**CHAPTER 13 SUPPLEMENTARY**

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**13.1 Hunter-gatherer societies**

It is a sobering thought that at least 50,000 generations of differential survival and reproduction took place in a foraging way of life. No hominin subsisted in any other way until the invention of agriculture about 10,000 years ago. In studying hunter-gatherers today, however, we meet a set of problems different from those prevailing in the Pleistocene Epoch. Although humans have been hunter-gatherers for 99 per cent of their time on the planet, contemporary hunter-gatherers are mostly confined to marginal environments such as deserts or sub-Arctic tundra rather than the more hospitable environments that have, for obvious reasons, been the subject of development and colonisation. Contemporary hunter-gatherers may therefore be ‘survivors’ from the inroads of agriculture, and we must be wary that they may not be entirely representative of what hunter-gathering was once like.

Bearing such problems in mind, we note that studies, such as those by Howell (1979) on the !Kung San people, tend to reveal a pattern of mild polygyny, males having a slightly higher variance in reproductive success than females becuase of serial polygyny resulting from remarriage or simultaneous polygyny.

Foley (1992) argues that the distribution of modern hunter-gatherers in tropical Africa is confined to areas of low and high rainfall where large mammals are not particularly abundant. It is probable therefore that contemporary hunter-gatherers live in environments depleted in large herbivores and carnivores, relative to those of our ancestors, and we must bear in mind that hunting was once probably more important than it is today.

It turns out that food supply and the role of hunting in obtaining food are important factors in understanding the mating strategies of hunter-gatherers. The Ache people of Paraguay were hunter-gatherers until 1971, when they were enticed to live on a government reservation. Studies by Hill and Kaplan (1988) showed that men would often donate meat to women in exchange for sex, high-ranking men gaining most from this practice. In this case, it seems that some Ache men achieved polygyny through meat-induced adulterous affairs. As a general rule, however, it is highly likely that a foraging way of life, especially where hunting produced an important part of the diet, never really sustained a high degree of polygyny.

The reasons for this are basically twofold and fairly simple. First, hunting large animals is risky and needs a combination of co-operation and luck. Given the prolonged period of gestation and nurturing for human infants, hunting is carried out by males, and the co-operation needed means that male rivalry must be kept within strict limits. Following a kill, the meat must be shared between all those who helped, and also with other unsuccessful groups along the lines of reciprocal altruism. If a high degree of polygyny prevailed in such groups, the sexual rivalry would militate against such altruism. In fact, the equitable sharing of hunted food is characteristic of hunter-gatherers and totally unlike that of other social hunting species where after a kill there is a free for all. Second, even if there were a surplus after sharing, meat is difficult to store. It is hard to see how, in a foraging culture, sufficient wealth or resources could ever be accumulated by one man to support a sizeable harem. Predictably, extreme polygyny (that is, a harem of many wives) has been found to be pronounced or common in very few known hunter-gatherer societies. In most hunter-gatherer groups, men will have one or at most two wives.

**13.2 Power, wealth and sex in early civilisation.**

In the USA, Mildred Dickemann, John Hartung and Laura Betzig have all pioneered the Darwinian approach to human history. Betzig (1982, 1986) examined six civilisations of early history: Babylon, Egypt, India, China, the Incas and the Aztecs. She found that, in all of them, an accumulation of power and wealth by a ruling elite coincided with the prodigious sexual activity of the rulers. All these societies at some stage of their history were ruled by male despots or emperors who kept harems. The harems of these male rulers were vigorously defended and guarded by eunuchs, extreme penalties being meted out to any subject who had sexual relations with the ruler’s concubines. This degree of polygyny, consisting of hundreds or even thousands of wives, would be unimaginable in hunter-gatherer societies. Economically, such harems were made possible by the Neolithic revolution that enabled the taxation of the majority to support the retinue of a minority. In short, harems were favoured by social inequality. As Betzig (1992, p. 310) concludes: ‘across space and time, polygyny has overlapped with despotism, monogamy with egalitarianism’.

In seeking to explain this phenomenon, it could be argued that such harems were displays of wealth – items of conspicuous consumption that gave pleasure to the ruler as well as broadcasting his power. Each of these reasons may offer a partial explanation, but several features of the regulation of the harems do not fit easily into such conventional accounts. Betzig shows how the structure of the harem seems to be designed to ensure the maximum fertility of the women concerned as well as ensuring absolute confidence of paternity for the despot. In some cases, wet nurses were employed, thereby allowing the harem women to resume ovulation soon after the birth of a child. In the civilisations of Peru, India and China, under the emperors Atahallpa, Udayania and Fei-ti respectively, great care was taken to procure only virgins for the harem. In the Tang Dynasty of China, careful records of the dates of conception and menstruation of the women were kept as a means of ascertaining their fertility. In this light, harems appear as breeding factories designed to maximise the propagation of an emperor’s genes.

Betzig (1992) also studied the aristocracy of the early Roman Empire. Roman marriage was monogamous by law, but men still found ways to secure extrapair copulations. Historical sources such as Tacitus and Seutonius consistently speak of the voracious sexual appetite of the early emperors and how they were provided with virgins and concubines. Wealthy Romans also kept male and female slaves, even though few of the female slaves had real jobs around the household. Betzig rejects the suggestion that female slaves were employed to breed more slaves, since male slaves were forced to remain celibate and pregnant female slaves did not command a higher price. Betzig argues that female slaves were used by noblemen to breed their children. The fact that slaves born in a Roman household were often freed with an endowment of wealth (unlike the slaves used in mines) suggests that noblemen were freeing their own offspring.

Exactly why extreme polygyny faded is not certain. The extreme polygyny of harems seems to represent an interlude between the end of hunter-gathering and the spread of democracy. Alexander (1979) posits that intense polygyny was destabilised by the inability of the ruling polygynists to command the loyalty of deprived and frustrated foot soldiers. Ridley (1993) suggests that the rise of democracy allowed the ordinary man to express his resentment at the sexual excess of others. Even today in some countries, the sexual excesses of men elected to powerful positions can bring about their downfall. Whatever the historical reasons, no doubt complex, it is fairly clear that the extreme polygyny practised by ancient despots is not typical of the human condition for most of its history. Such evidence does show, however, how males can act opportunistically to achieve extreme polygyny in conditions favourable to their reproductive interests.

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