

Mamluks, Property Rights, and Economic Development: Lessons from Medieval Egypt

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Abstract

Secure property rights are considered a common institutional feature of rapidly growing economies. Although different property rights regimes have prevailed around the world over time, relatively little scholarship has empirically characterized the historical property rights of societies outside Western Europe. Using data from Egypt's Mamluk Sultanate (1250–1517 CE), this article provides a detailed characterization of land tenure patterns and identifies changes to real property holdings associated with an institutional bargain between Egypt's slave soldiers—the mamluks—and the sultan. Although agricultural land was a collective resource of the state, individual mamluks—state actors themselves—established religious endowments as a privatizing work-around to the impermissibility of transferring mamluk status to their sons. The article's characterization of landholding patterns in medieval Egypt provides an empirical illustration of how Middle Eastern institutions differed from those in other world regions as well as an understanding for how and why regimes come under political stress as a result of their property rights institutions.

Keywords

Mamluk Sultanate, Egypt, political regimes, property rights, historical institutionalism

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Institutional approaches to the study of development have placed secure and effective property rights front and center for understanding economic growth. Indeed, property rights are believed to have a first-order impact on societal wealth and prosperity.¹ A core puzzle in the literature is why secure property rights regimes emerged at an early date in Western Europe but developed only slowly in other parts of the world. The case of seventeenth-century England looms large in our collective understanding of how holders of land and capital were able to strengthen their rights by shifting political power away from the British monarchy into the hands of Parliament.² Yet relatively little work has sought to characterize property rights regimes around the world empirically, despite the fact that non-European cases offer crucial opportunities for comparative inquiry and analysis.

In this article, I provide a detailed description of the institutional features of the land and property rights regime of the Mamluk Sultanate of Egypt (1250–1517 CE). During the Mamluk Sultanate, the regime undertook a series of cadastral surveys to assess the value of land for taxation and the allocation of land grants—an Egyptian version of medieval England’s much-analyzed Domesday Book. The mamluks—a corporate body of elite slave-soldiers—controlled most of Egypt’s arable land as a collective, distributing temporary, revocable land grants to individual mamluks and other servants of the state as payment for service.³ Mamluk status was not intergenerationally transferable, nor were land grants directly hereditary by the children of the mamluks. The relative longevity of the Mamluk Sultanate suggests ways in which a prevailing institutional equilibrium might be successfully sustained.

Some core features of mamlukism also undermined the stability of the system over the long term, particularly in the ways individual actors sought to create more secure forms of private property. On the one hand, the single-generational nature of mamluk status encouraged forms of military prowess, discouraged corruption, and worked against the decentralization of agricultural property; on the other hand, the impermissibility of transferring mamluk status to one’s sons may have reduced the time horizon of any particular mamluk with regard to the investment in perpetuating the regime beyond his own lifetime. The common management of agricultural real property as a collective resource created a large and productive agricultural base on which to finance the sultanate; yet exploitation of the common pool by self-interested, individual actors had the potential to degrade the core resource. Mamluks sought to establish quasi-privatized wealth holdings in the form of inalienable, charitable religious endowments that were relatively safe from predation by the regime.

I find that over the course of the fifteenth century, the percentage of agricultural property provided as land grants to Egypt’s slave soldiers declined while the percentage of Islamic endowment properties increased. Whereas land allotments were previously held as the exclusive domain of the state for the purposes of paying the army, the increasing number of hybridized land types witnessed by the regime suggests a “chipping away” of state control of agricultural resources. A reduction in the fiscal basis of the state ultimately made the Mamluk Sultanate vulnerable to external invasion and collapse.

These findings speak to the question of what types of institutional equilibria can be sustained when the division of real property in historical regimes is considered. Control

of real property as a common resource by a ruling collective creates challenges for individual state actors who want, themselves, to be property owners. Stephen Solnick, for example, argues that the breakdown of the Soviet Union did not result from stalemate or popular revolution from below. Rather, he suggests, mid-level bureaucrats were able to “steal the state” from within by seizing collective assets that they had been tasked to manage.⁴ Timothy Besley argues that Ghanaian agriculturalists in traditional land-tenure systems sought to transfer land without community approval, transforming communal land into more privatized forms of real property holdings.⁵ Kellee Tsai argues that the informal coping strategies of local actors seeking to evade restrictions on ownership in Communist China created a revival of China’s private sector, forcing the formal recognition and protection of private property.⁶ All three examples point to how prevailing property rights regimes might be undermined by the actions of individual agents seeking to assert private control over collective resources.

Understanding the particular ways property rights regimes in the Middle East were different from those in other world regions also provides a perspective on the puzzle of the region’s relative economic underdevelopment. Timur Kuran argues that Islamic legal institutions hindered the region’s economic development with inheritance laws and religious endowments that blocked private capital accumulation and the development of corporations.⁷ Jared Rubin argues that, as a result of the historical circumstances surrounding the origins of each religion, Islam was better at legitimating political rule than Christianity.⁸ In both cases, Islam—either through its legal institutions or because of the religion’s founding narrative—is the causal factor that ultimately damages the Middle East’s economic prospects.

The second influential stream of scholarship suggests that cultural characteristics of Middle Eastern societies caused the Middle East to fall behind economically. Drawing inferences based on documents from the Genizah collection—manuscript fragments found in the storeroom of the Ben Ezra Synagogue in Cairo—Avner Greif argues that the collectivist culture of “Maghrebi” society had negative long-run implications for the creation of growth-promoting political and economic institutions.⁹ The Genizah documents tell us little, however, about Egypt’s agricultural sector or about land grants, taxation, and the monetary system.¹⁰ This article contributes to the development of a third line of exploration that focuses on the state institutions of Middle Eastern societies—including prevailing property rights regimes—rather than the impact of either Islam or Middle Eastern culture.¹¹

The historical Egyptian experience offers important lessons on two levels. For scholars of comparative property rights regimes, this article provides descriptive detail that allows comparison of Egypt with contemporaneous European cases in which state control of agricultural landholdings was less extensive. Did those different property rights regimes set the stage for subsequent patterns of economic development? During the medieval and early modern periods, control of most agricultural land in Egypt, by default, fell to the state. Given the centrality of private property rights in encouraging forms of investment and innovation, Egypt’s long-standing pattern of state administration of agricultural land likely hurt economic development outcomes over time. For scholars of historical institutionalism, the historical Egyptian experience offers insights

into how relatively strong states can be gradually undermined by state actors seeking to carve out their own forms of “private” property.

Property Rights, Institutional Change, and Economic Development

The Mamluk Sultanate in Egypt was among the world’s great powers for almost three centuries. Even more notable, the institutional structures associated with mamlukism were common across the Muslim world and persisted, in various forms, for nearly a millennium.¹² In this section, I review the existing literature on how property rights institutions affect economic development and investment. I also consider the sources of institutional change and stasis with the goal of applying those insights to the question of the persistence and decline of the Mamluk Sultanate.

Property Rights Regimes and Economic Growth

How can we define property rights? Can the idea of private property extend to distant historical experiences? Within the existing literature on economics, the term “property right” refers to an owner’s right to use a good or asset for consumption or income generation; the right to transfer that asset to another party; and the ability to contract with others to rent, pledge, or mortgage that good or asset.¹³ Because property rights deal with foundational issues surrounding financial interactions, prevailing property rights regimes help individuals form expectations about their economic dealings with others.¹⁴

Political economists argue that insecure property rights unleash a wide set of negative externalities, including distortions in investments due to expropriation risk, costs associated with defense of insecure property, and stunted rental and collateral markets.¹⁵ Acemoglu, Johnson, and Robinson consider the institutions of private property essential for encouraging robust economic performance.¹⁶ The “natural state” described by North, Wallis, and Weingast is autocratic and nepotistic compared to the “limited access order” under which legal and political systems protect claims on private property.¹⁷

The existing literature is convincing insofar as it conveys the importance of private property rights for encouraging economic development. Existing scholarship says much less, however, about the determinants of private property rights regimes around the world over time. The creation of private property rights in Europe, particularly in England, is documented in detail. North and Thomas find that English land laws in the thirteenth century grew out of elites’ efforts to exploit rents from land ownership.¹⁸ The system of property rights that emerged was efficient in that it provided individuals the incentive to innovate and produce while inhibiting rent seeking and excessive taxation.¹⁹ North argues that both property rights and contracting institutions were central to encouraging robust forms of economic development.²⁰ Acemoglu and Johnson empirically consider the importance of property rights relative to contracting institutions and find that property rights alone predict economic growth, investment, and financial development.²¹

Although the European model of property rights has been discussed in detail, less empirical work focuses on the property rights regimes prevailing in others parts of the world. Harold Demsetz suggests that three types of ownership have been common for most of human history—communal, in which all members of a community can exercise usage rights; private, in which an owner can exclude others from using the property; and state, in which the state can exclude anyone from using the property.²² Rafael La Porta and colleagues examine the variation in worldwide property rights through an analysis of a sample of forty-nine countries; they show that common law countries generally have the strongest legal protections for investors and French civil law countries the weakest.²³ Studying the relationship between settler mortality and effective institutions, Acemoglu, Johnson, and Robinson show cross-sectional, country-level differences in secure property rights and link those institutions to economic prosperity.²⁴ These studies show that property rights are decidedly “socially constructed,” but they do not clearly explain the historical determinants of differences between regimes.²⁵

Endogenous Institutional Change

Existing scholarship grapples with explaining the conditions under which institutions—such as property rights—change,²⁶ despite the fact that the creation and specification of property rights assignments are thought to be endogenously determined.²⁷ One reason that institutional change is difficult to explain arises from the widespread conception of institutions as equilibrium outcomes and, in particular, the idea that equilibria are self-reinforcing. Indeed, Robert Bates and colleagues suggest that one limitation of institutional analysis relates to the preference for examining stable institutional settings instead of political transitions.²⁸

An influential literature suggests that institutional equilibria can be indirectly strengthened or weakened by processes dynamically introduced by the institutions themselves. Paul Pierson defines path dependence as a social process dependent on increasing returns.²⁹ Avner Greif and David Laitin argue that an institution can undermine itself when the changes in the quasi-parameters that it entails imply that the associated behavior will be self-enforcing in a smaller set of situations.³⁰ Hence, institutions can be self-undermining, and the behaviors that they entail can cultivate the seeds of their own demise. In this setting, institutional change will occur endogenously when the self-undermining process reaches such a critical level that past patterns of behavior are no longer self-enforcing.

However, given the complexities associated with measuring the precursors of institutional decline, understanding how and why institutional arrangements weaken and collapse remains challenging. The factors that reinforce or undermine an institutional equilibrium—such as beliefs, identity shifts, and relative balances of political power—are difficult to observe and measure.³¹ Bates and colleagues examine a series of historical cases in detail, with a particular focus on institutions, their impact, and how they change. They develop a series of “analytic narratives” through which to describe institutional structures with the goal of reconstructing historical interactions; but they pay less attention to gathering evidence using fine-grained historical data.³² In this

article, I provide a detailed description of the institutions of the Mamluk Sultanate as well as an extensive empirical analysis of landholding patterns.

Land and Fiscal Authority in the Mamluk Sultanate

The Mamluk Sultanate was established after mamluk leaders wrested control from their predecessors during a period characterized by a series of growing external threats. The mamluks built a system that limited the cost of internal politics by reducing violence through the creation of norms for the distribution of resources and the rotation of power.³³ The Mamluk Sultanate handled the major functions of a state, including taxation, military protection, and the development of a functioning judicial system.³⁴ Because the state had no institutionalized form of succession, “[mamluk] sultans stood or fell based on their reputation as upholders of the constitutional system of distribution of resources and rotation of power.”³⁵

Slave Soldiers and State-Society Relations

Mamluks were a class of slave soldiers who served as a military elite. Purchased in the slave markets of Genoa and elsewhere and brought to Egypt as children, the mamluks constituted a separate class from native Egyptians. According to Lapidus, “No one could be a member of the military elite unless he was of foreign origin, . . . nor, in principle, could the sons of slaves and rulers.”³⁶ Indeed, the mamluk system was predicated on the “importation of new men in each generation.”³⁷ As a result, the mamluk system relied on a continued and steady importation of military slaves.

Mamluks—as a corporate body—enjoyed strong feelings of comradeship, since all members underwent similar processes of recruitment and training.³⁸ The children of mamluks were excluded from mamluk status since they lacked the background thought to be essential “to knit the sociopolitical ‘system’” together.³⁹ And because mamluks had no social ties to local groups, native Egyptians had no “patrons, relatives or neighbors who were part of the power structure. . . . On the contrary, they were completely alienated from the new military and its elites.”⁴⁰

During peacetime, the majority of mamluks lived in Cairo.⁴¹ They were a closed social class, and their connections to native urban dwellers were limited.⁴² Mamluks were also typically of Turkic background and preferred to speak their native language, to bear Turkic names, and to mainly marry female slaves from their countries of origin.⁴³ According to Carl Petry, the objective of the system was to “instill allegiance through isolation.”⁴⁴ All of these factors contributed to the high level of group solidarity that existed within the mamluk ranks.⁴⁵

Mamluk corporateness and relative social isolation did not preclude intense rivalries within the mamluk class. To rise to the highest levels of the mamluk aristocracy, for example, recruits were required to demonstrate “personal adroitness, impeccable courage, and absolute belief in one’s own worth.”⁴⁶ Petry argues that there was a tension of allegiance built into the military caste system, which “imbued recruits with an abiding collective identity and trained its members to form tightly knit factions as

cadets”; but at the same time there were strong incentives to be personally savvy and to look out for one’s self.⁴⁷

Military Affairs and Fiscal Administration

Maintaining a costly, alien military elite required that governments expend considerable effort in managing state agricultural resources.⁴⁸ It was especially important to control agricultural assets because most of the sultanate’s wealth derived from rural areas.⁴⁹ Thanks to a relatively high degree of bureaucratic sophistication, the Mamluk Sultanate enjoyed the rents associated with Egypt’s rich agricultural product.⁵⁰ In that setting, the primary role of the bureaucracy was to serve as an intermediary between the agricultural society and the military, since land revenue supported both the mamluk army and government.⁵¹

As compensation for their service, mamluks typically held a temporary, nonhereditary deed to land, called an *iqtaʿ*, despite the fact that they lived in urban areas far from their agricultural holdings.⁵² Although military slaves enjoyed the ability to serve as tax collectors as part of the *iqtaʿ* system, “slave soldiers were no barons,” as the *iqtaʿ* did not invest the soldiery with land in a way comparable to the European fief.⁵³ Janet Abu-Lughod characterizes the mamluk system as “essentially a mechanism for mobilizing the natural resources and labor of the country to support an elaborate military machine and the luxurious style of life of its alien elite.”⁵⁴

By the late medieval period, most of the arable land in Egypt—in both in the Nile Valley and the Delta—was state-controlled, with taxes paid to absentee landlords and bureaus associated with the sultanate and the military.⁵⁵ A mamluk commander (*amir*) might receive an *iqtaʿ* assignment made up of between one and ten villages;⁵⁶ this served as his main source of revenue.⁵⁷ The military commander thus acted as landlord and as final arbiter of disputes in rural areas;⁵⁸ he was responsible for financing expenses and equipment associated with his subordinate soldiers, who were expected to be ready to fight if needed.⁵⁹ Under this system, the military and fiscal organization of the state became structurally linked.⁶⁰

Mamluks were powerful as a result of their military prowess; their strength was in their agglomeration rather than in the strength of any particular mamluk commander. Indeed, if they had been individuals isolated on rural estates, they would likely have faced rebellion; as a group they were intimidating and could put down threats. When mass disturbances did occur, they were ways for citizens to “signal dissatisfaction with regime policies,” providing opportunities for a negotiated settlement of grievances.⁶¹

The Problem of Intergenerational Wealth Transfer

Mamluk governance was predicated on a set of foundational principles. Perhaps the most important of those institutionalized norms was what Ulrich Haarmann calls the “basic law” of the Mamluk Sultanate—that only a mamluk had access to political and military authority and only a limited group might qualify as mamluks.⁶² That limited

group did not include the sons of mamluks (*awlad al-nas*).⁶³ Haarmann suggests that the problem of how to maintain the status of mamluk sons tested the system's one-generation principle.⁶⁴

Because the mamluks were not a hereditary landed baronage, the transfer of wealth and status to their children was a core challenge. The mamluk institutional setting worked against "the predictable desire" of a typical mamluk commander "to retain freely disposable property secure against seizure."⁶⁵ The basic conditions of the mamluk milieu created incentives to find work-arounds. Because fathers were unable to pass on their status to their sons, they felt "compelled to make a place for them in the larger society."⁶⁶ Mamluk sons were often channeled into less prestigious auxiliary military units or entered civilian life in various occupations including as scholars and clerics.⁶⁷

A common approach to the problem of intergenerational wealth transfer was the creation of religious endowments (*awqaf*; singular *waqf*) to shelter wealth of which their children could enjoy the benefits and over which they might have financial control. Philipps and Haarmann summarize the problem and possible solution:

The philosophy of limiting Mamluk benefits strictly to the first generation . . . collided again and again with the powerful and all-too-human urge of an individual Mamluk dignitary to gather possessions that were safe against collections by the fisc and could be disposed of freely to provide appropriate upkeep for his own progeny. Legal stratagems were elaborated that helped to circumvent this prohibition of alienating state land and provided the all-too-often venal judiciary with lucrative sources of income. One popular device seems to have been returning one's fief voluntarily to the army office, then purchasing it back as private property (*milk*) that could now be sold, passed on to heirs, and turned into an endowment (*waqf*) in full consistency with the Sacred Law of Islam.⁶⁸

In other words, mamluk wealth holders founded religious endowments on behalf of their children to ensure that their descendants would be reasonably well taken care of in the future.⁶⁹

The precise mechanisms by which religious endowments were created followed a typical pattern. Parcels of land could be purchased through negotiation with the public treasury; judicial consent would make them eligible for transformation into *waqf* property. The mamluk commanders were high-ranking officials whose favored positions allowed them to use personal influence to obtain property.⁷⁰ Judges in medieval Egypt were religious elites who, as a class, benefited from the creation of charitable properties since they were obliged to produce religiously sponsored public goods. A descendant of the mamluk who founded a *waqf* would often be named custodian of the *waqf*, with associated benefits. Yehoshua Frenkel argues that the creation of a *waqf* was rarely a random act of charity but rather a deliberately formulated legal arrangement.⁷¹

Establishing a religious endowment and naming one's descendants as hereditary administrators was practiced with increasing frequency over time. And because the practice enjoyed a degree of sanction by the religious elites, it became "the most expedient way of circumventing the social barrier separating mamluk fathers from non-mamluk sons."⁷² It may have also "won the gratitude of the ulama and an influential

place in the community for Mamluk families.”⁷³ Religious elites often came to rely on these pious endowments as important social and cultural institutions that simultaneously served as instruments of “estate preservation.”⁷⁴ Whereas private property was “totally unprotected against seizure by the state,”⁷⁵ religious endowments enjoyed a degree of immunity from state confiscation.⁷⁶

Religious elites, therefore, had a vested interest in the proliferation of Islamic charitable endowments.⁷⁷ In Cairo, *awqaf* endowed by mamluks, among other things,

built and maintained the waterworks, repaired streets and public spaces, invested in commercial properties, and above all endowed the religious, educational and philanthropic life of the community. . . . The ulama were dependent on the Mamluks for indispensable structural capital and great reserves of permanently endowed funds.⁷⁸

If the goal of an individual mamluk was to transform public authority into private power and “state authority into personal superiority,” historians have thus suggested something about how that goal was accomplished.⁷⁹ Mamluks had to circumvent the system by passing on some of their wealth to their children through activities that were “against the rules of *iqta'*” and existing regulations.⁸⁰ To do so “meant violating the invisible barrier separating the mamluks from the non-mamluks.”⁸¹ Who enjoyed the benefits of such wealth transfers? Haarmann draws the important distinction between sons of mamluks in the most elite households and those born into the households of nonroyal mamluk officers.⁸² In other words, not all mamluks had the ability to engage in the desired outcome of transforming *iqta'* into (what amounted to) private property.⁸³

Frenkel asks why the military class allowed the transfer of so considerable an amount of agricultural land into religious endowments, diminishing the regime’s aggregate resources in the process.⁸⁴ Mamluk corporate interests raised resistance to attempts by an individual to “hand down to his offspring anything which might have seriously jeopardized the nonhereditary principle on which Mamluk society was based.”⁸⁵ The creation of each *waqf* represented the slow creep of private over mamluk corporate interests by the most politically influential of mamluks. Although individually rational, these acts of land “privatization” had a negative overall effect for the Mamluk Sultanate. Most perniciously, the aggregation of these individual acts led to the “unavoidable rapid shrinking of the state land that was needed for military grants.”⁸⁶

Empirical Analysis

If we were to describe the mamluk institutional setting in game-theoretic terms, we would find ourselves with two main players, the mamluks and the sultan (who is, most often, himself drawn from mamluk ranks). The sultan wants an army to protect his sultanate, with officers who will be loyal to him, and chooses to maintain order by training slaves as soldiers. The soldiers sustain themselves through land grants, although their children cannot succeed them. The mamluks, in turn, are happy to acquire wealth for their responsibilities but want to support their children. In each play of this game (or, say, generation), each mamluk who is able adds to his cash

account. When he acquires enough wealth, he seeks to invest in a *waqf*, which allows his progeny to live securely without fear of having their assets expropriated by the sultan. Each time the game is played and with each *waqf* created, the taxable land volume of the sultanate decreases. Over time, the resources that can be transferred to the sultan are undermined, and thus stability is made more precarious with every successive generation.

Although centralized control of agricultural resources was in the interest of the mamluk collective, that objective came into conflict with the goal of individuals to maximize their personal revenue and intergenerational wealth transfers. In that setting, state agricultural land constituted a “common pool,” in the sense that the quantity of agricultural land was limited and protecting it completely from exploitation by politically influential actors was costly.

To counter the challenges associated with this problem, the mamluk regime sought to create protocols for the self-management of the resource.⁸⁷ First, the parties with access to state resources were part of a rigid caste system with strong norms restricting individuals from entering or exiting social classes. Second, there existed well-defined norms associated with the rotation of mamluks to particular land plots that decreased their claims to a certain locale or connections to local elites who might aid them in usurpation of resources. Third, conflicts within the community of mamluks over thorny issues—such as succession—were handled by internal dispute resolution strategies. Long-lived sultans, for example, were the result of support from fellow military slaves rather than of succession from father to son.⁸⁸

Some of the very factors intended to counter the common pool problem, however, generated additional, negative externalities. Egypt’s slave soldiers, having created a closed social class of military elites with no chance to pass their status on to their sons, had a relatively short time horizon with respect to the future of the Mamluk Sultanate. This situation led to the usurpation of *iqtaʿ* land in a way that tended to disperse political power and fragment the state.⁸⁹ The alienation of state land, particularly in rural areas, was a major cause of state revenue loss—a problem compounded over time as attempts to raise taxes and produce more revenue for the state became incentives for rural unrest and disorder.⁹⁰ And, finally, the mamluks’ success in resolving disputes within their community suggests the possibility of resolving disputes about wealth sharing in pragmatic ways, as well.

Data from Cadastral Surveys of Mamluk Egypt

State control of agricultural landholdings was the basis on which the regime was able to generate the revenue needed to pay for the military and maintain the mamluk system. To that end, it was in the interest of the regime to survey agricultural resources with the goal of assessing land value for purposes of taxation and distribution. Cadastral surveys were the state’s primary method for understanding, and in some cases reasserting control over, state agricultural resources.⁹¹ The Nasiri cadastral survey (*al-Rawk al-Nasiri*) of 1315, for instance, surveyed cultivated land with the goal of allocating landholdings.⁹² Surveys typically measured the size of cultivated land in

feddans, a traditional Egyptian unit of measurement, as well as the land's estimated annual tax revenue in a theoretical currency—the army dinar (*dinar jayshi*). Cadastral surveys also indicated the “legal status of each piece of land.”⁹³

Rare indeed are examples of medieval regimes for which surviving state records allow a comprehensive view of core systems of governance and taxation. The Domesday Book, medieval England's “Great Survey,” which documents taxes and land ownership, is among the most detailed surveys of this sort. Scholarly studies have long sought to analyze and map the patterns therein. The cadastral land surveys of medieval Egypt that I analyze in this article provide the closest equivalent of the Domesday Book for medieval Egypt.

The data used in my analysis were compiled by Ibn al-Gi'an, who lived during the reign of Sultan Qaytbay (1468–96), and were collected by Heinz Halm in his two-volume *Ägypten nach den mamlukischen Lehensregistern*.⁹⁴ Ibn al-Gi'an provided data for two points in time—1376, during the reign of al-Ashraf Sha'ban (from 1363 to 1377), and 1480, during the reign of Sultan Qaytbay.⁹⁵ Building on information collected in the 1315 survey, the data include the name of the settlement or village, the area of arable land measured in feddans, the hypothetical tax value of the land in *dinar jayshi*, and the land type or ownership.⁹⁶ In many cases, one location was indicated as having multiple land types. In addition to information about village and settlement sizes, values, and types, Halm includes a series of historical maps indicating location.

Land in mamluk Egypt could take a number of different forms, most of which were associated with forms of state control. The *iqta'*—landholdings granted to mamluk soldiers or other offices in exchange for military or other service—was a common type in the cadastral surveys. Another state-controlled form was the sultanic lands, listed as part of either the sultanic “bureau” (*al-diwan al-sultani*) or the domains of the sultan. In the late fourteenth century, an additional bureau was created as a special fund for officers and Royal Mamluks (*al-diwan al-mufrad*).⁹⁷ Deserving retired and disabled mamluks, as well as their widows or orphans, might be given pensions in the form of land grants (*rizaq*) for a limited period of time and with no permanent legal claim.⁹⁸

Land could also be privately held (*milk*)—the preferred way for an *iqta'* holder to convert his land assignment into a lifelong and hereditary possession.⁹⁹ But in the face of institutional norms that stood as obstacles to such conversion, land was more frequently transformed into a religious endowment (*waqf*), another major category of agricultural landholding. The *waqf* was a revenue-generating property, outside state control; the revenues were paid to persons stipulated by the founder.¹⁰⁰

Land was also held by bedouin, nomadic, or pastoral people who often laid claim to fringe areas.¹⁰¹ In some cases, bedouin bandits predated settled areas, a pattern that required mamluk intervention.¹⁰² Disturbances took place in poorly defined rural areas; in some cases the peasants allied with the bedouin against the regime, while in other cases the peasants were victims of bedouin aggression.¹⁰³ Land assignments were sometimes conferred to bedouin who served as an auxiliary military force, with responsibilities for guarding roads and peripheral areas.¹⁰⁴ Bedouin control often came about because the power of the urban-based military varied over space within Egypt.¹⁰⁵

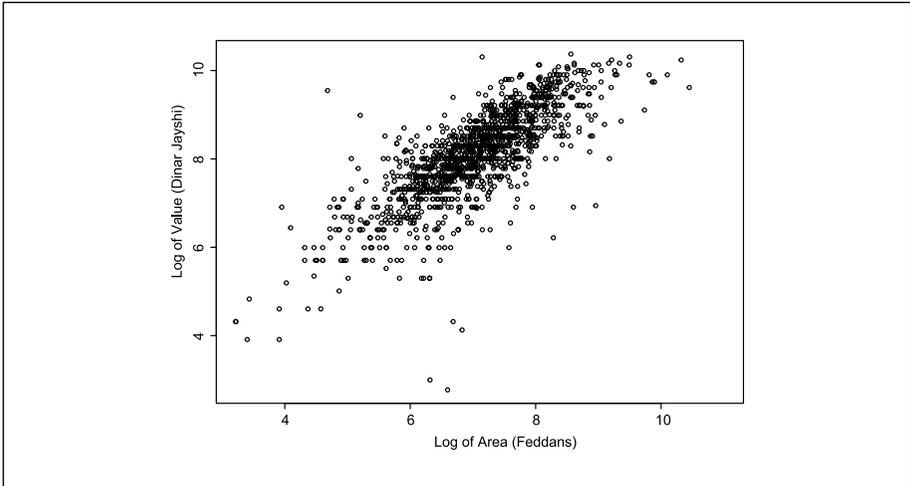


Figure 1. Scatterplot of the Relationship between the *Dinar Jayshi* and Feddans, 1376.

Source: Author's elaboration.

Agricultural land was also listed as belonging to or allocated to named individuals as well as titled individuals,¹⁰⁶ those holding such positions as governor (*wali*) or market regulator (*muhtasib*); other administrators including the head chamberlain (*hagib al-huggab*); and members of the royal court such as the sultan's cupbearer, the chief eunuch, and the master of robes. Those individuals likely enjoyed temporary, revocable land grants similar to the *iqta'* but for bureaucratic and administrative service rather than military service. In the next section, I discuss the cross-sectional variation in land type for two time periods during the Mamluk Sultanate.

Figure 1 is a scatterplot of the relationship between the size of arable land in each location and its value in *dinar jayshi* in 1376. Both variables are represented in log terms. Although the value of the army dinar varied somewhat across locations, Figure 1 suggests a high degree of correlation between the tax value of a location and its size.

Table 1 provides summary indicators of the distribution of land types in 1376 and 1480. Columns 1 and 3 provide estimates about the total number of feddans of each type in 1376 and 1480, respectively. Because many villages had more than one property type listed, I provide both a lower bound and an upper bound on those values.¹⁰⁷ The lower bound adds up all feddans represented by each land type when a single land type is indicated.¹⁰⁸ The upper bound adds up all feddans associated with each land type for both single and multiple types. Columns 2 and 4 provide the average size for each land type for both single and multiple types in 1376 and 1480, respectively.

The calculations reported in Table 1 suggest a number of important trends. Although it is not possible to estimate precisely the total size of state versus nonstate forms of landholding, it is possible to make some back-of-the-envelope calculations. In 1376, state lands would have included *iqta'* properties as well as lands belonging

Table 1. Summary of Land Types.

Land Type	1376 Total Size (Lower–Upper Bound)	1376 Average Size (Single/ Multiple Types)	1480 Total Size (Lower–Upper Bound)	1480 Average Size (Single/ Multiple Types)
<i>Iqta</i> ^c	692,027–834,203	1,294/1,268	65,253–822,975	1,125/1,496
<i>Waqf</i>	76,345–143,052	1,497/1,212	161,645–806,312	1,253/1,471
Bedouin	29,257–131,901	861/884	46,932–218,216	939/1,291
Private	31,001–100,874	1,824/1,345	21,199–617,115	1,247/1,566
<i>Rizqaq</i>	899–45,487	899/1,197	13,407–351,305	559/1,582
Sultanic	248,929–283,970	2,417/2,218	25,294–94,343	2,299/2,144
Emir	96,517–250,924	2,298/3,690	56,005–142,916	2,333/2,917
Royal Mamluks	1,611–3,846	1,611/1,923	336,450–393,622	3,144–3,099
Treasury	NA	NA	124,608–143,191	3,665/3,330
Individual	1,017,742–1,158,512	2,412/2,645	577,760–616,563	3,025/2,950

Note: Lower bound refers to the total number of feddans for single-type properties. Upper bound refers to the total number of feddans for single- and multiple-type properties. Columns 2 and 4 show the average size of the land units for both single and multiple types in feddans. There was only one observation of single-type *rizqaq* and single-type Royal Mamluk land, respectively, in 1376.

Source: Author's elaboration.

to the sultan and the mamluk commanders. If we considered the lower bounds as our estimates for the size of these properties, they would have accounted for at least half of all agricultural lands in Egypt. Yet that probably represents a vast underestimation. Not only were many of the multiple-type properties probably primarily *iqta*^c; some percentage of individually held lands were temporary, revocable (yet nonmilitary) land grants offered to bureaucrats and other state officials as payment for service. Similarly, some scholars have suggested that land allocated to bedouin might also be thought of as *iqta*^c, in the sense that rights to that property may have been temporary and revocable as well.¹⁰⁹

There also existed considerable variation in size across land types. In 1376 CE, sultanic land and land assigned to mamluk *amirs* tended to be—on average—twice as large as other land units. Bedouin-assigned properties were notably small, on average.

The special bureau charged with paying the Royal Mamluks grew in importance as the state sought more direct forms of control over compensation for elite mamluks. Because of usurpation of *iqta*^c property, the state was increasingly forced to pay monthly wages to some soldiers. The bureau associated with the Royal Mamluks was also separate from the state treasury.¹¹⁰ The state treasury of the Mamluk Sultanate saw an expansion of its role over time that suggests some of the challenges and limitations associated with the original *iqta*^c system. By the late fifteenth century, the state treasury was providing pensions to retired commanders and stipends to those who did not hold an *iqta*^c.¹¹¹ As a result, we observe an increase in the relevance of both the Royal Mamluk bureau and the state treasury in 1480.

The patterns for land type in 1480 reflect a vastly different situation from that seen in 1376. Most notably, the single land-type villages in Egypt fell dramatically between 1376 and 1480. A drop of large magnitude was also witnessed for land held by the sultan as well as by the mamluks. The lower-bound estimates undoubtedly represent a vast underestimation of actual state holdings, since it is very probable that multiple-type land holdings included *iqtaʿ* at a very high rate. On the other hand, sultanic lands were less likely to have multiple types, so it is possible to have much tighter bounds on those estimates. Even if we compare the lower-bound estimate for 1376 to the upper-bound estimate of sultanic land for 1480, we see a dramatic decrease in land held by the sultan himself. Much of the reduction in land held by the state appears to be caused by a movement of lands into religious endowments. The average size of land types did not change as much across the two periods as the way land was allocated.

Figure 2 graphically displays changes in the number of single-type land observations. By looking at single land types we are able to consider our most conservative estimate for the relative distribution of agricultural land. The top graph shows the change over time for each period in the number of single-type observations.¹¹² The *iqtaʿ*, for example, drops from a large percentage of land observations to a much smaller percentage by 1480. By contrast, the number of *awqaf* increases considerably. Changes occur in the relative magnitude of other land types as well, but the decline—and hybridization—of the *iqtaʿ* stands out as a dramatic change across the two periods. The bottom graph of Figure 2 shows a pie chart comparing the distribution of single- and multiple-type *iqtaʿ* lands in 1376 (left) and 1480 (right). The changing distribution across the two pie charts suggests the growth in the number of *iqtaʿ*-hybrid villages and settlements.

It is possible to provide geographic information about the relative distribution of different land types. Figure 3 indicates the distribution of *iqtaʿ* land in 1376 and 1480, where darker shading reflects higher-valued properties. The number of individual *iqtaʿ* properties decreases over time, and this pattern appears to take place in regions across Egypt. Figure 4 provides that same information for the properties designated as *waqf*. *Waqf* properties appear to grow in number and value across Egypt during the century interval between the two cadastral surveys.¹¹³

Analysis of Changing Land Types

In 1376, *iqtaʿ* settlements were a common property type and the most important form in which mamluks were offered payment for their military service to the state. As I have demonstrated empirically, and as other scholars have noted, large numbers of *iqtaʿ* properties were being converted to other property types, particularly the *awqaf*, from the late fourteenth century and throughout the fifteenth.¹¹⁴

What factors were associated with changes to *iqtaʿ* properties? In this section, I empirically investigate the covariates associated with the transfer of single-type *iqtaʿ* land into a number of different land forms. The dependent variable in the analysis takes four forms. The first is that the *iqtaʿ* is transferred to a hybrid *iqtaʿ*-*waqf* settlement. This outcome represents about 50 percent of all transformations of single-type

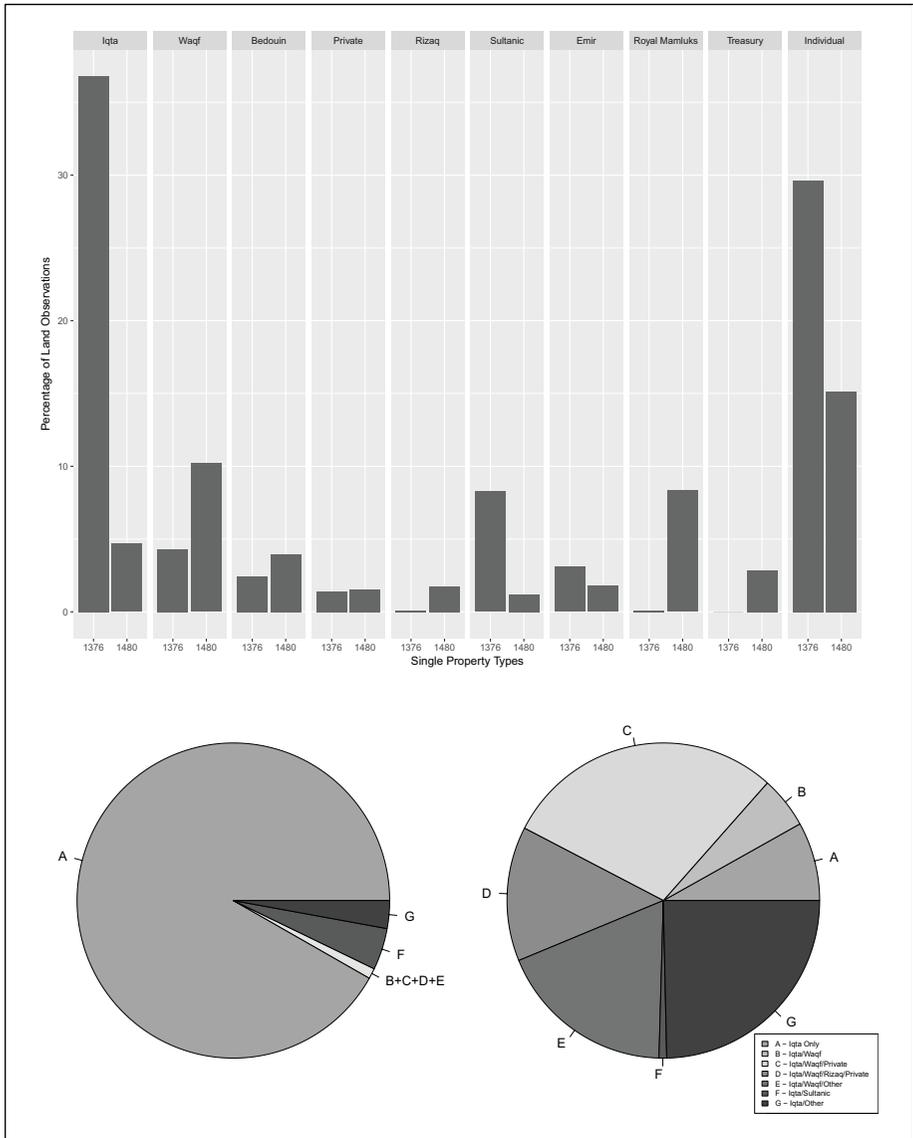


Figure 2. Hybridization of the *iqta*.

Note: Top, bar graph of single-type land observations in 1376 and 1480 (top); bottom, pie chart of the relative distribution of *iqta* and *iqta*-hybrid land observations in 1376 and 1480.

Source: Author’s elaboration.

iqta properties from 1376 to 1480. The second is that the *iqta* become some combination of *waqf* and other property types, but with no remaining *iqta*. This outcome

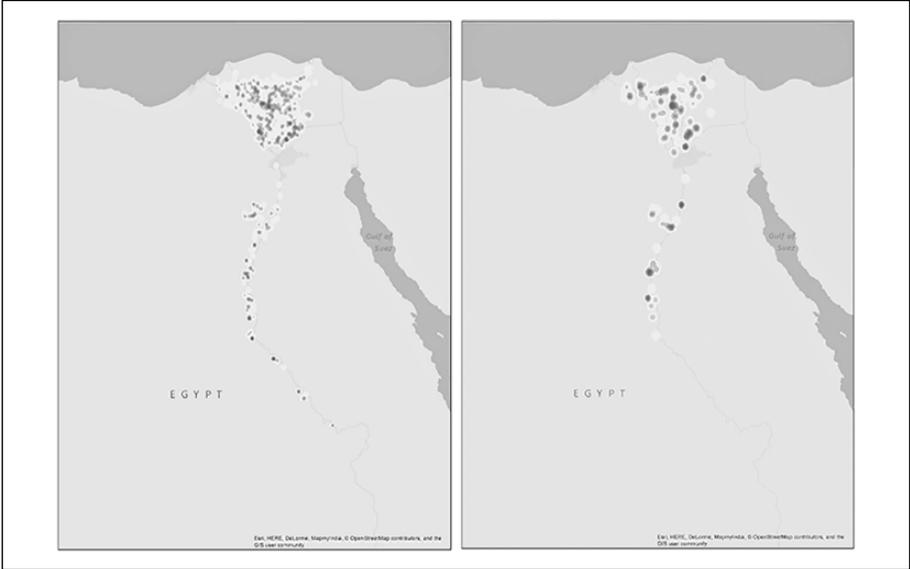


Figure 3. Distribution of *Iqta'* Lands and Their Value in 1376 and 1480 as Measured by Tax Value.

Note: Darker shading indicates higher values.

Source: Author's elaboration.

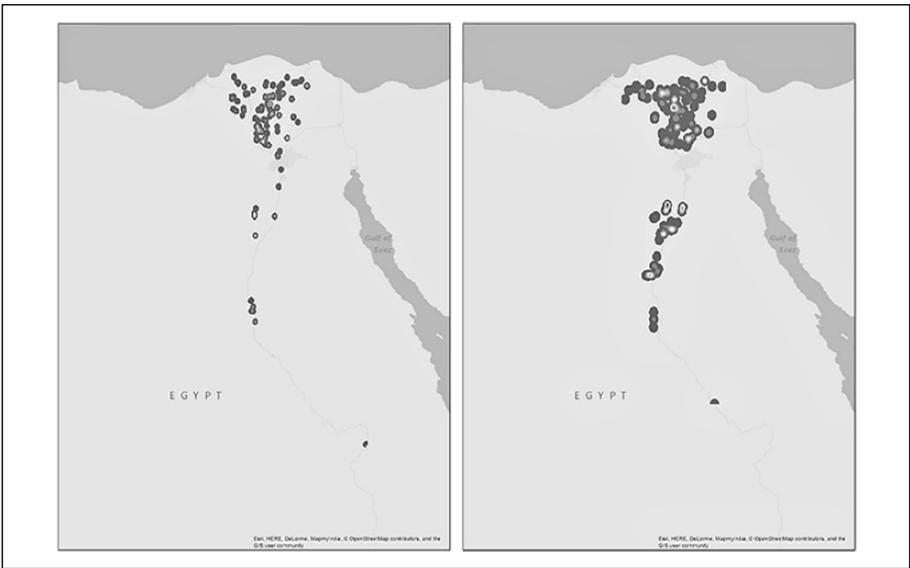


Figure 4. Distribution of *Waqf* Lands and Their Value in 1376 and 1480 as Measured by Tax Value.

Note: Darker shading indicates higher values.

Source: Author's elaboration.

Table 2. Coefficient Estimates from Multinomial Logit Regression for Four Outcomes.

Category	Estimate
1. <i>Iqta</i> ^c - <i>waqf</i> hybrid	Reference category
2. <i>Waqf</i> or <i>waqf</i> hybrid	
Distance to canals	0.254 (0.088)
Distance to Cairo	-0.187 (0.353)
Feddans	-1.155 (0.175)
Constant	7.238 (2.039)
3. <i>Iqta</i> ^c or <i>iqta</i> ^c -hybrid	
Distance to canals	0.121 (0.090)
Distance to Cairo	0.444 (0.362)
Feddans	-0.478 (0.173)
Constant	-0.974 (2.029)
4. Other (non- <i>waqf</i> , non- <i>iqta</i> ^c)	
Distance to canals	0.183 (0.096)
Distance to Cairo	-0.028 (0.387)
Feddans	-1.033 (0.187)
Constant	5.580 (2.215)
Observations	503
Pseudo R ²	0.06

Note: All covariates are logged.

Source: Author's elaboration.

accounts for about 18 percent of all outcomes. The third outcome is that the single-type *iqta*^c either remains the same land type or becomes an *iqta*^c-hybrid other than an *iqta*^c-*waqf*. This represents about 16 percent of outcomes. Finally, the fourth is that the *iqta*^c becomes anything else (i.e., does not remain an *iqta*^c and does not become a *waqf*), representing about 14 percent of outcomes. Results from a multinomial logistic regression are reported in Table 2.

The three predictors I include in the analysis are (1) the distance of the settlement to either the Nile River or the closest sultanic canal, (2) the distance of the settlement to Cairo, and (3) the size of the settlement measured in feddans. All variables enter the regressions logged. The distance to the Nile River and sultanic canals provides information about the quality of the arable land.¹¹⁵ The second variable reflects whether the settlement was close to the center of power or peripheral at a time when travel was costly.¹¹⁶ The third variable gives a sense of the value of the property, as size was closely correlated with taxable value.

The regression results suggest that single-type *iqta*^c properties that transfer to *waqf* or *waqf*-hybrid (Outcome 2) are typically smaller properties and farther from the Nile River and sultanic canals. This finding is consistent with the idea that collective management of land would have made it difficult for individuals to usurp the most profitable and largest settlements. Holding distance to Cairo and feddans at their mean values, we can isolate the effect of increasing a settlement's distance from a major

water source. I find that going from close to far from the river or sultanic canal leads to an increase in the probability that an *iqta*^c becomes entirely *waqf*, or a *waqf*-hybrid with no remaining *iqta*^c (0.15 to 0.31, comparing settlements very close to a water source with those 400 km away). This result suggests, holding other factors constant, that villages that became primarily *waqf* were typically on land of worse quality. A similar finding is observed for predictors of a shift from single-type *iqta*^c properties to non-*iqta*^c, non-*waqf* property types (Outcome 4).

What factors explain why some properties remain entirely *iqta*^c while others become an *iqta*^c-*waqf* hybrid, an outcome representing about half of all observations? Settlements that remained *iqta*^c or became an *iqta*^c-hybrid (Category 3) are typically smaller property types. On the other hand, larger properties were typically hybridized. For example, if we hold the two distance measures at their mean and increase the size of the settlement from a low value (145 feddans) to a high value (8,000 feddans) in the data, the predicted probability of transferring from an *iqta*^c to an *iqta*^c-*waqf* hybrid (Category 1) increases from 0.16 to 0.84, suggesting that larger settlements were much more likely than smaller ones to see hybridization of this form.

To what extent might monitoring capacity have mattered? Holding size and land quality constant, we can examine the effect of increasing distance to Cairo. As distance to Cairo increases, *iqta*^c-*waqf* hybrids are common, which suggests that hopeful private property holders most frequently sought to carve a small holding out of large, agriculturally productive settlements closer to the capital. This result is consistent with the idea that mamluk commanders were constrained in their ability to confiscate the most valuable land easily or at will. Wholesale expropriation of valuable land plots was not the norm; rather, the Mamluk Sultanate was hurt by the accumulated losses associated with many small-scale forms of “privatized” land control.

Property Rights and Political Stability

The evidence put forward suggests that there were endogenous sources of institutional weakness associated with the property rights institutions of the Mamluk Sultanate in Egypt—a regime among the most populous and economically influential of the medieval period. In particular, I have provided empirical evidence of the chipping away of state-controlled agricultural land by regime insiders who pursued personal interests at the expense of the economic health and stability of the regime as a whole. That process led to a breakdown in the core power-sharing agreement at the foundation of the authoritarian regime—that the status quo coalition would be stable as long as the army could be compensated with the agricultural revenue of the state. The empirical results demonstrate that land was shifted from temporary and revocable land grants in exchange for service to Islamic religious endowments and hybridized land types—a transformation from state authority over agricultural resources to more privatized forms of property control.

This argument enjoys considerable support within the existing historical literature. A number of scholars have suggested that the regime’s declining economic fortunes were related to the process of privatizing *iqta*^c land. The weakening of the *iqta*^c system

represented a major change in the social structure of Egypt; the mamluk collective suffered as resources were shifted into private hands.¹¹⁷ Decreasing agricultural revenues had important knock-on effects that created a host of additional problems. Budget shortfalls “exerted pressure for a variety of economically disruptive measures such as heavier taxation of urban commerce, confiscations, and forced purchases, all intended to buttress sagging Mamluk incomes,” that led instead to a “descending spiral of urban economic decay.”¹¹⁸ Petry argues that the most important issue of the late mamluk period was that “the regime’s shortfalls of cash” came up against demands for troop compensation and pay increases.¹¹⁹ The cost of the system became too heavy for the regime to bear.¹²⁰

As the Mamluk Sultanate began to see declines in the agricultural tax base, why did the sultan not change the underlying institutions of the system—the so-called rules of the game? A number of factors may have made that move difficult. The loss of state land was both incremental and difficult to monitor in the aggregate. In addition, the time horizon with respect to any individual mamluk sultan was also relatively short. A ruler’s duration in medieval Egypt was, on average, shorter than in other parts of the world, and hereditary succession of rule to one’s son was not an established norm (although it was known to occur). In addition, the *awqaf* created as benefices for mamluk descendants generated positive externalities that were valued by religious elites. Finally, scholars of institutional change have suggested that institutional reversals can be costly.¹²¹

Lapidus has argued that in the fifteenth century the compensation for mamluk commanders declined in what amounted to a “catastrophic reduction in Mamluk incomes.”¹²² Sabra also sees the fifteenth century as a turning point with regard to fundamental changes in land tenure.¹²³ Although there is consensus among scholars that the regime faced an economic crisis by the fifteenth century, there is no one explanation for the cause.¹²⁴

What hypotheses are the alternatives to the one I have put forward? A number of different explanations have been offered regarding the decline of the regime. It is not surprising that one is hard pressed to suggest a single explanation that entirely accounts for the outcome, given the complexities associated with regime change.¹²⁵ I review the alternative and, in some cases, complementary arguments below.

Poor Incentives for Agricultural Investment

The Mamluk Sultanate as a whole resembled a “stationary bandit”;¹²⁶ an individual mamluk, lacking a long-term title to a particular plot, was unlikely to make a big investment in his assigned *iqtaʿ*. Hodgson writes that uncertain ownership dampened incentives for investment and discouraged individual wealth holders from putting funds into agricultural maintenance.¹²⁷ Elbendary expresses a similar sentiment, suggesting that the *iqtaʿ* system “did not create enough incentives for the amirs to invest in maintenance.”¹²⁸ More generally, Petry argues that the mamluk system encouraged the hoarding of capital assets, blocking their more effective deployment. He writes that the system depressed innovation and failed to cultivate

the type of “aggressive investment in ventures conducive to economic growth or technical change.”¹²⁹ Lack of economic investment might subsequently have hurt economic performance. To what extent did a crisis of agricultural investment create dysfunction independent from the land-type transformations I have described? One hypothesis related to these arguments is that the economic collapse of the regime can be tied to the accumulated negative effects of the poor investment environment. Two pieces of evidence work against this mechanism as the sole source of the regime’s economic crisis. The first is that the core form of investment required to maintain the productivity of the land—the maintenance of canals—was controlled by the state and monitored in the interest of sustaining agricultural productivity. In addition, the regime did not suffer an economic crisis for long periods of time with these particular institutions in place.¹³⁰

The Black Death and Rural Depopulation

Changing environmental conditions affected agricultural productivity in societies around the world and may also have contributed to the occurrence of the Black Death.¹³¹ Abu-Lughod suggests that reductions in agricultural surplus associated with the plague may have led the mamluks to engage in “increasingly exploitative strategies,” which can be interpreted as “desperate attempts to maintain revenues in the face of a severely eroded economic base.”¹³² The Black Death may have led to greater turnover of *iqtaʿ* and may also have empowered bedouin to take over agricultural land in the Nile Delta.¹³³ This hypothesis suggests that plague-induced reductions in population would have led to lower agricultural productivity, with negative implications for the regime’s economic fortunes. One problem with this explanation is the timing of the Black Death relative to the patterns that I have shown. The most significant wave of the Black Death in Egypt occurred in 1347–48, whereas the data for my baseline analysis (1376) are more than thirty years later. Although there were subsequent waves of the Black Death, it would be difficult to explain the patterns I have described with a thirty-year lag from the main occurrence of the plague.¹³⁴

Loss of Spice Trade Monopoly

Over my interval of analysis, the Mamluk Sultanate lost its monopoly of the spice trade after Portuguese explorers discovered an all-sea route to India from Europe. In the years leading up to 1500, mamluk sultans dominated virtually the whole pepper trade, which had provided a dependable source of revenue to pay for military expenses.¹³⁵ Indian Ocean commerce had a highly positive effect on Egypt’s economy.¹³⁶ Crowley goes so far as to argue that the Mamluk Sultanate lived “parasitically” off merchant commercial success. Portuguese—and later Dutch and English—entry into the spice trade, and associated sultanate mismanagement of the economy, has also been cited as a factor associated with regime decay.¹³⁷ Having virtually no indigenous wood resources for shipbuilding, the Mamluk Sultanate was not a maritime power.¹³⁸ Blaydes and Paik estimate the negative economic impact of

European breakthroughs in seafaring on Middle Eastern and Central Asian trade entrepôts more generally.¹³⁹ The timing of the decline in the spice trade is consistent with the narrative that I have discussed. As a result, it is important to consider the negative economic impact of declining trade in combination with the endogenous processes that I have described. It is likely that both of these factors contributed to the worsening economic situation.

Indeed, external shocks may have heightened incentives for the predation of the state by state actors. Lapidus, for example, has argued that mamluk efforts to stave off economic collapse only made things worse in terms of taxation and extortion.¹⁴⁰ Elbendary discusses the interrelated nature of economic and administrative crises in which the regime undertook a variety of bureaucratic measures to try to mitigate the challenges of a collapsing economy.¹⁴¹ A number of exogenous and endogenous factors must have affected the strength of the regime. But there is little doubt that a smaller tax base would have made all shocks more difficult to withstand and would have contributed to the regime's fall.

Conclusion

The Mamluk Sultanate has been described as the “culmination of a long evolution of military slavery.”¹⁴² And although slave soldiers were a commonplace feature of Middle Eastern regimes, Egypt represents a case in which the mamluks took power for themselves by establishing a sultan from within their caste. The authoritarian institutions core to the Mamluk Sultanate provide a solution to the first-order problem of autocratic regimes for much of human history—the need to combat familial nepotism in support of governance and security. The solution to this problem unleashed a problem of its own, however. This article has sought to characterize the core institutional features of the Mamluk Sultanate while also providing evidence for why and how those institutions weakened over time.

I show that the Mamluk Sultanate was able to control agricultural resources in the hands of the state to a very large degree—a situation vastly different from that found in contemporaneous Western European regimes. Private property rights were evolving slowly via English land laws in the medieval period, whereas the Egyptian case demonstrates the vast extent to which a state might hold land. My findings suggest, however, that state control of agricultural property can be destabilized over time through the actions of individuals seeking to assert private control over collective resources. I find that the Mamluk Sultanate had difficulty maintaining authority over centralized agricultural resources because of the predation of state-controlled land by state actors with the goal of transferring wealth to their progeny, who were unable to become mamluks themselves. In other words, mamlukism created a fundamental problem of intergenerational wealth transfer. Without agricultural rents, the sultan could not maintain the terms of his power-sharing bargain with new generations of mamluks, whose support was crucial for the stability of the regime. Although the mamluks were largely successful at creating self-management protocols that prevented abuse and expropriation of the shared resource, self-undermining qualities of the institutional equilibrium eventually led to the degradation of the state.

These findings speak to the issue of the self-undermining qualities of a one-generation nobility. Such regimes, often reliant on gelding or gelded elites, were common in the world of antiquity and extended to the empowerment of eunuchs, who were castrated, and the cultivation of such institutions as clerical celibacy, a normative gelding.¹⁴³ Ernest Gellner writes that gelding kept elites from becoming corrupted, “seduced by the pursuit of honor and wealth and the lure of self-perpetuation.”¹⁴⁴ Francis Fukayama argues that celibacy was vital for battling corruption within the Catholic Church, giving Europeans an advantage over other societies in the establishment of a bureaucratically competent and rule-governed institution.¹⁴⁵ Yet clerical celibacy introduced its own self-undermining processes, since priests who kept mistresses or fathered children generated hypocrisies that reduced the moral standing of the church. Mamluks were permitted to have children, but the key principle of nonheredity generated similar challenges. The problems of nepotism, corruption, and inefficiency that gelded elites were empowered to solve may have been self-undermining over the long term.

More generally, how should we think about the institutions of the Mamluk Sultanate compared to those of other autocratic regimes? Dictatorships, both past and present, exhibit tremendous diversity in terms of their institutional configurations. On the one hand, the organization of a state of slave soldiers, reinvigorated by continuous import of new foreigners, has been described as “in many respects, very remarkable.”¹⁴⁶ On the other hand, rulers have long developed a wide range of institutional arrangements associated with public finance and the rule of law. Margaret Levi points out that although some property rights regimes are maintained over a long period, others prove unsustainable and are eventually abandoned.¹⁴⁷ Scholarly research has paid a great deal of attention to the institutional development of Western Europe. There is, however, much less focus on the history of property rights, institutions, and institutional change in other parts of the world, despite the fact that a failure to engage comparatively will leave students of historical institutionalism poorly positioned to identify the institutional forms critical for generating economic growth. My findings contribute to our understanding of how property rights institutions affect political and economic development with lessons drawn from Egypt during the late Middle Ages, a period when European political institutions were diverging decisively from those found in other world regions.

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Notes

1. See, e.g., Douglass North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (New York: Cambridge University Press, 1973); Douglass North, *Institutions, Institutional Change and Economic Performance* (New York: Cambridge University Press, 1990); Daron Acemoglu and Simon Johnson, "Unbundling Institutions," *Journal of Political Economy* 113, no. 5 (2005): 949–95; Timothy Besley and Maitreesh Ghatak, "Property Rights and Economic Development," in Dani Rodrik and Mark Rosenzweig, eds., *Handbook of Development Economics*, vol. 5 (Amsterdam: North-Holland, 2010).
2. Douglass North and Barry Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *Journal of Economic History* 49, no. 4 (1989): 803–32; Gary Cox, *Marketing Sovereign Promises: Monopoly Brokerage and the Growth of the English State* (New York: Cambridge University Press, 2016).
3. A mamluk is generally described as an elite military slave, typically well trained and compensated. Introduced by the Abbasids in the ninth century, mamluk armies were adopted by polities across the Islamic world over the centuries to follow. They were typically recruited as children from locations on the periphery of the Islamic world, including Southern Europe and Central Asia. Mamluks received extensive training in the arts of war. See Patricia Crone, *Slaves on Horses: The Evolution of the Islamic Polity* (New York: Cambridge University Press, 2003).
4. Steven Solnick, *Stealing the State: Control and Collapse in Soviet Institutions* (Cambridge, MA: Harvard University Press, 1998).
5. Timothy Besley, "Property Rights and Investment Incentives: Theory and Evidence from Ghana," *Journal of Political Economy* 103, no. 5 (1995): 903–37.
6. Kellee Tsai, "Adaptive Informal Institutions and Endogenous Institutional Change in China," *World Politics* 59, no. 1 (2006): 116–41.
7. Timur Kuran, "Why the Middle East Is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation," *Journal of Economic Perspectives* 18, no. 3 (2004): 79–90; Timur Kuran, *The Long Divergence: How Islamic Law Held Back the Middle East* (Princeton, NJ: Princeton University Press, 2010).
8. Jared Rubin, *Rulers, Religion and Riches: Why the West Got Rich and the Middle East Did Not* (New York: Cambridge University Press, 2017).
9. Avner Greif, "Cultural Beliefs and the Organization of Society," *Journal of Political Economy* 102, no. 5 (1994): 912–50.
10. Hassanein Rabie, *The Financial System of Egypt, A.D. 1169–1341* (London: Oxford University Press, 1972). In addition, this focus reflects the perspective of a minority population deeply involved in long-distance trade, a population that may or may not have been representative of the broader society.
11. Lisa Blaydes and Eric Chaney, "The Feudal Revolution and Europe's Rise: Political Divergence of the Christian West and the Muslim World before 1500 CE," *American*

- Political Science Review* 107, no. 1 (2013): 16–34; Lisa Blaydes, “State Building in the Middle East,” *Annual Review of Political Science* 20 (2017): 487–504.
12. Crone, *Slaves on Horses*; Blaydes, “State Building in the Middle East.”
 13. Besley and Ghatak, “Property Rights and Economic Development.”
 14. Harold Demsetz, “Toward a Theory of Property Rights,” *American Economic Review* 57, no. 2 (1967): 347–59.
 15. Besley and Ghatak, “Property Rights and Economic Development.”
 16. Daron Acemoglu, Simon Johnson, and James Robinson, “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution,” *Quarterly Journal of Economics* 117, no. 4 (2002): 1231–94.
 17. Douglass North, John Joseph Wallis, and Barry Weingast, *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History* (New York: Cambridge University Press, 2012).
 18. North and Thomas, *Rise of the Western World*; also see Joshua Getzler, “Theories of Property and Economic Development,” *Journal of Interdisciplinary History* 26, no. 4 (1996): 639–69, for a review of theories of property in the Western tradition with a focus on the English case.
 19. North and Thomas, *Rise of the Western World*.
 20. Douglass North, *Structure and Change in Economic History* (New York: Cambridge University Press, 1981).
 21. This is consistent with the historical Middle Eastern experience in which contracting institutions, but not private property institutions, were relatively robust. See Acemoglu and Johnson, “Unbundling Institutions.”
 22. Demsetz, “Toward a Theory of Property Rights”; see also Edella Schlager and Elinor Ostrom, “Property-Rights Regimes and Natural Resources: A Conceptual Analysis,” *Land Economics* 68, no. 3 (1992): 249–62, who warn against conflating property owned by a government or state with property owned by a community of resource users or property owned by no one.
 23. Rafael La Porta, Florencio Lopez de Silanes, Andrei Shleifer, and Robert Vishny, “Law and Finance,” *Journal of Political Economy* 106, no. 6 (1998): 1113–55.
 24. Daron Acemoglu, Simon Johnson, and James Robinson, “The Colonial Origins of Comparative Development: An Empirical Investigation,” *American Economic Review* 91, no. 5 (2001): 1369–1401.
 25. Demsetz, “Toward a Theory of Property Rights.”
 26. See, e.g., Kathleen Thelen, “Historical Institutionalism in Comparative Politics,” *Annual Review of Political Science* 2 (1999): 369–404; Paul Pierson, “Increasing Returns, Path Dependence, and the Study of Politics,” *American Political Science Review* 94, no. 2 (2000): 251–67.
 27. Svetozar Pejovich, “Towards an Economic Theory of the Creation and Specification of Property Rights,” *Review of Social Economy* 30, no. 3 (1972): 309–25.
 28. Robert Bates, Avner Greif, Margaret Levi, and Jean-Laurent Rosenthal, *Analytic Narratives*, (Princeton, NJ: Princeton University Press, 1998).
 29. Pierson, “Increasing Returns, Path Dependence, and the Study of Politics.” A large literature explores the issue of institutional path dependence. See Thelen, “Historical Institutionalism in Comparative Politics,” 385, on how the concept of path dependence is both “too contingent and too deterministic”—too contingent in the sense that small initial differences can create large later differences and too deterministic because once a path is adopted, stability follows almost automatically. Thelen argues that the key to

- understanding how external shocks can produce institutional change is to identify the reproduction mechanisms associated with different institutional arrangements.
30. Avner Greif and David Laitin, "A Theory of Endogenous Institutional Change," *American Political Science Review* 98, no. 4 (2004): 633–52.
 31. See *ibid.* on why and how institutions evolve in a changing environment and how processes they unleash can lead to institutional collapse. From an empirical perspective, Greif and Laitin provide a discursive comparison of institutional stability in medieval Venice and Genoa, where the political regime—in particular, the governing structures of the society—is the institution of interest. In their account, a number of quasi-parameters are explored, including wealth, patronage, identity, the relative strength of different social groups (e.g., clans), and the salience of revenge norms. It is difficult to measure the salience of these quasi-parameters because they are largely latent or difficult to observe.
 32. Bates et al., *Analytic Narratives*.
 33. Winslow Williams Clifford, *State Formation and the Structure of Politics in Mamluk Syro-Egypt, 1250–1340 CE* (Bonn: Bonn University Press, 2013), 14.
 34. Adam Sabra, *Poverty and Charity in Medieval Islam: Mamluk Egypt, 1250–1517* (New York: Cambridge University Press, 2000).
 35. Clifford, *State Formation and the Structure of Politics*, 60.
 36. Ira Lapidus, *History of Islamic Societies*, vol. 2 (New York: Cambridge University Press, 2002), 292.
 37. Ira Lapidus, *Muslim Cities in the Later Middle Ages* (New York: Cambridge University Press, 1984), 116.
 38. Tsugitaka Sato, *State and Rural Society in Medieval Islam: Sultans, Muqtaʿs and Fallahun* (Leiden: Brill, 1997), 146.
 39. Jo Van Steenberghe, *Order out of Chaos: Patronage, Conflict and Mamluk Socio-Political Culture, 1341–1382* (Leiden: Brill, 2006), 77.
 40. Hugh Kennedy, *When Baghdad Ruled the Muslim World: The Rise and Fall of Islam's Greatest Dynasty* (London: Da Capo Press, 2004), 10–11. Mamluks were also differentiated from locals through status markers.
 41. Abraham Poliak, *Feudalism in Egypt, Syria, Palestine, and the Lebanon, 1250–1900* (London: Royal Asiatic Society, 1939), 7.
 42. Sabra, *Poverty and Charity in Medieval Islam*, 4.
 43. David Ayalon, "Mamluk: Military Slavery in Egypt and Syria," in *Islam and the Abode of War: Military Slaves and Islamic Adversaries* (Aldershot: Variorum, 1994), 16–17.
 44. Carl Petry, *Protectors or Praetorians: The Last Mamluk Sultans and Egypt's Waning as a Great Power* (Albany: State University of New York Press, 1994), 73.
 45. Carl Petry, *The Criminal Underworld in Medieval Islamic Society: Narratives from Cairo and Damascus under the Mamluks* (Chicago: Middle East Documentation Center, 2012), 93.
 46. Petry, *Protectors or Praetorians*, 73.
 47. *Ibid.*, 79.
 48. Jessica Goldberg, *Trade and Institutions in the Medieval Mediterranean: The Geniza Merchants and their Business World* (New York: Cambridge University Press, 2012), 351.
 49. Kristen Stilt, *Islamic Law in Action: Authority, Discretion and Everyday Experiences in Mamluk Egypt* (New York: Oxford University Press, 2011), 21. The bureaucracy served the needs of the sultan; the most important job was to manage administration of rural revenue required to support the army. Lapidus, *Muslim Cities in the Later Middle Ages*, 46.

50. Petry, *Protectors or Praetorians*, 103.
51. Lapidus, *Muslim Cities in the Later Middle Ages*, 45.
52. Rabie, *Financial System of Egypt*, 59–60; Stuart Borsch, *The Black Death in Egypt and England: A Comparative Study* (Austin: University of Texas Press, 2005), 26–32. Lapidus, *Muslim Cities in the Later Middle Ages*, xiii, defines the *iqtaʿ* as a “beneficent administration for the collection of taxes and the payment of troops.” The *iqtaʿ* system is generally believed to have originated in tenth-century Iraq and spread shortly thereafter to several other Middle Eastern sultanates, continuing, in some form, until the nineteenth century in some Muslim societies. See Sato, *State and Rural Society in Medieval Islam*.
53. Crone, *Slaves on Horses*, 87. Despite the close ties between land and military service, the *iqtaʿ* never came to resemble the feudal fief of Europe. Chris Wickham, “The Uniqueness of the East,” *Journal of Peasant Studies* 12, nos. 2–3 (1985), 178, writes that “possession of *iqtaʿ* never became ideologically separated from a recognition of the tax system. . . . It never became simply landholding.” The majority of *iqtaʿ* holders lived far from their land assignments, residing in big cities and leaving *iqtaʿ* management to agents, visiting as needed. See Rabie, *Financial System of Egypt*, 64; Sato, *State and Rural Society in Medieval Islam*, 90.
54. Janet Abu-Lughod, *Before European Hegemony: The World System, A.D. 1250–1350* (Oxford: Oxford University Press, 1989), 239.
55. Petry, *Protectors or Praetorians*, 106.
56. Poliak, *Feudalism in Egypt, Syria, Palestine*, 19.
57. Steenbergen, *Order out of Chaos*, 476; Rabie, *Financial System of Egypt*, 34.
58. Marshall Hodgson, *The Venture of Islam: Conscience and History in a World Civilization*, vol. 2 (Chicago: University of Chicago Press, 1974), 93.
59. Rabie, *Financial System of Egypt*, 32–34.
60. Michael Brett, “State Formation and Organization,” in Maribel Fierro, ed., *New Cambridge History of Islam*, vol. 2 (New York: Cambridge University Press, 2010), 552.
61. Petry, *Protectors or Praetorians*, 23; Clifford, *State Formation and the Structure of Politics*, 16.
62. Ulrich Haarmann, “The Sons of Mamluks as Fief-Holders in Late Medieval Egypt,” in Tarif Khalidi, ed., *Land Tenure and Social Transformation in the Middle East* (Beirut: American University of Beirut, 1984), 141.
63. See Stephan Conermann and Suad Saghbini, “Awlad al-Nas as Founders of Pious Endowments: The Waqfiyah of Yahya ibn Tughan al-Hasani of the Year 870/1465,” *Mamluk Studies Review* 6 (2002): 21–50, for a discussion of the term *awlad al-nas*; it refers most explicitly to the sons of mamluks but may also include reference to the grandsons of mamluks.
64. Haarmann, “Sons of Mamluks as Fief-Holders,” 144.
65. Conermann and Saghbini, “Awlad al-Nas as Founders of Pious Endowments,” 27.
66. Lapidus, *Muslim Cities in the Later Middle Ages*, 74.
67. Stilt, *Islamic Law in Action*, 21.
68. Ulrich Haarmann, “Joseph’s Law—the Careers and Activities of Mamluk Descendants before the Ottoman Conquest of Egypt,” in Thomas Philipp and Ulrich Haarmann, eds., *Mamluks in Egyptian Politics and Society* (New York: Cambridge University Press, 1998), 71–72.
69. Sabra, *Poverty and Charity in Medieval Islam*, 5; also see Adam Sabra, “The Rise of a New Class? Land Tenure in Fifteenth-Century Egypt: A Review Article,” *Mamluk Studies*

- Review* 8, no. 2 (2004): 209. Sabra argues that to prevent the state from reasserting its rights over these lands, the new owners quickly turned them into trusts and endowments. This explanation for the founding of religious endowments complements emphasis on the *waqf* as a device to give property owners material security in a context of weak property rights. See, e.g., Timur Kuran, “The Provision of Public Goods under Islamic Law: Origins, Impact, and Limitations of the Waqf System,” *Law & Society Review* 35 (2001): 841–98. According to Lapidus, *Muslim Cities in the Later Middle Ages*, 74, “Family self-interest guided the Mamluks. . . . The donation of a religious institution or of waqf properties was a way of providing for the future of their families.”
70. Lapidus, *Muslim Cities in the Later Middle Ages*, 60–61.
 71. Yehoshua Frankel, “Awfaq in Mamluk Bilad al-Sham,” *Mamluk Studies Review* 13, no. 1 (2009): 152.
 72. *Ibid.*
 73. Lapidus, *Muslim Cities in the Later Middle Ages*, 74.
 74. Petry, *Protectors or Praetorians*, 9.
 75. Conermann and Saghbini, “Awlad al-Nas as Founders of Pious Endowments,” 29.
 76. Haarmann, “Joseph’s Law,” 71–72.
 77. Religious leaders enjoyed forms of religious dignity that were an “independent basis of social esteem.” Lapidus, *Muslim Cities in the Later Middle Ages*, 81. However, access to the institutions that provided public goods to local communities would have made them more effective power brokers within society. Religious elites maintained leverage within society through their control of judicial decisions and their ability to mobilize urban revolts. See Eric Chaney, “Revolt on the Nile: Economic Shocks, Religion and Political Power,” *Econometrica* 81 (2013): 2033–53, on this point.
 78. Lapidus, *Muslim Cities in the Later Middle Ages*, 189.
 79. *Ibid.*, 50.
 80. Amine Elbendary, *Crowds and Sultans: Urban Protest in Late Medieval Egypt and Syria* (Cairo: American University in Cairo Press, 2015), 35.
 81. Haarmann, “Sons of Mamluks as Fief-Holders,” 142.
 82. Haarmann, “Joseph’s Law,” 62.
 83. Elbendary, *Crowds and Sultans*, 37.
 84. Frankel, “Awfaq in Mamluk Bilad al-Sham,” 150.
 85. David Ayalon, “Mamluk Military Aristocracy—a Non-hereditary Nobility,” *Jerusalem Studies in Arab & Islam* 9–10 (1987): 205–10.
 86. Haarmann, “Joseph’s Law,” 71–72.
 87. See Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990), for more on how communities create common-pool protocols to avoid overuse and destruction of a shared resource.
 88. Suraiya Faruqi, “Demography and Migration,” in Robert Irwin, ed., *New Cambridge History of Islam* (New York: Cambridge University Press, 2010), 306–31.
 89. Lapidus, *History of Islamic Societies*, 123.
 90. Igarashi Daisuke, “The Financial Reforms of Sultan Qaytbay,” *Mamluk Studies Review* 13, no. 1 (2009): 30.
 91. Steenberg, *Order out of Chaos*, 476.
 92. Rabie, *Financial System of Egypt*, 54–55.
 93. Steenberg, *Order out of Chaos*, 476.
 94. Heinz Halm, *Ägypten nach den mamlukischen Lebensregistern*, vol. 1, *Oberägypten und das Fayyum*; vol. 2, *Das Delta* (Weisbaden: Ludwig Reichert, 1979–82).

95. The 1376 survey is believed to have been undertaken with the goal of bringing the 1315 Nasiri survey up to date. Robert Irwin, *The Middle East in the Middle Ages: The Early Mamluk Sultanate, 1250–1382* (Carbondale: Southern Illinois University Press, 1986), 148.
96. One feddān equaled 6,368 square meters until reforms introduced by Mohammed Ali in the nineteenth century. One unit of the *dīnar jayshī* reflected both currency (i.e., *dīnar*) and goods (e.g., wheat, barley).
97. See Elbendary, *Crowds and Sultans*, 42, for additional details on this point.
98. Haarmann, “Joseph’s Law,” 70; Sabra, *Poverty and Charity in Medieval Islam*, 72.
99. Poliak, *Feudalism in Egypt, Syria, Palestine*, 36.
100. Sabra, *Poverty and Charity in Medieval Islam*, 70.
101. Yossef Rapoport. “Invisible Peasants, Marauding Nomads, Taxation, Tribalism, and Rebellion in Mamluk Egypt,” *Mamluk Studies Review* 8 (2004): 1–22.
102. Petry, *Criminal Underworld in Medieval Islamic Society*, 47.
103. Jean-Claude Garcin, “Note sur les rapport entre Bédouins et fellahs l’époque Mamluke,” in *Espaces, pouvoirs et ideologies de l’Egypte medievale* (Burlington, VT: Ashgate, 1987), 147–63.
104. Rabie, *Financial System of Egypt*, 34.
105. Garcin, “Note sur les rapport entre Bédouins et fellahs,” 151.
106. How should we think about property ownership? Individual peasants may have enjoyed the ability to sell or rent their rights to use of a particular plot of land, but ownership was an “inappropriate category for describing overall revenue relations between the peasantry and the rulers.” Hodgson, *Venture of Islam*, 99. Hamid suggests that even under the mamluk system, “farmers still retained their usufruct.” Rauf Abbas Hamid, “Why Study Ownership? An Approach to the Study of the Social History of Egypt,” in Nelly Hanna, ed., *Money, Land and Trade: An Economic History of the Muslim Mediterranean* (London: I.B. Tauris, 2002), 39.
107. The most common land types in 1376 were single, but that had changed by 1480. Some of the most common land types in the latter period included hybrid designations of *iqta^c-waqf-milk* and *iqta^c-waqf-milk-rizāq*, as well as *iqta^c-waqf* and *iqta^c-rizāq*.
108. Scholars have pointed out the difficulty in measuring the precise size of agricultural land holdings owing to the way the Ibn al-Gī’an cadastre was compiled, particularly the multiple designations for each village or agricultural land unit. See Sabra, *Poverty and Charity in Medieval Islam*, 205; Elbendary, *Crowds and Sultans*, 25. I deal with these challenges by using a conservative approach to this problem.
109. See Garcin, *Espaces, pouvoirs et ideologies de l’Egypte medievale*, for a discussion of bedouin in this context.
110. Daisuke, “Financial Reforms of Sultan Qaytbay,” 29–30.
111. *Ibid.*, 105.
112. The percentages for all types across each year do not sum to 100 because not all land types have been included in the figure.
113. The general patterns that I have reported were discussed and observed by scholars of mamluk Egypt, although typically in a very general form. See, e.g., Haarmann, “Sons of Mamluks as Fief-Holders,” which reports on land grants offered to the *awlad al-nas* using the Halm material but not other land types. See Petry, *Protectors or Praetorian*, 106, for more on the fact that only a minute percentage of land in mamluk Egypt was held in private freeholdings (*milk*).
114. Haarmann, “Joseph’s Law,” 72.

115. This measure was created by georeferencing a map depicting the flow of the Nile and sultanic canals in fifteenth-century Egypt from Stuart Borsch, "Plague Depopulation and Irrigation Decay in Medieval Egypt," *Medieval Globe* 1, no. 1 (2016): 125–56. Distance to the nearest water source—either canal or the Nile River—was then measured for each settlement point.
116. See David Stasavage, "When Distance Mattered: Geographic Scale and the Development of European Representative Assemblies," *American Political Science Review* 104, no. 4 (2010): 625–43, for more on this point in medieval Europe.
117. See Sabra, "Rise of a New Class," 208; Elbendary, *Crowds and Sultans*, 27.
118. Robert Lopez, Harry Miskimin, and Abraham Udovitch, "England to Egypt, 1350–1500: Long-Term Trends and Long-Distance Trade," in M.A. Cook, ed., *Studies in the Economic History of the Middle East: From the Rise of Islam to the Present Day* (London: Oxford University Press, 1970), 118.
119. Petry, *Protectors or Praetorians*, 81.
120. Lapidus, *Muslim Cities in the Later Middle Ages*, 36.
121. Margaret Levi, "A Model, a Method and a Map: Rational Choice in Comparative and Historical Analysis," in Mark Lichbach and Alan Zuckerman, eds., *Comparative Politics: Rationality, Culture and Structure* (New York: Cambridge University Press, 1997).
122. Lapidus, *Muslim Cities in the Later Middle Ages*, 36.
123. Sabra, "Rise of a New Class."
124. Elbendary, *Crowds and Sultans*, 7.
125. Petry, *Protectors or Praetorians*, 103, has suggested that much existing work has focused on external shocks rather than the changes taking place inside the regime. In addition, the issue of kinship is not typically a focus of mamluk studies, given only marginal attention. My account considers mechanisms related to internal change and kinship to a greater degree than the existing literature.
126. Mancur Olson, "Dictatorship, Democracy, and Development," *American Political Science Review* 87, no. 3 (1993): 567–76.
127. Hodgson, *Venture of Islam*, 136.
128. Elbendary, *Crowds and Sultans*, 26.
129. Petry, *Protectors or Praetorians*, 221–22.
130. *Ibid.*, 72.
131. Bruce Campbell, *The Great Transition: Climate, Disease and Society in the Late-Medieval World* (New York: Cambridge University Press, 2016), 22.
132. Abu-Lughod, *Before European Hegemony*, 23.
133. Irwin, *Middle East in the Middle Ages*, 138; Elbendary, *Crowds and Sultans*, 49.
134. Plague was recurrent in later years as well, but no subsequent (or previous) plague waves receive the same attention as the 1347–48 occurrence.
135. Subhi Labib, "Egyptian Commercial Policy in the Middle Ages," in Cook, ed., *Studies in the Economic History of the Middle East*, 77.
136. John Meloy, *Imperial Power and Maritime Trade: Mecca and Cairo in the Later Middle Ages* (Chicago: Middle East Documentation Center, 2015), 79.
137. Roger Crowley, *Conquerors: How Portugal Forged the First Global Empire* (New York: Random House, 2015); Petry, *Protectors or Praetorians*, 118.
138. Crowley, *Conquerors*; Shelomo Goitein, *A Mediterranean Society*, vol. 1 (Berkeley: University of California Press, 1967), 38, suggests that the mamluks "turned their backs on the Mediterranean," perhaps not unexpected, given that the roots of the regime lay in the Caucasus and Central Asia.

139. Lisa Blaydes and Christopher Paik, "Muslim Trade and City Growth before the 19th Century: Comparative Urbanization in Europe, the Middle East and Central Asia," *British Journal of Political Science* (forthcoming).
140. Lapidus, *Muslim Cities in the Later Middle Ages*, 40.
141. See Elbendary, *Crowds and Sultans*, 11–12. Also see Sabra, "Rise of a New Class," 209, who argues that the Ottoman invasion reversed the trend toward the privatization of land. As the case of the Mamluk Sultanate, the Ottoman state established ownership of land and bestowed hereditary usufruct on peasant families in a system that persisted until the nineteenth century. Indeed, Ottoman military success depended on the empire's centralized land-tenure system, which supported its large, cavalry-based army. In that setting, agriculture was the economic livelihood for 90 percent of the Ottoman Empire's population and a fiscal pillar of support for the state. Thus, Pamuk argues that "neither the durability nor the eventual demise of the empire can be understood without attention to its agrarian institutions." Sevket Pamuk, "Institutional Change and the Longevity of the Ottoman Empire, 1500–1800," *Journal of Interdisciplinary History* 35, no. 2 (2004): 229–30.
142. Philipp and Haarmann, eds., *Mamluks in Egyptian Politics and Society*, xi.
143. The existence of a single-generation elite, institutionally constrained in its ability to engage in intergenerational wealth transfer, has long been a feature of the premodern world. See Almut Hofert, "Celibate and Childless Men Placed into Shared Focus: Ruling Eunuchs and Bishops between the Intersections of Power, Networks, Sacredness and Gender," in Almut Hofert, Matthew Mesley, and Serena Tolino, eds., *Celibate and Childless Men in Power: Ruling Eunuchs and Bishops in the Pre-modern World* (London: Routledge, 2018), 3, for a "transculturally common feature of pre-modern history": celibate and childless men serving as an "integral part of the ruling elites in different societies and regions." Eunuchs, e.g., played critical governance roles across ancient Greece, Rome, and Byzantium, as well as in Asian dynasties of China and the Indian subcontinent.
144. See Ernest Gellner, *Nations and Nationalism* (Ithaca, NY: Cornell University Press, 1983), 15–18, for a discussion of the differences between gelded elites within the Chinese bureaucracy, which recruited from the gentry, and European feudal society, which imposed the principle of heredity of land across generations of a family dynasty. See Francis Fukuyama, *The Origins of Political Order: From Pre-human Times to the French Revolution* (London: Profile Books, 2011), 18, on these issues, particularly how "the one-generation nobility principle worked against the basic imperatives of human biology."
145. Fukuyama, *Origins of Political Order*.
146. Goitein, *Mediterranean Society*, 38.
147. Levi, "A Model, a Method and a Map," 19.

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