CONCEPTS OF CLOTHING

- Design view
  - Clothing is an example of applied design.
  - Aesthetic purposes.
- Business view
  - Apparel products
  - ‘Consumer goods’, not ‘industry goods’
  - It has the power of fashion.
- Other views
  - Culture / Society/ Psychology/ History
Successful clothing design?

- **Design view**
- **Successful Clothing Design**
- **Business view** (Consumers)

**DESIGN VIEW**
CONCEPTS OF DESIGN

- Design as Products and Process
  - Reference: Visual design in dress (Davis, M.)

Design

- Products
  - Sensory Design
  - Behavioral Design
- Process
  - Plan/Organize

DESIGN AS PRODUCTS

- Definition:
  - The end result (noun)
  - An intended arrangement that is the outcome of a plan.
- Examples?
DESIGN AS PRODUCTS

- Sensory design
  - Product experienced through the physical “Senses”.
  - Examples:
    - Sight - Clothing style
    - Touch - Soft fabric
    - Smell - Leather, fragrant
    - Sound - Jangle of beads

- Behavioral design
  - Deals with patterns of “Doing things”
  - Planned action
  - Motivation
  - Example:
    - Sociological interpretations
    - The relationship between physical and cultural needs

DESIGN AS PROCESS

- Planning and organizing to meet a goal (verb)
  - Applied to EVERYTHING intentionally created for a purpose, sensory or behavioral.

- Design basic steps
  - (Reference: Davis, M. p.8-9: Table1-1 design process)
  - Set the goal (may arise out of inspiration)
  - Consider external influencing factors (known about consumers)
  - Establish criteria (budget, size, location, safety)
  - Make the plan (e.g. merchandising)
  - Carry out the plan (production, construct garment-cut & assemble garment)
  - Evaluate the product
CONCEPTS OF CLOTHING DESIGN

- Clothing is the end product.
- Clothing is tangible and sensory design.
- Clothing can be interpreted as part of behavioral design.
- Clothing is applied design, practical as well as beautiful.

"Both designer and manufacturer must anticipate natural resource needs, availability, cost, technology, and customer needs, and preferences".

"Social, cultural, economic, and other behavioral changes will affect the contents, but, the basic characteristics of product and process remain. You must work together social responsibility and creativity, not only creativity".

- Davis, M.
ASPECTS OF CLOTHING DESIGN

- Functional Design
- Structural Design
- Decorative Design

FUNCTIONAL DESIGN

- Movement:
  - Movement that comes from reaching, stretching and bending.
- Protection:
  - Garments help prevent the wearer.
- Environmental Modifier:
  - Garments are physiological modifier between the body and its physical environment.
- Health and Safety:
  - Clothing should all the body to be functionally safe from hazards.
- Special needs:
  - Sports, Pregnancy (Maternity wear) / Elderly / Handicapped.

Source: www.maternity-clothing-fashions.com
STRUCTURAL DESIGN

- It determines garment construction lines and shapes of parts, how the garment will fit together.
- It affects fit and functional performance.
- Examples:
  - Interfacing and belting affect performance in functional and structural design.

DECORATIVE DESIGN

- It is for appearance only.
- It affects neither fit nor performance.
- Examples:
  - Apply into the functional and structural design (if necessary)
  - Placement (e.g. buttons, trims, etc.)
  - Art elements and principles in decorative design (harmony)
THE BUSINESS OF FASHION

- Economic Importance
  - Globalization
  - The business of fashion contributes significantly to the economy of the U.S. In 2000, US consumers spent over $319 billion for clothing, shoes, and accessories.

- Scope of the Fashion Industry
  - It is not a clearly defined entity. It is a complex of many different industries.
SCOPE OF THE FASHION INDUSTRY

- Primary companies
  - Produce fibers, fabrics, zippers, padding...
- Secondary companies
  - Produce handbags, shoes, accessories, apparel...
- Retailers (stores)
  - Sell apparel and accessories.
- Others
  - Advertising, Internet websites and mail order catalogs.
  - Publications:
    - Fashion magazines (e.g. InStyle, Glamour, Harper’s Barzaar)
    - Trade periodicals (e.g. Women’s Wear Daily, Daily News Record)

THE FASHION PIPELINE
CHANNEL OF DISTRIBUTION
SCAPE OF THE FASHION INDUSTRY

- The Fashion Pipeline (Channel of Distribution)
  - “Channel of distribution” is the network of interrelated functions involved in moving products from where they begin to end with the consumer.
  - Vertical operations are common.

APPAREL PRODUCTS

- The character of apparel products
  - Apparel goods are ‘consumer goods’.
  - The power of ‘fashion’
THE ROLE OF THE CONSUMER

- The role of the consumer in the apparel business is an important.
- Source of all demand.
- Consumer’s play is a passive one.
  - Not actually demand new products and designs.
  - Their individual and collective power is exercised in the selections they make and in their refusals to buy.

MARKETING APPAREL PRODUCTS

- Marketing concept: Consumer orientation
  - It’s not selling! Instead of trying to sell whatever is easiest to produce, the makers try to find out what the consumer wants to buy and then make it available for purchase.
MARKETING
(=TARGETING CONSUMERS)

- Market segmentation:
  - means dividing the heterogeneous market into smaller customer divisions that have certain relatively homogeneous characteristics the firm can satisfy.
  - People are different. No one can provide all things to all people.

MARKET SEGMENTATION

- Based on income level
- Lifestyle (suburban, city)
- Fashion preferences (classic or avant garde)
- Special interests (jogging)
- Sizes (miss, petite, junior)
- Occupations, etc.
- Other influences:
  - Imports, federal legislation, demographics affects the apparel business
Channel Distribution!
The size of the apparel manufacturers
- From large to small size
Contracting:
- Even large apparel company have contractors.
- Production, product development, and selling can be contracted to outside firms.
Computer systems in apparel manufacturing
Apparel manufacturing process (DVD).
THE FASHION PIPELINE
CHANNEL OF DISTRIBUTION

• Advertising
• Publications
• Merchandising
• Trade associations

- Selling Agents
- Wholesale Jobbers
- Retailers
- Consumers

- Agricultural / chemical (raw material suppliers)
- Fiber / Yarn manufactures
- Knitting / Weaving mills
- converters (finished fabrics)
- Finishes
- Contractors

THE SIZE OF APPAREL MANUFACTURERS

- Small and large apparel manufacturers.
- Advantages of being a small manufacturer:
  - Saves large investments in plant facilities and machinery.
  - Tends to have more styling flexibility
    - Follow a trend quickly and pull out fashion items easily.
  - Specialize in servicing a group of retailers who want “exclusive”,
    more expensive styling or “quicker response”
**MAJOR DEPARTMENTS IN AN APPAREL FIRM**

<table>
<thead>
<tr>
<th>Design department</th>
<th>Merchandizing / Sales department</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Responsible for 4-6 collection/year.</td>
<td></td>
</tr>
<tr>
<td>• Designers (styling).</td>
<td></td>
</tr>
<tr>
<td>• Merchandisers (plan &amp; budget).</td>
<td></td>
</tr>
<tr>
<td>• Markets the line.</td>
<td></td>
</tr>
</tbody>
</table>

**Pre-production & production**

- Responsible for mass producing.
- Pre-production: pattern, grading, marker, and cutting samples
- Production: constructing garments, bundling the pieces together, sewing, finishing, and pressing

**CONTRACTING**

- **Inside shop**
  - Advantage: greater quality control of the product.
  - Disadvantage: large amounts of money are tied up in machinery and during seasonal slow periods, works to be laid off.
- **Contractor**
  - Advantage: Greater production flexibility. No capital investment or maintenance is necessary.
  - Disadvantage: Less control over the quality of the product. Late or miss deadlines.
- **Labor issues**
  - Produce in a foreign country (offshore production).
**COMPUTER SYSTEMS IN MANUFACTURING**

- CAD (Computer Aided Design)
  - To manage every step of design, merchandising, purchasing, sewing, warehousing, and shipping process.
- CAM (Computer Aided Manufacturing)
  - Cutter
  - Unit Production System.
- B2B network
  - To eliminate errors and to improve process management.
  - To exchange information (e.g. Suppliers & Production managers)
  - To link the sales floor to manufacturing. (Quick Response to what is selling or not selling)

**MANUFACTURING A READY TO WEAR**

- Plan Cutting and Production
  - Pre-production manager
    - Planning the all the steps (making patterns, grading, ordering fabric, cut order, etc.)
    - Record “Spec sheet (list of specifications)”.
    - Cutting ticket (list of sizes, colors, and fabrics) is created for the style.
  - Findings buyer (Order findings: zippers, lining, threads, etc.)
MANUFACTURING A READY TO WEAR

• Stock yardage ordering and receiving
  ▫ Owner or production person’s responsibility
    • Fabric quality control, inspecting fabrics.

• Pattern work
  ▫ Production patternmaker
  ▫ Grader
    • Changing the size of the basic pattern
  ▫ Marker maker
    • To minimize fabric use
  ▫ Spreader
    • Lays up the cut (Spreading).
  ▫ Cutter

MANUFACTURING A READY TO WEAR

• Bundling
  ▫ Bundler
    • Use computerized delivery system (Unit Production System)

• Special trims
  ▫ Contractor specializing in trims
CONSTRUCTION OPERATIONS

- Production manager
  ▫ Coordinates schedules.
- Sewing floor supervisor
  ▫ Determines SAMs (Standard Allowed Minutes)
  ▫ Regulates the flow of work.
- Sewing machine operator
- Time and motion engineer
  ▫ Determine the time it takes to complete each phase of the sewing process.
- Presser
- Hand finisher
- Quality Controller/Trimmer
- Shipping

SHOWROOMS

- Who?
  ▫ Head of sales / Road sales people
  ▫ Model / Stylist
  ▫ Showroom Staff / Clerical people
- Job description:
  ▫ In-house showrooms / Contract
  ▫ Send Electronic format Information, using EDI (Electronic Data Interchange):
    ▪ Linking the manufacturer and the retailers (or Contractors)
  ▫ Quick response as a business strategies.
    ▪ EDI begins with POS (Point of Sale).
ADVERTISING AND PROMOTION DEPARTMENT

- Who?
  - Advertising manager
  - Artist photographer
  - Copywriter
  - Fashion coordinator

- Job description:
  - Provide high quality graphics/photographs
  - Using computer graphics programs

ACCOUNTING DEPARTMENT

- Who?
  - Accountant
  - Clerical people
  - Bookkeeper

- Job description:
  - Handle billing/pay contracts/credit check/tax accounting.
  - Retailer demands for markdown allowances, advertising cost, etc.
FINANCE DEPARTMENT AND OTHERS

- Job
  - Investment counselor (tax advisor)
- A factor (A finance company):
  - Buys a manufacturer’s accounts receivable.
  - Provides credit information on retailers.
  - Helps a business manage cash flow and capital acquisitions.
- Banking services
  - Handling loans and banking services.
- Machine shops
  - Machinist

APPAREL MANUFACTURING PROCESS

- The major steps in manufacturing a garment (Tate, p. 39)
CURRENT MANUFACTURING PROCESS

- Current computerizing process
- “Just-in-Time” manufacturing
  - Manufacturers can cut smaller lots;
  - reduce inventory, markdown allowances, and other selling costs;
  - Deliver rapidly.
- From “Mass production (ready to wear)”
  - To “Mass customization (made to measure)”.
    - Customers are demanding unique apparel.
    - Manufacturers offer a range of options for certain categories of apparel so that the customer can select color, fit, and silhouette options.

ANNOUNCEMENT

- No Class on Monday (Labor Day)
- Read text book (Ch.1)
- Class website:
  - http://www.myweb.ttu.edu/shwang