Interdesign 2005 and communication design: a contextualisation

Ria (HM) van Zyl

During April 2005 visual communication designers took part in an International Council of Societies of Industrial Design (Icsid) Interdesign that addressed the topic of sustainable rural transport in the North West Province, South Africa. This article contextualises the activities of the visual communication design team during this two-week workshop. The question posed is whether the inclusion of this team contributed to Interdesign 2005, and the nature and possible value of this contribution are discussed.

South Africa celebrated its first decade of democracy in 2004. The ten-year period commenced in 1994 when the African National Congress (ANC), under the leadership of Nelson Mandela, became the democratically elected ruling party. This new democratic South Africa created expectations regarding a better life for all South Africans, including improved access to social services such as medical care and education, as well as jobs.

Although South Africa has one of the best-developed transport infrastructures in Africa, 60 per cent of rural households have no, or difficult, access to public transport. Two million learners walk to school, often walking more than two hours per day. Fifty per cent of the South African population is rural and 72 per cent of this rural population are poor, with little access to social services. Areas in South Africa that lack developed transport systems clearly overlap with the poverty-stricken areas in South Africa. Government intervention is required to improve rural transport systems (see National Department of Transport 2003). Rural transport modes comprise bus and minibus services, motorised vehicles (such as bakkies), and various forms of non-motorised transport such as walking (including sometimes carrying goods on the head), riding donkeys and horses, wheelbarrows, handcarts, animal-drawn vehicles, bicycles, bicycle trailers and tricycles.

In 2002, the North West Province started to explore transport solutions suitable for local use, including commissioning the building of donkey carts. The North West is one of nine South African provinces, and has a poverty rate of 57 per cent, with more than two thirds of the population living in rural areas. The North West Provincial Government, Department of Transport, found that no standards or regulations existed that could be used to issue a tender document. The SABS Design Institute, a division of the South African Bureau of Standards (SABS), became involved and this subsequently led to a decision to host an Interdesign.

An Interdesign is an International Council of Societies of Industrial Design (Icsid) forum in which mid-career designers from various countries and cultures work together for a two-week period, exploring international design issues of developmental importance and nature. Thirty-five Interdesigns have been held since the first one took place in 1971 in Russia. Interdesigns are always hosted by Icsid member countries. The first Interdesign hosted in South Africa was in 1998 where the topic of water was explored. Interdesign 2005 with the theme 'Sustainable Rural Transport – Technology for Developing Countries' was subsequently hosted in the North West Province from 3 to16 April 2005.

Three broad strategic goals and objectives were set for Interdesign 2005. These were to:

- Develop feasible concepts with real potential for development and manufacturing within the local context and environment;
- Align the project with the objectives of the New Partner-

ship for Africa's Development (NEPAD); viz. poverty eradication, sustainable growth and development, beneficial integration of Africa into the global economy, and the empowerment of women;

- Involve Icsid and the International Council of Graphic Design Associations (Icograda) members in multidisciplinary outcomes in an environment where illiteracy and multilingualism are factors (SABS Design Institute 2005a).

Interdesign 2005 participants came from South Africa, Nigeria, Botswana, UK, and Europe, Mexico, New Zealand, Turkey, Israel, Canada, USA and India; Germany was well-represented by a team of 13 Master's degree students from the Academy of Visual Arts and Design in Stuttgart. Design groups were divided into four focus areas. Three focus groups consisting of industrial designers were then tasked with investigating animal drawn carts, bicycles/tricycles and alternative transport solutions. Communication design was the fourth focus area, and consisted of ten communication designers and two social scientists, the latter from the specialist areas of indigenous knowledge and development communications respectively.

The communication design team included the only designers at Interdesign 2005 with local language and knowledge skills. Other participants in Interdesign 2005 were the National Department of Transport (DOT), the North West Provincial Government, representatives from the Bojanala community, the National Product Development Centre (NPDC), the Council for Scientific and Industrial Research (CSIR), the Industrial Design Schools of the University of Johannesburg (UJ) and the Cape Peninsula University of Technology (CAPUT), and experts from various interest groups such as The National Society for the Prevention of Cruelty to Animals (NSPCA).

The two-week Interdesign workshop took place in Rustenburg, the capital of the North West Province. Three rural villages from the North West (Pitsudesulejang, Mathopestad and Syferbult) were pre-selected because of their diversity, including a deep rural, semi-rural and informal settlement respectively. During Week One, two days were set aside for exploratory field trips. The rest of Week One was spent developing concepts that were presented in a preliminary presentation. Week Two was spent revisiting villages and defining concepts for a final presentation. A selection of ideas presented at this final presentation was made for further development and testing by DOT, project organisers and participants from the community. Interdesign 2005 was concluded at a feedback session in Pretoria, September 2005, where some of these developed solutions were presented.

The role of the visual communication design group

Because this was the first Interdesign that included communication designers, the role they played was not as defined as that of the industrial designers. The organisers of Interdesign 2005 and design group leaders developed preliminary design briefs for the four design groups prior to Interdesign 2005. Communication designers were challenged with an open brief, with the main purpose of the group to act as a 'link with local communities and schools in order to establish communication design strategies and methodologies'. The brief further included 'interaction with the other design groups to identify crucial transport related information that should be communicated' (SABS Design Institute 2005a).

This article contextualises the activities of the visual communication design team during Interdesign 2005. Two broad areas of participation by the communication design team are selected for discussion; firstly, the contribution during the research phase in the form of research workshops conducted at schools; and secondly, the development of integrated communication and process frameworks. The article concludes with reflection and feedback. It is, however, not possible to assess any long term contribution or benefit since the group's activities ended with Interdesign 2005, and many of the developments were still underway at the time of writing. However, lessons learnt at this significant collaboration need to be reported and understood in order to assist with possible planning, not only for future Interdesigns, but for other design projects of a developmental nature. Although South Africa has made enormous progress in the last ten years, many urgent problems still need solutions. Devising solutions to problems remains high on the South African agenda, and is in line with the objectives of NEPAD.

Research participation – workshops at schools

The first area of participation selected for discussion in this article is the research workshops which the visual communication designers conducted at schools. 'Research for

Figure 1: This group worked together and produced similar drawings

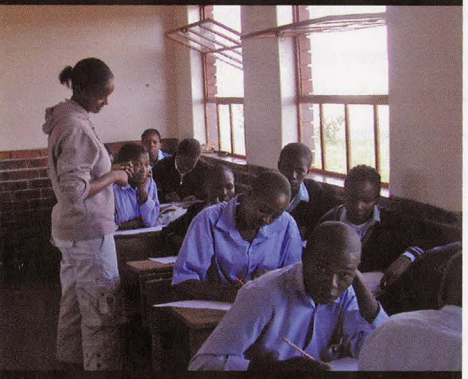


Figure 2: Fundi Zibi, final year student from University of Pretoria listening to learners during the workshop

design' is, according to Press and Cooper (2003:102-103), a process of searching in three areas: a search for understanding, a search for ideas, and a search for solutions.

The first two days of Interdesign 2005 were set aside for exploration in the field in a search for understanding. The members of the communication design group visited schools in Mathopestad and Pitsudesulejang and held research workshops with learners from Grades ten to twelve. These research workshops had a two-fold aim: the first was to use visual language and visualisation as methods of information gathering and possible idea generation, and the second was to expose school children to the possibilities of the design discipline. The school visits were particularly important as the needs of children are often overlooked, and access to education is one of the most important issues on the rural transport agenda.

The format of the workshops was interactive, with Grades ten to twelve learners, designers, teachers and even the headmaster taking part. The design problem was explained. Learners were asked how they would attempt to solve their own transport problems and were given the freedom (and drawing materials) to draw their transport solutions (Figures 1, 2). When the purpose of the drawings was explained, most learners quickly understood that the intention was generating ideas and opinions and that there could be no right or wrong drawings. Designers moved around freely and asked for clarification and explanation. The drawings broke the cultural and language barriers.

Three hundred and ten drawings were produced during these short workshops. The drawings were divided into the following themes: Group 1: drawings showing functional and aspirational needs; Group 2: drawings showing methods of construction and use of materials; Group 3: drawings showing socio-economic expectations; Group 4 drawings showed alternative solutions. A brief overview based on a purposive selection of drawings in each group follows.

Group 1: Drawings showing functional and aspirational needs

Functional and aspirational needs were often combined on one drawing and are therefore grouped together. Drawings and discussions with learners confirmed the following functional needs: to get to and from school clean, dry, warm and on time using a method faster than walking. These were needs well explained in the vast amount of literature available to designers prior to Interdesign 2005. Learners often need to transport small loads such as bread and milk from a shop, and look after smaller siblings. Many learners drew adapted bicycles, with details such as carrier seats for siblings, space for shopping, and bicycles with canopies or space for an umbrella. Often bicycles included more than one seat (Figures 3 – 6). Donkey carts were drawn with canopies for shelter and comfortable seats (Figure 7). A typical single axle donkey cart is used for recreation during the holidays (Figure 8).

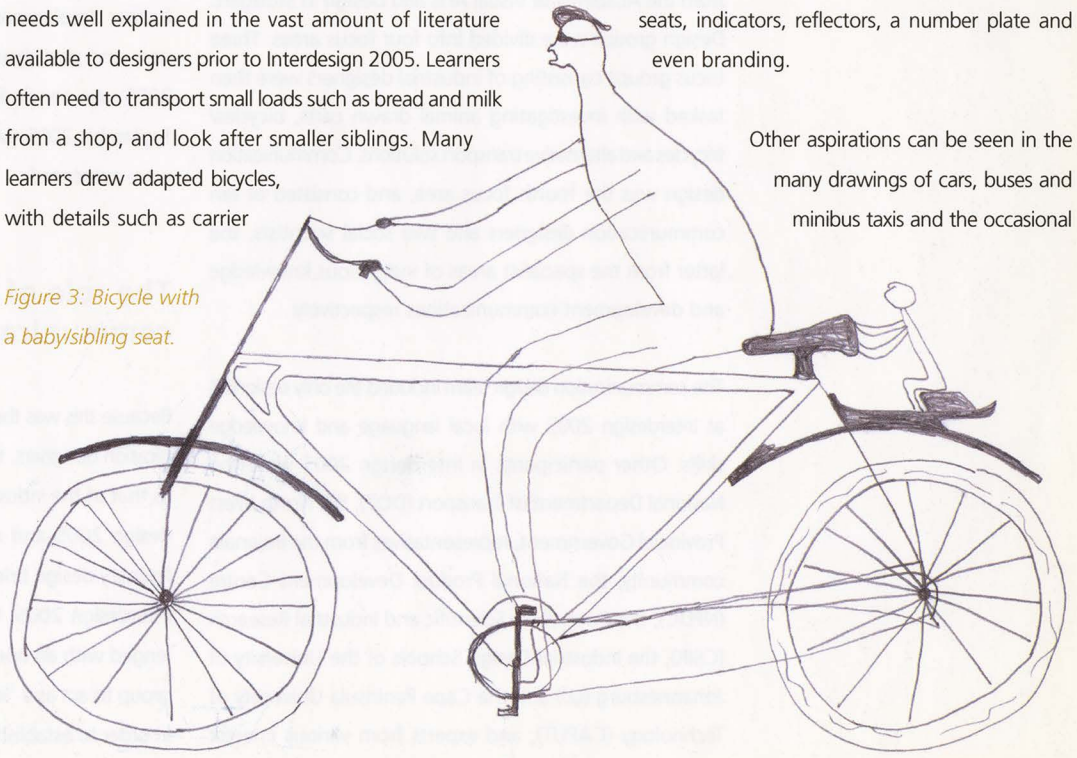


Figure 3: Bicycle with a baby/sibling seat.

Aspirational needs became apparent, and these are mostly of a peer pressure nature. Informal discussions with the learners revealed that donkey carts are not perceived as 'cool'. Some learners indicated that they would only go to school in a donkey cart if their friends did the same, and if the cart is closer to a car in function and appearance. Figure 9 shows a donkey cart with 'style'; upholstered seats, indicators, reflectors, a number plate and even branding.

Other aspirations can be seen in the many drawings of cars, buses and minibus taxis and the occasional

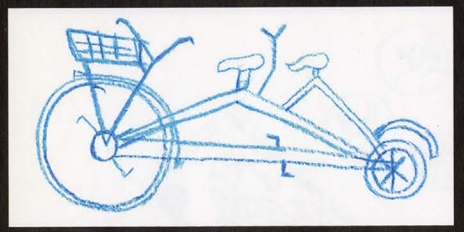


Figure 4: Two-seater bicycle with basket

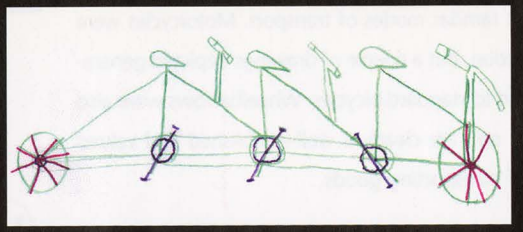


Figure 5: Space for three cyclists

Figure 6: Bicycle with canopy, carrier and generator

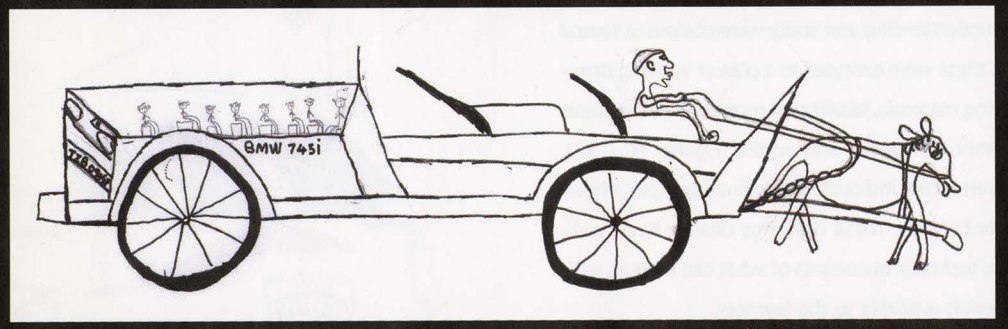


Figure 9 (Above): A 'cool' donkey cart.

Figure 8 (Left): Children having fun during the April vacation on the road to Pitsudesulejang

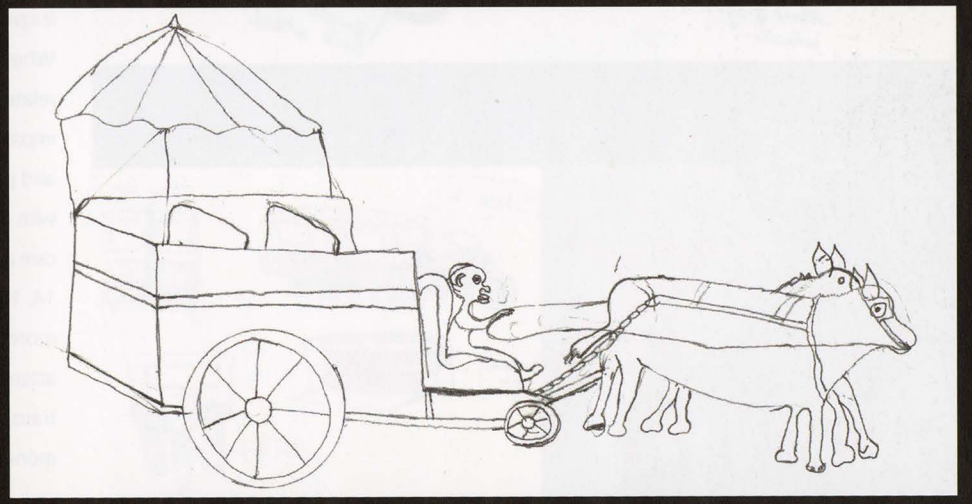


Figure 7: Donkey cart with side panels, canopy and special driver seat

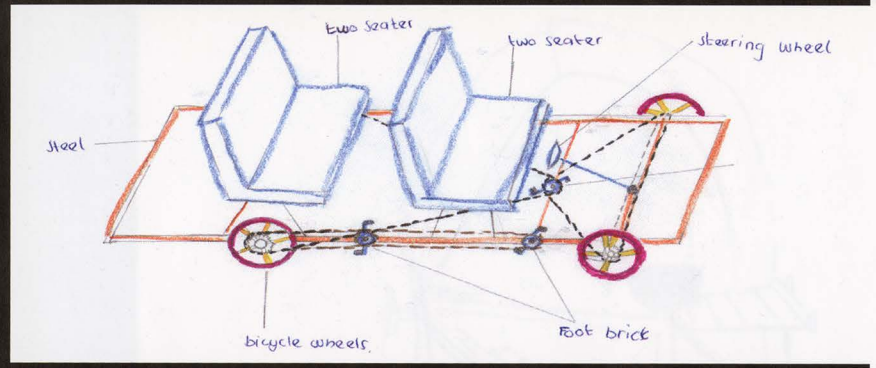


Figure 10: Chain powered 4 seater, with steering and foot brake on a steel platform

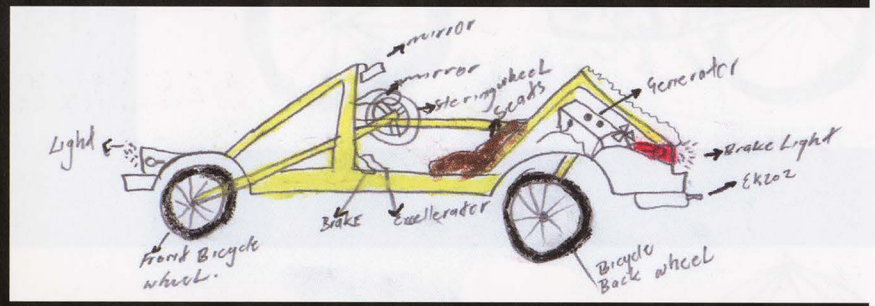


Figure 11: Generator powered go-cart

Figure 12: Various views shown in a detailed drawing

train – all familiar modes of transport. Motorcycles were the exception, but a couple of drawings depicted generators added to standard bicycles. Wheelbarrows were also included, and are clearly a well-established and valued means of transporting goods.

Group 2: Drawings showing methods of construction and use of materials

Technical understanding and ability were obvious in several drawings; these were executed as a plan or working drawing, showing materials, labelling of components, structures and different viewpoints and angles (Figures 10 – 12). Wheels were often indicated as originating from wheelbarrows or bicycles. These drawings clearly show confidence and technical awareness of what can be built with local materials available to the learners.

Group 3: Drawings showing socio-economic expectations

When asked to draw transport solutions, many learners related the question to their own environment and drew improved infrastructures, such as good quality tarred roads and public transport such as school buses (usually drawn with a good sound system!). Social services such as medical care and libraries were drawn in accessible locations (Figures 14, 15). These solutions reflect the reality of rural life and, more importantly, the expectations of the youth. One attention-grabbing drawing depicted money as the real transport problem and solution (Figure 13). Below the money is a drawing of a minibus taxi.

An observation made based on several drawings depicting infrastructure is the lack of road safety knowledge.

Figure 13: Money as a solution to transport problems

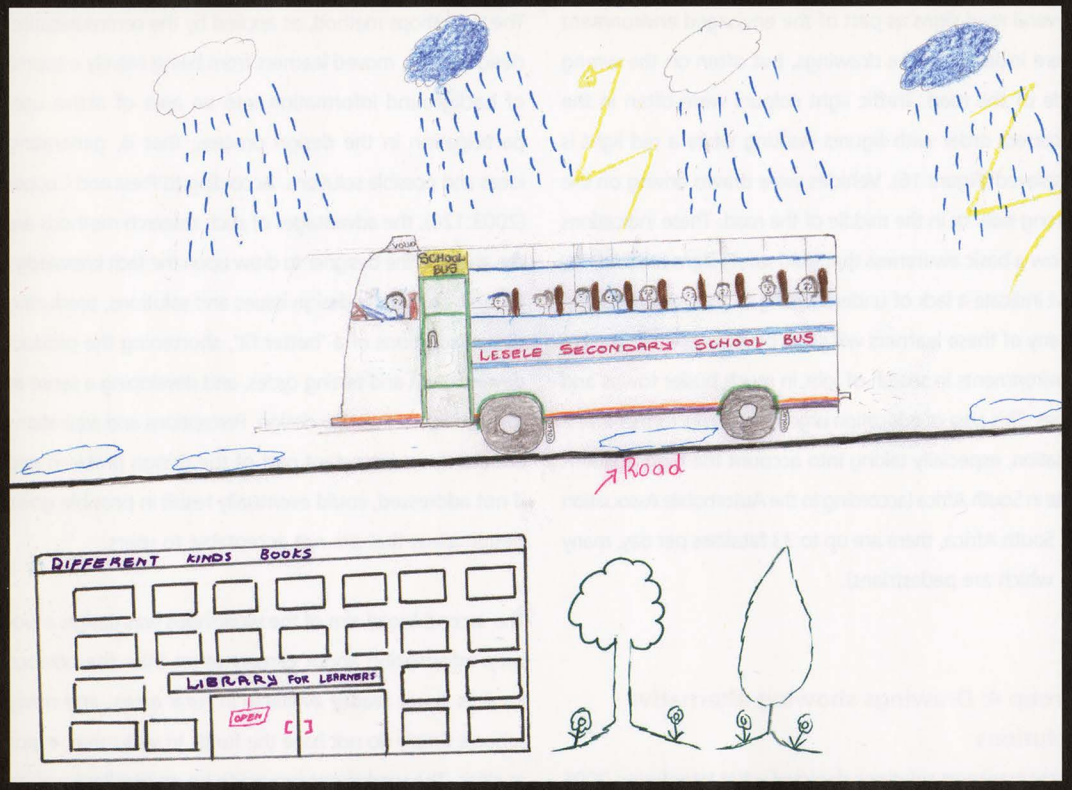
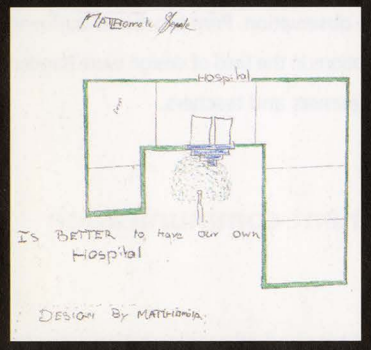


Figure 14. A school bus offers protection against both sun and rain.



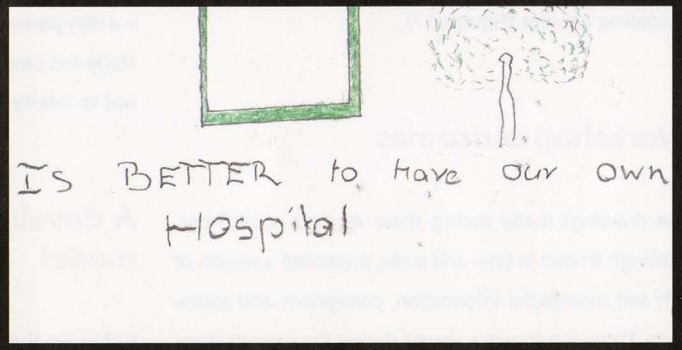
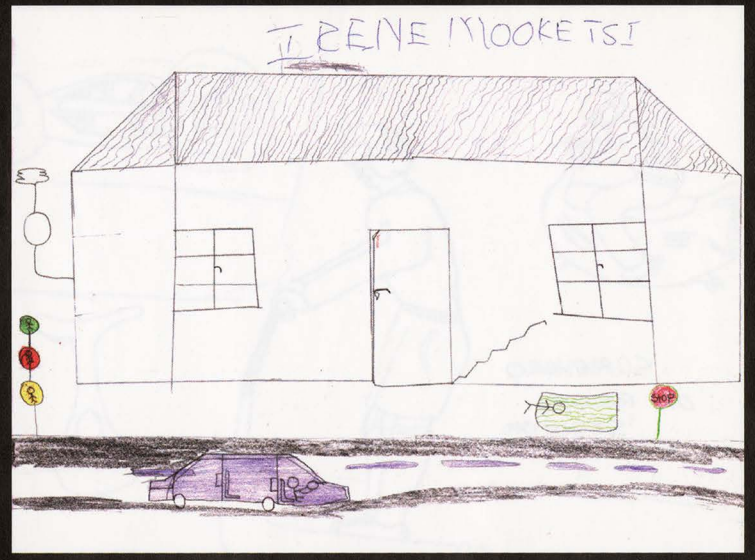


Figure 15. A solution to the difficult transportation of the sick.



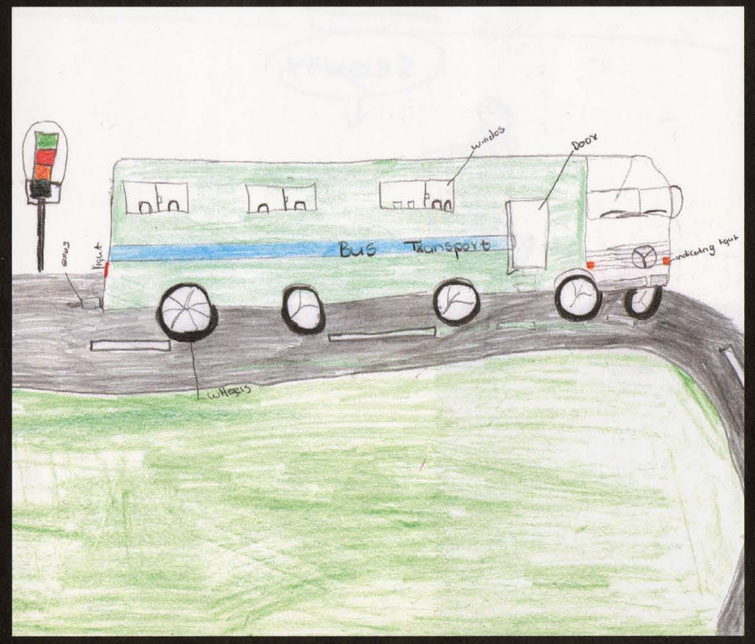


Figure 16. Incorrect traffic lights

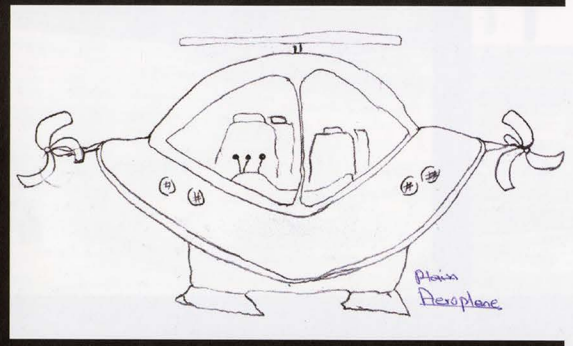


Figure 17: Alternative solutions

Several road signs as part of the envisaged environment were included in the drawings, but often on the wrong side of the road. Traffic light colours were often in the incorrect order with figures walking while a red light is displayed (Figure 16). Vehicles were drawn driving on the wrong side, or in the middle of the road. These indications show a basic awareness that road safety signs are present, but indicate a lack of understanding of their real meaning. Many of these learners will soon be leaving their familiar environments in search of jobs in much busier towns and cities. This area of education urgently requires further investigation, especially taking into account the high accident rate in South Africa (according to the Automobile Association of South Africa, there are up to 33 fatalities per day, many of which are pedestrians).

Group 4: Drawings showing alternative solutions

Some transport solutions depicted what Interdesign 2005 called 'alternative modes'. These drawings showed various ways of flying, jumping shoes, scooters and fantasy self-propelling vehicles (Figures 17).

Workshop outcomes

The drawings made during these research workshops, although limited in time and scale, presented a wealth of rich and meaningful information, perceptions and aspirations. These results were shared during the presentations at the end of the first week. A selection of these drawings was displayed for the designers in the other design groups.

The workshops method, as applied by the communication design group, moved learners from being merely a source of background information into an area of active user participation in the design process; that is, generating ideas and possible solutions. According to Press and Cooper (2003:126), the advantages of such research methods are the ability of the designer to draw upon the tacit knowledge of users to identify design issues and solutions, producing design solutions of a 'better fit', shortening the product development and testing cycles, and developing a sense of 'ownership' in the new design. Perceptions and aspirations are clearly an important part of the design problem and if not addressed, could eventually result in possible good design ideas that are not acceptable to users.

The second broad aim of the workshops was design advocacy. Information about careers other than the obvious choices is not readily available in rural areas, and many schools simply do not have the funds to visit career expos in cities. The workshops proved to be an excellent way to expose learners to the process of design. One learner asked if what he did in the workshop was a 'way to innovation' – a very perceptive observation. Print brochures outlining study and career options in the field of design were handed out to interested learners and teachers.

A development communication model

Following the field trips and other information sessions, communication designers were confronted with a large amount of information, experiences and observations. This

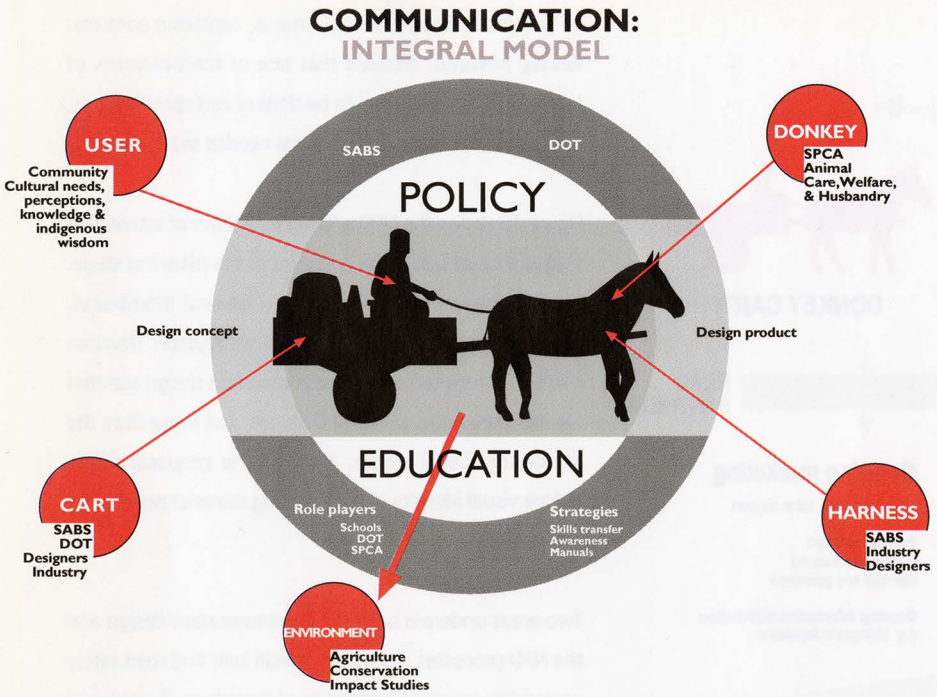


Figure 18: Integrated Communication Framework.

Designers: Communication Design Group Interdesign 2005. Copyright: SABS Design Institute

knowledge had to be internalised and interpreted; a process that, according to Gui Bonsiepe (2000/1:36-37), is part of understanding. Bonsiepe (2000/1:36) also points out how understanding can be facilitated and enhanced by means of visualisation; revealing generally invisible processes.

The first challenge for communication designers was to visualise possible communication models. Figure 18 illustrates the communication complexity of the improved donkey cart as a possible transport solution. The donkey, cart and user are placed centrally in this diagram. They are in turn encircled by policy and education. The key policy maker is the Department of Transport (DOT), inclusive of local and central government. The other policy maker is the SABS, which is responsible for the development of quality standards.

The lower half of the diagram contains those who play a strategic role in education and development, for example the NSPCA. DOT is also involved in education regarding road safety, previously mentioned as an area of great concern for South Africa. Education also includes skills transfer, for example developing manufacturing or maintenance capacity, as well as business skills transfer.

Five components radiate from the centre of the diagram:

- the user (donkey cart owners, drivers and passengers),
- the cart and its components,
- the environment, including conservation and agriculture,
- hitch and harness (to attach the donkey to the cart), and
- the donkey.

None of these can be ignored in the development of communication strategies, and it is important to note that several of these participants are 'silent'. These include 'silent members' of the community; for example women, children and the elderly, the donkey, and the environment; all of these need to be protected in this development relationship.

It is clear that there cannot only be one sender of a message, but what is not clear is who is actually responsible for integrated communication strategies and implementation. It is possibly the DOT, but many of the areas fall outside their realm. Other parties in local or central government may need to get involved (for example Environmental Affairs, Conservation or Social Development) and this invariably complicates the process. It is clear when looking at the complexity of the model that a multidisciplinary, holistic communication strategy is a necessity before communication designers can design effective, suitable messages.

Integrated new product development (NPD) flow chart

The second diagram designed by the communication design group (Figure 19) takes the communication model one step further by aligning the communication design with the industrial design and new product development process. In this diagram this process is visualised from the abstract and analytical (on the left of the diagram) to the stage of outcomes being real and synthetic (on the right of the diagram).

Charles Owen (2001:27-33) distinguishes three development processes. The first is the one-step development process where the design process starts with an old or preconceived concept to be revised. The second process, a two-step model, allows for a planning stage discovering 'what to make', and not only 'how to make' it. The best approach, however, is described as a three-step model, where project planning and concept designing are preceded by meta-planning. Meta-planning includes identification of issues, establishing of resources, 'planning the planning', designing

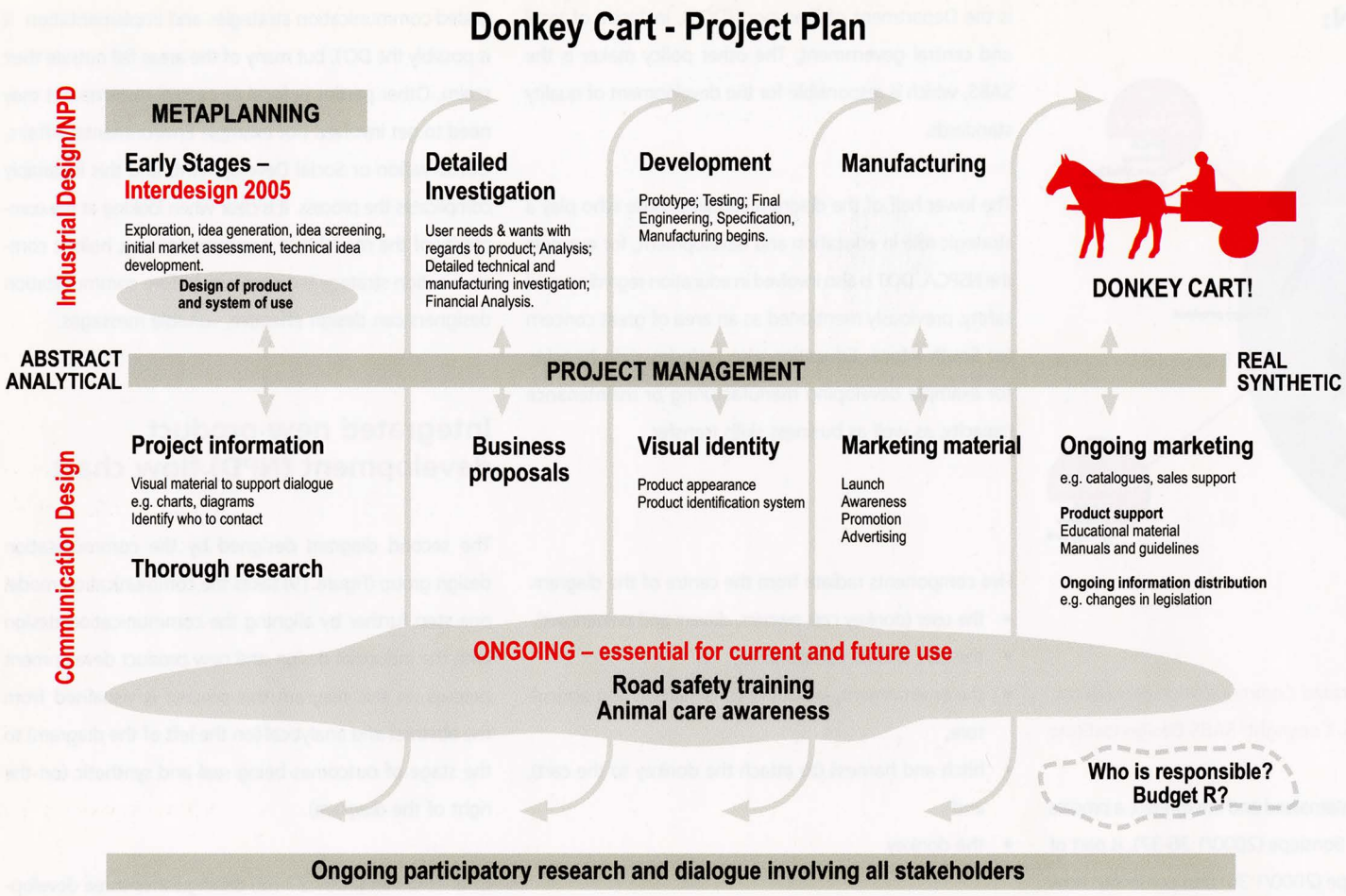


Figure 19: Integrated new product development (NPD) flow chart. Designers: Communication Design Group Interdesign 2005. Copyright: SABS Design Institute

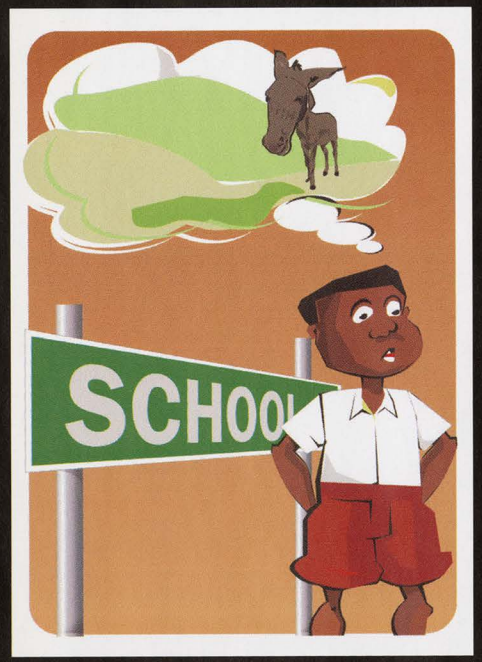
the methodology and preparing a project statement (Owen 2001:32).

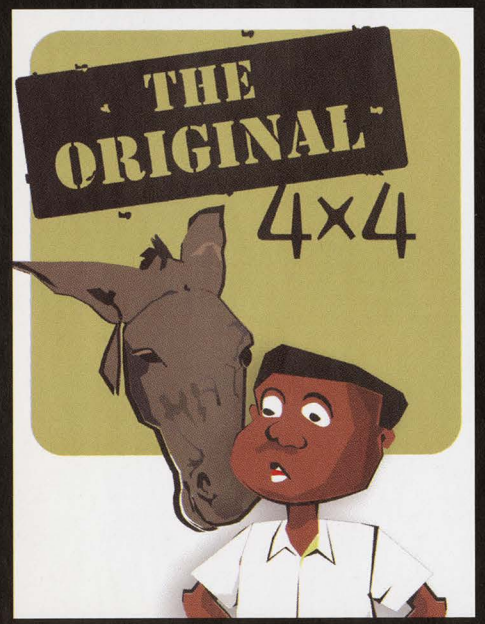
It is apparent that Interdesign 2005 moved into a two-step development approach when the Design Institute decided not to proceed immediately with the development of donkey cart specifications when asked to do so by DOT, but to look at other issues concerned in the development of sustainable rural transport. Much of the approach prior to and during Interdesign 2005 included some characteristics of Owen's three-step model, that is, exploring contexts. Reality, however, dictated that one of the outcomes of Interdesign 2005 still had to be donkey cart specifications, but it was clear that other solutions needed to be explored.

Figure 19 shows the NPD process as a series of interacting stages. Interdesign 2005 is shown as the planning stage. The subsequent stages take place beyond Interdesign, moving through a stage of detailed investigation, development and manufacturing. Communication design activities are interconnected to the NPD stages, and move from the exploratory initial stages, through the proposal stage, before visual identity and marketing material need to be developed.

Two areas underpin both the communication design and the NPD processes. These are animal care and road safety as ongoing concerns, and the most important, the ongoing involvement and participation of communities. Communication is the link between the foundation or core of a development project: the community, and the technological world.

During the workshop visual communication designers developed examples of designed messages showing project information, identity and marketing material. These included persuasive communication explaining the benefits of new solutions, educational posters concerning animal care, and promotional material. The idea of changing a donkey cart from a commodity type of transport to a possible brand caught the imagination of many of the members of the communication design group (Figures 20 – 22 show some of these ideas). The question remains – is it at all possible





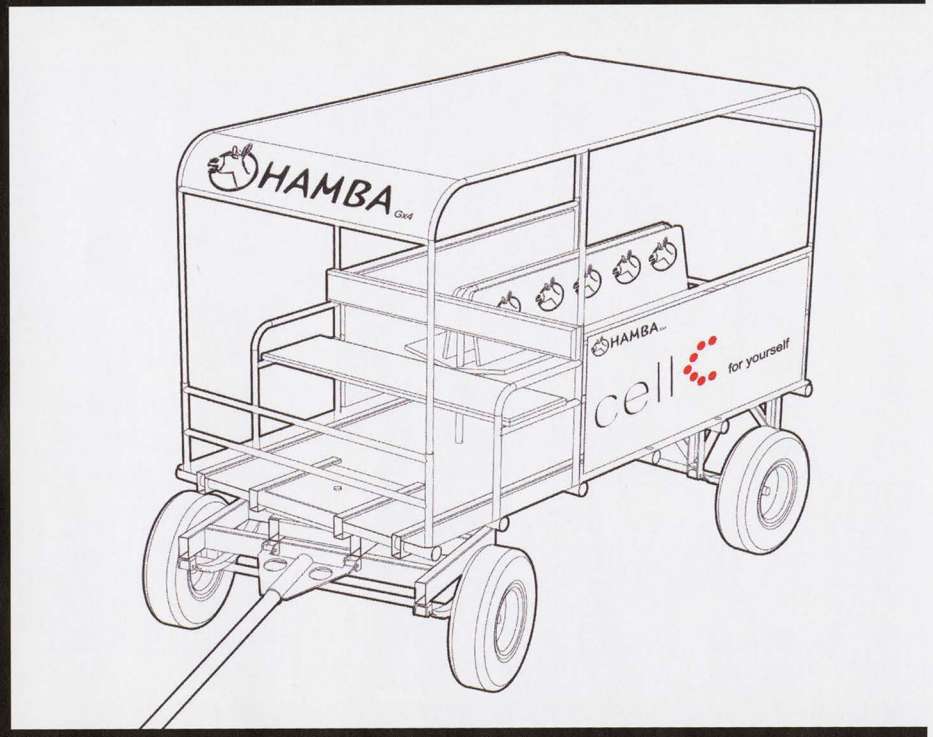


Figure 20 (Left): School posters

Figure 21 (Above): Donkeys rule!

Figure 22 (Top): Donkey cart branding

to make a donkey cart 'cool' through design, or will a donkey cart remain a symbol of poverty? The need for ongoing research that not only tests prototypes, but also acceptance and perceptions, is clear.

The question of who is responsible (for project management after Interdesign) and where funding will come from concludes the aspects shown in the diagram.

Feedback and lessons learnt

The first section of this article reported on the participation of communication designers in research, specifically examining the workshops held at schools. The second section showed the development of the two models. The first diagram presents a holistic communication model for the development of a donkey cart. Communication design is integrated with the NPD model in the second diagram, and is shown as an interface between technological and commercial processes and the community. Both diagrams explore, explain and envisage possible approaches and strategies.

On 21 September 2005, an Interdesign 2005 feedback seminar took place in Pretoria. Progress reports on prototype developments were made, including feedback on initial field-testing. The feedback seminar provided attendees with the opportunity to reflect on Interdesign 2005. The input and participation of the communication design group, as reviewed during the September feedback session, was incorporated in this feedback.

Communication design as part of a multidisciplinary approach

The inclusion of a visual communication group/expertise was seen generally as essential. It was recognised, however, that communication for development is specialised and requires strategic input. The inclusion of social scientists in the communication design group added another dimension to Interdesign 2005 and needs recognition. It was suggested that participants from disciplines such as sociology, anthropology, strategic management and field researchers needed to be included in future Interdesigns.

Communication designers were organised in a separate focus group for Interdesign 2005. However, an informal integration took place during Interdesign 2005, where industrial design groups often asked for input from the communication design group. It is strongly suggested that communication designers must be integrated in the industrial design groups in future Interdesigns.

One of the problems experienced by the communication design group was that the communication designers were the only group with local language skills and more importantly, local knowledge. Therefore, they were often asked to accompany other groups when translation was necessary. It was noted in the feedback session that communication designers should be seen as 'interpreters', but not as translators. These comments indicate that the inclusion of designers with local knowledge and experience in design for development projects is essential. A 'design team' from the community can also participate in the process, and thereby gain design experience. It was further strongly suggested that each group should have its own translator in circumstances where language may be a problem.

Communication designers' role during research and exploration

The input of the communication design group was recognised during Interdesign 2005 and informal consultation took place between communication designers and other groups, especially in the preparation of drawings suitable for field-testing. However, during feedback, many participants expressed the need for more in-depth research and it was suggested from the floor that communication designers needed to do some pre-visits before an Interdesign. This could mean that industrial design groups felt that communication designers explored and interpreted in a different manner to industrial designers. This difference could of course be owing to the practical advantage of local knowledge, as well as the inclusion of the social scientists in the communication design group. Nevertheless, it was clear during feedback that research, specifically for development design, needs further development regarding suitable and reliable research methodologies. The role that tertiary institutions and researchers can play in the development and testing of suitable methods was highlighted.

Design advocacy

The contribution of the communication design group as advocates for the design discipline amongst teachers and learners in the communities was recognised positively, and was part of the broader underlying aim of the Design Institute. Communication designers related well to the learners, and grasped the opportunity to learn as much from learners as the learners could learn from the designers. The enthusiasm and passion for design were clear.

Input on a meta-planning level

The principal contribution according to the feedback report was the participation of the visual communication group at a meta-planning level. The exploratory diagrams played a role in that they formed a basis for dialogue and future planning. In the diagrams, scenarios are visualised, showing the relationship of communication design with the NPD processes. Communication is a 'powerful tool that can improve the chances of success in development projects' (World Bank [sa]). Most importantly, communication design acts as a link between the technology driven NPD processes, business partners and policy makers, manufacturing and others involved in the product life cycle, and the community – who should all benefit from the intervention. It was recognised, however, that in order to give input at a real and synthetic level, the group will have to be involved over a longer period.

Attendees at this session agreed that Interdesign 2005 was a successful design workshop, but also saw it as only the start of a process that should be completed in order to be a meaningful developmental project and design promotion activity. However, Interdesign 2005 gave communication designers the opportunity to participate and confirm that design can contribute towards a better life for many South Africans.

Conclusion and future directions

It is clear that the organisers and other participants felt that the inclusion of communication designers was not only positive, but also essential. Initially, the role communication designers had to play was not clear to both industrial designers and organisers (and even to some of the communication designers unfamiliar with the idea of design for development). During the Interdesign 2005 workshop communication design's role manifested in two broad areas, the first was the generation of possible communication design solutions that could solve transport problems (for example information kiosks). The second area was perhaps more important and relevant than the first in this particular project: the possible development of various visual interfaces between government, industrial designers, developers, final solutions, society and users. The two-week format of Interdesign 2005 only allowed for this area to be generally mapped and selectively visualised, and could not be fully developed. However, the need for and future role of communication design became clearer to organisers and participants during this process.

Interdesign 2005 also pointed out, on a more pragmatic level, the need for communication designers with specialised skills and understanding in the field of development communication. This includes designing for various levels of literacy, as well as appropriate research skills. Interdesign 2005 provided a group of mainly young communication designers with valuable learning experience, enabling them to work with international industrial designers and a variety of other participants. This type of interaction is often not possible in a commercially driven studio. A further component in this learning curve is the move away from the familiar communication design process with a focus on fixed outcomes, to a process based on complex relationships built around the real needs of real people. Interdesign 2005 called for communication designers to participate with industrial designers in a project well known to industrial designers; an invitation answered by only a few dedicated, mostly young communication designers. It is hoped that Interdesign 2005 formed a foundation for future collaboration between the two design disciplines and professional bodies (Icsid and Icograda), establishing a starting point for a long-term design partnership with a common goal: designing a better world for all.

The outcomes of the communication design group would not have been possible without the input of the following group members:

Group members

Ukpong E Ukpong (Nigeria)
Boitshoko Leteane (South Africa)
Botho Maropefela (South Africa)
Anastasia Vaouline (South Africa)
Christiaan Venter (South Africa)
Moemedi Ramogapi (Botswana)
David Stairs (USA)
Nkosikhona Bonga (South Africa)

Social Scientists

Retha Claasen-Veldsman (South Africa)
Hettie du Plessis (South Africa)

Students

Nomfundo Zibi (South Africa)
Harriet Kasper (Germany)

Group leader

Ria van Zyl (South Africa)

References

Automobile Association of South Africa. [Sa]. Available: http://www.aa.co.za Accessed: 2006/03/06.

Bonsiepe, G. 2000/01. Design as tool for cognitive metabolism. The role of design in the socialisation of knowledge. *Image & Text* 9:36-39.

National Department of Transport. 2003. A draft rural transport strategy for South Africa. Available: www.interdesign2005.org.za/ pdfs/NatRuralTransStrategy.pdf Accessed: 2006/03/06

Owen, C. 2001. Structured planning in design: information-age tools for product development. *Design Issues* 17(1):27-43.

Press, M & Cooper, C. 2003. *The design experience. The role of design and designers in the twenty-first century.* Hampshire: Ashgate.

SABS Design Institute. 2005a. *Interdesign 2005*. Available: http://www.interdesign2005.org.za/pages/home.htm Accessed: 2005/11/24.

SABS Design Institute. 2005b. *Report – Design as a catalyst for development: comments and views on Interdesign 2005 on Sustainable Rural Transport*, 21 September, South African Reserve Bank Conference Centre.

World Bank. [Sa]. *What is development communication?* Available: http://web.worldbank.org Accessed: 2005/11/23.