BUILDING WALLS
IN AN AGE OF GLOBALIZATION

Learning from the History of Walls and a Modest Proposal to 'Tear Down This Wall'

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October 2022

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Contents

1. Introduction

It is easy to assume that building walls is a peculiarly Chinese historical habit – the Great Wall of China in particular. In fact, walls are a habit of historical urban civilization worldwide. Walls have existed for as long as humans have lived in cities. China is synonymous with walls partly because of its much longer established urban civilization. The global association of cities with walls seemed to change in 1987 when Ronald Reagan traveled to Berlin, stood by the Berlin Wall, and urged the Soviet Premier to "tear down this wall." The Berlin Wall fell soon after, alongside other Cold War borders across Central and Eastern Europe. The European Union (EU) soon after began expanding eastwards, permitting free movement of people, goods, and investment across most of Europe. Alongside this was a shift to the free(er) market, free trade, and openness to foreign investment that drew in much of China, India, South America, Africa and the Middle East. It was easy to assume that the global Age of Walls was over. This assumption was wrong. This paper shows that we are instead amidst a new age of wall building. Walls are a neglected facet of globalization in the 21st century. Some scholars see the wall renaissance as being a consequence of globalization, an effort to control unwanted migration, international terrorism, and drug smuggling. Others see walls as being a product of the social changes unleashed by market-led globalization, the decline of community, the rise of individualism, and the search for low-tax havens, to which the market has responded by the creation of new gated communities. This paper shows that the rise of walls is closely associated with another neglected facet of globalization, the creation of new cities by private enterprise.

This paper asks the question, "What are the economic and social consequences of building walls?" The paper uses a historical case-study methodology by returning to the last great age of wall building, the first few centuries of the Common Era (100-600CE), to search for lessons. This paper uses Hadrian's Wall (128-410CE)

roughly between modern England and Scotland, the Walls of Byzantium (439-1453CE) that circled parts of modern Istanbul, and the Great Wall(s) of China (656BCE-2022CE). The paper also discusses the Berlin Wall (1961-1989) as the emblematic totem of twentieth century Cold War politics. The paper also draws on a recent literature looking at the causes, nature, and consequences of gated communities. This literature has the advantage of being contemporary but the disadvantage of at most only being able to speculate about the potential long-run impacts of wall building. The paper draws five key themes related to wall construction from the historical case studies: to protect people, to keep people in, to promote urbanization, to influence patterns of inequality and social cohesion, and the cost of walls. Finally, the paper makes the case that charter cities offer a practical means to maximize the benefits of contemporary urbanization and globalization and to navigate the hazards, costs, and even potential benefits generated by the recent renaissance in wall building.

Section 2 introduces the history of wall building and two neglected facets of contemporary globalization: new wall construction and new city construction. Section 3 introduces the four historical case studies. The following five sections explore each theme related to wall construction in detail, Section 4 to protect people, Section 5 to keep people in, Section 6 to promote urbanization, Section 7 inequality, and Section 8 the cost of walls. Section 9 offers by way of a conclusion a proposal, that charter cities are an ideal way to effectively manage these twin global processes, wall building and new city construction.

2. The History of Walls and Big Questions About Contemporary Globalization

This section first briefly outlines the history of wall building and the long-standing historical link between cities and walls. The optimistic view in 1987 that the Age of Walls was over gave way instead to a renaissance in wall-building. This section also outlines a neglected aspect of contemporary globalization, that of new city construction which is closely bound up with debates about new walls.

2.1. The History of Walls from Biblical Jericho to Ronald Reagan in Berlin

The arrival of the Israelites into world history in the Old Testament was heralded by their destruction of the walls of Jericho. These 600-meter-long stone walls dated from as early as 8000BCE and took several hundred years to construct. By 3000BCE the Sumerian city of Uruk (modern Iraq) and its population of 80,000 were protected by a 6-mile wall (Vernon and Zimmermann, 2019). The ancient civilizations of Assyria, Israel, and Sumer have been described as "clusters of birdcages." Every city was a walled oasis of relative safety while travel between them was perilous.

The historical anomaly of fifth century BCE Greek Sparta—a city without walls—was in practice a calculated military provocation. Walls, according to Spartan philosophy, were "women's quarters." The presence of a defensive fallback sapped the military vitality of a city's inhabitants. Any enemy should be pro-actively defeated in their home territory to prevent them approaching undefended Sparta. The absence of walls did not make Sparta open or cosmopolitan, but instead intensified a militaristic xenophobia (Frye, 2018:37). By contrast, the ancient Greek walls of fifth century BCE Athens secured Athenian access to the Aegean Sea and long protected the city from land-based military threats. By promoting openness to trade and freedom from reliance on a standing army, Athens flourished as a cultural, democratic, architectural, literary, philosophical, and mathematical haven (Frye, 2018).

Nebuchadnezzar II of Babylon (605-562BCE) was the first ruler to establish a defensive perimeter around an entire country. Walls then went further and evolved into something that spanned entire civilizations. A Great Age of Wall building in the first five centuries CE fostered the development of three vast regions: China, the Islamic World, and the West. These Eurasian civilizations remained open to each other but sought to secure themselves against the nomadic people of the Steppes. This is the era from which this paper draws three of its case studies.

Around 83-260CE, the Roman Empire turned from expansion to consolidation and built walls along the edges of its established empire, the 118km Hadrian's Wall and 60km Antonine Wall in Scotland, a 750km wall in North Africa, and the 568km Germanicus wall in Germany. In 430-570CE, the Sassanid Empire (modern-day Iran) built walls to protect its borders from nomadic neighbors. The most important of these walls was the 200km Gorgan Wall that featured 38 forts, a network of canals (for water and defense) and a garrison of at least 20,000 troops (Vernon and Zimmermann, 2019). In 585CE, Chinese Emperor Wen put 30,000 workers to wall building, increasing this to 150,000 in the next year. By 607CE, one million men were laboring to build the Yang Walls and scholars have estimated that 500,000 died in their construction (Frye, 2018:135).

In the fifth century Alaric pillaged Rome, Hadrian's Wall fell into disrepair, and Western Europe abandoned their cities and villas and retreated

into hill forts—the Dark Ages descended. The Sassanids had constructed walls that faced north to protect a sophisticated urban culture from the nomadic steppe people. The Sassanid Empire instead fell to an Islamic Arab invasion from the south. China's walled civilization was the only one of the three to survive (Frye, 2018). However, walls were not exclusive to Eurasia. Around 800CE Benin-city was possibly the world's largest planned urban project, comprising a network of 16,000km of walls that enclosed an entire kingdom comprised of hundreds of interlocked cities and villages. The walls of Benin were destroyed by Europeans during the late Victorian colonial era (Vernon and Zimmerman, 2019).

The Age of Walls appeared to come to a definitive end in 1987. President Reagan visited West Berlin and called on Soviet Premier Gorbachev to "tear down this wall." Soon after, five Cold-War walls were torn down. In 1989 Hungary opened its border with Austria and East Germans used the opening to flee into West Germany. Four other fortified borders were opened soon after; those between Czechoslovakia-West Germany, USSR-Finland, USSR-Norway and the Berlin Wall (Frye, 2018).

2.2. A Neglected Facet of Globalization I: New Wall Building

The end of the Cold War permitted the spread of the European Union (EU) eastwards and the integration of the former USSR, China, and Vietnam into the global economic system during the 1990s. This was superimposed upon a global tendency of liberalizing international trade and investment reforms across Africa, Asia, Latin America, and elsewhere that had begun in the 1980s. The era of globalization saw a surge in cross-border flow of trade, foreign investment, migration of people, patterns of consumerism, and cultural tastes. There is a paradox at the heart of globalization, however. Walls never went away. The twenty-first century has instead seen a renaissance of wall building.

Since 1946, more than 65 countries have built walls along their borders, with most built after 2000 (Frye, 2018). Europe now has a similar number of walled borders as during the Cold

War (Marshall, 2018). After a spate of suicide bombings, Israel began construction of a 450-mile wall (though only 3% of the length is concrete) with Palestine. Egypt contributed a steel wall between itself and Palestine that extends 60 feet underground to prevent tunneling (Marshall, 2018). Between 2002 and 2010, 15 new security walls and fences were built in the Middle East as the Islamic State (ISIS) insurgency, terrorism, and illegal migration threatened ruling regimes in the region. In Saudi Arabia, construction began in 2003 on a 1,100 mile 10 feet high concrete and barbed wire border with Yemen and a 600-mile wall with Iraq, with the country now nearly completely enclosed. Jordan and Syria are divided by one of the world's (US-funded) most high-tech fences replete with sensors and night-vision cameras. Across the cities of Baghdad, Damascus, Amman, Beirut, Cairo, and Riyadh walls are common around embassies, police stations, army barracks, and government buildings. The Middle East has been reasonably referred to as "a honeycomb of fences and walls" (Frye, 2018:235).

Elsewhere the list of new walls since 2010 is long; Greece and Turkey, Bulgaria and Turkey, Turkey and Syria, Hungary and Serbia, Greece and Macedonia, Macedonia and Serbia, Serbia and Hungary, Slovenia and Croatia, Uzbekistan and its five neighbors, Brunei and Malaysia, India and Bangladesh, Malaysia and Thailand, China and North Korea and of course South Korea and North Korea. South Africa has been constructing a lethal electrified fence on its border with neighbors Mozambique and Zimbabwe since 1986. Newsworthy anti-migration walls include that between the US and Mexico and between the Spanish enclaves of Ceuta and Melilla and Morocco. The UK financed a 13-foot-high barrier in the French port city of Calais, aimed at preventing refugees and migrants from entering Britain (Marshall, 2018; Vernon and Zimmermann, 2019). The so-called 'Trump Wall' with Mexico has been portrayed as a partisan symbol of US cultural division. Much of the Trump Wall was constructed by Bill Clinton under Operations Blockade and Hold the Line. Both Hillary Clinton and Barack Obama voted for President Bush's 2006 Secure Fences Act which extended the wall hundreds of miles. Border wall construction continued during

the Obama presidency. By 2009, the US had walled more than 700-miles of its borders. The Trump Wall is a product of bipartisan consensus, not political conflict (Frye, 2018; Marshall, 2018).

At a local level there is a literature on gated communities which directly confronts the paradox of economic liberalization and wall building. A gated community is a housing development (that sometimes encompasses retail, leisure, and employment) on private roads closed to general traffic by a gate across the main access point. A gated community may be surrounded by fences, walls, or other natural barriers that further limits public access (Grant and Mittelsteadt, 2004:913). Gated communities prevent general access to roads, parks, or playgrounds that previously would have been accessible to all residents of a locality (Jurgens and Gnad, 2002). A gated community represents a form of privatization whereby public goods are no longer provided by government from tax revenue but instead turned into a commodity that is purchased by the members of the community (sometimes known as 'Club Goods') (Vesselinov et al, 2007).

The rise of gated communities is commonly seen to be driven by the global shift towards privatization and reliance on markets. Gated communities appeal to an ethos that emphasizes individualism and offering consumers more choice (Genis, 2007). This retreat from the public realm has been described as the affluent exercising a consumer choice and seeking privacy, safety, and greater social segregation (Le Goix and Webster, 2008). In Asia the upper classes have turned to gated communities to ensure better access to high-quality infrastructure and private social and domestic services (Genis, 2007). In Israel, the private provision of new housing has been driven by a consumer demand by residents for security and exclusive amenities (Rosen and Razin, 2009). In Ghana, gated communities are targeted to a wealthy overseas class with Ghanaian heritage (Obeng-Odoom et al, 2014). The rise of private enclaves has also been likened as a "secession" by an elite opposed to welfare and redistribution (Le Goix, 2005).

2.3. A Neglected Facet of Globalization II: New City Building

The end of the Cold War helped initiate a new wave of globalization, discussion of which has focused on trade, flows of foreign investment, migration of people, patterns of consumerism, and cultural tastes. A neglected part of this story has been a new (and final) wave of urbanization.

The global pace of urbanization has accelerated. It took humans from their origins until 2010 for the urban population to reach 3.5 billion. The UN has estimated that in the forty years after 2010, an extra 2.6 billion people will move into cities. This will mark the culmination of a process that began 10,000 years ago when the first humans gathered into cities. In 1950, 30% of the world's population (746 million people) were urban and by 2014 this had risen to 54% (3.9 billion). By 2100 the UN predicts that the urban population share will reach and stabilize at around 75% (Castle-Miller, 2012; Carmody and Owusu, 2016). Within this global story the most dramatic regional urbanization story has been that of China. From 1978 to 2006, the share of China's population living in cities increased from 18% to 44%. It is estimated that the urban population will increase by another 500 million people over the next 30 years (Xue et al, 2013). The epicenter of new urbanization is shifting away from China. Estimates in 2010 predicted that India's urban population would increase by almost 600 million people by 2030 (Datta, 2012). Over the past three decades urbanization in Africa has increased faster than anywhere else in the world (Carmody and Owusu, 2016:62). In the 35 years after 2015, the urban population of Africa is forecast to almost triple to 1.3 billion (van Noorloos and Kloosterboer, 2018).

The common perception is that urbanization will be driven by the expansion of slums in already vast cities—such as Kolkata, Mumbai, Karachi, Lagos, and Sao Paulo. This is only part of the story. Much of this increase in urbanization will be accommodated by the construction of new cities. Urban China today comprises mainly new cities built up over the past thirty years. Hundreds of entirely new cities have been established across Asia and Africa since the early 2000s (Shepard,

2017). One estimate suggests that over 40 countries are developing new cities. Indonesia alone is constructing 27 new cities (Shepard, 2017). In Rwanda and Kenya new cities are a key part of each country's national economic strategy (van Noorloos and Kloosterboer, 2018). King Mohammed VI Green City in Morocco is meant to spearhead technological innovation and development by attracting high-tech industries, start-ups, and universities, and providing national and global connectivity (van Noorloos and Kloosterboer, 2018). High oil prices in the 2000s empowered many Arab States to build new city projects (Moser et al, 2015). The motives for Arab new urbanization are entirely typical of global aspirations. NEOM is a $500 billion new city under construction on the Red Sea coast in Saudi Arabia. In Saudi Arabia. building new cities is seen as key to diversifying the economy away from oil and generating new jobs that will help stave off any political and social dissent (Moser et al, 2015).

New city construction is intimately bound up with the privatization of infrastructure investment. Private companies are largely responsible for presenting the initial vision for new cities and their subsequent planning and construction (Shatkin, 2011). Governments have aggressively supported such projects through helping with land acquisition, often cheap state-owned land, building urban-linking infrastructure such as roads and power supply, and extending favorable regulatory reforms and political support for private developers (Shatkin, 2011). Historical city building has always had an important private element, especially among the poorest building informal settlements. The new wave of city construction has seen greater private construction for the professional middle classes (Hogan et al, 2012:59). New city construction is also bound up with the globalization of investment, much of this South-South. Chinese companies are actively engaged in constructing new African cities in Egypt, Morocco, South Africa, Ethiopia, Nigeria, and Angola (Moser et al, 2021). Moroccan firms have established partnerships to build new cities in Senegal, South Sudan, and Ivory Coast (Moser et al, 2021).

3. A Tale of Four Walls

Three of the four case studies overlap with a great age of wall-building (100-600CE). Hadrian's Wall, the Walls of Byzantium, and the Great Wall of China sought to protect entire civilizations from an existential external threat. The parallels with the contemporary world are striking, for the nomadic steppes then, the inflamed political rhetoric today is about terrorism, illegal immigration, and drug smuggling. The fourth case study is the Berlin Wall, whose fall in 1989 seemed to herald a more open global economy, but instead turned out to be the prelude to a new renaissance of wall building.

3.1. Berlin Wall (1961-1989CE)

The end of WWII saw Germany and Berlin partitioned into spheres of control by the four victors—Britain, France, the US, and USSR (Gelb, 1986). By 1949 the three western zones were merged into the Federal Republic of Germany (FRG). The FRG joined the forerunner of the European Union (EU) in 1952 and the western military alliance NATO in 1955 (Tusa, 1996; Taylor, 2007). Partitioned Berlin lay deep inside East Germany—the German Democratic Republic (GDR)—and proved an enduring thorn in West-East relations. The 1953 Berlin uprising in the East was directly influenced by the higher living standards and greater political freedoms of those in West Berlin (Tusa, 1996). West Berlin existed under an extreme existential threat. In the 1950s the Soviets seemed poised to dominate Europe. There was a population of 2.5 million people in West Berlin protected by a garrison of 12,000 troops, surrounded by 300,000 Soviet troops. In July 1951 the USSR successfully tested its first atomic bomb (Tusa, 1996:45). The Soviets made practical efforts, short of military conflict, to dislodge the West from West Berlin, most notably the Berlin Blockade which began in 1948 (Gelb, 1986; Taylor, 2007). Into the 1970s West Berlin remained something like a free city, its citizens retaining different laws from the rest of West Germany. There was no military call-up and the liberal city became a LGBTQ enclave (Taylor, 2007).

Originally, provisions under the Four Power Treaty gave a right of unhindered access for all sides in Berlin. Initially trams, buses, and the U-Bahn ran between West and East, and tickets could be bought in either currency. Air flights crossed from West Germany through corridors to West Berlin. There was a gradual growth of Soviet interference with freedom of movement, such as demands for identification, a reduction in crossing points, and searches to prevent those who seemed intent on flight. More restrictions only increased migration. Between 1949 and 1951 492,681 refugees arrived in West Germany (Tusa, 1996). In April, May, and June 1961 just under 20,000 people were fleeing East Germany a month. In June, East German Premier Walter Ulbricht declared that "no one has the intention to build a wall" and, fearful of exactly that, migration accelerated. Almost 50,000 left in August. On Saturday August 12th, the GDR police and army closed the border (Tulsa, 1996). By September 1961, Soviet troops were firing on those trying to cross the border or swim the river Spree. By 1989, East German border guards had opened fire 1,693 times and killed 80 people (Tulsa, 1996). Between 1961 and 1989 there were an estimated 5,000 successful escapes, including 565 by members of the GDR armed services (Fleming, 2011:38).

By the late 1970s there were growing signs of economic malaise in the GDR. East Germany's debt to the West had soared from DM 2 billion in 1970 to DM 49 billion in 1988 and its productivity sank to around half that of West Germany (Taylor, 2007:615). The East German economy suffered severe problems with access to energy and raw materials as the Soviets reduced deliveries. East Germany turned to locally sourced, highly polluting brown coal as an alternative (Taylor, 2007). Economic malaise gradually manifested as social discontent. In 1977 a jazz concert in East Berlin culminated in violent riots, the first anti-wall riot in the East (Taylor, 2007). In 1987,

a concert given in West Berlin near the wall by David Bowie, Genesis, and the Eurythmics led to a crowd 4,000 first listening and then threatening the border near the Brandenburg Gate, they were dispersed by the police (Fleming, 2011). By the late 1980s internal discontent was overwhelmed by external events. In May 1989 Hungary opened its border with Austria and then Czechoslovakia with West Germany and by July 25,000 had used this route to cross from the GDR to the FRG. In July, Gorbachev repudiated the Brezhnev Doctrine which gave the USSR the right to use force against any Warsaw Pact country that sought to change its economic or social system. On the 5th of November, when more than one million East Germans demonstrated or left the country, 380,000 Soviet troops stayed in their barracks (Tulsa, 1996; Taylor, 2007). On November 9th, 1989, a Lieutent-Colonel of the GDR worried about the safety risks to his men from massing crowds opened the Berlin border without passport checks. By midnight, all the checkpoints had been forced open. East Berlin was soon deserted as an estimated 2 million people crossed to the west that weekend. In June 1990, the final structures at Checkpoint Charlie were removed, with the Foreign Ministers of UK, France, Germany, US, and USSR in attendance. In October 1990, Germany was unified (Tusa, 1996; Taylor, 2007).

3.2. Hadrian's Wall (128-410CE)

In 54CE and again in 55CE Caesar invaded Britain and though he won multiple battles he departed accepting a formal submission from defeated tribes rather than setting up a permanent occupation. Rome invaded Britain again under Emperor Claudius in 43CE. Claudius needed a military success after a rebellion in the previous year (Breeze and Dobson, 2000). Claudius took the title 'Britannicus' to celebrate his conquest in front of large crowds in Rome (Moffat, 2017). Despite military victories, Rome never occupied modern Scotland. In 117CE Hadrian became Emperor and by 122CE Hadrian had settled on a policy to eschew further wars of conquest. Hadrian began construction of permanent frontiers in the North African desert, along the Rhine and Danube in Europe and in northern Britain (Breeze and Dobson, 2000). Over the

next decade until his death in 138CE, Hadrian constructed a 10,000km network of frontiers across 20 modern countries (Symonds, 2021). The Roman army transitioned into a defensive role, as keepers of peace rather than makers of war (Moffat, 2017:178). The construction of Hadrian's Wall began with the visit of Hadrian to Britain in 122CE and was completed in 128CE (Breeze, 2003). The wall was 70 miles in length and initially divided into stone (for more than half its length) and turf. A 10-foot deep and 26-40-foot-wide ditch was dug in front of the wall. The wall was interspersed with fortified gateways that allowed soldiers to move through northwards in case of trouble (Breeze and Dobson, 2000). There was nothing equivalent to Hadrian's Wall west of China, "nothing bigger, grander, more masterful and more impressive." (Moffat, 2017: xv). For most of the subsequent 300 years of the wall, around 10% of the entire Roman army was stationed there and first-rate generals were appointed as governors of Britain (Moffat, 2017:35). The wall was briefly abandoned on the death of Hadrian in 138CE. His adopted son and new emperor Antoninus Pius had a more forward policy and built the Antonine Wall along with new forts inside Scotland (Breeze and Dobson, 2000). In 160CE the Antonine Wall was abandoned. The idea of conquering Scotland was given up as troops were again required to deal with conflict on Danube during the 160s and 170s. Rome retreated to Hadrian's Wall and its turf section was re-built in stone (Breeze and Dobson, 2000).

In 406CE the barbarian Vandals, Alans, and Suebi crossed a frozen Rhine into the Roman Empire. In 410CE Britain received a letter from Rome telling the country to "look to your own defenses." Roman Rule in Britain ended in 411CE as the central government stopped paying salaries of the civil service and the army. Soldiers were not withdrawn and may have remained as many were local recruits with resident families outside the fort walls (Breeze and Dobson, 2000). Between 420CE and 430CE Roman coinage stopped circulating and there was an end of mass-produced pottery (Moffat, 2017:238). There is some evidence that the garrison gradually transformed into an early medieval style war-band, probably offering the local population protection in return for provisions

(Symonds, 2021:130). There is sparse evidence for occupation by the seventh century and the wall fell into disuse. Stones from the wall have been identified in at least 36 ecclesiastical buildings in the local vicinity (Symonds, 2021:139).

3.3. The Wall of Byzantium (439-1453CE)

Byzantium was a strategic choke point in trade; the crossing point for amber, furs, metal and wood from the North, oil, grain, papyrus, and flax from the Mediterranean and spices from the East (Herring, 2008). In 328CE, Roman Emperor Constantine walked the limits of the future capital on foot and traced them with a spear (Crowley, 2005:17). In 330CE the new city was inaugurated (Turnbull 2004; Herring, 2008). By the reign of Emperor Theodosius (408-450CE) the city was congested, so in 412CE new walls were built, 1.5km west of the original walls. These new walls were designed by Anthmius and were completed in 439CE. They have become known as the Theodosian long walls. The fortifications were the largest and strongest ever built in either the ancient or medieval world (Turnbull, 2004; Cartwright, 2019). The final walls were constructed of alternating bricks and stone. The Inner wall was 30 feet high with 96 towers placed every 70 meters, reaching a height of up to 60 feet. The middle wall was 2-6 feet thick and 28 feet high, interspersed with 30-35 feet high towers. A third wall oversaw the moat, which was 61 feet wide and 20 feet deep and could be flooded with water fed from pipes when required. There were ten main gates with projecting walls that allowed flanking fire and protected the outer gateways. The walls were built on a rising embankment so that the defenders could easily fire down on the structures in front of them. The sea walls were less impressive and invader access was instead prevented by a chain hung across the narrow entrance to the Golden Horn (Turnbull, 2004; Cartwright, 2019). Behind the walls the city could wait out any siege. Water was stored in vast cisterns lined with water-resistant cement, one of the largest constructed in 421CE had a capacity of 300,000 cubic meters (Herring, 2008).

At the 378CE Battle of Adrianpole the Goths defeated the Romans, killed Emperor Valens and ravaged up to the walls of Byzantium, which held firm. By contrast Rome was sacked in 410CE and 455CE, and in 476CE the last emperor was deposed by the Hun Odovacer (Herring, 2008). From the seventh century the safe haven of Byzantium was attracting migrant merchants from all over the Mediterranean and Gaul (Herring, 2008).

3.4. The Great Wall(s) of China (656BCE-2022CE)

The idea that either the Great Wall can be seen from outer space or that it was 2,000 years in the building are myths (Waldron, 1992:1). The popular idea that the Great Wall is a purely defensive and peaceful construction is likewise a myth. The wall enters hundreds of miles into the non-Chinese steppes, away from settled farmland and was itself a tool of imperialist aggression (Lovell, 2007:21). One aim of the wall was to occupy territory, facilitate setting up military posts, and to drive nomads out of the steppe (Lovell, 2007:44). The greatest myth is that there is a single 'Great Wall' of China. There many walls, bits of walls, and remains of walls scattered across the plains of northern China. There is no single 'Great Wall of China' understood as a unified project constructed at a particular time and with a particular intended goal (Ringmar, 2018). The Chinese phrase is commonly translated as Great Wall, though Long Wall is the better translation (Waldron, 1992:27). The first textual reference to a wall was in 656BCE during the Ch'u state, built in the southern part of Honan. Wall building then followed in other states and reached a local peak during the Warring States period 403-221BCE. The first emperor to unify China was Ch'in Shih-huang (221-210BCE) who incorporated those early walls into a centrally unified wall building project. There is little mention of the wall in the post-Ch'in period. There is no historical record of a single name, and the range of terms and usages are inconsistent (Waldron, 1992:27). Further walls were built under the Han (202BCE-220CE), the Northern Ch'i (550-74CE), the Sui (589-618CE), and the Ming (1369-1644CE). The wall outside Beijing that tourists take trips to was mainly built in the seventeenth century (Waldron, 1992).

4. **Walls to Protect a City**

The most obvious role for a wall is to protect a city and its inhabitants. This is the clear message told by the historical case studies and the recent gated community literature. The exception is the Great Wall(s) of China, where wall building deprived the nomadic steppe people of trade opportunities and forced them into raiding to obtain necessities.

The Berlin Wall isolated West Berlin from the GDR and so reduced the simmering tension between the US and USSR that had threatened to boil over into military conflict. In June 1961 Kennedy and Khrushchev met in Vienna. Khrushchev harangued Kennedy and demanded that the US remove its 'occupation regime' and turn West Berlin into a free (Soviet-controlled) city. If the US then continued to insist on occupancy rights and violated the sovereignty of the GDR, Khrushchev threatened war (Tusa, 1996; Taylor, 2007). Six weeks later, Kennedy gave a speech in which he promised to protect West Berlin and announced an expansion of the US army, from 825,000 to one million (Taylor, 2007:198). The American public supported Kennedy. An opinion poll commissioned in 1961 found that 71% of Americans were prepared to risk war to maintain Allied rights in Berlin (Gelb, 1986:102). Technically, the Berlin Wall only impeded the access rights of East Berliners to travel, not those of the US or other nations. The Berlin Wall allowed both sides to back down from conflict without loss of face. Kennedy saw the wall as being better than war and noted that the "other side panicked, this is the end of the Berlin crisis" (Taylor, 2007:325). In the longer term, the Wall became normalized in West-East diplomacy, allowing for political rhetoric and practical politics. Kennedy could give thunderous speeches in West Berlin about freedom. At the same time, the FRG could launch a more pragmatic 'Ostpolitik' from the late-1960s that gave up claims to the former German territory lost after WWII to Poland, Czechoslovakia, and the USSR (Taylor, 2007). The 1972 four power agreement confirmed that West Berlin would remain with the FRG and that access routes would not be impeded. In return, the GDR was granted diplomatic recognition by the US and other countries (Gelb, 1986).

The Great Wall(s) of China had a more complicated relationship with external peace. Of enduring debate in China was the Ordos region in north-west China. The Ordos has some parts like the open steppe and some parts suitable for irrigation, it was neither solely the steppes nor a core part of China. The Ordos also had a profound strategic importance. The region commands the valley of the Wei River to the south, in which was located early Chinese capitals such as Ch'ang-an. Were the Ordos to ever be held by steppe peoples, China would be vulnerable (Waldron, 1992:56). The first option was military, but any military offensive into the steppes would leave a Chinese army vulnerable against highly mobile nomadic cavalry able to quickly assemble, strike, and disperse. The second option, trade, was what the nomads wanted and repeatedly requested. Nomads were not self-sufficient, needing grain, metals, and luxury goods. To Chinese authorities, when China had within its borders everything the country required, agreeing to trade was a concession, not an opportunity (Ringmar, 2018). In the sixteenth century Chinese foreign policy was controlled by class of urban scholarly bureaucrats who saw tolerating and trading with 'barbarians' as a moral failure on the part of China (Waldron, 1992:178). The third option was to seal China behind walls (Ringmar, 2018). Chinese foreign policy alternated between these three options in response to the factional influence over policy making (Waldron, 1992). Between the founding of the Ming in 1368 and its catastrophic defeat at T'u-mu in 1449, the northern frontier was open and subject to active military campaigning (Waldron, 1992). In 1500, the Ming cut off trade with the steppe despite repeated requests to restore it. Deprived of basic necessities, the nomads resorted to periodic raiding. By the late 1540s the Ming army were no longer capable of embarking on

military campaigns to subdue the Ordos, so turned instead to wall building. In 1644, the wall was still under construction when the Manchus entered Peking and overthrew the Ming dynasty (Waldron, 1992). In historical China (unlike 1960s Berlin), building a wall did not stimulate a wider peace, instead the wall(s) deprived nomads of opportunities to trade and provoked them to border raids to obtain necessities.

While the Great Wall(s) of China was a physical embodiment of a mindset that shunned trading with the outside world, the Walls of Byzantium were both more successful as walls and helped encourage a turn outwards that profoundly influenced western civilization. The walls of Byzantium protected the city for a thousand years. Rome was destroyed in 410CE by Alaric and the Visigoths and in 455CE by the Vandals from North Africa. In 476CE, the last Roman emperor was deposed by the Hun Odovacer. By contrast, the protected population of Byzantium reached 500,000 under Emperor Justinian (527-65CE) (Crowley, 2005). In 626CE, Byzantium was attacked by Persians; assaulted again in 813 by the Avars and Slavs; in the 920s by Bulgars; in 860, 941, and 1043 by Russians; and in 1204CE the city fell to Venice (Turnbull, 2004; Herring, 2008; Cartwright, 2019). In the 1,123 years to 1453, Byzantium withstood around 23 sieges (Crowley, 2005). The most determined foe was the Arabs. In the seventh century, much of the Middle East and Africa fell to Arab colonial conquest, including Damascus, Antioch, Jerusalem, Egypt, Cyprus, and Armenia. In 712, the Arabs captured Toledo and established a Muslim state in Spain. During these centuries the Arabs tried repeatedly to capture Byzantium. By 661 the Arab capital in Damascus was sending annual campaigns against Byzantium. In 717CE Byzantium survived a year-long Arab siege involving 1,800 ships and an army of 80,000 men (Crowley, 2005; Herring, 2008).

The fall of Byzantium in the mid seventh century and the capture of its trading wealth to support the Arab cause would likely have facilitated the spread of Islam throughout the Balkans, into Italy and then further west. As Byzantium held firm, the set back to Arab colonialism allowed time for the small and scattered Christian churches to spread and coalesce into a powerful European cultural force. Without Byzantium there would have been no Europe as we now know it. In 733CE the Arabs were defeated by Charles Martel near Poitiers and by 800CE a new Christian society began to emerge in Western Europe (Crowley, 2005; Herring, 2008). The Christian civilization which was preserved by the walls of Byzantium was then profoundly shaped by the city. Byzantium created a distinct political and cultural hub that radiated influence across Europe. Safe from depredation, the Byzantine Emperor ruled the Eastern Orthodox Church and shaped the wider Christian church. The emperor called all Christian bishops to a meeting in Nicaea in 325CE which catalogued the basic beliefs of the Christian church. Under protection of the walls, seven further universal meetings were called by the emperor, the last in 879-80CE, to discuss theological problems. The church was close to the state and headed by the emperor but was a distinct sphere and governed by its own laws. This distinction sowed the seeds of the European model of a secular state administered by civil law. This morphed into the idea that rulers were subject to the rule of law and ultimately to modern constraints on executive power and the protection of private property rights (Fukuyama, 2012). Emperor Theodosius II set up a state funded law school in the capital in 425CE and ordered experts to compile a legal code for the Roman Empire. The city set up law courts and endowed trained magistrates with the power to preside over them (Herring, 2008:70). The development of an imperial court with a diplomatic service and civilian bureaucracy, the ceremony of coronation, and the female exercise of political power were all pioneered by Byzantium (Herring, 2008: xv).

The idea of protection – against crime – is a strong theme across the literature discussing the rationale for contemporary gated communities. A rapid rise in the crime rate experienced by white South Africa in the early 1990s (Jurgens and Gnad, 2002) and Brazil in the 1980s (both after the transition to democracy) led to the growth of gated living, shopping, and working complexes patrolled by armed guards (Landman and Schonteich, 2002; Genis, 2007). In Indonesia, discrimination and occasional violence against

members of the ethnic Chinese community led to their clustering in gated communities (Leisch, 2002; Grant and Mittelsteadt, 2004). In sixteenth century China, the fear of the 'barbarian' was driven by the cultural preferences of scholarly bureaucrats. Some recent scholarship argues that fear of criminally inclined contemporary 'barbarians' is the product of an urban pathology that combines social exclusion and the retreat of the public realm (Le Goix and Webster, 2008). Into this social anomie of markets and social fragmentation, the homebuilding and security industries have created an ideology of fear and security which generates the consumer demand for walls, 24-hour armed guards, and video surveillance (Grant and Mittelsteadt, 2004). In Kemer Country in Istanbul, residents moved into gated communities believing the spending on surveillance and security was excessive. The experience of living in a gated community then changed the preferences of residents. The gates and security forces of the enclave conveyed a message of concentrated wealth and luxury to outsiders and residents actually felt more insecure and vulnerable (Genis, 2007). In some cases, the fear of the 'barbarian' results in the poor being subject to walls, such as gated public housing projects, quasi-permanent refugee detention centers, or foreign worker compounds (Grant and Mittelsteadt, 2004).

5. Walls to Keep People In

The historical record shows that walls can increase the control of the state over the movement of people and goods, and by doing so enhance state capacity to extract resources (taxation) and, in a more extreme manner, to implement a vision of social reform. This image of walls would portray them as a danger to the creation of a more open, free trading global economy.

Until the nineteenth century it was widely assumed that Hadrian's Wall was a political statement, intended to demonstrate where the power of Rome ended (Symonds, 2021). Since then, scholars have speculated that the unusually large number of gates implied that the wall was less a barricade than a means to enforce the payment of tolls on trade and traders moving between north and south (Breeze and Dobson, 2000). The original Berlin Wall was built by King Frederick William in 1830 to better collect excise tax and prevent soldiers deserting. The wall eventually reached 17km in length and 4.2meters in height with its centerpiece as the Brandenburg Gate. The extra social control did permit a more brutal discipline for the army, which became the best in Europe. By 1860, the wall had been knocked down to facilitate trade, industry, and railways and Berlin became an open city for the next hundred years (Taylor, 2007).

The primary purpose of the most recent Berlin Wall was to keep people in. In the free, all-Berlin elections of 1946 the non-communist, anti-Soviet vote in Berlin was around 80% (Gelb, 1986; Taylor, 2007:70). On this shaky electoral legitimacy in July 1952, the GDR announced a program to build socialism: collectivization of agriculture, tighter controls on the private sector, and less freedom of speech and religious practice. In June 1953 there was an increase in protest in both East and West Berlin. Protest turned into demands for free elections and the Soviet flag was torn down from the Brandenburg Gate (Taylor, 2007). A state of emergency was declared in East Berlin and the Russian army was used to defeat the uprising. 267 were killed, 200 sentenced to execution, and

1,400 sentenced to life imprisonment (Taylor, 2007:133). The population of East Berlin also responded with flight. Between 1949 and 1958 more than two million left the GDR, followed by another one million in the next three years. This represented 15% of the population in just over a decade (Taylor, 2007:149). East Germany lost much of its educated population, including students, industrial specialists, and medical workers. In September 1958, the owner and 16 directors of a hydraulics firm went west with blueprints (Tusa, 1996). More than 1,000 professors and lecturers, including the entire Law Faculty of the University of Leipzig, left. The Free University was set up in West Berlin by students and professors escaping communist control over Humboldt University in East Berlin (Gelb, 1986). East German socialism was not viable without the wall—not as a means of protection or of tax revenue raising or of tariff extraction, but merely to keep East Germans under socialist rule.

The closure of the border in August 1961 was real and perceived as real. The first crossing death occurred on the 24th of August, and by the end of October 1961 15 people had been killed trying to cross to West Berlin (Fleming, 2011). After the closure of the border, the GDR was able to implement a rigorous Stalinist economic, political, and social model (Tusa, 1996:325). The state could extract resources to pay for an extensive welfare state. The government provided free kindergarten, health care, higher education, and subsidized rents and holidays. The state ran sporting schools that combined excellence and the systematic use of performance-enhancing drugs. The GDR came third in the Olympic medal table in 1968 (Taylor, 2007). The Berlin Wall turned into an unexpected source of revenue for East Germany. By the late 1980s, West Germany was paying up to DM 250,000 for the migration of each dissident from East Germany. By 1989, the East had received an estimated DM 3.5 billion in money, oil, and commodities (Tulsa, 1996:352). The state could implement an ideological crack-down without fearing mass flight. After the wall

closure, those previously teaching in West Berlin schools were banned from schools for life and those previously studying in West Berlin were not allowed to continue at university (Taylor, 2007). By end of August 1961 in East Berlin alone, 2,192 people were arrested and 691 were given a prison sentence for political crimes (Fleming, 2011:15). The perceived stability of the GDR turned others into active collaborators. During the forty years of the GDR, an estimated 600,000 people worked for the Stasi (the secret police) from a population of 16 million (Taylor, 1007:515).

In China the wall(s) encouraged and were in turn encouraged by a mentality that sought to insulate China from the outside world. This mentality has been labelled a 'Sinocentric worldview' that divides the world into civilized Chinese and external barbarians (Yang, 2017). In 1792, George III dispatched the first British trade mission to China. The mission included 700 diplomats, businessmen, soldiers, scientists, painters, watchmakers, gardeners, priests, and a hot air balloon pilot. The mission was intended to convince the Chinese Emperor Qianlong that China needed British trade and technology. The emperor and his entourage dismissed the mission and its technological 'fripperies'. The mission head Lord Macartney admired the physical wall but remained frustrated at this 'mental wall' (Lovell, 2007:8). During the nineteenth century the walls first became 'The Great Wall' (Lovell, 2007:10) and later in the western imagination a symbol of 'Oriental despotism' and outdated customs. The walls became a symbolic pretext for colonialism across Asia. To destroy the walls would be to spread liberal European civilization. The most prominent manifestation of that civilization was opium, the import of which increased rapidly after the defeat of China in the Opium Wars of the 1840s (Ringmar, 2018).

Recourse to the metaphorical image of the Great Wall has undergone frequent adaptation and is now drawn on to denote something large, profound, and of Chinese national and global importance. The image of the Great Wall inspired the 1978 Democracy Wall in central Beijing that hosted posters accusing Mao of errors and demanding democracy. In 1979, the wall perpetrator was sentenced to 15 years

in prison (Lovell, 2007:328). The switch from Maoist autarchy to a strategic openness with the global economy and voracious national appetite to attract foreign investment was likened to "tearing down the Great Wall" (Schill, 2007). Chinese economic growth since 2000 has been characterized as being accompanied by a 'Great Wall' of banking, household, corporate, and government debt that renders both it and global financial stability fragile (Kern, 2018). China has transformed its legal environment to better protect patents which has resulted in a 'Great Wall' of patents and a resulting technological capacity that is testament to China's growing economic maturity (Hu and Jefferson, 2009). In the mid-1990s the Public Security Bureau set about constructing the 'Great Firewall' of China. In 2002 Google was blocked entirely and in 2003 half of China's 200,000 internet cafes were closed and surveillance software was installed in the remainder (Lovell, 2007). The 'Great Firewall' of China currently blocks the Economist, Time, Le Monde, Facebook, YouTube, and Amnesty International, among others (Marshall, 2018).

The emerging literature on gated communities suggests one continuity with this historical record and one striking discontinuity. The continuity is that, despite the connotations of individualism and privatization, gated communities are often about allowing much greater community control of social life. There is an odd echo here of the Berlin Wall. Inside many gated communities, Community Associations have the right to intervene in personal affairs, such as the number of guests one invites to a party, or even how much one's dog weighs (Lang and Danielson, 1997). The discontinuity, for some observers, is that the walls of the gated community are now about avoiding rather than better extracting taxation. Gated communities have been seen as a means for the wealthy to "flee their civic responsibilities" and avoid paying taxation to fund redistribution (Grant and Mittelsteadt, 2004). In the US it is common for gated-community homeowners to demand that their association fees be fully deductible so to reduce their assessment for municipal property taxes (Lang and Danielson, 1997).

6. **Walls to Promote Urbanization**

The historical record from our four case studies offers mixed evidence linking walls to urbanization.

Hadrian's Wall promoted urbanization by offering opportunities for peaceful trade and the (controlled) migration of traders and producers. After construction of the Wall in the 120sCE, towns appeared around most of the forts. The forts contained workshops and granaries for the soldiers which offered consumption opportunities that stimulated wider urbanization. The forts also offered a source of consumption demand, fueled by the salaries earned by the soldiers that garrisoned them (Breeze and Dobson, 2000:215). The forts each contained around 500-1,000 young and unmarried men, an unprecedented population density and one generating a particular urban form. The towns contained the usual temples, shops, and private houses but also a significant number of inns and brothels (Breeze and Dobson, 2000:178). Several towns developed a mass-production pottery industry and more specialized manufacturing, in fine footwear, glass, and bronze mess tins to serve both the fort and the burgeoning local market. The soldiers created a demand for meat, oysters, shellfish, fish, wine, local fruit, fowls, and eggs (Breeze and Dobson, 2000). Supply networks extended to southern England and further to the continent. Fine pottery was imported from Gaul and Germany (Symonds, 2021). The presence of the wall and forts stimulated wider investment in production by protecting local property rights from armed predation by bandits. There were signs that farming south of the wall became more prosperous and Roman-style rural villas began appearing in the second and third centuries (Symonds, 2021:106).

This urbanization had a wider socio-economic impact by stimulating a "gradual Romanization" (Moffat, 2017:79). Roman dress became popular, around 600 Latin words were absorbed into Welsh (to facilitate trade), bathing became more popular, and the shift to a monetized economy based on Roman currency facilitated trade and specialization (Moffat, 2017). From the third century towns became a tool for peacefully governing provinces. When new towns, such as Carlisle and Corbridge were founded, authority and autonomy was granted to local communities to administer them (Symonds, 2021:108). The civil peace inside the Roman Empire (and roads and spread of the Latin language) created an extraordinary opportunity for movement of people within the empire. Inscriptions and other evidence show that soldiers manning Hadrian's Wall came from Spain, France, Belgium, Holland, Switzerland, Syria, Hungary, Greece, Morocco, Romania, and Germany (Moffat, 2017:158; Symonds, 2021:23).

As Roman colonialism ended in Britain by 400, almost all of the settlements along Hadrian's Wall had fallen into disrepair as they existed to serve the (now decaying) forts. Only Carlisle sustained itself and until the 1200s its streets were still paved and its water supply still working (Moffat, 2017:113). Hadrian's Wall stimulated all the economic benefits of urbanization including agglomeration externalities in consumption, production, and labor markets. The Wall stimulated linguistic adaptation and cultural mixing that in turn facilitated learning and knowledge exchange. Good institutions in law and governance adapted by the forts on the wall spread to a wider urbanizing society.

In Berlin, the wall by contrast was built through an established city and so disrupted existing forces of agglomeration. The closure of the Berlin Wall ended much of the cultural and intellectual life that straddled the border. Some 56 of the 166 members of the choir of the State Opera, who lived in West Berlin were lost as the State Opera building was located in East Berlin. 25% of West Berlin students came from East Berlin (Tusa, 1996). The inner boundary wall ran along the Western edge of the Mitte district, which contained Berlin's main administrative, cultural, and educational institutions, and the largest

pre-war concentration of employment. The area just West of Potsdamer Platz was a center of commercial and retail activity that was entirely eliminated by the wall. Using data from 1936, 1986, and 2006 shows that the Berlin Wall led to a reorientation of land prices in West Berlin, the highest prices no longer being the main pre-war concentration of agglomeration externalities in East Berlin. Reunification led to the re-emergence of the pre-wall pattern of land prices. The area just West of Potsdamer Platz was re-built with high end offices and retail outlets (Redding et al, 2015).

The outward looking cosmopolitan city of Byzantium of the seventh century had transformed into a nervous, insular, and conservative city in response to the growing Ottoman threat by the last centuries of its existence. The walls of Byzantium were then serving less as a springboard for the projection of Byzantine culture throughout Europe and more as a protection for conservative insularity. When the walls of Byzantium fell in 1453, the city morphed back into a cosmopolitan city at the center of the vast Ottoman Empire. The city acquired a new architectural grandeur under the sultans with new public buildings, a new palace at Topkapi, and domed mosques. The city protected its resident Christian population, saw Muslim inward migration, and became a refuge for those fleeing the religious wars of Europe. When the Sephardic Jews were expelled from Spain in 1492, they came to Constantinople (Crowley, 2005; Herring, 2008).

Walls also have wider impacts on those outside the city. Walls can separate people and undermine the economic benefits that come from trade, interaction, and learning. Hadrian's Wall divided people living North and South of the Tyne-Solway isthmus as it cut through the territory of the Brigantes, the largest British kingdom (Moffat, 2017:39). Hadrian's Wall also brought other people together, promoting Romanization among groups living to the south of the Wall as indicated by the growth of local production of Roman pottery imitations (Symonds, 2021). The long-term influence of the Great Wall(s) in China was in creating both division and unity. The lands along the Great Wall were places where nomadic steppe culture met settled Chinese farming society. Steppe nomads often came to the wall

to trade horses, leather, and other products for Chinese metals, pottery, and clothing. In the process, they also absorbed Chinese customs and traditions. Many nomadic groups eventually settled and became 'sinicized' (Langerbein, 2009).

Gated communities often attract, and even self-select for, a community seeking a particular lifestyle such as retirement villages, golf communities, or suburban new towns (Grant and Mittelsteadt, 2004). Developers market gated communities to people in search of a particular lifestyle who then find they have much in common with neighbors, which can form a key basis for community (Lang and Danielson, 1997). In this optimistic view gated communities can be stylized as a means of providing 'club goods'. A club good is a type of good that, like a private good, has excludable benefits but is allocated through groups. A club good allows a self-selecting community to share a range of benefits and reduce the costs of public good 'congestion' using pricing and membership requirements. Therefore, gated communities offer a range of scarce goods, such as secure and guaranteed parking, enhanced security, common standards for property appearance, and rules governing the use of communal areas. Whilst formerly associated with elite groups, rising real incomes and the fall in security and monitoring costs are bringing these goods within the budgets of middle-income households (Manzi and Smith-Bowers, 2005).

Gated communities can also to have a dual role in bringing people together (often the relatively well off) at the expense of cutting off contact with other (usually poorer) people. In the gated community of Kemer Country, Istanbul, residents describe themselves as urban, modern, Western, and secular, and express a strong aversion to urban life in Istanbul, which they label alienating, chaotic, crowded, and polluted (Genis, 2007). There is widespread acknowledgement that gated communities are generally not well integrated—physically or socially—into the wider local area (Atkinson and Flint, 2004). Outside the Nether Edge gated community near Sheffield, UK, nearby residents complained that gated community members had shut themselves in and excluded the rich variety of culture from the

wider community (Blandy and Lister, 2005). Such segregation may have detrimental effects on wider aspects of urbanization. Everyday exposure to difference has been argued to be a key aspect of socialization (Atkinson and Flint, 2004). Public spaces are centers of integration where individuals of widely divergent social factors—age, race, ethnicity, income, etc.—work, live, and create in close proximity. The public space contributes to cosmopolitanism and liberalism by fostering unplanned social interactions between individuals who would not otherwise associate with one another (Vesselinov et al, 2007). Sometimes gated communities may help reduce segregation. Unlike in the US, gated communities in Santiago, Chile are not located in remote suburbs but in existing urban areas where only a wall separates the gated wealthy from the poorer neighborhoods of the city. Gated communities in Santiago prevent the flight of the wealthy and reduce the long-term scale of segregation in the city by acting as a semi-open border between different social groups (Salcedo and Torres, 2004). The continued physical presence of the wealthy in diverse areas of the city contributes to the local tax base and service sector employment for maids and drivers, and in leisure and retail, resulting from their consumption demands.

Gated communities can also be designed along principles that encourage the forging of new, diverse, and inclusive communities. New Urbanism strives to create an urban life that revolves around an attractive public realm. The practical manifestations of New Urbanism include pedestrian-friendly streets, public transport alternatives to the car, corner stores, neighborhood parks, and a mix of housing to integrate age, income, and ethnic diversity (Grant, 2007). This is the street-level diversity famously highlighted by Jane Jacobs (Jacobs, 2011). Gated communities may also be about avoiding any sort of community. In the Arab world, for example, private enclaves have been adopted as a modern and prestigious way to provide a sense of privacy for affluent and conservative families (Genis, 2007). In China, prior to economic reform, citizens who lived in communal neighborhoods were subject to a political ideology that emphasized the collective and communal and were socialized to be suspicious of private individualism. During

the reform era from the early 1980s, newly built gated communities allowed families to pursue a privatized and private middle-class life. In the gated communities of Shanghai, greater household autonomy and personal freedom can be enjoyed away from the oversight of the Communist Party-state. Personal satellite television dishes that receive programs from Hong Kong, Taiwan, Japan and even the USA, Russia, and Europe are commonly found in the private homes in Shanghai's gated communities (Pow, 2007).

7. Walls, Inequality and Social Cohesion

The creation and destruction of walls through existing cities creates discontinuity by disrupting existing patterns of community and agglomeration externalities. Some individuals and groups adapt and prosper more than others. The Berlin Wall helped lock the GDR into an ultimately dysfunctional economic model, deprived of learning and emulation from the FRG. The magnitude of this difference can be seen the harsh process of adjustment to which the former-GDR had to undertake once the wall came down. The unemployment rate in East Germany increased from 0% in 1990 to 19.7% in 1997-98. At the same time, West Germany experienced a reunification boom with falling unemployment (Heiland, 2003). One study sought to measure the short-run impact of re-unification on real incomes from 1990 to 1998. The study shows that 81% of a sample of East Germans, aged 25 years and above in 1990, gained from unification, and 19% lost. The aggregate gains greatly exceeded the losses. Losses were concentrated among older workers (35-55) whose socialist era skill sets were obsolete in the new capitalist economy. The gains were concentrated among retired groups who started receiving West German pensions (Beblo et al, 2012). A more insidious impact is how these economic changes impacted the long-term socio-economic condition of children. Birth rates dropped by 54% between 1989 and 1994 in East, not West, Germany. Even by the end of 2007, there was still a visible impact on fertility levels (Leipmann, 2018). The paradox was that women in more secure jobs were driving this fall in fertility; such women appeared less willing to put their current jobs and future labor market prospects at risk. Mothers of children born during these years were younger, more likely be teenagers, had fewer years of education, and were less likely to be employed. The parents of these children spent less time reading to them and were less involved in their education (Gill and Kleinjans, 2020). The long-term impacts are striking. Children born in East Germany between August 1990 and December 1993 had worse cognitive skills and educational outcomes than children born before and after this period. These children were more likely to be arrested later in life (Chevalier and Marie, 2014).

The bulk of new city construction in recent decades are satellite cities adjacent to an existing larger city. Such cities tend to target an existing wealthy and growing middle class, offering them an escape both from existing dysfunctional urbanization, and sometimes the tax obligations to support the urban poor (van Noorloos and Kloosterboer, 2018). Some of these cities are built on already populated land and require eviction of the poor to construct housing (Watson, 2013). In Ghana, gated communities are often targeted at the wealthy and educated diaspora. One surveyed gated community was targeted to high-income earners overseas such as international footballers, financed by foreign mortgages, and had occupancy rates of around 15% (Grant, 2005). In countries such as Mozambique, Angola, and the DRC, where the natural resources sector (often oil) is the driver of national development, new city construction (and the country's wider economic dynamics) reflects this dynamic. The extractive sector typically generates patterns of extreme inequality, and this is reflected in the creation of a number of isolated high-security private urban enclaves that bypass most of the rest of the country (van Noorloos and Kloosterboer, 2018). One of the most striking examples is that of Equatorial Guinea. US oil and gas companies have invested $50 billion in Guinea to supply 17% of US net crude oil and oil products. The lived reality for Guineans is sporadic electricity, rampant malaria and typhoid, lack of running water in homes, open sewage systems, and poor provision of public services such as health, and education. The expatriate workers live in gated compounds with manicured lawns, landscaped gardens, paved roads, fire hydrants, and food shipped directly from

Europe or the US. The largest gated compound generated enough electricity to power the entire country for 24-hours every day. Locals come and go as maids and gardeners, must wear badges inside, and public transport is prohibited from entering the compound. Entry and exit are strictly monitored, locals need an invitation to enter, and are regulated by curfews once inside. The mobility restrictions typical of a modern apartment complex are writ large over an entire geographic area and its public spaces (Appel, 2012).

While gated communities are a consequence of existing patterns of inequality, over time they may lock in inequality by privatizing formerly public space, undermining social cohesion, and reducing the interest of the wealthy in ensuring the state is providing good public services (Rosen and Razin, 2009). The flight of the wealthy, professional, and successful may deprive the poorest of role models to emulate and learn from at home, in schools, at work and out socializing. In India, for example, children's school attendance has risen most rapidly in recent years among those children with illiterate parents. The likely reason is that parents are emulating the habits of wealthier families they observe and know in the same neighborhood (Arokiasamy, 2009). The long-term implications of a mobile, skilled, and prosperous tax base are less clear. The rise of Europe after 1500, for example, has been attributed by some to the efforts of rulers in fragmented Europe to attract tax paying merchants by offering better laws and more physical security (Diamond, 1999).

8. **Walls: An Investment in Military Security?**

The construction and maintenance of walls entails a significant cost of resources that could otherwise be used for infrastructure such as roads or schools. In China, the 5,000km Ch'in wall generated enduring legends of mass sacrifice and has been likened to an isolated mass graveyard (Lovell, 2007:23). The Han are estimated to have built or restored more than 10,000km of walls, the cost of which generated national suffering and bankruptcy (Lovell, 2007). The construction of the Ming walls were estimated to have cost three-quarters of the national budget (Langerbein, 2009). Much of the technological effort of the GDR was directed to the walls instead of industry. In its fourth generation built in the mid-1970s, the wall was a technological and organizational wonder, comprising sensors, lights, and anti-tank obstacles, patrolled by 12,000 well-trained elite border guards (Langerbein, 2009).

While the Great Wall(s) of China have come to symbolize something physically durable and psychologically influential, they were never a great military deterrent. A wall may be tall but mobility, especially if accompanied by famine-induced hunger, will allow anyone to find a way around, under, though, or over it (Ringmar, 2018). The nomadic people of the steppes were certainly mobile. The Xiongnu captured the cities of Luoyang in 311CE and Chang'an in 316CE, they were not inhibited by the presence of walls. In 1190CE, poverty stricken Mongol tribesman elected a leader and in 1206 proclaimed him Genghis Khan, the supreme leader of the Mongols. The Mongol forces under Genghis Khan rode around the Jin Walls (built between 1166 and 1201 by 750,000 men) and in 1215 sacked Beijing. The later Mongol leader Kublai Khan subjugated all of China and set himself up to head the new Yuan dynasty in 1271 (Lovell, 2007:166). By the 1530s, the Mongols were again unified. After trying and failing to receive official permission to trade with China, they rode to the wall-free northeast and

in 1550 looted and burned Beijing. Between 1620 and 1644, the Machus broke through the wall with ease. The walls remained physically potent, but their guardians had decayed. As the Manchus advanced, only 10-20% of the nominally 700,000-strong Ming army could be found (Lovell, 2007:236). The final assault on Beijing in 1644 was facilitated by a disaffected Chinese general who opened a gate (Lovell, 2007:17).

Hadrian's Wall completely failed on numerous occasions. In the early 180sCE, tribes crossed the wall, killing a Roman General and his escorting troops in the process (Moffat, 2017). In 208 there was a general uprising in Britain and first the wall, and then the whole country, was overrun (Breeze and Dobson, 2000; Moffat, 2017). In 364 Britain was again overrun, this time by Picts, Scots, Saxons, and Attacotti. The supreme Roman commander, the Dux Britanniarum, was killed and Roman power was lost completely. The Picts would likely have just sailed around Hadrian's Wall (Breeze and Dobson, 2000:235). Across the Roman Empire the external walls, and then city walls, failed during the fourth and fifth centuries. The population huddled into even smaller geographic areas protected by new walls. In the 420s, Emperors Honorius and Theodosius permitted the fortification of private villas and estates (Kirilov, 2007). From this fragmentation was born the hill forts and then the castles of medieval Europe.

The walls of Byzantium were breached only twice. In 1204 after a four day siege the attackers entered not because the walls had failed, but through a carelessly left-open door (Cartwright, 2019). The city was subject to a vicious five days of plunder during which four bronze horses were taken from the Hippodrome to Venice where they still mount the façade of San Marco (Crowley, 2005). Walls can be rendered obsolete for technological, political, or cultural reasons (Ringmar, 2018). The walls of Byzantium

eventually failed because of technological change. During the 1420s the development of gunpowder increased its potency and military advantage was handed to the attacking army. In the 1450s, the Ottomans built a 27-foot-long cannon firing a half ton projectile, as well as many more cannons over 14 feet long. The Byzantine walls were too narrow to mount cannon. The 1453 siege encompassed a 53-day bombardment using an estimated 5,000 cannon shots (Crowley, 2005:202). On the 29th of May 1453, the city walls were breached and the Ottoman flag was raised over the city.

The twentieth century has seen the repeated failure of walls in the face of technological change. The twenty-first century renaissance of wall building is based on a proven technological failure. The Maginot Line between France and Belgium was built for WWI battles and technology, with machine gun bunkers, gun crews fifty feet underground, and seven-ton steel doors. Less than ten years after being built, it was disdainfully bypassed by German tanks in 1940 on their way to Paris. After the capture of Paris, the untouched defenders of the Maginot line, still secure with three months of food supply, were ordered to surrender (Frye, 2018). Nazi Germany built the Atlantic Wall, (partially) equipped with batteries, mortars, artillery, and thousands of troops stationed along the coast of continental Europe and Scandinavia between 1942 and 1944. The Wall had no discernible impact in preventing the amphibious Allied landings in Normandy on D-Day in 1944 (Vernon and Zimmermann, 2019). In recent times, most terrorist attacks in the US and Europe have been committed by legal residents 'from within'. The strongest walls could not have stopped 9/11 (Vernon and Zimmermann, 2019). The Department of Homeland Security (DHS) and a majority of American citizens claim that a border fence with Mexico would protect the country from drug-trafficking and stem the flow of illegal migrants (Langerbein, 2009). Most illicit drugs are delivered into the US in vehicles with secret compartments and difficult-to-inspect shipping cargo using legal checkpoints. Drugs are also conveyed through elaborate systems of tunnels under the wall. Between 1990 and 2016, 224 tunnels were discovered, some with air vents, rails, and electric lights (Vernon and Zimmerman,

2019). In the 1960s, 70 million Mexicans crossed the border, but 85% returned home. Increased border enforcement made circular migration more costly and risky, forcing undocumented Mexican migrants to settle permanently in the US. The US Golden State Fence Company built a significant portion of the border wall in Southern California and was charged millions of dollars in fines for having hundreds of undocumented workers on its payroll (Vernon and Zimmerman, 2019).

9. Conclusion: Migration and Choice: Charter Cities as Real-World Solutions

Using the four historical case studies of Hadrian's Wall (128-410CE), the Walls of Byzantium (439-1453CE), the Great Wall(s) of China (656BCE-2022CE) and the Berlin Wall (1961-1989), this paper identifies the economic and social effects of building walls. This paper also drew on a recent literature looking at the causes, nature, and consequences of gated communities. Between the historical case studies and recent literature, four key themes of wall construction emerge. First, walls protect people from external threats. Second, walls have been used to keep people in and to tax them, though recent walls are more likely to be about fleeing from taxation. Third, walls reflect existing patterns of inequality, though may make efforts to reduce inequality harder over the long-term. Fourth, walls represent a significant and burdensome cost to build and maintain. As a reflection on the importance of these findings this paper finally makes a case that charter cities offer a practical means to maximize the benefits of contemporary urbanization and globalization and to navigate the hazards, costs, and even potential benefits generated by the recent renaissance in wall building.

9.1. Two Infeasible Suggestions: A Radical Solution and an Ambitious Solution

A radical solution to promote global economic growth and reduce poverty is to complete the process of globalization. While trade, culture, investment, and ideas are moving with ever increasing freedom, there remain severe restrictions, from walls to visas, on the movement of people. This radical solution has been termed a cosmopolitan view of global justice (Freiman, 2013). One study estimates that allowing workers to seek the highest wages and firms to seek the most productive workers at a global level will boost global GDP between 50 and 100%. This is compared to a few percent of GDP from eliminating remaining policy barriers on trade and capital flows (Clemens, 2011:84). Even this massive number is likely to be an under-estimate. The component parts of globalization tend to reinforce each other. More migration, for example, stimulates foreign investment and trade. The fall of the Berlin Wall and the related upsurge in east-west migration had a positive and significant impact on west-east FDI flows (Malan, 2015). However, the prospect of completing globalization remains a political impossibility. In Europe and the US, recent politics has pushed governments towards tightening migration controls (Muller, 2016:232).

A second-best solution is to promote economic reforms and build state capacity in the poorest countries through a significant increase in technical and financial aid. This 'solution' runs up against political constraints (there is no political will to finance such global redistribution and the 0.7% of GDP aid target for developed countries remains as elusive as ever), a knowledge constraint (there is no proven policy reforms that work or failsafe way of building government capacity), and practical constraints (poor country governments can misuse aid to enrich themselves and consolidate their hold on power) (Muller, 2016:230).

9.2. A Modest and Practical Solution: Charter Cities

Charter cities are a modest proposal (a third-best solution) but a practical solution that addresses both migration and governance. A charter city is a newly built, greenfield city that is defined in terms of its 'special jurisdiction'. The new city

government is delegated authority by a host country to write new laws of city governance (Mason and Lutter, 2020). Paul Romer became the leading global advocate of charter cities with his 2009 TED Talk, which generated much debate, both laudatory and critical. The talk offered a deeper vision for charter cities as a 'meta-rule' – this is the governance or second-best solution noted above. Charter cities, he argued, comprised rules about making rules. Charter cities were a mechanism for helping a country change its rules towards those that support rapid and inclusive economic growth (Romer, 2010). Innovation in rules is best served by the presence of laboratories for experimentation to permit the observation and evaluation of diverse rules operating in different contexts (Fortes, 2020). Pennsylvania in the seventeenth century (and its main charter city, Philadelphia), Hong Kong after the 1840s, and the various SEZs in early 1980s China all served as laboratories that tested the efficacy of new rules and in turn inspired wider reforms in governance in neighboring political jurisdictions (Castle-Miller, 2015:178). Charter cities avoid the key practical and political constraints associated with both ending migration controls or with deep policy and governance reforms in poor countries. Creating a charter city requires no up-front aid from developed countries. A host country needs to create an enabling legal framework and allocate greenfield land for the city construction. A charter city does not require aid but may offer lucrative investment opportunities for developed countries at all stages from legal reform, design, consultancy and planning, to the requisite ICT technology installation, to investment in physical infrastructure, housing, service, and manufacturing (Muller, 2016:236).

9.3. The Historical Debate I: Charter Cities and Protecting a City

The historical literature and that on contemporary gated communities shows how walls are used to protect cities from both barbarian hordes and crime. This is an under-theorized and under-researched topic in the literature on charter cities. What would happen if the host country reneged on the charter and sought to take over the charter city once it became wealthy? Would

a charter city need foreign military support to protect its charter? (Mallaby, 2010; Cheong, 2010). Can a charter city protect itself with the pen instead? A charter city may devise revenue-sharing agreements with elites in the host country to give elites an incentive to protect and preserve the city's autonomy.

9.4. The Historical Debate II: Charter Cities and Keeping People in

We are living in an age of wall building. The lessons from history and contemporary gated communities shows that a key driver for wall construction is to keep people in or prevent migration. Charter cities push back against this global trend and are founded on a principle of politically feasible migration. Paul Romer suggested, and advocates of charter cities have concurred, that charter cities should ideally be built on greenfield land. This, they collectively argue, will preserve the ideal of choice—no-one will see their existing city and home turned into a charter city against their wishes. Only those wishing to live in a charter city will migrate there. Every year, 75,000 Hondurans attempt to travel through Central America to the United States illegally, and many of them die or are abducted along the way (Castle-Miller, 2012:12). If people are willing to live as legal or illegal immigrants, with rights that range from limited to none, then they are likely to be eager migrants to a charter city. Despite the lack of democratic rights in the Gulf countries, the region remains a magnet for migrants from democratic countries such as India and Sri Lanka. A charter city located in a would-be migrant's own country would obviate the need for international migration and allow migrants to stay closer to their families and cultures (Mallaby, 2010). All residents of a charter city would enter voluntarily and retain the freedom of exit.

How would charter cities handle the migration of those without employable skills, such as elderly or young refugees from a conflict? The residents of a charter city may be motivated by an economic interest to preserve low tax rates. Residents could use their influence over the administration of a charter city to exclude poorer people with costly needs. We see this phenomenon in Silicon Valley, where some towns have added ten new

jobs for every new housing unit built in the last twenty years. Zoning laws are controlled to ensure that land is under-utilized, keeping home prices high and poor residents out. The result is homelessness, long commutes, and a crisis of affordability (Kohn, 2020:46). Charter cities would not create but would rather echo an existing global problem.

The historical review showed how walls can be used to bottle up trade and people and make them easier to tax. The tax system in a charter city will be designed to incentivize a developer to build a city on a greenfield site, not to capture revenue from trade and income of an existing population. A city developer that owns or has a very long-term lease on the land is incentivized to create an effective administration, good rules that incentivize investment and to provide public goods (such as roads, airports, ports, parks, and power supply) in order to increase economic activity (Mason and Lutter, 2020). If the city created a well-functioning transport system, for example, this will boost firm productivity, profits, and employment. This would raise the value of land and allow the city government to collect more revenue from its leases (Castle-Miller, 2015:277).

The recent history of city construction in China shows how charter cities may be utilized by the host government to mobilize tax revenue. China has utilized the model of leasing urban land to developers. In 2000, land sales on average made up 9.3% of China's municipal government revenue. By 2011 this had ballooned to 74.1%. One survey showed that China's local municipalities were making 40-times more money per acre of land than they were paying to acquire it for development (Romer, 2013). Between 2003 and 2006 in Jiangsu, Zhejiang, and Guangdong provinces land tax revenues accounted for 40% of government budgetary revenue (Qun et al, 2015:432). The price of land in Zhengdong New District City in Henan increased ten-fold between 2003 and 2010 which generated massive revenues for the local government (Xue et al, 2013). Impressive though these numbers are; when three-quarters of revenue comes from one-off land leasing that is a clear indication of precarious over-dependence. Such optimistic

projections need to acknowledge the more recent travails of the Chinese property market, including the bankruptcy of property developer Evergrande

9.5. The Historical Debate III: Charter Cities and Urbanization

There is a substantial body of empirical evidence grounded in economic theory to explain the causal link between urbanization and economic growth. Empirical work shows that increasing local industry size leads to higher productivity of workers (economies of scale) (Henderson, 2010). Productivity increases when large numbers of workers are in close contact (knowledge spillovers), especially with other skilled workers (Bertaud, 2014). Wages increase with urban population density (Pierre-Phillips et al, 2010:15) and the share of population with college degrees (Glaeser, 2012:27). Proximity reduces the cost of moving goods, people, and ideas in the US manufacturing sector (Ellison et al, 2010). More than 20% of corporate patent applications cite older patents developed in the same metropolitan area (Glaeser, 2012:36). The crucial question is whether walls are needed to promote a charter city and all the associated benefits of urbanization. The historical evidence in Section 6 showed that walls may promote or hinder urbanization, depending on the wider political context and incentives among rulers to attract residents. The general rule is that the more the external geography around a charter city is characterized by political instability, dysfunctional governance, and the risk of predation by the military, political elites, or criminal networks, the more likely it is that walls (or other forms of protection by the pen) are needed to promote urbanization in a charter city. In the extreme a charter city founded in a conflict zone to host refugees is likely to require significant armed protection. The Chinese city of Shenzhen (a proto- charter city) in the 1980s had no need of a wall because China had internal security, strong governance and the hukou system that controlled internal migration.

9.6. The Historical Debate IV: Charter Cities and Inequality

The literature on gated communities shows that

new cities are associated with inequality. It is often the case that new city builds, particularly satellite cities focus on building housing, leisure and retail needs for the professional middle and wealthy classes. The discussion in this paper shows that new cities do not create inequality but are rather driven by existing inequalities, as the wealthy seek to flee urban areas in pursuit of a lifestyle, to escape from dysfunctional urbanism or seek safety from crime. The likely impact from the growth of a charter city on inequality is complex. On the one hand a greenfield charter city cannot just be a refuge for the wealthy, it needs to create jobs and attract the necessary ordinary workers – factory workers, teachers, cleaners, shop keepers – to make a city function. The poor people who migrate to a charter city will do so because it offers an improvement on their existing situation, so a charter city will likely reduce poverty. There is clear evidence that urbanization has worked to promote economic development and alleviate poverty on a vast scale (Romer, 2015). Cities don't make people poor, they attract poor people with the prospect of improving their situation in life (Glaeser, 2012:70). If a charter city reduces poverty and lifts all income boats, but at different rates, should we still be concerned about rising inequality?

There is a debate about how many new cities the world can support. Romer noted in his TED talk that to house an extra one billion people would require that the share of arable land devoted to cities rise from its current 3% to 4% (Romer, 2009). Others argue that there is little truly greenfield land left in the world as people have populated almost the entire globe (van de Sand, 2019:185). One study divided the globe into grid cells of roughly 55km2, Africa contains more than 10,000 such cells. Globally only 212 cells are uninhabited (Graff, 2019:10). It is not surprising then that new city construction has become associated with large-scale population displacement. Eviction, resettlement, and compensation often fail to protect the poor. Without adequate compensation households lose an income-earning asset and are unable to replace their source of livelihood. There are examples of successful compensation mechanisms, which could be replicated, such as guaranteeing a member of a displaced household a job in a new city construction (in some Indian

examples) or, as in the case of Enyimba Economic City, Nigeria giving prior residents of the land an equity stake in the new city.

9.7. The Historical Debate V: Charter Cities and the Failure of Walls

The final section of the historical case study review focused on the enormous cost of walls and their continued failure to provide an adequate military defense, to prevent migration, or drug smuggling. Charter cities offer a return to a more pragmatic global agenda; that economic and wider human development are not best secured by high walls. Human development is best achieved through a rapid, broad-based and open urbanization that is associated with high investment, employment creation, attracting migration of the poorest, and the socially transformative aspects of urbanization. The exemplar of the charter city resident is not a wealthy banker in a gated compound, but rather a young woman walking to work in a textile factory every morning in the company of other young women. The sharing of public space will lead to the exchange of news and life experiences and contribute to building social capital that contributes to social transformation. The young woman leaving the household will earn an independent income, enhancing her status in her household and in wider society, creating a greater value for women's education, for a family from having daughters, for delaying marriage, and for limiting fertility.

Bibliography

Appel, H.C (2012), 'Walls and white elephants: Oil extraction, responsibility, and infrastructural violence in Equatorial Guinea', *Ethnography*, 13:4, p439-465

Arokiasamy, P (2009), 'Fertility Decline in India: Contribution by Uneducated Women Using Contraception', *Economic and Political Weekly*, July 25th, p55-64.

Atkinson, R and J. Flint (2004), 'Fortress UK? Gated Communities, the Spatial Revolt of the Elites and Time–Space Trajectories of Segregation', *Housing Studies*, 19:6, p875–892

Beblo, M I.L.Collier and T. Knaus (2012), 'The Unification Bonus (Malus) of East Germans After the Fall of the Berlin Wall', *Journal of Economic Integration*, 27:2, p222-244

Bertaud, A (2014),' Cities as Labour Markets', *Marron Institute of Urban Management, Working Paper* No.2 New York University

Blandy, S and D. Lister (2005), 'Gated Communities: (Ne)Gating Community Development?', Housing Studies, 20:2, p287-301

Breeze, D.J. (2003), 'Warfare in Britain and the Building of Hadrian's Wall', *Archaeologia Aeliana*, 5:32, p13-16

Breeze, D.J and B. Dobson (2000), '*Hadrian's Wall*', London, Penguin

Carmody, P and F.Y. Owusu (2016), 'Neoliberalism, Urbanization and Change in Africa: the Political Economy of Heterotopias', *Journal of African Development*, 18:18, p61-73.

Castle Miller, M.R (2012), '*The Governance Market: A Vision for Paul Romer's Charter Cities*', Mimeo

Castle Miller, M.R (2015), 'The Ciudades Modelo Project: Testing the Legality of Paul Romer's Charter Cities Concept by Analysing the Constitutionality of the Honduran Zones for Employment and Economic Development', Willamette Journal of International Law and Dispute Resolution , 22:2, 271-312

Cartwright, M (2019), 'The Theodosian Walls of Ancient Byzantium', https://brewminate.com/the-theodosian-walls-of-ancient-byzantium/

Cheong, K-C (2010), 'Charter Cities – An Idea Whose Time has Come or Should Have Gone?' *Malaysian Journal of Economic Studies*, 47:2, p165-168

Chevalier, A and O. Marie (2014), '*Long Shadow of the Berlin Wall*', CentrePiece, Winter

Clemens, M.A (2011), 'Economics and Emigration: Trillion-Dollar Bills on the Sidewalk?', *The Journal of Economic Perspectives*, 25:3, p83-106

Crowley, R (2005), '*Constantinople: The Last Great Siege, 1453*', London, Faber and Faber

Datta, A (2012), 'India's ecocity? Environment, urbanisation, and mobility in the making of Lavasa', *Environment and Planning C: Government and Policy*, 30, p982–996

Diamond, J (1999), 'How to Get Rich', *The Edge*, 56, p8-18.

Ellison, G E.L.Glaeser and W.R.Kerr (2010), 'What Causes Industry Agglomeration? Evidence from Coagglomeration Patterns', *American Economic Review*, 100, p1195-1213

Fleming, T (2011), '*The Berlin Wall: Division of a City*', Berlin, Bebraverlag

Fortes, P.R.B (2020), Possibilities and Limits of Charter Cities', *Journal of Institutional Studies*, 6:2, p769-779

Freiman, C (2013), 'Cosmopolitanism Within Borders: On Behalf of Charter Cities', *Journal of Applied Philosophy*, 30:1, p40-52

Frye, D (2018), '*Walls: A History of Civilization in Blood and Brick*', London, Faber and Faber

Fukuyama, F (2012), '*The Origins of Political Order: From Prehuman Times to the French Revolution*', London, Profile Books

Gelb, N (1986), '*The Berlin Wall*', London, Michael Joseph

Genis, S (2007), 'Producing Elite Localities: The Rise of Gated Communities in Istanbul', *Urban Studies*, 44:4, p771–798

Gill, A and K.J.Kleinjans (2020), 'The effect of the fall of the Berlin Wall on children's noncognitive skills', *Applied Economics*, 52:51, 5595-5612

Glaeser, E (2012), '*Triumph of the City: How Urban Spaces Make Us Human*', London, Pan Books

Graff, T (2019), 'Spatial Inefficiencies in Africa's Trade Network', *NBER Working Paper* 25951, Cambridge, MA

Grant, J (2007), 'Two Sides of a Coin? New Urbanism and Gated Communities', *Housing Policy Debate*, 18:3, p481-501

Grant, J and L. Mittelsteadt (2004), 'Types of Gated Community', *Environment and Planning B: Planning and Design*, 31, p913-930

Grant, R (2005), 'The Emergence of Gated Communities in a West African Context: Evidence From Greater Accra, Ghana', *Urban Geography*, 26:8, p661-683

Heiland, F (2003), '*The Collapse of the Berlin Wall–Simulating State-Level East to West German Migration Patterns*', Florida State University, Tallahassee

Henderson, J.V (2010), 'Cities and Development', *Journal of Regional Science*, 50:1, p515-540

Herring, J (2008), '*Byzantium: The Surprising Life of a Medieval Empire*', London, Penguin

Hogan, T, T.Bunnell, C-P.Pow, E.Permanasari and S.Morshidi (2012), 'Asian urbanisms and the privatization of cities', *Cities*, 29, p59-63

Hu, A,G and G.H.Jefferson (2009), 'A great wall of patents: What is behind China's recent patent explosion?', *Journal of Development Economics*, 90, p57–68

Jacobs, J (2011), '*The Death and Life of Great American Cities*', New York, Modern Library

Jurgens, U and M.Gnad (2002), 'Gated communities in South African experiences from Johannesburg', *Environment and Planning B: Planning and Design*, 29, p337-353

Kern, A (2018), '*China's "Great Wall" of Debt Chinese Debts and their Macroeconomic Implications*', Goethe University Frankfurt

Kirilov, C (2007), '*The reduction of the fortified city area in late antiquity: some reflections on the end of the antique city in the lands of the eastern Roman Empire*', in J.Henning (eds), '*Post-Roman Towns, Trade and Settlement in Europe and Byzantium: volume 2: Byzantium, Pliska and the Balkans*', New York, Walter de Gruyter

Kohn, M (2020), 'The Danger Zone: Charter Cities, Citizenship, and Social Justice', in R.Bauböck and L.Orgad (Eds), 'Cities vs States: Should Urban Citizenship be Emancipated from Nationality?', Robert Schuman Centre for Advanced Studies Working Papers, RSCAS 2020/16, European University Institute, p46-48

Landman, K and M. Schonteich (2002), 'Urban Fortresses: *Gated communities as a reaction to crime'*, *African Security Review*, 11:4, p71-85

Lang, R.E and K.A.Danielsen (1997), 'Gated Communities in America: Walling Out the World?', *Housing Policy Debate*, 8:4, p867-899

Langerbein, H (2009), 'Great Blunders?: The Great Wall of China, the Berlin Wall, and the Proposed United States/Mexico Border Fence', *The History Teacher*, 43:1, p9-29

Le Goix, R (2005), 'Gated Communities: Sprawl and Social Segregation in Southern California', *Housing Studies*, 20:2, p323-343.

Le Goix, R and C.Webster (2008), 'Gated communities', *Geography Compass*, Wiley-Blackwell, p1-26

Leisch, H (2002), 'Gated communities in Indonesia', *Cities*, 19:5, p341–350

Liepmann, H (2018), 'The Impact of a Negative Labor Demand Shock On Fertility - Evidence From the Fall of the Berlin Wall', *Discussion Paper*, No. 69, Ludwig-Maximilians-Universität München und Humboldt-Universität zu Berlin

Lovell, J (2007), '*The Great Wall; China Against the World, 1000BC-AD2000*', London, Atlantic Books

Malan, F.A (2015), ' Complementarity between FDI and migration: Using the fall of the Berlin Wall as a natural experiment', *IFAC-PapersOnLine*, 48:24, p201–206

Mallaby, S (2010), '*The Politically Incorrect Guide to Ending Poverty*', The Atlantic, July/August

Manzi, T and B. Smith-Bowers (2005), 'Gated Communities as Club Goods: Segregation or Social Cohesion?', *Housing Studies*, 20:2, p345-359

Marshall, T (2018), '*Divided: Why We're Living in an Age of Walls*', London, Eliot and Thompson

Mason, J and M. Lutter (2010), '*Introduction to Charter Cities*', Charter Cities Institute, Washington, D.C.

Moffat, A (2017), '*The Wall: Rome's Greatest Frontier*', Edinburgh, Birlinn

Moser, S M.Swain and M.H.Alkhabbaz (2015), 'King Abdullah Economic City: Engineering Saudi Arabia's post-oil future', Cities, 45, p71–80

Moser, S, L.Côté-Roy and P.I.Korah (2021), 'The uncharted foreign actors, investments, and urban models in African new city building', *Urban Geography*

Müller, J.F (2016), 'Advancing Justice by Appealing to Self-Interest: The Case for Charter Cities', *Moral Philosophy and Politics*, 3:2, p223–245

Obeng-Odoom, F Y.E.E.Abdalla and H.Seong Jang (2014), 'Life within the Wall and Implications for Those Outside It: Gated Communities in Malaysia and Ghana', *Journal of Asian and African Studies*, 49:5, p544-558.

Pierre-Philippe, C G.Duranton, and L.Gobillon (2010), '*The Identification of Agglomeration Economies*', halshs-00535593

Pow, C-P (2007), 'Constructing a new private order: gated communities and the privatization of urban life in post-reform Shanghai', *Social & Cultural Geography*, 8:6, p813-833

Qun, W L.Yongle and Y.Siqi (2015), 'The incentives of China's urban land finance', *Land Use Policy*, 42, 432–442

Redding, S.J D.M.Sturm and N.Wolf (2015), 'The Economics of Density: Evidence from the Berlin Wall', *Econometrica*, 83:6, p2127-2189

Ringmar, E (2018), '*The Great Wall of China Does Not Exist*', in A.Horvath, M.Benta, and J.Davison (eds), '*Walling, Boundaries and Liminality: A Political Anthropology of Transformations*', London, Routledge

Romer, P (2009), '*Why the World Needs Charter Cities*', TED Talk, 1st July
https://www.youtube.com/watch?v=mSHBma0Ithk

Romer, P (2010), '*Technologies, Rules, and Progress: The Case for Charter Cities*', Centre for Global Development Essay

Romer, P (2013), '*Unlocking Land Values for Infrastructure in Ahmedabad*', Tuesday, November 12th

Romer, P (2015), '*Urbanization Passes the Pritchett Test*', Tuesday, May 5th

Rosen, G and E.Razin (2009), 'The Rise of Gated Communities in Israel: Reflections on Changing Urban Governance in a Neo-liberal Era', *Urban Studies*, 46:8, p1702-1722

Salcedo, R and A.Torres (2004), 'Gated Communities in Santiago: Wall or Frontier?', *International Journal of Urban and Regional Research*, 28:1, p27-44

Schill, S.W (2007), 'Tearing down the Great Wall – the New Generation Investment Treaties of the People's Republic of China', *Cardozo Journal of International and Comparative Law*, 15:1, p73-118

Shatkin, G (2011), 'Planning Privatopolis: Representation and Contestation in the Development of Urban Integrated Mega-Projects', in A.Roy and A.Ong (Eds), 'Worlding Cities: Asian Experiments and the Art of Being Global', Chichester, Wiley Blackwell p77-97

Shepard, W (2017), '*Why Hundreds Of Completely New Cities Are Being Built Around The World*', Forbes, December 12th

Symonds, M (2021), '*Hadrian's Wall: Creating Divisions*', London, Bloomsbury Academic

Taylor, F (2007), '*The Berlin Wall: 13 August 1961 – 9 November 1989*', London, Bloomsbury

Turnbull, S (2004), '*The Walls of Constantinople, AD324-1453*', Wellingborough, Osprey

Tusa, A (1996), '*The Last Division: Berlin and the Wall*', London, Hodder and Stoughton

van de Sand, T. (2019), 'Charter Cities: Development Model or Neocolonialism', *Periodica Polytechnica Social and Management Sciences*, 27:2, p180–187.

van Noorloos, F and M.Kloosterboer (2018) , 'Africa's new cities: The contested future of urbanisation', *Urban Studies*, 55:6, p1223–1241

Vernon, V and K.F.Zimmermann (2019), 'Walls and Fences: A Journey Through History and Economics', *GLO Discussion Paper*, No. 330, Global Labor Organization (GLO), Essen

Vesselinov, E, M.Cazessus and W.Falk (2007), 'Gated Communities and Spatial Inequality', *Journal of Urban Affairs*, 29:2, p109-127

Waldron, A (1992), '*The Great Wall of China: From History to Myth*', Cambridge, Cambridge University Press

Watson, V (2013), 'African urban fantasies: dreams or nightmares?', *Environment & Urbanization*, 26:1, p215–231.

Yang, M (2017), 'Crossing between the Great Wall of China and the "Great" Trump Wall', *Palgrave Communications*, 3:25, p1-7

Xue, C.Q.L Y.Wang, and L.Tsai (2013), 'Building new towns in China – A case study of Zhengdong New District', *Cities*, 30, p223–232

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