

## Stress Reducing Chair



Shown below is the Flogiston Chair, a product designed to minimize internal and external physical stress at work or home. Developed by Scotland-born design engineer Brian V. Park (shown) and marketed by Park's Flogiston Corporation, Webster, Texas, the chair incorporates NASA

technology to provide a close approximation of the Neutral Body Posture, the natural position a body assumes in weightless space. In such a posture, says Park, "all the muscular forces are in balance, the body is in biomechanical equilibrium, physical stress is at a minimum."

Flogiston Corporation sees as its principal market for the chair the rapidly growing force of information workers who,

studies suggest, may encounter stress from working with computers. Computer users such as designers, architects, process control monitors, software developers and data processors all require high levels of concentration for extended periods; the chair is intended to provide a suitable environment for maintaining concentration.

In addition, the chair has utility in the home for relaxed television watching, music listening, reading or general meditation. And, Brian Park suggests, the chair offers an ideal base for virtual reality ventures, wherein one can "virtual-

ly" enter, explore and interact with a computer generated artificial environment.

The Flogiston Chair consists of two principal parts: the structure and the supporting cushion. The aluminum structure provides the mechanical support and shapes the posture. The cushion, covered with soft fabric or leather, is cut from one piece of long memory foam (similar to the foam used in the Space Shuttle Orbiter seats), which responds to body heat and pressure, softens and feels as if it is molding to the body. The chair may be fixed, rockable or suspended from the ceiling; it comes in two standard sizes, medium and large, and it can also be customized to an individual fit.

Brian Park credits NASA with a "key role" in development of the Flogiston Chair. Planning to design a chair for relaxation and meditation, he came across an article in *NASA Tech Briefs* on the Neutral Body Posture, based on research in the Skylab manned orbital laboratory of the early 1970s. He wrote NASA requesting additional detail on the Skylab experience and received an invitation to visit Johnson Space Center (JSC) from JSC engineer John Jackson.

Jackson provided personal help and documentation on the Neutral Body Position and human factors in spacecraft design. Park was also provided an Anthropomorphic Source Book, a three-volume compendium of knowledge about the size, shape and motion characteristics of the human body developed by NASA as a comprehensive guide to workstation design. Park drew on these and other sources in designing the chair, whose posture ultimately was a compromise between the Neutral Body Posture and Sasavana, a Yoga posture of relaxation. ●

NASA HUMAN FACTORS RESEARCH CONTRIBUTED TO DEVELOPMENT OF A RELAXING CHAIR FOR HOME OR OFFICE

