



FEMALE FIGURE IDENTIFICATION TECHNIQUE (FFIT) FOR APPAREL PART I: DESCRIBING FEMALE SHAPES

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Abstract

Sizing standards used in the United States that identify the body measurements used in the design and development of clothing were established from identified "best practices" of the apparel industry. However, the industry as a whole has not adopted a single system of clothing sizing. We know that manufacturers and retailers use their own sizing systems as a marketing tool, convinced that this is a differential advantage of their product for their market. Regardless of the sizing systems used, however, almost all are based on the myth that humans have mathematically proportional bodies and that they grow in proportional ways. In addition, the shapes and proportions of today's American population differ greatly from the shapes of the generations before. So a variety of issues impact our inability to 'fit' the American customer of today. These fit issues continue to be a growing concern.

This article, as Part One of two, describes the historical process involved in describing the body shapes of humans. In addition, it lays the theoretical framework for the development of an expert shape sorting system using 3D body scan data.

Keywords: FFIT for Apparel, shape sorting, sizing standards, mass customization, fit, female figure types

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Introduction

Currently, clothing sizes are based on a biased study that is over 6 decades old. This method of sizing does not conform to the diversity of human shapes that currently exist in the United States. Attempts to classify body shapes into analogous types, in order to establish size standards, have

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resulted in the formation of several size groupings.

Additionally, the shapes and proportions of today's American population differ greatly from the shapes of the generations before. Because the clothing sizing system is based on a study from the 1940s, many fit problems are occurring with consumers. These fit issues continue to be a growing concern (Cotton Inc., 2002a, 200b, 1998, 1997). Regardless of how one defines fit exactly, it must always start from basic human proportional truths. The fact that our current sizing systems strays so far from this