

ICSID Interdesign workshop on Sustainable Rural Transport April 2005



REFLECTIONS ON THE RESEARCH AND DESIGN PROCESS

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COMMUNITY BASED RESEARCH



Three participants in community-based research :

- the scientific community – the researchers and designers,
- civil society – the rural community
- policy makers – government.

APPROPRIATE REQUIREMENTS FOR SUSTAINABLE DEVELOPMENT



- Acknowledgement of the '*world view*' of the society studied to ensure the successful interaction between the researcher and the '*researched*'.
- The *research process* needs to recognize and acknowledge the interests, ideologies, rituals and social needs of the community.
- In a *social context* researchers should be sensitized and made aware of the dangers of careless or unplanned transfer of knowledge and the detrimental effect it can have on a community.



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PARTICIPATORY ACTION RESEARCH (PAR)



- Develop Theory informed by philosophy and social epistemology.
- As a method of investigation, PAR is a shared, logical as well as supportive method to apply during the workshop.
- Action based research methodology ties together the objects of the workshop and provides a clear pathway to research the dialectic relation surrounding the transfer of technologies.



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IMPORTANT PAR FACTORS

- The researcher's beliefs and perspectives play a significant role in the conceptualization, implementation and analysis of research.
- Research is always implicated in relations of power with political and social consequences.
- Unequal power relations exist between researcher and the '*researched*'.
- The researcher and his method have a political and social responsibility (CALHOUN, 1995; MUNNS & RAJAN, 1995).

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THE INTERDESIGN PROCESS

- Must take cognizance on how local cultural values and practices (i.e., indigenous knowledge systems) and indigenous aesthetics inform the design of artifacts and utility objects that find application within the target communities.
- The impact of newly introduced or recently emerging technologies on community development.



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RESEARCH PARTNERSHIPS

DESIGN AND SCIENCE

Research in design is closely involved with the cultural structures of a given community and, because of its related technological processes, linked with science.

Design based research therefore involves a systematic understanding of both design practice, scientific principles, technological processes involved and the impact of products (artifacts) on communities.

DESIGN AND GENDER

The aspect of gender based technology is important as women's technological knowledge is a neglected area of research.

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PROBLEMS WITH TECHNOLOGY TRANSFER

- Failure due to the culturally '*incorrect*' way a product is introduced to the community.
- Failure of designers to take specific culturally orientated designs into account.
- Failure to include and consult the community in the product design and development process.
- Introducing products that by nature are foreign to the rural community.
- Ignoring the specific socio-economical circumstances and needs of the community.

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DEVELOPING A DESIGN EPISTEMOLOGY

- What is design knowledge and how could cultural and science studies contribute to its formulation?
- What are the main characteristics of a local design epistemology?
- What relationship exists between dominant cultural and science theories and a local design epistemology?
- What could be the most sustainable relationship between local knowledge and scientific knowledge?
- How do we accommodate endogenous design development and how can it contribute to a co-evolution of epistemologies?
- What steps could be taken to enhance co-evolution of different ways of knowing?

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THE INTERDESIGN WORKSHOP: findings

- Most designers (**90%**) need a better understanding of the method of community based research.
- **90%** need more information on the culture of the local community.
- **50%** considered the information provided on the social structures of the communities adequate.
- Visits to the community during the design process was seen as essential by all (**100%**).

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THE INTERDESIGN WORKSHOP: findings

- **50%** wanted more visits and surprisingly enough most designers (**90%**) would have liked to stay within the community.
- All (**100%**) found the interaction and information they collected within the community useful for the design process.
- During interaction with the community, **65%** of the designers needed more support and commented in general on the inadequacy of the community representatives to provide information as they were not from the communities involved but government elected representatives.

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THE INTERDESIGN WORKSHOP: findings

- All (**100%**) found the technical experts useful in the design process.
- **70%** found the role of the Communication Group useful.
- **60%** need more communication support during the field visits.

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COMMENTS FROM THE SERVICE REPORT

- More detailed study of community needs.
- Involving people with better understanding of targeted communities.
- Better strategy on what and how the groups would interact with the community.
- More interaction – a need for real interaction.
- Require a broader understanding of actual needs.
- Most wanted to stay overnight.
- More involvement with government, NGO's and business.
- Interdesign seen as a good tool (**94%**) for identifying sustainable solutions for community needs.

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CONCLUSIONS

- Data analysis points to an need by the designers to interact closely with the community during the design process.
- The designers indicate a willingness to follow an action based research methodology.
- Designers recognize a need for more information about the community to support the Interdesign research method.

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RECOMMENDATIONS

- A more structured research method and understanding of the methodology (PAR).
- Communication based on a democratic communication model (visual communication/science communication).
- Appoint a design team on the community side.
- Preliminary report and survey on the community is essential.
- Appoint a multi-disciplinary team.
- Development of a sound design epistemology will lend intellectual support to the designers.
- Developmental issues reported in the media should serve as a social indicator of community needs.

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Thank you
