into an intricate geomancy for environmental layout. This ancient geomancy, Feng Shui, is still in current use in Asia; prominent business people in Hong Kong take advice from the local expert in Chinese geomancy for the layout of home and workplace (Lip, 1989).

There are records in Niger as late as 1945 of settlements being laid out according to pre-Islamic cosmology of the Hausa people (Nicolas, 1966). In traditional non-Muslim Hausa society the layout of fields, houses. granaries and towns are regulated by an ancient cosmology which also regulates numerous facets of daily life. Each important activity is the occasion for a preliminary ritual, more or less exclusive to the particular activity undertaken. An activity may only be undertaken in a limited and defined space protected from the malevolent spirits which inhabit the world. This space, when defined correctly and orientated within a precise schema, becomes the domain of favourable forces

In Hausa mythology the eastern and southern cardinal points are masculine, the western and northern ones are feminine. In ritual these cardinal points become personified. By nature, everything is situated facing east. A person is born into this world facing east, enters home facing east and makes sacrifices facing east. A person is surrounded by four beings or groups of

Figure 6.8 Hausa spatial structure

Setting out a field Sowing Crops

Compound Layout City Planning

beings: male to the front and right; female to the left and to the rear. A man's strong sides. to the front and right, are male and his weak sides to his left and rear are female. The four major spaces surrounding a person are divided into two sexual components. Certain couplings of the spaces are permitted and others forbidden. The relationship between the cardinal points is experienced as a matrimonial alliance: the line linking northeast and south-west is a line of sexual exclusion; the axis joining north with south and east with west is the coupling or copulating axes. Space in non-Muslim Hausa cosmology appears to be a field of convergent and divergent forces which maintain a delicate equilibrium. In setting out a field, a house, a market or a city, the Hausa, through geometrical ritual, try to maintain this delicate balance with the forces of the cosmos (Nicolas, 1966) (Figure 6.8).

Most Hausa fields are square or rectangular, the important axes being north—west/south—east. Crops are sown in a rectangular pattern. Where millet and sorghum are planted together in the same field, they are sown in rows at right-angles to each other. Millet, because of the phallic shape of the seed, is thought to be a masculine crop, and is sown in an east—west direction; sorghum, a feminine plant, is sewn in a north—south direction. After such a marriage the millet and sorghum become fertile.

The traditional Hausa compound in Niger – unlike its Muslim counterpart in Nigeria – is laid out with its sides facing the cardinal points. In order to establish a new dwelling the head of the household buries five pots containing charms, one each at the cardinal points and one at the centre of the site. The whole site is surrounded by a boundary wall. Each male adult member

of the family arranges his own hut in the compound, the entrance facing west so that entry to the hut is eastward. Houses of the spouses of each man are arranged in a line along a north—south axis: the first wife has the hut to the north, and the most junior wife the one to the south. This physical arrangement reflects the social hierarchy of the wives: the first wife is the mistress of the house and is called the 'woman of the north'.

In 1945, when the French moved the cities of Katsina and Gobir, the local inhabitants insisted that the layout of the new towns follow their own planning principles. In both new capitals, the main rites consisted in anchoring the new city into the supernatural structure by placing offerings at the centres of sacred energy in the five nerve-centres of the traditional plan. Charms and talismans were buried at the four doors sited at the cardinal points and at the centre of the main axes where the ruler's palace is located (Moughtin, 1985; Nicolas, 1966).

POWER AND CITY PLANNING

In this enlightened age we dismiss magical models of the universe together with the gods which sustain the universe. We still, however, accept the psychological efficacy of some of the forms which control behaviour. These ideas still permeate Western city building. China and India have left to posterity the most highly developed heritage of cosmic city models. Nearer home, however, in Africa, Egypt and Etruscan Rome, similar traditions have been followed. These ancient traditions in the symbolic expression of power have been absorbed into Western civilization. For example, the ideal city of the Renaissance was in part a symbol of the

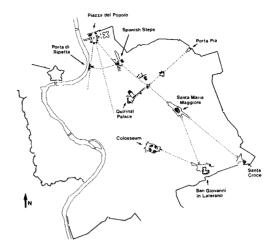


Figure 6.9 Rome and Sixtus V

mathematical order and unity of the universe. In contrast, Baroque city planning with its use of interconnected axes was used by Pope Sixtus V to stamp his and the Church's authority on Rome. As a device to symbolize power, the axial arrangement of streets became the model for other potentates and was used in Karlsruhe, Germany, by L'Enfant in Washington and by Hausmann in Paris (Figures 6.9–6.16).

Figure 6.10 Rome: termination of the vista at S. Maria Maggiore

