roman elite amounted to as little as 1.2% of the total. Of the Roman villas that become the basis of Gallic production during the Late Empire, Braudel (1986/1990: 92) observes that were "monstrous" places, "a machine for enslaving and crushing human beings." Yes, it is true that the Roman aqueducts, sewers, and roads allowed for urban concentrations that were not equaled until the dawn of the modern era. But life for most, even in the great metropolis of Rome, was no bed of roses. Invariably, Rome's free-born lived in multistoried apartments (*insulae*) wherein exorbitant rents were extorted for jerry-built premises that were constantly in danger of collapse and fire. "Almost everywhere," Carcopino (1940: 44) observed, "the higher you went in a building, the more breathless became the overcrowding." On the upper stories, "entire families were herded together" in an environment characterized by "dust, rubbish, and filth," circumstances in which "bugs ran riot" to such an extent that "bedding could be black with them." In such habitations, Rome's famed fountains and sewers were typically far distant, only the very wealthy enjoying private connections. Reflecting on such circumstances, Carcopino (1940: 40) correctly noted that, "The drainage system of the [typically] Roman house is merely a myth begotten of the complacent imagination of modern times."

The fundamental problem with Roman society, as with the other societies of antiquity, is that it continually saw landed income as the only legitimate source of wealth; a situation that created a vicious circle in which any wealth that was created was ploughed back into low-productivity rural pursuits. In consequence, Rome not only remained devoid of the financial tools that characterized the European "commercial revolution" of the thirteenth century – bills of exchange, inter-bank transfers, cheques, double-entry book-keeping – its intellectual leaders also saw financial activity (lending, borrowing, etc.) as the domain of the morally bereft. Plutarch (c.AD100a/ 1993: 242), for example, in outlining the purpose for his essay, *Against Borrowing Money*, declared that he only wanted to show "what disgrace and indignity there is in the business." Such attitudes not only curtailed possibilities for entrepreneurial endeavor, they also restricted the growth of an urban middle-class sympathetic to new forms of wealth creation. Across the Empire as a whole, Schiedel and Freisen (2009: 84) estimate society's "middling" class at somewhere between 3.5% and 6.5% of the total. Modern managerial principles – which Pollard (1965: 6–7) associated with a capacity to motivate workers "without powers of compulsion" and an ability to relate output to costs and to sell "competitively" – were even more alien to the societies of antiquity. Even in Rome, arguably the most litigious society in the historical record, there was, as Hopkins (1978: 109) commented, "no tradition which legitimated the regular employment of free men." Accordingly, Roman society becoming increasingly bifurcated between the free (divided between a wealthy elite and an under-employed majority) and the enslaved.

In the world of antiquity, where entrepreneurial business pathways were more or less closed, there was only two sure ways of increasingly societal wealth: steal from others by force or enslave them (or, preferably, achieve both goals simultaneously). This fundamental fact of economic life was, arguably, better understood by the ancients than by many modern commentators. The Athenian democracy of the fifth century BC, and its material achievements, would have been impossible without the slave-operated silver mines at Laurion and the tribute exacted from the Delian League. The latter, initially an anti-Persian maritime alliance, had by 454 BC been reduced to subject status, forced to pay the Athenian state 600 talents (1.56 tons) of silver per year (Thucydides, c.411 BC/ 1954: 132). In defending Athens need to go to war to defend its dominant position, Pericles accurately noted that Athenian prosperity rested on the fact that it had spent "more life and labor in warfare than any other state, thus winning the greatest power that has ever existed in history." The fact that the Athenian "empire is now like a tyranny," Pericles declared, was no reason to let it go, for to surrender it would bring the "state to ruin" (Thucydides, c.411 BC/ 1954: 161–62). Athens' vaunted war-making ability, with the accompanying benefits in land and treasure, paled into insignificance when compared with that of Rome. Writing in the first century AD, Livy observed that by 319 BC, Rome was "a nation . . . in its eighth century of warfare." At this date another 700 years of warfare lay before the western half of Rome's empire, while the eastern half battled on for a further millennia. As Rome advanced it looted treasuries and temples, seized land, and enslaved people in their hundreds of thousands. "From the Second Punic War onwards," Howgego (1992: 4) observed, "Rome laid its hands by stages on the stored up wealth of the whole of the Mediterranean." The greatest cities of the Mediterranean basin – Carthage, Syracuse, Athens, Jerusalem – were sacked, the booty from Jerusalem's temple being used to build Rome's Coliseum. Plutarch (c. AD 100b/ 1999: 74) records that "so much money" was plundered from Macedonia in 167 BC "that the [Roman] people were exempt from taxes." Not until the third century AD were taxes on land, the principal source of regular income for the Roman state, reinstated. To compensate for the privileged position of Rome, the rest of the Empire was subject to land taxes that typically took a tenth of the annual harvest. In the case of Egypt, half the harvest was taken (Hopkins 1978: 16). The flows of goods, wealth, and slaves into the Italian heartland, therefore, depended in the first instance not on the "extensive markets" and "comparative advantage" of which Temin (2012: 2) speaks, but rather on militarily-enforced taxes. In summarizing the managerial and organizational consequences of such arrangements, Hokpins accurately remarked (1978: 17) that, "The considerable reliance on taxes levied on food helped the Roman state support a large superstructure with fairly simple economic institutions and only a small market sector."

If conquest and taxes directed great accumulations of wealth towards the Roman heartlands, the social consequences were uneven. Economically, the long-term consequences were retrograde. Ruined by the continual warfare that could take farmers and/or their sons away from their peasant farms for years at a time, the Roman rural yeomanry found themselves displaced by large *latifundia*: estates staffed by captured slave populations and their descendants. In reflecting upon this tendency, Appian (c.AD120/ 1913: 7) observed that:

> . . . the ownership of slaves brought them [the rich] great gain from the multitude of their progeny, who increased because they were exempt from military service. Thus certain powerful men became extremely rich and the race of slaves multiplied throughout the country, while the Italian people dwindled in numbers and strength, being oppressed by penury.

Arguably the greatest failure of the Roman Empire, however, was that it remained at heart, a military tyranny. Its growth, survival, and eventual decline are all attributable, in the first instance, to the combat performance of its legions. Tacitus, arguably the greatest social commentator that Rome produced, was acutely aware of how Rome was perceived by the subjugated and by those beyond the frontier. Reflective of this understanding, he at one point places into the mouth of a supposed British highland chief a clarion call of resistance to Rome. In an address to his people, this chief is recorded as saying of the Romans: "Robbers of the world, having by their universal plunder exhausted the land, they rifle the deep . . .To robbery, slaughter, plunder, they give the lying name of empire; they make a solitude and call it peace." As Rome's economic and demographic strength ebbed away from the third century AD onwards, armed resistance from the disaffected was increasingly found within as well as without. Rome was thus, for all its grandeur, a society – like all others found in antiquity – trapped within the technological and organizational constraints of what remained a pre-industrial world. Only with its ruination were new forms of Western civilization – built around markets, entrepreneurship, commerce and the exploitation of carbon-based forms of energy – to emerge capable of breaking the shackles that bound the economies of antiquity.

In exploring the issue of management in antiquity – a substantial undertaking given the variety of societies and the length of the historical period that we are considering – this study will involve two distinct parts, or chapters. This chapter, Part 1, is therefore in part a prelude to Part 2, a chapter that primarily focuses on the Greek, Hellenic, and Roman experiences. In its focus, this Part or chapter, however, also addresses three topics that are arguably central to our understanding of antiquity. The first necessarily involves methodology and sources and how we judge the size of both populations and economies in antiquity. A difficult task, given the absence of most of the statistics to which modern economists and managers have become reliant (i.e., productivity, firm and economy-wide outputs, per capita income, etc.), but nevertheless an essential one. For if we are to venture opinions on the success or otherwise of economic and managerial endeavor in antiquity, we could hardly do this without some measures as to the economic wealth produced, and the living standards of the people whose toil produced that wealth. In the following two sections of this chapters, we will explore the economic and social diversity of the world of antiquity (i.e., the Middle East, Egypt and North Africa, the Mediterranean Basin, Gaul [France], Britain, and Germany). Although the societies of antiquity were, we argue, an interrelated whole, with even those societies beyond the “civilized frontier” trading with the more urbane cultures inside the frontier, each confronted different sorts of problems, problems largely determined by geography and the forms of economic activity which the land, and the technology of the time, allowed. It is only by understanding the diversity of antiquity, and how the various cultural and economic components related to each other, that we can comprehend the whole.

Managerial and Economic Performance in Antiquity: Methods, Sources, and Difficulties

The societies of antiquity were hierarchical in nature. This applies as much to democratic Athens as Pharaonic Egypt or imperial Rome. Yes, it is true that Athenian citizens made decisions relating to peace, war, and the investment of state funds through common consent. But it is also true that Athenian wealth, power, and leisure rested on a veritable army of slaves, amounting to some 30% of the total population. This makes it one of only five cultures in history that can truly be considered a “slave society,” wherein slave numbers represented around a third of the total; the other four being Rome, the southern states of the United States of America prior to the Civil War, and nineteenth-century Brazil and Cuba (Hopkins 1978: 101). While slavery was atypical in most ancient societies built around subsistent peasant farming (i.e., Mesopotamia, Egypt, early republican Rome), the householder and his family in such cultures were invariably subject to state and religious taxes, forced labor on state projects, and military conscription. Hierarchical though ancient societies may have been, it is nevertheless wrong to think of them as having anything like a professional managerial class as we understand it, a class of people whose occupation is that of producing goods and/or services for sale as efficiently as possible so as to meet a consumer demand. The position closest to that of a "manager" was the "overseer" who supervised labor in mines, shipyards, construction projects and, in the case of Rome, in the commercially oriented but slave-operated *latifundia* that increasingly characterized agricultural in Roman Italy and the Empire's western provinces. Far from being autonomous agents, overseers were invariably little more than superior hands, a status clearly indicated in Cato the Elder's *De Agricultura*, the classic text on Rome farm management. In this, Cato (c.160 BC/ 1913: 34, 25) advises estate owners that they should make sure their overseer "often lend a hand" in the fields. If weather or other circumstances reduced working hours, then the overseer's task was to immediately "cut down" on "the slaves' rations." Even for the comparatively enlightened Pliny the Younger (c.90 AD/ 1963: 106), efficient estate management rested on having "a good type of slave" that enabled overseers to operate without resort to "chained slaves." On the *latifundia*, as with other forms of private business endeavor, it was not only the laborers and field hands who were slaves. Overseers, financial controllers, and the like also often fell into the same category, Rome acquiring tens of thousands of skilled, educated slaves with its conquest of the Hellenistic kingdoms of Greece, Egypt, and the Middle East during the late republic. Writing of Crassus, Rome's wealthiest citizen during the late republic, Plutarch (c.AD 100c/ 2005: 112) attributed his financial success in large part to his acquisition of slaves "of the highest quality – readers, secretaries, silver smiths, stewards." Such people were, Plutarch (c.AD 100c/ 2005: 112), continued, "the living tools for the management of a households." In the early Empire, even the centralized bureaucracies of the Roman state were headed by slaves. It was these people who were responsible for the day-to-day operation of empire, issuing instructions to provincial governors and imperial magistrates (Carcopino 1940: 62).

One of the consequences of the ancient world's operation without reference to modern understandings of management and economics is that we have few ways of reliably measuring performance. At the level of the private-sector business, the absence of anything resembling double-entry book-keeping curtail measurements of efficiency based on inputs and outputs. At a societal level, there is little agreement even as to the size of the population at any given point in time. For example, population estimates for Italy in 28 BC – a Roman census year at the transition point between republican and imperial rule – range from a high of 17 million (Lo Cascio and Malanima 2005) to a low of six million (Hopkins 1978; de Ligt 2012; Schiedel and Freisen 2009). In this debate, proponents of the higher estimate point to archaeological evidence, whereas advocates of the lower figure – which this study finds more credible – primarily rely on both likely agricultural output and the literary record (most particularly Livy's, *History of Rome from its Foundations* with its reports of Rome's census figures). Estimates in relation to investment are even more fraught, Wilson (2002: 6) observing that there are few figures "that a modern economist would want to use." In the case of Rome, Wilson (2002: 6) continues, "We do not know . . . gross national product, or *per capita* production figures . . . at even a single moment in its history." Even where obtainable, income and expenditure figures from antiquity expressed in terms of historic currency – talents, drachmaes, tetradrachms, denarii, sesterces, etc. – also need to be treated with caution. For although the ancients universally eschewed paper money in favor of coinage, their currency – as much as our own – was subject to inflation and debasement.

In seeking to move beyond traditional sources of evidence, based on either archaeology or the literary record, economic historians have resorted to two principal methods. The first of these involves the selection of an early modern proxy, where we do have reasonably reliable figures, as a point of comparison. The most noted such effort is arguably that undertaken by Schiedel and Freisen (2009), who use "Golden Age" Netherlands (i.e., Netherlands in c.1600) as a point of comparison, observing that the Netherlands arguably reached the limits of what could be achieved by a preindustrial society in terms of per capita wealth. In comparison to the societies of antiquity, the Netherlands in the early seventeenth century enjoyed extremely high levels of commerce and trade, high levels of literacy and formal education, and plentiful sources of carbon-based energy derived from local peat bogs. On the basis of such attributes, Schiedel and Freisen (2009: 64) argue, with considerable justification, that its economic efforts must represent "an absolute ceiling" that even imperial Rome could not possibly have approached. Extrapolating from their figures – which suggest that the per capita gross domestic product (GDP) of the Netherlands in 1600 amounted to $2590 per year in current (i.e., 2018) US dollars, or approximately $7 day – we must logically conclude that the per capita output in imperial Rome was equivalent (at best) to no more than a couple of dollars per day, a level commensurate with the $1.90 per day income which the World Bank (2019a) currently regards as a measure of "extreme poverty."

A second means of estimating economic and managerial performance in antiquity involves the calculation of waged income and purchasing power through reference to a universal measure of wealth, namely wheat, a product which was, as Duncan-Jones (1978: 159) observed, "the basic foodstuff of subsistence diet in antiquity." In our modern world, our comparative wealth can be ascertained that we can produce the wheat necessary to sustain life at little cost. Or, to put it another way, even a basic modern income allows for the theoretic purchase of a considerable amount of wheat. In 2019, for example, the wholesale price at wheat traded hovered around US$215 per ton, or US$0.215 per kilogram. This means that someone on the federal minimum wage in the United States – which stood at US $10.35 in 2019 – could, if they worked a 40-hour week for 52 weeks of the year, have theoretically purchased 4682.52 kilograms of wheat over the course of a year. By comparison, Schiedel and Freisen (2009: 72) estimate that the per capita GDP of Rome at the peak of Empire, expressed in kilograms of wheat, was most probably in the range of 489 kilograms to 604 kilograms per year, i.e., a level somewhere between 10.4% and 12.9% of the current US minimum wage. Given that Rome was, however, like the other societies of antiquity, characterized by extreme income inequality, it is unlikely that such a bounty would have been enjoyed by a majority of the population. After estimating Roman income disparities, Schiedel and Freisen (2009: 84) calculate that 22% of the population within the Roman frontier would have received a per capita income that equated (on average) to 245.5 kilograms of wheat, a total equivalent to 5.2% of the current US minimum wage. The social stratum above them, representing 60% of the imperial population, are believed to have received a per capita income equivalent to 409 kilograms of wheat (8.7% of the US minimum wage). Considering the GDP of the Roman Empire as a whole, Schiedel and Freisen (2009: 62–63) calculate its GDP at the height of empire to be equivalent to 50 million tons of wheat. On current values, this equates to a GDP of approximately US $11 billion, a total roughly equivalent to that of the modern day Armenia or Nicaragua (World Bank 2019b).

Although we should treat the above estimates – and any attempt to convert historic calculations into modern day equivalents – with considerable caution, what is nevertheless clear is that even at the peak of its powers the Roman Empire's economy was a comparatively primitive affair. Devoid as it was of the technological and commercial innovations that were to transform the human condition during the Industrial Revolution, most members of Roman society lived a life sunk in poverty, misery, and illiteracy. As Jerome Carcopino (1940: 66) recorded, even in the city of Rome itself "the majority of what we should nowadays call the middle classes vegetated in semi-starvation within sight of the incredible opulence of a few thousand." If, however, the economic and managerial efforts of antiquity pale into insignificance when compared with the achievements of the modern world, it is also unfair to dismiss its achievements on the basis of such a comparison. For our own efforts are built, in part, on antiquity's legacy; a legacy built around their historic struggles to break out of the confines imposed by geography and nature. On this score, their legacy is thus found not only in the things that they achieved, but also in the efforts that ended in failure. It is certainly unwise to dismiss as futile the efforts for betterment undertaken by those cultures and civilizations that have preceded our own. It is to those efforts, and the geographical and technological constraints against which the struggled, that we now turn.

The Binds of Geography: Life Within the Civilized Frontier

Writing in what was arguably his greatest work, *The Mediterranean and the Mediterranean World in the Age of Philip II*, Fernand Braudel (1946a/1990: 773) concluded that "the fundamental reality of any civilization must be its geographical cradle." The view that cultures and civilizations are, first and foremost, a product of their geography is hardly novel. In Livy's (c.AD 14b/1960: 386) *History of Rome from its Foundations*, the city's dictator in its war against the Gauls in 386 BC is quoted as saying:

> Not without reason did gods and men choose this spot as the site of our City – the salubrious hills, the river to bring us produce from the inland regions and sea-borne commerce from abroad, the sea itself, near enough for convenience yet not so far as to being danger from foreign fleets, our situation in the very heart of Italy – all these advantages make it of all places in the world the best for a city destined to grow great

Similarly, Herodotus (c. 446 BC/ 1954: 133, 139), described by Cicero as "the Father of History," noted that the extraordinary agricultural wealth of Egypt rested on the Nile's "bottomless" springs and a "black and friable . . . alluvial soil" totally unlike either the "reddish and sandy" soils of Libya or the "stone and clay" of Syria. The Greek historian, Polybius (c. 150 BC/ 1979: 283), also emphasized the importance of geography, attributing the food security and wealth of Greece to its maritime access to the Black Sea and its agricultural and pastoral hinterlands, observing that as "regards the necessities of life, there is no disputing the fact that the lands which surround the Pontus provide both cattle and slaves in the greatest quantities and the highest quality . . . they also absorb the surplus produce of our own countries, namely olive oil and every kind of wine."

What is evident from the above quotations from Herodotus, Livy, and Polybius is the emphasis on geographic and economic diversity and, at least in the case of Livy and Polybius, on maritime trade and sea-borne commerce. It was this orientation towards the sea as a means of breaking the shackles imposed by the physical constraints of one's homeland that does so much to explain the intellectual and cultural dynamism of the Greeks, their Phoenician maritime rivals and, subsequently, Rome; the latter, admittedly, only embracing a maritime career when it became a military necessity in the First Punic War with Carthage (264 BC – 241 BC). Certainly by the second century BC, the Mediterranean basin and its hinterlands – including Spain and Gaul – represented what Braudel (1977: 81–82) referred to as a "world economy," an interconnected whole within which each part is inexplicable without reference to the totality. Reflective of this interconnectedness is Polybius's (c. 150 BC/ 1979: 285) observation that, with Rome's dominion of the eastern Mediterranean, "history" had become "an organic whole . . . all events bear a relationship and contribute to a single end."

If the sea routes of the Mediterranean and Black Seas, and subsequently the North Sea, created an interconnected whole, it was nevertheless the case that a society's propensity for maritime adventure reflected its own landed resources. Least inclined to venture to sea were the civilizations based on the rich, irrigated river valleys of Mesopotamia and Egypt. The benefits of such environments – wherein irrigated cultivation required centralized bureaucracies skilled in writing, mathematics, astronomy and the harnessing of human labor – were obvious, Herodotus (c. 446 BC/ 1954: 158) declaring the Egyptians to be "much the most learned of any nation of which I have had experience." The disadvantages that accrued from such environments were, if less obvious, equally profound. Both lower Mesopotamia and Egypt lacked access – whether through home deposits or trade – to tin and iron, making them laggards in metallurgy. Moreover, the very fertility of the land and the abundant populations which it supported appears to have fostered a technological conservatism. Even though Pharaonic Egypt's agricultural richness depended on its ability to channel water into irrigation ditches once the annual Nile flood had receded, there was little inventiveness shown in tackling this problem. Only with the advent of the Hellenistic Greek kingdom of the Ptolemies (305 BC – 30 BC) were high-capacity water wheels and the "Archimedean" water-screw introduced. Prior to this, Egypt relied on labor intensive bucket and pulley methods (Wilson

2002). This propensity to rely on labor intensive modes of work was most clearly demonstrated in the great vanity projects of the Pharaohs: the pyramids and underground mausoleums of the Valley of the Kings. Although the pyramids remain antiquity's most iconic relics, their construction was hardly an economically rational capital investment. The economic and social folly involved was self-evident to a logical Greek thinker such as Herodotus (c. 446 BC/ 1954: 178–180), who declared the construction of the great pyramids to be a "crime," a source of "the greatest misery" that reduced the Egyptian population into "abject slavery." The wealth of the Nile valley also proved in many ways to be as much curse as benefit, acting as a magnate for a succession of conquerors – Assyrians, Persians, Greeks, Romans, Arabs – each of whom sought to exploit its bounty for their own benefit. Under the Ptolemies, the Nile's irrigated farmlands became effectively the nationalized property of a Greek-speaking dynasty, a dynasty whose rule rested on Greek mercenaries and military settlements (Rostovtzeff and Fraser 1926/1957; Wilson 2002). This subject status was reinforced when Egypt came under the control of the Caesars from 30 BC onwards. Unlike Rome's other provinces, which remained nominally under the control of the Senate, Egypt became the personal property of the emperors. As noted earlier, imperial land taxes resulted in half the annual harvest being seized, a bounty that fed the Roman capital for 4 months of the year (Howgego 1992).

Whereas the bounty of Egyptian civilization was built upon irrigated farming, the economies of its eventual Greek and Roman conquerors were founded on dry-land farming of wheat, olives, and vineyards. For the small-scale peasant operations that engaged in such activities – in both classical Greece and early republican Rome – the returns were in most cases little above subsistence. In Rome, even the senatorial elite originally boasted only modest means. When in 458 BC, Livy (c.AD14b/1960: 213) records, a senatorial delegation approached Cincinnatus to ask him to serve as Dictator and lead Rome out of a military crisis, they found him "working in a little three-acre farm", his hands and face covered in "grimy sweat." Several centuries later, when another delegation approached Manius Curius, a senator who had served as Consul and led Rome to three military triumphs, they located him in a "little estate" that he worked "with his own hands, ... sitting by the fire and boiling turnips" (Plutarch, c.AD 100b/ 1999).

The comparative poverty of Rome's elite in the early republic – which caused Livy (c.AD14b/1960: 34) to declare that "nowhere" more than Rome "have thrift and plain living been for so long held in esteem" – reflected three basic facts about dry-land farming in antiquity. First, dry-land farming was invariably located in areas of thin soils. Most typically, it involved the farming of hillsides. Where they existed, river valleys and coastal plains were commonly malarial swamps. Their utilization required sustained levels of collective effort and investment that were beyond the resources of peasant-based communities. Even if not water-logged, the heavy soils of river bottoms were also typically impervious to the crude ploughs of antiquity (Braudel 1946b/1990). The second characteristic feature of dry-land farming was a dearth of livestock. This had a number of consequences. It made meat and dairy products a dietary rarity. Animal manure, which could have raised soil fertility, was also in short supply. Where animals were used in ploughing, there was an almost universal reliance on oxen rather than horse-power. Even when horses were used, the farmers of antiquity lacked the soft-leather collars that proved so effective in medieval Europe, collars that allowed medieval horses to do the work of four oxen (Parain, 1941/1966: 144). The third notable consequence of a reliance on dry-land farming, with its deficit of animal stock, was military. Chronically short of horses, Greek and Roman armies were built around infantry formations, rather than cavalry, an outcome that made their style of warfare far more plebeian than that which was to subsequently characterize the medieval world with its armored-clad knights.

If the economic deficiencies of dry-land farming are easily discerned, its benefits were, if less obvious, equally profound. First, free of the stultifying bureaucracies that characterized the civilizations of Mesopotamia and Egypt, dry-land farming communities were inherently more democratic. Increased wealth entailed increased responsibilities, most particularly in the military domain. In classical Greece and early republican Rome, the most respected and valued citizens were those who could afford the heavy helmets, shields, and body armor that allowed them to serve in the ranks of the Greek phalanxes and Roman legions. According to Livy (c.AD14b/1960: 82), in 550 BC Rome undertook a far-reaching restructure of its political order by means of an inaugural census, through which each adult male's contribution to "public service, in peace as well as in war, . . . could be in proportion to his means." The greater one's capacity to contribute to the state's defense, with all the military risks which that entailed, the greater was one's voting power in the popular assembly. The second, easily overlooked benefit of dry-land farming was a comparative surfeit of leisure. Hopkins (1978: 24) observes that "most" Romans under the republic "were under-employed," their busy seasons corresponding with the planting and harvesting of their small grain crop. This left plenty of time for religious festivals, politics, and, above all, war-making. For in assessing the economics of Greece and Rome, it is easy to overlook the extent to which they were highly militarized and violent societies. When one reads Livy's (c.AD14b/1960) *History of Rome from its Foundations*, for example, there is a constant temptation to skip over the accounts of a seemingly endless list of wars, large and small. But it was this pattern of endless warfare that proved the decisive factor in the Roman economy, continually extending its reach and resources while undermining the sustainability of the small farmers upon which the state was originally built. Consequently, we read in Livy (c. AD14b/1960: 129–30) that, as early as 495 BC, an old army veteran could lament that:

> While I was on service . . . my crops were ruined by enemy raids, and my cottage was burnt. Everything I had was taken, including my cattle . . . I was expected to pay taxes, and fell, consequently, into debt. Interest on the borrowed money increased my burden; I lost the land which my father than grandfather had own . . . ruin spread like a disease.

The constrained opportunities offered by dry-land farming made the sea, along with landed warfare, one the few avenues through which the Mediterranean's peasant communities were able to break the bounds of their geographic homeland, be it through emigration, trade, or maritime warfare. Significantly, however, despite the ever beckoning presence of the Mediterranean, relatively few cultures ventured seaward. A number of factors explain this. Arguably the most important is the Mediterranean's comparative dearth of fish. Certainly its stocks, both in antiquity and in the medieval era, in no way rivaled those found in the cold-water fisheries of the Baltic and the North Sea (Braudel 1946b/1990). In the western Mediterranean, the wide expanses of the Tyrrhenian Sea effectively restricted maritime travel to the north-south corridors between Italy and Tunisia in the east and between Spain and North Africa in the west. Sudden and destructive storms, moreover, provided a constant threat to life and property even within sight of the coast. In the First Punic War (264 BC – 241 BC), for example, both of Rome's first two naval fleets were sent to the bottom as a result of storms, Polybius (c.150 BC/ 1979: 100) noting on the second such occasion that "the destruction being so complete that not even one of the wrecks could be salvaged." Piracy was a constant threat to not only shipping but also land-lubbers, Thucydides (c.411 BC/ 1954: 39) observing that "the ancient cities" of Greece were invariably "built at some distance from the sea" to protect themselves from this menace. In the face of such obstacles, it is therefore not surprising that in antiquity only three cultures built their fortunes on a voluntary embrace of the sea: the Phoenicians, the Greeks, and the Carthaginians.

By general consent it was the Phoenicians – a Canaanite-speaking people from what is now Lebanon and northern Israel – who acted as maritime pioneers (see, for example, Frankenstein 1977; Stieglitz 1990; Scott 2018). Driven to the seas by the aridity of the region's sandy coastal plains, as well as pressure from competing ethnic groups (most particularly the Hebrews and the Philistines), the Phoenicians pioneered a number of key commercial and maritime skills. Among the most important of these were phonetic writing, stellar navigation, sturdy mortise-and-tenon jointed keeled ships, brailed-rig sails that provided a limited capacity to take into the wind, and large ceramic amphorae that allowed for the transport of wine and olive oil (Scott 2018). While the political and commercial independence of the Phoenicians was curtailed by a series of Near Eastern empires (Assyrian, Babylonian, Persian), their Greek rivals maintained a precarious independence. In 480 BC, Athens – the largest of the Greek maritime states – famously asserted both its independence and naval supremacy in the eastern Mediterranean through a comprehensive victory over the Persian Empire, and a predominately Phoenician fleet, at the battle of Salamis. Such was city's naval domination in the ensuing decades that Pericles, the greatest of the Athenian democratic leaders, was able to boast that Athens "had more and better steersmen and sailors than all the rest of Hellas put together" (Thucydides, c.411 BC/ 1954: 39). Increasingly, however, Phoenician and Greek maritime activity was associated with emigration and colonization as people sought physical escape from the economic constraints of their homeland. By far the most successful of these immigrant societies were Greek-speaking Syracuse in Sicily and Punic-speaking Carthage in what is now Tunisia. In reflecting upon the Carthaginian naval domination of the western Mediterranean, Polybius (c. AD150 BC/ 1979: 345) recorded that "seamanship" was "their national calling and they occupy themselves with the sea more than any other people." Among other things, Carthaginian maritime capacity enabled this North African society to exploit previously untapped mineral resources in the western Mediterranean. Of particularly significance in this regard was Carthage's development of the silver mines of southern Spain, mines which were, following Carthage's defeat, to subsequently secure Rome's currency under the early Empire. Nevertheless, for all the success and sophistication of their maritime empires, Carthage, Athens, and the city-states of Phoenicia were all, in the end, destroyed utterly by the states that emerged from the landed hinterland. Tyre, the greatest of the Phoenician cities, was sacked and burned by Alexander the Great in 332 BC. Carthage was destroyed by Rome in 146 BC, its surviving citizens sold into slavery. Athens, defeated by Sparta in the Peloponnesian War, suffered a similar fate at the hands of Rome. Plutarch (c.AD100b/ 1999: 190), writing of the sack of Athens in 86 BC, recorded that, "There was no telling how many people were slaughtered; even now, people estimate the numbers by means of how much ground was covered with blood."

The comparative fates of the maritime powers of antiquity (Phoenicia, Athens, Carthage) and those most linked to Western supremacy in the early modern era (the Netherlands, Britain, and the United States) are instructive. In antiquity, the maritime powers all succumbed to entities who drew their strength from the land: Persia, Sparta, Macedonia, Rome. By contrast, control of the seas – and, subsequently, the air – has proved the foundation for modern economic and military supremacy. Where defeat, and a subsequent loss of supremacy occurred, it was to a rising maritime power. Dutch supremacy eventually gave war to that of Britain after four bitter wars (1652–1654, 1665–1667, 1672–1674, 1780–1784). The supplantation of British supremacy by the United States was, in turn, heralded by American success in the War of Independence. In the world wars of the twentieth century, the supremacy of the two great Anglo-Saxon powers, Britain and the United States, at sea and in the air, proved decisive. Arguably, American domination of the world's sea lanes, and the commercial prosperity that this delivered to the West, proved equally decisive in the Cold War contest against the Soviet Union.

The Binds of Geography: Life Beyond the Civilized Frontier

If the legions of Rome, based upon a peasant-soldier citizenry, eventually came to dominate the Mediterranean world, there nevertheless existed on the edges of this settled world another world, a world of pastoral nomads that acted at various times as prey and predator for more urbane communities. In North Africa, beyond the coastal ports and plains, extending into what Herodotus (c. 446 BC/ 1954: 332–336) referred to as the great "sand-belt," lived a nomadic people generally referred to as Numidian. In describing the land which they occupied, Polybius (c. 150 BC/ 1979: 429) claimed (perhaps optimistically) that "the total of horses, oxen, sheep and goats which inhabit the country is so immense that I doubt whether an equal number can be found in all the rest of the world." "The reason for this," Polybius (c. 150 BC/ 1979: 429) continued, was that "the African tribes make no use of cereals, but live among the flocks and herds." Sallust (c.40 BC/ 1963: 54), who served with Julius Caesar and was appointed governor of Numidia, recorded that the original native population "lived a nomadic life, roaming from place to place, bivouacking wherever they happened to be at nightfall." To the west of this Numidian population, Sallust (c.40 BC/Sallust 1963: 56) added, were "the Moors." To the south were "lands parched by the continual heat of the sun." Similar nomadic peoples, whose life revolved around horses and flocks of sheep and/or cattle, also occupied the Iranian plateau, the Arabian Peninsula, and, most significantly, the vast Eurasian steppes that stretch from modern-day Ukraine to Mongolia. Most commonly referred to in antiquity as "Scythians," Herodotus perhaps best summed up the classical view of these Eurasian nomads. On the one hand, Herodotus (c. 446 BC/ 1954: 286) dismissed the "Scythians" as "the most uncivilized nations in the world," a people without claim to "any of the arts of civilized life." On the other hand, he noted that these nomadic peoples, "accustomed, one and all, to fight on horseback with bows and arrows," were the most invincible of warriors when fighting on their grassy homelands (Herodotus, c. 446 BC/ 1954: 286).

In antiquity, the nomadic horsemen and camel-herders of North Africa, Arabia, the Iranian Plateau and the Eurasian steppe interacted with more settled societies that abutted them in three principal ways. First, they served as cavalry, mounted mercenaries, in the armies of whoever would hire them, most particularly of Carthage, the Hellenistic kingdoms, and Rome, a role in which they helped offset one of the chronic weaknesses of most armies of the ancient Mediterranean world, constructed as they were around peasant infantry. Second, they acted as raiders and, on occasion, conquerors, a threat which assumed an unprecedented dimension in the late fourth century AD, when the Huns – a Turkic people from the Mongolian steppes – pushed all before them as they moved westward towards the Roman frontier. Arguably, however, the most significant role of the nomadic horse-peoples who lived around the Mediterranean Basin was that of both conduit and barrier to the cultures who lived on the other side of their pasturelands. In antiquity, the lands and people who lay beyond the Sahara, and the steppes to the north of the Black Sea, remained shrouded in mystery and misunderstanding. Of the Ukrainian grasslands, Herodotus (c. 446 BC/ 1954: 276) recorded, "No one has any accurate information about what lies beyond the region . . . what lies beyond is mere hearsay." Only with the Arab conquests that began in the seventh century AD, and the conversion of the bulk of the nomadic horse people to Islam, was a semblance of cultural unity imposed on the regions which the nomads occupied, a unity that did much to enhance linkages between Europe, sub-Saharan Africa, the Indian sub-continent, and East Asia. Writing of the economic and cultural role of Islam between the seventh and fifteenth century, Braudel (1987/1993: 62) accurately noted that, "Trade-routes were its wealth . . . It alone . . . brought together the three great cultural zones of the Old World – the Far East, Europe and Black Africa. Nothing could pass between them without its consent or tacit acquiescence. It was their intermediary." Even without the intermediary role of Islam, a small but economically significant trade emerged between the Mediterranean and the Far East. The bulk of this trade, which tended to see Asian textiles, spices, and jewels exchanged for Greek or Roman silver, went via the Red Sea and India. Much smaller volumes went via the so-called "Silk Road," a route that connected the Roman and Chinese worlds via Syria, the Iranian plateau, and the desert lands to the north of Tibet. Unfortunately for the Roman Empire its trade with India and the Far East was associated with what we would think of as a growing "foreign account deficit"; a deficit saw a steady loss of silver and (to a lesser degree) gold coins to the eastern trade routes. When the Spanish silver mines closed in the late second century AD, these losses became insidious, contributing to rapid currency debasement (Howgego 1992; Wilson 2002).

If the ancients viewed the nomadic horse peoples who abutted their world with a mixture of disdain and fear, the same attitudes were even more manifest in relation to the Gallic and Germanic peoples to their north. Against these northern peoples Rome waged war for more than eight centuries. In the case of the Gauls, a series of early Celtic victories, which included the sacking of Rome in 390 BC, were followed by increasingly crushing defeats. With the surrender of Vercingetorix at Alesia in 52 BC, an independent Gallic existence in what is now France came to an end. With the defeat of Boudicca, and the massacre of her Iceni warriors in AD61, Britain too came under Roman sway. Unfortunately for Rome the Germanic tribes beyond the Rhine proved more resistant, the limits of empire delineated by Rome's disastrous defeat in the wilds of the Teutoburg forest in AD 9. Writing of this defeat, and the loss of three legions under the command of Varus (Varro), the Roman historian, Suetonius (c.AD130/Suetonius 1957: 62), recorded that it "nearly wrecked the Empire." So gravely did the emperor Augustus regard the defeat, Suetonius (c. AD130/Suetonius 1957: 62) continued that "he would often beat his head on a door, shouting: 'Quinetilius Varus, give me back my legions!'"

Greek and Roman contempt for the modes of Gallic and Germanic existence pervade the literary record. Writing of the Gauls whom Rome expelled from the Po Valley (Cisalpine Gaul), the Greek historian, Polybius (c. 150 BC/ 1979: 128–129) informed his readers in the second century BC that, "They lived in unwalled villages and had no knowledge of the refinements of civilization . . . they slept on straw and leaves." Of the lands to the west of the Rhine, Tacitus (c.AD98b/1942: 709) asked in his study, *Germany and its Tribes*, "who would leave Asia, or Africa, or Italy for Germany, with its wild country, its inclement skies, its sullen manners and aspect, unless indeed it was his home?" As to the Germanic lifestyle, Tacitus (c.AD98b/1942: 716–717) observed that:

> It is well known that the nations of Germany have no cities . . . They live scattered and apart, just as a spring, a meadow, or a wood has attracted them . . . No use is made by them of stone or tile . . . They are wont also to dig out subterranean caves, and pile on them great heaps of dung, as a shelter from the winter, . . . for by such places they mitigate the rigour of the cold.

The primitive nature of the Germanic condition, Tacitus (c.AD98b/1942: 711) continued, was also indicated by a dearth of metal goods, noting that, "Even iron is not plentiful with them." Tacitus (c.AD98b/1942: 711) also believed the Germans to be devoid of the work ethic that characterized more successful cultures, showing propensity for little other than warfare. Consequently, he concluded, they "lie buried in sloth," their "huge frames, fit only for a sudden exertion. They are less able to bear laborious work . . . Nay, they actually think it tame and stupid to acquire by the sweat of toil what they can win by their blood" (Tacitus, c.AD98b/1942: 710, 716).

There is little doubt that Greco-Roman depiction of the Gallic-Germanic "barbarians" to their north as uncouth savages was part fact, part exaggeration. In pre-Roman Gaul, so Braudel (1986/1990: 60–61) wrote in *The Identity of France*, Celtic metal craftwork revealed "extraordinary skill." The Gauls "were also," Braudel (1986/1990: 61) added, "weavers of both linen and wool, dyeing them in the bright colours they favoured . . . the [leather] wine-cask, a convenient substitute for the amphora, was a Celtic invention. They were the first people in Europe to manufacture soap." It is also evident that the cultural and technological gap between those within the western frontier of Empire and those who lived on the far side of the Rhine decreased over time. This was particularly so after the Germanic invasions of the late second century AD, invasions which saw most of northern and eastern Gaul (France) fall under the control of the interlopers for an extended period. In the wake of these intrusions, the frontier between "civilized" and "barbarian" is best thought of as an area of transition, rather than an impermeable barrier. Within these vast "boundary regions," there occurred what the Marxist historian, Perry Anderson (1974: 110–111), describes as the "long symbiosis of Roman and Germanic social formations." In Gaul, rich and poor alike abandoned the unprotected cities for rural fortified villas. As taxes were increased across the Empire in a desperate search for military stability what was left of a free peasantry accepted, even in Italy, conditions akin to serfdom in order to gain the protection of a local lord (Stevens 1941/1966). On the Germanic side of the frontier, by contrast, economic life became increasingly monetarized. Culturally, as well, there was a narrowing of the gap that existed between those on either side of the frontier. By the time of the fifth-century Germanic *Volkerwanderung*, most of the German tribes shared the Christian faith of their Roman foes, albeit through adherence to an Arian creed that those who looked to Rome regarded as heretical. In consequence, when the Visigoths sacked Rome in 410 they showed, according to St Augustine (c.AD430/ 1945: 2), unexpected respect for "the churches of the apostles." "So far and no farther," St Augustine (c.AD430/ 1945: 2) added, "came the rage of the bloody enemy."

Although we should not exaggerate the backwardness of the Celtic and Germanic cultures of western Europe during antiquity nor should we understate it. If life for most of the inhabitants of Empire, even during the golden years of the first century AD, was eked out at the edge of subsistence, for those who lived in Gaul, Britain, and Germany, the circumstances of existence would have been even more precarious. The skilled metal-work to which Braudel referred would have been the preserve of a small craft elite, an elite working at the behest of a comparative handful of tribal chieftains. Certainly, northern Gaul and Britain remained the most backward corner of Rome's empire, Plutarch (c.AD100b/Plutarch 1999: 321) questioning the logic behind the conquest of Britain with the observation that, "there was nothing worth taking from people who lived such hard and impoverished lives." If we accept the argument (Hopkins 1978; Schiedel and Freisen 2009), as this author does, that the population of Roman Italy was around six million at the end of the first century BC, then it is difficult to believe – as Braudel (1986/1990: 83) suggests – that Gaul had "a minimum" of "8 or 9 million" at this time. A population total in the region of half that suggested by Braudel seems more likely. While Roman conquests unquestionably brought the Celtic and Germanic peoples of northern Europe into a permanent engagement with the Mediterranean world, they also entailed – as they did elsewhere – suffering and devastation. Of Julius Caesar's genocidal wars against the Gauls, Plutarch (c.AD100b/ 1999: 314) records that in "less than ten years . . . he killed 1,000,000 and took the same number of prisoners." While in southern Gaul any depopulation was offset by the settlement of army veterans and immigrants from Italy – an outcome that contributed to the permanent "Latinization" of the region – the effects of urbanization and other positive attributes of Roman rule were far less pronounced in northern Gaul and Britain. Of these regions, Stevens (1941/1966: 118) writes, "town life hardly existed." If it is thus true, as Polybius (c.150 BC/ 1979: 285) noted, that incorporation into the Roman world made the peoples of western Europe and the Mediterranean Basin "an organic whole," peoples whose fate was to henceforth to be intimately interwoven, then it is also the case that geographic and nature continued to exert arguably even more powerful influences. Disparities, inequalities, and an unevenness of economic development remained antiquity's essential hallmarks.

Conclusion

In considering the world of antiquity, it is easy to become fixated on the achievements of the great urban centers of the Mediterranean Basin: Babylon, Tyre, Jerusalem, Athens, Corinth, Carthage, Rome. It was in these cities that the cultures of antiquity found their most vibrant expression in art, architecture, literature, politics, commerce, and trade. It is also to the citizens of these cities – Herodotus, Thucydides, Polybius, Livy, Plutarch – that we owe much of our understanding of the ancient world. We have to constantly remind ourselves, therefore, that this urbanized experience was an atypical one in antiquity. For an overwhelming majority, life involved a monotonous struggle to eke out a living from the land. One day was much like the next, life being dictated by the rising and setting of the sun and the changing of the seasons. This applied as much to the people whose lives appeared the freest, the nomadic horse-people and herders of Eurasian and North Africa plains and deserts, as to the Egyptian peasant wedded to their patch of soil. Even by comparison with the poorest peasant-farmer, the typical herder had few possessions. For each morning, the nomadic clan had to pack up their worldly possessions and move to new pastures. In summer these pastures were likely to be in cooler, mountainous regions, a fact that necessitated the constant crossing of streams, high-altitude passes, and areas of broken ground. In winter, even in North Africa, a return to lowland valleys exposed one to snow-blocked paths and raging torrents. Of the Celtic population of the Po Valley in the second century BC, a people who combined slash-and-cultivate agriculture with pastoral transhumance, Polybius (c.150 BC/ 1979: 128) noted that their only "possessions consisted of cattle and gold, since these were the only objects which they could easily take with them." For peasant farmers, the security of having the same roof over one's every night was offset by the fact that, as a member of a more organized society, one was exposed to the constant demands of one's political and social superiors: for taxes, religious tithes, forced labor, and military service. Often, even in good seasons, these demands could leave the famer and his family eking out a bare subsistence existence. In bad seasons, people starved. In short, life for most – as Thomas Hobbes (1651/2002: 62) expressed it, in summarizing the condition of pre-industrial existence more generally – was "poor, nasty, brutish, and short."

For all the architectural and intellectual achievement of antiquity, there was remarkably little progress in either manufacturing or, more particularly, agriculture. Even in classical Greece, as Meikle (2002: 242) observed, manufacturing was the preserve of "a relatively small number of craftsmen producing in workshops of very restricted scale." Under the Roman Empire outside Italy, it is probable that 90% of the population were still confined to agricultural and pastoral pursuits. Even in Italy itself, at the height of Empire, "power and wealth" was primarily dependent, as Hopkins (1978: 6) recorded, upon "the area and fertility of the land which each individual possessed." In these circumstances of low rural productivity and an artisanal manufacturing sector – which placed a firm ceiling on the possibilities for per capita increases in wealth – social and economic progress could only come by one means: through increased inequality, by the concentration of wealth in the hands of particular societies at the expense of others, and through the enrichment of the few at the expense of the many. Consequently, the architectural marvels of the Athenian Acropolis rested not on the natural wealth of Attica but rather the expropriated treasure of the so-called Delian League, Athens' subject maritime empire. Similarly, the atypical situation found in Italy under the Caesars, in which perhaps 30% of the population lived in towns and cities, reflected the fact that the Empire was able to call on the agricultural bounty of the whole Mediterranean Basin. Such dynamics meant, in short, that managerial endeavor in the ancient world was directed towards fundamentally different economic purposes to that found in modern, democratic societies. Whereas management has since the Industrial Revolution primarily has *primarily* acted as a social institution for increasing societal wealth, in antiquity the primary purpose of state bureaucrats, tax-collectors, and agricultural overseers was to ensure a *concentration* of wealth so as allow for both state-funded construction projects (i.e., pyramids, aqueducts, roads, canals, temples, etc.) and the personal extravagances of a few.

Cross-References

▶ Intellectual Enlightenment: The Epistemological Foundations of Business Endeavor
▶ Management in Antiquity: Part 2 - Success and Failure in the Hellenic and Roman Worlds
▶ What is Management?

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