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**TRAINING PROGRAMME**  
**in**  
**DESIGN PATTERN-MAKING**  
**FOOTWEAR INDUSTRY**  
**DG/IND/90/F40**

**Contract N°93/012**

**FINAL REPORT**

**22 February - 13 March 1993**  
**FDDI - NOIDA - INDIA**



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# FOOTWEAR TECHNICAL COURSE

UNIDO - FDDI - NOIDA - INDIA

## Technical Report

The following issues were examined in the technical training programme carried out from 22 February 93 to 13 March 93 in New Delhi:

- introduction to the technical and design problems of the footwear industry and their comprehensive examination;
- discussion of the current situation of the footwear industry throughout the world: production, consumption and medium-term forecasts;
- survey of the most advanced methods to rationally tackle the problems of the footwear industry;
- creativity: ways to develop it, bearing in mind market requirements and the related production methods;
- discussion of drawing and sketching techniques whereby creative ideas are visualized;
- survey of the most common measuring methods and explanation of the international measuring systems;
- survey of the most advanced techniques of footwear design and pattern-making;
- survey of the technical problems to be addressed at different production levels and suitable solutions for them;
- discussion of the role of the designer, who is expected to carry out market research activities and select the most suitable footwear to be manufactured;
- survey of the industrial manufacturing of different footwear designs;

- study of the structure and organization of industrial companies and cottage industries;
- survey of the technical strategies and actions to be taken to improve footwear quality and productivity in Indian firms.

### **A List of the Designs studied in the Course**

- 01) classic court shoe with a 50 mm heel
- 02) asymmetrical court shoe with a 20 mm heel
- 03) court shoe with an 80 mm heel
- 04) classic derby shoe
- 05) derby shoe with an uncut upper
- 06) English style derby shoe
- 07) derby shoe with buckle strap
- 08) classic oxford shoe
- 09) oxford shoe with an uncut upper
- 10) oxford shoe with lateral lacing
- 11) asymmetrical ladies' sandal
- 12) men's sandal
- 13) loafer with no elastic strap
- 14) loafer with an uncut upper
- 15) loafer with an apron
- 16) loafer with apron and elastic strap
- 17) loafer with elastic strap and two-piece upper
- 18) boy's derby shoe
- 19) boy's oxford shoe
- 20) girl's court shoe
- 21) boy's ankle boot
- 22) training shoe
- 23) boot with no fastening

- 24) low boot
- 25) ankle boot
- 26) men's zipped ankle boot
- 27) classic real moccasin
- 28) informal real moccasin (I)
- 29) informal real moccasin (II)
- 30) vulcanized real moccasin.

### **Teaching and Audiovisual Aids used in the Course**

- Material taken from the training kit on footwear design and pattern-making and used as a teaching aid;
- pictures showing the latest fashion trends in the fields of footwear and accessories;
- slides showing fashionable men's, ladies' and children's shoes (classic, informal and smart designs of footwear);
- transparencies on company organization (plant, management, departments, personnel, costing, etc.);
- videotapes on the manufacturing process, in particular on:
  - a) binding methods;
  - b) the production cycle (pattern-making, cutting, assembly and finishing);
  - c) vulcanization (training shoes and vulcanized bottoms);
- magazines and printed material showing the latest accessories.

Design Classes: Men's, Ladies' and Children's Patterns.

Types of Designs: Informal, Training, Classic and Smart Shoes.

# **UNIDO FOOTWEAR TECHNICAL COURSE DELHI (NOIDA) INDIA**

## **TECHNICAL COMMENTS ON TRAINEES.**

The 17 trainees participating in this course were carefully selected: they came from the footwear factories of New Delhi, Noida, Agra and Madras.

Only a small minority of trainees displayed rudimentary knowledge; the rest demonstrated proficiency as they worked in export-oriented companies.

As to specific technical design, gaps in basic skills were recorded.

The working method proved old-fashioned and inadequate for the objectives to be achieved.

Only trainees from the most important companies had attended previous advanced training programmes.

Two trainers from the training centre of Madras attended the course.

Trainees displayed proficiency in the area of manufacturing technologies, since major companies have the necessary manufacturing equipment and machinery.

## **TEACHING MATERIAL CIRCULATED AMONG TRAINEES.**

- Abstracts from the kit (FDDI supplied them).

- photocopied drawings of fashionable men's, ladies and children footwear;
- photocopied drawings of profiles of lasts, bottoms, heels and accessories for men's, ladies and children's footwear;
- photocopied reference material on:
  - a) measurements of lasts, measuring criteria;
  - b) grating patterns and detailed explanation of how the pantograph works and how a full set of patterns is developed.

### **TEACHING MATERIAL GIVEN TO THE HOST INSTITUTE.**

- wooden lasts for men's, ladies' and children's footwear;
- teaching material developed during the seminar, standards (basic patterns) etc.

### **INSIGHTS INTO THE LOCAL FOOTWEAR OUTPUT AND INDUSTRY.**

The Indian footwear industry is well-established, its performance is remarkable at present and may indeed improve in the future.

Manufacturers use raw materials tanned by Indian tanneries.

The top quality leather comes from Madras; it includes kid, buffalo, calf, goat skins as well as other types of leather.

Kid and softy calf skins are characterized by a high standard of finish.

There are, however, problems in two specific areas. Footwear parts, such as leather bottoms, counters, etc. are unsatisfactory, because either their finish is poor or their design is wrong.

The same deficiencies apply also to lasts and patterns which do not meet

the standards required on international markets.

The companies which maintain business relations with Western companies are characterized by better management. Foreign companies supply their Indian counterparts with patterns, lasts, bottoms, basic footwear parts; they themselves check the product quality and provide technical advice. These relations are extremely useful and account for the higher quality of the products manufactured by these Indian companies.

Manual skills are highly developed, as shown by mocasins and braided footwear which are manufactured by almost all firms; undoubtedly the best area for their production is around Madras.

The export-markets of Indian-made footwear are: the United States, France, the United Kingdom, etc.

low- and medium-quality men's footwear accounts for most of the exports.

Handwork prevails throughout the whole manufacturing process. A steady technological development characterizes medium and large-sized companies which continuously introduce additional machinery in manufacturing. This technological input comes primarily from Italy and Germany.

As far as design is concerned, every large company employs one pattern-maker or two; he/they is/are in charge of designing footwear collections. The ideas for footwear designs are drawn from fashion magazines, but generally mistakes in propositions and styles are made.

free-lance designers are uncommon in India, as in other developing countries. Skilled designers or production technicians are immediately hired by large companies which try to attract them with salaries higher



than those this personnel would be paid in smaller companies.

There are very few manufacturers of lasts, bottoms and accessories. The quality of their output is very poor.

## SUGGESTIONS TO IMPROVE THE FOOTWEAR SECTOR.

Technical training courses for skilled staff are essential: they are opportunity to make that personnel aware of production problems and to discuss what is needed to ensure market penetration of Indian-made products in the West.

The improved exploitation of raw materials is a top priority and an objective to be all pursued by all footwear manufacturers throughout India: of course the particular production requirements of each company and the existing difficulties of equipment maintenance are to be kept in mind to upgrade technological standards and achieve the above goal.

There is no manufacturers association. Yet it would be a useful structure for the promotion of Indian-made products and footwear professionals.

Only one important fair attended by a large number of firms takes place in India, i.e. the Madras fair. Foreign exhibitions and to its importance; nevertheless it would be appropriate to organize similar exhibitions in the North, for example in New Delhi, so as to show and advertise new technologies and products to a wider public.