

Public Values, Infrastructure and Western Europe: Mapping Values over Time

Michael B. Charles, *Southern Cross University*

Martin de Jong, *TU Delft*

Neal Ryan, *Southern Cross University*

Prepared for:

Public Values and Public Interest – Normative Questions in the Evaluation and Development of the Public Sector
Research Workshop at University of Copenhagen, May 28-31, 2008

Abstract:

The notion of Western public values being highly mutable and thus subject to rejection, modification and even regression is insufficiently acknowledged in contemporary public values research. This is especially so with respect to considering the link between technological competency and changes in public values over time. The salience and indeed the existence of public values pertaining to infrastructure have varied immensely over the previous 2,000 years in Western Europe, although commonalities emerge in cognate institutional settings. This paper aims to advance our understanding of the importance of context, be it political, social, cultural, technical and even philosophical, in appreciating Western public values. In particular, it highlights the importance of understanding the philosophical and cultural roots of Western public values as means to determine their contextual relevance, in addition to the prospects of embedding them in divergent institutional contexts.

1. THE UNIVERSALITY OF PUBLIC VALUES?

It is sometimes blithely assumed in contemporary academic literature pertaining to public values that such values are universal, i.e., applicable to all settings, constant through time, and will therefore carry a high degree of salience into the future. This, however, remains very much a moot point. In this paper, it is contended that this viewpoint is overly simplistic and does not, moreover, adequately compass differences in institutional settings. Before this paper attempts to tackle this issue, it is necessary to establish, as a point of reference, the notion of what will be termed ‘the universality of public values’.

Jones (2008: 137), for example, contends that “public values are real, not especially fleeting in nature, but surprisingly long-lasting.” To carry this Hobbesian (1968) viewpoint to its logical conclusion, it is imagined that the same public values will have to be safeguarded in fifty years’ time as they are today, in various different cultural, political and institutional settings. The universalistic approach to public values is thus closely tied the natural law perspective, which contends that all human beings, regardless of their gender, status or place of birth, have certain inalienable rights in accordance with nature (Lasswell and McDougal 1992) or, in less-secular discourse, divine law (Locke 1960). Government, in the form of Hobbes’ Leviathan, has a responsibility to safeguard these ‘rights’.

This viewpoint is articulated in different language in other disciplines. Economists refer to the production of collective or merit goods that are not, or else insufficiently, delivered by markets (Kirlin 1996; Bozeman 2002), in addition to the (negative) externalities of economic activities, especially when social costs are not internalized in economic transactions between private actors (Pigou 1952). In short, the universalistic approach suggests that public values are objective, immutable, universal and absolute, and that they should be safeguarded by laws and regulations (De Bruijn and Dicke 2006).

Despite these assertions, this paper aims to demonstrate that public values are indeed highly mutable, and that they are also, in some instances, manifestly subject to regression over time. Though the Hobbesian viewpoint is ostensibly compelling, Ingersoll and Matthews (1986: 32) are nevertheless correct to point out that Hobbes “seems not to be describing a universal human condition valid across time and place.” Rather, he analyses a particular *kind* of society, namely

the one most familiar to him. It is also one that with which we feel quite comfortable, for it is not entirely dissimilar to our own.

To do this theme justice, a major study is required. But, given the complexity of world history and considerations of space, in addition to the European venue for this workshop, it was decided to give particular specific attention to Western Europe at the expense of other regions. The paper also focuses on public values pertaining to infrastructure, although the same methodology could be applied to values pertaining to human rights, social constructs, property, sexuality, and morality in general.

An attempt to map public values pertaining to infrastructure over time might appear to be a matter of theoretical interest only. Yet mapping these values allows us to draw important inferences regarding their evolution and, as will be seen, regression. This has important implications for current attempts to safeguard public values in an era of social, cultural and technological flux (Ryan and Charles 2008). An understanding of these processes therefore allows us to gain greater insight into the public value creation and modification process, in addition to the contextual forces that shape these values. As a result, it will become possible to speculate on the future of values pertaining to infrastructure that are currently salient, as well as the likelihood of new public values emerging that are, as yet, only peeking over the horizon.

It could be claimed that public values relating to basic amenities in life (e.g., food, mobility, health) are universally felt, but are subject to the technological, economic, societal and political conditions that enable public authorities to offer them. If there is a strong state, political unity and peace, the odds are that the state will provide for these values or have them provided, while a patchwork of underdeveloped cities/regions does not make this possible. Preconditions, as a form of hypothesis, might include the following:

- Technology relating to societally valuable good needs to have been developed and socially accepted.
- A strong benign state provides that facility to all, or malign state does not and gets into trouble (social uproar).
- The dominant political philosophy is state-centred (state provides for public values) or market-oriented (state has them provided through private players subject to regulation).

The paper intends to test these propositions by means of the case studies offered. These, as will be seen, very much cohere with the notion of public values pertaining to infrastructure being influenced by the societal acceptance of emerging technology, the existence of internal political unity and a strong central authority, and the ability of that authority to either see to the provision of the values in question, or else ensure that the market can deliver them in an equitable fashion by means of regulatory oversight.

2. SOME METHODOLOGICAL NOTES

To carry out this paper's task, it was deemed necessary to focus on several cases at important stages in the history of Western Europe. A case-based approach is methodologically justifiable here given that institutional settings vary. 'Snap shots' are thus useful tools with which to compare and contrast historical periods (for example, see Yin 2003). Cases were selected on the basis of their ability to represent the broader era in which they figure, in addition to the provision of available data. The paper will begin with a discussion of the current state of public values pertaining to infrastructure in Western Europe. Following this, historical cases will be introduced in chronological order:

- Italy at the height of the Roman Empire's power, i.e., the first two centuries C.E.
- Medieval England, the fourteenth and fifteenth centuries in particular.
- France under the Bourbon kings during the eighteenth century.
- Victorian England.

It should be noted, here, that the paper will almost exclusively refer to secondary sources rather than original texts—this paper is not intended to contribute to historical debates, or offer opinions on the validity of mainstream viewpoints. The material presented in the cases is also very much simplified, subject to generalization, and is not intended as a highly nuanced reflection of scholarship on the theme and period. Readers interested in the underlying data are requested to have recourse to the appropriate literature

Given the wide variety of public values pertaining to infrastructure, it seemed reasonable to focus on a number of rubrics for each case study. These are defensible on the basis that i) they are salient in modern-day public values discourse and are therefore of contemporary interest, and ii) their existence in each of the periods under examination was technologically possible, although varying levels of scientific achievement in each of the periods needs to be taken into account. A very broad definition of public values is used here. In this case, we follow de Bruijn and Dicke (2006), who propose that, for a value to be ‘public’, a collectivity must stand to benefit from the protection of that value. The sets of values chosen for examination relate to:

- transport infrastructure
- access to foodstuffs
- sanitation/public healthcare

The paper concludes with a discussion of the commonalities between the four historical cases, together with a discussion of the conditions under which public values are formed and safeguarded. This will provide a basis for speculating on future trends in public values.

3. MODERN TRENDS AND DISCOURSE

Before this paper turns to the more distant past, it is important to consider the current state of affairs in Western Europe. A brief overview of economic trends since the end of the Second World War is warranted.

At present, governments in Western Europe are usually assumed to be responsible for providing public infrastructure (Colander 2000). After the Second World War, governments increasingly assumed the role of direct providers of public infrastructure, with a view to supporting national development (Ikenberry 2000), which was largely consistent with the prevailing Keynesian economics (Maier 1977). This public policy environment provided governments with a clear mandate for building critical infrastructure such as railroads, roads, ports, dams and airports, in addition to providing essential public services, such as the provision of electricity, water, telecommunications, public transport, and air travel (Koppenjan *et al.* 2008).

Public values were inherent in the provision of these public goods. Indeed, there was an implicit assumption that the public interest was served by public ownership of these assets and services, and that their separation from private administration would ensure that public goods did not have to compete with economic interests (Jones 1991). Some of these public values included equal access to public goods, the cross-subsidization of disadvantaged communities, economic growth as a means of achieving higher living standards, and public control of assets, with significant national security implications when associated with strategic infrastructure sectors (Wade 2003).

This scenario was maintained for nearly three decades. A significant policy shift emerged in the early 1980s. Keynesian economics was replaced by Neoclassical economics, a school of thought which challenged the proportion of national activity undertaken by the public sector (Schipke 2001; Zohlnhöfer and Obinger 2006). The result was the large-scale shift of assets and activities from the public to the private sector through policy mechanisms such as privatization, contracting out, and public sector downsizing (Megginson and Netter 2001).

Thus, at the beginning of the twenty-first century, the liberal democratic governments of Western Europe (and increasingly those in Eastern Europe) are confronted with the dilemma of being held responsible for the provision of major infrastructure, but not having the revenue base to construct or maintain assets at the level expected by the public (Tanzi and Schuknecht 2000). Furthermore, these assets are still often regarded as public assets and subjected to the similar public values of previous decades, such as equitable access, the provision of broader social benefits, and the provision and maintenance of infrastructure (Pollitt 2002). Yet new public values have emerged such as environmental sustainability, improved working conditions, and broader community engagement (Besley and Ghatak 2001; Lane 2000).

Governments in Western Europe (as elsewhere) have therefore had to balance increased demands for energy, transport, telecommunications, health and national security infrastructure with minimalizing government revenue sources (Quiggin 2002). The most common response has been to find new ways of attracting private capital into areas of public infrastructure (Harris 2003). Public-private partnerships (PPPs) have arisen, whereby arrangements are made that ostensibly serve both the private sector and government, acting on behalf of the general public (Hodge and Greve 2005; van Ham and Koppenjan 2001). A new dilemma has emerged relating to the extent to which public values can be maintained within a framework of increased private sector ownership of critical infrastructure (Beck Jørgensen 2007).

There is a widespread assumption in some of the literature regarding the temporal immutability of public values pertaining to infrastructure. For example, the provision of public health care is mostly assumed, as is access to low-cost public transport, or access to contagion-free running water (Koppenjan *et al.* 2008). If such public values are not realized at *no* cost to the citizen, their realization is at least subsidized, the funding for which is partially derived from taxes and duties. When such values are at risk of being compromised, for example, if a private sector operator of public transport unilaterally raises ticket prices by 50%, an outcry will inevitably ensue about an important public value being eroded by market forces.

Public values are thus expected to be safeguarded by government, often on the basis that these public values are in some way a right, are absolute, and cannot be compromised.

4. THE HISTORICAL CASES

The following sections present the historical cases in chronological order, as established previously.

4.1. Roman Empire: The Principate

Here, we analyse the Roman Empire, essentially an underdeveloped agrarian economy, at its political apogee: the Principate, which began with the reign of the first emperor Augustus (28 B.C.E.-14 C.E.). This period of prosperity, the *pax Romana*, lasted until the second half of the second century C.E., after which the Empire went into a slow decline. Our period is notable for spreading the notion of *Romanitas* throughout the Empire, thereby ensuring a high degree of commonality, especially in major urban centres, such as Rome itself (Garnsey and Saller 1987).

4.1.1. Transport infrastructure

In an era with little private vehicular transport, access to transport was a function of social position and wealth. Despite this norm, several important public goods were allied to the adequate provision of transport infrastructure. In particular, the ability to transport tax grain from Rome's overseas possessions in the southern Mediterranean and Africa necessitated adequate infrastructural conditions. With the provision of free, or, at least, heavily subsidized grain (the *annona*), sufficient transport infrastructure was needed to guarantee the ongoing supply of grain (Morley 2003).

Loss of grain as a result of storms was particularly common (Duncan-Jones 1974), thus bringing about the need to secure ships within good harbours. The mid-first-century emperor Claudius secured the port at Ostia, for grain ships were far too large to travel up the Tiber directly to the capital. A lighthouse was also built (Thornton and Thornton 1989), while “a police force *cum* fire brigade” was instituted to protect the grain (Levick 1990: 88). The provision of safe harbours also brought about the realization of enhanced trade between the various commercial centres of the Empire, thereby ensuring that goods could be transported with confidence.

As with other major public infrastructure during the period, these projects were funded by the state, largely through revenue exacted from taxes and trade (Garnsey and Saller 1987). Contrary to popular belief, the number of slaves working varied depending on the nature of the private contractor selected, with permanent employees being slaves, and casual employees free (Thornton and Thornton 1989). Indeed, the provision of infrastructure such as that described, in addition to other public works, had the important function of providing employment for Roman citizens.

An efficient road network between major centres was also established. Here, the primary value being realized was not accessibility, or even the promotion of trade, but security. A good road network facilitated the rapid movement of Roman forces to wherever they were required, perhaps to put down rebellion, or else to launch pre-emptive strikes. Almost as importantly, good roads facilitated the movement of supplies, without which the armies could not be effective over sustained periods of military activity (von Hagen 1967). These roads were built by the state during the period in question. Their surveying was effected by military engineers, and their provision was carried out by military personnel (Jackman 1966). The Roman army made heavy use of infrastructure projects as a means of occupying the troops and building a sense of camaraderie and discipline (Watson 1969).

4.1.2. Access to food

The famous phrase *panem et circenses*, as used by the satirist Juvenal, captures the importance of access to food in Imperial Rome. Until recent times, the price of grain was vital to the populace of any state, especially given that bread, and rice in the East, was a staple, without which there would be famine and concomitant political unrest. Rome, at the beginning of the Empire, had not been self-sufficient since the second century BC (Thornton and Thornton 1989).

Ensuring subsidized grain for the urban populace originated in the days of the Republic, when Rome was controlled by the Senate (Kessler and Temin 2007). Distribution of free or heavily subsidized grain was the aristocracy’s responsibility and was used as a means of achieving political favour (Stockton 1979). With the Principate, Augustus assumed direct responsibility to ensure his position as the people’s friend (Finley 1992). By this stage, access to food at reasonable cost had clearly become an important public value. Failure to safeguard that value called into question the compact between *plebs* and *princeps*, thereby bringing about political instability.

The market mechanism in itself was not deemed the best means to ensure ‘fair’ food prices. The Roman government could have simply provided the infrastructure to allow shipping activity to take place—and then stepped away. But shipping in the ancient Mediterranean was problematized by severe weather, in addition to the vagaries of poor harvests (Casson 1971). There was also the threat of market-distorting activities designed to secure better grain prices in Rome.

Despite the importance attached to safeguarding the grain supply, the transport and provision of grain, known as the *annona*, was not managed by the state. Rather, it was provided by privately-owned vessels operating under the regulatory aegis of the emperor and his officials, including the prefect of the grain supply. A variety of benefits were accorded to participating

ship owners. Thus grain shipment was facilitated by incentives, which included citizenship for non-citizen merchants, and, for a woman, the special rights (such as legal independence) normally accorded to a non-freeborn mother of four children (Hurley 2002).¹

4.1.3. Sanitation/public healthcare

Imperial Rome was characterized by its system of aqueducts, which brought fresh water to Rome. These aqueducts relied on gravity to bring water to the capital. The aqueduct network was complex, needing to run for kilometres over oftentimes difficult terrain (Ashby 1935). This required an enormous amount of infrastructure.

The provision of fresh water to the urban citizenry, like so many of Rome's values pertaining to infrastructure, was deeply rooted in the Republic. The Principate was critical to safeguarding this value, though the use of public water steadily increased as the major urban centres grew. New aqueducts needed to be built. In addition, the provision of public baths, such as the Terme di Caracalla in Rome, were also constructed by the state to ensure sanitation, though wealthy private individuals, particularly in provincial centres, often contributed, either voluntarily for political purposes, or as part of their civic liturgies (Garnsey and Saller 1987).

Like most of Rome's major infrastructure projects, much of the work was overseen by state officials. Microbiology, of course, was not understood (and would not be understood until the nineteenth century), but an emphasis on sanitation was evident in most major cities. Although sanitation was rudimentary by modern standards, the disposal of waste was still regarded as an essential public amenity.

The notion of *palliative* public healthcare, by way of contrast, was largely non-existent (Cartwright 1972). Access to medical care depended largely on personal wealth, though there is the evidence that the poor paid a minimal fee (in line with their perceived lower social value) (Flemming 2003). Given the relative paucity of doctors of quality in the Roman Empire, physicians were able to enter the service of aristocrats and thereby earn a living from them and their friends. It was, as Fleming (2003: 243) suggests, a "medical marketplace."

4.2. Medieval England: The Plantagenet era

The fall of the Western Roman Empire brought about a shift from central authority and coordination to a rise in local authority (Garraty and Gay 1972). By the medieval period, the notion of the nation-state was at best embryonic (if not entirely non-existent), while princes attempted to wrest control from the often factious nobility. The medieval prince did not necessarily benefit from what was later conceptualized as 'the divine rights of kings'—which played an important role in the advent of the modern nation-state (Burgess 1992). As a result, his position was not always secure and, given his reliance on the nobility and debt instruments, his access to funds was limited (Veitch 1986).

4.2.1. Transport infrastructure

Some of the architecture provided by Rome remained intact. Major arterial routes were regularly based on where Roman roads once existed, or indeed Roman roads continued to be used (e.g., Watling Street was the major route from London to the north).² Yet without centralized coordination, or a standing army to take care of the roads, much of this infrastructure had fallen into some sort of disrepair by the medieval period, especially since disinterested local governments, under the Empire, were coerced into maintaining infrastructure (Garnsey and Saller 1987). Without central government, police or even a permanent army, access between

¹ The Roman Empire was desirous of increasing the birth-rate of its citizens (including those who had previously been slaves). To that end, special economic privileges were given to those who produce the requisite number of children.

² The modern M1 follows this route.

parishes was limited to inadequate roads, the maintenance of which was piecemeal and depended on the purses of the local nobility and its agents (Benson 1992). Without the kind of surfacing technology available to the Romans, the main pursuit of those seeing to the roads was ensuring that roads remained passable (Benson 1994). As trade increased in the period, merchants (and even the Church) contributed to the upkeep of existing carriageways, and even the provision of bridges. As Albert (1972: 3) contends, “the various transport sectors developed gradually and were controlled almost entirely by private enterprise.”

Public transport was unknown during this period. Travelling from one town to the next was fraught with manifold dangers. In an age where safety very much depended on personal relationships between peers, and between the common person and his/over immediate overlord, travelling far afield was a risky affair (Morrison 2000). As a result, there was no real need for the common person to travel any great distances, except for the purpose of pilgrimage (Lambdin and Lambdin 1996). Travel was largely the preserve of the aristocracy and important merchants, whose relationships surpassed parish and county borders, and even the Channel, especially as the Renaissance dawned. The aristocracy could at least afford to travel with some of their retainers as a means of protection against brigands, or even rival nobles (Morrison 2000).

In this landscape, the only really centralized infrastructure was provided by the Church rather than the state. Travellers could find refuge in abbeys or convents, where they could enjoy at least enjoy a night’s rest and a rudimentary meal (Griffith 1996).

4.2.2. Access to food

The notion of state subsidies for food was unknown in Plantagenet England. For poorer folk in the countryside, self-sufficiency was the norm. Poor harvests, exacerbated by the institutionalization of poor farming practices such as subdividing inherited lands (Garraty and Gay 1972), meant a reduction in food. What is more, the Catholic Church normally exacted a tithe of all that was harvested, while the landowner also demanded a substantial portion of the harvest as a form of rent (Campbell 1983).

Sustenance was clearly not regarded as an inalienable right. If a person could not grow his or her food, purchase it from those who could, or secure charity from private individuals, or else the Church, it was not the responsibility of the ruling class—much less that of the state in its incipient form—to come to his or her aid. Some victuals could be had from the Church, but, in times of general famine, the Church’s capacity to alleviate the suffering of the poor was also markedly reduced.

4.2.3. Sanitation/public healthcare

Sanitation and public healthcare was generally neglected. Access to water depended largely on proximity to natural water courses, or else was contingent on wells dug into the earth, which relied on local aquifers (Burian and Edwards 2002). Luckily, water was readily obtainable in medieval England, more so in view of the small size and geographically dispersed nature of the population, in addition to the high amount of precipitation. Thus the provision of water was not regarded as a matter of great moment, and infrastructure for securing water supplies was minimal.

On the other hand, the minimalist attitude to water provision (especially outside the major towns) resulted in a lack of attention being paid to sanitation. The streets of the larger towns resembled open sewers, with scraps, urine and human excrement hurled into the streets with abandon (Burian and Edwards 2002). Reliance on naturally available water meant that, when it rained, local watercourses were contaminated, which lead to periodic outbreaks of disease. Such pestilence was not attributed to poor infrastructure provision, but was generally regarded as an act of divine retribution for immorality, impiety, or the misconduct of the nobility (Hays 1998).

It should not surprise that the notion of public health was also non-existent. Sickness and disease, being largely attributed to supernatural interference or divine castigation, was not generally regarded as curable by earthly means—attempts to use what science was known could be interpreted as sorcery, with dire consequences for practitioners (Hays 1998). The religiosity of the age often acted as barrier to scientific advancement, with knowledge from previous ages having fallen into abeyance.

Medical attention, as was the case in the early Roman Empire, depended on wealth, or relationships with those of means. Childbirth, for example, was facilitated by midwives, who would expect some kind of recompense for their service. Monasteries did provide some rudimentary services to the poor, and it is a paradox that the monks who provided this assistance were probably the best qualified to do so, especially before the fifteenth century (Griffith 1996). Thus the state had very little involvement in the provision of medical services. Rather, its support of Church doctrine and its cooption in the suppression of heresy militated against any improvement in the realm's health, although this contention is admittedly simplistic (Thrupp 1966).

4.3. Eighteenth Century France: The Bourbons

This period and location represents the apogee of the nation-state in the period known as The Enlightenment (*Siècle des Lumières*). The nobility, who still exercised considerable power in their respective desmesnes, had now been well and truly subordinated to a powerful monarch. Moreover, the power of the Church had lessened, with considerable freedom now given to the expression of individual thought, so long as it did not constitute treason to the monarch (Garraty and Gay 1972).

4.3.1. Transport infrastructure

The greater coordination of the state led to greater coordination of transport infrastructure. This did not necessarily mean a return to Roman times, but it did ensure that, as trade became more important, both within and without the country, that some small effort was made to ensure trafficable roads and navigable waterways. The provision and maintenance of this infrastructure, at least to some degree, was related to emergent public values that the prince was expected in some way to safeguard. In this way, the prince was somewhat akin to his Roman predecessor, yet, without the development of coordinated markets, in addition to the emerging liberal economic philosophies, his ability to act was made more difficult by his reliance on private actors.

4.3.2. Access to food

Paris was by far the most populous urban centre and thus contained the greatest number of potential dissidents. A quiet and compliant urban populace seems to be symptomatic of general contentment, while the inverse hints at political calamity. Though the king might regard the people as his subjects, he was also very much aware that his hegemony over the nobility rested on his ability to be seen as a popular champion, and a symbol of national unity (Hampson 1963).

Kaplan (1984: 7) has treated of this question in his work on food supply in eighteenth century France: “No task preoccupied central and local administrators more doggedly than the obligation to assure an adequate supply of grain, flour, and bread at prices accessible to the labouring poor.” Even when harvests were bountiful, that quality flour made its way to where it was most needed was highly problematic. Thus the importance of sound distribution networks is made clear, more so when one bears in mind that the failure to deliver purchasable bread to the Parisian populace was the catalyst for the Revolution (particularly when private actors began to manipulate the market).

The essential difference between eighteenth-century France and Imperial Rome is that, in France, “it was not the government’s intention to furnish consumers with grain or bread, nor did the public expect it to” (Kaplan 1984: 24). The government’s role was to ensure that it was promptly transported, in good condition, and available at a fair price. There was no free grain dole, or grain at massively subsidized prices (at least in normal circumstances). The reason for this, perhaps, was the development of the market principle, and the increasing feeling of grain growers and merchants to go about their business without interference or social accountability. To assert some balance, the state imposed some restraints in the form of licenses and passports. In effect, it “designed the marketplace as a way of articulating the requirements of trade with the needs of state and society” (Kaplan 1984: 28).

Problems remained with transportation. As Kaplan (1984: 123) explains, “supply trade remained largely local and intraregional”—there were virtually no *négociants* based in Paris itself. While water-borne transport was important, much of it increasingly arrived in Paris as flour along land routes. A Paris license gave the merchant and his agents the right to seek grain outside the marketplaces—contrary to the overall police intention of promoting visibility, while grain bound for Paris also had precedence (Kaplan 1984). Following a royal council promulgation in 1708, merchants supplying Paris also had recourse to the assistance of the municipalities and their *commissaires* and *huissers*, who assisted with contracts and dealing with local authorities (Kaplan 1984: 124).

Thus there was no state-directed transportation system, mainly because grain (and flour)—the demand for which was always inelastic—was secured on a more *ad hoc* basis in various areas depending on market prices and availability. Grain was not insured, and accidents and spoiling were frequent. Interventions were made only in times of extreme crisis, while “*dei ex machina* millionaire traders”, guaranteed against loss by the state, began to operate increasingly, something which further undermined efforts to develop the trade (Kaplan 1984: 599). Likewise, the king’s grain and flour, stored among the religious communities and educational establishments of Paris and its surrounds, was only doled out in dire emergency (Kaplan 1977).

4.3.3. Sanitation/public healthcare

As with medieval England, public sanitation and healthcare were little advanced (Hampson 1963), even though the scientific understanding of the body and its functions had improved markedly. The religious scruples that had previously inhibited scientific enquiry had also fallen somewhat into abeyance, but the notion of public medical care was not even on the horizon. Medical research, in any case, took a back seat to other forms of scientific enquiry. The best minds concerned themselves with arcane philosophy and obscure mathematics. There was certainly nothing much in the way of funding for those interested in human health.

4.4. Industrial England: the Victorian Age

Finally, we turn our attention to the industrial age. This was an era in which the classical economists espoused their views regarding commerce and the minimalist role of the state (Lichtheim 1970). The age is especially important from a modern standpoint since the world has been heavily influenced by Neoclassical economics, thus reviving the precepts of Smith and Ricardo. Yet, at the same time, the march towards socialism, and its desire to deliver a more equitable distribution of wealth, was afoot, with greater levels of public expense occurring from the 1870s onward (Tanzi and Schuknecht 2003).

4.4.1. Transport infrastructure

One form of transport is associated with the Victorian era above all else: the steam engine. It was not long before engineers coupled the steam engine used for industrial ends with horse-drawn vehicular transport. Instead of being constructed by the state, the myriad of railways that sprung

up in the nineteenth-century Britain were not state owned or operated. Rather, they were the result of private investment in transport infrastructure (Kellet 1979).³ It was the market that largely dictated what should be built, and where it should be built, even though political approval was required. The transport infrastructure built during this period was not cheap, especially given its groundbreaking nature, but this cost was entirely borne by the private sector, with very little in the way of government interference, at least in the initial period of activity (Burton 1994; Cook 1999).

To begin with, the notion of equitable access was non-existent. To supplement the freight income of these rail enterprises, the owners determined to make this form of transport available to the less well-to-do. There were no real standards of comfort: passengers rode in uncovered wagons that could be bitterly cold and wet during the winter, and still filled with eye-stinging smoke at other times of the year (Simmons and Biddle 1998). Eventually, The Parliamentary Train Act (1844) ensured that trains conformed to standards of speed and comfort and offered affordable rates—public transport as a public value had finally emerged, but only as a result of rapid innovation, which often creates lasting social and political reverberations (Schumpeter 1939).

Progress was much slower for other modes. Many roads, both in the cities and throughout the countryside, continued to be almost impassable when it rained, for their often unpaved surfaces quickly turned to a quagmire with even the slightest downpour. Roads, in any case, were often maintained by local trust (non-profit) organizations, which were funded by those using the infrastructure (Pawson 1977). Yet corruption meant that not all of the money gained was invested in road maintenance (Hindley 1971). Both rich and poor alike suffered in these circumstances, though at least the rich could sit in the comparative comfort of a horse-drawn carriage—the common folk had to trudge through the mud, rain, and even snow on foot.

The notion of accessible transport and accompanying infrastructure as a public value was clearly emerging, thus paving the way for Keynesian Europe, with its emphasis on state-owned transport infrastructure. Technical progress there might have been, but the comparatively rapid pace of change, at least compared to the previous millennia, meant that government and its capacity to regulate could not keep pace with progress.

4.4.2. Access to food

Classical economic theory holds that the individual, if he or she has nothing to trade of any value, including labour or skill, is without the capacity to be self-sustaining. Thus the value of production for profit, rather than for use, meant that the populace of the grain-producing country could not be guaranteed to be fed with this grain, more so since, according to capitalism in its purest form, wages could not be expected to be greatly higher than subsistence level (Lichtheim 1970). As an extension, it might even be inferred that an unemployed labourer does not have the *right* to live (Polanyi (1957)—a notion which hardly accords with the universalistic theory of public values. This summary of the prevailing attitudes may seem extreme, but this is a distilled version of what were largely mainstream economic attitudes, especially in the early part of the nineteenth century.

Even the common people, by and large, did not greatly question the status quo, conditioned as they were to accepting their lot as Marxian wage-slaves or human commodities with only their labour to sell in a “possessive market society” (Macpherson 1962: 48). Still, revolutionary activities in Europe (especially during the tumultuous year of 1848) stirred the more radical elements to contend that the state did have some kind of duty of care with respect to feeding the

³ Countries such as France and Belgium, by way of contrast, made railways public institutions right from the beginning.

swollen bellies of the down-trodden. As always, it was in the urban centres where a lack of access to reasonably priced food could result in political strife.

4.4.3. Sanitation/public healthcare

The nineteenth century in many ways marks a transition point regarding sanitation and public healthcare as a public value. The catalyst was undoubtedly a growing scientific awareness of the causative agents of disease, and the means by which they could be cured. Compared to today’s medical knowledge, the ability of nineteenth-century physicians to deal with disease or illness was rudimentary, but it was remarkably advanced in comparison to that of the eighteenth century.

Now that the underlying *cause* of disease could be identified, a crisis of conscious gradually emerged: if diseases could be prevented, and even cured after their onset, surely society has a duty of care to protect the weak and succour the ill. Of course, there was a less altruistic reason for keeping the populace healthy. Industrial England of the Victorian age, with all Blake’s ‘dark Satanic mills’, was very much dependent on manpower (Anderson 1967). The ruinous plagues of previous eras would leave the factories empty, and the wheels of commerce would grind to a halt.

Still, the notion of public healthcare as a public value was still very much unformed. It *was* an emerging value, but the precise means and extent to which the state would safeguard this value had yet to be fully determined.

5. DISCUSSION

The results of the previous case studies are represented below in tabular form. Note that the information recorded therein is, in most cases, somewhat of a generalization:

	Transport infrastructure	Access to food	Sanitation/public healthcare
Roman Empire (Principate)	Yes (<i>public</i>)	Yes (<i>private</i>)	Yes (<i>public</i>)/No
Medieval England	No	No	No/No
Bourbon France	No	Yes (<i>private, with some qualification</i>)	No/No
Victorian England	Initially no (<i>but emerging by mid-19th century</i>)	No (<i>but emerging</i>)	No (<i>with some qualification</i>)
Keynesian Europe	Yes (<i>public</i>)	Yes (<i>public</i>)	Yes (<i>public</i>)

An important outcome is that public values pertaining to infrastructure are very much determined by economic and political structures, in addition to the notion (and acceptance) of ‘rights’. This accords with what is termed the ‘institutional approach’ to public values, i.e., actors in the public value formulation process are embedded in an institutional environment, with their behaviours and rationalities constrained and shaped by the structural and cultural characteristics of these environments (March and Olsen 1989; Ostrom 1990). Perceptions of public values are thus very much culture and time specific, yet they are also related to the *development* of humanity, and its inverse. This observation reflects that of Rousseau (1964) who, in contrast to Hobbes and Locke, did not view human beings and their values as immutable, but held that values changed markedly

over time, in as much as humans actively participate in their own social and technological evolution.

This might ostensibly be viewed as a ‘chicken or the egg’ situation. Yet this research seems to indicate that it is more likely that economic and political structures *enable* the salience of certain public values, rather than that the *need to realize these values* leads to the kinds of economic and political structures that can support and safeguard them. This generally accords with the propositions made in the introductory section of this paper. Thus, where there is a political value to be had from providing services and goods to the public, such as providing subsidized foodstuffs (Roman Empire) or free grain in times of political turmoil (Bourbon France), these services and goods are eventually taken for granted and are institutionalized (where possible) as public values. Failure on the part of governments to uphold these values thus leads to the possibility of disaffection, societal upheaval, and even civil war, as was the case in Imperial Rome, or eighteenth-century France. These infrastructures thus form part of the safeguarding mechanism of broader public value—that of order.

The availability of technology is also seen to influence the creation—and also loss—of public values, particular as we saw in the Victorian era. Where know-how exists and there are no competing demands, strong central governments are expected to ensure that public values are realized. In the absence of that know-how and in the presence of more salient demands, these once-important values slip into abeyance. A good example of this is provided by the case of running water and sewage. During the *pax Romana*, attention could be paid to seeing to these public values given i) the technological and organizational ability to do so, and ii) competing demands (such as protecting the citizenry from invasion) were not paramount. But, in later eras, such as the medieval period, these conditions could not be realized in many centres, thus leading to the relative disregard of sanitation infrastructure. Running water and sewage, here, was no longer regarded as an important public value, let alone one worth safeguarding.

By way of contrast, medicine was relatively advanced in Roman times,⁴ yet the evidence suggests that the provision of public healthcare was not regarded as a public value. It is thus hardly surprising that public healthcare was not important in the following centuries, especially given the loss of medical knowledge, together with the rise of the Church and its promotion of the abdication of reason. Healthcare was thus contingent on the means to pay for it. While public health, in Western Europe, came to the fore in the nineteenth century, and became an integral part of the twentieth, it is now at something of a crossroads, especially in the face of rapid scientific advancement and concerns about the ability to provide equitable access to health services (Mhatre and Deber 1992). As long as medical research is funded to some degree by the government, public healthcare is likely to remain an important public value (Lupton 1995). But, if the inverse occurs, there is the possibility of a reversion to an entirely ‘user pays’ system. It is arguable that this process is already underway in some nations.

These factors raise interesting questions regarding the future of existing public values in the field of infrastructure. Let us take one example. Adequate communications provision and service has been a public value for many years in Western Europe. Government was (and still is to a degree) responsible for telephone connections, radio transmission and television broadcasting, either free of charge, or for a reasonable fee. Although this continues to be a public value, deregulation and smaller government means that the private sector plays an important role in realizing this value, under the regulatory aegis of government. Given the increased importance of the Internet, it is possible that access to the World Wide Web will become a supplementary value to accessible telecommunications, especially in view of its importance to education.

There is a further important dimension involving the transfer of Western-style governance procurement and practices relating to infrastructure in non-Western institutional environments.

⁴ Perhaps such expertise was not recovered until the nineteenth century.

International regime theory suggests that the ostensibly striking parallels between the policies of different countries are the result of institutional phenomena such as the simultaneous domestic implementation of international agreements (Hasenclever *et al.*, 1997). But there is potentially little thought about whether the (mainly) Western values embedded in these agreements, such as those pertaining to governance, are readily transferable. As we have seen, modern Western values pertaining to infrastructure have validity in the institutional landscape that engendered their development and subsequent safeguarding, but are not necessarily equivalent to those in different temporal settings, even within the same geographic context.

6. CONCLUSION

It has been seen that public values—even in what was once a (relatively) culturally and ethnically homogenous region—are subject to considerable change over time. Particularly in comparison with nineteenth-century values pertaining to infrastructure and those of post-war Europe, these values can change in a relatively quickly, especially when some of the conditions stated in the introductory section of this paper are not met. Values now regarded as salient in public discourse are not necessarily immutable. As Ingersoll and Matthews (1986: 4) point out, “universally accepted, seemingly correct values” is “an illusion.” On the basis of the evidence introduced herein, they might even be regarded as particularly subject to change, albeit over long periods of time. This inference is clearly at odds with the universal approach to public values, and especially the concept of inalienable rights. While this notion is neither especially shocking nor unambiguously defeated in the paper, it does nevertheless highlight the problems associated with rigidly adhering to the promotion and safeguarding certain public values pertaining to infrastructure when the political, institutional and social context is altered.

Thus, while public values such as accessibility and provision of public transport, access to food at a reasonable price, and even public health would appear to be thoroughly entrenched in the modern Western European psyche, there is no guarantee that their salience will continue, particularly if these resources and services are problematized by political and societal reaction to issues such as global warming. For example, environmental considerations may raise transport costs to such a level that long-distance travel, at the very least, reverts to being the preserve of the wealthy (Foresight 2006); climatic change or increased demand from industry (e.g., grain for biofuels) may mean that food prices sky-rocket (Charles *et al.* 2007); while public health may fall by the wayside as minimalist government can no longer afford to pay for it (Lupton 1995). These extreme scenarios might well be regarded as unlikely in the short term, but it is important to remember that, over time, not all these values existed simultaneously.

This brings us to the future. If the kinds of public values discussed in this study are truly important to us (as they still appear to be), we must be alert to the scenarios and conditions that could conceivably bring about their erosion over time. Subsidized grain for the public, by way of example, was not abandoned overnight. Rather, it was the result of a gradual process rooted in considerable geopolitical, social, demographic and cultural change. Furthermore, technological change may lead to new values relating to infrastructure being encapsulated in public discourse, and institutionalized as a consequence. The question, here, is at what cost? This is an issue to be discussed at another point in time, and by others.

REFERENCE LIST:

- Albert, W. (1972), *The Turnpike Road System in England, 1663-1840* (Cambridge University Press, Cambridge).
- Anderson, O. (1967), Early Experiences of Manpower Problems in an Industrial Society at War: Great Britain, 1854-56. *Political Science Quarterly*, 80, 4, pp. 526-545.

- Ashby, T. (1935), *The Aqueducts of Ancient Rome* (Clarendon Press, Oxford).
- Beck Jørgensen, T. (2007), Public Values, Their Nature, Stability and Change: The Case of Denmark. *Public Administration Quarterly*, 20, 4, pp. 363-396.
- Benson, B. L. (1992), The Development of Criminal Law and Its Enforcement: Public Interest or Political Transfers. *Journal des Économistes et des Études Humaines*, 3, pp. 79-108.
- Benson, B. L. (1994), Are Public Goods Really Common Pools?: Considerations of the Evolution of Policing and Highways in England. *Economic Inquiry*, 32, 2, pp. 249-271.
- Besley, T. and Ghatak, M. (2001), Government versus Private Ownership of Public Goods. *Quarterly Journal of Economics*, 116, 4, pp. 1343-1372.
- Burgess, G. (1991), The Divine Right of Kings Reconsidered. *English Historical Review*, 107, 425, pp. 837-861.
- Burian, S. J. and Edwards, F. G. (2002), Historical Perspectives of Urban Drainage, *Proceedings of the 9th International Conference on Urban Drainage*, available at: <http://rpitt.eng.ua.edu/Class/International%20Urban%20water%20systems/M1%20Burian%20paper.pdf>. (accessed 23/04/08).
- Burton, A. (1994), *The Railway Empire* (Murray, London).
- Campbell, B. M. S. (1983), Agricultural Progress in Medieval England: Some Evidence from Eastern Norfolk. *Economic History Review*, n.s. 36, 1, pp. 26-46.
- Cartwright, F. (1972), *Disease and History* (Crowell, New York).
- Casson, L. (1971), *Ships and Seamanhip in the Ancient World* (Princeton University Press, Princeton, NJ, 1971).
- Charles, M. B., Ryan, R., Ryan N. and Oloruntoba, R. (2007), Public Policy and Biofuels: The Way Forward. *Energy Policy*, 35, 11, pp. 5737-5746
- Colander, D. (2000), The Death of Neoclassical Economics. *Journal of History and Economic Thought*, 22, 2, pp. 127-143.
- Cook, C. (1999), *Companion to Britain in the Nineteenth Century, 1815-1914* (Longman, London).
- Duncan-Jones, R. (1974), *The Economy of the Roman Empire: Quantitative Studies* (Cambridge University Press, Cambridge).
- Finley, M. I. (1992), *The Ancient Economy*, 2d ed. (Harmondsworth, London).
- Flemming, R. (2003), Knowledge and Empire. In Woolf, G. (ed.), *Cambridge Illustrated History of the Roman World* (Cambridge University Press, Cambridge), pp. 233-257.
- Foresight (2006), Foresight Intelligent Infrastructure Futures: Scenarios. Toward 2055: Perspective and Process, 2006, available at: http://www.foresight.gov.uk/Previous_Projects/Intelligent_Infrastructure_Systems/Reports_and_Publications/Intelligent_Infrastructure_Futures/2055_Perspective_Process.pdf (accessed 23/04/08).
- Garraty, J. A. and Gay, P. (eds.) (1972), *The Columbia History of the World* (Harper & Row, New York).
- Griffith, N. E. S. (1996), The Health Problems of Medieval Travellers, in N. W. Debarge, *A Medieval Miscellany* (McGill-Queen's University Press, Montreal), pp. 257-272.
- Hagen, V. W. von (1967), *The Roads That Led to Rome* (World Publishing Company, Cleveland and New York).
- Ham, J. C. van and Koppenjan, J. F. M. (2001), Building Public-Private Partnerships: Assessing and Managing Risks in Port Development. *Public Management Review*, 3, 4, pp. 593-616.
- Hampson, N. (1963), *A Social History of the French Revolution* (Routledge and Kegan Paul, London).
- Harris, C. (2003), *Private Participation in Infrastructure in Developing Countries: Trends, Impacts, and Policy Lessons*. World Bank Working Paper 5 (World Bank, Washington D.C.).

- Hasenclever, A., Mayer, P. and Rittberger, R. (1997), *Theories of International Regimes* (Cambridge University Press, Cambridge, MA).
- Hays, J. N. (1998), *The Burdens of Disease: Epidemics and Human Response in Western History* (Rutgers University Press, New Brunswick, NJ).
- Hindley, G. (1971), *A History of Roads* (Peter Davies, London).
- Hobbes, T. (1968), *Leviathan*, C. B. Macpherson, ed. (Penguin, Baltimore MA).
- Hodge, G and Greve, C. (2005), *The Challenge of Public Private Partnerships. Learning from International Experience* (Edward Elgar, Cheltenham).
- Hurley, D. W. (2002), *Suetonius. Divus Claudius* (Cambridge University Press, Cambridge).
- Ikenberry, J. (2000), *After Victory: Institutions, Strategic Restraint and the Rebuilding of Order after Major Wars* (Princeton University Press, Princeton).
- Ingersoll, D. E. and Matthews, R. K. (1986), *The Philosophic Roots of Modern Ideology: Liberalism, Communism, Fascism* (Prentice-Hall, Englewood Cliffs, NJ).
- Jackman, W. T. (1966), *The Development of Transportation in Modern England* (Augustus M. Kelley, New York).
- Jones, D. N. (2008), A Grand Design, Or The Best We Can Expect? *Public Money & Management*, 28, 3, pp. 136-138.
- Jones, T. M. (1991), Ethical Decision Making by Individuals in Organizations: An Issue-Contingent Model. *Academy of Management Review*, 16, 2, pp. 366-393.
- Kaplan, S. L. (1977), Lean Years, Fat Years: The 'Community' Granary System and the Search for Abundance in Eighteenth-Century Paris. *French Historical Studies*, 10, 2, pp. 197-230.
- Kaplan, S. L. (1984), *Provisioning Paris: Merchants and Millers in the Grain and Flour Trade During the Eighteenth Century* (Cornell University Press, Ithaca and London).
- Kellett, J. R. (1979) *Railways and Victorian Cities* (Routledge & Kegan Paul, London/University of Toronto Press, Toronto).
- Kessler, D. and Temin, P. (2007), The Organization of the Grain Trade in the Early Roman Empire. *Economic History Review*, 60, 2, pp. 313-332.
- Koppenjan, J., Charles, M. B. and Ryan N. (2008), Editorial: Managing Competing Public Values in Public Infrastructure Projects. *Public Money & Management*, 28, 3, pp. 131-134.
- Lambdin, L. C. and Lambdin, R. T. (1996), *Chaucer's Pilgrims: An Historical Guide to the Pilgrims in The Canterbury Tales* (Greenwood Press, Westport, CT).
- Lane, J. (2000), *The Public Sector: Concepts, Models and Approaches*, 3d ed. (Sage, London).
- Lasswell, H. D. and McDougal, M. S. (1992), *Jurisprudence for a Free Society Studies in Law, Science and Policy* (E. J. Brill, Leiden).
- Levick, B. (1990), *Claudius* (New Haven, Yale University Press).
- Lichtheim, G. (1970), *A Short History of Socialism* (Widenfeld & Nicolson, London).
- Locke, J. (1960), *Two Treatises on Government*, P. Laslet, ed. (New American Library, New York).
- Lupton, D. (1995), *The Imperative of Health: Public Health and the Regulated Body* (Sage, London and Thousand Oaks, CA).
- Macpherson, C. B. (1962), *The Political Theory of Possessive Individualism: Hobbes to Locke* (Clarendon Press, Oxford).
- Maier, C. (1977), The Politics of Productivity: Foundations of American International Economic Policy after World War II. *International Organization*, 31, 4, pp. 607-633.
- March, J. G. and Olsen, J. P. (1989), *Rediscovering Institutions: The Organizational Basis of Politics* (Free Press, New York).
- Megginson, W. and Netter, J. (2001), From State to Market: A Survey of Empirical Studies on Privatization. *Journal of Economic Literature*, 39, 2, pp. 321-389.
- Mhetra, S. L. and Deber, R. B. (1992), From Equal Access to Health Care to Equitable Access to

- Health Care: A Review of Canadian Provincial Health Commissions and Reports. *International Journal of Health Services*, 22, 4, pp. 645-668.
- Morley, N. (2003), The Profits of Empire. In Woolf, G. (ed.), *Cambridge Illustrated History of the Roman World* (Cambridge University Press, Cambridge), pp. 291-319.
- Morrison, S. S. (2000), *Women Pilgrims in Late Medieval England: Private Piety as Public Performance* (Routledge, London and New York).
- Pawson, E. (1977), *Transport and Economy: The Turnpike Roads of Eighteenth Century Britain* (Academic Press, London).
- Polanyi, K. (1957), *The Great Transformation* (Beacon Press, Boston).
- Rousseau, J. J. (1964), *The First and Second Discourses*, tr. R. D. Masters and J. R. Masters (St. Martin's Press, New York).
- Ryan, N. and Charles, M. B. (2008), Science and Technology: Policy Futures. In G. Hearn and D. Rooney (eds.), *Knowledge Policy: Challenges for the 21st Century* (Edward Elgar, Cheltenham), pp. 106-119.
- Simmons, J. and Biddle, G. (1997), *The Oxford Companion to British Railway History* (Oxford University Press, Oxford).
- Thrupp, S. L. (1966), Plague Effects in Medieval Europe: Demographic Effects of Plague: A Comment on J. C. Russell's Views. *Comparative Studies in Society and History*, 8, 4, pp. 474-483.
- Ostrom, E. (1990), *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press, Cambridge).
- Pollitt, M. G. (2002), The Declining Role of the State in Infrastructure Investments in the UK. In Berg, S. V., Pollitt, M. G. and Tsuji, M. (eds.), *Private Initiatives in Infrastructure* (Edward Elgar, Cheltenham/Northampton, MA), pp. 67-100.
- Quiggin, J. (2002), The Fiscal Impact of the Privatisation of the Victorian Electricity Industry. *Economic and Labour Relations Review*, 13, 2, pp. 326-339.
- Schipke, A. (2001), *Why Do Governments Divest? The Macroeconomics of Privatization* (Springer, Berlin and New York).
- Schumpeter, J. A. (1939), *Business Cycles I* (McGraw-Hill, New York).
- Stockton, D. (1979), *The Gracchi* (Clarendon Press, Oxford).
- Tanzi, V. and Schuknecht, L. (2000), *Public Spending in the 20th Century: A Global Perspective* (Cambridge University Press, Cambridge).
- Thornton, M. K. and Thornton, R. L. (1989), *Julio-Claudian Building Programs: A Quantitative Study in Political Management* (Bolchazy-Carducci Publishers, Wauconda, IL).
- Veitch, J. M. (1986), Repudiations and Confiscations by the Medieval State. *Journal of Economic History*, 46, 1, pp. 31-36.
- Wade, R. (2003), *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton University Press, Princeton).
- Yin, R. (2003), *Case Study Research: Design and Methods*, 3d ed. (Sage, Newbury Park).
- Zohlnhöfer, R. and Obinger, H. (2006), Selling Off the 'Family Silver': The Politics of Privatization. *World Political Science Review*, 2, 1, article 2.