

AUNT-SUE

Accessibility and
User Needs in
Transport for
Sustainable Urban
Environments



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The newsletter of the AUNT-SUE Symposium January 2006, Issue 1

What is 'AUNT SUE'?

Accessibility and User Needs in Transport for Sustainable Urban Environments (AUNT-SUE) is a new research programme to improve understanding of the perceptions and motivations of people who experience transport-related exclusion in cities.

AUNT SUE is funded by the Engineering and Physical Research Council under the Sustainable Urban Environments Programme. AUNT-SUE is led by London Metropolitan University in partnership with Loughborough University, University College London, RNIB, London Borough of Camden and Hertfordshire County Council.

Its aim is to improve understanding of the needs of people who experience transport-related exclusion in cities. Better empathy with disadvantaged users and would-be users will then be

utilised in a 'toolkit' to support planners, designers, operators, user groups and others working to make urban transport and street design more inclusive.

The research team will develop these decision-support tools using a combination of 3D Computer Aided Design, Geographic Information Systems, laboratory testing of prototype designs, and longer-term observation and analysis in real-life "testbeds".

The AUNT-SUE practitioner network has been set up for people involved in policy and planning, design, operation and for those representing user groups. The network facilitates exchange on best practice and members critically review the emerging toolkit and resources through a programme of events.



Presenting AUNT-SUE 2005/06

Our research team hopes that you will be able to participate in our symposium on 18th of January 2006 to mark the first year of the AUNT-SUE programme.

Date: Wednesday, 18 January 2006

Time: 9.30 am to 1.30 pm

Venue: Tower Building, Henry Thomas Room, London Metropolitan University.

The AUNT-SUE research team from Loughborough University, University College London and London Metropolitan University will present a review of

the research for 2005/06. The symposium will facilitate a discussion on the following topics:

- Principles into practice,
- Benchmarking accessibility
- Design-for-all
- London Borough of Camden and Hertfordshire County Council "testbeds"

Presentation previews and biographies of speakers are presented in this newsletter.

Tackling Exclusion in Transport and Urban Design: Principles into Practice

Stephen Shaw, Director of the Transport Research and Consultancy centre (TRaC) at the Cities Institute, London Metropolitan University and Richard Simon, iCube Ltd.

Presentation: 10.00am to 10.30am

Urban designers are sometimes given a rare opportunity to deliver significant improvements to a disadvantaged urban area: to make its streets and public spaces more accessible, attractive and inclusive. But, how to ensure that the design process responds fully to the needs of diverse communities - not just those that shout the loudest? How to gain commitment from infrastructure providers?

In the transport-led regeneration of Brick Lane, LB Tower Hamlets, the design team sought the views of local residents, workers and small businesses, as well as the growing number of visitors to *Banglatown*. A key challenge was to accommodate the 'community's' disparate, sometimes conflicting requirements, without compromising the vision and integrity of the

whole. The presenters will discuss the evolution of this project to upgrade the walking environment and consider how the outcome was influenced by over two years of consultation and discussion. They will also introduce a new tool for participation in street design that will be developed and tested by a research team drawn from AUNT-SUE, DISTILLATE and VivaCity 2020 consortia, with funding from EPSRC.

Photo: Stephen Shaw 2005 (Brick Lane)



Benchmarking Accessibility Accessibility planning and the need for benchmarking

Roger Mackett, Professor of Transport Studies at UCL, Juliet Solomon, Researcher of the Transport Research and Consultancy centre (TRaC) at the Cities Institute, London Metropolitan University and Trevor Mason, Principal Engineer for Transport Planning and Monitoring at Hertfordshire County Council.

Presentation: 10.30am to 11.00am

This project involves developing a software tool that can be used to assess how far transport policies help socially-excluded people reach transport benchmarks for social inclusion. These benchmarks reflect reasonable levels of access to various facilities such as shops, work,

"We believe there is a need for a new and more people-focussed approach to accessibility policy and planning from what is currently used if we are to make meaningful statements about the impact of accessibility on people's life chances, hopes and aspirations." Juliet Solomon

medical facilities and leisure activities. A survey has been carried out in Hertfordshire to establish what people think is a reasonable amount of money and time to spend traveling to work, to the shops for food and the doctor, and how much time and money they do spend on these trips. These data can be disaggregated by age, gender, employment status, social class, ethnicity, and so on. To complement this work, analysis is being carried out on National Travel Survey (NTS) data to establish which journeys are important to the less privileged groups and what should be facilitated if transport is to be inclusive.

These benchmarks will be tested by means of interviews and focus groups.

Design-for-all The HARDIAN Model at Loughborough University

J. Mark Porter, Professor of Design Ergonomics in the Department of Design and Technology at Loughborough University and Professor Graeme Evans, Director of the Cities Institute at London Metropolitan University.

Presentation: 11.00am to 11.30am

'Design for all' or inclusive design needs to move from being a philosophical viewpoint to being a central feature of design practice. Sadly, the commonly accepted view for mainstream design is to cater for only the 5th to 95th percentile users of a product or service. This is designing for numbers, not people. Today, we believe that it is no longer acceptable to continue this approach of deliberate 'designing out' of people who are in the top or bottom 5% of size or ability.

Furthermore, people can be excluded from using a product or service because of a wide range of factors including their personal cognitive and emotional dimensions. For example, a person may be able to reach a control but not able to manipulate it as required; able to see a timetable but not able to plan a journey route; able to walk 100 metres but not confident enough to cross a busy road; able to climb stairs but not willing to walk past a group of teenagers in an environment dominated by graffiti; and so on.

Our recent research in the AUNT-SUE project has been focused on developing both our inclusive design tool (HADRIAN) and an inclusive design quality indicator (DQI) audit tool for the whole journey environment.

AUNT-SUE "testbeds" London Borough of Camden and Hertfordshire County Council

Nick Tyler, Chadwick Professor of Civil Engineering and Head of the Department of Civil and Environmental Engineering at UCL.

Presentation: 12.00pm to 12.30pm

The "testbeds" in London Borough of Camden and Hertfordshire County Council enable AUNT-SUE to study accessibility profiles. In 2005 much work has now been completed in two case study areas of Camden, Somerstown and Elm Village.

A survey was carried out to include the pedestrian environment (footways, pedestrian crossings, streets) transport services (bus routes, stops), built environment and safety.

The coordinates of each data item were encoded in a MA Access database and located on a 1:2000 Ordnance Survey Map that can be used for GIS analysis.

The profiles are being analysed to determine exactly how to start evaluating accessibility in these areas. The project team hopes to reveal correla-

tions and relationships between variables, whether positive or negative, to classify barriers.

The final stage of the ongoing research in these areas would be to apply sensory and physical capabilities to find the extent of these barriers and the conditions where they apply to design appropriate interventions.

Photo: Dr. Ruth Sims 2005 (Design-for-all)



AUNT-SUE Research Team

The AUNT-SUE Consortium includes researchers from London Metropolitan University (LMU), University College London (UCL), Loughborough University (LU). Our partners include London Borough of Camden; Hertfordshire County Council; Royal National Institute of the Blind (RNIB).

Nastaran Azmin-Fouladi BSc, MSc, recently completed a PhD, is research fellow with the Cities Institute at LMU.

Keith Case BSc PhD CEng FErgS FBCS is Professor of Computer Aided Engineering and leader of the Product Realisation Technologies research group in Mechanical and Manufacturing Engineering at LU.

Graeme Evans PhD MA FCCA Dip.Com.Eval. (Principal Investigator) is Director of the Cities Institute at LMU.

Antoinette Fennell BSc PhD is Human Factors Scientist in the RNIB Scientific Research Unit.

John Gill is RNIB's Chief Scientist.

Diane Gyi MSc PhD DipCOT MErgS is a Senior Lecturer in the Department of Human Sciences at LU and has over 10 years experience of research in the areas of health, disability and the design of equipment and tasks.

Rana Imam BE MSc is a Research Fellow in the CTS at UCL, as well as a part-time PhD student in Transport Studies at UCL.

Andy Kemp, Accessible Transport Service, London Borough of Camden.

Roger Mackett BA MSc PhD FIHT FCILT is Professor of Transport Studies in the Department of Civil and Environmental Engineering at UCL. His research interests include analysis of the impact of policy, the inter-relationship between transport, urban activities and the environment, and public transport planning and operations.

Russel Marshall, MEng PhD MIEE is a lecturer in the Department of Design and Technology at LU. He has over 11 years of research experience in the design

area including product development, human modelling and user-centred design.

Trevor Mason, BSc MCILT is a Principal Engineer for Transport Planning and Monitoring at Hertfordshire. He has 17 years experience of working on strategic transport policy in local government.

J. Mark Porter BSc PhD EurErg FErgS (Co-Investigator) is Professor of Design Ergonomics in the Department of Design and Technology at LU. His Design Ergonomics Research Group specialises in inclusive design, vehicle ergonomics, human modelling CAD, hand performance and tool design, design and disability, and user centred design.

Juliet Solomon TRaC at the Cities Institute, LMU is known on issues concerned with users, accessibility, young people, local transport policy, rural and community transport, and co-ordinated the pathbreaking study, "Social Exclusion and the Provision & Availability of Public Transport" for the DETR (2000).

Ruth Sims BSc MSc PhD is a Research Associate in the Dep. of Design and Technology at LU. Her qualifications include a BSc in Psychology, an MSc in Ergonomics, and a PhD in the area of 'Design for All'.

Stephen Shaw BA PGD TP MRTPI FCILT FRGS is Director of the Transport Research and Consultancy centre (TRaC) at the Cities Institute, LMU.

Helena Titheridge BSc MSc PhD is a lecturer in the Centre for Transport Studies at UCL. She has over 8 years of research experience in the areas of land use, transport and GIS and has been involved in several research projects related to measuring accessibility for different socially disadvantaged groups.

Nick Tyler MSc PhD ARCM (Co-Investigator) is the Chadwick Professor of Civil Engineering and Head of the Department of Civil and Environmental Engineering at UCL. He has a track record of research that brings conceptual innovations and their implementations together in an environment in which implications, effects and outcomes can be tested.

NEWSLETTER OF THE
AUNT-SUE CONSORTIUM

London Metropolitan University

Stapleton House/ TRaC

277-281 Holloway Road

London N7 8HN

Tel.: +44 207 133 3028

Fax: +44 207 133 3081

Email: trac@londonmet.ac.uk

Event for AUNT-SUE network members

10th May 2006, 10am, London: RNIB Seminar on Location-Based Services: Organised by PhoneAbility in collaboration with COST219ter, Ask-It, BCS HCI Group and AUNT-SUE

The seminar will explore the role of location-based services to help people with disabilities, and hear from a number of projects active in this area.

For further information please contact Dr John Gill
(Email: john.gill@rnib.org.uk; Tel: 020 7391 2244)

