ABSTRACT  This paper addresses the question of what happens to cities in long-term decline. It uses as an example perhaps the most famous such city, Rome, whose population declined from about a million persons to 30,000 between the second and sixth centuries AD. The experience of Rome is considered from the point of view of its population, economy, and social structure. An inquiry is made into the methods for estimating ancient Rome's population. The rate of the city's population decline is considered, and compared with modern examples. The social structure of Rome is discussed, focusing on how its institutions contributed to its decline. Conclusions and avenues of future research in historical urban geography are suggested.

INTRODUCTION

In the fields of urban geography and city planning, much attention has been given to the dynamics of urban growth, while a good deal less has been devoted to long-term urban decline. This is true because most cities in the world are, and have been for some time, growing; however, an increasing number of cities and urban areas are experiencing population declines, in some cases substantial ones, especially in the English-speaking world. These declines have been the subject of extensive studies which focus for the most part on the immediate causes of decay, rather than long-term urban decline.

Perhaps the best-known example of long-term urban decline is the "fall" of Rome, which took place between the second and sixth centuries AD. During this period, the city of Rome experienced a decline of population from around a million persons to about 30,000. This paper reviews the demographic and socioeconomic changes that took place in the City of Rome during its decline. First, the overall societal changes which were taking place in the later Roman empire are summarized. Then, the demographic changes which occurred in the city are discussed, followed by a discussion of Rome's socioeconomic structure during this period. Finally, conclusions and additional research are suggested relating to Rome itself as well as to long-term urban change in general.

HISTORICAL BACKGROUND

The following is a brief summary of the major events in the history of the Roman empire, focusing on those which deal with its decline.

Eighth century BC: The city of Rome founded.

Third and second centuries BC: Rome establishes dominance on the Italian peninsula, and by the mid second century BC, in the western Mediterranean basin.

First century BC: Following close to a hundred years of civil warfare, Julius Caesar and his adopted son Octavian (Augustus) overthrow the republic and establish a centralized dictatorship (the Principate).

First and second centuries AD: The Roman Empire militarily dominates nearly all of the Mediterranean basin. Roman rulers and generals extract huge quantities of wealth, both material and human, from this territory. The government of the empire remains relatively stable, which allows the population to prosper. The city of Rome has a population of over a million persons. Wealth is concentrated in Rome on a scale seldom seen before or since.

Third century AD: Agricultural production falters, and the diminution of foreign conquests slows the influx of wealth. Fifty years of civil war, combined with increasing pressure from Germanic barbarians to the north, leads to virtual collapse of the government and economy.

284-305 AD: The Emperor Diocletian vastly reorganizes and increases the size of the bureaucracy. Diocletian's often draconian reforms give the empire a new lease on life which lasts for another century, and his military reorganization succeeds in keeping the barbarians at bay.

Fourth century AD: The basic structural problems of the empire's economy continue. Agricultural production continues to slip. The overall population of the empire is in decline, making it difficult to find enough manpower to keep the economy functioning. The heavy burden of taxation is a major drain; inflation is serious; corruption is rampant.
THE CITY IN DECLINE: ROME IN LATE ANTIQUITY

Late fourth century AD: Germanic peoples begin a new and more effective series of incursions, driven themselves by migrations of peoples from the Asian steppes.

Fifth century AD: Independent Germanic kingdoms are set up in much of the western empire. In 410 AD the city of Rome itself succumbs, and is sacked for the first time by a foreign enemy in 800 years.

475 AD: The last western emperor abdicates, leaving Rome in the hands of Germanic soldiers.

Sixth century AD: In 500, Italy and Rome enter a period of relative prosperity under the rule of Gothic king Theodoric. However, this hiatus is short-lived, as attempts by the Eastern Roman Emperor Justinian (527-65) to recapture Rome and the rest of the western empire result in the Gothic Wars, which devastate Italy and Rome. The population of Rome drops to 30,000 by 550 AD, and the city is governed by the Pope.

THE CITY OF ROME IN DECLINE

DEMOGRAPHICS

Population estimates for the city of Rome are numerous and diverse, varying, for example, from 250,000 to 2 million for the second century AD. Lacking detailed demographic data, the estimates have relied upon three methods: 1), juxtaposing the physical extent of the city with likely population densities (eg, Lot, 70); 2), calculating population as a function of the number of people on the city's grain dole (Oates), which was about 200,000 persons under Augustus; and, 3), applying dwelling unit density and family size factors to a residential building count which was conducted in the mid fourth century (Packer). The area/density method yields the lowest estimates: within its walls, Rome had less than 1400 hectares. A million people living in that space would experience densities nearly four times those of modern Manhattan. However, some have suggested that ancient Rome may in fact have extended considerably beyond its walls (Carcopino, 14). The other two methods yield much higher estimates. These are supported by the weight of evidence, including the large numbers of people on the grain dole and the large number of tenement houses.

Despite wide variation in the estimates, if averages are calculated for the principal periods of Rome's history, a reasonable picture of the overall trend emerges. Most agree the Rome had about a million inhabitants during the Augustan era, and then peaked at somewhat over a million during the second century AD. Building count data for the fourth century tend to support a population of slightly under a million. All agree that Rome's population declined rapidly over the following two centuries, although the rate of decline probably varied considerably during this period.

The sixth proved ruinous because of the Gothic Wars, which effectively stripped the city of its remaining trappings of empire. During the Gothic wars, between 534 and 563, the city was taken and re-taken by opposing forces five times. By one estimate, the city's population was reduced by 90% during this period (Lot, 268). This suggests that Rome still had a significant population in the period immediately preceding the Gothic Wars. Those wars forced Rome entirely into the arms of the Pope, who took over all of the city's administrative functions. The city had ended its decline by 550 AD, with a resident population of about 30,000. (Hibbert, 79)

If one calculates Rome's average rates of population change from the second through sixth centuries, the declines of some modern cities and metropolitan areas are comparable. Between the second and fourth centuries, Rome's population declined at a rate of about 2% every ten years. The 1980's saw at least this rate of decline in ten US metropolitan areas. Between the fourth and sixth centuries, Rome declined by an average of about 5% per ten years. New York, Jersey City, Cleveland, and Buffalo are among modern US cities which have experienced similar rates of decline during the past 20 years. In the five decades between 1938 and 1988, London's population declined at an average rate of 5% per ten years.

Life expectancy in Rome was considerably shorter than it is even in the most backward modern nations. Studies of gravestones have shown that average life expectancy was probably around 25 years. (Boak, 10) Health care practices in the Roman empire were primitive, and public health in Rome was regarded as worse than in rural areas of the empire. The city suffered from very high death rates, particularly among infants. (Jones, 1044) Among Roman males who survived to age ten, 47% could expect to reach their fifties (in the modern US, the comparable statistic is 88%). Roman women fared even worse, due to high mortality during childbirth: only 37% of 10-year old females survived past 50. (Jones, 1041) Despite the high death rates, Romans evidently did not raise large families. (Boak, 17) The burdensome life of the later empire did not encourage child-rearing. (Jones, 1043)

SOCIOECONOMICS

The economic life of the Roman empire was based almost entirely upon agriculture and the surplus that it produced. (Jones, 464) Wealth was measured largely in land and property. Profits from agricultural lands poured into the capital city, where much of the money went into massive public works projects, and helped to keep the city's numerous poor fed and entertained. However, in spite
of this concentration of wealth, Roman society remained technically backward, except in civil and military engineering. (Jones, 1047) Even though capital was accumulated on an unprecedented scale, it was rarely employed as an instrument of economic growth and innovation.

The traditional duty of the wealthy in Rome was viewed as public service and support of those of lesser stature. Roman society was held together by a network of client-patron relationships, with each obligated to support or perform service for the other. The higher-level patrons could count upon the support of many lower layers of patrons and clients. Such support was called out during frequent political confrontations.

With a multitude of poor clients being dependent upon a few wealthy patrons, and with the patrons always anxious to display largesse, low productivity was tolerated and even encouraged. Throughout the empire, too many idle mouths depended upon too few producers. (Jones, 1045) The city of Rome suffered from the same problem. At least 25% of the population was on the dole. Another 25% or so were slaves (Carcopino, 65), dependent upon their owners for sustenance. The military and clerics of the city would probably bring the non-producer total to 60%. To this would be added women (who were not allowed to be producers), children, and the elderly, leaving perhaps only 15% who were actually involved in producing economic goods and services.

While accumulation of wealth was honored and critical for advancement, commercial pursuits were disdained in Roman society. A Roman’s highest aspiration was to serve the state and its people, a worthy goal which served the republic and empire well in many respects, but which yielded little in terms of economic development. Nonetheless, commercial enterprises thrived in Rome, functioning as the means for distribution of widely demanded material comforts. Individual enterprises remained small. Commercial enterprises were organized into hundreds of guilds which functioned much as modern agricultural cooperatives, providing economic as well as social benefits. (Jones, 858ff) Trade was active during the Principate. Rome drew imports from all of the known world, but produced relatively little for export. Practically all of Rome’s foodstuffs, clothing, building materials, furniture, and household implements were imported, mostly by sea or river. (Loane, 5-32)

In response to decreasing population and manpower, Diocletian promulgated legislation which made one’s economic position hereditary. In agriculture, this was the beginning of serfdom. In the city, Romans involved in commercial guilds or the civil service were required to pass their positions on to their descendents.

As the western empire slowly succumbed to barbarian incursions, economic links between the provinces and Rome deteriorated. From the end of the third century on, the emperors no longer resided at Rome. In the face of increasing insecurity, Rome’s wealthiest families gradually emigrated to the new eastern capital of Constantinople; or, their family lines died out, and they bequeathed their lands to the Christian Church. By the end of the sixth century, the economy of the west was characterized by self-sufficient fortified manors protecting themselves against brigands and marauding armies. (Pirenne, 9; Walbank, 88) Trade had virtually ceased to exist, and the city of Rome had become essentially a local economy.

Ancient Rome was served by 13 major aqueducts providing 38,000,000 gallons of water per day (Oates, 115). It was the location of the aqueducts which determined the principal changes in Rome’s land use patterns as it declined. During the sieges of the fifth and sixth centuries, eleven of the aqueducts were cut or sealed off, leaving intact only two underground aqueducts serving the western area of the city (Lanciani, 79). By the end of the sixth century, the populated area of Rome occupied less than 10% of the city’s original land area, tucked into a bend of the Tiber. (Krautheimer, 68, 245)

Among writers of the later Roman empire, there was sharp disagreement as to the causes of the west’s decline. In general, the pagans blamed the Christians, and vice versa. However, there was little recognition of the fundamental social and economic difficulties that most modern analysts agree were the root causes of decline. (Jones, 1025ff) Such debates were carried on only among the small, highly educated segments of Rome’s population. The evidence suggests that the vast majority of Romans were unaware that major historical changes were occurring, even after the last emperor had stepped down. (Lot, 251) Not all parts of the empire were in decay; in fact some areas were growing and economically healthy. (MacMullen, 15ff) Even after its fall, the empire never really ceased to exist in the minds of many of its descendents. The Roman empire as a cultural institution had taken on a mystique which belied its actual decrepit condition, and its aura perpetuated itself through the kingdom of Charlemagne and the Holy Roman Empire. (Lot, 254)

CONCLUSIONS

What relevance does the decline of Rome have for modern urban geography? From the literature review conducted for this paper, some interesting tentative conclusions can be drawn, suggesting avenues of more specific research.

It is evident that the city of Rome was quite large, based upon the size of the grain dole and the numbers of tenement structures. However, the area within the walls was quite small, which yields a serious paradox: where did those million plus people actually live? Some subjects for future study which arise out of this question include: what was the Roman’s conception of “city”, insofar as it
affected data of the times? Is there evidence of significant settlement beyond the walls? And, what was the true population density of the area within the walls?

Based upon the experience of Rome, it is evident that the experience of major cities follows that of the larger culture. In spite of Rome’s great wealth and political power, it nonetheless followed the western empire into decline and transformation. But is this generally true of other great cities in other cultures and times? If so, is there any such broad historical pattern evident in the urban decline of modern western society?

While a small minority of educated Roman individuals were debating the reasons for their empire’s demise, it is evident that the vast majority did not perceive that any such thing was taking place. Except in the cases of major events such as the sack of Rome in 410 AD, there was little general awareness that their Rome and its culture were experiencing serious, long-term decline. With the benefit of fifteen centuries of hindsight, we see clearly what was happening; without that benefit, most Romans were not able to see beyond the conflicting evidence of their times. This suggests, in other words, that from within the bounds of cultural perceptions, people may not be well equipped to see such major trends, in spite of the isolated ruminations of an educated elite.

Finally, there may be a significant positive lesson in the fall of Rome: great cities most often do not die or simply fade away, but they persist and often achieve greatness again. Cities such as Rome have geographical advantages which do not live or die with cultures. Rome held a position not only central to Italy, but also to the western Mediterranean basin. Also, it was not on the coast, easily subject to the depredations of invaders, but it was inland, at a point where the Tiber River is easily navigable. As long as these advantages were not wiped out by some natural action (such as a change in the course of the river), Rome could, and did, derive continuing benefit from them, long after the ancient city’s collapse. Can we find evidence for this in other cultures, including our own? What we have seen of ancient Rome suggests that we will.

REFERENCES