1 Legacies of colonialism

Towards an architectural history of capitalism

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A brief history of economics and enlightenment philosophy

The origins of capitalism, as opposed to other forms of exchange, has a murky history. Most economists and historians pinpoint its emergence between its diagnosis by Adam Smith in the late 18th century and its critique by Karl Marx in the late 19th century. Historians attempting to understand the relationship of capitalism have followed this pattern. The eminent American Historian, Joyce Appleby published *The Relentless Revolution: A History of Capitalism* in 2010. She notes admirably that to claim a start date for capitalism is arbitrary and that it is cultural as well as economic. Despite noting the influence of the Portuguese, Spanish, various Papal decrees and even the Dutch, she claims these only bolster the case for English exceptionalism. For Appleby, capitalism begins in England "with the convergence of agricultural improvements, global explorations, and scientific advances."[1] Indeed, she insists their experience was "unique," all while she admits that people in Africa, the Middle East and India had capitalism "thrust" upon them; yet, while there is little mention in her book of "revolution" against state-sponsored violence, she does mention the relationship between the Natural philosophers and economic justification and cites the usual suspects in her introduction: Adam Smith, Karl Marx, Thomas Paine, Max Weber, and others.[2] She notes Adam Smith's *Wealth of Nations* (1776) is the first diagnosis of nearly two centuries of history, yet still finds the origins of English capitalism to occur around this moment. This chapter is going to take her at her word. The English did create capitalism, but not in the way she and many others have seen it.[3] Appleby's "global explorations" required state-sponsored violence. The agricultural improvements and scientific advancements leading to the industrial revolution were the result of law and privileged landed power.

Even Thomas Piketty's bestselling *Capital in the Twenty-First Century* (2014) places the origins of capitalism, in his twist, the beginning of wealth inequality at this moment. Piketty pairs the classical natural philosophy of England with its late 18th-century emergence in France under the guise of enlightenment and the rapid explosion of its population. He also unpacks

Thomas Malthus' infamous *Essay* of 1798 and David Ricardo's *Principles of Political Economy* (1817). Without statistical proof, they were both concerned with rising land rent in the face of demographic and resource pressures. Ricardo introduces the principle of scarcity within the context of supply (land) and demand (resources): if land and its resources are only in the hands of a few, then the solution must be state intervention in the form of taxation. Ricardo assumed land would rise faster than goods, wrongly, according to Piketty, bringing about an apocalypse.[4] Piketty goes on to insist that Karl Marx, *Das Capital* (1867), took Ricardo's principle of scarcity and applied the principle of infinite accumulation through an analysis of industrial manufacturing. Piketty goes on to insist that Marx predicts an apocalypse where capitalism inevitably fails unless there is a revolution.[5] Piketty, using statistics, generates a plausible, but much critiqued, method of demonstrating how infinite accumulation creates an ever-growing wealthy class. Yet, like most economists, he forgets that math is only part of the story.

Historians of architecture are no different when they pay attention to capitalism at all. Peggy Deamer, in *Architecture and Capitalism: 1845 to the Present* (2014), determines the origins of capitalism following the model of economic history:

> The first consideration, the time frame and sequence, is determined by the advent of industrial society and with the self-conscious awareness of the working of capitalism. While this ostensibly begins with Adam Smith's *Wealth of Nations* in 1776, its connection with the built environment comes to the fore in the nineteenth century with the work of John Stuart Mill, *Principles of Political Economy* (1848), and Karl Marx, *Das Capital* (1867).[6]

Deamer insists on a critically important point following her determination of time where she notes that architecture and its relationship to capital are necessarily unstable. This is due in large part to the impact money has on design, where intentions are compromised by the desires of the supplier of capital. Yet, like many historians, she takes the origin of its emergence for granted. Indeed, the authors assembled by Deamer, rather than look at *architecture,* or the "built environment," as is mentioned in the introduction, actually attempt to diagnose how architects *respond* to capitalism, from Henry Cole to Le Corbusier to Rem Koolhaas. This is an excellent exercise. However, it masks how architecture is created by and is embodied in the operation of capitalism.[7] Perhaps a more apt title would have been "Architects and Capitalism." The timeline embraced in this book largely ignores the roles colonialism, industrialization, urbanization, finance and slavery play in the origins and perpetuation of capitalism. In summary, architectural historians tend to take the narrative of economists for granted.

What all the authors above have in common is either a deliberate or unintentional neglect of 500 years of colonialism—legacies which continue to impact the world. Indeed, colonialism and mercantilism then, as now, have a major role in supplying very fabric of architecture. Iron, stone, concrete, oil, copper, timber: these extractive processes at the heart of historical and contemporary architecture are embedded in capitalism and global trade. This resource dependence is often ignored in the practice of architecture and the writing of its history.

When Adam Smith published *Wealth of Nations* in 1776, he was imposing a Newtonian naturalist universe on an economic system that existed for well over a century. Isaac Newton provides a method for the empirical observation of the natural world.[8] Smith imports Newton's methods to observe the "natural" phenomena of productivity and labor, which he assumes are only regulated by the value of inputs (commodities), inaugurating the idea of Supply and Demand. For Smith, natural philosophy provides science as a means for diagnosing the principles of what is now known to economic historians as the beginning of Classical Political Economy. The universal laws of Newtonian nature provide a clean model for how social and political forces of capitalist market economics operates in the world.[9] However, following Smith, observation of the natural world no longer is necessary as its philosophical premise is firmly established, where technological and therefore, scientific progress is linked to capitalism. Thus, the Enlightenment assumes that the state of the world where Europe is dominant at the turn of the 18th century is the result of natural, and therefore inevitable causes, correctly diagnosed through its own use of reason. However, this rationalist scientific philosophy swiftly becomes racial with the publications of Jean-Baptiste Lamarck's *Theory of Inheritance of Acquired Characteristics* (1801), followed by Josiah Clark Nott and George Robins Gliddon's *Types of Mankind* (1858). Reason and nature are thus deployed, along with religion, to justify slavery and violent colonialism.

In the 1870s, economists, having established their universal and thus inevitable, roots in Enlightenment natural philosophy, begin to deploy mathematics in what is known as the Marginal Revolution. William S. Jevons and Leon Walrus apply math to the study of human behavior. Jevons explains, "I have attempted to treat Economy as a calculus of Pleasure and Pain . . . [therefore] it must be a mathematical science in matter if not in language."[10] Leon Walrus, in *Elements of Pure Economics* (1874) provides the economic discipline's *a priori* assumption of the Theory of General Equilibrium, where on balance the cost of pain imposed is canceled out by the benefits of pleasure, just as later economists would insist that supply and demand must, eventually equal out to zero. The preservation of this "beneficial" equilibrium becomes the primary task of the 19th-century nation-state.[11] According to Arne Heise:

> Leon Walrus' intention was to show (or, rather, to prove mathematically) that there may exist a system of relative prices (a price vector) which will simultaneously equilibrate all markets – for consumer goods, capital goods, labor and money, i.e. to create a general equilibrium. In such an equilibrium state, where supply equals demand, excess demand must necessarily be zero.[12]

Walrus' Law remains the cornerstone of orthodox economics and its model for the dynamic stochastic general equilibrium model, which is the generally accepted economic principle that "there can be no overall excess supply or excess demand in an economy comprised of markets where goods, labor, capital, bonds and money are exchanged freely."[13]

John Maynard Keynes' *The General Theory of Employment, Interest and Money* (1935), while often seen as refutation of Walrus, proposed that Walrus, while correct on structure, missed the role of debt and credit, and the existence of a monetary economy and that market forces work for every commodity, except that it requires involuntary unemployment.[14] Keynesian "liberal" economists do not question the equation; they merely demand that the power of the state is used to minimize public pain in a crisis.[15] Indeed, Heise, through a blistering array of equations, cannot help but conclude, trapped in math, that Keynes remains valid after years of confronting the defense and assault on Walrus. This conflict is why architectural history is necessary, as the economists' reliance on numbers has caused their struggle to zero-out the equation when the concept of the idea of limited resources or the spatial, political and demographic forces make equilibrium in a Walrus market impossible.

The irony of this mathematical purity is that the frictionless mathematics that justifies capitalism through the "pain" equation occurs in what Mark Twain dubbed the Gilded Age. During this period emerging monopolies swallow competitors and reduce the "friction" of labor on the movement of capital through violence, all while protected by law.[16] Railroad riots, restrictive immigration laws, company towns and extravagant mansions are the architectural and historical evidence of power and control during this period. The credit event that caused the Long Depression at the end of the nineteenth century prophetically coincided with massive assets gains concentrated in few hands. This condition inspired reform-minded philosophers like Thorstein Veblen to consider the effect of unfettered or privileged asset acquisition on the broader economic landscape in his *Theory of the Leisure Class: An Economic Study of Institutions* (1899) and his later essays on absentee ownership. The economist Michael Hudson, reviewing Veblen noted that "inherited privilege, monopoly power and land ownership rights were rewarded more than labor . . . The largest asset in every economy was still real estate." For Hudson, "the key to understanding Veblen's 1923 essay on 'Absentee Ownership' and indeed, the Reform Era, is to analyze land rent, and how urban real estate speculation was becoming not only the fastest way to get rich but also the major customer of banking and high finance. Thus Veblen became justly famous for describing small towns as real estate promotion projects . . . [and] he described America's rapid urbanization as a great [zero-sum] real estate game."[17]

Systems persist over long periods of time, even as localized sites adapt or transform in response. As Michel de Certeau writes, "The making of history is buttressed by power which creates a space proper (walled city's, nations, etc.) where the will must write (construct) a system."[18] From an economic standpoint, especially in contrast to trade, capitalism is a relatively new system designed to create wealth from invested capital and compound interest alone, without possessing a tradable skill, inventing technology or providing the labor for production.

Yet, this new form of wealth is increasingly visible long before Adam Smith and can be found in the architecture and history of the colonial era. What is more, the recovery of capitalism's long history is vital to understanding the emerging modern city. One aspect of colonial capitalist systems is that the benefits of wealth are largely returned to and concentrated in particular cities, financing growth at both ends of the system, in Amsterdam or London at the expense of territories governed in the colonies ruled from cities such as Batavia and Calcutta.[19] What is more, it has grown exponentially, through wars, shifting borders and every manner of governance since the 16th century to allow very few people to control vast portions of wealth in today's global world.[20] In short, the economics of pain versus pleasure are not equally distributed as capital or architecture.

Capitalism in the colonial era, and after, therefore is more than a financial innovation. It is a system that has altered the inhabitable world and thus its architectural history. It begins when emerging monarchies and later, nation-states, outsource the extraction and exploitation of conquered territories to for-profit companies in exchange for a fixed fee, taxes and dividends paid to elite power brokers and the state's treasury. What is more, charter companies relied on a number of financial innovations that predate this period. Banks and the emerging bond markets invented in the city states of the so-called "Italian" Renaissance allowed merchants, nobles and sovereigns to borrow money to invest in better ships and new routes.

Much that we take for granted in contemporary finance was a creation of Florentine banking: denominated currency, checks, receipts and double-entry bookkeeping. With the rise of textile manufacturing in Florence and other bank and trade dominated city-states of the Italian peninsula, came a demand for credit to buy supplies and to pay workers. Banking arrives to meet this demand. Florence becomes the dominant banking site for Mediterranean and European trade routes. The Florentine gold coin, the Florin, was the benchmark currency of Europe for centuries. Florentine banks had agents in cities throughout Europe and into the Middle East, as far away as London, Lisbon, Moscow, Cairo and Damascus. Florentine bankers were the major lenders to the Papacy and kings and nobles throughout Europe. Florentine banking families eventually became the new nobility of the city, forcing out the old feudal nobility.[21] This wealth produced the wonders of art and

architecture we call the "Italian Renaissance." The word "credit" derives from the Latin *credere*, which means "to believe." Faith is thus the origin of modern financial markets.

The rulers of Venice deployed a unique form of credit finance, borrowing from its citizens in order to repel the advances of the more powerful Ottoman Empire as well as its competitors in Florence and Genoa. Selling bonds (promises) to its wealthy citizens allowed the city-state to access a pool of capital that was roughly proportional to the entire economy of Venice (versus merely the contents of the treasury) and forced its citizens to be "invested" in the success of their military defense.[22] The bond market was also an outlet for surplus capital. Less risky than merchant voyages and more predictable than farming, bonds are also easier to manage. Bonds provided much-needed funding to the city and later nation-states primarily to finance war while guaranteeing a fixed return for the bond investor, who is now invested in the economic growth of his debtor state. The investor is now invested in the stability of the state in order to receive the promised return on capital. Bond markets improve the ability of an affluent population to build wealth without doing anything besides loaning money to a sovereign entity for a guaranteed return or allowing banks to use their deposits for further lending at interest. Bond investors today are the largest source of finance for cities, states, nations and companies. They remain a legally protected class who can hold the citizens or stakeholders of any indebted entity hostage for their guaranteed returns.

The stock market, invented in the early 17th century, allowed new companies to sell shares to other owners, both raising capital and diversifying risk, the key advantage companies had over sovereign-funded fleets. The risk of a single voyage could be pooled among many owners rather than bankrupt a family. As a stockholder, you could hold onto the shares and receive either goods or a dividend paid at a fixed time upon the conclusion of a voyage, or sell your shares to somebody else for a profit or loss. Shares and goods were liquidated after each voyage, with new shares issued for each new venture. The commodities themselves were worth money in a direct sale or on a future sale at a fixed price, in what is now known as the "futures" market. You could purchase an option to buy or sell a given item at a fixed price at some date in the future, thus guaranteeing a known price and pre-funding the acquisition of the product for the merchant.

For defenders of Efficient Market Theory, this is the best thing about capital markets: they allocate capital efficiently to the best-performing companies, rewarding success, and with fewer barriers erected to stifle this flow (regulations or cost of labor), the more efficiently the capital will be allocated. The Enlightenment assumption behind this idea is that capital allocators are rational people. Smith's Homo Economicus, "will never make poor decisions in their own self-interest." This is where John Stuart Mill, in his *Principles of Political Economy* (1848), Book I, Chapter 2 ("Of Unproductive Labor") describes the division of labor using bread as his example. Bread, the most useful of foods, must somehow cost enough to provide for its means of production, from tools, to harvest to transportation.[23] Mill, concludes that no matter the labor, it must be subservient for its compensation to production, and in the process, notes that this gives rise to architecture:

> This gives rise to another mode in which labour not employed directly about the product itself, is instrumental to its production; namely, when employed for the protection of industry. Such is the object of all buildings.[24]

In "Of Unproductive Labor," Mill lays his trap whereby he measures the production of labor by its measurable utility. He admits that he can only use material wealth and then make the following astounding claim:

> All labour is, in the language of political economy, unproductive, which ends in immediate enjoyment, without any increase of the accumulated stock of permanent means of enjoyment. And all labour, according to our present definition, must be classed as unproductive, which terminates in a permanent benefit, however important, provided that an increase of material products forms no part of that benefit. The labour of saving a friend's life is not productive, unless the friend is a productive labourer, and produces more than he consumes.[25]

For Mill, it is consumption that makes labor useful. The next chapter is "Capital." For Mill, capital is neither money nor wealth. It is there to make sure the conditions for labor, money, and wealth exist:

> What capital does for production, is to afford the shelter, protection, tools and materials which the work requires, and to feed and otherwise maintain the labourers during the process . . . As whatever of the produce of the country is devoted to production is capital, so, conversely, the whole of the capital of the country is devoted to production.[26]

In Mill's narrative, the logic of capital must be linked to the progress of the state, whereby Mill defends British rule in India as "Tolerant Imperialism."[27] Stock companies combined with new banking innovations and technological innovation (machines) allowed emerging European nation-states to finance growth and, according to Western history, achieve progress.[28]

This financial innovation also allows nation-states to finance local infrastructure and endless war with other competitor states over global resources, as dividends and imported commodities are recycled into war through tariffs, and eventually taxes. In addition, many companies are often structured as limited liability companies. This structure legally shields the majority owners and operators from the consequences of the company actions by law. The corporation is a legally separated from its agents. A few companies

received a monopoly from their home country, in theory, to allow them to remove the "friction" of competition (the mythical essence of the Free Market hypothesis). Monopoly power allows them to grow without worry. Most importantly, charter companies had the means and license to wage war on behalf of their stockholders' interests and their state. This requires the architecture of forts, ports and cities. The protected right to trade and ensure shareholder profits at home was always enforced by violence elsewhere.

By exerting power, territorial violence and resource extraction, the limited liability company is the essence of colonialism and modern capitalism. Historian Sven Beckert calls this form of trade "war capitalism."[29] Contrary to mathematics and popular belief, capitalism never operates in a vacuum of frictionless exchange. It always relies on violence at some point, whether physical and deadly or implied through the force of law. From the perspective of the Enlightenment myth of rationalism, this is the ghost behind Smith's "free hand of the market." Law has to be enforced, creating the conditions for violence. Jacques Derrida reminds us that "law is always an authorized force, a force that justifies itself or is justified in applying itself, even if the justification may be judged from elsewhere to be unjust . . . No law without force, as Emmanuel Kant recalled with great rigor."[30]

In order understand the capitalist system, there has to be an account of violence beyond the mathematics of pain in the service of equilibrium. It requires a more accurate description of capitalism. Rarely in a capitalist system is any form of exchange for profit completed without violence or coercion at one point in the system, from harvest through production to consumption. Most of the growers, harvesters and crafts people who produced any valued commodity that created the vast wealth were slaves, chattel labor or serfs. As historian C.A. Bayly wryly notes:

> The final competitive advantage enjoyed by parts of Europe lay in the relationship between finance and war. Crudely, the Europeans became much better at killing people. The savage European ideological wars in the Seventeenth Century had created links between war, finance and commercial innovation.[31]

Bayly notes the irony of the emergence of the Enlightenment and commercial companies during this period of savage, expensive maritime war. The expensive cost of maintaining a global fleet to protect one commodity, sugar, from competition required the cane plantation colonies in the Caribbean to be immensely profitable. Maintaining the architecture of capitalism—forts, ports, shipyards and ironworks for canon—is incredibly costly, as is the forcible relocation of millions of people to harvest the cane and process it on the plantations. The same expensive architectures are also deployed for spice routes, timber routes, silver routes, or from a contemporary perspective, oil, copper and food. This is why it is necessary to consider slavery, capitalism, industrialization, urbanization and the Enlightenment together. They are self-reinforcing systems that emerge during the same period.[32]

Capitalism and violence: The East India Companies, the Bengal Famine and the American Revolution

Back to England. In 1591, Queen Elizabeth granted permission for three ships to sail to the Arabian Sea, following the paths traced (violently) by the Portuguese a century earlier. They returned in 1594 loaded with spices and luxury goods. Each voyage raised money through stock, which was sold upon return. Voyages were intensely risky, long, and rarely successful in the early years. Therefore, a new group of investors was granted a 15-year monopoly company charter by the Queen for the Governor and Company of Merchants of London trading with the East Indies in exchange for a fixed fee to the Kingdom, thus yoking the fortunes of the Crown to the success of the company. The English East India Company that will emerge from these early endeavors received its charter from Queen Elizabeth on December 31, 1600. Though not the first chartered company in England, the East India Company (EIC) helped to pioneer, along with the contemporary Dutch East India Company (VOC), the concept of joint stock ownership as a way of raising the capital needed for a successful overseas trade, as well as managing the risk of a voyage. The capital and profits were underwritten by the monopoly guaranteed by the state. In the beginning, the companies rented the ships and sent them off on their stately journeys with one trip out and one trip back in each year before vertically integrating the shipbuilding process within the EIC itself.[33]

Gradually the funding methods changed, and by the 1650s, the EIC became a joint stock company managed by a board of shareholders, governed by a Chair with a handful of trading posts along the west coast of India. In 1657, the company was formalized as a continuous, unlimited investment without reference to individual voyages. This is the date that an English company becomes a joint stock limited liability company. The EIC kept its monopoly by paying an increasingly large fee to the Crown and so had a well-established system in place when the British government finally decided to remove the monopoly and allow open competition for a period coinciding with the English Civil War and Cromwell's Commonwealth and the Directorate back in England.[34]

Beginning in 1670, the restored Catholic King Charles II of England passes a series of acts returning the monopoly to the company in exchange for his annual fee.[35] The new law turned the company into a quasi-state, allowing it to acquire territory, build forts, mint money, negotiate alliances, make war and adjudicate over its territories without recourse to the crown. In 1682, the EIC deployed its new power to negotiate with the local Bengal Nawab for a *firman* (unlimited permission to trade for a fee) that covers all

of Bengal, but they are rejected. In 1685, the East India Company requested soldiers from King Charles II to protect and build a walled factory on the river Hooghly (one of the many outlets of the Ganges delta).

In 1688, England experiences its "Glorious Revolution." Dutch Burgher William, the nephew of Charles II, comes to power, permanently shifting the religion of the crown from Catholic to Protestant. The following year, a Mughal fleet retaliates for the company, arming itself and attacking the company's factory town of Bombay on the west coast, where the EIC has most of its trading operations. After a year, they surrender by prostrating themselves before the Mughal emperor Aurangzeb with a large ransom. In 1690, an administrator of the East India Company, Job Charnock, arrives at a village named Sutanuti, near the mouth of the Hooghly River, and decides the location is ideal for a trading post. In 1698, Sutanuti, along with two nearby villages, are bought by the EIC from a local landowner. The new factory is named Calcutta and stealthily fortified. This was the original Fort William (named after the new Protestant King of England), William III. At the end of the 17th century, the EIC had a total of twenty-three trading posts in India.

In 1707, Aurangzeb, the last powerful Mughal ruler of India died, creating a power vacuum among local lords and the competing European companies. Ten years later, Bengal ruler Shaista Khan abolishes customs duties to raise money to the great advantage of the company factors. Feeling under threat from locals and other competing companies, Governor Hedges secures soldiers from Fort St. George in Madras, down the coast, to protect his residence in Hooghly-Chinsurah, and asks the local ruler if he can build a new fort to protect Calcutta. Shaista Khan denies his request and imposes a new 3.5% tax. Company warships arrive, and soldiers ransack the town. Five hundred houses are destroyed by the constant bombardment. The Emperor evicts the EIC from Bombay and Hooghly-Chinsurah to the delight of the Dutch VOC and the French in Pondicherry. The company retreats to their walled outpost of Calcutta and other factories.

Over the next decade, they recover in part by muscling in on the tea trade out of Canton. This rapid expansion came at a steep cost. By 1750, many of the EIC agents were highly indebted to Indian moneylenders, in many cases using local loans to finance the purchase of goods, especially for lucrative tea from China.[36] While the goods fetched a very profitable price back in England, it could take months or years to get reimbursed back in Bengal. Specie (coin) from sales and the stock dividends often stayed at home. Under pressure from the rising trading prowess of the French upriver from Calcutta in Chandernagore and Plassey, and the increasing competition from the Dutch VOC, the EIC shares and dividends began to plummet in the markets of London.

In 1751, EIC agents begin to cut out the local merchants, who were by now the wealthy middlemen negotiating the movement of locally produced products into the hands of the English. This had the added benefit of bypassing the trade tax introduced by the Nawab, who, like the Mughal Emperor, was already under siege from multiple fronts. Having lost important revenue used to finance his own wars to the west and the south, the Nawab responded by going to war with the EIC, capturing their fortified factory outpost of Calcutta in 1756. The French and Dutch also begin to attack the EIC's holdings along the east coast of India.

When news reaches London, the company shares plummet once again. However, everyone underestimated the ruthless military skills of the 31-year-old Director General Robert Clive. Clive, with his legal mercenary army and help from the British Fleet, ignores Calcutta and heads north to assault the French enclave upriver at Plassey where he massacres both a Mughal army and most of the French population. Once that is complete he turns south, and with no army at his back, he ruthlessly recaptures Calcutta, killing most of the native population. Clive then turns his forces east to wrestle control of the opium trade in Bengal from the Dutch, permanently displacing the Dutch from India, before moving back down the east coast of India to retake the port of Madras from the French. In two years, Clive and his army, with the help of massive British naval bombardment, are able to temporarily remove both of their European rivals and weaken the centuries-old Mughal domination of Bengal. In 1758, a new Fort William was built to protect Calcutta from future attack. Back in London, the company celebrated its growing power with a new building in the Classical style on Leadenhall Street in 1760 (Figure 1.1). During this period, the buildings of the East India Company expanded to fill the entire block between Leadenhall Market and Lime Street creating a new capitalist center for London.[37] The following year, at the Battle of Buxar, Clive defeats the joint forces of Mir Qasim, the Nawab of Bengal, the Nawab of Awadh and the Mughal Emperor Shah Alam II. The following year, Clive extorts a new demand from the now weakened ruler. With the *firman* already guaranteeing them indefinite trading rights, Clive goes further, demanding the *diwani* over Bengal from the Mughal Emperor. The *diwani* is only given to loyal Nawabs and allows them to have autonomous control over taxes, laws, and governance in their territory in exchange for a fixed monthly fee. The Emperor agrees to not only give the EIC the *diwani* but to rent out his own "sepoy" soldiers for their use.[38] The EIC then forbids local lords from maintaining their own armies, forcing them to turn to the company for protection. When they either could not pay or refused to pay, the company took land as payment.

The EIC is now a state with complete control over Bengal, including administration, laws, taxes, prices and a well-trained army. It is in the aftermath of 1765 that one of the very first Hindi words enters the English language—"loot."[39] News of the EIC's triumphal conquest of Bengal causes the stock price to soar from its depths back in England, and within a few years the revenues from the EIC make up nearly a quarter of the total revenue of Britain.

In the decade that followed, Bengal was plundered of its ageless productivity. The diverse and fertile region of the Ganges Delta was reshaped by the EIC. First to go were the traditional textile towns that had been the

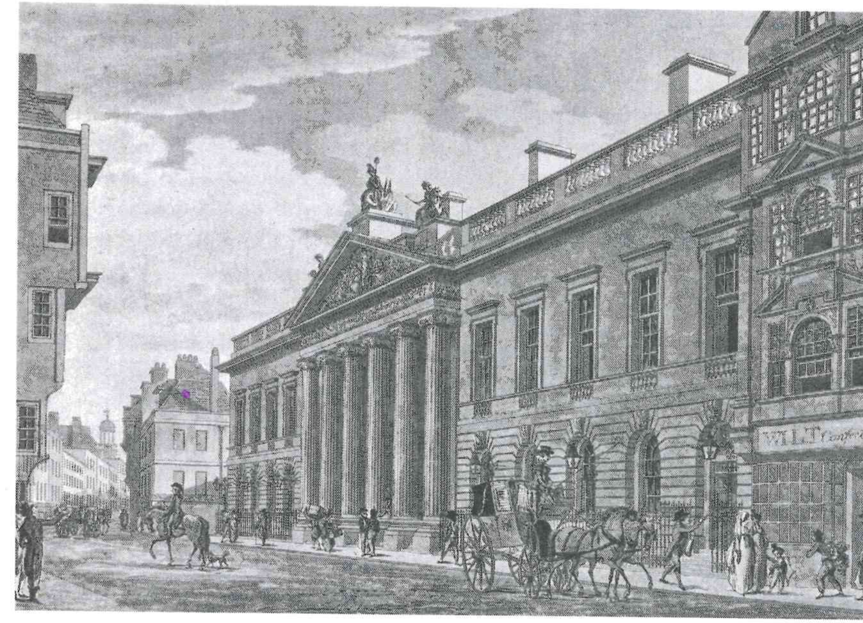

Figure 1.1 "East India House," by Thomas Malton the Younger (1748–1804). Watercolour over an etched outline. 8 1/2 in. x 11 15/16 in. (21.6 cm x 30.3 cm). Courtesy of the Paul Mellon Collection, Yale Center for British Art, Yale University, New Haven, Connecticut (PD).[40]

backbone of Bengal's global influence for centuries to secure the emerging textile industry back in England. Food crops were replaced with monoculture crops for profit such as cotton, opium, and indigo. Cotton is the only trade item China accepts for its valuable tea, other than coin. Tea is now the Company's most profitable product back in England. The EIC. then raises the land tax on agricultural products to 50% and forced formerly independent weavers into what amounted to chattel slavery. In addition to cotton, the EIC planted thousands of acres of indigo in Bengal. Indigo produced the rare color of blue, used to dye fabric for royalty and the wealthy in Europe for centuries. With cotton, indigo and opium taking up vast amounts of land through the EIC territory, there is little space for traditional agriculture, placing a strain on remaining arable land.

In 1769, a massive two-year drought devastated Bengal. Without the fertile agricultural lands, food was scarce. Where in the past, the Emperor and his agents would have fixed food prices, punished hoarders and invested in water infrastructure, the EIC agents hoarded grain, increased taxes and charged high prices for ever-scarcer food and water, increasing their reported revenue back in England. This increase in revenue leads to an increase in demand for their stock, driving the price higher.

When the news of the EIC's acquisition of the *diwani* arrives in London in 1765, the stock is in high demand. People leverage lands and homes for credit to buy ever-dwindling supplies of stock in what appears to be an easy way to get rich. Despite a volatile stock price history, the company had a hundred year history of a double-digit dividend. The lack of stock supply (restricted by the Board and the Government) to meet the increased demand drives the price up over 200% in less than two years. Then, it all comes to an end.

News of the famine arrives in London, and the stock crashes on the potential prosecution of Clive and demands in Parliament by merchants to eliminate the company's monopoly. Everyone rushes to sell to buyers who no longer exist. The crashing price sets up a classic panic. For those who used borrowed money to buy stock, "margin calls" are made by lenders to quickly recoup losses. When nobody can pay, as most wealth is tied to now illiquid stock and investments in hard-to-sell resources located overseas or land, bankruptcies explode, and tax revenues plummet. Banks that lent money to purchase the stocks fail by the hundreds. Lands are foreclosed on, and England plunges into a deep recession as thousands of people, including many nobles and important government officials are on the verge of being wiped out (Figure 1.2).

By 1773, after the recession incurred by the stock crash, the EIC and England are in dire financial straits. England relied on the company to help

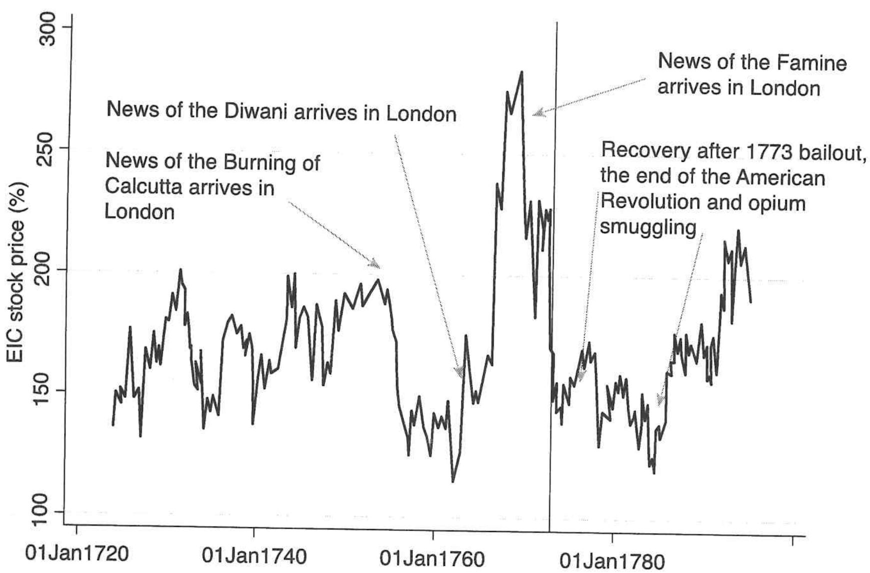

Figure 1.2 Contrary to popular belief, the price of stock is not a function of rational market expectations of profits and margins or supply and demand. Rather it reflects irrational sporadic human behaviors from panic to euphoria as they respond to everything from gossip and local minutiae to global events.[41]

finance its global war against competitors in the Indian Ocean and its American colonies through the payment of monopoly fees and import tariffs on tea. The company was important to Britain. First, the company was the only source of England's income from the East. Second, the company provided nearly a quarter of the State's revenue in addition to the wealth it brought to England through dividends and services. The EIC paid £400,000 annually to the government to maintain its monopoly, as well as a large dividend to its shareholders, many of whom were members of Parliament. Yet the EIC had been unable to meet its dividend commitments since 1768 after of the loss of tea sales to America. This was due to an unwise import tax imposed on the Americas in 1767 that caused colonists to buy black market tea from the Dutch. Although the tax was swiftly repealed, the EIC never regained trust. This loss was now compounded by a massive stock crash, as its debt obligations were backed by the value of its stock The Bank of England and the British Government lent the company money to keep it afloat with the hope of recouping its already massive losses from prior investments. However, the EIC owed money to both the Bank of England and the Government, and it had 15 million pounds of tea rotting in British warehouses and thousands of pounds more en route from China.

Despite protests, Lord North and Parliament decided to bailout the company. Lord North overhauled the management of the EIC with the 1773 Regulating Acts. The Acts set up a system where Parliament supervised and regulated the operations of the company. They cut the dividend to 6% until the Government was repaid its massive loan. This is the beginning of direct intervention into the EIC from Parliament. Now the former company turned autonomous state and financier to the Kingdom, becomes a State agent. The Acts did nothing to undermine its autonomous authority in India, nor was anyone imprisoned.

To help the EIC recoup its losses, Lord North allowed the EIC to sell its tea at lower prices in the Americas to undercut the illegal Dutch tea and other English merchants. Desperate to save the EIC, the London import tax, which provided a source of revenue for the Crown, was lowered from 12.5%. The export tax from London was eliminated and replaced by yet another import tea tax on the colonies. This import tax had been tried before and inevitably led to massive boycotts of English tea. Given the massive drop in price due to oversupply the English government calculated that the reintroduction of the tax would not be noticed. Four ships headed to Philadelphia, Charleston, New York, and Boston. The tea tax was moved from the company onto the British colonists in the Americas for the second time.

Despite the lower price, this was the last in nearly a century of mercantilist provisions designed to restrict the economy of the British Americas for the benefit of England, including bans on anvils of a certain size, fishing quotas and dozens of restrictions on manufacturing. In addition, there was always a shortage of actual coin, as most of what existed made its way around the world to China. Colonists who were not Lords of Parliament were heavily restricted in terms of economic activity (aside from slavery, which was present in all 13 colonies at the time); they were also short of currency. When the tea arrived, Lord North turned out to be wrong. Broadsides against Lord North and the Crown's restrictions on the colonies, already in circulation for years, became more intense, listing grievances as many colonists once again felt fleeced by their government without any way to influence law back in London. In the end, the American Revolution, contrary to popular belief, was not inspired by a single tax and one night in Boston. It was the result of one hundred years of mercantile restrictions in the British colonies without recourse to representation in Parliament, a massive famine in Bengal, and the unintended consequences of the first corporate bailout by a sovereign nation in history. Unfortunately, most people only remember the tea, the tax, and only in Boston.

In 1773, Calcutta becomes the official center of the EIC's administrative operations and will remain the capital of British India until 1917. In 1784, the Pitts India Act restructured the company, solidifying its ties to the English Government. By 1799, after seven years of constant wars over trade and territory under the command of Sir Eyre Coote, the EIC eliminates all of its rivals, including the newly emboldened Maratha and the Mysore. The Company secures the valuable Malabar coast below Goa, as well as the east coast of India and all of Bengal. They celebrate with a brand new palace for the Governor in Calcutta built for the recently arrived new Governor, Lord Wellesley, the brother of the Duke of Wellington. The palace was designed by a soldier, Charles Wyatt, who was related to influential architects back in England (Figure 1.3).[42] Wellesley was an advocate for a conservative new "forward policy" in Parliament, whereby India would not just be governed by British laws, it would also abide by Christian values. The country would be ruled and redeemed. In 1796, the East Company House was refreshed by architects Richard Jupp and Henry Holland. The EIC is now the largest company in the world with a private navy, army and civil service larger than that of most countries. Once again, it is the largest source of income for the ever-expanding British Empire.

The lesson of the EIC is that there is no such thing as efficient or "frictionless" markets. The economic benefits of Walrus' pleasure through profits require devastating pain, death, and wholesale reshaping of the world that includes architecture at every scale. Further, laws and governance matter. Companies and their shareholders are always beholden to the state for permission and the ability to use law and violence to increase returns. The EIC, among the many other charter companies, as well as 15th-century financial innovations, should permanently banish the myth detailed in the introduction that capitalism is a recent and relatively harmless market-based phenomenon.[43]

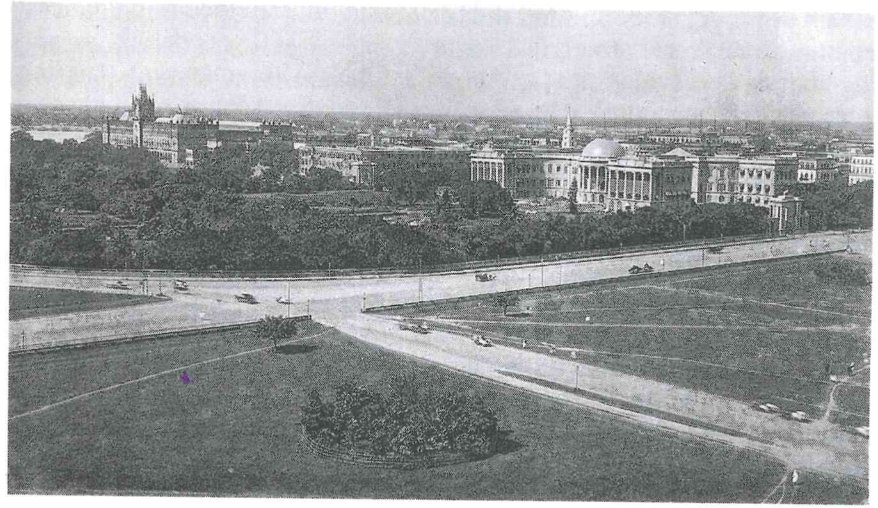

Figure 1.3 1860s view of 1799 Charles Wyatt, Palace of the Governor, Calcutta (nga.gov).[44]

Laws matter: The Enclosure Acts, tithing and origins of industrialization

In parallel to the emergence of the East India Company is the birth of the Industrial Revolution in England. From purely a technical standpoint, the Industrial Revolution involved a new form of steam power that involved the ability to burn fuel in order to make heat. The heat turns water into steam which then exerts a force on a lever, which can be attached to a wheel to turn a machine. This invention, in theory, replaces human muscles and labor with mechanical muscles. From a labor standpoint, this is the invention of mass production. This was famously diagnosed as "the division of labor" in Adam Smith's 1776 *Wealth of Nations:* "The greatest improvement in the productive powers of labor . . . seem to have been the effects of the division of labor."

Technological improvements, however, are not linear, and only proceeded incrementally, with little foresight into their future. The first steam engine, known as the Atmospheric Fire Engine, was invented by iron worker Thomas Newcomen in 1712. This was invented to pump water out of tin and coal mines that as they went ever deeper in search of the needed resource and thus were prone to flooding. Coal becomes the most important fuel for the Industrial Revolution when it is transformed from a way to heat houses, as it had been for most of human history, into a fuel used first to produce mechanical, then electrical energy.[45]

Edmund Cartwright designed what may be the first power loom in 1784, along with the Sir Richard Arkwright's water loom in 1775, revolutionizing textile manufacturing in England. Yet, few know how Cartwright and many others of his generation found the leisure time and wealth to tinker, write and thus contribute the so-called English Enlightenment and the accompanying Industrial Revolution. Cartwright graduated from Oxford in 1766, whereupon he immediately became a member of the Anglican Church. Like all clergy, Cartwright received a stipend from the Church, provided by the State of England. In 1779, he was named the Rector of Goadby Marwood, in Leicestershire, before being canonized at Lincoln Cathedral. Rectors and vicars of the English Church were entitled to tithing lands that included a manor house and a generous stipend.

Tenant farmers were required by law to pay in kind or coin one-tenth of their harvest to the English Church. Rectors and vicars also received rents from their tenants as well as their share of the harvest tithing.[46] Rental income for rectors was many times the yearly wage of their peasant laborers, and as clergy, they were exempt from any form of taxation. This meant they could grow and invest their wealth without cost (in stocks, bonds, land, etc.). In short, a heavy land tax mandated for peasants fed the investments that the government relied on to maintain England's infrastructure, its Industrial Revolution and its global war machine. Indeed, though Cartwright gets credit for his invention, he was engaged in a massive lawsuit over his design, and never actually made money off of it. As soon as he opened his mill, the designs were copied. What is more, his idea did not have an immediate economic benefit as it needed refinement, mostly done by others, before it could be adapted to large-scale production.[47]

The idea that the Anglo-Enlightenment institutions (common law and representative government) created efficient growth should be viewed with some skepticism. Take for example patent laws; the patent laws, passed in 1624 to encourage investment were becoming an impediment by the middle of the 18th century due to high cost. In theory, they were cited as the secret behind the English ability to marshal capital more efficiently. Adam Smith, John Stuart Mill and many who followed in their footsteps believed that the English patent system encouraged innovation, by encouraging "venture capital" to invest in something that would be protected by the state from competition for a time.[48] From this perspective, patent law is like a limited monopoly, protecting the inventor from the free market of competition, challenging the very idea of free markets and the notion that good ideas always win. Further, patent disputes could take years to resolve, slowing down this vaunted innovation. The legal system also created a hierarchy of access. If you add the cost of the patent at £100 combined with the ability to afford a lawyer, and the court fees, the legal system privileged people with means over those without. The cost of a patent was more than five times the yearly average wage of England during this period.[49]

None of this really mattered to Cartwright. Unlike other inventors, like Arkwright who started as the son of a tailor, Cartwright was already wealthy by his birthright and position.[50] Cartwright was a privileged clergy landlord

and benefited greatly from the Enclosure Acts that stripped land away from common ownership in favor of owners after 1688. The Enclosure Acts were a slow-moving process until 1750. Prior to 1750, "proprietors were resorting to a more clever solution to the problem by leveraging the 'equitable' powers of the court. Lords, owners of tithes, and landed proprietors could agree in the present to a future enclosure award by referees or commissioners, and the Court of Chancery would enforce this agreement against those who subsequently balked at the sale."[51] The economic (rational) argument for enclosure has always been about efficiency:

> Rising food prices and innovative efforts perhaps broadened the economic gains from enclosure, increasing the number of proprietors who would have sought it. With a large enough gain from enclosure, recourse to simple agreement, as opposed to Parliament, would generally have been the more rational choice; enclosure would have increased rents and incomes generally. Where this was not the case, those who stood to gain would have had a larger pot from which to compensate those who fared poorly.[52]

The first Parliamentary Act of Enclosure was the Farmington Enclosure Bill. This required a unanimous vote by the landowners in a parcel. However, between the 1730s and the 1750s, the requirement of a unanimous vote was diminished, as were the rights of the freedman (smallholders who had no property rights). It is important to remember only landed male property owners could vote during this period of England's history. In addition, a new bill was required for each parcel. For example, the 1738 Ashendon Bill was the first bill passed where minority owner's rights were disregarded. The 11 holdouts owned only 17 of the 429 pastures, and by 1740, despite the holdouts, the Enclosure Bill was passed. Keep in mind the 11 holdouts were entitled to property rights and votes, while the peasants and freedmen whose livelihoods were also tied to the land were not. Regardless, all were evicted. By the 1750s, 80% of voting landowners was enough to pass an enclosure.[53] During proceedings, it is notable that while some lands in the English tradition were considered Commons, the rest that were not considered efficiently productive were labeled, due to their lack of measurable productivity, as "Wastes". This legal term helped to justify eviction.

When enclosure was complete, the dissenting owners were compensated at a price negotiated by the Lord who initiated the act. Similar to the cost of patents, proposing an Enclosure Bill before the House of Commons or Lords was expensive and could cost upwards of £80 at every stage of advancement. This prohibited all but the most affluent of landowners from beginning the procedure. Since the ruling class by law had to be entitled to property, the incentives for the larger property owners to disenfranchise small holders without regard for them or peasants increased through the 18th century and were common through the late 19th century.

The ever-increasing demand for landed property matched the increasing demand for woolen textiles as England ramped up its reliance on the late 18th-century mill system for economic growth. Indeed, the Enclosure Acts were initially concentrated in the northern regions such as Cumbria, where the people practiced a drover lifestyle with small farms and were considered less "ethnically" English. As Ian Whyte noted, "the larger proprietors had monopolised the grazings and on other commons . . . and the sheep of small owners were driven off the best pastures and even chased off the commons."[54]

Urbanization: Displacement and the Industrial Revolution

The Enclosure Acts were an enormous benefit to the emerging mill towns hungry for labor:

> Parliamentary enclosure has been viewed as a form of oppression of smaller landowners by larger ones, with smallholders and owner-occupiers being forced to sell out due to its high costs. The common rights of smallholders and cottagers were removed and replaced, if they were replaced at all, by small, sometimes distant allotments. Loss of common rights and the sale of their plots forced cottagers and smallholders to work as full-time labourers for the larger farmers. This caused increasing social polarisation and growing poverty at the lowest levels of rural society, with a consequent outflow of population to towns and industrial areas.[55]

This migration influenced the rapid growth of towns such as Liverpool and Manchester. In 1700, the population of Liverpool was 5,715. Within ten years it doubled to 11,813. By 1766, the town grew to 25,787 people. In 1790, Liverpool's population doubled again to over 55,000. Within 21 years it had 78,000 people. In one century the population grew more than tenfold. Liverpool was the northernmost point of the system of the Triangle Trade.[56]

For nearly two centuries, the demand for and price of wool and cotton in Liverpool determined the fate of the most lucrative markets in the world. For decades Liverpool was also the busiest slave port in Europe until slavery was banned in 1833. The wealth harvested by Liverpool allowed it to expand in grand fashion. Liverpool had nine large markets: St. James Market near Great George's place; St. Thomas Market in Cleveland Square; Derby Square Market; Islington Market; the markets at Scotland Place and in Powell Square and the Pig Market, among others.

Just off the docks in the middle of the city oriented perpendicular to the Mersey River, was the most important building in Liverpool: the Exchange Hall, which also served as the town hall. The Exchange Hall in Liverpool was first recorded as being built in 1515. It was replaced in 1673 by a building slightly to the south of the present town hall. This town hall stood on pillars and arches of stone where merchants and traders carried out

their business. A newer exchange and town hall was built between 1749 and 1754 by John Wood the Elder, with an extension added by James Wyatt in 1789. The ground floor acted as the Exchange, and a council room with offices for governing the city was on the upper floor. The ground floor also had a central courtyard surrounded by Doric colonnades, but it was considered too dark, so many merchants preferred to conduct their business in the street outside. It is here that men decided the value and demand for goods such as wool and cotton, and in many ways, controlled the world. Their decisions could move millions of Africans across the Atlantic, displace indigenous Americans and timber for plantations, as well as determine the well-being of countless workers in the mills in Manchester and the surrounding territory whose prosperity relied on the volatile demand for cotton.

In the 19th century, the Exchange was remodeled to become the grand City Hall, and a new Exchange was built elsewhere. The dome is supported by a base with four clocks, each supported by the Lion and the Unicorn, the symbols of the merging of the Houses of Lancaster and York. Liverpool's elite imagined the city as a new Athens, controlling the trade and culture of the world. On the top of the dome is a ten-foot statue of Minerva, the Roman Goddess of wisdom, arts, trade and strategy. For the Greeks, Athena was the patron Goddess of Athens and is the aspect of wisdom, courage, inspiration, civilization, law and justice, mathematics, strength, war strategy, the arts, crafts and skill. Around the base of the interior of the dome is the town motto from Virgil *Deus Nobis Haec Otia Fecit* or "God has given to us this leisure" and in the pendentives are paintings from 1902 depicting scenes of dock labor. This phrase combined with the imagery demonstrates how capitalism, by the providence of God, can provide for everything one might need to pursue a rich life at the expense of the rest of the world.[57]

While Liverpool controlled global trade, the manufacturing of textiles from the cotton it controlled gave birth to its dirtier partner, Manchester. The rise of the cotton industry in Manchester and its hinterland transformed a market town feudally subservient to the Lords Mosley, with a population growing from 22,500 in 1773 to 84,000 in 1801. Manchester became the second-most populous town in Britain, with over 500 thousand people by the 1890s. The growing town demanded labor. From English counties, from Ireland and the Scottish Highlands men and women were driven off their rural land in poverty, often into worse urban poverty. Most of this half million were the workers whose hierarchy ranged from unskilled factory laborers to skilled artisans. They provided the blood and muscles that powered the city. Their financial situation and consequential living conditions not only varied considerably from family to family but fluctuated widely according to the state of the economy. Women and children, the greater part of the labor force, received substantially less than men, who usually received less than two shillings per day. Most laborers could not read or write.[58] What is more, the rapidly expanding industrial apparatus needed insurance and finance in order to withstand the volatile markets for textiles.[59]

The origins of the modern critique of capitalism emerge in the rapidly urbanizing factory towns of England. Friedrich Engels, in *The Condition of the Working Class in England* (1844), is arguably one of the first to scientifically study the health conditions in rural versus urban and industrial locations. Engels was the son of a wealthy German textile industrialist. In his early adulthood, he travelled to Manchester, where the conditions inspired him to turn to a statistics-based critique of the lives of men, women, and children working in the mill towns. He noted that the death rate, as well as the epidemic rate, was significantly higher in Manchester than in the surrounding countryside. Engels, the associate of Karl Marx when living in Manchester in the 1840s, wrote memorably, not only of the appalling living conditions in the courts leading from the main streets to the banks of the Irk, but he also commented on the peculiar conformation of the town which insulated the business people and entrepreneurs from the working people's quarters, possibly the first historical mention of gentrification.

Karl Marx (1818–83) meets Engels in England. He makes a number of important diagnoses in both *Capital* (1876–84) and his three-volume *Theories of Surplus Capital* (written first, published later), only one of which will be mentioned here: the relationship of labor to law.[60] Marx critiques Mill by turning to the wage-laborer "who can no longer produce commodities, but must sell his labor himself, the *minimum* of wages, the equivalent of the necessary means of subsistence, necessarily becomes the law which governs his exchange with the owner of the conditions of labor."[61] Marx in this phrase has diagnosed the essential problem as one of law, both natural as in Smith and enforced by the emergence of capitalism.

The architectures of addiction: Slavery and the consumer economy

Consumption and desire have always been a part of capitalism and trade. The desire for pepper, nutmeg and silk drove the millennia old spice and silk trade from East Asia to Western Europe. The need for gold, salt, food and other luxury goods powered the trade across North Africa to both Asia and north across the Mediterranean as well as is in the pre-Hispanic Americas. Demand for textiles created the wool trade from North Europe to the south, giving birth, among other things, to the "Italian" Renaissance, also a result of global trade.[62]

Consumerism, however, is not just about desire. For centuries it required slavery. In recent years, scholarship has provided convincing evidence that the capitalism requires slavery. Sven Beckert, in *Empire of Cotton* (2014), makes this explicit, arguing that capitalism cannot exist without violence and war. He describes how capitalism actually operated in the world during

the so-called "Age of Exploration," referring specifically to the companies mentioned above:

> Heavily armed privateering capitalists became the symbol of this new European domination, as their cannon-filled boats and their soldier-traders, armed private militias, and settlers captured land and labour and blew competitors, quite literally out of the water. Privatised violence was one of their core competencies.[63]

The desire for tea, spices and eventually opium drove the predatory practices of these "privateering-capitalists" to meet the goals of their shareholders. Desire created the largest forced removal and movement of humanity in human history through the so-called Triangle Trade. This begins with the enslavement and eradication of the indigenous peoples of the Americas before shifting the east across the Atlantic, extracting human beings by force from West Africa.[64]

Without the West's newfound addiction to sugar and caffeine, much of the Triangle Trade may not have existed. The Triangle Trade system refers to the movement west across the Atlantic, forcibly extracting human beings as slaves to arrive in the Americas to produce raw goods gold, silver, sugar, tobacco, timber, whale oil and cotton for the ever-growing consumer desires of Europe. Those goods are then returned to Europe and manufactured into finished products or luxury items and then sold back to the colonies in the Americas and West Africa. This economic system, known as mercantilism, is designed to keep the colonies subservient to the capital, as mentioned in the context of the American Revolution above. Often the goods are used as a medium of exchange for other goods or human beings. Cotton cloth from Manchester or Liverpool, for example, was traded in the ports of West Africa for human beings to be sent to Charleston and sold to planters along the coast to grow cotton, rice and tobacco.[65] A majority of the slaves forcibly extracted from their homes were sent to the West Indies and to Brazil to produce highly desired commodities for global trade. The "Triangle" in the trade is, of course, inaccurate. It refers to West Africa as a place, the entire Atlantic coast of the Americas as a place, and then Liverpool, London or another Western European port as one place. In fact, many cities and regions were involved in this trade in Western Europe. All coasts and the interior of Africa played a role in the Triangle Trade as did the Americas and Asian ports in the Indian Ocean. The slave economy is embedded in capitalism and therefore a truly global system.

What is more, the slave economy was deemed rational and necessary to serve the emerging desires of Western Europe that Jan de Vries called the "industrious" revolution:

> This meant using family labour more efficiently by buying in goods and services from outside the household. Families acquired new

> "packages" of consumer items which worked on each other to produce yet larger gains in productivity and satisfaction. For instance the consumption of coffee, and later tea, went along with the purchase of sugar, fine breads and easily replaceable plates with which to eat these items. The resulting package—let's call it "breakfast" gave people a higher caloric intake, a new time discipline and a new pattern of sociability and emulation in the household. It also gave birth in the trade in specialist foods.[66]

Without slaves growing these desirable consumer items, this so-called "industrious" revolution would not exist. Indeed, the Dutch West India company made most of its fortune playing the slave trade.[67] As Julia Ott writes, "The New World yielded vast quantities of 'drug foods' like tobacco, tea, coffee, chocolate, and sugar for world markets. Europeans worked a little bit harder to satiate their hunger for these 'drug foods.'"[68] It is not the Dutch Burgher who is industrious; it is the violently coerced, beaten and displaced slave.

Slavery and the desire for consumer goods transformed the modern world, leaving architecture, transformed landscapes and human suffering as its evidence. The production of sugar is a vital part of the Triangle Trade, fed by an addiction to sweet chocolate, coffee and tea in Europe and the colonies. The production of sugar requires the complete transformation of the Caribbean landscape as well as the use of industrial processes to transform cane into sugar, molasses and rum. The constant cost of war nearly bankrupted Western European states during this period celebrated as the century of the Enlightenment.[69] The rise of their new Caribbean sugar colonies between the 1660s and the 1730s allowed Great Britain through Barbados, Jamaica and France through Martinique and St. Dominique to break the Dutch monopoly over molasses production and sugar refining for European markets. The latter shift begins just as sugar was transforming from a 17th-century luxury European commodity into an 18th-century item of wider consumption among the propertied and labor classes of Europe and the European Americas. The War of the Austrian Succession (1740–48), the Seven Years War (1756–63), and the French and Indian War (1756–63) reshaped the global trade wars from Dutch, Spanish, and Portuguese to an Anglo-French hegemony that lasted until Napoleon was deposed in 1815. Contrary to the Euro-centrism of history, this conflict is most violent during this period in the Caribbean as a proxy war for land, sea, and sugar.[70]

During the second half of the 18th century, France made considerable gains on San Dominique at the expense of the Spanish. Throughout the latter half of the 18th century, France capitalized on Great Britain's slave revolts in Britain's most important plantation colony in the Americas, Jamaica, in 1760, 1765, 1766, and from 1795–96. The French profited off the slave revolts in other British Caribbean colonies as well, including Dominica (1791), Grenada (1795–97), and St. Lucia (1797). Together with the resurgent "Maroon" Wars in St. Vincent (1772–73, 1795–97, 1797–1805), revolts in Grenada and Dominica offset the initial expansion of sugar production in these islands that Great Britain received as a result of the 1763 Treaty ending the Seven Years War. These losses were augmented by the expensive revolt in thirteen of Great Britain's North American settler colonies from 1776 to 1783, otherwise known as the American Revolution (discussed earlier). Indeed, French San Dominique soon eclipsed Jamaica as the leading sugar colony in the world. It is within this context of control over vastly important sugar colonies that the French involvement in the America Revolution becomes more than just an attempt to weaken its English rival through idealism. Rather it was in her mercantilist interest to distract the English, both in the Atlantic and in the Indian Ocean Anglo-Mysore wars (between the India companies of both states) from jeopardizing what was now the most profitable island in the French Empire on the eve of its own revolution.[71] From this perspective, the pivotal events in the United States and French history are arguably byproducts of the global war for resources.

The economics of slavery is embedded in the form and creation of architectures from the west coast of Africa, to the Americas, in the forts, plantations and port cities.[72] Without slavery, there is no Industrial Revolution, no mass production of textiles, no fashion, no rapid urbanization in England, no railroads and no modernity.

Following the violent intentional depopulation of the indigenous Americas during the 16th century, the human costs of colonialism are stark when viewed through the lens of slavery. Slavery was not invented in the colonial period, as many ancient and contemporary cultures throughout the world utilized slaves, often for domestic, sexual, military or menial tasks. In most of these cases, slaves were captured in smaller groups during military conflicts or raids to be sold in markets around the world. Colonialism, however, institutionalized slavery on an industrial scale, relocating millions of people by force around the world for profit for nearly four centuries. What is more, the justification for slavery, as for the conquest of the Americas and free market capitalism, was always framed in religious, moral, biological, health, scientific and market terms.

The argument for slave labor, and later child labor, or even women's labor is always phrased as a form of Christian paternalism, whereby the father figure has the moral and educational right to treat them as inferior mental creatures, who need their protection and their nourishment. Leviticus 25: 44–46 reads:

> Your male and female slaves are to come from the nations around you; from them, you may buy slaves. You may also buy some of the temporary residents living among you and members of their clans born in your country, and they will become your property. You can bequeath them to your children as inherited property and can make them slaves for life.

The argument for Christian justification of enslavement as both ethical and superior to "northern" capitalism, appeared in the Richmond (Virginia) Examiner, on July 17, 1861:

> Christian morality is impractical in free society and is the natural morality of slave society. Where all men are equals, all must be competitors, rivals, enemies, in the struggle for life, trying each to get the better of the other. The rich cheapen the wages of the poor; the poor take advantage of the scarcity of labour, and charge exorbitant prices for their work; or, when labour is abundant, underbid and strangle each other in the effort to gain employment . . . Every man for himself is the necessary morality of such society, and that is the negation of Christian morality . . . On the other hand, in slave society, . . . it is in general, easy and profitable to do unto others as we would that they should do unto us. There is no competition, no clashing of interests within the family circle, composed of parents, master, husband, children and slaves . . . Were the parent to set his children free at fifteen years of age to get their living in the world, he would be guilty of crime; and as *negroes never become more provident or intellectual than white children of fifteen*, it is equally criminal to emancipate them. We are obeying the golden rule in retaining them in bondage, taking care of them in health and sickness, in old age and infancy, and in compelling them to labor . . . 'Tis the interest of masters to take good care of their slaves, and not cheat them out of their wages, as Northern bosses cheat and drive free labourers. . . . Hence the relation of the master and slave is a kindly and Christian one; that of free laborer and employer a selfish and inimical one. It is in the interest of the slave to fulfil his duties to his master; for he thereby elicits his attachment, and the better enables him to provide for his (the slave's) wants. Study and analyse as long as [you] please the relations of men . . . in a slave society, and they will be found to be Christian, humane and affectionate, whilst those of free society are anti-Christian, competitive and antagonistic.[73]

Yet despite this false parable, the slave owners relied heavily on the prosperous agrarian North for the credit and financing for land and slave acquisition deploying the demand for their slaves' production back into this early manifestation of the industrial capitalist system.[74] Capitalism derived from investment, whether financial, through land rent or human labor is always coercive, and rarely mutual. Slavery was, and remains, the most convincing evidence against the fallacy of the Enlightenment era's assumptions of contemporary neo-liberalism otherwise known Rational Market Theory (Efficient Market Hypothesis), where human beings never make poor decisions in their own self-interest in a frictionless balance of Walrus' equation of pain and pleasure. This rationalist model leads to what geographers call a system of capitalist barbarism: "[T]he pursuit of profit and development without limit produces inequalities, dispossession, and violence, which operate through technologies of racism, denigration and militant policing."[75]

Through this lens, capitalism is beyond cruel and borders on the absurd. This vast expense of capital and humanity was merely to ensure, in the case of sugar, that the caffeine you are consuming will be sweet. This does not count the millions of people forced to produce cotton, the raw material for cheap cloth, or those who were forced to turn a plant used for a sacred indigenous ritual into an ever-growing popular nicotine habit. This latter example paid for the signature heritage architectures of the United States: Monticello and Mount Vernon.

While Enclosure Acts (1710–1880s) increased farm productivity, necessary to feed a growing population, it also displaced peasants and small farmers who were forced to find work in coal mines, factories, and the cities. Cities in England quickly became overcrowded and heavily polluted. Poor living conditions, no sanitation, starvation, violence and endemic poverty creates conditions for escalating crime and tensions.

In 1700, 80% of England's income derived from land, by 1800 it was 40%. In 1750, England's population was six-and-a-half million, and by 1830 it was fourteen million. By 1900, England was 80% urban. Meanwhile, the slave economy and the coerced labor of the Industrial Revolution supplied this rising tide with all manner of goods for addiction, fashion and consumption in a capitalist system designed to extract as much profit as possible for a few in the global war over resources.

As the world rocketed from around one billion people in 1800 to just over two billion by 1900, the myth of urbanization was born. Cities were the future, and they were always a "good thing" as people voluntarily left their old traditional lives "on the farm" for a new and better life in the city. Unfortunately, historical and architectural evidence has yet to dispel this popular myth. Many cities around the world grew in population and expressed the accompanying wealth with architecture due to trade, but also through displacement, coercion and violence. Similar to the peasants forced into the mills and cities of England, immigrants that flooded into the United States from the 19th century to the present only rarely left home willingly. Migration is a massive emotional, financial and physical risk often accompanied by emotional trauma.[76] Almost all of these people driving urban growth on the periphery of the United States for the past two centuries and in some of the fastest growing metropolises in the world from India to West Africa were and continue to be displaced under the age-old problem of survival amidst a global system of violence and economics beyond their control.

A conclusion of sorts: Architectural history and neoliberalism in the present

> More than any other discipline, academic economics has been implicated in the drive to neoliberalise the institutions of the global economy, all while hiding behind abstract aloofness and technical finery.[77]

In the aftermath of the Second World War, as the European imperial colonies are beginning to unravel, the emergent global power is the United States. Together with its beholden European allies, they introduce an international system of laws and finance to the world, rebranding war capitalism under the guise of what is now known as neoliberalism, based as always, in the rebranding of the Enlightenment.[78]

> Continuing beliefs in this philosophy [of progress] may be seen, in a significant degree, in Western (and especially American) contemplation of the rest of the world. More specifically the philosophy of progress is observable at the roots of our foreign policy and our mission in the world.[79]

New institutions formed out of the 1944 Bretton Woods meetings of 44 allied nations and created a Cold War financial apparatus.[80] The International Monetary Fund and the World Bank, capitalized by the United States and its allied states offered credit and assistance in exchange for privatization of public assets, and so called pro-growth tax reform.[81]

This rebranding of capitalism in the past decades has had devastating consequences for cities and their publics. Assumptions on the cultural benefits of certain forms of urban development nearly always fail in the absence of an analysis of its real economic and human costs. A multi-decade trend of declining prosperity for the majority of people in the United States and elsewhere is taking place within the context of arguments for increased city density paired with market-rate affluent desirability, all augmented by privileged tax codes that often reinforce issues of economic stagnation and racial inequality. Indeed, the evolution of credit and finance parallels the logarithmic growth of the global population as well as the transformation of urban space from the colonial era to the present. This is particularly true in the context of boom-bust inflationary and deflationary commodity costs, given that everything we build with must, by necessity, comes out of a hole in the ground somewhere and it must be paid for, usually with borrowed money. Real estate and other forms of land value are also linked to debt cycles that are influenced by law, strategies of currency debasement and the need for over-leveraged households, municipalities and businesses relative to productivity amidst a global growth and consumer obsession—often with laws and policies targeted to exclude or discriminate against entire populations by race, ethnicity and income.[82]

Recent trends in neoliberalism have inspired quite a lot of excellent critique from within the disciplines of architectural history and critical geography.[83] Reinhold Martin, in his recent essay, "The Demagogue Takes the Stage," notes that image has the power to co-op and re-imagine capitalist systems. The resurgence in race-based economic nationalism is staged as a rebuke of neo-liberal globalism. Yet, as he notes, this is merely a rebranding of capitalism in search of its mythical Judeo-Christian soul. Of course,

Martin recognizes that only an insecure real estate developer can become the messiah: "Real estate is never mere property. Or to put it the other way around, property is never a mere profanity. Under capitalism, property is the most enchanted thing there is. In this light, developers of property—real estate developers—are conjurers, makers of meaning; they are neoliberal capitalism's shamans, priests, rabbis, imams." [84]

Capitalism remains the stage on which buildings shift their meaning without shedding their essential money-making function. Indeed, as Martin notes, "Modern fascism aimed to build a murderous utopia; postmodern fascism builds a murderous hall of mirrors."[85] The hideous reflection, therefore, inspires intentional blindness. Yet, as this chapter notes, God, violence and race have a long history of romance with capitalism. Therefore, this is neither new nor an anomaly of the present.

The slow-moving, billionaire-funded nationalist takeover of the United States began decades ago and is merely rebranded neoliberalism, colonialism, industrialization and slavery, evidence of which is still shrouded in the ostensibly murky history of the Civil War by the current US President. Beckert's war capitalism remains undeterred. Heavily-armed, state-supported privateers continue their global conquest for resources through the union of war and finance. The only difference now, as opposed to the past 500 years, is that humanity is racing ever faster towards its own extinction, driven in large part by consumption-inspired extraction for the billions of people now inhabiting the world.

Despite this immanent change, there remains desire among the economic elite to continually rebrand capitalism. In 2017 MIT Professor Andrew Lo of the Sloan School of Business published *Adaptive Markets: Financial Revolution as the Speed of Thought*, with a typical Darwinian evolution image on its cover. At first, it appears that he is skeptical of the idea of rational markets. Yet, on closer inspection, he actually insists that the model is merely incomplete and generally works well until moments of crisis, when behavioral economics, necessitating Keynesian state-intervention, kicks in. Indeed, he insists on using Darwin to augment the mathematical precision of economics by citing the "messiness" of biology, where markets act like a living organism with this astonishing quote: "Financial markets are an adaptation that a particular animal species, *Homo sapiens*, has developed to improve its chances of survival. We are all better off for having financial markets, as it allows us to fuel economic growth and manage risk. It is, by definition an adaption, so of course the principles of evolution should apply."[86] In other words, Walrus is back, via Smith's Newtonian Natural Universe adapted to 21st-century techno-utopianism. Pain will just "adapt"—naturally and faster within the benevolent political constraints of market forces, messy human greed or violence—for the betterment of humanity. Yet, as Mark Karlin writes, "Globalization is just a contemporary word for financial colonialism."[87]

In summary, addressing issues of trade—past, present, and future—is not just about economics, money or the flow of capital. It must include the critique and understanding of the lasting impact trade has had on human beings, their movements. The traces of their wants, fears and desires are manifest as architecture. The history of architecture therefore should not be written without a history of trade, nor should it be written without continually assessing its role in perpetuating the violence of capitalism, past, present and future.

Notes

1 Joyce Appleby, *The Relentless Revolution: A History of Capitalism* (New York: W.W. Norton & Co., 2010), 13.
2 *Ibid*, 13–26. Appleby is right in insisting that capitalism is not just a morality play, and she details many of its failures. However, her narrative provides comfort for those who believe, despite its many flaws, it has made the world better off.
3 The most prominent historian, and arguably its greatest apologist, is Niall Fergusson in his *Ascent of Money: A Financial History of the World* (Penguin Group, 2008), a masterful diagnosis of the invention of credit and finance in the city-states of Italy and in Holland, as well as of the invention of insurance in Scotland. However, as he moves into the 19th century, the violence and coercion becomes absent as he moves to embrace the abstract monetary conservatism of Milton Friedman.
4 Thomas Piketty, *Capital in the Twenty-First Century* (Cambridge, MA: Belknap Harvard University Press, 2014), 5–7.
5 *Ibid*, 8–10.
6 Peggy Deamer ed., *Architecture and Capitalism: 1845 to the Present* (New York: Routledge, 2014), 2–5.
7 There is actually a good book that explores the material reality of architecture, see Juliet Odgers, Mhairi McVicar and Stephen Kite, eds. *Economy and Architecture* (New York: Routledge, 2015). Carol Willis, *Form Follows Finance: Skyscrapers and Skylines in New York and Chicago* (Princeton, NJ: Princeton Architectural Press, 1995) is one of the first to confront this issue along with essays from Kazys Varnelis, "The Caress of the Commodity" and Ellen Dunham-Jones, "Stars, Swatches and Sweets" in the *Creativity in Consumer Culture* issue of *Thresholds* 15 (Fall 1997).
8 Brian O'Boyle and Terrence McDonough, "Bourgeois Ideology and Mathematical Economics," *Economic Thought* 6, no. 1 (2017): 22.
9 *Ibid*, 23.
10 As quoted in *ibid*, 24.
11 Leon Walrus, *Elements of Pure Economics* (1874), first published as L. Walras, "Economique et Mécanique," *Bulletin de la Société Vaudoise des Sciences Naturelles* 15 (1909): 313–25. Reprinted in *Metroeconomica* 12 (1960): 3–11.
12 Arne Hiese, "Walrus' Law in the Context of Pre-Analytic Visions." *Economic Thought* 6, no. 1 (2017): 65.
13 *Ibid*, 83.
14 John Maynard Keynes worked for the India Office and his first recognized publication was *Indian Currency and Finance* (London: Macmillan and Co., 1913).
15 This is the crucial difference between "liberals" and "conservatives." Liberals expect the state to minimize pain. Conservatives think pain is necessary and beneficial to the moral education of society. Poverty creates pain and therefore is proof of moral failure. Conversely, wealth is evidence of an abundance of a moral work ethic.

16 See, for example, an early post-war diagnosis of this flaw in J.D. Wiseman, "Legitimation, Ideology-Critique, and Economics," *Social Research* 42, no. 2 (1979): 291–320, where he quotes Michael Hudson, and in O'Boyle and McDonough (2017). This runs contrary to Piketty's critique of Ricardo, and Marx's focus on industrial mechanization. Land and privilege still matter. See Fred Pearce, *The Land Grabbers: The New Fight over Who Owns the Earth* (Boston: Beacon Press, 2012) and Sanjoy Chakravorty, *The Price of Land: Acquisition, Conflict, Consequence* (New Delhi: Oxford University Press, 2013), among others.
17 Michael Hudson, *The Bubble and Beyond: Fictitious Capital, Debt Deflation and Global Crisis* (Dresden: Islet, 2012), and Alexander Stille, "The Heirs of Inequality" (August 23, 2012), www.project-syndicate.org/print/the-heirs-of-inequality-by-alexander-stille.
18 Michel de Certeau, *The Writing of History* (New York: Columbia University Press, 1988), 6.
19 See Robert Cowherd, Chapter 2, for the Amsterdam-Batavia analysis.
20 There is a persistent myth that capitalism is synonymous with emerging democracy, when in fact it flourishes no matter the structure of the state. In recent years this fundamental "flaw" in this model has finally emerged within popular culture and the economic discipline. See, for example, James Galbraith, *Inequality and Instability: A Study of the World Economy Just Before the Great Crash* (New York: Oxford University Press, 2012); Joseph Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (New York: W.W. Norton & Co., 2012).
21 John F. Padgett and Paul D. McLean, "Economic Credit in Renaissance Florence," *The Journal of Modern History*, 83, no. 1 (2011): 1–47.
22 Yadira Gonzalez De Lara, "Enforceability and Risk-Sharing in Financial Contracts: From the Sea Loan to the Commenda in Late Medieval Venice," *The Journal of Economic History*, 61, no. 2 (2001): 500–4.
23 John Stuart Mill, *Principles of Political Economy* (1848, 1870 ed.), I.2.1–16.
24 *Ibid*, I.2.12.
25 *Ibid*, I.3.13–16.
26 *Ibid*, I.4.2–5.
27 Mark Tunick, "Tolerant Imperialism: John Stuart Mill's Defense of British Rule in India," *The Review of Politics*, 68, no. 4 (October 1, 2006): 586–611.
28 This gives birth to the virtually unquestioned myth of Western Emergence, based on economics, philosophy, and civic institutions, such as law. Robert Nisbet, *A History of the Idea of Progress* (New York: Basic Books, 1980) enshrines this idea by moving through the great western philosophers. There are many examples—see William J. Bernstein, *A Splendid Exchange: How Trade Shaped the World* (New York: Grove/Atlantic, Inc., 2009).
29 Sven Beckert, *Empire of Cotton: A Global History* (New York: Alfred Knopf, 2014), xv.
30 Jacques Derrida, *Acts of Religion* (Routledge: New York, 2002), 233.
31 C.A. Bayly, *The Birth of the Modern World, 1780–1914* (Malden, MA: Blackwell Publishing, 2004), 62.
32 See for example, Tristram Hunt, *Cities of Empire: The British Colonies and the Creation of the Urban World* (New York: Metropolitan Books, 2014).
33 The history in this chapter is derived from Nick Robins, *The Corporation That Changed the World: How the East India Company Shaped the Modern Multinational* (London: Pluto Press, 2012); L.S. Sutherland, "The East India Company in Eighteenth-Century Politics," *The Economic History Review* 17, no. 1 (January 1, 1947), 15–26; Amar Farooqui, "Governance, Corporate Interest and Colonialism: The Case of the East India Company," *Social Scientist* 35,

no. 9/10 (September 1, 2007): 44–51; Larry Neal, "The Dutch and English East India Companies Compared," in James D. Tracy, ed. *The Rise of Merchant Empires* (Cambridge: Cambridge University Press, 1990), 195–222; Charles Parker, "International Markets and Global Trade," in *Global Interactions in the Early Modern Age, 1400–1800* (New York: Cambridge University Press, 2010), 67–109; K.N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750* (New York: Cambridge University Press, 1985 [2005]); K.N. Chaudhuri, *The Trading World of Asia and the English East India Company, 1600–1760* (Cambridge: Cambridge University Press, 1978); A.J. Farrington, *Trading Places: The East India Company and Asia, 1600–1834* (London: British Library, 2002); Philip Lawson, *The East India Company: A History* (London: Routledge, 1993) and H.V. Bowen, *The Business of Empire: The East India Company and Imperial Britain, 1756–1833* (Cambridge: Cambridge University Press, 2006).

34 This is period where Thomas Hobbes gives birth to the philosophy of moral political economy, with his defense of the King in *Elements of Law* [1640] (London: Oxford University, 2005), *De Cive* [1642] (London: Oxford University, 1984) and *Leviathan* [1651] (London: Oxford University Press, 2012). Hobbes creates the moral justification for violence in pursuit of justice, justified by reason in order to defeat the selfishness and greed of human nature.

35 Arnold A. Sherman, "Pressure from Leadenhall: The East India Company Lobby, 1660–1678," *The Business History Review* 50, no. 3 (October 1, 1976): 329–55.

36 Hejeebu Santhi, "Contract Enforcement in the English East India Company," *The Journal of Economic History*, 6, no. 2 (June 1, 2005): 496–523.

37 The dividends and wealth created in London by the EIC no doubt paid for a number of architectures, interiors, furniture and art.

38 The Sepoy are highly trained Muslim soldiers.

39 "Loot" is Anglicization of a Hindu word and one of many language legacies of British colonialism.

40 https://commons.wikimedia.org/wiki/File:East_India_House_THS_1817_edited.jpg#/media/File:East_India_House_THS_1817_edited.jpg.

41 This is an annotated image by the author based upon a chart found at www.voxeu.org/sites/default/files/image/voth_april2014_fig1.png.

42 For an excellent analysis of this architecture and the city during this period, see Swati Chattopadhyay, "Blurring Boundaries: The Limits of 'White Town' in Colonial Calcutta," *Journal of the Society of Architectural Historians*, 59, no. 2 (June 1, 2000): 154–79.

43 For an architectural history of the British in India in the 19th century, see Vikram Prakash, ed. *Colonial Modernities: Building, Dwelling and Architecture in British India and Ceylon* (New York: Routledge, 2015).

44 www.nga.gov/content/ngaweb/features/slideshows/footsteps-of-the-raj.html.

45 For more detail see, Stanley D. Chapman, "The Textile Factory Before Arkwright: A Typology of Factory Development," *The Business History Review*, 48, no. 4 (December 1, 1974): 451–78; and John Smail, "Manufacturer or Artisan? The Relationship between Economic and Cultural Change in the Early Stages of the Eighteenth-Century Industrialization," *Journal of Social History*, 25, no. 4 (July 1, 1992): 791–814.

46 See Eric Evans, *The Contentious Tithe, The Tithe Problem and English Agriculture* (London: Routledge, 1976); and Jennifer R. Baker, "Tithe Rent-Charge and the Measurement of Agricultural Production in Mid-Nineteenth-Century England and Wales," *The Agricultural History Review*, 41, no. 2 (1993): 169–75. In 1826, the Tithe Commutation Act replaced the annual tithe with a fixed rent. This in many ways was worse, as the clergy now were insulated from any losses due to a failed harvest.

47 Gillian Cookson, "Innovation, Diffusion, and Mechanical Engineers in Britain, 1780–1850," *The Economic History Review*, 47, no. 4 (1994): 749–53; Trevor Griffiths, Philip A. Hunt and Patrick K. O'Brien, "Inventive Activity in the British Textile Industry, 1700–1800," *The Journal of Economic History*, 52, no. 4 (December 1, 1992): 881–906.

48 Adam Smith (London: W. Strahan, 1776), 83; (1848), 933.

49 Joel Mokyr, "Intellectual Property Rights, the Industrial Revolution, and the Beginnings of Modern Economic Growth," *The American Economic Review* 99, no. 2 (2009): 349–55. Also see Philip Richardson, "The Structure of Capital during the Industrial Revolution Revisited: Two Case Studies from the Cotton Textile Industry," *The Economic History Review*, New Series 42, no. 4 (November 1, 1989): 484–503.

50 This is not entirely true. Although born to tailors, Arkwright was wealthy enough to file patents in 1769 and 1775 and to spend 12,000 pounds with help from new investors on his new machine, an enormous sum in late 18th century England. He actually failed to defend his patent in 1785 after a long, costly legal battle, and died in 1792, still wealthy with a massive 500,000-pound fortune, but unable to fully realize the potential profits of his invention. For more on Arkwright see R.S. Fitton, *The Arkwrights: Spinners of Fortune* (Manchester: Manchester University Press, 1989).

51 Robert Tennyson, "From Unanimity to Proportionality: Assent Standards and the Parliamentary Enclosure Movement," *Law and History Review*, 31, no. 1 (2013): 206.

52 *Ibid*, 209.

53 *Ibid*, 213.

54 Ian Whyte, "Parliamentary Enclosure and Changes in Landownership in an Upland Environment: Westmorland, c.1770–1860," *The Agricultural History Review*, 54, no. 2 (2006): 244. For a parallel moment in architectural history, this is the period of Stowe and Capability Brown.

55 *Ibid*, 240.

56 Martin Greaney, *Liverpool: A Landscape History* (Stroud: The @History Press, 2013).

57 Ian Collard, *Liverpool City Center Through Time* (Stroud: Amberley Publishing, 2013).

58 John C. Brown, "The Condition of England and the Standard of Living: Cotton Textiles in the Northwest, 1806–1850," *The Journal of Economic History*, 50, no. 3 (September 1, 1990): 591–614.

59 Patrick O'Brien, Trevor Griffiths and Philip Hunt, "Political Components of the Industrial Revolution: Parliament and the English Cotton Textile Industry, 1660–1774." *The Economic History Review*, New Series 44, no. 3 (August 1, 1991): 395–423; Robin Pearson, "Collective Diversification: Manchester Cotton Merchants and the Insurance Business in the Early Nineteenth Century," *The Business History Review*, 65, no. 2 (July 1, 1991): 379–414.

60 More has been written about Karl Marx than can be covered here. However, this phrase reinforces the arguments made at the outset, that beyond the mathematics of economics and the movement of capital, law remains vital. Marx writes what becomes these books between January 1862 and July 1863 under the original title of "A Contribution to Political Economy." He mentions these notebooks to his friends Engels (who also writes on this subject and hopes to publish them) and Kautsky, yet Marx never includes them in *Capital*. They are first published by Kautsky between 1905 and 1910. See the Preface of Karl Marx, *Theories of Surplus Value*, Part I (Moscow: Progress Publishers, 1963) for more detail on this history.

61 Karl Marx, *Theories of Surplus Value*, Part I (Moscow: Progress Publishers, 1963), 56.

62 See for example, Roxanne Prazniak, "Siena on the Silk Roads: Ambrogio Lorenzetti and the Mongol Global Century, 1250–1350," *Journal of World History*, 21, no. 2 (2010): 177–217; and John F. Padgett and Paul McLean, "Economic Credit in Renaissance Florence," *The Journal of Modern History*, 83, no. 1 (2011): 1–47.
63 Beckert (2014), 37.
64 There are nearly limitless resources for this topic, including Andrés Reséndez, *The Other Slavery: The Uncovered Story of Indian Enslavement in America* (Boston, MA: Houghton Mifflin Harcourt, 2016); Herbert S. Klein and Ben Vinson, *African Slavery in Latin America and the Caribbean*. 2nd ed. (New York: Oxford University Press, 2007); James F. Searing, *West African Slavery and Atlantic Commerce: The Senegal River Valley, 1700–1860* (New York: Cambridge University Press, 1993).
65 This is where architectural history begins to critique architecture. See John Michael Vlach, *Back of the Big House: The Architecture of Plantation Slavery* (Chapel Hill: University of North Carolina Press, 1993) and Charles W. Joyner, *Down by the Riverside: A South Carolina Slave Community* (Urbana, IL: University of Illinois Press, 1985).
66 Jan de Vries, "The Industrial Revolution and the Industrious Revolution," *The Journal of Economic History*, 54 (1994): 24–70, as quoted in C.A. Bayly, *The Birth of the Modern World: 1780–1914* (Malden, MA: Blackwell Publishing 2004), 51. Bayly's title reinforces the idea that capitalism is a recent phenomenon, although he is emphasising systemic economic and political changes between the late-18th-century revolutions and World War I.
67 Virginia Lunsford-Poe, *Piracy and Privateering in the Golden Age Netherlands* (New York: Palgrave Macmillan, 2005); Johannes Postma, *The Dutch in the Atlantic Slave Trade, 1600–1815* (Cambridge: Cambridge University Press, 2008).
68 Of all the topics in this chapter, this needs the least explanation. The purpose here is to return the topic of slavery to the history of capitalism where it belongs, and as recent scholarship has proven. Julia Ott, "Slaves: The Capital that Made Capitalism" (2014), www.publicseminar.org/2014/04/slavery-the-capital-that-made-capitalism/#.WPjEHhIrLaZ.
69 Bayly (2004), 51–2.
70 Santiago-Valles Kelvin, "World-Historical Ties Among 'Spontaneous' Slave Rebellions in the Atlantic," *Review* (Fernand Braudel Center) 28, no. 1 (2005): 51–83; Carolyn Fick, "Revolutionary Saint Domingue and the Emerging Atlantic: Paradigms of Sovereignty," *Review* (Fernand Braudel Center) 31, no. 2 (2008): 121–44.
71 *Ibid*, Fick (1980).
72 For example, see James Rawley, "The Port of London and the Eighteenth Century Slave Trade: Historians, Sources, and a Reappraisal," *African Economic History* no. 9 (1980): 85; and Louis Nelson, "Architectures of West African Enslavement," *Building and Landscapes* 21, no. 1 (2014): 88–125.
73 As quoted in Andrew S. Coopersmith, *Fighting Words* (New York: The New Press, 2004), 49–50. See also Charles W. Joyner, *Remember Me: Slave Life in Coastal Georgia*, Rev. ed. (Athens: University of Georgia Press, 2011).
74 Revisionist histories of this period claim that it was the industrial might of the northeast that defeated the agrarian south. While pockets of industrial activity occurred along river valleys from Delaware to Massachusetts, agriculture was by far the number one economic activity for the entire nation well into the 20th century.
75 Claire Blencowe, "Ecological Attunement in a Theological Key: Adventures in a Antifascist Aesthetics," *GeoHumanities*, 2, no. 1 (2016): 25.
76 See Kenneth Carswell, Pennie Blackburn and Chris Barker, "The Relationship between Trauma, Post-Migration Problems and the Psychological Well-Being of

Refugees and Asylum Seekers," *The International Journal of Social Psychiatry* 57, no. 2 (March, 2011): 107–19.
77 O'Boyle and McDonough (2017), 30.
78 Europe is beholden for the military assistance during the war as well as for the massive monetary aid in the form of the Foreign Assistance Act of 1948, better known as the Marshal Plan.
79 Nisbet (1969), 308.
80 For a quick history see "What Was Decided at Bretton Woods," *The Economist* (July 2014), www.economist.com/blogs/economist-explains/2014/06/economist-explains-20.
81 The big bang of the Thatcher/Reagan 1980s privileged non-wage income over wage income, and deregulated financial engineering, with tax-deductible debt. For a quick primer on this see Les Leopold, *Runaway Inequality: An Activists Guide to Economic Justice* (New York: Labor Institute Press, 2015), 33–42, 93–105. Robin M. Robe Greenwood and David S. Scharfstein, "The Growth of Modern Finance" (July 1, 2012), www.people.hbs.edu/dscharfstein/growth_of_modern_finance.pdf.
82 Richard Rothstein, "From Ferguson to Baltimore: The Fruits of Government Sponsored Segregation," Economic Policy Institute (April 29, 2015), www.epi.org/blog/from-ferguson-to-baltimore-the-fruits-of-government-sponsored-segregation; Emmanuel Saez, "Striking it Richer: The Evolution of Top Incomes in the United States," *Pathways Magazine*, Stanford Center for the Study of Poverty and Equality (2010), http://elsa.berkeley.edu/~saez/saez-US topincomes-2010.pdf; Barry Z. Cynamon and Stephan M. Fazzari, "Inequality and Household Finance during the Consumer Age," *Institute of New Economic Thinking*, Federal Reserve Bank of St. Louis, Working Paper (January 2013).
83 See for example David Harvey, *Spaces of Global Capitalism* (New York: Verso, 2006). Aggregate, *Governing by Design: Architecture, Economy and Politics in the Twentieth Century* (Pittsburgh, PA: University of Pittsburgh Press, 2012); Tim Di Muzio, *The Capitalist Mode of Power: Critical Engagements with the Power Theory of Value* (London: Routledge/RIPE Studies in Global Political Economy, 2014).
84 Reinhold Martin, "The Demagogue Takes the Stage," *Places Journal* (March 2017), https://placesjournal.org/article/the-demagogue-takes-the-stage/.
85 *Ibid.*
86 Andrew Lo, "Why Financial Markets Behave like Living Organisms—MIT Sloan School of Management," MIT Sloan School of Management, http://mitsloan.mit.edu/newsroom/articles/why-financial-markets-behave-like-living-organisms. His optimism is countered by the analysis of his colleague Peter Temin's *Vanishing Middle Class: Prejudice and Power in the Dual Economy* (Cambridge, MA: MIT Press, 2017).
87 Mark Karlin, "Globalization Is Just a Contemporary Word for Financial Colonialism," *Truthout*, www.truth-out.org/opinion/item/39786-globalization-is-just-a-contemporary-word-for-financial-colonialism.