

THE FIRST GLOBALIZATION EPISODE:
THE CREATION OF THE MONGOL EMPIRE, OR THE
ECONOMICS OF CHINGGIS KHAN*

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*Ja, nu skall vi ut och härja,
supa och slås och svärja,
bränna röda stugor,
slå små barn
och säga fula ord*

(Lundaspexet Djingis Khan, 1954)

When communism fell in the Soviet Union in 1989, the Mongolian economy and society in general received a tremendous shock. All of a sudden Soviet foreign aid disappeared completely and foreign trade virtually collapsed. GDP fell by more than 20 per cent in a mere four years, and in spite of a gradual improvement thereafter, the 1989 level has so far not been reached anew. Mongolia was thrown abruptly into a rapidly globalizing world without being prepared for it. The fall of communism, a system that had been in place for approximately 65 years, forced globalization on Mongolia in a dramatic way, with little to cushion its immediate impact. The country became, as it were, a “victim” of globalization.

The fact that Mongolia was victimized by globalization stands out as a bitter irony of history once we begin to extend the perspective

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backwards in time. In the present age of information technology, increased international trade and factor mobility, it is easily forgotten that globalization is not a latter-day phenomenon (Findlay and Lundahl, 2000). On the contrary, such a view implicitly views globalization not as a process but as a *state*: an impossible perspective, given the label. The only sensible way of approaching globalization is by taking the term literally, as the story of how the world became global, and then the roots have to be sought considerably further back in time. We will not attempt to provide a clear-cut answer to the question of when and how globalization “began”. That would be both out of place and futile. Even the most cursory inspection of the rapidly accumulating literature on this subject indicates that there appears to be about as many answers to the question as there are authors who have posed it.

A definite answer is hardly needed for our present purposes. It is more than sufficient to note that if we go back eight centuries, what was up to that point the strongest wave of or effort at globalization hitherto in history emanated from the Mongols. They were the main agents of the process, i.e. they “pushed” globalization, as it were. Needless to say, from the Mongol point of view, the early globalization episode has virtually nothing in common with the present one. On the contrary, the contrast between the two could not be more evident. They should be viewed as opposite endpoints on a scale. At one extreme we find the Mongols in the 13th century, as the active agents of the process, in virtually complete control of it, and with more or less total power to decide the distribution of the benefits and costs that arose in the course of the episode. At the other end of the scale, in the current situation, we find them as passive recipients, or even victims, as suggested above, with no power whatsoever to influence the course of events and their effects.

The present essay deals exclusively with the first of these globalization episodes. The Mongol conquests are remarkable in at least two ways. The first is of course the sheer size of the undertaking:

The Mongolian explosion was the first real global event. It deeply affected China, Persia, Russia and eastern Europe. Indirectly, and at one remove, it affected India and Southeast Asia. Negatively, it affected Japan, Egypt and Western Europe, by not conquering them, and giving them their chance, so to speak, in their respective cultural areas. More remotely, it entered the causal network which led to Christian expansion in America, Moslem expansion in Africa and Southeast Asia. (Adshead, 1993:5)

The Mongol empire is the largest continuous empire that the world has ever seen up to the present day. At the time of its peak, after Khubilai Khan's final conquest of southern China, in 1279, it extended from the coasts of southern Siberia, Manchuria, Korea and China down to Amman in the east all the way into Hungary, Poland and Belarus in the west, and from the northern borders of Indochina, Burma and India, the shores of the Persian Gulf, the southern border of Iraq across Syria and the southern coast of Turkey in the south up to a latitude of approximately 60° N in Russia and Siberia (Bat-Ochir Bold, 2001:xi).

The second remarkable quality of the Mongol conquests is their unlikelihood. In the 12th century the Mongols "were not a linguistic or an ethnological group but simply the dominant tribe of one of the tribal confederations that inhabited the Mongolian steppes" (Fletcher, 1986:13). The Mongols gave their name to the Mongol confederation as well, but neither the tribe nor the confederation is likely to have consisted simply of ethnic or linguistic Mongols. The same applied to the Tatars, the Naimans and the Kereits, the three other main confederations in Mongolia. All of them contained ethnic or linguistic Turks as well. Altogether, the population of the Mongolian steppes is likely to have numbered no more than around a million people or so in the 12th century (Fletcher, 1986:22), and perhaps only half that number (de Hartog, 1989:53), an incredibly small number for a people who just after the turn of the century would embark on a territorial expansion that would not end until the largest continuous empire that the world has yet seen had been created.

In the following we will present a model which combines the main features of the approaches set forth in Findlay and Wilson (1987), McGuire and Olson (1996), Olson (1965) and Findlay (1996) in order to explain why the Mongols could be unified in spite of a tremendous free rider problem, how the unification took place and why they were able to create their continuous empire.

The Unification of the Mongols: The Installation of a "Stationary Bandit"

Before the epic conquest could be launched the Mongols had to be united. This in itself stood out as an almost impossible task. The logical point of departure for an analysis of the unification of the Mongols is the observation by Joseph Fletcher (1986) that their steppe

habitat determined not only their mode of production but also the form of their society (cf. also Lattimore, 1951:53–83). The ecology of the Central Asian steppe would in general not sustain sedentary activities, in particular not much agriculture:

The aridity of the Inner Asian steppe, from which no rivers flow out to the sea, has made extensive agriculture impossible. Lacking adequate water resources, the high uplands of Tibet and the grasslands of Mongolia have had a very sparse population. The ‘barbarians’ lived in areas roughly twice the size of China, but had perhaps no more than one-fortieth of the population. (Fairbank and Reischauer, 1979:154)

As Owen Lattimore (1951:63) has observed, when Chinese agriculture moved from the Yellow River bend towards the steppe it encountered diminishing returns. Hunting and herding became the two main productive pursuits. Both required a nomadic lifestyle. The harsh climatic conditions of the steppe forced not only the herders but the entire population to migrate periodically in search of grass and water. Migration was imperative for the “livestock of a camping group, most of the animal wealth of a tribe, even most of the herds of an entire confederation, could be lost virtually overnight to disease or starvation” (Fletcher, 1986:13). The survival algorithm (Lipton, 1968) of the Central Asian steppe—the strategy that minimized the risk of ending up below the subsistence level was periodic mobility, usually, but not always, along fixed and proven routes. “The nomad’s migration was not an aimless wandering but occurred on a seasonal basis, usually to move his flocks and herds from summer pasture on the open plain to winter pasture in some more sheltered area such as a mountain valley, and back again” (Fairbank and Reischauer, 1979: 155). The hunting pattern, in turn, was determined entirely by the movements of the game animals. All that the hunters could do was to follow them.

The ecology of the Central Asian steppe thus gave rise to a highly mobile population. This population was also dispersed since the meagre vegetation could not sustain large concentrations of people (Lattimore, 1951:54, Fletcher, 1986:13–14). A nomadic population poses worse problems of large-scale organization than a sedentary one. We may think of the starting point as resembling the Hobbesian state of nature (Hobbes, 1985:Ch. 13), where no laws exist. There are no accepted rules safeguarding human lives and no property rights. The individuals can prey on each other without fear of any other retaliation than what may be occasionally forthcoming from

the disorganized prey. “In such a society, life was simple, selfish and precarious” (Chambers, 1999:5), and presumably also, “nasty, brutish, and short” (Hobbes, 1985:186).

It is then quite obvious that there were gains to be made by entering into some kind of binding contract which regulated life on the steppe. Before the rise of Chinggis Khan, the Mongol people “longed for unity and for a state of order in which human life and property would be secure”, claims Paul Ratchnevsky (1991:14). The various tribes were either at war or in some “state of suspended enmity” with each other (Ratchnevsky, 1991:12). Law and order is a collective benefit for all the parties concerned. Without a strong supra-tribal ruler the road lies open to casual plunder, i.e. the various tribes and tribal groups must count on being raided periodically, by marauders who will presumably take as much as they possibly can, since they cannot be sure of when the next suitable occasion for plunder will present itself.

Should these marauding raids turn out to be a recurrent phenomenon, those raided will eventually find that they have an incentive to install a “stationary bandit” instead (Findlay and Wilson, 1987; McGuire and Olson, 1996; Olson 2000:6–12). This bandit can be invited to “tax” the group regularly, a solution that is likely to be cheaper in the long run than unorganized raids. To see how this works, let us introduce our model.

Let us assume that the maximum production of a nomadic tribe amounts to Y , and that actual production is I . The maximum output is a function of the inputs of labour (L), land (T) and law and order: a public good created by a bureaucracy (G). The maximum production function is taken to be linearly homogeneous, with diminishing returns to all three factors and positive cross derivatives. The bureaucracy has no other use than as an input in private production. It has to be paid for out of tax money. Hence, there is always a risk that incentives will be distorted by taxation so that actual production (I) will fall short of Y . I will hence depend negatively on the proportional tax rate t :

$$(1) \quad I \equiv r(t)Y(L, T, G), \quad r' < 0, \quad r(0) = 1$$

The labour force (N), which for the time being is assumed to be given, is divided between labour in production and the bureaucracy:

$$(2) \quad L + G = N$$

The stationary bandit maximizes his net tax revenue:

$$(3) R = tr(t)Y(L, T, G) - (1 - t)wG$$

where

$$(4) w = r(t)Y^L$$

i.e. he obtains all the tax revenue that is left once he has paid his bureaucracy. The gross wage obtained by the bureaucrats is equal to the marginal product of labour used directly in production. Since taxation is strictly proportional, the bureaucrats pay the same share t of their income as everybody else, i.e. the net wage paid by the ruler amounts to $(1 - t)w$.

In order to maximize his net tax revenue, the stationary bandit has to find the optimal tax rate and the optimal size of the bureaucracy, i.e. he has to maximize (3) subject to the labour restriction (2). In the case of tax revenue, the restriction does not bind so taking the derivative of the net revenue with respect to the tax rate gives the first-order condition:

$$(5) rY + rY^L G - (1 - t^*)r^*Y^L G = -t^*r^*Y$$

The marginal gain of gross tax revenue from a higher tax rate plus the marginal saving on the wage bill when the net wage falls as the tax rate increases must be equal to the marginal loss of gross tax revenue as the amount of distortion increases when the tax rate increases. Thus, the stationary bandit has an incentive to stop taxation when the increase in tax revenue resulting from a higher tax rate equals the loss resulting from falling production. Since taxation is distorting the share $1 - r(t)$ of the maximum production Y is lost (an efficiency or “deadweight” loss) and a share equal to t^* of this loss accrues to the bandit himself. Thus, when at the margin the bandit’s share of the deadweight loss due to distorting taxation exactly offsets what he gets by increasing the tax rate he will not increase the rate of taxation further. Maximizing his net tax revenue the bandit gets the share t^* of the total output value.

We also need the optimal amount of the public good, which may be calculated by taking the derivatives of the net tax revenue with respect to G and L , respectively. This yields:

$$(6) t^*rY^L - (1 - t^*)rY^{LL}G = t^*rY^G - (1 - t^*)r(Y^{LG}G + Y^L)$$

The bandit should increase the creation of peaceful and orderly conditions until the net marginal contribution of the use of labour directly for production to his tax revenue (including the marginal gain on his wage bill as diminishing returns to direct labour drive down the gross wage rate) equals the marginal contribution by the bureaucracy (net of the marginal cost of increasing the number of bureaucrats due to the higher marginal product of direct labour, and hence higher gross wage rate, as more bureaucrats are added, as well as directly to their higher number). With shorter notation:

$$(7) \text{NMRPL} = \text{NMRPG}$$

where NMRPL denotes the net marginal tax revenue product of labour in direct production and NMRPG the net marginal tax revenue product of the bureaucracy (law and order).

To conclude, so far, the stationary bandit has an incentive to stop taxation before the 100 per cent rate is reached and, in addition, an incentive to provide public goods to the community since both measures increase his tax revenue. This Leviathan is both productive and predatory.

Law and Order in the Steppe

The problem, however, is whether any binding contracts that will lead to the installation of a stationary bandit will ever see the light of day. Law and order is a public good, i.e. all citizens in the community benefit from it and nobody can be excluded. By the same token, however, it may be difficult to find someone who is willing to organize the community and make certain that the necessary contracts are concluded. The installation of the stationary bandit is fraught with the free rider problem. This point becomes easier to appreciate if we apply Mancur Olson's (1962, 1982) logic of collective action to the problem of state foundation. If we continue to represent the degree of law and order in the steppe with G , the number of bureaucrats, the cost in terms of time, effort, money, and so forth that is required to create the bureaucracy may be assumed to be an increasing function of its size:

$$(8) C = C(G), C' > 0, C'' > 0$$

Without effort, there is no order. Turning to the benefit side, the benefit for the group or community as a whole can be thought of as a function of the degree of law and order as well:

$$(9) B_c = L_c G$$

where lower-case c indicates community and L_c is an indicator of the "size" of the community, e.g. in terms of the total herd of grazing animals it disposes of, animals which are completely crucial for survival in a harsh environment. The bureaucracy G is a collective benefit, i.e. its utility to one individual is not diminished by the fact that it extends to other individuals as well, and no member of the community can be excluded from it. Thus, not the entire benefit accruing to the community accrues to the individual. The value of his share F_i must obviously be lower than the total value to the group:

$$(10) B_i = F_i L_c G$$

where $F_i < 1$ is assumed to be constant.

Will activities creating law and order be organized at all, and if they are, to what extent? To find the optimum value of G for the group we maximize the difference between community benefits and costs:

$$(11) L_c + G(dL_c/dG) = dC/dG$$

The marginal benefits in terms of law and order and herd size must balance the marginal cost of the effort. Likewise, for the individual, we find that

$$(12) F_i[L_c + G(dL_c/dG)] = dC/dG$$

These findings may be put into the simple diagram in *Figure 1*. The community benefit curve B_c rises, but we should not expect it to rise indefinitely. Efforts to install order should be subject to diminishing returns. The cost curve C , on the other hand rises monotonically, since the marginal cost should be increasing. The optimal level of G for the community is G_c^* , where the marginal benefit equals the marginal cost for the group (where the slopes of the two curves coincide, points a and b). The individual benefit curve, in turn, lies below the community curve, since $F_i < 1$. As shown in the diagram, this means that the optimal level of G is smaller for the individual than for the community. The slope of the individual benefit curve equals that of the cost curve at a lower level of G (points d and c).

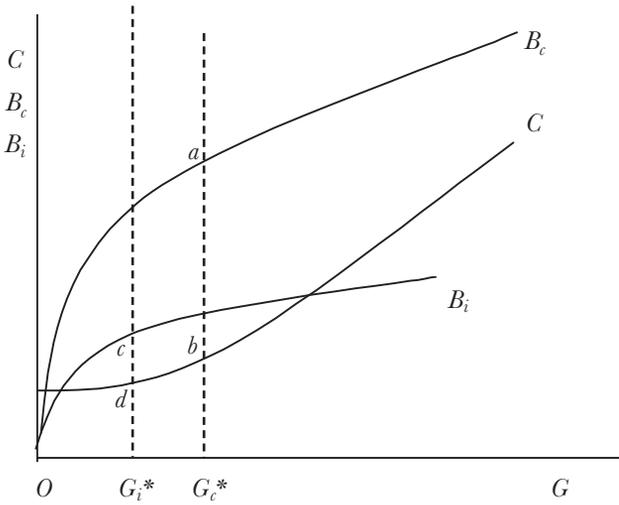


Figure 1: The Problem of Collective Organization

This is Olson’s famous finding that a suboptimal quantity of the collective goods will be produced. In a group where individuals differ widely with respect to the intensity of their interest in creating the collective benefit, and all individuals by definition are less interested than the community as a whole in the benefit in question, it will be very difficult to ensure that somebody undertakes the organizing activities. Furthermore (assuming L_c to remain constant), the larger the number of individuals in the community the more severe will the suboptimization be, for this will lower the average F_i , i.e. it will rotate the individual benefit curve downwards and hence lower the optimal G level for the individual.

The problem does not end here, however. We must also ask ourselves whether any efforts whatsoever will be made to secure peaceful conditions on the steppe. This is far from certain. The pastoral economy characteristic of the Central Asian steppes if anything worked in the opposite direction: clan warfare and recurrent disputes over grazing lands and animals (Jackson and Morgan, 1990:8). If the cost curve lies completely above the benefit curve it will never be worthwhile to attempt pacification. This could be the case if the number of individuals in the community is high, so that the individual benefits are low, but the level of costs also plays an important role here. The cost curve in Figure 1 is also drawn on the assumption of a fixed

number of individuals. Should this number increase, however, the vertical intercept of the cost curve will shift upwards, and with that the entire curve.

Let us assume that the community contains n individuals who must be made to agree on efforts to create law and order. All these individuals in principle have to agree with $n - 1$ other individuals not to bother them, i.e. the number of bilateral treaties that must be concluded amounts to

$$(13) \quad K = \sum_{m=1}^{n-1} (n - m)$$

and if n increases to $n + 1$, the number of treaties will increase with n . The intercept of the cost curve shifts upwards. (Possibly the curve at the same time rotates, also upwards, i.e. the marginal cost of increasing the probability of law and order (C) increases and enhances the suboptimization problem even further.) Thus, unless special incentives for organization can be created, what is in everybody's interest may never happen.

Thus, to conclude, if no coordination mechanisms are available, a large community size will militate against the implementation of peaceful conditions both on the benefit and the cost side. It is difficult to think of a better illustration of the free rider problem in economics than the literally free Mongolian mounted archers and herders roaming across the Central Asian steppe—difficult to reach in a vast geographical area with a dispersed population. The Mongols had no administrative system or any formal devices for organizing services before Chinggis Khan (Ratchnevsky, 1991:44). The best prediction then would be that only relatively small organized and coherent communities would be organized.

The Designation of Chiefs

This prediction receives further support once we look into the Mongol institutions for designing tribal chiefs, i.e. for concluding the treaties. Borrowing a Celtic term, Joseph Fletcher (1979–80:239; 1986:17) has called the governing principle “tanistry”: the tribe should be led by the best qualified member of the chiefly house. Two mutually contradictory principles, however, existed: patrilineal succession from father to son on the one hand, and lateral succession from older to

younger brother until the current generation had been exhausted and the eldest chief's sons would carry on. In this situation, succession would become subject to bargaining and active choice by the leading members of the tribe and any choice that the leading members of the tribe would make could be justified. In the tribal context the leaders usually managed to settle matters without creating too much resentment, but once the issue was the formation of a larger group faction frequently stood against faction:

... in a large tribe, rival candidates for the chieftaincy, each closely backed by his own retinue of personal supporters... [*nököd*], might occasionally split the tribe, either temporarily or permanently. In a succession struggle, the rival candidates and their... [*nököd*] competed for the support of the tribe's leading men and formed factions that could either compromise or fight. Nor were the rivals limited to the backing of members of their own tribe. If a tribe were part of a confederation, a given candidate might win the backing of the confederate ruler or other powerful elements within the confederation. Tribes or leading tribal families also commonly had special relationships with tribal (or even non-tribal) elements outside the confederation and sometimes even beyond the edges of the steppe. These too could be called upon for support or for asylum in the event that a given candidate met defeat. (Fletcher, 1986:17–18)

There was nothing in the ecological situation of the Mongols that required organization on a level above that of the tribe. "Any would-be supratribal ruler had to bring to heel a highly mobile population, who could simply decamp and ignore his claims to authority" (Fletcher, 1986:14). The situation very much resembled the one in what Samuel Huntington (1968:194) has called praetorian societies, where "no corps of professional political leaders are recognized or accepted as the legitimate intermediaries to moderate group conflict" (Huntington, 1968:196). In these societies, all social forces are politicized: armies, clergies, universities, bureaucracies, labour unions, corporations, and so forth. Political life lacks autonomy. Mongol society is a case in point. Before Chinggis Khan came to power, Mongol society was characterized by conflict and lack of unity (Ratchnevsky, 1991:12), and in principle:

... nomadic succession struggles tended to involve everybody. There were no "non-political" governmental functionaries to hold the realm together while military or other specialized elites determined the succession. Everybody was a warrior. Everybody was involved. Tribal chiefs had to decide which candidate to support, but everybody stood

to win by his tribe's making the right choice or to lose by its making the wrong one. Most important was predicting the outcome of the succession struggle and attaching one's tribe to the winning candidate. A tribal chief who backed a losing candidate could forfeit his position or his life, but his whole tribe would suffer, so a chief could not fail to be influenced by his tribesmen's opinions. [. . .]

Because the khan might fall sick and die or be killed at any time, the political status quo, being suspended from his person, was inherently ready to collapse. So the nomads had always to be sniffing the political breezes and to be ready to choose, form coalitions, and, at every level of society, to act. [. . .] Nomadic society was therefore more politicized at a deeper social level than the societies of the great agrarian empires northwest and south of the Eurasian steppe. (Fletcher, 1979–80:240–41)

In praetorian societies, power is fragmented, easily gained and easily lost and allegiances are easily transferred from one group to another. The Central Asian steppe was no exception:

Everything was mobile, and as a result families could move not only from region to region as climate and season required, but also from camp to camp, as the fortunes of a clan would wax and wane. A charismatic or fortunate leader would attract a large camp in a short period of time. Conversely, when a leader died or times got bad due to disease, bad weather, or war, a camp could easily break up. (Kahn, 1984:xx)

The traditional way of solving this problem among the steppe nomads was via the institution of subordinate tribes, i.e. tribes collectively under the protection of a stronger tribe, but simultaneously exploited by it (Lattimore, 1963a:59). Not all of these were conquered. Some submitted voluntarily for the sake of obtaining protection by stronger units:

Maintenance of the integrity of the subordinate tribe helped to block defection. Its members collectively and its headman individually could be made responsible for mutual loyalty. The conditions of life, however, sometimes made this safeguard ineffective. In fluid, rapidly moving nomadic warfare there were times when the subordinates could tip the scale by abandoning a detested lord and going over to an admired new leader. (Lattimore, 1963a:59)

The story of the early life of Temüjin (Chinggis Khan) bears ample testimony of the problems of organization. At the time of his birth (possibly in 1162 or 1167) (Grousset, 1966:36; Ratchnevsky, 1991:18–19) no central power existed in Mongolia. Temüjin's father, Yesugei had:

... gathered a following of his own, a heterogeneous collection of riders... [that] were all of one stock, that of the Borjigin clan. He was one leader in a world from which unity had flown, in which enemies outnumbered friends and in which strength alone could hope to find alliance. The weak fell away, their men left them, their followers found other leaders, the tents in their camps grew fewer, the grazing for their beasts sparser. In the end such groupings were absorbed in the train of another chief, or disappeared under a sudden flight of arrows, to the swift throbbing of hoofbeats and screams of anguish that fell abruptly into silence. (Brent, 1976:12)

Yesugei, however, was not important enough politically to earn the title of khan. His position was that of a minor chieftain (Morgan, 1986:57). Thus, young Temüjin at a very early age got drawn into the rivalry between the Mongols and the other confederations in Mongolia. As a member of one of the most notable Mongol families, his whole life from about the age of ten to his election as khan some time in the 1190s is a chronicle of head-on confrontation with the enemy, desperate struggle for survival, forging and breaking of alliances, attacks and pursuits, flights and retirements (Prawdin, 1940:Ch. 2–3; Saunders, 1971:47–49; Brent, 1976:Ch. 1; Ratchnevsky, 1991:19–41). Organization could not be achieved without considerable bloodshed.

Peace and self-defence did not provide incentives that were strong enough to overcome the organization problem in a durable fashion. Temporary alliances were sufficient for that. The creation of wealth was different. The nomad:

... remained precariously dependent upon nature, for a severe winter could destroy his flocks. The seminomads, who lived on the fringes of sedentary agricultural societies, shared this constant economic instability. Their lack of accumulated resources gave both types of nomads a periodic incentive not only for increased trade but for military expansion. The nomads were the have-nots of antiquity, always poor in comparison with peoples in more thickly populated farming regions. (Fairbank and Reischauer, 1979:155)

The productive base of the steppe was too meagre to allow substantial fortunes to be amassed, and preying on other nomads would yield precisely the same type of goods as those produced by the Mongols themselves. It was mainly when the number of animals dropped below the minimum required for survival that plundering other nomads was attempted. The risk of reprisals was always there and the spoils could not be stored, but the animals had to be put

to pasturing, which of course put additional demands on the tribe's manpower.

This did not mean that wealth was not sought. On the contrary, there were strong incentives to do so. William Baumol (1990) has made a distinction between productive, unproductive and destructive entrepreneurship. Entrepreneurs are motivated by profit opportunities, but it is not at all necessary that their efforts will be concentrated on productive activities. What they will do depends on the incentives they are facing. When signals indicate that rent seeking and lobbying are more rewarding than productive efforts, entrepreneurship turns unproductive. It concentrates on the redistribution of a given cake. Should it, furthermore, be the case that war or piracy yields the highest returns, activities will turn increasingly destructive.

The first alternative for the herding nomad of course was trade. "His pastoral economy had little need of agriculture so long as it could maintain a minimal trade with settled areas in order to secure grain and also textiles, tea and other "luxuries," and "metals to make weapons" (Fairbank and Reischauer, 1979:154). Conversely, no artisan activities could be developed on a large scale in nomadic society, since that would have required a sedentary life-style (Lattimore, 1951:70). The nomads needed trade, but with that exception, for the creation of non-nomadic wealth the Mongols had no alternatives to preying on sedentary agriculturalists, and trade could never yield such huge benefits as plunder. This, however, was not something that isolated bands or tribes could carry out on their own. It required organization on a larger scale. At the same time, it provided an incentive for such organization because it boosted the benefits to the community. Organization offered not only internal peace but also an opportunity of enrichment at the expense of outside groups.

The main target was China:

It was in the case of China, where the steppe-sown dichotomy was sharper than anywhere else in the Eurasian steppe, and where the agrarian government usually monopolized or greatly restricted external trade, that the tribes' desire to extort was strongest.

Three alternative policies were available to the steppe nomads for the continuing acquisition of China's agrarian wealth: invasion, threat of invasion, and outright dependence. A fourth policy, commonly practiced by the desert nomads of Central Asia and the Middle East, namely conquest and dominion, was impractical for the nomads of the steppe because of the geographical separation of the steppe from the world of the sown. (Fletcher, 1986:15-16)

According to Fletcher (1986:16) the main purpose of the supratribal polity was precisely that of extorting wealth from agrarian societies, a very plausible conclusion in the light of the present approach. Given the formidable free-rider problem of the steppe it was only to be expected that it would take extraordinary benefits to overcome it:

Pasture scheduling could be managed at the tribal level, and raiding could also be carried out under the leadership of the tribal chiefs without help from a supra-tribal ruler. Being nomadic, and consequently mobile, individual tribal groups could move away on their own. The grand khan could not subject his tribes to discipline without offering them a benefit great enough to win their voluntary compliance. Essentially his benefit boiled down to booty, the spoils of war – war which the tribes could not wage on a worthwhile scale without a supra-tribal leader. Social organization above the tribal level therefore came to be predicated on warfare. (Fletcher, 1979–80:237)

Not even the prospects of profitable plunder always provide enough incentive for large-scale organization, however. The basic communities remained small and their degree of cohesion was low:

Given the mobility of nomadic life, the inessential character of supratribal social organization, and the fissiparousness of steppe politics, supratribal polities—being based on segmentary opposition—were unstable and frequently dissolved altogether. So there could be long periods when the largest effective unit was the tribe. [. . .] Supratribal society slipped back and forth between a supratribal anarchy (a “nation” of purely imaginary existence) and supratribal polity, which in turn fluctuated between loose confederacy and more rarely) tight autocracy.

Steppe empires came into existence only through the efforts of individual aspirants for the office of supratribal ruler, who, so to speak, conquered the tribes of the supratribal society and then, to keep them united, had no choice but to keep them busy with lucrative wars. (Fletcher, 1986:20, 21)

Given the contradictory principles that governed the choice of chiefs among the Mongols it was never self-evident who the supratribal ruler would be. Coalitions were formed and backers were sought in a process with an uncertain outcome—a process that was furthermore completely centered on the person seeking office. The Mongols were ruled by:

. . . the grand khan—the supra-tribal nomad emperor whose authority entailed kingship over a multi-tribal nomadic people, combined with a highly personal command over that people’s collective military forces. Under the grand khan’s rule, all authority was concentrated in him—

not in his office or in any government of officials who acted in his name, but in his person. When he died, the bonds of authority were dissolved, and his realm fell apart. (Fletcher, 1979–80:236)

All allegiances were thus strictly personal. As Fletcher (1986:22) has pointed out, in the Mongol case downplaying the historical role of individuals would be to commit a serious mistake. The system furthered the individual and it was the individual who had to forge his platform and, if he succeeded, made all the decisions:

The grand khan . . . was not just the occupant of an ongoing institution like the thrones of the agrarian empires. He could not delegate his military function to officers of an army separable from society at large. The ruler's physical being provided the monarchy with its very existence. An active, personal, military leader was essential to the cohesion of his people. His person—indeed his personality—was the linchpin of society. (Fletcher, 1979–80:241)

Political structures were volatile and fragile and often collapsed completely. The steppe empire was the creation of its emperor, not the other way around, and when he died, his successor would have to create his own structures and allegiances—again on a completely personal basis.

One of Those Singular Figures of History

The unification of the Mongols was undertaken by Temüjin (later Chinggis Khan). This was no peaceful affair but was bound to involve civil warfare. Temüjin understood that the road to power went precisely through unification of the steppe nomads. Only after having accomplished this would it be possible to conquer the settled civilizations. Simultaneously, however, he had to hold out the prospects of plunder to achieve the unification. The two could not be separated. Mongol society was a herder and hunter society, but it was also a predatory society. Fletcher (1986:15) argues that it was impossible to forge any durable alliances without allowing plunder. From the point of view of those who entered the alliance this was easy to understand. To be ruled by a stationary bandit was better than being subjected to periodic one-shot smash-and-grab raids. As we have demonstrated in the foregoing, a stationary bandit has an incentive to limit the extent of taxation, not killing the goose that lays the golden eggs. Even better, however, is when the tax is paid by some-

one else, i.e. if the stationary bandit can use his community to raid others. Disregarding possible deaths during the raids this alternative is Pareto sanctioned from the point of view of the community and its ruler.

Chinggis Khan “must have been a leader of extraordinary talent, capable of iron discipline and the ability to inspire loyalty, and superior in these respects to other steppe leaders of his time” (Fletcher, 1986:34). However, his organization of the Mongol nation also rested on a number of principles. “It was by maneuvering in and out between the conventions and oppositions of the tribal system that Temüjin was able to make himself the supreme chief, strong enough to destroy the tribal system and create something new” (Latimore, 1963a:62). This may not have been as difficult as one may think, because, as David Morgan (1986:37) has pointed out, in a sense the “tribe” was a relatively open institution where membership was determined as much by political interests as by blood relations. Thus, there was an established precedent to fall back upon for Temüjin, when he started to manipulate the structure. What is undeniable, however, is that the scale of manipulations by far outdistanced any of the attempts by his predecessors.

To obtain religious sanction Temüjin pointed to his divine mission, having been sent by the Mongol god Tenggeri. During the *khuriltai* (assembly) that elected him supreme khan of the Mongols in 1206, he had the shaman Teb-Tenggeri proclaim that the Eternal Heaven had appointed him (Grouzet, 1970:217). Yet, when the shaman became a threat to his power, Temüjin had him killed (Ratchnevsky, 1991:96–101). The Mongols in general assumed a very practical attitude towards religion, and Chinggis Khan used it to realize his own aims. He allowed complete freedom of worship, “a religious tolerance that makes the Christian Europe of his day seem barbarous by comparison” (Brent, 1976:43). This practice was not dictated simply by conviction but it could also be used to manipulate rivalries between Muslims, Buddhists and Christians in the conquered territories (Onon, 1993:xiii) and extract from each creed what served the interests of the khan best (Foltz, 1999:Ch. 6).

Chinggis Khan, however, also worked by breaking down a number of traditional power structures that militated against large-scale organization, substituting new ones that facilitated the creation of a feudal society for them. When he began his rise to power, nomad society in Mongolia was organized in a patrilineal kinship system of

blood relations, supported by marriages and oaths. This system, however, suffered from the inherent weakness that it “also supplied the occasions for blood feuds that sharpened the mettle of the nomad warriors” (Lattimore, 1963a:57). This weakness was manipulated by the stationary Chinese who—like the Romans—used barbarians to control other barbarians, employing steppe tribes to defend them against other steppe tribes, dividing, and thus conquering, the nomads.

Thus, Temüjin was forced to destroy and replace a number of tribal institutions (Lattimore, 1963a:58). Instead of forging alliances through the *anda*, whereby two warriors swore alliance to one another, “as if they were descended from a common ancestor”, but which by its very egalitarian nature presented problems when it came to determining leadership and pecking order, he chose to rely on another—more feudal—institution, the *nökör*, which at the time “meant a warrior who freely declared himself “the man” of a chosen leader, even to the repudiation of his own tribe or origin”. The *nököd* that Temüjin had assembled when he had become Chinggis Khan became his generals and governors, and his trust in them was almost without limits (Lattimore, 1963a:59).

In the process of uniting the Mongols under his own undisputed command, Temüjin had had to destroy the traditional “double tribe”: the Borjigid line, to which he himself belonged, and the rival Tajjut line that had attempted to monopolize power when Temüjin’s father had died (Lattimore, 1963a:60, 62; de Hartog, 1989:5). He did so by defeating the Tajjut completely.

Temüjin pursued his own version of the divide and conquer method. The purpose always was to create loyalties to himself personally, loyalties that were independent of traditional tribal structures:

At first he was dealing with men whose outlook was completely tribal. To induce them to transfer to him personally their hereditary tribal loyalties, he took care always to be able to justify each move “morally,” by the standards of the very system he was going to destroy and supplant.

He would not turn against a former ally, therefore, just because the opportunity looked good. He would first let the situation develop, and if possible help it to develop, in such a way that the other man could be accused of disloyalty in act or intent, and if there remained any shadow on his own loyalty, he would make out a case that what he did was “for the common good”. The politically valuable victories were those that enabled him to divide defeated enemies by winning some of them over to his own side. (Lattimore, 1963a:62–64)

Chinggis Khan was completely loyal to those who served him, his friendship was absolute, but so was his vengeance on those whom he felt broke their obligations to him. Significantly, not a single one of his generals ever betrayed him. To ensure that those conquered did not defect or attempt any uprisings, Chinggis Khan resorted to the time-honoured system of treating them as subordinate tribes (Lattimore, 1963a:59–60). This institution had a given place in the feudal hierarchy that he built.

To reduce even further the risk that the conquered tribes would turn against him he also broke them up, distributing heir members as vassals to his trusted subordinates. Conversely, the latter received “appanages”:

These were regions, plainly in the feudal mold, in which the descendants of the first appanage-holder were to be hereditary rulers, bound to furnish military contingents to the successors of Chinggis Khan. The new standard of discipline required a man to be obedient to the local ruler, who was usually not of his own tribal blood and pay his tribute within a geographically defined region from which he was not allowed to move. (Lattimore, 1963a:64)

Law and order was strictly upheld under Chinggis Khan. The extent of crimes diminished, and so did the rivalry between different groups in Mongol society. Raids upon neighbours became a thing of the past and banditry was wiped out. Grazing land was allocated once and for all among the different tribes. This removed one of the main sources of disputes. A police force saw to it that highways were made safe and returned stolen animals to their rightful owners, sanctioning theft of beasts with capital punishment (Brent, 1976:45–46).

The basic organizational rules were explicitly codified in the Great Yasa (Vernadsky, 1938; Ratchnevsky, 1991:187–96), the imperial code, supposedly promulgated in 1206¹ and further developed all the way until his death in 1227, which helped to overcome the centrifugal forces inherent in nomadic society and provided a permanent basis for his rule. The code bound not only the people but also the ruler. Functions and duties were regulated. Religious freedom was explicitly spelt out.

¹ This has been questioned by David Morgan, who argues that it may never have existed, but that what is usually referred to as the *Yasa* may have been nothing but “an evolving body of custom, beginning long before . . . [Chinggis’] time and being added to long after” (Morgan, 1986:99).

Chinggis Khan was also careful to learn and borrow from other people that he came across whatever he thought could be applied to his own political construction and frequently took foreigners as advisers and administrators:

He needed and employed a few Chinese, but he kept a careful balance. An adviser who had great influence on him was Yeh-lü Ch'u-ts'ai, a Khitan who knew the Chinese culture thoroughly but who, as a Khitan, was felt to be a tribal kinsman. . . . [Chinggis] Khan also employed many Uighur Turks from the oases of Sinkiang and Öng-güd Turks from the fringe of Inner Mongolia. (Lattimore, 1963a:64)

Information was gathered on a regular basis from travelers and prisoners-of-war, and a spy network provided information from foreign countries (Brent, 1976:46). In the information network, Muslims (Turks, Iranians, Arabs) played a special role. Most of them were merchants who carried their merchandise across a relatively large territory, from the Near East to China. Those people accordingly saw and learned a lot during the course of their travels and Chinggis Khan understood how to make use of their knowledge:

It was through them that . . . [Chinggis] Khan learned about the power of the Turkish nomads far to the west of Mongolia. This intelligence probably was influential in shaping his conviction that he must establish complete domination over all the nomad peoples, Turks as well as Mongols, before getting involved too deeply in invasion of the great agricultural and urban civilizations. He used these merchants first as intelligence agents, then as go-betweens and finally as more formal ambassadors. As his power increased he appointed some of them governors and administrators [. . .] In the Moslem world at this time wealthy merchants were more often well-traveled, well-educated men of the world than they were in China, where the merchants were despised by the landowners. Certainly the use of these men as administrators helped the Mongols to win over many of the Upper class in western Central Asia and northern Iran. (Lattimore, 1963a:66)

Temüjin was elected *khan* some time in the 1190s, after having forged a number of political alliances during the course of the previous fights and skirmishes. The fact that he had been elected *khan* did not mean, however, that he ruled all of Mongolia. This was not the case even during the first years after the turn of the century (Ratchnevsky, 1991:82). For that more was required. Above all the new ruler must demonstrate his military prowess, i.e. his ability to defeat his rivals in battle and secure booty for his followers. To this

end Temüjin reorganized the Mongol army. After his defeat of the ruler of the Kereit confederation in 1203, his men were divided according to a metric or decimal system:²

He divided his men into . . . units of a thousand [*mingghan*]. These were then metrically subdivided into ten companies [*jaghun*], each of ten platoons [*arban*]. Later, when his army grew, he would form ten . . . [*mingghans*] into that division of ten thousand men called a . . . [*timen*]. These became the basic groupings that, in various combinations, made up his armies. He divided his horsemen into heavy and light cavalry, the former relying largely on their lances, the latter, who were perhaps twice as numerous, on their mobility and their skill with the bow. (Brent, 1976:31)

The use of the decimal system was current among the steppe nomads (Morgan, 1986:49). Different clans were mixed, however, as another way of neutralizing the traditional power structures. Ninety-five elite commanders—*orloks*—were appointed to lead the thousands—always on the basis of merit only—a creation that resembled a modern general staff (Onon, 1993:xiv). Two of Chinggis Khan's greatest generals, Jebe and Subedei, had risen to their high position before reaching the age of 25, and were given command over far senior officers (Liddell Hart, 1967:8). Chinggis Khan also required that commanders and subordinates serve each other with absolute loyalty and obedience. The transfer from one unit of the army to another was prohibited on penalty of death (de Hartog, 1989:42).

By the time that Chinggis Khan became the ruler of all Mongols, in 1206, his army probably numbered 105,000 soldiers, and at the year of his death, the size had increased to 129,000 (Morgan, 1986:87), not an exceedingly large figure in, for example, Chinese eyes, but one considerably larger than anything the Mongols had been able to muster hitherto under a unified chain of command (Fairbank and Reischauer, 1979:163), and definitely very large in comparison with the European armies of the day (Morgan, 1986:88).

Temüjin had also created his own imperial guard, originally 80 night guards and 70 day guards (*Secret History*, 1982:119), a military elite whose privates ranked above regular army officers. This guard

² Brent calls the thousand-man unit *guran*. We have, however, inserted the commonly used names within brackets.

built on a “double” principle: on the one hand, it professed professional, personal allegiance to Temüjin instead of traditional tribal patterns, and on the other hand, it used a hostage system, with the sons of army generals serving in the guard (Lattimore, 1963a:64). The imperial guard would in the end, after the *khuriltai* of 1206, number 10,000 (Fairbanks and Reischauer, 1979:163).

The new organization of the army was not simply a novel way of increasing discipline or a tactical military device. It also helped the new ruler to increase his political power. Although it did not replace the tribes, it made it possible for the khan to bypass the tribal system in military matters, i.e. it gave him direct and complete control over the machinery of violence. It also made it easier for him to incorporate outside forces (Fletcher, 1986:30). The new instrument was put to work, defeating the rival tribes and groupings that still stood between the khan and absolute supremacy over Mongolia. This took less than three years. His authority was confirmed in the year of the tiger, 1206, in a *khuriltai* at the source of the river Onon, one of the three largest rivers flowing through Mongolia. Then he received the name by which he would henceforth be known: Chinggis Khan (Ratchnevsky, 1991:89–96)—believed to mean either the “hard” or “fierce” khan or the “oceanic” (presumably meaning “universal”) khan (Ratchnevsky, 1991:89–90, Jackson, 2000:195).³

Based on the organization of the military, his tactical moves among the tribes and his successful military engagements, Chinggis Khan had advanced to the point where he was the autocrat ruler of the Mongols, but only for the time being. For power to endure more was required. “. . . [I]f the tribes were to remain under the discipline of a steppe autocrat, he must raid and invade. The price of autocracy was that the autocrat could not stop. He must continue to enrich and engage his subject by continuing war” (Fletcher, 1986:32). Before setting out on his expedition against the Tatars in 1202, Chinggis Khan abolished the age-old custom that allowed plunder whenever the opportunity presented itself. “From now on all plunder belonged to . . . [Temüjin]. He would be responsible for distributing it, and no man was to pause for plunder until the order

³ Morgan (1986:60) has argued that the naming took place earlier (cf. *Secret History*, 1982:54–55).

had been given” (Chambers, 1999:39). The great conquests were about to begin.

To what extent Chinggis Khan was driven by material factors is difficult to know. A passage originally due to the Persian historian Rashid al-Din, who had entered Mongol service towards the end of the 13th century, quotes him as saying that the supreme joy was “to cut my enemies to pieces, drive them before me, seize their possessions, witness the tears of those dear to them, and embrace their wives and daughters” (quoted by Grousset, 1970:249). However, as Lattimore (1963a:62) remarks, this “is the conventional ‘ideology’, to use a modern word, of the barbarian warrior.” Instead, he argues, all “his moves were politically calculated, and the calculation, from early in his career, was directed toward the building of a structure of power that would be capable of extension in both time and space.” He did not display any “greed for booty or lust for women” in the process.

One possible interpretation of Lattimore’s argumentation is that Chinggis Khan may have been seeking power for its own sake, but this is far from certain. A modern Mongol scholar, Bira Shagdar, ventures the hypothesis that Chinggis Khan never intended to build a world empire, only to ensure his supremacy over the steppe nomad peoples of Central Asia:⁴

It is unlikely that . . . [Chinggis] Khan had devised a clearly formulated war strategy, it is more probable that he just preferred to carry out his intentions immediately. If his wide-ranging conquests are judged by their real outcome, it becomes clear that he did not really intend to build a world empire in the true sense of the word. His main aim was to subdue all his rivals so that all the nomadic peoples existing throughout Central Asia became his subjects. The most suitable pasture lands which were occupied by the nomadic peoples were in the east-west directions from Mongolia, but not from north to south. (Shagdar, 2000:129)

The Mongol Conquests

Leaving the motivation problem aside, the process of conquest itself must now be analysed in order to shed some light on the question

⁴ Cf. also Ratchnevsky (1991:169–70).

why the Mongol empire reached the size that it did. This can be done by incorporating the central features of a model by Findlay (1996) into the framework developed above. Findlay (1996:42) conceives of the total population “as concentrated at a single point on a ‘featureless plain’” (a good approximation to some of the Mongolian landscape): its “home base”. In the Mongol economy, we may now conceive of two types of activities. In addition to the production of animal goods with the aid of direct labour and the bureaucracy that provides law and order, the labour force can be used for warfare. Thus the total labour force N now must be divided among three instead of between two pursuits:

$$(14) \quad L + G + A = N$$

where L workers are busy directly producing, G work in the bureaucracy and A are extending the frontiers of the Mongol empire. Both the bureaucrats and the army have to be paid by state tax money.

The amount of land available is a function of the size of the army and the military technology (m) (including strategic and tactical skills):

$$(15) \quad T = T(A, m)$$

Conquest, however, implies not only that the physical territory is enlarged. In addition, the population that can be used for production and warfare increases, i.e.

$$(16) \quad N = N[T(A, m)]$$

Given the military technology, we can now derive the optimal size of the Mongol empire from the point of view of the ruler simply by maximizing his net tax revenue:

$$(17) \quad R = t^*r(t)Y(L, T, G) - (1 - t^*)r(t)Y^L(G + A)$$

with respect to L , G and A , subject to the labour restriction

$$(18) \quad L + G + A = N[T(A)]$$

This yields the first-order condition

$$(19) \quad NMRPL = NMRPG = NMRPA$$

where

$$(20) \quad NMRPL = t^*rY^L - (1 - t^*)rY^{LL}(G + A)$$

$$(21) \quad NMRPG = t^*rY^G - (1 - t^*)r[Y^{LG}(G + A) + Y^L]$$

in direct analogy with (6) and (7) above, and

$$(22) \text{NMRPA} = [t^*rY^T + \text{NMRPL} (dN/dT)](dT/dA) - (1 - t^*)r[Y^{LA}(G + A) + Y^L]$$

The net marginal tax revenue product of labour must be equal in productive pursuits, in the creation of law and order and in the army. The latter marginal product consists of three components. Conquests extend the area that can be used for production, and the addition is valued at a (shadow) price equal to the net marginal tax revenue product of land. They also increase the population along with the territory, and the addition to the labour force is valued at a (shadow) price equal to the net marginal tax revenue product of labour in direct production. Finally we have the wage bill increase due to an increased army size.

Given the harsh conditions prevailing on the steppe, the marginal productivity of labour in production should not have been very high, even when supported by a bureaucracy creating law and order, i.e. employing manpower in the army may well have been a superior strategy, since this would increase the supply of both land and manpower, and with that the base for wealth expropriation:

The winters were hard, the cold shrivelling all life and comfort; only the Antarctic is colder than north-eastern Siberia, the plains and uplands of which lie to the north of the Mongol territories. Long seasons of snow and darkness stretched down from these near-polar fastnesses—and they were getting longer and harder. This was the thirteenth century, when the globe's ice-caps reached towards the temperate zones and once-fertile fields disappeared under glaciers or hardened into permafrost. [. . .]

In summer, however, the vast Eurasian landmass heats swiftly, now and then, and, where there are no rivers the soil dries and crumbles, all vegetation wilts. This was no land for agriculturalists to develop their skills. To the north, where rivers hiss through the valleys and ravines, forests of larch, birch, fir and aspen welcome the hunter, not the farmer. Between forest and desert lies the grass-ocean of the steppe, gleaming under snow in winter, flickering into a brightness of flowers in the spring, then slowly burning into the dun, khaki, yellow and pale-brown shades of the late summer. Across the plains and woodlands, through the whiplash winds of the deserts, the travelling peoples of these lands made their constant way . . . (Brent, 1976:27)

In this setting the nomads were entirely at the mercy of nature. A severe winter could easily destroy the herds upon which they were dependent:

All through Central Asia winter pasture has always been the determining factor for the size of the herds. Travelers and officials—the old Chinese and Manchu officials and the old Tsarist Russian officials—usually traveled through the pastures in summer, and they often wondered why the flocks and herds were not even larger. The reason was that there were not nearly enough good winter pastures. (Lattimore, 1962:32)

The inland climate of Mongolia is one of extremes since there is no moderating sea that serves to cushion the swings. Between October and April the regular temperature is below zero degrees centigrade in present-day Ulaanbaatar, dropping frequently to minus 30 in January and February. In the Gobi Desert, the temperature easily rises to 40 degrees in the summer, to plummet to minus 30 degrees or more during the winter. The steppe has an average temperature of no more than 10 degrees in July, and in the winter minimum values of minus 50 are not infrequent. The spring, in May and June, is windy, with frequent dust storms. The short rainy season extends from mid-July to September (Greenway *et al.*, 1997:21).

The model assumes that the contribution of the army to the territorial extension of the empire is a concave function of army size, i.e. the marginal productivity of the army should decline with army size. This is the conventional assumption of neoclassical economics, and it makes marginal additions of territory possible. There is, however, also the possibility that the function is first convex and only later turns concave. This situation is depicted in Figure 2.

The smooth curve indicates that the marginal cost of increasing the size of the army (in terms of output forgone) is increasing. The S-shaped curve, in turn, shows the marginal benefit in terms of increased production through the addition of land and labour. This curve first rises and falls only after point G has been reached. The two curves intersect three times. To the left of point E it pays to increase army size, since the benefits of this exceed the costs. To the right of this point it does not, since here the cost curve lies above the benefit curve—*unless* the addition to the army is non-marginal so that point F can be reached. Point E is therefore a stable equilibrium point. Point F is not, however, since moving further to the right entails an excess of benefits over costs at the margin, all the way until a new stable equilibrium is reached in point H.

What this means is that the size of the territory may be kept down by a failure to organize a large enough army. E is not a global maximum point, but it is not possible to move beyond it unless special circumstances are at hand. This seems to have been the situation in

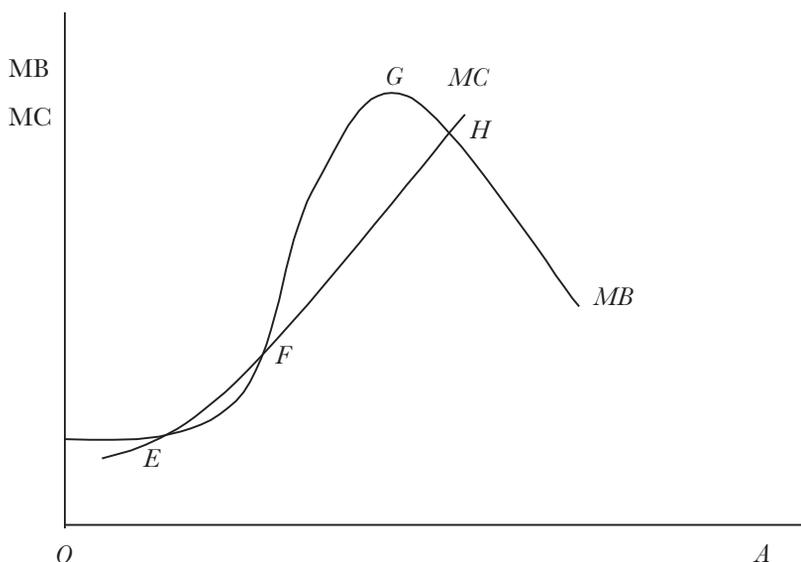


Figure 2: The Mongol Explosion

the Mongolian case, as we have already indicated in our discussion of the problem of organization. We also know that in the Mongol case the “special circumstances” translate into a single man: Chinggis Khan. Before the advent of Chinggis Khan, the Mongols had no clear sense of their identity as a people. Chinggis Khan became the “great organizer and unifier of the Mongols” (Fairbank and Reischauer, 1979:163). By organizing the tribes on a scale that was large enough he was able to trigger a cumulative process that did not end until his successors had created the largest continuous empire in the world, possibly even stopping short of point H, the point which gives the maximum return of benefits over costs. We will return to this possibility below.

The War Machine

So far we have said nothing about military technology or tactics, represented in our model by m in (15). It is, however, obvious that Chinggis Khan was an innovator in this area as well.

With regard to the organization of their army, from the time of Adam down to the present day, when the greater part of the climes are at the disposition and command of the seed of . . . [Chinggis] Khan, it

can be read in no history and is recorded in no book that any of the kings that were lords of the nations ever attained an army like the army of the Tartars [. . .] What army in the whole world can equal the Mongol army? (Juvaini, 1997:29–30)

wrote Ata-Malik Juvaini, a Persian physician in the service of the Mongols, in 1260. Juvaini may be suspected of less than impartial judgment, but evidently he is not too far from the truth. Owen Lattimore (1963:66) maintains that as “a military genius, able to take over new techniques and improve on them, Chinggis stands above Alexander the Great, Hannibal, Caesar, Attila and Napoleon.” It is evident that he was a great strategist who avoided many of the “classical” mistakes of earlier steppe warriors, notably that of exposing his back and his core territory to competitors while away on campaigns (Lattimore, 1963b). In his book *The Devil’s Horsemen*, James Chambers (1979) offers a description of Mongol battle tactics as it had evolved by the time the Mongols were getting ready to embark on the invasion of Europe some time in the 1230s. His conclusions are extremely clear:

In the thirteenth century, the Mongol army was the best army in the world. Its organization and training, its tactical principles and its structure of command would not have been unfamiliar to a soldier of the twentieth century. By contrast, the feudal armies of Russia and Europe were raised and run on the same lines as they had been for several hundred years and their tactics would have seemed unimaginative to the soldiers of the Roman Empire. (Chambers, 1979:51)

Mongol tactical principles were completely modern. The secret of their success in battle was the combination of fire power, mobility and endurance. Although their armies did contain artillery (light and heavy catapults and *ballistae* capable of launching heavy arrows), the most lethal weapon of the Mongols was the bow, small enough to be used from the saddle, easily the best construction in the world at the time:

The medieval English longbow had a pull of seventy-five pounds and a range of up to two hundred and fifty yards, but the smaller reflex composite bows used by the Mongols had a pull of between a hundred and a hundred and sixty pounds and a range of over three hundred and fifty yards.⁵ (Chambers, 1979:56–57)

⁵ Saunders (1971:64) gives a range of between 200 and 300 yards. Lattimore

The Mongol bow, made from layers of sinew and horn on a wooden frame, would be superior also to the handgun for a long time to come (Morgan, 1986:91). The Mongol archer carried a wide array of arrows, for all kinds of situations: short and long range, armour-piercing, whistling for signaling and targeting, incendiary, and even arrows tipped with little grenades. His skills with the bow were hard to beat:

He could bend and string his bow in the saddle by placing one end between his foot and the stirrup and he could shoot in any direction at full gallop, carefully timing his release to come between the paces of his horse, so that his aim would not be deflected as the hooves pounded the ground. (Chambers, 1979:57)

Each man carried two bows, one for the long and one for the short range, and at least two quivers with a minimum of 60 arrows, plus, in the case of the light cavalry, a small sword and two or three javelins. The bowstring was pulled by using a stone ring on the thumb, which allowed a faster and more powerful release than using the fingers and the stirrup provided a firm base for the firing. The heavy cavalry relied on a twelve-foot lance with a hook below the blade, and a scimitar, a battle-axe or a mace.

The entire army (with the exception of the siege artillery) consisted of cavalry, which gave it a tremendous advantage in terms of mobility:

The prime feature of the Mongol army was . . . its simplicity, due to the use of a single arm, in contrast to the inevitably complex organization of a combination of several arms which has always characterised European armies. In this way the Mongols solve the ever-difficult problem of co-operation between arms which have radically different qualities and limitations. (Liddell Hart, 1967:32)

Endurance was ensured by the system of remounts:

The small Mongolian horse, grazing entirely on the open range with no bans and no supplementary grain feed, is amazingly tough. It can carry a man more than a hundred miles in a day – but not the next day; it must have a few days to graze and rest. . . . [Chinggis] Khan handled this problem by gearing his army to the average horse. His

(1962a:22) reports that “an inscription on a stone, a little older than the *Secret History [of the Mongols]* and also of the 13th century, records an arrow shot of 335 ‘spans’, which has been estimated as about 500 meters.”

cavalry were accompanied by herds of remounts, which were treated like the standardized, interchangeable parts of a machine. There was no great difference between today's horse and tomorrow's horse: both were called on only for average performance. (Latimore, 1962:41)

Chinggis Khan never resorted to bigger horses that required hay, grain and shelter in the winter because this would have slowed him down and limited the mobility of his army. "He drew the essence of his power from archers riding tough little range-bred horses, with plenty of remounts" (Latimore, 1963a:68), frequently as many as five (Morgan, 1986:86).

The drill was meticulous in the Mongol army. Training lasted several months and skills were thereafter kept up by continual practice. Campaigns were carefully planned:

Before undertaking a campaign . . . [Chinggis] Khan tried to gather as much information as possible about the political and military situation of the enemy country, chiefly by means of spies. We must assume that observation and sense of direction were unusually highly developed in the Mongols, otherwise it is not possible to account for their movements over enormous distances without maps. Special officers had the task of leading the movements of the army and of fixing the position of camps. Cavalry forces of the size used by the Mongols could not be moved at short notice. It seems certain that careful planning preceded each of the major military campaigns. (de Hartog, 1989:49–50)

The Mongol officers constituted a permanent, professional corps, which it had not been before Chinggis Khan (Lamb, 1928:80). The Mongol armies also possessed a well-developed signaling system, using black-and-white flags, and communication behind the lines relied on a system, called *Yam*, of staging posts, inherited from the Khitan, but extended across the entire empire by the Mongols, connecting with a system of riders resembling the American Pony Express—only that it was faster. Urgent messages could be sent at a speed of over 200 miles per day (Morgan, 1986:103–7).

We mentioned above that the size of the Mongol army was comparatively large for its day. However, as Basil Liddell Hart (1967:7) has stressed, it was *quality*, not quantity that made it irresistible: "Alone of all the armies of their time had they grasped the essentials of strategy, while their tactical *mechanism* was so perfect that the higher conceptions of tactics were unnecessary." Friar Giovanni di Plano Carpini (1996:91) remarks that "indeed the Tartars [Mongols] fight more by trickery than by strength." Mongol battle tactics cen-

tred around the use of the light cavalry, which was used for engaging the enemy forces and showering them with arrows before the heavy cavalry moved in to strike the decisive blow:

... whenever possible the favourite tactic⁶ was to use the *mangudai*. This was a light cavalry corps of “suicide troops”,⁷ but their name was more of an honourable tribute to their courage than an exact description of their duty. Ahead of the army the *mangudai* would charge the enemy alone, break ranks and then flee in the hope that the enemy would give chase. The larger the *mangudai*, the more convincing the flight and sometimes, when good open ground afforded an opportunity to regroup, it was made up of half the army. If the enemy did give chase, his ranks would already be spread out by the time they reached the waiting archers and when the quivers were empty and the heavy cavalry made their charge... the result was devastating. The charge of the heavy cavalry was always the end of a Mongol battle plan. They advanced at the trot and in silence. Only at the last possible moment was the order to gallop sounded on the great *naccara*, a huge kettle drum carried by a camel, and by the time they had let out one hideous scream their lances were among the enemy. (Chambers, 1979:63)

The Mongol armies regularly could move 700 kilometres in two weeks, if necessary cover 300 kilometres in three days (de Hartog, 1989:49), and they moved at least twice as fast in battle as their enemies, a feature whose significance would not be fully appreciated until several centuries later:

... it was not until after the advent of mechanized war that the real Mongol genius came to be appreciated and the tactical principles of the Mongol army, based on the combination of fire power and mobility, were seen to be as basic and as constant as the principles of geometry. It was in the armies of... [Chinggis] Khan that “fire and movement” first effectively became “fire in movement”. In 1927 Basil Liddell Hart (1967:33) wrote that the tank and the aeroplane were the natural heirs and successors to the Mongol horsemen. At the same time surveys of the Mongol organization and tactics were being published in Germany, and British tank officers were recommended to study the Mongol campaigns. In the world war that would follow, two of the leading exponents of mechanized combat, Rommel and Patton, were both students and admirers of Subedei.

⁶ See Liddell Hart (1967:9–10, 28, 31–32) for a more detailed discussion of Mongol tactics.

⁷ The ‘God-belonging’ squadron (Lamb, 1928:131).

Against the Mongols the European soldiers of the thirteenth century were as courageously helpless as the Polish lancers were against the German *panzers*. The Mongol army was a “modern” army and the differences between it and the armies in the twentieth century can all be accounted for by progress in science and in technology, but not in the art of war. (Chambers, 1979:66–67)

The Mongols also picked up military technology from the Chinese (Hucker, 1975:280), notably siege warfare, an art that they had not needed to get acquainted with before the invasions of China:

... when ... [Chinggis] Khan set out to campaign in ... [Turkestan] and [Khwarazm] ... he was able to co-ordinate the use of his cavalry with elaborate siege weapons—powerful catapults, battering-rams and sappers who tunneled under walls and blew them up with gunpowder—against strongly fortified cities.

He certainly recruited his first engineers in northern and perhaps north-western China, where the originally “barbarian” military power of the Jurchid, or Chin, state and the ... [Tangut], or Hsia, state had acquired Chinese techniques. When he took these men westward with him, he brought about a cross-stimulation of Chinese and Iranian engineering and technology. This in turn almost certainly had something to do with the development of the cannon from the use of gunpowder in sapping operations. Unfortunately we do not know the step-by-step details. At any rate the use of cannon both as siege weapons and as field weapons followed very quickly the Mongol conquest. (Lattimore, 1963a:66–67)

The Mongols were “modern” warriors in yet another sense. War was total. On the one hand, this entailed the organization of all of society along military lines:

The nomadic social cycle began and ended with tribes in disunity, diffusing their military energies in internecine skirmishes. But once integrated into the grand khan’s regime, the tribesmen became cogs in a military machine, soldiers in an all-pervasive army—an army of everybody, for there were no civilians. Tribal autonomy withered, and society itself became an army, a unitary host that directed its military energies outward to the defeat and despoliation of external victims. (Fletcher, 1979–80:237–38)

All male Mongols below the age of 60 were eligible for military service. “There was no such thing as a civilian [. . .] The Mongol rulers therefore had available to them a cavalry force which could be speedily mobilized, was highly trained, and consisted in theory—and even to some extent in practice—of the entire adult male population” (Morgan, 1986:85).

But war also involved the adversary, and here as well, it was total. Battle tactics was supplemented by terror measures directed against the civilian populations. “[Chinggis’] principle seems to have been much the same as President Truman’s over Hiroshima and Nagasaki”, remarks David Morgan (1986:93). During his Chinese campaigns he began to gather innocent civilians who were forced to march ahead of the troops when these were advancing on fortified cities. On such occasions only the inhabitants of cities that surrendered immediately were spared—and far from always. Those that resisted were ruthlessly killed. This was the case, for example, during the campaigns 1220–1222 against Jalal ad-Din, the son of the ruler of the Khwazmian empire, that extended from the Tigris to the Syr-Darya. The army that Jalal ad-Din was leading to a large part consisted of urban Persian civilians. In this campaign Chinggis Khan set out to exterminate the enemy population:

It was prosecuted now by calculated horror, an attempt to blot out urban life, extermination rather than simple depopulation. This was the treatment meted out to Balkh, Bamiyan, Herat, Merv and Nishapur. [...] If not immediately massacred, as at Merv and Nishapur, the civilian population of one city was driven on to become a human battering ram against the next. [...] it was warfare of unprecedented ferocity for the middle ages. (Adshead, 1993:58)

At Merv, “the jewel of the sands, the pleasure city of the Shahs” (Lamb, 1928:163), the city of the *Thousand and One Nights* (de Hartog, 1989:111), the entire population—men, women and children—was put to death. It was distributed among the soldiers who each had to execute three or four hundred people (Adshead, 1993:61). Fletcher has argued that the cruelty demonstrated by the Mongols during their military campaigns was due to their attitudes against sedentary populations:

Their havoc proceeded logically from the legacy of the steppe wisdom about how nomads could best obtain what they wanted from the agrarian world. [...] . . . when the steppe pastoralist did invade the settled world, he looted and destroyed as much as his heart desired so as to remind the agrarians of the wisdom of rendering peacefully the wealth that he wanted. [...] With the steppe extortion pattern in mind, the Mongols did violence with a will and used terror . . . to induce their victims to surrender peaceably. (Fletcher, 1986:43, 42)

This, from the military point of view, lowered the cost of conquest, but there may have been a second reason too behind the massacres:

the numerical inferiority of the Mongols. They constantly had to fear an attack from the rear:

Before . . . [Chinggis] Khan attacked the Kereit, he destroyed the Tajjut and the Tartars, so that they could not stab him in the back. Later in China and in the Khwarazm sultanate, being so far from his own base, he could not risk the survival of forces among the defeated peoples sufficient to rise against him. (de Hartog, 1989:49)

Thus, the atrocities regularly committed by the Mongols were not the result of any “inherent” cruelty. They were calculated and what cruelty there was, was purely instrumental.

Summing up, several factors coincided in shaping the giant Mongol empire. Production conditions on the steppe made the accumulation of substantial wealth impossible, while deployment of military force displayed a high marginal productivity in terms of both land and people. Conquest became the preferred strategy. Before the rise of Chinggis Khan, organizational problems had precluded the Mongols from putting together an army that was large enough to allow for an extension of Mongol territory. It was only his political and military skills that made it possible to overcome the free-rider problem of the steppe. Finally, the Mongols were innovators in the field of warfare. The army consisted almost exclusively of cavalry which combined fire power and mobility in a way that was completely superior to anything that could be mustered by their adversaries. The Mongol conception of warfare was eminently “modern”, also in the sense that it was “total”, i.e. it did not spare the civilian population. On the contrary, the Mongols made a point of instilling as much terror as possible into the civilians, as a deliberate part of their warfare. The lesson was clear. “What . . . [Chinggis] Khan wanted to teach his enemies was that resistance was hopeless, that the attempt to mount it would be punished with the utmost cruelty. Only swift and willing surrender would elicit magnanimity—survival hung on instant submission” (Brent, 1976:63).

Before leaving the military theme, let us, however, sound a note of caution. As Ratchnevsky (1991:170–74) has reminded us, the solution of “the problem of how it was possible for a small, poor, backward nation of hunters and animal-breeders to conquer the most powerful and civilized states of Asia, states which disposed of inexhaustible reserves of people” (Ratchnevsky, 1991:170) should not be sought exclusively in the military context, but two other factors inter-

vened as well. The first was the organization of the army, which ensured its elite character, already dealt with above. The second factor was Chinggis Khan's diplomatic and political skill (Ratchnevsky, 1991:172): "... his exposure and subsequent exploitation of the internal weaknesses of the enemy determined in advance the outcome of the wars. Genghis showed great skill in exploiting to his advantage the national, social and religious rifts in the enemy camps." Thus, it was a unique combination of military, organizational, diplomatic and political skill, united in the person of Chinggis Khan that ensured the Mongol conquests.

Once subjugation had been obtained, the time had come to deliver. Chinggis Khan was a man who kept his promises of booty and wealth for his people. For the conquered, it meant paying taxes (Morgan, 1986:100–3; Schurmann, 1956; Smith, 1970; Ratchnevsky, 1991:175–86). The stationary bandit preyed on the defeated, exactly as we would expect him to do:

The purpose of the taxes imposed on the conquered populations was quite simply the maximum conceivable degree of exploitation. There was little pretence that in Mongol eyes their subjects had a justification for their existence except as producers of revenue. As a rule exploitation was limited only by the consideration that it was sensible to leave the peasants sufficient to permit their survival till the next year, so that a further year's taxes could be levied. In the early days of excessive zeal the Mongols did in fact not stop even at that point. Mongol taxation was more a pragmatic series of exactions as seemed appropriate and profitable than any kind of fixed system. To judge from the experience of the Islamic lands that fell under Mongol rule, the burden of taxation was probably appreciably higher than it had been even under such unenlightened rulers as the ... [Khwarazm shahs]. (Morgan, 1986:102, cf. Kwanten, 1979:209)

Apogee and Fall of the Mongol Empire

When the time came for the Mongols to turn eastwards, China was no longer united under a single emperor. At the beginning of the 10th century, Khitan nomads had invaded and conquered the north, including the city of Zhongdu. They were, in turn, ousted by Jurchen horsemen from Manchuria early in the 11th century who established the Ching empire with Zhongdu as their capital. Somewhat earlier, at the end of the 10th century, Tanguts had invaded northwestern China and founded the Hsi Hsia kingdom. This left only China

south of the Wei and Huai rivers for the Sung. (The dynasty was known as the Southern Sung from 1127) (Fairbank and Reischauer, 1979:157–60).

Between 1205 and 1209, Chinggis Khan conquered the Hsi Hsia kingdom. Thereafter he turned against the Chin empire further east (1211–1215), sacking and burning Beijing and leaving more than ninety towns “in rubble” (Hucker, 1975:283). For this it was not enough with just Mongol forces, so whenever possible Chinese troops that chose to defect were welcomed into the ranks of the khan’s armies (Morgan, 1986:66–67). Between 1219 and 1225, he conducted a campaign in the west, against the Khwarazm empire, located in present-day Turkestan, which was subjugated, gaining control in the process over such cities as Samarkand and Bokhara. By the time of his death, the area under Mongol control extended from the Caspian Sea across Central Asia and northern China to the Yellow Sea and the Sea of Japan, and from the forests of Siberia to the Hindu Kush (Brent, 1976:Ch.3). Demetrius Boulger provides the following summary judgment:

Even the Chinese said that he led his armies like a god. The manner in which he moved large bodies of men over vast distances without an apparent effort, the judgment he showed in the conduct of several wars in countries far apart from each other, his strategy in unknown regions, always on the alert yet never allowing hesitation or overcaution to interfere with his enterprises, the sieges he brought to a successful termination, his brilliant victories, a succession of “suns of Austerlitz,” all combined, make up the picture of a career to which Europe can offer nothing that will surpass, if indeed she has anything to bear comparison with it . . . (Boulger, 1900:55)

At Chinggis Khan’s death his empire was divided among the four sons of his first and principal wife (or their descendants). Eventually this division was to crystallize into (1) the Khanate of the Great Khan, mainly China, ruled by Ögödei, Chinggis’ third son, 1229–1241, Möngke, grandson, 1251–1259, and Khubilai, also grandson, 1260–1294, (2) the Khanate of Chaghatai, Chinggis’ second son, 1227–1242, in Turkestan, the western part of which would be incorporated in the empire of Timur Lenk (Tamerlane) after 1370, (3) The Ilkhanate of Persia, built up by Chinggis’ grandson Hülegü, and dissolved after 1335, and, finally, (4) the Kipchak Khanate (the Golden Horde), built up by Chinggis’ grandson Batu, 1227–1255?, which dominated Russia and was taken over by Timur Lenk, and was

finally broken up in the 15th century (Fairbank and Reischauer, 1979:165).

The conquest of the Chin empire of northern China was completed in 1241, by Ögödei, who had a capital built at Kharakhorum, and Korea came under Mongol rule in 1258. Ögödei also turned against the Sung empire of southern China, the conquest of which would, however, not be finished until Khubilai had become khan. When Möngke died in 1259, Khubilai had to interrupt his campaign against the Southern Sung and for four years deal with his brother Arigh Böke who had challenged him for the position as khan. In 1264 Khubilai moved the capital from Kharakhorum to Beijing and in 1271 he adopted the dynastic name of Yüan, although it would be a further eight years before full control was achieved over southern China. Mongol control over China was to last until 1368.

Before that, however, the Mongols had once more turned westwards. Already during the Khwarazmian wars, in 1221, an army under Subedei had taken the route south of the Caspian Sea through Georgia and annihilated a Russian army on the Kalka river, north of the Sea of Azov, in 1223. Less than 15 years later, the Mongols returned to the west. Moscow was burned, Kiev was taken, and in 1241 Poland, Bohemia, Hungary and the Danube valley were invaded (Chambers, 1979). The Mongols finally penetrated as far as the Adriatic Sea. The European adventure came to an abrupt end, however, since in March 1242, Batu received the notice that Ögödei had died in December, and had to return back home to elect a new khan. As it seems, the Mongol invasion of Europe thus stopped short of what was possible to achieve: short of point H in Figure 2. The superior Mongol war machine had not given the Europeans much of a chance, and the likelihood that a further westward penetration could have been successfully resisted by stationary armies unaccustomed to the mobile warfare of the Mongols is not very high (Morgan, 1986:1; Jackson, 1999:706). In this sense, the Mongol empire was too small. It did not reach its optimum extension. Europe was saved by the bell, as it were, a bell that tolled for the supreme Mongol leader, and subsequent plans of reassuming the conquests in the west were effectively checked on the one hand by the death of Möngke in 1259 and the civil wars that followed (Jackson, 1978; Morgan, 1986:156–57). An ecological factor also intervened, however. In May 1260, Hülegü withdrew most of his forces from Syria, for lack of

grazing facilities, and the smaller contingent left behind suffered a defeat at the hands of the Mamluks at Ayn Jalut, in Galilee, on 3 September 1260. The Mamluks had a thorough understanding of Mongol warfare and cleverly used their weaknesses to their own advantage. Subsequent efforts in Syria foundered on the same problem: pastoral limitations and inadequate water supply in Syria (Smith, 1984).

In the south and the east, climatic and geographical factors were responsible for putting a “natural” end to the extension of the empire. India proved too hot for conquest. It escaped with occasional raids of plunder (Saunders, 1971:61, 248, note). The Mongols attempted to invade Japan on two occasions, in 1274 and in 1281 (Rossabi, 1988:99–103, 207–12). On the first occasion, they were forced to withdraw by a violent storm, and on the second occasion a typhoon, interpreted by the Japanese as a *kamikaze* (heavenly wind), wiped out the invasion forces. The Mongols were also checked in Vietnam. The efforts made by Khubilai Khan to conquer Annam in the north and Champa in the south between 1281 and 1287 forced the Mongol troops into a guerilla war in hot and disease-infested forests and mountains: the kind of warfare for which they were least suited (Rossabi, 1988:215–18).

In another sense, the empire was far too large. Yelü Ch’u ts’ai, Chinggis Khan’s trusted adviser is reputed to have said: “The Mongol Empire has been won from the saddle—it cannot be ruled from the saddle” (Brent 1976:60). He was right, and as it seems, the Mongol rulers understood it (Shagdar, 2000:129). Chinggis Khan did not make any effort to occupy the land he had conquered on any permanent basis. For that, his forces were insufficient. But permanent occupation was hardly necessary as long as a sufficient part of the output value produced could be skimmed off by means of taxation. To this end he left behind a number of military governors who could simultaneously act as tax collectors and representatives of the Khan’s power, providing a credible threat to those who refused to comply. Failure in this respect would lead to sporadic punitive raids. In this he may simply, as Bira Shagdar (2000:129) suggests, have been following “the traditional form of submission typical of all steppe empires”. According to this tradition:

... it was more important to master the peoples as appanage (*ulus*) rather than to govern the territories of the conquered countries. With regard to sedentary societies, ... [Chinggis] preferred to ensure the

economic exploitation of those countries by establishing a system of tax collection and of receiving tributes. Keeping this in mind, he distributed the conquered peoples among his four sons. The empire of . . . [Chinggis] Khan was more a nomadic confederation than a world empire which ruled, in the real sense, the countries of sedentary civilizations. (Shagdar, 2000:129)

Chinggis Khan did not divide his troops between garrisons in the conquered territories across his wide empire. Instead he stationed smaller contingents, known as *tamma*, on the borderlands between the steppe and the settled populations (Morgan, 1986:93–94). He preferred to keep his main forces as a mobile reserve in the steppes of Mongolia, Southern Russia and Turkestan. From there they could easily be deployed wherever the political and military circumstances called for it. But of course, in the end, a more settled governance and life style was inevitable (Lattimore, 1963a:68). In the end the *tamma* became the nuclei of the permanent military forces in the subsidiary khanates (Morgan, 1986:95). The very size of the empire required a large-scale sedentary administration—but this also sealed its fate. Significantly, the part of the empire that lasted longest—until 1502—was the Golden Horde:

The Golden Horde settled in the nomadic zone and incorporated the nomadic population into its state structure; and from the nomadic zone it controlled the conquered sedentary areas, primarily Russia. The Horde preferred to follow the steppe tradition of acting as distant overlords rather than directly. It contented itself with collecting taxes and tribute, which was gathered for it by the subjected population, appointing princes, and acting as arbiters in disputes. This policy meant that the Horde rarely became embroiled in local politics and it never identified its interests with those of its Russian subjects. (Kwanten, 1979:252, cf. Morgan, 1986:174)

The other parts of the empire that Chinggis Khan built had already fallen when the end came to the Golden Horde. The Chaghatai Khanate was a loosely structured coalition between a handful of peoples. It had no formal capital and it was located in nomadic territory. However, it failed to control the nomadic population and was subject to constant intervention by the other three parts of the Mongol empire. As a consequence, the Chagatai Khanate never stabilized. It had no less than 19 rulers between 1227, the year of its creation, and 1338, when it was split into two parts. The Mongols ended up being absorbed by the Turks (Kwanten, 1979:250–52). In the Ilkhanate,

the Mongols converted to Islam and began to intermarry with the Persians and, even more, with the Turkish speakers. In fact, they were never driven out but had simply been absorbed by the time of the death of the last Ilkhan in 1335 (Morgan, 1986:170). China, in turn, had an almost proverbial ability to absorb foreign elements into its own immense population, and the descendants of Chinggis Khan constituted no exception in this respect:

It was when his successors—notably . . . [Khubilai] Khan in China—turned their backs on the steppe and began to concern themselves with civilization that the old nemesis of civilization began to erode the empire of the great barbarian genius, as it had the empires of man similar but lesser barbarian conquerors. (Lattimore, 1963a:68)

The logic of collective action defeated the Mongols. Keeping the largest continuous empire the world has ever seen together called for extraordinary administrative measures, and a large mobile administration is a contradiction in terms (Dardess, 1972–73; Morgan, 1982). As Lattimore (1962b:257), has observed, “it is the poor nomad who is the pure nomad.” The mobile nomads reached their maximum control over wealth when they conquered China, but by the same token, their mobility was undermined. They became dependent on “the swarming bureaucracy needed to collect revenue and to allot patronage” (Lattimore, 1951:77). Once the Mongols had reached the point where their enormous conquests had made their rulers and nobles dependent on trade and taxation of agriculturalists and urban dwellers, i.e. on “non-nomad sources of privileged income”, the capacity of their leaders for initiating for collective action vanished. Their lust for further conquests was dulled. Once they started to settle, the conquerors were conquered by the conquered and the impossible empire crumbled.

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