CREATING REALISTIC CITIES

For Fantasy Adventures

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In nearly all fantasy role-playing adventures a number of events occur in cities, and in many campaigns a city will be the center of the adventure. When this is the case, it becomes very important to have accurate and detailed knowledge of the city. Unfortunately, many descriptions of cities used in fantasy role-playing scenarios, both the "professional" and the "home-brewed" type, are somewhat haphazard concoctions which naturally emphasize the aspects of the city which will have the most direct bearing on the flow of events in the adventure. Too often the net result of this is that the patterns of cities as found in most fantasy role-playing games bear little resemblance to any collection of edifices in which self-respecting medieval men and women would dwell. However, by following some simple rules based on historical urban patterns from the Middle Ages and Antiquity, it is possible to design cities based on realistic pre-technical economic and social life, and thereby infuse fantasy role-playing adventures with an added element of realism. This article is an attempt to outline some basic steps, which if followed will help the would-be architect of a fantasy role-playing city to develop greater detail and realism in his creations.

In order to better be able to discuss urban centers, it will be useful to establish some basic definitions. Although it is often the case that when we speak of towns and cities we do so using the terms as being generally synonymous, the terms will be used in a technical sense in this article. Table 1 represents the classification system which will be followed.

For now it is only important to note that whenever hamlets, towns, cities, etc., are mentioned in this article, they will have reference to the urban centers of the relative size and population given in Table 1. When referring to all types of cities in Table 1 inclusively the word "urban center(s)" will be used. The word "pre-technical" means the type of civilization found in Europe before c. 1500, and many other non-European civilizations to even later dates; that is to say before the scientific and industrial revolutions.

The sources for the information which will be presented here all come from studies by historians on cities in antiquity (see Bibliography). However, for a brief article such as this a great deal of simplification and generalization is necessary. The charts and stats given therefore represent general simplified patterns from which there were many historical variations, but which can be very useful in giving a general picture of the nature of pre-technical cities.

STEP 1: CLIMATE

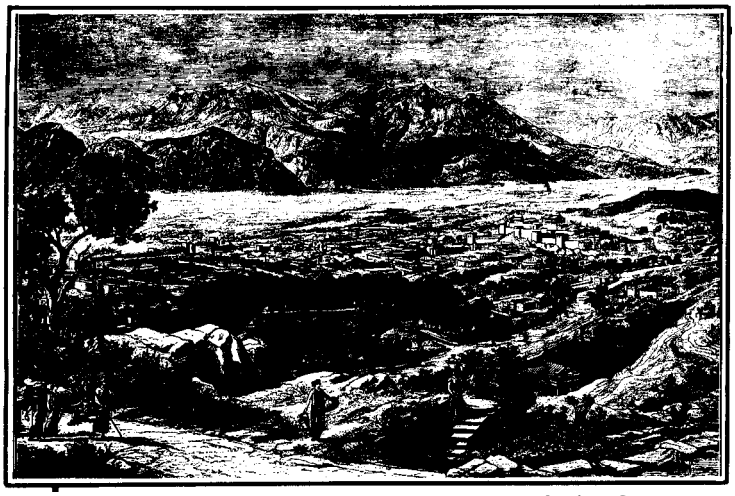
The first thing that must be considered when attempting to design an urban center for fantasy role-playing scenarios is the climate and geography in which that center is to be found, which in many ways determined the potential size and type of urban center that could be developed. The first step in developing your city, then, is to determine the type of climate in which the city will be situated. For convenience I have divided climates into the following categories:

1. Arctic: By Arctic I mean regions where there is usually perpetual frost. In pre-technical times human cities were seldom found in such regions. (Of course cities founded by non-human races would change this general rule.) Exceptions were almost exclusively small hamlets founded for trading purposes, which never grew to any great size and maintained consistent contact with other larger towns and cities for food supplies. The Norse colonies in Greenland, founded to facilitate travel to Vineland (i.e., Canada and northeastern U.S.), were very short lived, and never amounted

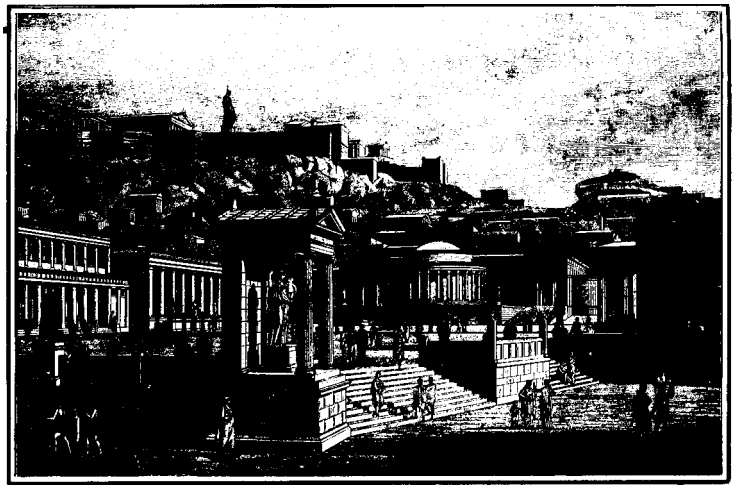
TABLE 1

Type of urban center	*Population*	*Area in hectares* *
hamlet	50-400	less than 4
village	400-1000	over 4
town	1000-3000	over 10
large town	3000-10000	over 30
city	10,000-100,000	over 100
imperial city (metropolis)	100,000-500,000	over 500

*A hectare is a measure of land in the metric system which is the equivalent of 10,000 square meters or 2.47 acres. A hectare could be formed from a square 100m x 100m. Roughly speaking a hectare is the area of two football fields laid side by side.



Ancient Sparta



Marketplace of Athens

to more than a few hundred people at most. Likewise hamlets centering on fur trapping (in northern Scandinavia and Russia for example) were never large and always highly dependent on other cities in warmer climes for food, industrial goods and repopulation (as the death rate and infant mortality rate increased in arctic regions.) The most widespread pattern of civilization in Arctic zones would be similar to Eskimos, or certain Northern Siberian regions tribes.

Nordic: The most well-known regions with a "Nordic" climate would be Scandinavia and southern Alaska, where there is a short growing season, but where winters are long and harsh. Large towns were usually the largest type of urban center which could be found, only occasionally perhaps reaching into the lower parts of the "city" category. For example, Stockholm didn't reach a population of 50,000 until the 18th century, and the population of all of the Scandinavian countries combined was seldom over 1,250,000 during the Middle Ages. Large populations could not be supported in Nordic climates with primitive methods of agriculture and fishing (although, of course, annual raiding Viking-style would increase the potential size of urban centers based on the continual influx of slaves and wealth).

8. Temperate: A region with four distinct and roughly equal seasons, with a good growing season, and a good winter snowfall. Most of the northern U.S. and northern Europe would fall into this category. In this region all types of urban centers could be found. However, it is generally the case that in pre-technical times there were no imperial cities ever founded in temperate climates. The reason for this is that to have a city of 500,000 people it was necessary to be able not only to gather supplies from distant agricultural regions by sea or river, but also to reap two or three crops a year in the agricultural regions supporting the urban center.

4. Moderate: A region with a long growing season, cold winter, but which seldom receives much snowfall. It is often possible to grow selected types of crops in such regions all year round. Examples of this type of region would be the Mediterranean areas of southern Europe and the southern regions of America (southern California is probably the best known example). All types of urban centers could be found in this region.

5. Tropical: A region with nearly a year round growing season, usually divided into a rainy and a dry (or often only `less rainy') season. All types of urban centers could be found there. It is almost universally the case that imperial cities in times were to be found only in moderate or tropical climates. Southern India, tropical Africa, and parts of South America and southeast Asia are regions which could be classified as tropical.

6. Semi-arid: Regions receiving adequate rainfall during a part of the year to enable one crop to grow, but which require extensive irrigation in order to have true agricultural prosperity. Much of the Middle East and the more arid regions of America are good examples of this type of climate. Imperial cities were often found in such regions, but almost universally connected with large rivers, extensive irrigation, or seaports.

7. Arid: Regions which have a brief growing and rainy season but which are otherwise in a state of near perpetual drought. Most urban centers in such regions are limited to towns, although cities might appear under special conditions and in association with rivers and irrigation. The usual form of civilization in such regions is pastoral nomadism.

TABLE 2

Climatic region	*Maximum Population*
1. Arctic	300
2. Nordic	20,000
3. Temperate	100,000
4. Moderate	500,000
5. Tropical	500,000
6. Semi-arid	500,000 (with extensive irrigation)
7. Arid	10,000
8. Wasteland	0

The streets of Peking

8. Wasteland: Regions which receive no rainfall and can support little if any life. Not even hamlets could be found in such regions in pre-technical times. Parts of the Sahara, Saudi Arabia, and other great deserts are wastelands.

The climatic limits on the sizes of urban centers in pre-technical times are summarized in Table 2, where the maximum population for an urban center in each given region is listed.

The first step is to decide what the climate of the region in which you wish to design your urban center is to be. The limitations given above should be exceeded only under very special conditions.

It should be also noted here hat the numbers given in Table 2 represent the absolute maximum for each region, The norm was usually much less than the maximum which in addition would have been reached by only a very few cities in history. (For example, there were probably not many more than a dozen imperial cities on Earth throughout the entire history of pre-technical times.

STEP 2: GEOGRAPHY

For the purposes of fantasy role-playing the various types of geographical regions of the world can be divided into the following broad categories:

1. Alpine: Very mountainous regions interspersed with valleys which hold the largest part of the population. Examples of civilizations in such regions would be the Incan, Tibetan , and Nepalese.

2. Rugged: These regions would have some large mountains, but be interspersed with plains and other types of terrain, and have a fair number of valleys and fertile regions. This type of area would be exemplified by Afghanistan and the Hindu Kush, the Atlas mountain regions of Morocco, the Caucasus mountains, and the highlands of Spain, southern France, Italy, and Greece, etc.

3. Moderate: Rolling hills, a great deal of forested region with meadows and plains all with good agricultural potential. Much of Europe and America would be this type of region.

4. Steppe: Completely flat plains with high grasses and good agricultural potential. The steppes of Russia and the plains of the U.S. are examples.

5. Riverine: Civilizations which center on massive rivers which flood or give enough water for extensive irrigation or rice-paddy type agriculture. These rivers often flow through geographical zones of the other types. Examples would be the Huang and Yangtze in China, the Mekong river in southeast Asia, the Ganges and Indus in India, the Nile, Oxus and Tigris/Euphrates in the Middle East, the Danube in Europe, the Mississippi and Amazon in the Americas, the Congo in Africa.

6. Coastal: Regions by the sea. As a whole these tend to be smooth level regions, but of course many can be mountainous or rough—the fjords of Norway for example.

7. Oasis: An area, sometimes quite large, characterized by a large number of wells and natural springs which provide abundant water in otherwise arid or waste land. The oases of Mecca and Medina in Arabia are the most famous, but Damascus is probably the largest city founded on an oasis.

Now it must be realized that all of these regions overlap with the various climatological regions listed in Table 2. That is to say you can have alpine regions which are wastelands (the Tibesti mountains in Chad and the Ahaggar mountains in southern Algeria—however, what little rainfall there is in wasteland regions tends to be trapped by mountains which therefore make them much less arid than surrounding areas). Likewise you could have a riverine geography in an arid climate (the Nile in Egypt) or in a tropical climate (the Congo and Amazon). Steppe geography in nordic climate equals tundra.

There is no need to summarize the geographical data on a table, as any geographic zone can maintain urban centers up to the city size (100,000 people) if the climatological and social levels are sufficient. However, what is important is that never in pre-technical history has an imperial city developed which has not been on a coastal area or on a navigable river. (Rome **had** the Tiber, London the Thames, Paris the Seine, Constantinople the Bosporus, Cairo the Nile, **Baghdad** the Tigris, Delhi the Jumna, etc.) There are notable examples of very large cities in all types of regions, however: Lhasa, the capital of the Tibetan Empire in the Himalayas, Cuzco the capital of the Incas in the Andes, Damascus in an arid rough zone, Ghazna the capital of the Ghaznavid Empire in the Hindu Kush, Karakorum in the steppes, etc. If any of these urban centers were ever able to advance into the imperial-city size it was only at the very lowest level (i.e., perhaps 100,000-150,000) and then such a high population was maintained for only a very short period of exceptional prosperity.

STEP 3: SOCIAL AND ECONOMIC LEVEL OF CIVILIZATION

It was usually the case that major population centers developed in fairly consistent relationships to each other. This principle is represented by two major factors. First, major cities tended to be supported by consistent numbers of "satellite" cities. Small cities with a population of from 3000-10,000 usually had about a hundred "satellite" towns, villages, and hamlets within a 20-30 km radius which served as the agricultural basis for that city.

In regions where the level of agriculture was highly developed, the ratio of urban to rural population (which is to say, the ratio between those living in hamlets, villages, and towns, and between those living in small cities, cities, and imperial cities) was about four to one. That is to say, in pre-industrial times in the best of conditions, 80% of the population lived in rural centers and 20% lived in urban centers. However this ratio was found continuously only in the Orient: the Far East, India, and the Middle East. For western Europe the ratio tended to be about nine to one or more, meaning that between 90-95% of the population of an area lived in rural centers.

What this means is that one important factor which must be taken into account in developing a fantasy world is the agricultural development of the region. The social/economic level of a civilization can be divided into the following five somewhat arbitrary classes:

1. Pastoral Nomads: (Examples: Turkomen, Huns, Avars, Mongols, Bedouin Arabs.) It is often thought that pastoral nomadism is a primitive way of life, but close studies of such societies have demonstrated that in reality nomadism is the best adapted way of life for certain marginally productive regions of the world which could not sustain agriculture and cities of the traditional kind. No society was ever entirely nomadic, but rather the nomads lived in strict interdependence with urban centers on the fringes of, or oases within, the zone of nomadism. Such urban centers would generally be trading centers, and would seldom be larger than the small-city size. Exceptions would be when the nomads of a region banded together to form a Nomadic Empire (Mongols, Huns, Arabs, etc.) in which cases true cities could develop, but which would never last for more than a few generations. Mecca in the first years after Mohammed, and Karakorum during the early Mongol period are the two most famous examples. Even so, Mecca was forced to get its grain supply from Egypt via the Red Sea/Nile canal. Nomadic societies in marginal climatic regions couldn't maintain large urban centers for long.

2. "Semi-Nomadic" Tribes: (Examples: Celts, early Slays, Teutonic tribes, early Vikings—whose "nomadic

aspect was crossing water on boats, North American Indians, most Bantu African tribal groups.) These groups tended to dwell in semi-permanent urban centers, where they would farm a region until they had exhausted the fertility of the soil, and then move on. They would also engage in extensive raiding on other tribes or on more developed regions, often migrating *en masse* into new regions. The largest urban centers that could develop under such circumstances (except in rare cases) would be small cities.

3. Primitive Agriculture: (Examples: western Europe during the Dark Ages—i.e., c. 500 A.D. to 1000 A.D., southern India, Russia, and much of eastern Europe during most of the Middle Ages, the great western African Negro Empires of Ghana, Songai, and Mali centering on the Niger River basin.) For the most part all people are permanently settled in such a society, and nearly all are engaged in agriculture on a very primitive level (i.e., bad plows, no horse collars, no multiple field systems, etc.). The crop yields under such circumstances are extremely low (i.e., two to four bushels harvested per bushel sown), and usually 95% of the population are engaged in agricultural pursuits.

4. Advanced Agriculture: (Examples: the Roman Empire, many regions of the Orient, western Europe during the High Middle Ages—i.e., 1000-1500 A.D., the Byzantine Empire.) Technological, social, and agricultural improvements allow advanced forms of Agriculture which increased the yield per acre, thereby allowing more people to be fed from a given amount of land which resulted in an increased potential size of urban centers.

5. Intensive Agriculture: (Examples: the great river civilizations of Egypt, Iraq, the Oxus river, the Ganges and Punjab in India, and the Yangtze and Huang in China. Other areas would also often come under intensive agriculture for a period, especially in semi-arid regions such as Tunisia and Syria.) Such regions were generally served by extensive irrigation systems which required a great deal of centralized government control to maintain. Such intensive agricultural societies were also very delicate and required constant good management to maintain high productivity. As long as this productivity was maintained intensive agricultural societies could produce some amazing results. For example, despite the fact that Egypt has at most 35,000 square km (that is 3,500,000 hectares) available for agriculture, Egypt was able to constantly maintain a population of between four and five million. (i.e., about one-and-a-half people per hectare of agriculture land. Europe during this same period maintained only one person per 3-10 hectares.) Because of the great agricultural surpluses achieved by intensive agriculture, such regions could maintain imperial cities with relative ease. During its history Egypt was almost continually feeding an imperial city with over 300,000 people; Alexandria, Rome, and Constantinople all depended on Egyptian grain, and medieval Cairo at its apex contained as many as 500,000 people, and was one of the largest and richest cities in the world. It was only at the end of the Middle Ages that European nations began to practice the system of intensive agriculture which China, India, and the Middle East had been practicing for thousands of years.

Step two is to decide what the social and economic level of the civilization in which your city is found to be. If you want an imperial city it will be necessary to have the civilization based on either advanced or intensive agriculture. Semi-nomadic Vikings simply did not have the social, governmental, or technological skills necessary to create an imperial city.

Table 3 summarizes the most important information concerning social and economic level of civilizations.

An example of how to use Table 3 would be the following: In a society in the primitive agricultural social level, cities historically were seldom over 40,000 people and very few cities reached that level. 90-95% of the total population of a primitive agricultural society would live in small urban centers, i.e., in urban centers with a population less than 3000 people.

STEP FOUR: DECIDING ON THE POPULATION OF YOUR URBAN CENTER

This step can only be accurately formulated in final form after steps 1 through 3 have been completed. However, as long as the population size is within the bounds established by Tables 2 and 3, the population of any given center is up to the designer of a given campaign. Perhaps a couple of examples will be useful here.

Suppose for your fantasy role-playing campaign you need a massive imperial city. According to Table 2, imperial cities were historically found only in moderate, tropical, or semi-arid regions with intensive river irrigation. Therefore, you should develop the geography for your city in one of those three types of areas. According to Table 3, however, the social and economic level of your civilization must be either advanced or intensive agriculture. Historically, it was only within these geographic and social limits that imperial cities were found.

As another example, suppose you are a Viking freak and insist on having your fantasy role-playing campaign take place in a civilization patterned after the Viking model. In such a situation you are fairly well stuck with having your civilization centered on a Nordic geography. Furthermore, the social and economic level is semi-nomadic. Taking both of these factors into consideration it becomes clear from Tables 2 and 3 that a Viking-type civilization could not have cities with a population over 20,000, and that some 95% of the total population would be living in small urban centers, with population less than 3000. (It should be noted here that it was only after 1100 A. D., when Scandinavia moved from semi-nomadic to primitive agriculture, and only in the semi-temperate regions of Sweden, Norway, and Denmark—i.e., the southern edges—that urban centers over 20,000 ever developed.) No matter how much you may want a city the size of Rome in a Nordic climate populated with marauding Vikings, historically it was geographically and economically impossible.

STEP 5: DETERMINING THE PHYSICAL SIZE OF AN URBAN CENTER

This step has two different aspects to it. On the one hand, you may already have designed your urban center in great detail with its size fairly well established. In this case you would want to be able to determine how many people would fit in an urban center of that size. On the other hand, if you are starting from scratch and know about how many people you

TABLE 3: SOCIAL AND ECONOMIC LEVELS

Level	*Maximum urban size*	*% small urban* *
1. **Nomadic**	**10,000**	**95%**
2. Semi-Nomadic	**20,000**	**95%**
3. Primitive Agriculture	**40,000**	**90-95%**
4. Advanced Agriculture	**500,000**	**85-95%**
5. Intensive Agriculture	**500,000**	**80-90%**

*Percentage of the population living in hamlets, villages, or small towns.

The Roman Forum

Saint Angelo, the early fortress of the popes

want in the urban center, you will want to be able to establish the physical dimensions of an urban center which could contain them. I'll begin with the first situation.

Historically there was a more or less constant ratio between the physical size of the city and the number of people in that city. This is rather obvious. There were two major variables which modified this ratio. The first is the social level of the civilization (outlined in Table 3). As a basic principle, civilizations with a higher social level tended to pack a greater number of people into a given area. This was often a function of architectural technology and social organization. The higher the technology, the taller buildings could be. (Buildings in Rome and Cairo had four or five stories.) Furthermore, the more organized a society was the more food, water, and other necessities it could transport effectively inside the city, thereby allowing a higher population. The second is the amount of area in the city given over to gardens, palaces, vast temples, or other open areas.

The first thing you have to do is measure your city. This can be done with simple geometric formulae for measuring area. (Note: it is important to make all your measurements according to the metric system to fit in with this article. If your measurements are in feet and yards you can, for simplicity's sake, assume that one yard equals one meter and go on from there.) Let's suppose the boundaries of a city, Hamblinopolis, is a perfect square measuring 1000m x 1000m. This gives a total area of 1,000,000 square meters (i.e., 1000x1000). However, the unit of measure historians generally use to determine city size is the hectare (mentioned in the note to Table 1). A hectare is 10,000 square meters, or 2.47 acres, and is equal to a square 100m x 100m. So, to determine the number of hectares in Hamblinopolis you can divide the total number of square meters by 10,000 which gives 100 (i.e., 1,000,000 divided by 10,000) or you can divide the boundaries into - 100-meter lengths, and determine the number of hectares directly. (i.e., the boundaries measure 1000 meters, divided by 100 gives 10 hectares per side. 10x10 gives 100 hectares for the city.)

The city of Hamblinopolis, then, contains 100 hectares. What is its potential population? First we must determine the social level of the civilization in which Hamblinopolis is found. Being the mighty metropolis that it is, it is in the intensive agricultural social level (Table 3, number 5). Once this has been determined you should consult Table 4.

To use Table 4 you must determine whether your city has sparse, moderate, or dense population. This is in part a value judgment, but it is based on the following factors:

1. Recent drastic decline in population: If there has been plague, famine or siege/conquest in the recent past the population will be in a lower bracket.

2. If there are massive gardens within the city walls, or open spaces for hippodromes, churches, military practice fields, etc., the population will be in a lower bracket.

3. If there is a massive palace for the ruler, massive military fortifications, or a large number of mansions for the wealthy.

4. If the general population lives in buildings with four or more stories (which is generally only possible with societies of advanced or intensive agricultural social levels) then the population category should be raised by one.

5. If most of the population lives in general squalor in extremely crowded conditions, raise the category by one.

As a general rule, if less than 25% of the area of a city is covered by categories 2 or 3 the city will have dense population, if 25-35% moderate, and if over 35% of the area of a city is in categories 2 or 3, it will be sparse. Further, if the city fits in category 1, it should be lowered one level.

As for Hamblinopolis, it is a provincial capital, with 25-35% of the area of the city taken up with temples, palaces, and fortifications, placing it in the moderate category. With a social level of intensive agriculture, and moderate population density, we get 150 people per hectare, giving Hamblinopolis, which contains 100 hectares, 15,000 people, making it in the lower part of the city category (Table 1, number 5).

Now, if you haven't yet designed the physical layout of your city, but you know about how many people you want to live there, you can determine the rough physical size in the following way. First determine the social level (Table 3), then the population density as described above, and finally, turn to Table 4, find out how many people live on one hectare, and divide that number into the desired population. The result will be the area of the city in hectares.

For example, I want Williamsburg to

TABLE 4: PEOPLE PER HECTARE

Social level	*Sparse*	*Moderate*	*Dense*
1. Nomadic	50	60	75
2. Semi-nomadic	50	65	80
3. Primitive Agriculture	70	85	100
4. Advanced Agriculture	100	125	150
5. Intensive Agriculture	100	150	200

contain 20,000 people. It is a city with a social level in primitive agriculture. If the city has sparse population density, the size would have to be 266 hectares (i.e., 20,000 divided by 75). If the population is moderate, the size would be 200 hectares, while if it is dense, the size would be 160 hectares.

Table 4 **should** be taken only to represent the maximum possible population size. An urban center in a given category should not exceed the figure given in Table 4. However, it can potentially be lower than that number. For example, when Constantinople was conquered by the Ottoman Turks in 1453, the population of the city was about 40,000, even though the city walls were the same as those when the city was at its highest population of perhaps as many as 500,000. Much of the city had become ruins, many buildings were abandoned, and people were even farming large tracts of land within the city walls.

STEP 6: CLASS STRUCTURE

Once you have established the size of your urban center and its population, you can begin to make some calculations as to the class structure and breakdowns in the population.

Table 5 outlines in general form the percentages of the population in a given city in the designated according to wealth.

TABLE 5: ECONOMIC CLASS

	% *of total pop.*
Rich	***2-3%***
Middle class	**10-20%**
Poor	***50-65%***
Destitute	**10-25%**

Note: A rich person spent 10-33% of his income on food, the middle class 25-50% on food, poor spent 60-80% on food, the destitute starved.

Table 6 breaks down the population into categories according to jobs. Both this and Table 5 hold true only for larger urban centers (i. e., large towns and above, c. 3000+). Small urban centers tended to be as much as 80% involved in agriculture. It should also be emphasized that these tables serve as very general estimates, and actual percentages could vary greatly. Finally, Table 6 refers to the total working population only. About 50% of the population in all medieval urban centers were dependents (children, sick, old, etc.).

Note: The destitute in both Tables 5 and 6 refer to those "without visible means of support." These include beggars, thieves, etc., as well as the very old, orphans, insane, etc.

TABLE 6: EMPLOYMENT

Job type	*% of pop.*
Lords	**0.5-1%**
Clerics	***3-7%***
Professional *	***3-5%***
Merchants	*3-7%*
Craftsmen	***5-10%***
Soldiers	*4-7%*
Servants	**15-20%**
Agriculturists	**15-25%**
Laborers	***20-35%***
Destitute	***10-25%***

*Lawyers, doctors, scribes, teachers, etc.

As an example on how to use these tables, I will give actual figures for the above mentioned famous city of Hamblinopolis which are based on these tables. The total population as given above was 15,000. Of these, 7500 are dependents and will not be included in our calculations. This leaves 7500 people in the "workforce," which can be given in real numbers as follows:

75 Lords (these would include wives, children over 17, cousins, etc., perhaps only 5-10 noble families)
400 Clerics
300 Professionals
400 Merchants (this would include small shopkeepers, 10-20% would be great merchants in perhaps 5 -10 "houses" or merchant families)
600 Craftsmen (divided into a number of guilds, each with 20-50 members)
500 Soldiers (only official government soldiers: many in the servant class would double as private soldiers for their masters)
1725 Servants
1500 Agriculturalists
2000 Laborers
1000 Destitute

Of the 1000 destitute 25-50% would be included in the criminal element of the city, i.e., 330-500 criminals. Most would be petty thieves, etc., and *many* of these would already be in public jails.

The population can also be divided into categories according to patronage; that is, who is directly attached to the service of whom. Table 7 gives figures for various upper class people and how many people are directly in their service. For the nobility, none of these figures include soldiers, and they should be taken as minimums. For clergy and private citizens the figure represents the maximum.

Tables 5, 6, and 7 should be used mainly if you want to try to work out some of the specific details for your urban center of how many people are where and doing what. They aren't necessary for urban centers which are not going to be central features of a campaign. However, if much of the action will center around a specific city, these figures can be useful. First, it can give you some estimate of the criminal class in relation to urban size in case the adventurers ever get mixed up with that dubious element (or even belong to it). Second, it can give you some idea of the relative size of the retainers of different people.

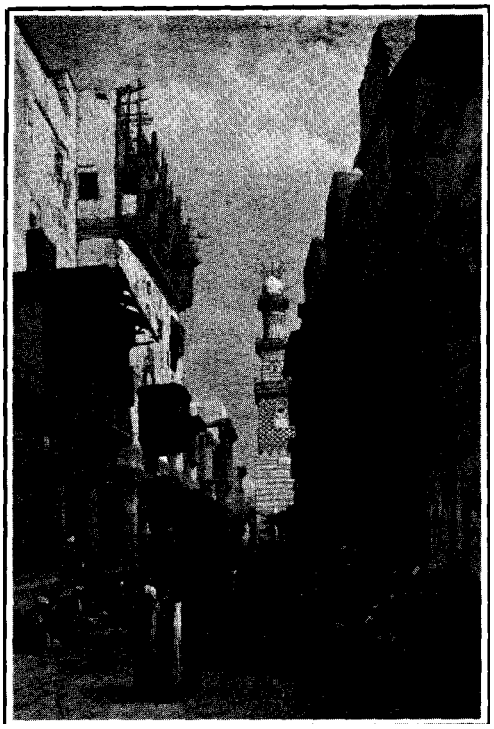
For example, if, as part of an adventure in Hamblinopolis you get involved with the cult of a villainous god Blukka, you can determine the following things. Hamblinopolis has 15,000 people, therefore you know that the cleric portion of that population will be between 3 and 7 percent. First be

TABLE 7: RETINUES

	Profession	*Number of Attached Persons*
Nobility:	King	**200-500** *
	Duke	**30-50**
	Count/Earl	**10 *-30***
	Baron	**5-15**
Clergy:	Bishop	**40- 200t**
	Cathedral	***20-50***
	Monastery	**20-100**
Private:	Merchant	***5-50***
	Guildsman	**1-10**
	Large Farmer	**1-10**
	Professional	**1-5**

*This figure would vary directly in proportion to the importance of a king. Some Muslim lords had as many as 50,000 servants working for them in massive palatial establishments.

About 30-60% of the people under "Clergy" would actually be clergy, the rest would be servants of some sort.



Bazaar in Cairo

Maximilian in Ghent

sure to discount the 50% of the population that are dependents (children, old, etc., leaving 7500; 3-7% of that is 225-500 clerics in the town, including male and female. You can decide how many cults exist in the town and their relative power and divide the number of clergy accordingly. This might leave 200 clerics serving the vile Blukka. These then could be divided up into the various monasteries and temples in the town, and the servant/retinue population could be added to each. For example, each temple (cathedral) require from 20-50 people to run it, of whom about half would be clergy and the rest servants (Table 7). So the 200 clerics of **Blukka might** be **divided** as follows:

75 clerics + 75 servants in the main temple with the high priest (bishop)
50 clerics + 50 servants in a major monastery
25 clerics + 25 servants in each of three small temples
200 clerics + 200 servants total in the city

Thus we have been able to establish the size of the cult of Blukka and the number of its servants (of whom perhaps 25% could serve as armed guards as well), we know how many places of worship they have, how many people in each, and have it all in direct realistic proportion to the actual population of Hamblinopolis, instead of basing it on arbitrary guess work. In pre-technical economies, a city of 15,000 could not maintain a population of more than 225-500 clerics.

With a little imagination and juggling of the figures in Tables 5, 6, and 7 you should be able to get accurate general figures for almost any segment of society for use in fantasy role-playing.

Table 8 is a list of the population of a number of historical towns over a large period of the Middle Ages to give some general idea of the relative size of cities and the fluctuation of population. All of the following represent estimations, based on the books in the bibliography. However, each author tends to give different estimates and none of them can be considered exact.

Note: In Europe before 1100 there was probably no Christian city with a population over 20,000. The first city to reach a population of 100,000 in Christian Europe after the fall of Rome was Paris c. 1300 A. D.

By following these six basic steps the prospective designer of a fantasy role-playing city will easily be able to create a realistic and functional city which maintains correct historical proportions and which can be logically integrated with all other aspects of a fantasy world. When this basic function of economic, geographic, and social reality **has** been firmly established—instead of being based on the arbitrary whimsy of the gamemaster—subsequent adventures can begin to have a quality of consistency and detailed vividness which will allow adventure gaming to become more challenging and enjoyable.

There is a great deal of other useful information on pre-technical cities, such as details of the physical layout of cities, and the relationship between cities and the countryside in terms of population, taxes, etc. These topics can perhaps be dealt with in later articles.

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TABLE 8: HISTORICAL POPULATIONS

City	***Date** (A. D.)*	***Estimated Population***
Aachen (Charlemagne's capital)	c. 810	10-15,000
Florence	1200	20,000
	1300	95,000
(post plague)	1400	**55,000**
Rome	100	500,000
	500	50,000?
	1300	40,000
	1400	50,000
London	1200	15,000
	1300	30,000
	1400	60,000
Constantinople	500	500,000
	750	70,000
	1000	300,000
Baghdad	800	500,000+
	1100	100,000
Cairo/Fustat	1000	200,000
	1180	300,000
	1300	500,000