

# Dying for a seat – part 2

**Chris Langham** continues his six-part series that looks at the history, evolution and physical dangers inherent in one of our most common items of furniture, the chair

**I**n the last issue I looked at how the right-angled, conventional chair was at first an unnatural seat of power on which a ruler would sit perched in an heroic, stiffly held pose that could only be maintained for the duration of a state or religious event. It put the ruler above the common crowd in a noble, isolated position, but it wasn't comfortable.

The modern conventional chair has a great deal in common with those first thrones and they have become such an accepted part of the Western environment that they have become almost invisible, but such is not the case elsewhere.

At most only about 50 per cent of the peoples of the Earth are prepared to take a seat in a way that we would recognise it, and some great research has been carried out into the subject of the effects on our health created by sitting on a chair, sitting cross-legged, squatting, standing and other more ergonomic ways of taking our ease.

Occupational therapist Mary Gale and Professor Galen Cranz, a professor of architecture at the University of California at Berkeley, have each created a body of work on the subject, alongside a number of

other researchers who have added to the growing mountain of evidence that sitting in a conventional chair is simply not good for us.

## An ergonomic nightmare

Ergonomically a conventional chair is a nightmare: the chest and abdomen become compressed, affecting the efficiency of lungs and internal organs and the natural "S" curve of the spine is compromised.

If we then lean forward into our work, the compression becomes exacerbated and the spine takes the shape of an unnatural C-shaped bow, increasing intradiscal pressure. The pelvis moves from its healthy upright position and rolls back, stressing back muscles and disturbing what is called the "pelvic lumbar rhythm".

I will be looking at how sitting affects our comfort, efficiency and health in future issues, but now I'd like to look at how it came about that something which was designed for the discomfort of kings became ubiquitous in the homes and workplaces of the West.

The answer? Prestige. At no time did anyone think that the

conventional seat was the healthy answer to taking repose or addressing one's work – it has no anatomical or physiological logic to it. It is not designed around the human body and in fact it can be argued that it is counter-intuitive to force oneself into such a posture.

Professor Cranz actually uses the negative effects of a seat to discuss how the pharaoh Akhenaton broke with Egyptian tradition during a reign that lasted up to 1362 BC thanks, in part, to how he chose to be depicted.

Sculpture and wall paintings of the time realistically describe this odd looking man wearing the twin crowns of the Upper and Lower Nile: his thin face with bulging eyes, lips and nose plus fleshy, almost feminine thighs and hips are very distinctive. However, his artistic representations also depict him as slumping in his seat, something that was unheard of in a near-divine being.

In her book *The Chair, rethinking Culture, Body and Design*, Cranz observes: "One thing we know for certain: sitting upright without leaning back, without letting the pelvis slide forward as the lower back rolls backwards into a 'C'-shaped slump, takes discipline."

## Ubiquitous discomfort

So how did the uncomfortable, badly designed chair become so ubiquitous? However uncomfortable and unhealthy they are, it has been repeatedly demonstrated that during the thousands of years of historical usage leading up to the success of the barely changed conventional chair in our modern Western culture, the psychology of envy has played its part. Put simply, if the seat is a symbol of power, we want one.

We have discussed how kings and queens first sat in splendid isolation, raised above the masses, but what about their ministers?

These people also had authority, and grave goods show that before long a throne-like seat had become a sign of rank for more than just royalty and the gods.

Over time its use filtered down from being the seat of majesty,

to being a mark of power, moving through aristocracy and government to management, and below, and rank decided who could sit in whose presence.

By the seventh century AD, chairs or stools had become commonplace in mediaeval Egyptian homes. Then, over the centuries, people sat to dinner or in wheeled vehicles pulled by beasts, but their day-to-day lives were largely spent on foot working in an agrarian society. All that was about to change.

Throughout Europe in the latter part of the last millennium there began a continuing exodus of people from the land to the cities and towns as the industrial revolution got underway then crescendoed. Some would be at hard physical labour around furnaces and kilns, building roads and railways, but for too many their lives became increasingly sedentary.

The conventional seat, or bench, was relegated from being the throne of kings to being the best way to keep busy workers in neat rows at the production line or loom – the modern chair and its modern usage had arrived.

During the past few hundred years, as people's working and private lives changed from active to passive, moving only to get from seat to seat to chair to stool, our society began its fall from relative musculo-skeletal health to a culture of poor posture, obesity, diabetes and systemic failure.

Recent thinking supports this view, positing that for a happy posture and healthy life we need to be able to move, to enjoy what Cranz calls "postural pluralism" and avoid the static seats that lead to lumbar lordosis, an unnatural forward curvature of the spine.

In the next issue I will start looking at the physical effects of spending so much of our lives in conventional chairs – it will be worse than you think.

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The Pharaoh Akhenaton was the first to be depicted in a true seated posture