1 Famine and Social Memory

It is hard to imagine that the passage of a century largely erased the flu pandemic of 1918–1920 from the memories of all but historians and epidemiologists. Such was the case until early in 2020. Suddenly, another highly contagious disease began to turn lives across the globe upside down. Photographs and stories from the 1918 pandemic, newly excavated from archives, quickly went viral (Figure 1). As in a distant mirror, masked women and men queued in long lines for basic supplies or stepped up to triage victims. The unmasked assembled to protest public health mandates. Businesses closed, the infected were quarantined, hospitals filled and then spilled over, and dead bodies exceeded the storage capacities of morgues.

Some disasters, although they could (and should) have been predicted, take those who experience them by surprise. Others, however, may be pessimistically awaited. This Element explores the reasons – many of them surprising – why even during peace and prosperity, ancient Egyptians *expected* social upheaval and tragedy. Specifically, it argues that in pharaonic and Greco-Roman Egypt infrequent but devastating episodes of famine remained in social memory by virtue of three mnemonic media: witness testimony and literature, prophecy, and rites of remembrance. By writing, warning, and revisiting, Egyptians kept the memory of terrible famines fresh, even when no one alive had experienced anything comparable.

This section has two aims. First, it sets the stakes of the arguments in this Element by describing the consequences of extended Nile flood failure. To do so, it draws on pharaonic and Greco-Roman documents as well as richly detailed Medieval and Ottoman accounts that collectively illuminate the typical trajectory of Egypt's most harrowing famines. The section's second aim is to consider how individual memories of communal tragedies are transmitted into social memory. As with viral epidemics, the speed and efficiency with which preventative measures are put into place at the onset of a food crisis can potentially forestall mass mortality. For the urgency of their implementation to be appreciated, however, extreme hunger must be recalled by a population that has never seen the corrosive effects of starvation on a body, much less on the body politic.

The three remaining sections focus on mechanisms that preserved such memories. Section 2 addresses the attempts of individuals – via personal narratives or imaginative recreations – to convey the experience of living through a period of famine in all its attendant turmoil and terror. Section 3 examines the framing of famine as a manifestation of divine displeasure. The authors of Greco-Roman prophetic texts drew frequently and vividly upon the specter of famine for their own political purposes. Even when the calamity they "foresaw" was already happening, their prophecies often circulated widely and kept the consequences of environmental catastrophe alive in the imagination of later

Figure 1 Ambulance during the influenza pandemic of 1918, public domain. Accessed from LOC's public domain archive

(Red cross emergency ambulance in the influenza pandemic of 1918. https://loc.getarchive.net/media/demonstration-at-the-red-cross-emergency-ambulance-station-in-washington-dc-a3af7c Open source)

generations. The final section focuses on what may well have been the most successful strategy, the transformation and incorporation of past, but potentially recurrent, traumas into ritual. Visions of a world turned upside down invoked in festival settings dramatize revolutions in social status that occur as a result of famines, insurrections, and wars. At the same time, they serve as enduring and thought-provoking sources of delight. The ancient Egyptian New Year's Festival, discussed in this section, offered a sobering annual reminder of the very real possibility of famine. Egyptians eagerly awaited the opportunity to remember, however, as they were invited to drink until drunkenness, to transgress sexual boundaries, and to enjoy festive inversions that both educated and amused them.

1.1 Severe Nile Failures Occurred Rarely but Followed a Predictable Pattern

Prior to the construction of the Aswan Dam, Egypt's predominantly agricultural economy was dependent on an annual inundation that was neither too high nor too low (Figure 2). A flood of 9 m or more would leave fields under water at

Figure 2 The Nile inundation near the pyramids, c. 1930s, public domain. Accessed from Mena House Hotel Pinterest

sowing time and cause widespread damage to homes, granaries, and agricultural infrastructure. A flood of 6.7 m was both average and benevolent, but a crest that failed to attain 5.3 m caused great concern (Bell 1971: 6; Seidlmayer 2001: 33–6). In his *Natural History*, Pliny wrote:

> Its most desirable height is sixteen cubits; if the waters do not attain that height, the overflow is not universal; but if they exceed that measure, by their slowness in receding they tend to delay the process of cultivation. In the latter case the time for sowing is lost, in consequence of the moisture of the soil; in the former, the ground is so parched that the seed-time comes to no purpose . . . . When the water rises to only twelve cubits, it experiences the horrors of famine; when it attains thirteen, hunger is still the result; a rise of fourteen cubits is productive of gladness; a rise of fifteen sets all anxieties at rest; while an increase of sixteen is productive of unbounded transports of joy. (Plin. *Nat.* 5.10.3)

Vespasian was so delighted by the sixteen cubits the Nile purportedly rose during his period of residency in Alexandria – tangible proof of his popularity with the gods – that he commissioned a statue of the personified Nile deity surrounded by sixteen plump little toddlers for his Temple of Peace in Rome (Henrichs 1968: 73–4). Similarly, Egyptians in the thirteenth century referred to an auspicious sixteen-cubit flood as "sultan's water" (al-Baghdādi 1965: 50 *l*).

A good flood was not to be taken for granted: between the seventh and fifteenth centuries CE only 73 percent of the recorded heights would have brought cheer, security, or prosperity. As many as 12 percent likely occasioned great alarm (Gnirs 2015: 109). From the dawn of the state, if not before, Nilometers were developed to measure the height of the inundation. The first annals in Egyptian history arose from such records, and it is significant that one of the initiatory acts of Christian supremacy in Egypt was to remove the sacred cubit rod from the temple of Serapis and rededicate it to Christ in the church of Alexandria (Socrates Scholasticus, *Historia Ecclesiastica* 1.18). The height of the inundation allowed the state to predict taxation revenue, just as, in the case of worrisome results, it prompted the institution of austerity measures.

The letters of the farmer and funerary priest Heqanakht, which date to the reign of Senwosret I (c. 1920–1875) at the beginning of the Twelfth Dynasty, are illustrative in this regard. In one letter Heqanakht wrote to his family while executing responsibilities far from home at a time when the Nile's rise had been worrisomely low. Just as expressions of concern became *de rigueur* in the first few lines of an email written at the onset of the coronavirus pandemic, Heqanakht's letter begins by reassuring his family that he is, in fact, alive. He then responds to complaints he received (or expected to receive) about the strict rations he had imposed on his dependents, chiding,

> Look, you are that one who ate to his satisfaction when he was hungry to the white of his eyes. Look, the whole land is dead and [you] have not hungered. Look, before I came upstream here, I made your salaries to perfection. [Now], has the inundation been very [big]? Look, [our] salary has been made for us according to the state of the inundation, which one and all bear. Look, I have managed to keep you alive so far. (Allen 2002: 16)

Records from Medieval and Ottoman times indicate that the potentially disastrous effects of insufficient or overabundant floods were most often mitigated by imposing strict rations, distributing grain from government granaries and the stores of wealthy citizens, importing grain from unaffected areas, and punishing profiteers (Sabra 2000: 136–66). Through such anticipatory measures and careful attention to agricultural infrastructure, low floods brought concern far more often than catastrophe.

Famines that caused mass mortality tended to occur mainly when low floods clustered in time, occurred in conjunction with a region-wide drought, and/or were exacerbated by an inefficient, corrupt, or entirely absent central government. Both Strabo (*Geography* 17.1.3) and Napoleon (de Montholon 1847: 213) correlated satisfactory flood management with strong governance, yet each failed to appreciate the potential power that a series of erratic floods possessed

to widen preexisting fault lines and transform a functioning regime into one racked with insurgency and revolt.

Scientific research into the effect of significant shifts in climate and monsoon patterns on the ecology of the Nile Valley has accelerated within the last fifteen years, leaving little doubt that at certain periods in Egypt's history dangerous floods and droughts combined to render life unusually precarious for pastoralists and agriculturalists alike (cf. studies summarized in Manning 2018: 95–9, 135–72; Creasman 2020; and Section 2) For the pharaonic period, the Old and New Kingdoms faltered and ultimately failed at the onset of extended climatic downturns (lasting from c. 2200–1900 and 1200–850, respectively). Prolonged periods during which agricultural surpluses could not be counted upon undoubtedly hampered the efforts of aggrandizers to reconstitute a central government. While weather fluctuated within these periods, and explanations for state failure are complex, texts written in both eras are anomalous in their repeated references to hunger, large-scale population movements, and unrest. So too, multiple volcanic eruptions that occurred while Egypt was under Ptolemaic rule have been shown with 98 percent certainty to have significantly reduced Nile flooding. Indeed, "eight of the nine documented periods of social unrest occurred within a narrow window of these eruptions" (Manning 2018: 136). Famines in the mid-third century CE once again demonstrated that climatic and social change went hand in hand (Harper 2017: 131–4). Toleration of institutionalized social inequality, it seems, plummets in times of hunger.

Prior to modern large-scale hydraulic engineering, severe Nilotic famines conformed to a broadly predictable trajectory.[1] Drought frequently preceded the failure of the inundation and caused an influx of climate refugees and a corresponding uptick in xenophobia – a harbinger of trouble that unfortunately feels very familiar today. When the floods failed or became overly abundant, the price of grain skyrocketed in anticipation of scarcity. As a result, even in advance of the famine, and certainly during it, profiteering ran rampant, bread riots erupted, people congregated in protest, and government infrastructure came under attack.

As the situation worsened, it was common for people to resort to banditry, larceny, and murder. The more desperate the food shortage became, the more people began to exploit starvation food (unripe beans, cats, garbage, etc.). Social bonds that had strengthened at the beginning of the crisis began to break down, even within families. Unthinkable acts such as infanticide or even cannibalism occurred (or were said to occur), and people progressively abandoned hope for help from either men or gods (Figure 3). Finally, due to

[1] References pertinent to the stages of famine in Egypt listed below may be found in Morris 2019: 79–83; 2020: 235–43. See too, al-Maqrīzī 1994: 27–49; Hassan 1997: 10–17; Mikhail 2011: 217–18.

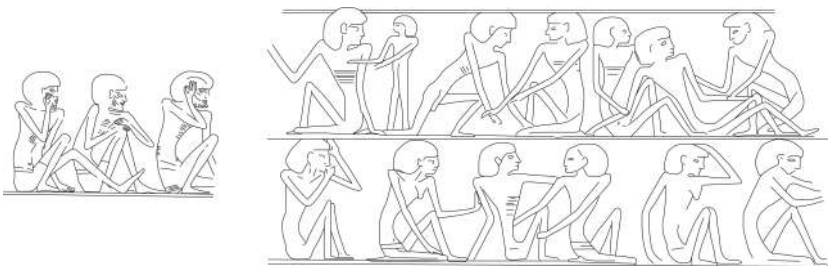

Figure 3 Scenes of starving Bedouin from the causeways of the Fifth Dynasty kings Sahure (left) and Unas (right) (redrawn after Hawass and Verner 1996: 185, figure 2a, with the kind permission of Z. Hawass; Drioton 1943: 49, figure 3)

starvation and to weakened immune systems vulnerable to pestilence, body counts soared, and burial rites no longer took place. In the end, there were too many bodies to mourn or even to bury.

Accounts of six devastating, well-documented famines in Egypt over the course of seven centuries should help demonstrate the degree to which the narratives related by eyewitnesses and chroniclers constitute variations on a single terrifying theme. The deeds that survivors of each of these famines witnessed – or perhaps even resorted to – must have ensured that they suffered from post-traumatic stress long after the natural world had righted itself.

1.1.1 1064–1071

A seven-year famine brought about by low Nile floods under the watch of a weak state led to unrest among Bedouin, rampant inflation, an epidemic, and such a dramatic depopulation of the countryside that even areas that had been flooded were left uncultivated. Travel was impossible without a large escort, and prices rose so high that a rich woman purportedly couldn't sell a thousand-dinar necklace for flour. The chief dignitary in Egypt was said to have sold everything in his palace and robbed the tombs of his ancestors to purchase food. Commoners resorted to eating dogs, cats, and (eventually) other people (al-Maqrīzī 1994: 37–38).

1.1.2 1199–1201

After a low Nile, prices began to rise. According to 'Abd al-Latif al-Baghdādi, who witnessed the famine,

> The provinces were made desolate by drought; the inhabitants foresaw an inevitable scarcity, and the dread of the famine excited tumultuous movements among them. The inhabitants of villages and of the country districts retired to the principal towns of the provinces . . . . There was also an infinite multitude who

> sought a retreat in the towns of Misr and Cairo, where they suffered an appalling famine and a frightful mortality . . . . [T]he plague and contagion began to make itself felt, and the poor, pressed by the famine which struck them always, ate carrion, corpses, dogs, and the excrement and the filth of the animals. This went on a long time, until they began to eat little children. (al-Baghdādi 1965: 55 *l*–56 *r*)

According to al-Baghdādi, parents often consumed their own children, on the assumption that it was better that they be eaten by a relative than by a stranger (al-Baghdādi 1965: 56 *r*–56 *l*; 59 *l*). Cannibalism excited significantly less commentary as the famine persisted.

1.1.3 1294–1296

Combined region-wide drought and Nile failures at the end of the thirteenth century led fifty thousand or so Libyans to migrate to Egypt. Prices rose thirteen times their normal level. People ate carrion, dogs, cats, and even the human corpses that littered the streets. One chronicler witnessed outside the city gate of Cairo a large group of people resembling "savage beasts who had lost any sign of humanity," fighting with one another over the right to consume the corpses deposited there (Sabra 2000: 141–3; Raphael 2013: 91).

1.1.4 1402–1404

Caused by a combination of low Niles and inept governance, the massive death toll was exacerbated by plague. Certain elites were said to have provided burials for one hundred to two hundred people per day. In the face of rampant inflation, people migrated in search of grain, sold their children, and, purportedly in at least one case, resorted to cannibalism (Sabra 2000: 152–3).

1.1.5 1694–1695

An insufficient flood led prices to rise. Thousands of peasants abandoned their villages and fled to Cairo in search of food. Although the Ottoman government lessened taxes and mandated that elites provision the poor, mobs stormed the citadel of Cairo and looted granaries. When there was no more grain to beg or steal, people consumed the corpses of cats and humans. The co-occurrence of the plague and famine ensured that the dead were numerous (Mikhail 2011: 216–17).

1.1.6 1790–1796

The tragic events of this famine are especially interesting from an Egyptological perspective, as they began with torrential rains and devastating flash floods, such as appear to be preserved in geological strata dating to late in the reign of

Pepi II (c. 2200) at the very end of the Old Kingdom (Welc and Marks 2014: 131; Kuraszkiewicz 2016: 30, 32). Damage to houses, businesses, irrigation infrastructure, and grain storage installations meant that the following year's insufficient inundation brought severe famine. Suffering caused by the unusual downpours and drought made Egyptians of all social levels susceptible to a plague that killed the leader and many of his followers and caused a crisis, "as no appointed leader could stay alive long enough to rule effectively" (Mikhail 2011: 222). The onset of a drought in the fall of 1791 resulted in price hikes, revolts, and widespread migration to Cairo, which placed further stress on scant grain reserves and ensured that far fewer farmers remained to repair the dikes and till the soil in preparation for the next sowing season. Many thousands died, and those struggling to survive resorted to consuming the corpses of horses, donkeys, and finally children (Hassan 1997: 11; Mikhail 2008: 261–3, 268–72).

Attestations of cannibalism in primary sources are often met with justifiable skepticism by historians. Two contemporary statements from the long First Intermediate Period in Egypt (c. 2160–1895 BCE), for example, are roundly dismissed as hyperbole. Heqanakht, marshalling further justification for his tight rations, admonished his family to be grateful because "[h]alf of life is better than death in full. Look, one should say hunger (only) about (real) hunger. Look, they've started to eat people here" (Allen 2002: 17), while another witness, Ankhtifi of Mo'Alla, boasted of his ability to enlarge his territory, protect his people, and provide them with sustenance – even though elsewhere whole populations traveled upstream and downstream like locusts in search of food. "All of Upper Egypt was dying of hunger and people were eating their children," he noted, "but I did not allow anybody to die of hunger in this nome" (Seidlmayer 2000: 129). Because in both instances the purported cannibalism happened elsewhere, Egyptologists interpret the references as lurid and self-serving rhetorical flourishes.

Such evocations, however, are not staple fodder in famine narratives. The six examples listed earlier appear to be unique in Medieval and Ottoman Egypt, as cannibalism is not highlighted in accounts of the six other catastrophic famines for which good records survive (namely those of 963–971, 1372–1373, 1415–1416, 1449–1452, 1784–1787, and 1877–1879). So too, cannibalism was *never* attributed to situations that might more aptly be termed food crises than famines. While specialists in Chinese history have been similarly skeptical of references to cannibalism in their own historical records, a recent declassification by the Chinese government of documents pertaining to the Great Famine, which took place from 1958–1962, makes it clear that – as al-Baghdādi noted

with respect to the famine he witnessed – cannibalism was widespread and alarmingly routine. Frank Dikötter, author of *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958–1962,* writes of one such cache of documents:

> As the catastrophe unfolded, people were forced to resort to previously unthinkable acts to survive. As the moral fabric of society unraveled, they abused one another, stole from one another and poisoned one another. Sometimes they resorted to cannibalism. One police investigation from Feb. 25, 1960, details some 50 cases in Yaohejia village in Gansu: "Name of culprit: Yang Zhongsheng. Name of victim: Yang Ecshun. Relationship with culprit: younger brother. Manner of crime: killed and eaten. Reason: livelihood issues." (Dikötter 2010)

Distilled into the driest of crime reports, unthinkable acts appear in abundance, and this cache was no anomaly. Archival evidence suggests that "several thousand" such cases occurred over the course of these four years (Yang 2008: 524, n. 23). So too, during the worst of the two-and-a-half-year siege of Leningrad in World War II, roughly fifteen hundred of the city's inhabitants were arrested for cannibalism. Such acts were often perpetrated within families and on occasion to save the lives of children (Peri 2017: 107–8). Although this situation was unprecedented in living memory – and necessitated the creation of special divisions of police and psychiatrists – it was, perhaps, predictable. Famine historian Cormac Ó Gráda maintains that cannibalism should be considered one of the defining characteristics of severe famine (Ó Gráda 2015: 5).

As horrific as famines were, their misery was concentrated. Exceptionally severe episodes tended to be both brief and infrequent. Moreover, with few exceptions – as occurred in especially hard-hit centuries – catastrophic famines skipped multiple generations. Personal memories that are communicated orally and *only* orally, as studies have shown, cannot be retrieved more than eighty to a hundred years after an event occurred (Assmann 2006: 24). For this reason, mnemonic strategies that encode communal trauma into social memory are vital.

1.2 The Preservation of "Counterfactual" Social Memory Can Be Considered a Survival Strategy

Memories of "unforgettable" events are uniquely challenging to preserve and transmit. Friedrich Nietzsche and Sigmund Freud both believed that the memories most likely to lodge in the psyche of an individual – or even an ethnic group or a nation – would be the most painful (Assmann 2006: 3–6). In fact, however, events in which individuals commit and/or witness acts of cruelty and desperation plunge into obscurity by multiple means. Veterans and Holocaust survivors, for example, have been famously reluctant to speak of their