

MOVING FORWARD >>>

CREATIVITY WORKSHOP ON NEW EXPERIENCES FOR MOBILITY

Århus, January 23rd - February 3rd 2006
Facilitated by Simona Maschi

Århus School of Architecture
Department for Design

Sponsored by Velux Foundation

'Transportation is the foundation of our entire economy and quality of life. Everything we eat, drink, and consume is transported to us from somewhere else. Transportation takes us to work, on vacations, and to recreational activities. It is an integral part of our health care system, providing emergency transportation and delivery of medical services and supplies. Transportation links us to the global economy, allowing us to import and export both goods and material'.

VISION 2050: AN INTEGRATED NATIONAL TRANSPORTATION SYSTEM
Federal Transportation Advisory Group, Usa, February 2001

ABOUT THIS WORKSHOP

FRAMEWORK

The fact that our everyday life has significantly become 'digital', doesn't necessarily mean that people and goods move less than in the past. What have changed are the reasons for moving from one place to another. What are the emerging needs of people that haven't been answered by the current transportation system? What should be designed to answer those needs? In this framework, new attractive products and service ideas are needed and therefore design can play a very strategic role. By using tools of creativity, user observations and rough prototyping, this workshop explores and speculates about the need and motivation for people to move.

THEME

Starting from the general theme of innovation in the context of mobility, we explore two sub-themes for the design exploration.

1) Inside the bus

Our assumption is that using the bus is a good idea for valid reasons, the main reason being for environmental sustainability. Still, claiming that using the bus is potentially better for the environment than using cars is not enough to motivate people to do so.

Here the starting point of the design exploration is the use of buses. How can we improve the experience of using buses? What new values/functionalities could be added to using the bus for going from A to B? What are the key factors

to be considered to make the choice of taking the bus more attractive and to more people?

2) Outside the bus

Mobility is not just about vehicles, timetables and tickets. There are some more hidden and intangible situations that are indirectly connected to the topic of mobility. For example, picking up children at the kindergarten, weekly grocery shopping at the supermarket, Saturday morning jogging at the park.

Here the starting point of the design exploration is broader than the one for the bus and it has to be found in the way people organize their everyday life. By working on this sub-theme workshop participants are challenged to reconsider the role and the value of transportation providers. How can we extend the brand of a bus company to different times, places and activities in our everyday? What if the bus and activities in our everyday? What if the bus company took care of home delivering my grocery? What if the train company was in charge of welcoming tourists and foreign travelers in town? What if the ministry of transportation was involved in my dieting program?

DELIVERABLES

Transportation in general is a huge topic and has a strategic impact in both local and global terms. Innovation in this field requires a balancing act amongst economic, technological and social factors. The delivery of this two weeks workshop is not intended to be real-world final solutions, but rather a set of provocative design proposals to stimulate further strategic discussion.

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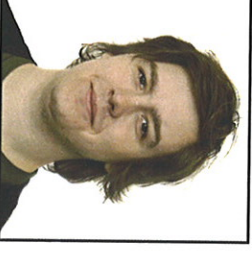
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16->



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Participants

Students

- 01. Charlotte Bech, Denmark
- 02. Mads Bindrup, Denmark
- 03. Aviaja Borup, Denmark
- 04. Søren Bro, Denmark
- 05. Stephen Christensen, Denmark
- 06. Henrik Ebbesen, Denmark
- 07. Astrid Graabæk, Denmark
- 08. Maria M. Hansen, Denmark
- 09. Anna Jensen, Denmark
- 10. Rasmus Madsen, Denmark
- 11. Christina Mejborn, Denmark
- 12. Jeppe Olesen, Denmark
- 13. Adnan Oprasi'c, Denmark
- 14. Trine Roed, Denmark
- 15. Liselott Stenfeldt, Sweden
- 16. Mads Thomsen, Denmark

Teachers

- 17. David Cuartielles, Spain
- 18. Simona Maschi, Italy

Assistants

- 19. Marcus Hannerstig, Sweden
- 20. David A. Mellis, USA
- 21. Tobias Pettersson, Sweden
- 22. Pontus Stalin, Sweden
- 23. Björn Wahlström, Sweden
- 24. Vinay Venkatraman, India
- 25. Nicholas Zambetti, USA

DAY 1

GOAL: Get to know each other, get familiar with the workshop process, start shaping an overall idea and perspective on the topic of mobility.

DELIVERABLE: A visual mood-board mapping the variety of definitions and approaches raised by the workshop participants.

TODAYS NOTES: 10.00 We start the workshop with a presentation by Simona. She introduces the topic of the workshop, its approach and its expected deliverables. She stresses the fact that this workshop should be about new ideas for everyday people in the real world.

14.00 David makes an introduction to the state of the art of technology. Under the paradigm of maximum freedom through minimal impact he looks into how to coordinate existing technologies to improve human mobility. It is the interlink of transportation and communication that we want to study. Communication standards like GSM or UMTS are ubiquitous in our lives.

From now on there won't be any more lectures, it will all be about brainstorming, ideas, sketches and prototypes!

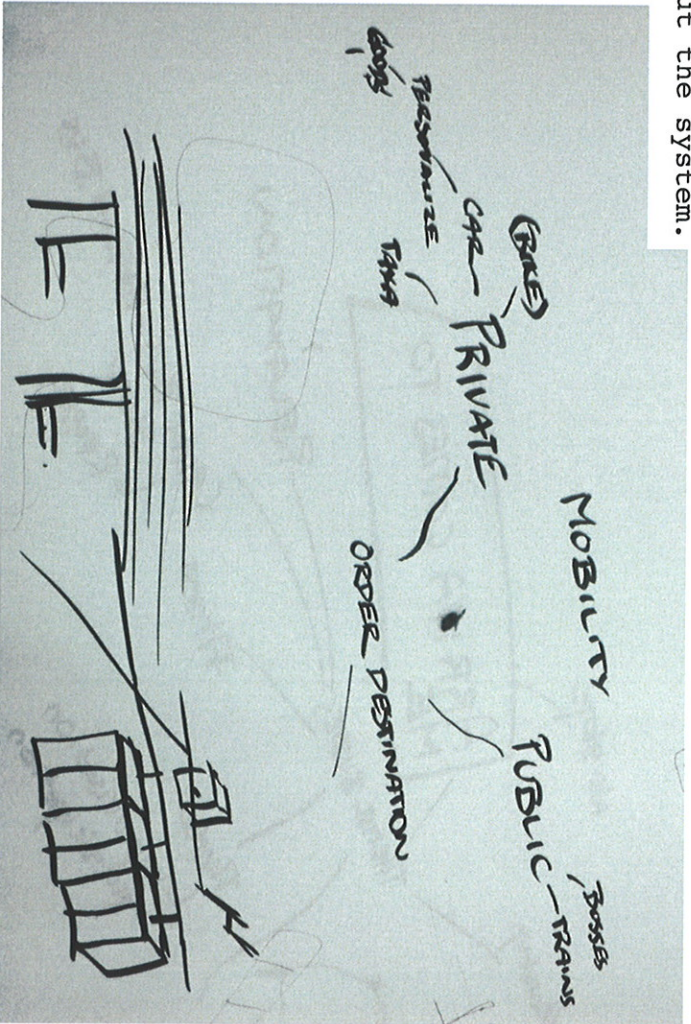
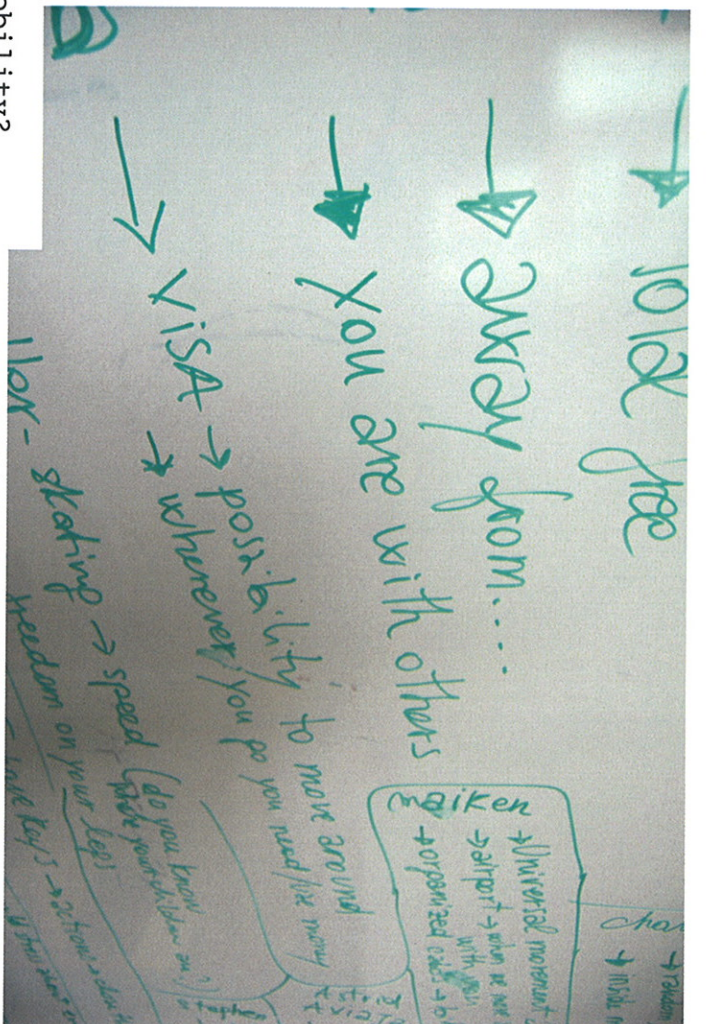
15.00 Collect and show 3/5 inspiring images that you associate with the concept of mobility: tell us about what you think, feel, and imagine when we talk mobility!

17.00 The mood-board is up on the wall and we have collected a set of 17 definitions on mobility! One definition for each workshop participant.



What is mobility?

Start mapping out the system.





GOAL: Identify interesting 'Design Zones' and generate new ideas for the bus experience.

DELIVERABLE: Collection of sketches proposing new concepts of products, services and strategies for both the short and long term future.

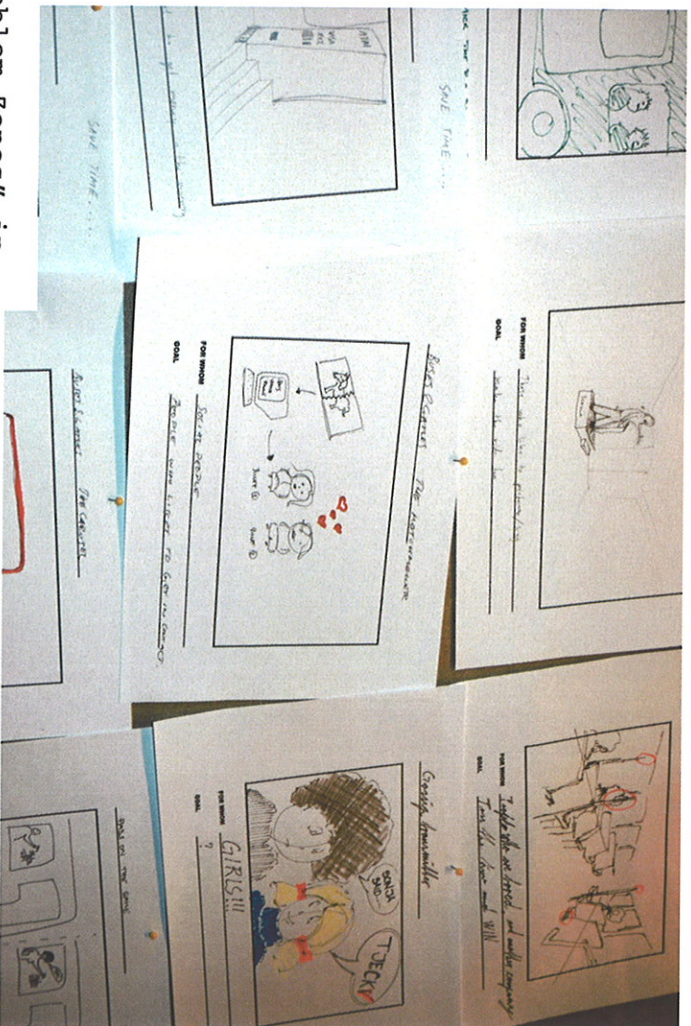
TODAYS NOTES: 10.00 Brainstorm "Inside the Bus"

Working in pairs, all the workshop participants start a creativity session on the following topics:

BUSES & HEALTH, BUSES AND COMMUTERS, ARRIVA TIME, BUS SOUNDSCAPE, SLOW BUS, BUSES & GAMES, THE BUS STOP, SAVE TIME WHILE MOVING, EVERYTHING ELSE, I DO NOT KNOW WHAT TO DO, CHILDREN-ELDERLY-FOREIGNERS.

14.00 Presentation of all the 50 ideas and sketches generated during the brainstorm session.

16.00 Field research. Go, observe and meet the people! What do they think? What do they want? What do they like? Or don't like? Come back tomorrow answering the following questions: What did you see? What did it mean? What could we design for it? The goal of this session is to discover and document knowledge about mobility: the focus should be on interesting 'problems' rather than on solutions. As a way to be inspired from real world situations, at this point the workshop participants stop thinking in the classroom and continue their design process while putting themselves in the real context where mobility is happening.



Finding new "Problem Zones" in mobility to be answered by design.





GOAL: Identify interesting 'Design Zones' and generate new design ideas for mobility. Yesterday the focus was on the bus experience, today is about the way people deal with mobility in general.

DELIVERABLE: Collection of sketches proposing new concepts of products, services and strategies for both the short and long term future.

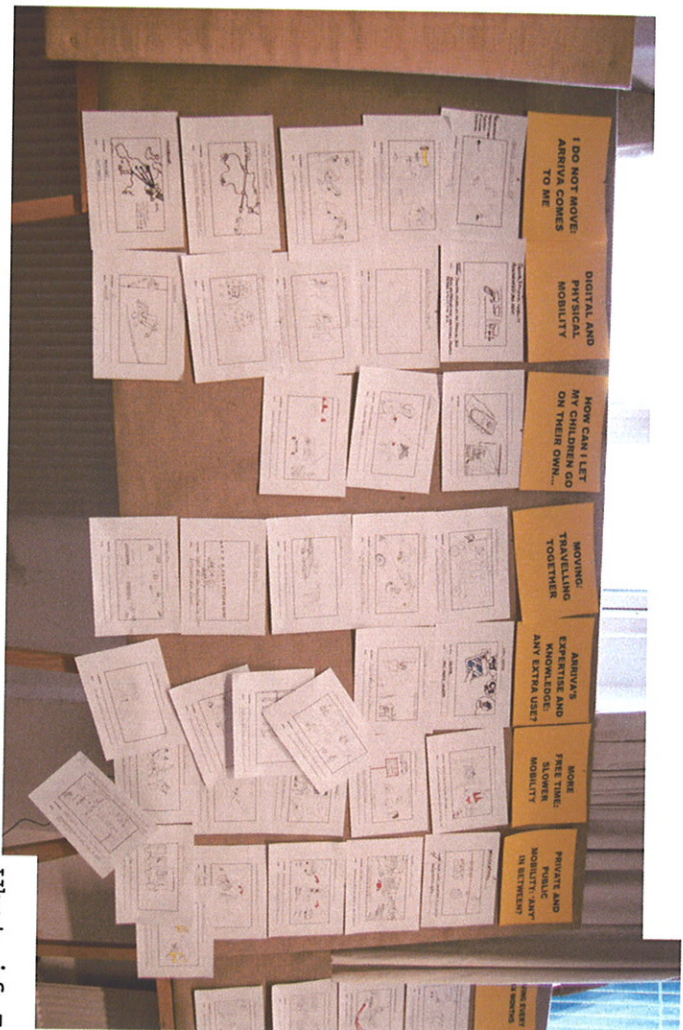
TODAYS NOTES: 10.00 Presentation and discussion about results from the field research. The workshop participants report about where they have been, what they have seen, who they have met and talked. Interesting insights and observations are raised.

14.00 Brainstorm: "Outside the Bus"

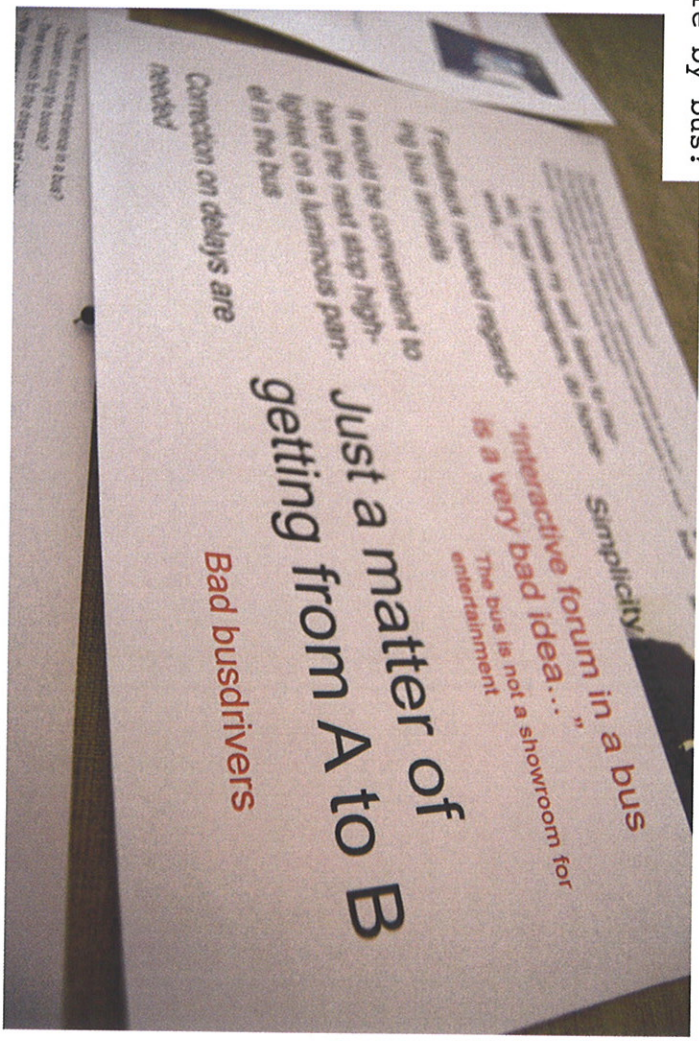
Still working in pairs, we run a second creativity session on general topics connected to of mobility, such as:

MORE FREE TIME: SLOWER MOBILITY, MOVING/TRAVELLING TOGETHER, MOVING EVERY SIX MONTHS, HOW CAN I LET MY CHILDREN GO ON THEIR OWN..., ARRIVA'S EXPERTISE AND KNOWLEDGE: ANY EXTRA USE?, I DO NOT MOVE: ARRIVA COMES TO ME, DIGITAL AND PHYSICAL MOBILITY, PRIVATE AND PUBLIC MOBILITY: 'ANY' IN BETWEEN?

16.00 Presentation of all the 40 ideas and sketches generated during the brainstorm session.



What if I could move my furniture by bus?



DAY 4

GOAL: Define your design brief! Form your design team!

DELIVERABLE: Each team defines the concept for a new product or a new service for mobility to be explored in this workshop.

TODAYS NOTES: 10.00 Concept development. On the basis of the 2 brainstorming sessions and the field research, each team chooses a topic/problem/issue related to mobility and start developing a concept for a new product/service to improve the present situation.
17.00 at the end of a long day of sketches, thinking and ideas, all 5 groups have identified the concept they want to work on!



GOAL: Envision scenarios of future mobility

DELIVERABLE: 5 video scenarios or animated story-boards telling stories about how mobility could change our everyday life in the near or long future.

TODAYS NOTES: 10.00 Scenario development. By now each team has an idea of what to design in this workshop. Now it's time to create a story about that idea. Each group is asked to build a scenario to explain how their idea for a new product or a new service would work in real life. In building scenarios, each team answers the following questions:

- 1) What is your overall mission? What's the value proposition of your project?
- 2) What is your idea? What is the concept? Is it a new service? Is it a new product?
- 3) Who is it for? Who are you designing for? Who will benefit from this idea?
- 4) Who are the key stakeholders for your idea?
- 5) Tell us the story of what happens and how it works as a movie or an animated storyboard that describes the user experience.

14.00 All 5 groups present their scenarios. The afternoon went well and we got good feedback from our guests Patrizia Venturrelli and Brett Patching.

The following 5 pockets contain booklets that describe each project in detail

SQUEEZY How might we let our children travel on public transit in a safe and secure manner? This team has developed a small device for children to be independent from their parents when moving about in the city, going to school or meeting their friends.

ARRIVA RECHARGE Urban areas are full of activity and motion. The opportunities presented by the capture these small but plentiful bursts of kinetic energy are not taken advantage of. If we could capture the kinetic energy associated with simple activities, such as walking to work or exercising at the gym, we could work together to provide energy for the community.

SOUND JOURNEY When we are on a bus, we often want to relax and take a break. This project is about sound bubbles for personal audio experiences while traveling. From listening to music or a story read for you, these new experiences make bus travel more enjoyable.

"HAVE A SEAT" Feeling uncomfortable to sit next to strangers, people tend to isolate themselves on the bus. If open seats are more welcoming, perhaps conversations and friendships can be formed. This project is about a new information system that notifies free and busy seats on the bus.

FLOW Feeling lost in a new city? Or want to seek out the best deals in your own city? This project explores new way-finders for people using public transportation in the city and new ways of facilitating local merchants to place focused micro advertisements to bus users.

Thanks to:

>>> Jorgen Rasmussen and Birgitte Geert Jensen for having inspired and supported the idea of a "MOVING FORWARD" workshop at the Institute for Design at the ARKITEKTSKOLEN AARHUS.

>>> the Velux foundation for sponsoring this project.

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Department for Design

FLOW
EASY ACCESS / MICRO TREAT

DAY 6 working out what concepts to use. Narrowing things down...

DAY 7 prototyping user interfaces.

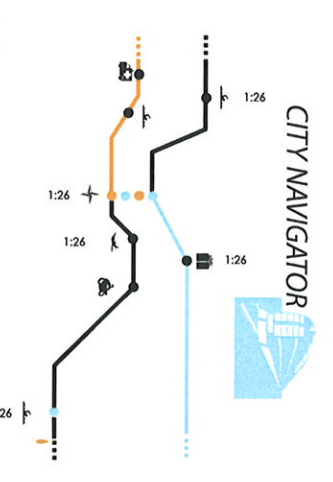
What to use. How to put it together.

DAY 8 All about mocking up.

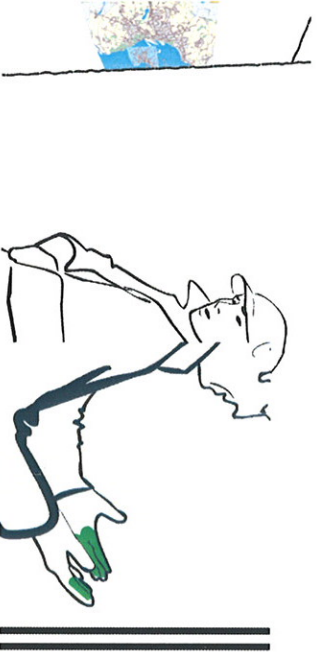
DAY 9 Try out the prototype with people.

Prepare the final presentation.

DAY 10



WHERE...????



<p>SUNSET BOULEVARD</p> <p>Køb en sandwichmenu med denne kupon og spar 20%</p> <p>SUNSET BOULEVARD</p>	<p>Kwickly</p> <p>FEM LUNE RUNDSTYKKER TIL EN 5,-</p> <p>Kwickly</p>	<p>FA EN POSE ØKOLOGISK KÆFFE MED HEM TIL 12 PRIS</p> <p>baresso</p>
<p>SUNSET BOULEVARD</p> <p>Køb en sandwichmenu med denne kupon og spar 20%</p> <p>SUNSET BOULEVARD</p>	<p>Kwickly</p> <p>FEM LUNE RUNDSTYKKER TIL EN 5,-</p> <p>Kwickly</p>	<p>FA EN POSE ØKOLOGISK KÆFFE MED HEM TIL 12 PRIS</p> <p>baresso</p>
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Moving Forward>>>

Comment / Reflection: Our main focus of the first week has been put aside by the development of prototypes in the second week. This means that the prototype is stronger than the idea. The mission statement being just do it...

Next Steps: Go back exploring the main topic further, investigating. Integrating the ideas deeper into the context of the bus and the city ... then sell the whole package to Arriva and live of the profit on a Caribbean island. Drugs sex and rock'n roll baby.

Mission: We want to smoothen the small moments of irritation during a short bus ride in context of the centre of Aarhus. The goal is to apply subtle changes to the system in relation to two specific problems. It's our mission to simplify payment while adding a treat value to the ticket.

Context: The target users are basically everyone who uses the bus system, though focusing one locals and tourist who use the bus for short commuting purposes in the centre of Aarhus. The intention being improving the flow for everyone that comes in touch with the system, being locals in Aarhus, tourists and in general people passing through the system.

Concept: The concepts are based on the future development of the ticketing system to a RFID embedded paying system being a form of credit card. The confirmation system, or feedback is a paper ticket with a micro-advertisement.

The other concept is a personal paper based tourist navigator. Basically it connects landmarks to a selection of bigger bus stops throughout the city. The idea is you know where you are and you know where you want to go and the navigator guides you through the bus infrastructure.

Prototype: Two concepts have been prototyped: One smart device for tourists and a ticketing system for micro-advertisement. The goal of the prototypes is to establish the value of the idea.

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SQUEEZY
MOBILITY DEVICE FOR CHILDREN

DAY 6 Develop our start-outconcept: the childrenbus - rethink and specify the situation. This was now to be developed into a device for the child. What can help the child to be independent in an early age when using the public transport?

DAY 7 We try to put illustrations to our ideas and to develop the form of the device. The challenge of the design, is how to communicate information from the device to the child, in the most simple way and at the same time keep the playfulness.

DAY 8 A physical prototype is to be developed. We use silicone to form a model to demonstrate the function of the device through a connection to the computer. We work with animating different face expressions in illustrator and flash.

DAY 9 Putting the scenario together in Flash. Building the prototype. Finding a name...

DAY 10



Moving Forward>>>

Comment / Reflection: Our process has been like a roller-coaster, going from one idea to another. In the first week, we were insecure on whether to develop the ideas on moving with the bus system, or go deeper on the idea to simplify the transportation for the child. This was a longer process and we ended up with putting a lot of energy researching on both of them. This wasn't very effective, because we finally wanted to solve it all.

After deciding the complex of the problem, our process has been more focused. There has still been a lot of discussions, but only constructive ones. We now imagine one situation and make the design more specific for that.

Next Steps: If we've had more time, we would probably work more on the direct communication between the child and the device. We would also had wanted to involve the children more in our project. They could have helped us to develop the device from their point-of-view and to inspire us when shaping the device.

Mission: To give children a feeling of safety when travelling on their own in their everyday life. Helping them finding their way through confirming their choices when using public transport.

By helping the child using the already existing transport system, we give the parents more freedom and flexibility because the child becomes more mobile and independent.

Context: For children in the age between 5-10 years old who lives in the city and can use the bus as a way to get to school and after-school activities. The system is based on a network which organises activities that is part of the child's routine and repeats every week, like going to school every morning at 8.00 AM or playing football every Tuesday at 6.00 PM in the local club.

Concept: A device for children in the city as a help for using the public transport. In combination with a GPS-system, a RFID-tracking device in the buses guides and alerts the child so he/she arrives safely. The product is more like a pet/toy that reacts on the child and the surroundings. It is not like a teacher or a parent, but more a friend on the way navigating the child in confusing situations. It can be attached to both clothes, bags and also be used as a necklace.

Prototype: By combining a physical prototype with an animated prototype, we try to demonstrate how the device mediates information in specific situations. The physical prototype is a shell made of half transparent silicone that contains a motor for producing vibrations and LEDs for generating lights. The animated prototype shows how a display combined with the physical prototype operates when activated.

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ARRIVA
RECHARGE

6 DAY The project moved from health to energy.

Discussing the targetgroup a lot

7 DAY Visual language

Physical model
A dummy
evidence

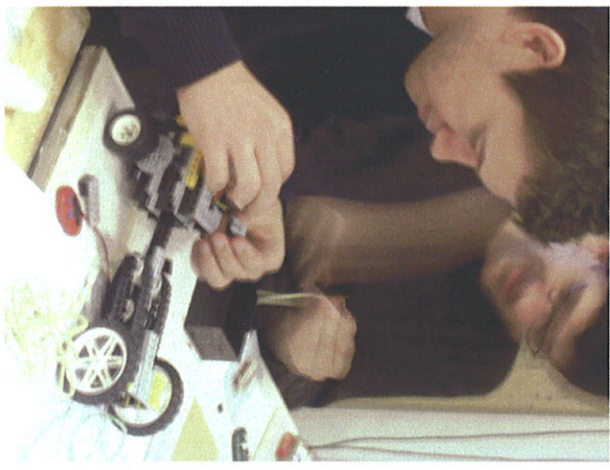
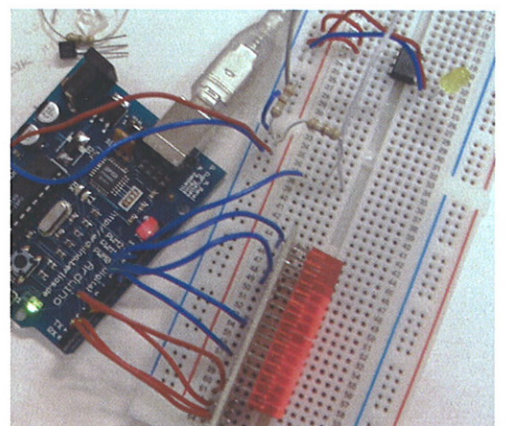
8 DAY Print ads
Video (story-board)

Physical LEGO model
Video Filming

9 DAY Final animations.

Building a model of a bus. Edit video.

10 DAY



Moving Forward>>>

Comment / Reflection: In the future, companies must involve themselves in people problems. This means that the journey from A to B must be as pleasant as possible and should make the users feel part of something, feel that they make a difference in the everyday life and that they are contributing to the society.

Next Steps: Next step would be to involve other companies in the service, so that people can exchange the energy to value in other companies than Arriva. The service would start a movement that increases environmental- and health awareness.

Mission: Promote Arriva by designing a new positive profile for the company. Make people combine using Arriva with good conscious.

Context: In a world with pollution and increasing health problems we try to combine the improvement of physical actions with the promotion of a company. The company is Arriva.

Concept: The Kinetec energy produced by people everyday activities are stored in a device. When buying a ticket you can exchange the amount of energy to a discount. The energy donated by all the passengers will be reused by the company. The passenger gets fit, helps the environment and saves money.

Prototype: A device that collects and stores Kinetec energy. The device is working together with another machine placed in Arriva vehicles which drains the device from energy and convert it into a discount on the ride.

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SOUND JOURNEY
A BUS TICKET WITH ENTERTAINMENT

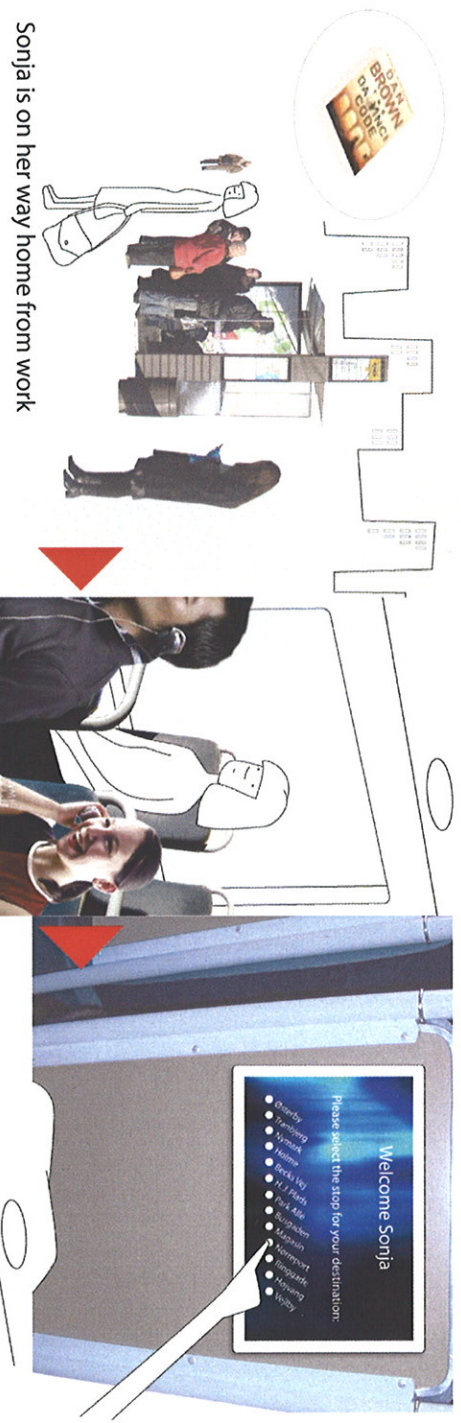
DAY 6 We decided to develop the book ticket concept.

DAY 7 Planning the rest of the week. Building a mock-up.

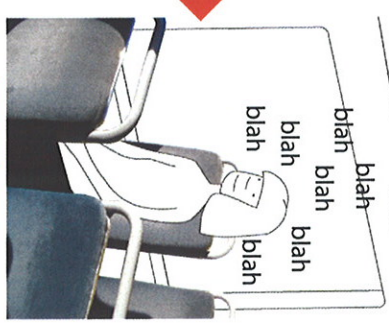
DAY 8 Testing the mock-up on bus passengers. Working on prototype 1 and 2.

DAY 9 Real world testing of the prototype. Prepare presentation.

DAY 10



Sonja is on her way home from work



other characters for the target group



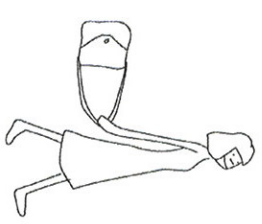
Mozart Mats



Active Anton



Fashion Fiona



Mission: Add more value to the experience. Personal quality time. Personalize the bus trip.

Context:
Problem: Uncomfortable bus trip. "A waste of time".

Who: All passengers

Concept:
Idea: A new service which creates a private relaxation sphere around the seats.

A bus ticket which consist of stories, music and debate.
Passengers buy a card with an illustration/theme they like without knowing exactly what it contains.

New Value: Gain more of the time. Personal sound space. Relaxation — gives the passengers extra energy for the rest of the day.

Prototype: Mock-up: A cardboard model of the docking station and three paper cards used for testing in busses, with computer simulation.
Prototype 1: A tangible model of the docking station and a selection of cards. The model illustrates the product and the experience is simulated by computer.
Prototype 2: Flash model illustrating the interface and sound experience.

Moving Forward>>>

Comment / Reflection: Very good and interesting workshop. The brainstorming process in the beginning of phase one was interesting but too far-reaching. There were too many concepts presented.

Next Steps: The workshop has created a good base for the rest of this terms project.

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“HAVE A SEAT”
DEALING WITH CROWDS IN CITY BUSES

DAY 6 Brainstormed new ideas.

Experiments
- low tech signs -
busride - people's
reaction.

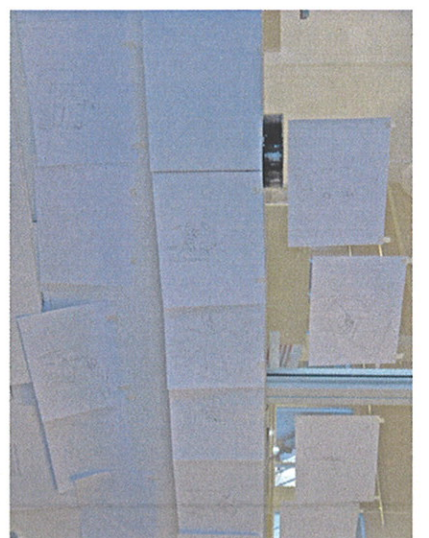
DAY 7 Talked about the reactions we got on the busride.

Got an idea for a prototype/device.

DAY 8 Made our prototype.

DAY 9 Tried our prototype in a bus on real people. Made our presentation.

DAY 10



Moving Forward>>>

Comment / Reflection: It has been fun using other work methods than we are used to and seeing devices/products that we are not used to making ourselves hear at our school.

But it's been hard going home at 5 or 6 o'clock every day - everything is closed and you are too tired to even go and see a movie.

Next Steps: Advanced electronics, motion sensors on every seat in the bus and touch screens. Displays at every bus stop and in every bus in Århus.

Mission: Making the travelling on citybuses in Århus a less stressful experience and a pleasant break in your everyday life. The idea is to give people the possibility to deal with the crowdedness in the bus by knowing how crowded the bus is before getting on it, and when entering the bus choosing a free seat.

Context: Public transport is overall a benefit for the environment and society, but many people feel it's uncomfortable sitting close to strangers and generally find the ride in a citybus stressful. Our core users are: Pregnant women, elderly, parents with small children, the walking-impaired and stressed and tired people.

Concept: Seating-system for the citybuses. Making people feel more comfortable taking a free seat beside a stranger. Considering the relationship between people and the barriers there are between us when we (don't know each other). Interaction between strangers. Making the bus ride less stressful. Encouraging common courtesy.

Prototype: A display, showing the seating in the bus, feels you which seats that are taken and which seats are free. This display will be placed at the bus stop and in the bus. On the display at the bus stop you can see how crowded the next bus is and how many free seats there are left. On the display in the bus (placed at the entrance by the ticket machine) you can decide which free seat you want to sit in.