

INTERDESIGN 2005



HOW DESIGN EDUCATION CAN BE SENSITIZED TO NATIONAL NEEDS THROUGH INTERDESIGN PARTICIPATION

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DEVELOPMENT OF INDUSTRIAL DESIGN

- Arts and Crafts movement of the 1850s.
- Christopher Dresser 1834-1904 published papers that clearly articulated a rational and logical approach to practical problems of design.
- Design seems to attract creative individuals who have an inherent awareness of the environment in which they live.
- Industrial design education has traditionally taken these traits and developed their learners to:
 - **Be aware**
 - **Be problem solvers**
 - **Look for opportunities**

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INDUSTRIAL DESIGN

Industrial Design is an occupation primarily involved in the development of mass-produced products. The skills and knowledge of Industrial Designers however also empower them to design craft-produced items and one-offs. The occupation is predominantly responsible for the visible and user-interactive aspects of products requiring varying degrees of functional, aesthetic, structural, technological, production and commercial consideration. A working vocabulary and understanding of other fields involved in product development is essential (e.g. Engineering, Marketing, Tool and Die Making) and some Industrial Designers may, in the course of experience, acquire expanded expertise. The occupation also requires the media skills needed to develop and communicate designs (e.g. drawing, model making, verbal). Industrial Designers also find themselves in the position of piloting design and development discussions or managing product development programs. Industrial Design is the occupation likely to be most capable of the holistic conceptualization of new products.

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INDUSTRIAL DESIGN IN SOUTH AFRICA

- South Africa is both part of the developed and developing world and this places designers in a unique position to embrace both these worlds.
- This hybrid design environment allows for new developments in both technology and craft.
- Presently design in South Africa can play a vital role in the social and economic growth of the country.
- South African design education therefore needs to fulfill a social obligation as well as support industrial growth through an output of well-rounded design learners.

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INDUSTRIAL DESIGN DEPARTMENT AT UJ

- ✦ Are aware of the need of design for development in South Africa.
- ✦ Have an unwritten policy to pursue projects that promote social awareness for learners. Any working prototypes generated for projects are donated to the users and post-use feedback is requested.
- ✦ Currently our curriculum includes one 3rd year (N-Dip) and one 4th year (B-Tech) social awareness project a year.
- ✦ An evidenced history of social awareness projects.

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- ✦ 1989 – Hand pedal-powered tricycle/wheelchair for rural paraplegics
 - Standing board for cerebral palsy sufferers
- ✦ 1990 – Low cost headgear penholder for paraplegics
- ✦ 1998 – Microwave jug for blind users
 - Hot water warning device
- ✦ 1999 – **Interdesign Water**
 - Forest Farm Centre for Cerebral Palsied Adults design project
 - Refugee emergency tent
 - Transfer board for wheelchairs
- ✦ 2000 – Atteridgeville furniture project
- ✦ 2001 – Low cost energy saving lamp
- ✦ 2002 – Ethembeni Home AIDS orphan sustainable design project
 - Lamp from re-used materials/components
- ✦ 2003 – Ethembeni Home AIDS orphan toy design project with NID
 - Local wooden furniture to be made by community craftsmen for low cost housing with FIETA
- ✦ 2004 – Tin tub stand for shack dwellers
 - Footpath barrow for 44 gallon drum
 - Product development for Pumani Paper
- ✦ 2005 – **Interdesign Sustainable Rural Transport**
 - Toy push-scooter made from township scrap
 - No-power/fuel fridge
 - Tea set for arthritis sufferers

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SPECIFIC PROJECT OBJECTIVES OF INTERDESIGN 2005

- ✚ Feasible concepts for products should be developed with real possibility of development within the local context and environment.
- ✚ Some of the concepts should be developed into real products, real businesses and real job opportunities.
- ✚ To involve ICSID and ICOGRADA members in multidisciplinary outcomes in an environment where illiteracy and multilingualism is a factor.
- ✚ To align the project with the objectives of NEPAD (the New Partnership for Africa's Development):
 - ✚ To eradicate poverty
 - ✚ To place African countries, both individually and collectively, on a path of sustainable growth and development.
 - ✚ To halt the marginalisation of Africa in the globalisation process and enhance its full and beneficial integration into the global economy.
 - ✚ To accelerate the empowerment of women.

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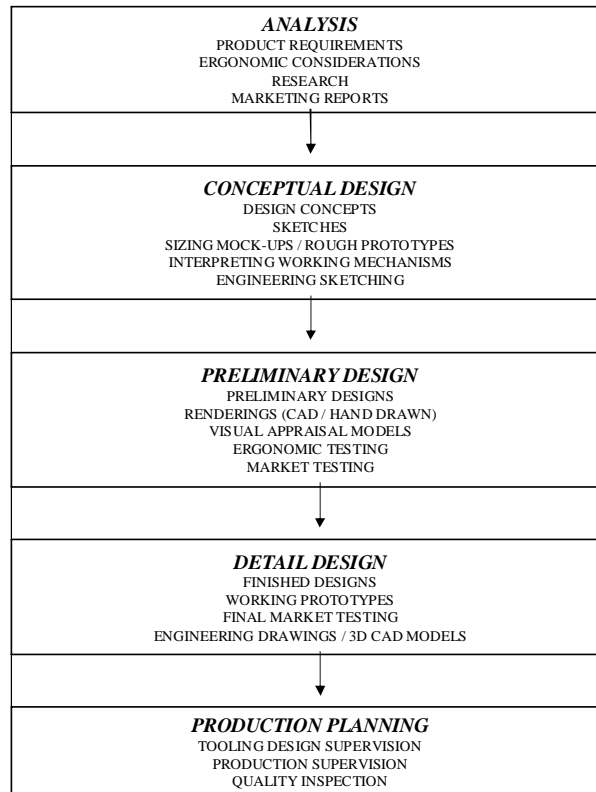


TRADITIONAL INDUSTRIAL DESIGN PROCESS

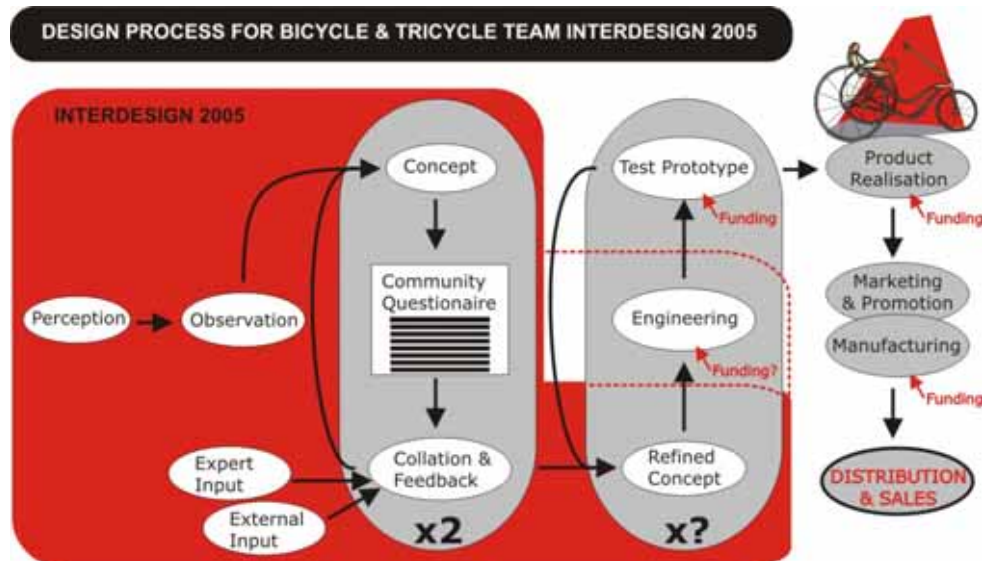
Products are usually designed through the client designer relationship and exclude the user, their environment and context.

So the product is "...designed "for users" but not "with users". (Popovic: 1999: 26)

TRADITIONAL INDUSTRIAL DESIGN PROCESS



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LEARNER FEEDBACK FROM INTERDESIGN 2005

☛ THE GOOD

- ☛ Able to meet people and become part of a design society.
- ☛ The experience of working in a group with people from different places and different careers (students, lecturers, engineers and designers).
- ☛ Experienced a better understanding in group dynamics.
- ☛ Given insight into doing user based research.
- ☛ Taught how to digest lots of food!
- ☛ It created a group of people that are aware of design for development.
- ☛ Made the learner aware of the purer purpose of design to create solutions where they are really needed.
- ☛ Interaction with other students.
- ☛ Exposed to different design methods (Prof. Ranjan & Prof. Theodorescu).
- ☛ It was energizing to see members of the communities show intelligent solutions to everyday problems.
- ☛ The process helped learners not only focus on aesthetic solutions but overall design.

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LEARNER FEEDBACK FROM INTERDESIGN 2005

☛ THE BAD

- ☛ Problems seemed to be more social than product related.
- ☛ Going to villages could have been more coordinated and more fruitful.
- ☛ Possibly a period where designers actually lived within the community would give more comprehensive insights.
- ☛ Too much ceremony where time could have been better spent.
- ☛ Initially worried about the sustainability of the products to be designed.

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➤ THE UGLY



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LEARNER FEEDBACK FROM INTERDESIGN 2005

➤ SINCE INTERDESIGN 2005

- One learner had an opportunity to work overseas for five weeks.
- The learners are focused on getting tangible results from other user research they have had to undertake since.
- Better adapted to working in groups.
- The Interdesign helped push a learners work to another level.

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CONTINUED LEARNER EXPERIENCE AFTER INTERDESIGN 2005

- The learners have completed engineering for the Tin Lizzy single axle donkey cart and the Z frame bicycle and have received SABS funding to take these engineered concepts to manufacture.
- These working prototypes can then go through a user testing and adjustment process before final production.

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- National objectives
- Department of Education objectives
- UJ Institutional objectives
- Faculty of Art, Design and Architecture objectives
- Department of Industrial Design objectives



THANK YOU