## A Fresh Look at the Ascension of Ancient Rome and the Environmental Pitfalls Dug Below Its Foundation.

## Part I- of II-Part Series

All roads lead to Rome! Of course, this adage was never true even in the glory days of the empire, but much of what reverberates today especially in Western Civilization can be traced back to the imperial empire. One must pull back the curtain which cloaks the historical narrative to see such a nexus of correlation between the ancient past and how it affects the present. Also, one must analyze the often-overlooked factors that drove events to comprehend the full scope of cause and effect.

First, we must say: Sic transit gloria mundi- [thus passes the glory of the world]. Nothing in the human world lasts forever and the entropy that fostered the decline of the Roman Empire was an inevitability that could not be permanently forestalled. Rome built a colossal Mediterranean empire and promulgated an aura of greatness that boldly acclaimed to all that the Romans had not only conquered other peoples but quelled and bridled the wild forces of Nature itself. It was a willing self-delusion, and the fall of the Roman Empire was a victory of the power of the environment over the human ambitions of imperial rule. No one can dominate the environment, not then and not now; for nature to be mastered, it must be obeyed. Nature is cunning and capricious and the Romans who celebrated triumphant ceremonies over both man and beast played out in bloody rituals found that its dominion over them was far less certain than what they could ever had dreamed in their most terrifying nightmares.

For centuries, Rome stood as a backwater to its Etruscan neighbors who in turn were overshadowed by the Greeks and Phoenicians who dominated the early classical Mediterranean. Along the banks of the Tiber River, Rome was just a bit-player in the development of the classical world. The Punic peoples of Carthage built a thriving sea power before the Romans mastered tying sailing knots. In time, the Romans came to believe in their own manifest destiny, that they were promised by the gods an imperium sine fine, [eternal empire, world without end]; they acquired an immodest confidence in their preordained superiority. The Romans were unapologetic borrowers, and their political and religious institutions were a mongrelly built conglomeration of the adopted and intrinsic Roman innovation. The Romans first code of law was unabashedly plagiarized from the Athenian city-state. The Etruscans who borrowed their alphabet from the Greeks introduced letters and writing to the Romans. They also lent to the Romans the concept of public buildings and the formulation of a society that was organized to emphasize the political, social, civic duty, and military. The Etruscans took control of Rome by peaceful persuasion and the supportive acquiescence of Rome's leading families. The traditional Roman symbols of power, the fasces were bundles of rods and axes which is the root of the word fascism, originated with the Etruscans. Influential Etruscan families resided in Rome and the Etruscan kings ruled Rome for over one century from 616 BC to 510 BC. The Romans retained their own language, speaking Latin, but they eventually tired of Etruscan influence, but it was not without struggle that were they able to rebel from Etruscan dominance. According to legend, it was the rape of the Roman noblewoman Lucretia by the son of an Etruscan king that incited the Roman aristocrats led by Lucius Junius Brutus to drive the

Etruscan overlords from the city. Rome had never become an official part of the Etruscan territory that laid to the north of Rome, but it was important because it connected the Etruscans with their major zone of influence to the south in Campania. Around, 509 BC the Etruscan kings were displaced by a Roman republic that was devised under a new constitution that the Romans stamped with their own version of a quasi-egalitarian citizen based political entity that never was a true republic nor democratic in representing the welfare of all classes of the community. Power rested in the Senate, an assembly of leading citizens who delegated executive authority to elected consuls from among their number who served for just one year. The Roman republican form of government whatever the outward façade was dominated by a small oligarchy of influential Roman families known as the nobility. The nobles exhibited the expected contempt for their Roman brethren that they felt were inferior and the immodest, overbearing pride of their birth, but it was the common denominator of their economic interests that bonded them together to thwart any other part of society from obtaining political power and it was this landowning aristocracy that steered the rudder of the ship of state to further their enrichment. The nobles kept the holding of influential offices for Roman governance within their restricted circle. Much later, the emperor was the commander-in-chief, but senators vied and jockeyed for the high posts of legionary command and prestigious governorships. Another caveat to remember is encapsulated in the words of historian Mary Beard, "the empire created the emperors, not the other way around." [SPQR: A History of Ancient Rome].

From the earliest times, there were businessmen in Rome who made riches from public contracts even before the victories of the Roman legions but with expansion of territories the opportunities of these capitalists accelerated apace. The equestrian class or Roman knights as they were known, profited by helping to collect the tribute required of the provinces and were afforded special protection in trade and commerce. Syndicates of Roman knights due to their accumulation of monetary funds began to operate as international bankers and if a town or city borrowed money it was the obligation of the appointed Roman governor to ensure that the business loan was repaid to the Roman knights. The expansion of Roman hegemony did not benefit all classes of early Roman society and the small landowner who were peasant farmers often bore the brunt of the hardship. Early on, the Roman armies were drawn from the peasant class whose military pay often was inadequate to support his family and farm for his long absence from home. There was a share of the plunder to be had but often even after a campaign victory, the common soldier often received but a little of the share. In many cases those that returned, the war veterans-- often injured survivors of fierce battle, found that their family had lost the farm or were unable to keep it up and the expense to repair the damage was beyond their meager means. And they were the fortunate ones who did return, many did not comeback succumbing to brutality of war and/or disease. The nobles and knights, who possessed ready capital acquired the lands of the struggling small farmer and became the rich proprietors of great estates. Rome mastered the Mediterranean world with a military violence that was promoted by the nobles, aristocracy and capitalists who benefited greatly while many of bore the burden of war were ruined, losing their small farms, and adding to the poor rabble that took refuge in the burgeoning city.

The republican virtues of civic sacrifice, religious piety and fanatical militarism allowed for the rise of an imperial power in the last centuries before Christ that the wider Mediterranean had never seen before. The Romans were able to focus extraordinary state-sponsored military violence in a period of their neighbor's increasing geopolitical disorder. The Roman legions annihilated their antagonists one by one, and the empire was expanded by particularly bloody business. The making of the Roman Empire by

brute force was not quite like anything the world had seen previously. Roman soldiers were colonized in outposts all over the Mediterranean. Hegemony was maintained by an economy of force, and the goal of Roman statecraft was to keep the violent battles to the outer provinces. The frontier defense was designed to bide time, it would bend but not break until mobilization of Rome's superior legions could overwhelm adversaries. The war machine fueled itself and the wealth it generated whetted its voracious appetite. The Roman armies enjoyed tactical, numerical, and logistical advantages over its rivals on almost every front. Roman generals brought back to Rome from the prize booty of their successful campaigns from 200 to 167 BC some 31, 000 pounds of gold and 669, 000 pounds of silver. Most of this precious metal was utilized for coinage and the amount of money in circulation increased rapidly. Vast sums poured into the Roman treasury and in 167 BC all direct taxations in Italy were ceased. The expenses of the Roman state were met by tribute and indemnities of the conquered provinces, by indirect levies on trade and by proceeds from the administration of public properties throughout the empire. The late republic was still an age of gratuitous plunder, but slowly Roman norms of justice and governance were established in the subdued territories. Tribute morphed into routine taxation. The Romans could not police the conquered territories with force alone although at times rebellions were extinguished with astounding ferocity as in Britain and Judea. New citizens were made from former enemies in the provinces and the Romans deputized the aristocracies of the cities of the Mediterranean world into the governing class where they collected taxes and administered the bureaucracy so that only a few hundred high-ranking Romans were required to command an extensive empire. Steadily, if not incrementally at first, exploitation and predation turned to governance and the empire with of many diverse peoples transformed into a commonwealth that began to flourish. Roman rule altered the societies under its dominance but underpinning the changes was real growth. Commerce, markets, the diffusion of technologies, infrastructure, and urbanization during the late republic, caused leaps forward in societal development and economic growth in Italy and surprisingly beyond. The growth diffused outward throughout the conquered lands with the enforced peace providing stability to many diverse cultures. During pax Romana, the empire and its many peoples thrived. There had never been so many people! In the first century the population of Rome itself surpassed one million inhabitants---a feat that no other western metropolis would do until London in the nineteenth century. The Romans to the surprise of many historians did this despite having no inherent advantages in geography or technology over their European neighbors. The Romans were blessed the environmental climate changes that aided their prosperity. The whole Mediterranean region from 200 BC to 150 AD was different than today in that it endured a climate change that augmented Rome's growth. The weather was stable but warmer and wetter across much of the heartland of the empire. Rome flourished under hospitable environmental conditions because it constructively benefited their agrarian economy. Meanwhile the volcanoes lay quiet in that there were no worldwide eruptions large enough to produce extreme post-volcanic cooling. Warmth ensued and the Romans themselves noted in their telltale writings the positive changes. Alpine glaciers retreated, beech trees that could grow only in the lowlands spread to the steep sides of mountains, grape vines and olive groves advanced further north or could be cultivated at elevated altitudes. There are abandoned heavy, stone olive presses in Greece today that the Romans built at high elevations [500-700 m] where no olive trees can survive due to their frost intolerance. Tree rings also testify to the increased precipitation and warmth. The Roman world was oddly watery, and in the city of Rome, the Tiber River's flow was the urban lifeblood that pulsed through the seven hills that rose above a marshy floodplain. Amazingly, since the Middle Ages the Tiber has never spilled it banks in the summer when

the Roman world the Tiber inundations struck in the spring to high summer. Elephants were reported to inhabit the green forest that covered the Atlas Mountains and North Africa served as the granary of Rome, now is a major grain importer due to the lack of rain. Today the desert there has claimed land that during the Roman time was irrigated and farmed. Roman capital and hydrologic technologies incentivized the cultivation of marginal land especially in Roman Africa. Wells, aqueducts, underground tunnels that delivered mountain spring water to dry lowlands, dams, reservoirs, cisterns, terraces supported the irrigation that fueled the expansion into semiarid regions. Other parts of the Roman Empire were a prolific greenhouse, and the climate was a boon to wheat farming in the Mediterranean. The size of Roman merchant ships was not surpassed until the 1400s and the tonnage of Roman grain ships were larger than those constructed until the 1800s. The expansion of Rome into areas that produced large excesses of grain added to the decline of the small Roman farmer. Victory in the First Punic War gave the Romans the island of Sicily but that did not stop the Carthaginians from sending Hannibal across the Alps to attack northern Italy in 2018 BC. For 16 years, he harassed central and southern Italy and although the tribes in southern Italy defected to him, Hannibal was unable to pry control of the peninsula from Rome and never captured the city itself. Especially after Sicily was annexed, surplus grain was shipped by sea to the mainland cities, and the Romans sold it below the cost of what the small farmers could bring it to market. After the incursion by the Carthaginian Hannibal and the ongoing destruction to the small landowner caused that went on for years, the Italian farmer was hard put to survive. The wealthy proprietors who were amassing large estates also had an advantage over them because they could afford to buy slaves. After a conquest, the supply of slaves was plentiful, and the cost of their brute-force labor was nil except for their upkeep. A standard of living that the master alone could set where the slave had no say but to accept what was provided. Again, the result was that more and more of the poorer farmers left their land holdings on the Italian peninsula and took refuge in the cities as if Hannibal or another invader was still harassing them. The landowners of the large estates also had funds to set out vineyards and olive groves and they not only could by slaves that did the heavy work, usually from Spain or Gaul, but slaves from the eastern provinces often were more skilled in horticulture than the Romans. In the south of Italy, the great estates were more suited to pasturing where the livestock could be tended by a few slave herdsmen. The growing mob of poor peasants living in poverty in Roman cities was a timebomb for the security of the state. Rome had mastered the Mediterranean to appease the avarice of the nobles and capitalistic knights, but the displaced rabble that tried to eke out an urban existence was an issue that would become of serious political importance. Panem et Circenses, today refers to superficial appeasement of the populace by pandering to their base requirements. Bread and circus evolved into a Roman way in manipulate the masses and divert their concerns from the operation of the state. Cheap food and blood-sport entertainment became an effective way for Roman politicians to rise and hold power. The Annona or grain dole was initially promoted by the populist politician Gaius Sempronius Gracchus in 123 BC. In 140 AD, Roman politicians passed laws to codify the grain dole to gain the votes of the poorest citizens. The Roman poet Juvenal criticized the selfishness of the common people who allowed themselves to be distracted from their civic duties, eroding their historic birthright of political oversight. It was a contentious issue in the Late Republic until the Roman emperors implemented it to mollify dissent concerning their autocratic rule. By the reign of Aurelian [AD 270-275] the plebs continued to get entitlements, but oven baked loaves of bread were distributed instead of grain. Wine was sold under market costs; olive oil and pork were handed out daily to registered residents. The pork dole benefited 120, 000 Roman residents. The imperial food subsidies inflated the population of the imperil city which

stabilized at 700,000 during the fourth century. Bloody gladiator games were held at the thousands of amphitheaters in Roman territory but the Coliseum in Rome, completed in 80 AD, was a state-of-the-art facility that held 50, 000 bloodthirsty, cheering fans. The gladiatorial games played a major cultural role galvanizing among the citizenry the superiority of Roman imperialism since the early days of the republic. In the Coliseum it is thought that accumulatively 400, 000 combatants were killed and over 1,000,000 animals slaughtered. A thumb's up or down meant life or death for the fallen. But it also ingrained in the minds of the citizen the power and glory Rome, whose sovereignty endowed it with an almost divine right to kill all those that were enemies to Rome. The blood sport of killing captured animals for the crowd dates to the earliest Roman Republic and were prominent during military triumphs. Roman soldiers posted in exotic places spent time hunting and trapping the beasts for slaughter, but it was not soldiers nor slaves, but professional freemen who hunted, maimed, and killed the animals in front of the entertained crowds. The first large such event took place in Rome in 186 BC, but they became a frequent event throughout the empire. Again, the gore emphasized the power of Rome to subdue the most wild aspects of nature including the exotic and most ferocious elements of the animal kingdom. Thousands of animals including wolves, bears, giraffe, camel, gazelle, tigers, lions, hyenas, ostriches, and hippopotamus perished in the cruelties staged for spectacle, as many as 11,000 alone in the great games held by Emperor Trajan in 107 AD. Some emperors participated in the day's hunt shooting a bow and arrow as archers from the safety of their imperial box. Criminals and Christians were preyed upon by starving beasts to the bloodthirsty delight of the jeering crowds. The exotic beasts brought from the frontier hinterlands to slaughter in Rome trace out the human-built network of connectively sprawled across many zones of nature's making. The Romans built an empire that reached from the upper mid-latitudes to the outskirts of the equatorial tropics, only the Russian czars, Mongols and Peruvian Incas constructed contiguous territories that bested the north-to-south expanse of Roman rule. The greatest richness of all types of life, the great biodiversity exists in proximity of the Equator. Unfortunately, for mankind this pattern holds for microorganisms too, including the pathogenic ones.

The city of Rome was the center hub for commerce to satiate the ferocious consumption by its population and trade networks spread out like long spokes into all corners of the empire. Commerce exploded under pax Romana, and the result was a golden age of trade. Although most trade was parochial, transactions involving interregional trade was significant. The clearing of Mediterranean piracy from 'mare nostrum' was instrumental in promoting economical, secure seaborne exchange. Also, a shared coinage, the enforcement of property rights by Roman law and an amazing precocious credit system encouraged merchants and entrepreneurs. Despite a network of roads, transport by sea or river route was much more frugal. In 67 BC, Roman general Gnaeus Pompeius Magnus---Pompey the Great---was given a special assignment against Mediterranean pirates who were interdicting shipping and evicted them from their base of attack along the coast of present-day Turkey. In 66 BC he defeated the Armenian King Mithridates of Pontus near Nicopolis in Turkey and in 64 BC imposed a settlement on the Middle East whereupon Syria becomes a province and Judea an occupied dependency. Some 70 years or so later a Jewish revolutionist with a small but devoted following is crucified by the Romans in Jerusalem on the Jewish Passover celebration but his pacific preaching's which were formulated as resistance to the overwhelming domination of the Roman overlords and the forced collaboration that the Jewish leaders took to accommodate the Roman presence, becomes the start of a new religion that is a radical departure from pagan values. His radical philosophy would spread, slowly at first, at then like a contagion to change not only the peoples of the Roman Empire but those spread across the globe.

The Roman Empire and its trading routes opened "all the gates of the inhabited world." In the second century, some 200,000 citizens of Rome received from the public dole 80,000 tons of wheat per year. And much more grain was needed to feed the population of the imperial city. The sea was crisscrossed with an armada of deep hulled, cargo ships carrying grain, but the large-scale transport was left to the private hands of savvy merchants. Roman demand for spices especially black pepper, silk, slaves, gems, tortoise shell, elephant ivory fueled merchants to venture through the Sahara, along the Silk Roads, and by sea across the Indian Ocean into ports built by Rome along the Red Sea. The Romans saw the Chinese as the 'silk people' and the fabric was a coveted commodity, and its trade was mainly through the Indian Ocean route to the West. Pliny the Elder estimated that the yearly eastern trade approximated one-sixth that required for the Roman army budget. East Africa was an integral source for the Roman exotic animal trade. Written accounts in 50 AD described how Roman merchants sailed the monsoon winds across the Indian Ocean and hugged the African shoreline as far south as the island of Socotra which lies 150 miles off the Horn of Africa where they bartered with traders South Arabia, India, Bactrian, Palmyrene, and Greece. In the first and second centuries when the Atlantic Ocean was an impassible unknown, the Indian Ocean was poised to become the linkage of East and West, and the commerce for goods demanded by the Roman Empire was the catalyst. After the Romans annexed Egypt, Augustus sailed a massive fleet down the Red Sea as a protrusion of its assertiveness along the length of its southeastern border abutting Arabia. In Egypt, the Romans constructed roads and canals that served as a nexus to the Red Sea, boosting foreign trade while bringing in toll revenues for Roman coffers and sparking the flames of Roman mercantilism. The flow of wares and goods was multidirectional and Roman coins were found throughout the Indian subcontinent. Ships from the Roman world brought 'cool and fragrant wine' and gold, and many times returned with a hold laden with black pepper. Sea trade along the coast of India fueled links that curved far inland to the Silk Roads and to China; by the second century Chinese records of the Da Qin or the 'great China far to the West' and the Roman texts refer to the Han dynasty. Chinese imperial records note circa 166 AD that an embassy of Romans sent by Marcus Aurelius Antoninus who were received by the Chinese imperial court. Most likely they were nothing more than ambitious Roman traders who were captured in the Gulf of Thailand by the emperor's forces.

Global connectivity progressed at a rate that appeared staggering compared to what was possible previously. Never was the world so small. With goods and gods go, so do microbes. The Indian Ocean would be a conduit for emerging infectious diseases. The tropic of Central Africa is home to the richest fauna and microbial biodiversity on the planet and is an evolutionary hothouse for a number of virulent pathogens that can cause human illness. For the right microbial pathogen, the conditions of the empire were an opportunity to conquer the predominate peoples of the world. The wild was incubating something new, something that would originate in the middle lands between the dry Sahara Desert and wet African tropics from southern Ethiopia to Guinea. This is the range of *Gerbilliscus kempi*, the naked-soled gerbil, a small rodent that lives in the dry woodlands and open grass savannahs that transverse that temperate zone latitude of Africa. It was also the evolutionary birthplace of human smallpox. Not all roads from there led back to Rome but for those that did they turned into highways from Hell for those that lived in the Roman Empire and beyond.

To be Continued...

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Reference:

Harper, K. *Climate, Disease & the End of An Empire: The Fate of Rome.* Princeton University Press. New Jersey 2017.

Scarre, C. The Penguin Historical Atlas of Ancient Rome. Penguin Books. Middlesex, England. 1995.

Marsh, F.B. A History of the Roman World From 146 to 30 BC. Methuen & Co. London. January 1935.

Bread & Circuses-Wikipedia

Blog: Sometimes-Well-Thought-Out Process: Why Did the number of Gladiator Games Increase as the Roman Empire Faltered?