

**o que** Pensando Design Automotivo pretende estimular o desenvolvimento de investigações acadêmicas sobre o assunto, informando alunos e pesquisadores interessados acerca da prática profissional dessa área. Busca ainda, atualizar o estado da arte sobre o design automotivo no meio acadêmico.

Esse é com certeza o maior empreendimento acadêmico internacional que o Curso de Design da FAU já propôs. Participarão alguns dos maiores nomes do design automotivo no Brasil e convidados da Europa e da Ásia. Dentre eles figuram Dale Harrow (Royal College of Art), João Marcos Ramos (Ford), Luiz Veiga (Volkswagen) e Peter Fassbender (Fiat).

**quando** de 17 a 20 de outubro 2011

**onde** FAU Cidade Universitária, Edifício Vilanova Artigas  
Rua do Lago, 876 05508.080 São Paulo SP Brasil

FAU Maranhão, Edifício Vila Penteado  
Rua Maranhão, 88 01240.000 São Paulo SP Brasil

**+ inscrições** [www.fau.usp.br/auto](http://www.fau.usp.br/auto)  
[auto-fau@usp.br](mailto:auto-fau@usp.br)

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*diretor FAU-USP* Prof. Dr. Marcelo de Andrade Roméro

*presidente* Prof. Dr. Carlos Zibel Costa

*vice-presidentes* Dr. Ari Antônio da Rocha  
Dr. Artur Grisanti Mausbach

*membros* Prof. Dr. Arthur Hunold Lara, Prof. Dr. Clovis Alvarenga Netto (Poli)  
Prof. Dr. Hugo Fernando Fortes Junior (ECA), Prof. Dr. João Carlos de O. Cesar  
Prof. Dr. Jorge Bassani, Prof. Dr. Robinson Salata

*estudantes* Bruno Zaitso, Camila Amadio, Lucas Colebrusco,  
Lucas Marques Otsuka, Luciana Heuko,  
Pedro Ungaretti, Tiago Oliveira Valentim

*organização* Célio Norberto Sales e Francisca Batista de Souza,  
Design FAU-USP, Eventos FAU-USP

*realização* FAU-USP

*apoio* USP: Pró-reitoria de Graduação, Pró-reitoria de Pós-graduação,  
Comissão de Cooperação Internacional

Fiat Automóveis S.A.,  
Ford Motor Company,  
Volkswagen do Brasil

17.10.2011 *FAU Cidade Universitária – Auditório Ariosto Mila*  
*segunda-feira*

**10:00 – 10:30 Abertura**

Prof. Dr. Marcelo de Andrade Roméro (FAU-USP)  
Prof. Dr. Carlos Zibel Costa (FAU-USP)

**10:30 – 12:00 Palestra principal**

Professor Dale Harrow (Diretor da escola de Design para Produção e Veículos do Royal College of Art, Londres)

**12:00 – 14:00 Intervalo**

**14:00 – 17:00 Sessão plenária**

João Marcos Ramos (Diretor de Design da Ford Motor Company, Brasil)  
Luiz Veiga (Diretor de Design da Volkswagen, Brasil)  
Peter Fassbender (Diretor do Fiat Centro Stile, Brasil)

**17:00 – 19:00 Coquetel e exposição dos seguintes carros, apresentados pelo Dr. Ari Rocha, designer do Aruanda:**

Carro Conceito Aruanda,  
Carro Conceito Fiat FCC2,  
Carro Conceito Volkswagen Gol Vintage.



18.10.2011 *FAU Cidade Universitária – Auditório Ariosto Mila*  
*terça-feira*

**9:00 – 10:30 Mesa temática: Políticas Públicas e Projetos de Mobilidade**

Moderador: Prof. Dr. Jorge Bassani (FAU-USP)

Alberto Epifane (Metro)

Prof. Dr. Alexandre Delijaicov (FAU-USP)

Prof. Dr. Pedro Tadei (FAU-USP)

**10:30 – 11:00 coffee break**

**11:00 – 13:00 Mesa temática: O carro e a cidade**

Moderadora: Profa. Dra. Heliana Comin Vargas (FAU-USP)

Dr. Ari Rocha (Consultor)

Dr. Caio Vassão (FAAP)

Ms. Fabio Ferrero (FAAP)

João Marcos Ramos (Ford)

**13:00 – 14:00 intervalo**

*FAU Cidade Universitária – sala 810*

**14:00 – 17:00 Oficina de desenho**

Coordenador: Dr. Arthur Lara (FAU-USP)

Carlos Castilho (Autotimeline)

Márcio Sartori (Ícon Design)

Nelson Lopes (Ícon Design)

A oficina é limitada a 50 estudantes.

E-mail para inscrição: [auto-fau@usp.br](mailto:auto-fau@usp.br)

*FAU Maranhão – Sala dos Espelhos*

**18:30 – 21:30 Sessão de palestras sobre pesquisa em design automotivo**

Coordenador: Prof. Dr. Carlos Zibel Costa (FAU-USP)

***Automotive design research at the Royal College of Art***

Professor Dale Harrow (RCA)

***Paradigm Shift – the aesthetic of the automobile in the age of sustainability***

Dr. Artur Grisanti Mausbach (Mausbach Design)

A sessão é limitada a 50 pessoas.

E-mail para inscrição: [auto-fau@usp.br](mailto:auto-fau@usp.br)

19.10.2011 FAU Cidade Universitária – Auditório Ariosto Mila  
quarta-feira

**14:00 – 15:30 Mesa temática: Identidade do design em mercados emergentes**

Moderador: Dr. Marcelo Bicudo (FAU-USP)

Adalberto Bosgan Neto (ex-GM)

Professor Dale Harrow (RCA)

Professor Kishor Munshi (IIT Bombay)

**15:30 – 16:00 coffee break**

**16:00 – 17:30 Mesa temática: Um futuro sustentável para o design automotivo brasileiro**

Moderador: Prof. Dr. Carlos Zibel Costa (FAU-USP)

Dr. Artur Grisanti Mausbach (Mausbach Design)

Paulo Nakamura (Fiat)

20.10.2011 FAU Cidade Universitária – Auditório Ariosto Mila  
quinta-feira

**9:00 – 13:00 Colóquio: Projetos acadêmicos**

Moderador: Dr. Ari Rocha (consultor)

**Electric Vehicle Design Initiatives in India** Professor Kishor Munshi (IIT Bombay)

**Feel the Future – perceptions of branding and design towards product development in the motor industry** Dr. Kleber Puchaski (UFPR)

**The future of innovation of bus bodies in Brazil**

Marcelo Castilho (Marcelo Castilho Inovação)

**Avaliação numérica e experimental de um veículo**

**de competição de milhagem** Ms. Tales Adriano Ferreira (Poli USP)

**13:00 – 14:00 intervalo**

**14:00 – 19:00 Colóquio: Projetos de Inovação**

Moderador: Prof. Dr. Robinson Salata (FAU-USP)

**Frisbee – autoconfigurative public car** Dr. Artur Grisanti Mausbach (Mausbach Design)

**Pocket Car** Dr. Caio Vassão (FAAP)

**A Evolução da Cor na Indústria Automotiva** Prof. Dr. João Carlos de O. Cesar (FAU-USP)

**Design automotivo fora das grandes montadoras –**

**inovação do produto ao processo** Levi Girardi (Questo)

**Fiat Mio** Paulo Nakamura (Fiat)

PROFESSOR DALE HARROW

Dean of the School of Design

Director of Vehicle Design

ROYAL COLLEGE OF ART

moving on - design for the 21C

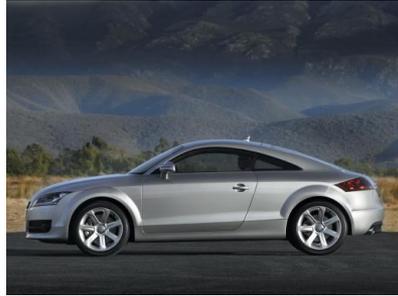
Thinking Automotive Design

University of Sao Paulo

October 2011

[dale.harrow@rca.ac.uk](mailto:dale.harrow@rca.ac.uk)

# HISTORY AND ORIGINS



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## form and shape



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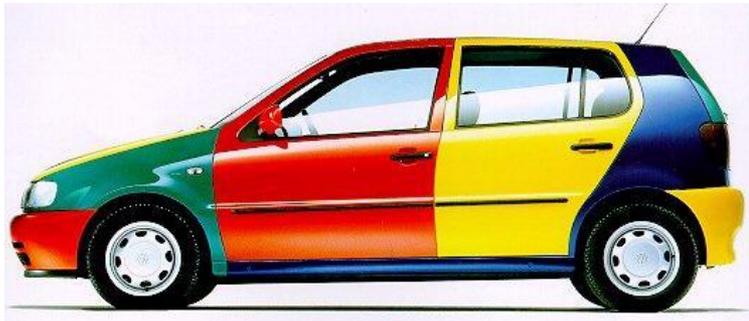
## material



**moving on**

# DESIGN DECONSTRUCTED

colour



**moving on**

# surface finish



**moving on**

## detailing



**moving on**

## detailing



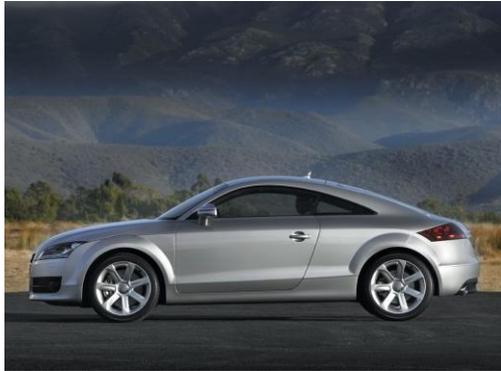
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# DESIGN DECONSTRUCTED



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**moving on**

# THE SEARCH FOR AN INTEGRATED FORM

**moving on**

# DESIGN DECONSTRUCTED



**moving on**



# Harley Earl

## American Styling in 1930s

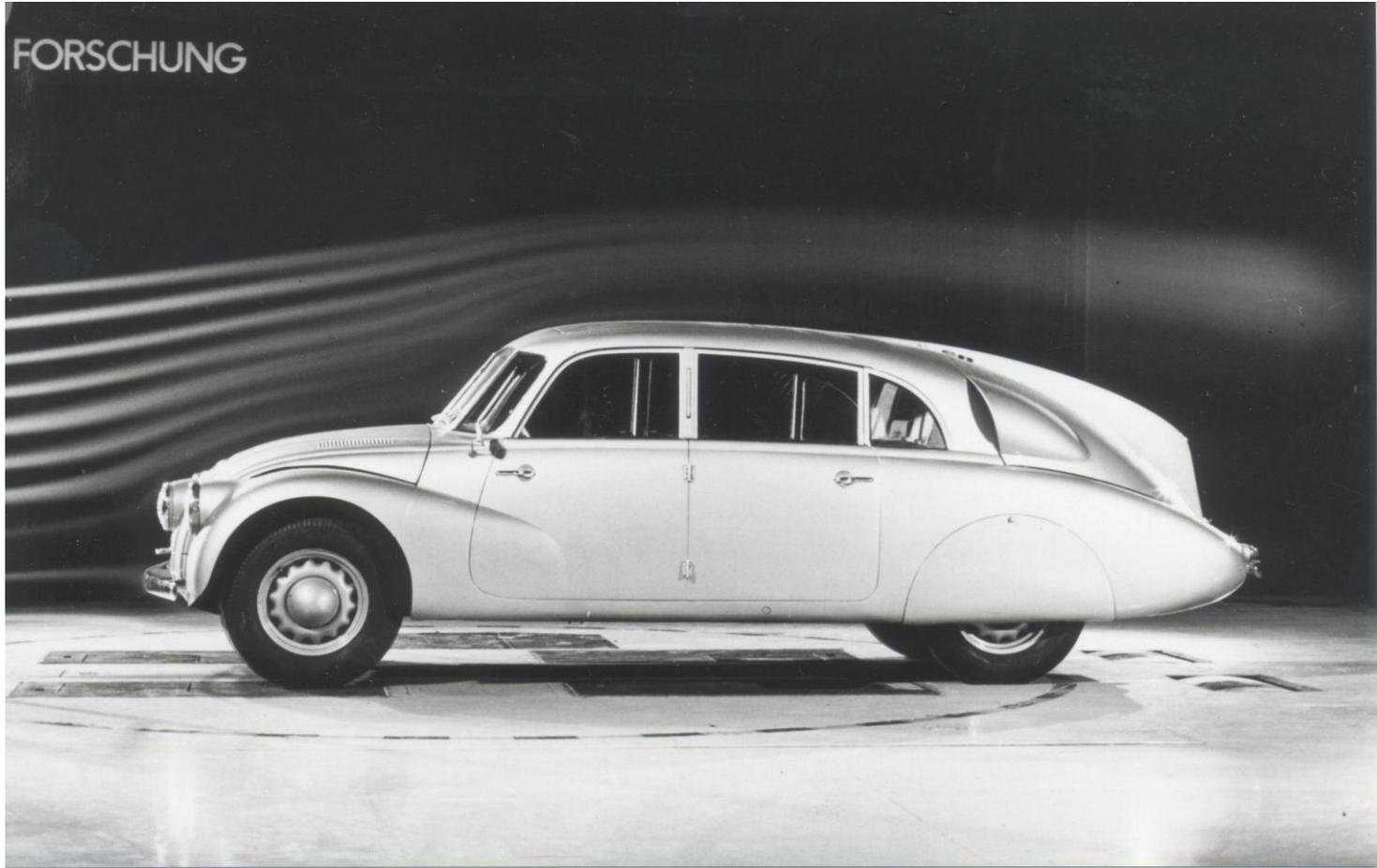


# DESIGN DECONSTRUCTED



**moving on**





**moving on**

# Harley Earl

## GM Art and Colour 1928



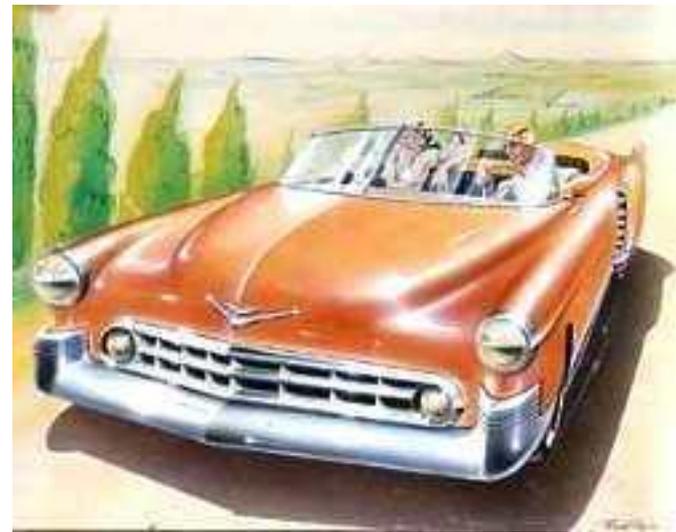
**moving on**

# GM Motorama



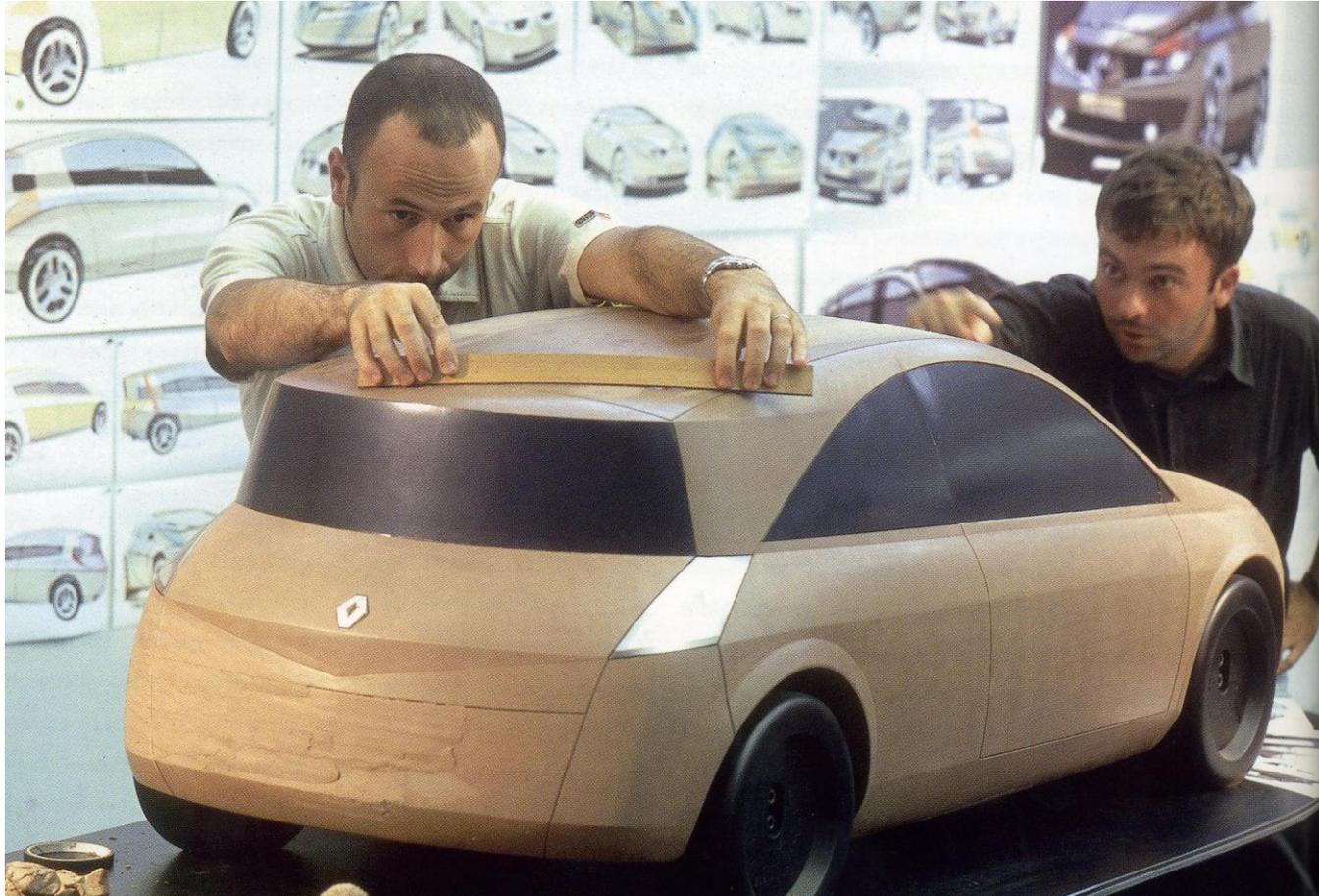
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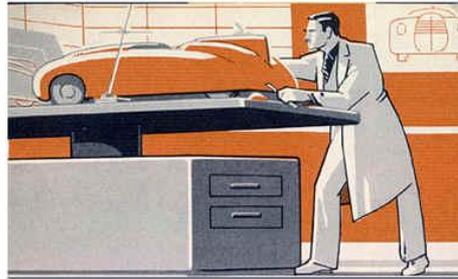
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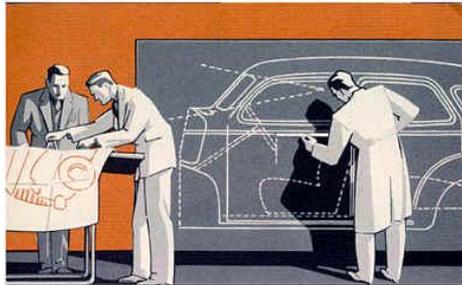
**moving on**

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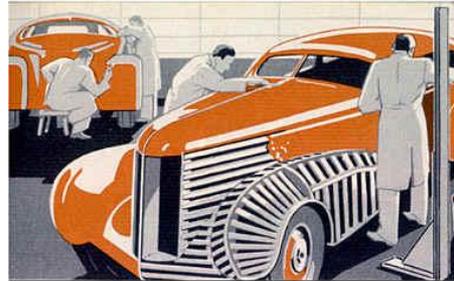
WORKING DRAWINGS



MODELS IN CLAY  
CHALK DRAWING



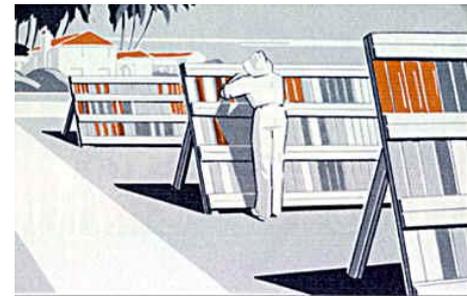
COMFORT



FULL-SIZE MODELS  
MODELS IN WOOD



FASHIONS IN COLOR  
INTERIORS



COLOR TESTS

Emotional Design

Professor Dale Harrow 2011



# **A CAR FOR ALL**

## **1930/1950**

**mass consumption and production**

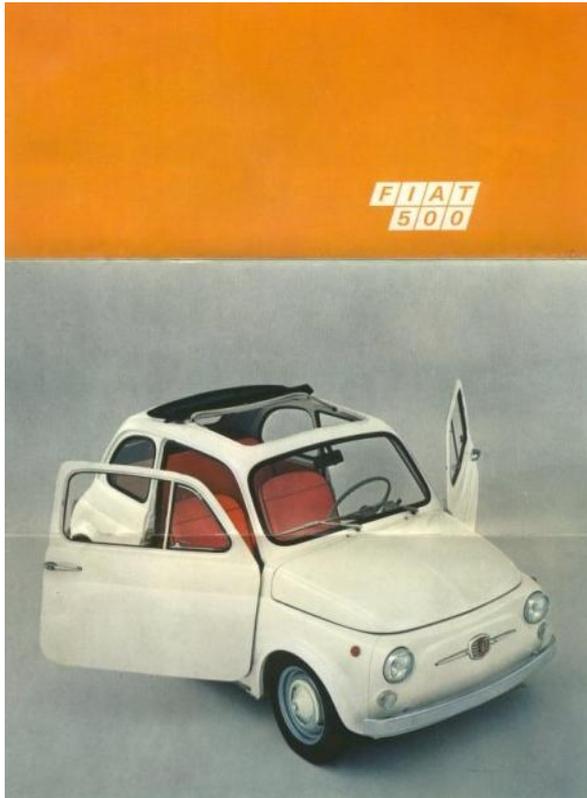
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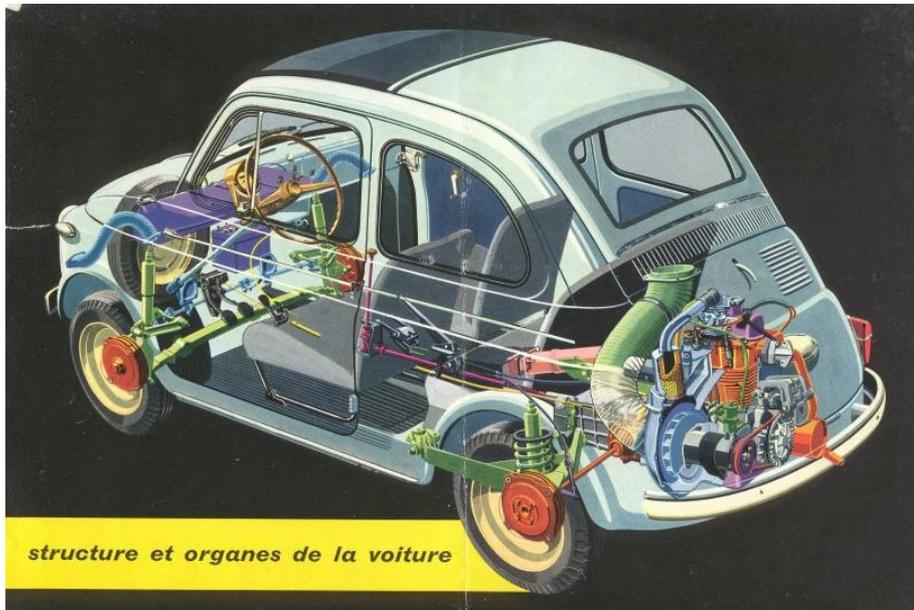




# DESIGN DECONSTRUCTED



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# DESIGN DECONSTRUCTED



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**moving on**

# POST WAR OPTIMISM

## 1940/1950

### Innovation and Experimentation

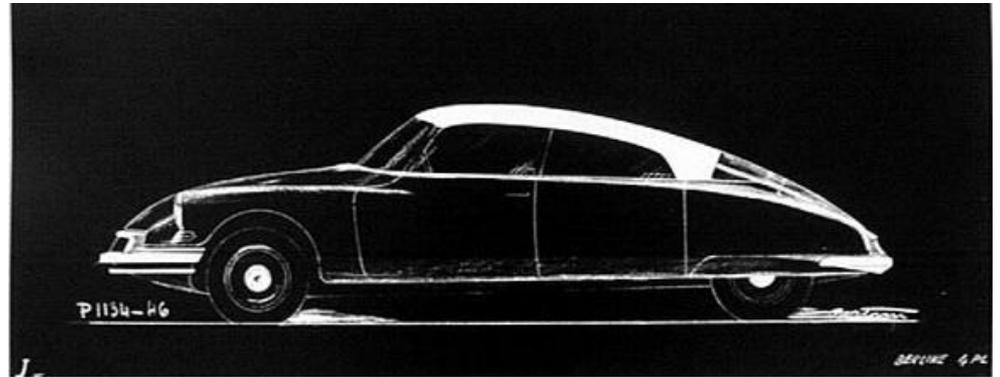
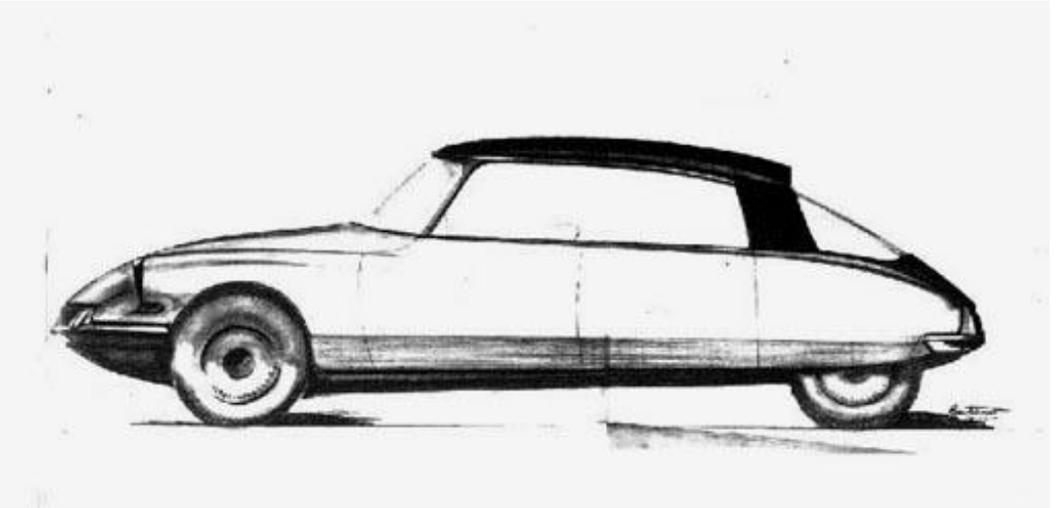
**moving on**



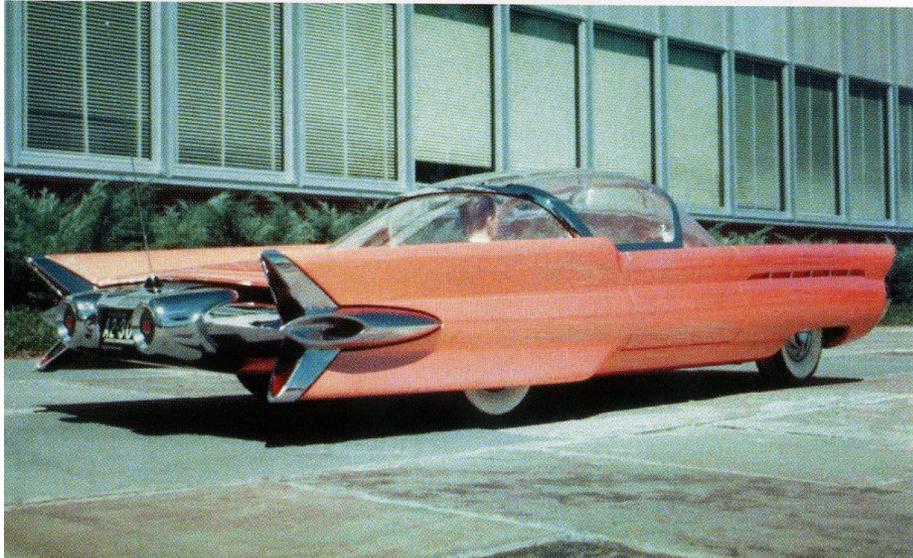
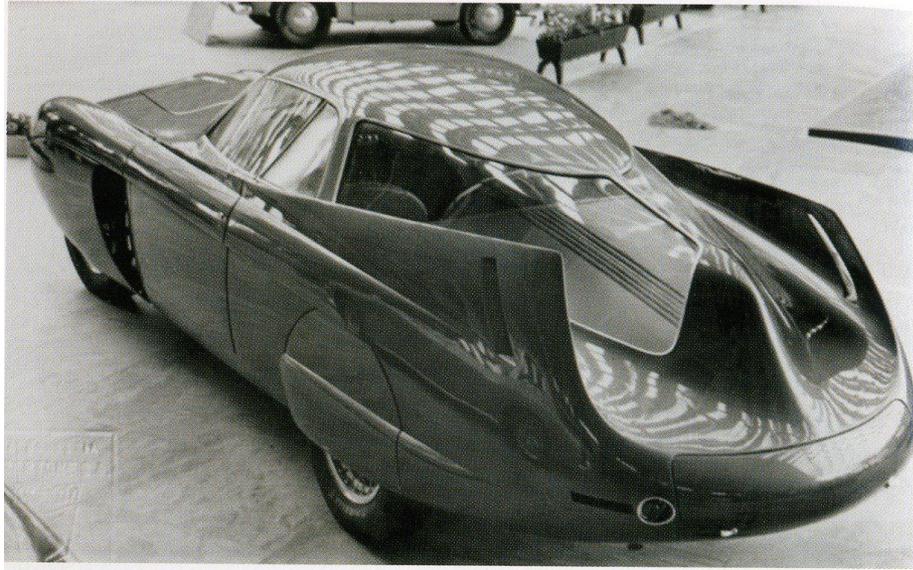


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Postgraduate Art & Design



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**moving on**



[www.carsdesignnews.com](http://www.carsdesignnews.com)

**moving on**



**moving on**

**1<sup>st</sup> age of car design**  
**MAKING IT WORK**  
**1980/1990**

**moving on**

## Wer Mittelklasse-Ausstattung bisher mittelmäßig fand, hat jetzt einen guten Grund umzusteigen.

### Was Sie in seiner Klasse erwarten können.

Es ist doch so, wenn man immer wieder die gleiche Automarke kauft, weiß man zwar, was man hat, aber man erfährt auch nie, was man versäumt. Schauen Sie sich mal den neuen Horizon von Chrysler-Simca an. Er hat alles, was Sie von einem modernen Wagen erwarten können: 1118-ccm-Vierzylindermotor (GLS 1442 ccm) mit Frontantrieb, Einzelradaufhängung mit Drehstab- und Schraubfedern, Scheibenbremsen vorn, Bequeme Rücksitze, umklappbare Rücksitzbank und eine große Hecktür (1). Und selbstverständlich ein Jahr Garantie ohne Kilometerbegrenzung.

### Was Sie nicht in seiner Klasse erwarten würden.

Die Transistorzündung (2) zum Beispiel, für prompten Start bei feuchtem Wetter oder Minustemperaturen. Kontrolleuchten (3) für Ölstand und Bremsbelagstärke. Nebelschlussleuchte. Langzeitbatterie. Eine Digitaluhr (GLS), die noch nach einem Jahr auf die Sekunde genau geht. Radioeinbausatz mit Stereolautsprechern und Antenne (4) beim GL und GLS. Vom Innenraum aus einstellbarer Außenspiegel (5) beim GL und GLS. Unterbodenschutz und Hohlraumkonservierung. Und alles ist serienmäßig. Wenn das nicht gute Gründe sind umzusteigen. Sehen Sie sich den neuen Horizon mal an. Bei Ihrem Chrysler-Simca-Partner.

**HORIZON**

**CHRYSLER-SIMCA HORIZON**

Drei gute Gründe umzusteigen: Horizon LS, 1118 ccm, 40 kW (55 PS) - Horizon GL, 1294 ccm, 43 kW (59 PS) - Horizon GLS (Abbildung), 1442 ccm, 51 kW (69 PS)

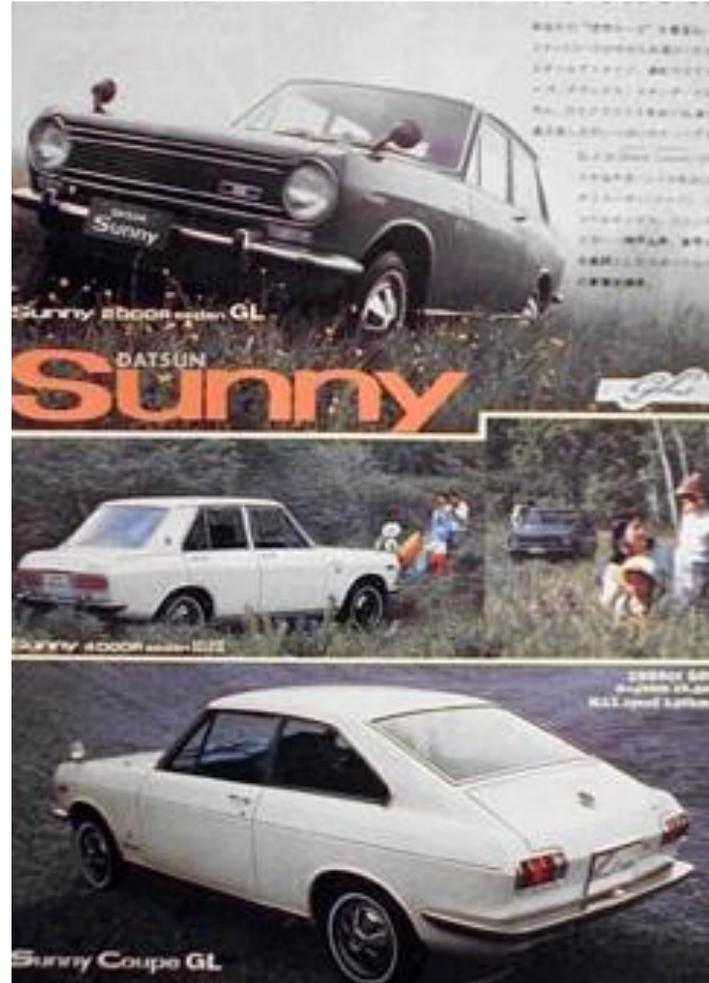
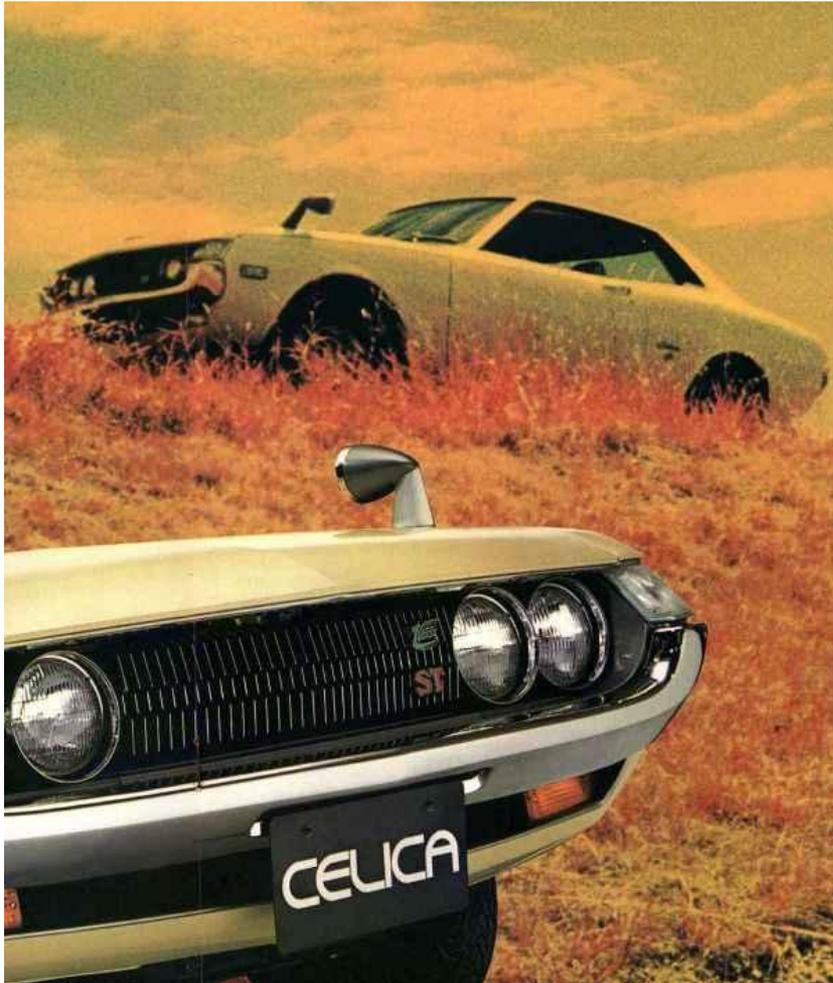


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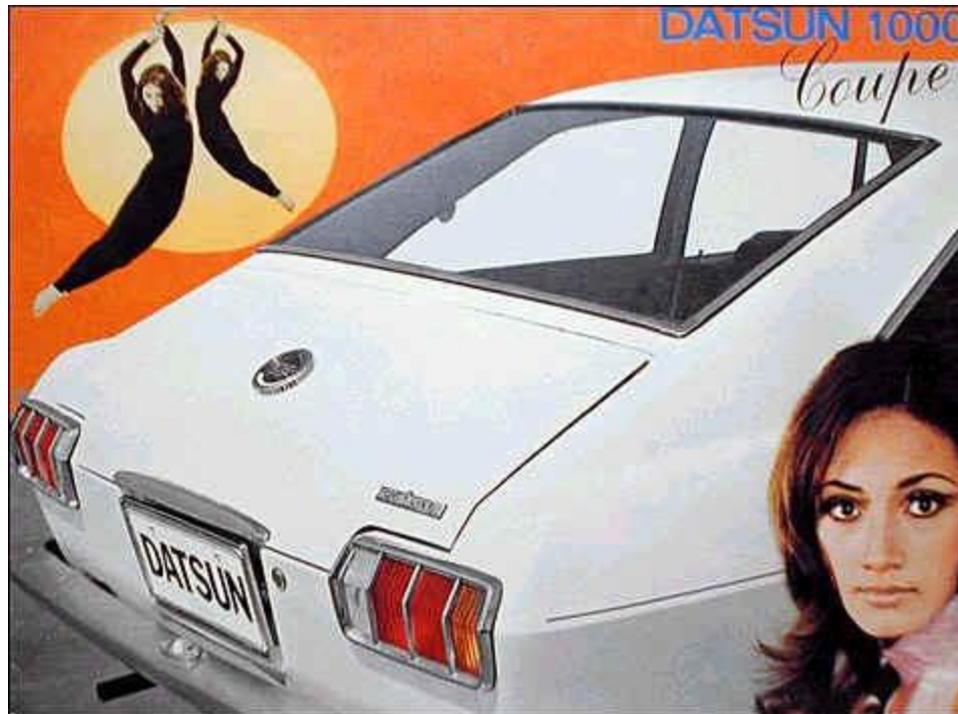


**moving on**





**moving on**



**moving on**

**2<sup>nd</sup> age of car design**  
**MARKET DRIVERS**  
**1990/2000**

**moving on**

# market drivers



**moving on**

# market drivers



**moving on**

# market drivers



**moving on**







**moving on**



**moving on**



**moving on**

**new age of car design**  
**DESIGNERS TO THE FRONT**

**moving on**

## new consumer

'the age of emotions'

'focus on the experience'

'anthropology before technology'

'emotional beings'

'increasingly wealthy'-choice

'design savvy'

**moving on**

# FUTURE AND NEW DIRECTIONS

new consumer:



**moving on**

# FUTURE AND NEW DIRECTIONS

communication and interaction



**moving on**

# FUTURE AND NEW DIRECTIONS

new consumer:



**moving on**

# THE SECRET CAR :YOU AND YOURS

## cars and self expression



**moving on**

# DESIGN DECONSTRUCTED

...‘we are in the entertainment business’



J Mays Ford

**moving on**

....'be constantly obsessed..with the desire to seduce'



Patrick Le Quement Renault

**moving on**

# DESIGN DECONSTRUCTED

.....'the car is an avatar'

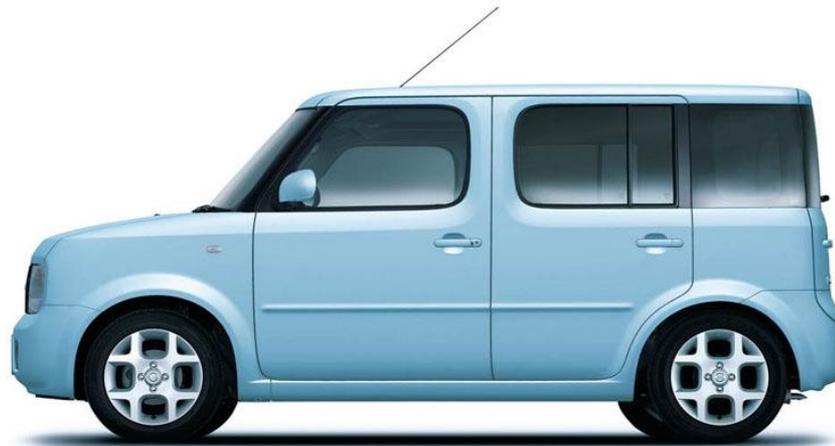


Chris Bangle BMW

**moving on**

# DESIGN DECONSTRUCTED

'you need to touch your customers more'.....



Shiro Nakimura Nissan

# MIXING DISCIPLINES

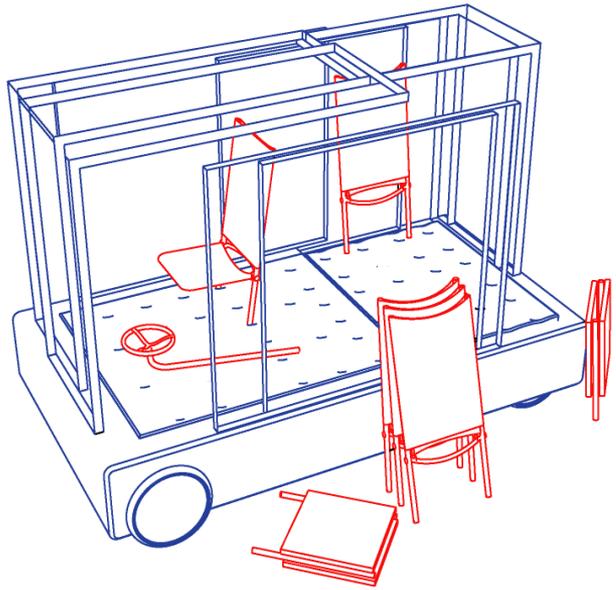
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# **THE NEW AGE NEW CHALLENGES**

**moving on**

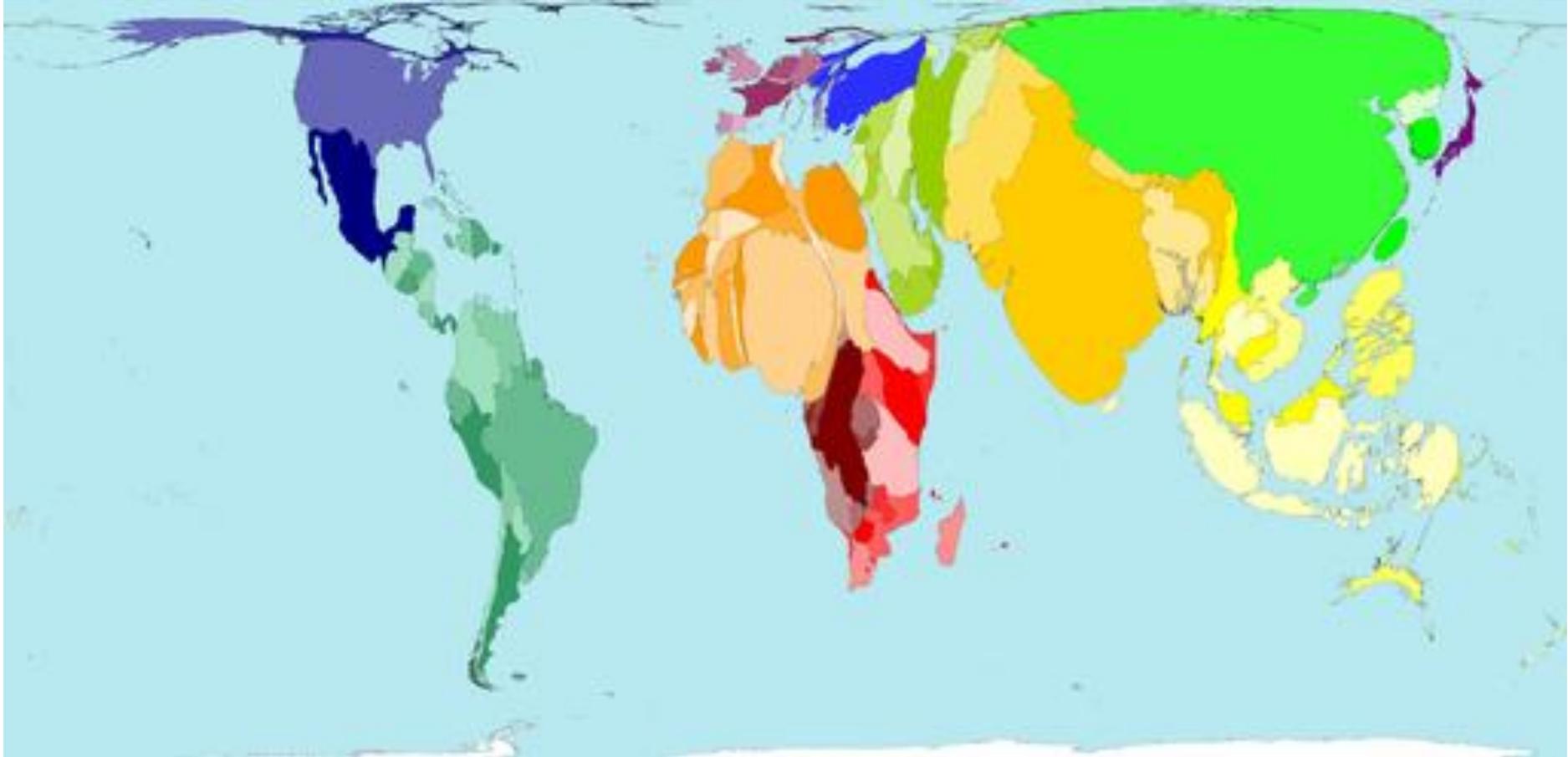
# ECOLOGICAL ISSUES

**moving on**



**moving on**

# city growth



**moving on**

# **Our cities are becoming more densely populated**

**In every hour**

**60 people move into Manila**

**47 into Delhi**

**12 into London**

**9 into New York**

**17 move out from Moscow**



**moving on**

# Central Park New York



**843 acres=33 citizens Co2  
moving on**

# FUTURE AND NEW DIRECTIONS

low fumes  
**NO** charge



**moving on**



Professor Dale Harrow 2011

# FUTURE AND NEW DIRECTIONS



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# FUTURE AND NEW DIRECTIONS

communication and interaction

.....and saving the planet



PHOTOGRAPH BY PHILLIP TOLEDANO

**moving on**

# FUTURE AND NEW DIRECTIONS

new vehicle typologies and package:



Emotional Design

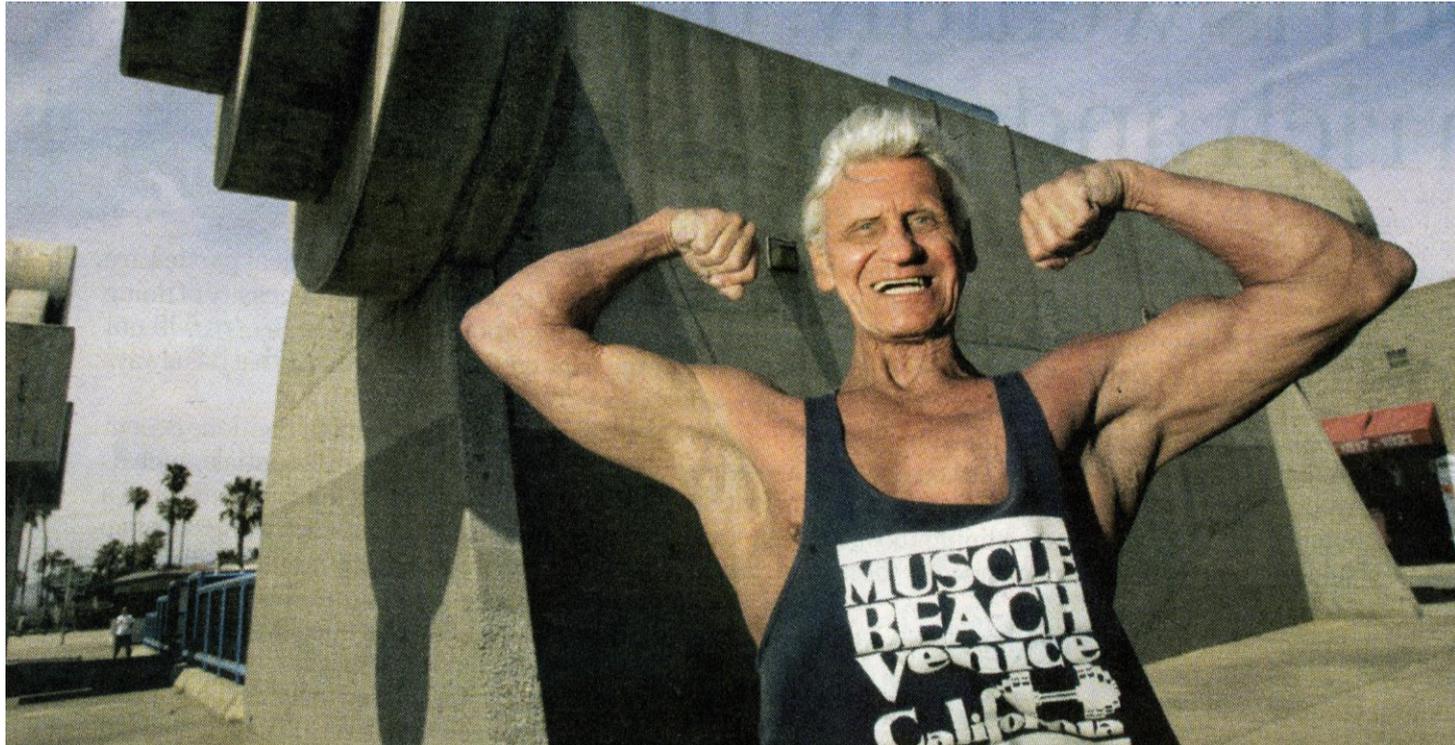
Professor Dale Harrow 2011

# **SOCIAL CHANGE**

**moving on**

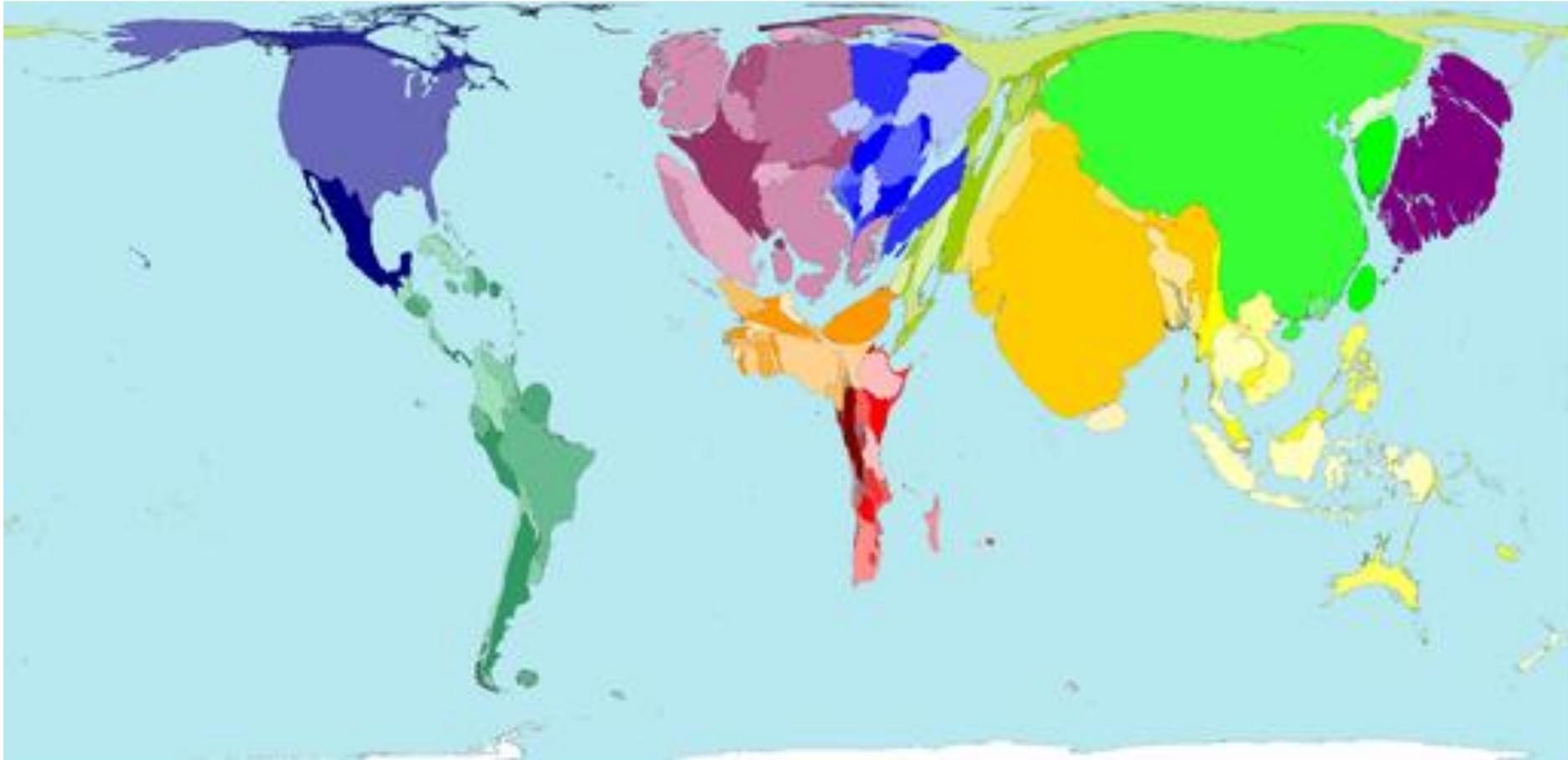
# FUTURE AND NEW DIRECTIONS

new consumer: .....our populations are aging



**moving on**

# ageing population



**moving on**

# market drivers

## Porte

サイドアクセス車  
助手席リフトアップシート車  
専用パワーステアリング車



moving on

# Toyota



# Toyota well-cab system



# market drivers



# Toyota

moving on



Getting the marketing right

market drivers



moving on

Toyota



# FUTURE AND NEW DIRECTIONS

new vehicle typologies and package:technology



# FUTURE AND NEW DIRECTIONS

new vehicle typologies and package:materials



Emotional Design

Professor Dale Harrow 2011

# FUTURE AND NEW DIRECTIONS

new vehicle typologies and package:



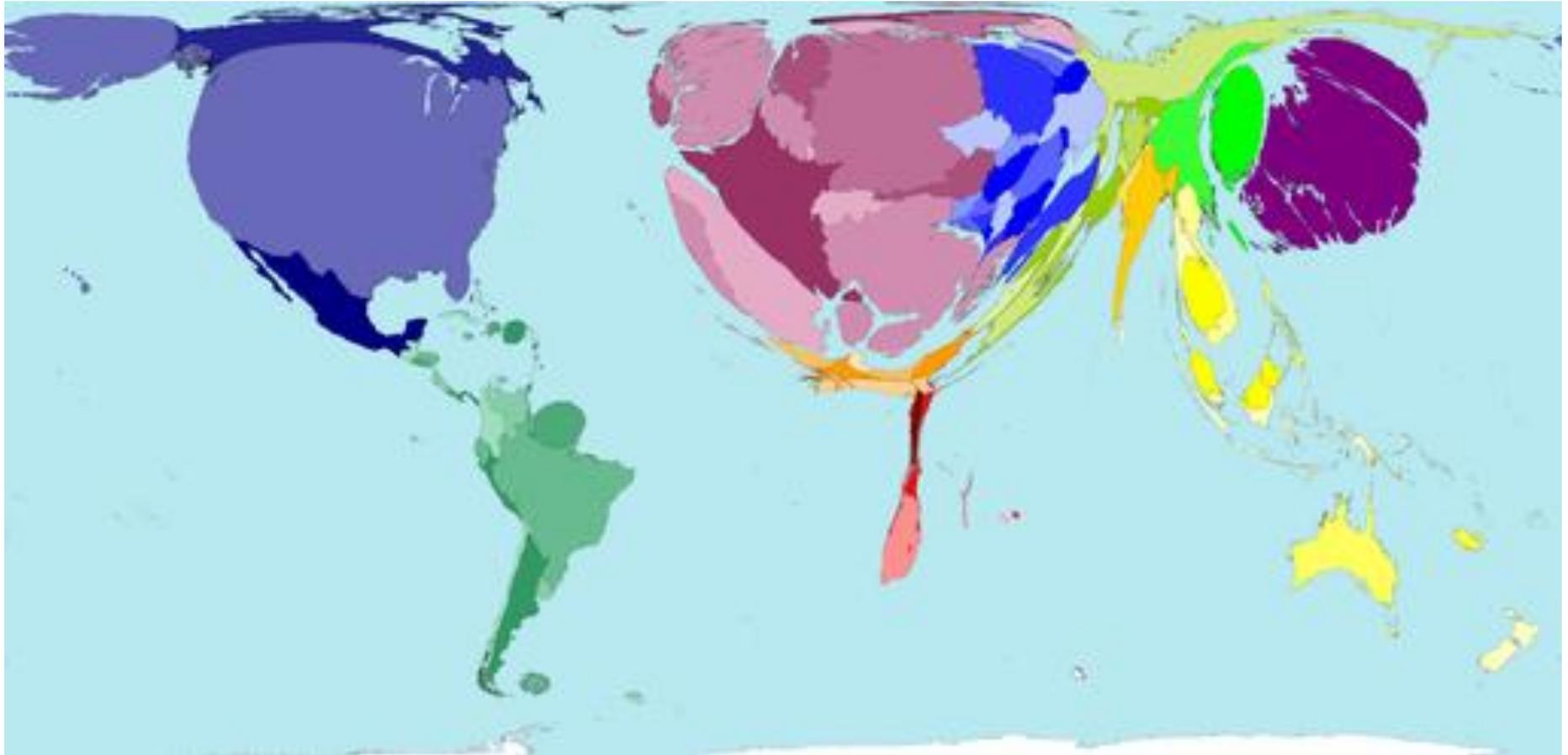
Emotional Design

Professor Dale Harrow 2011

# ECONOMIC CHANGE

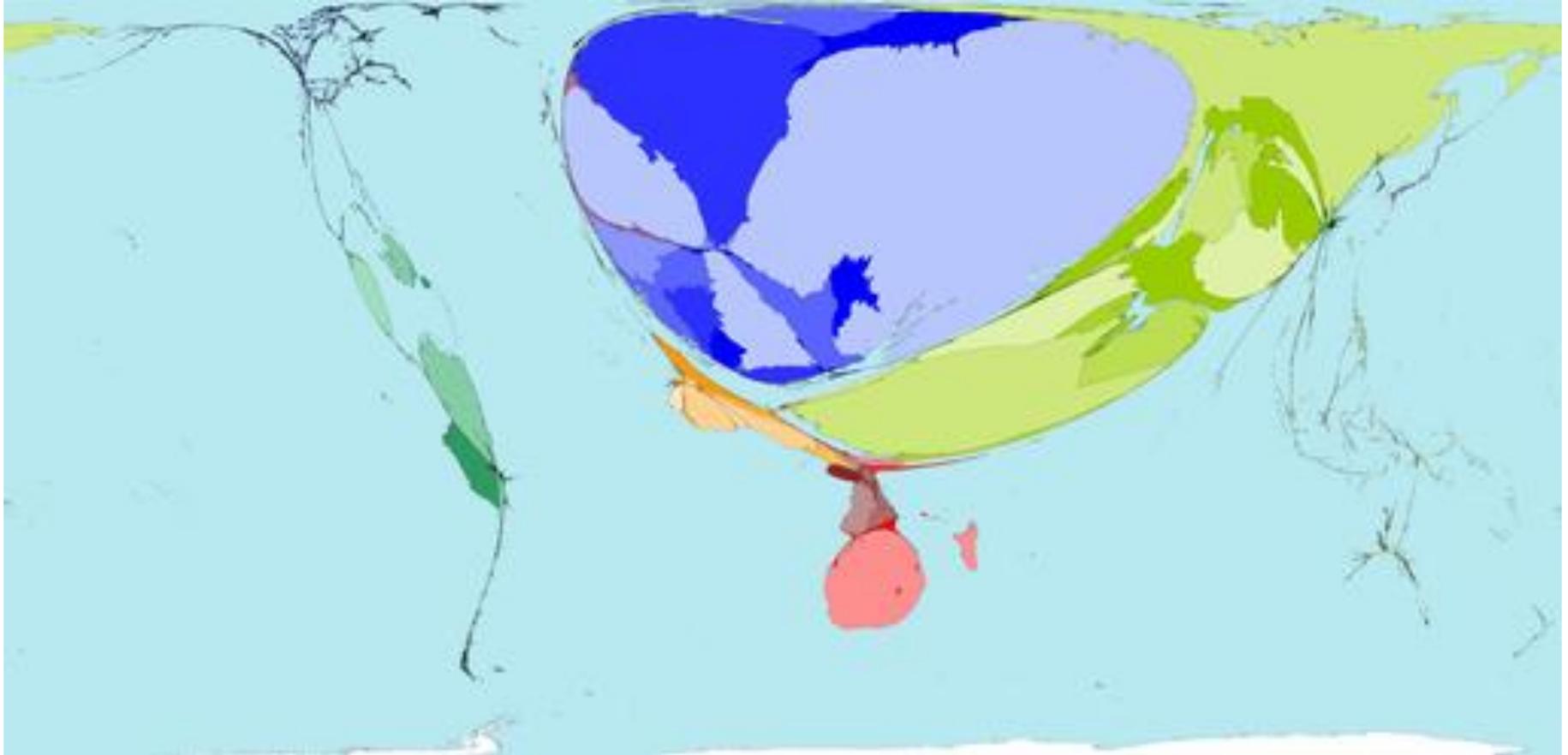
**moving on**

# passenger cars



**moving on**

**wealth decline**



**moving on**

# wealth growth



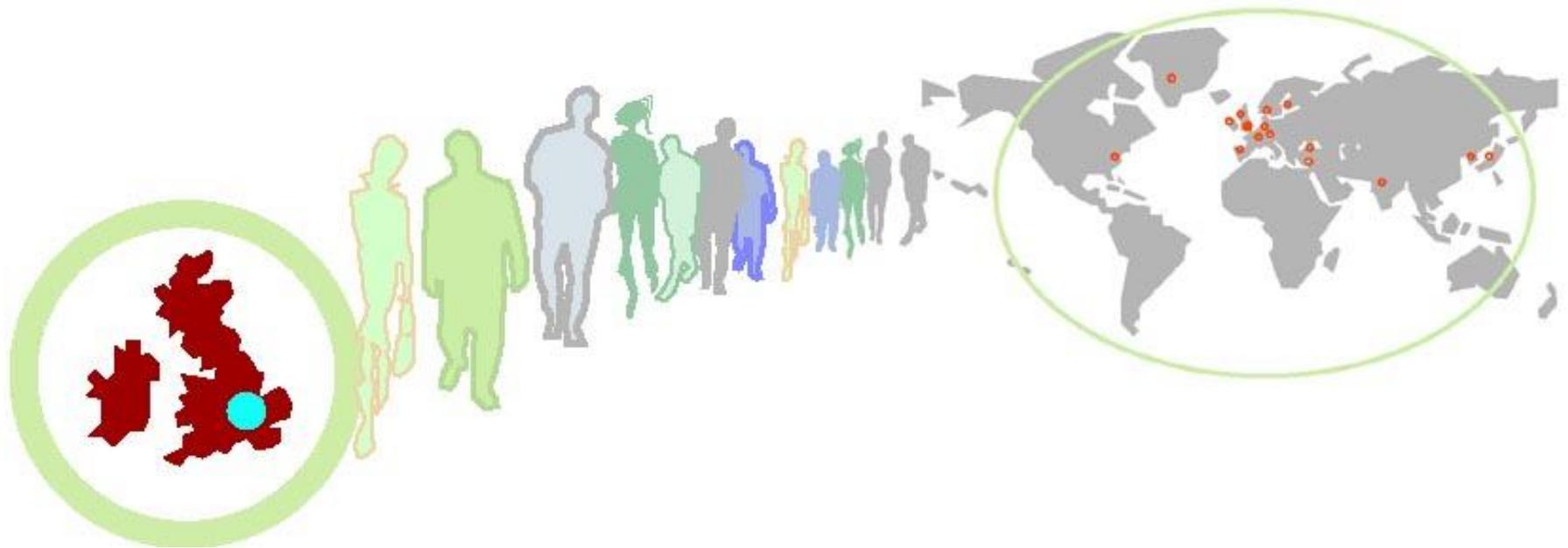
**moving on**

# **THE NEW DESIGNERS** **design at the RCA**



# New Generation of Designers





**moving on**

# BACKGROUND

An overview of study at the Royal College of Art

Founded in 1837, re-named RCA in 1896

The world's only exclusively post-graduate university of art and design

900 students

RCA Royal Charter specifies that its objects are "to advance learning, knowledge and professional competence particularly in the field of fine arts, in the principles and practice of art and design in their relation to industrial and commercial processes and social developments and other subjects relating thereto through teaching, research and collaboration with industry and commerce"



# BACKGROUND

An overview of study at the Royal College of Art

Research and the two year Master of Arts (MA) programme are structured around three 'pathway' themes:

*Urban Flow*: integrated mobility in urban environments, urban vehicle and system / infrastructure design.

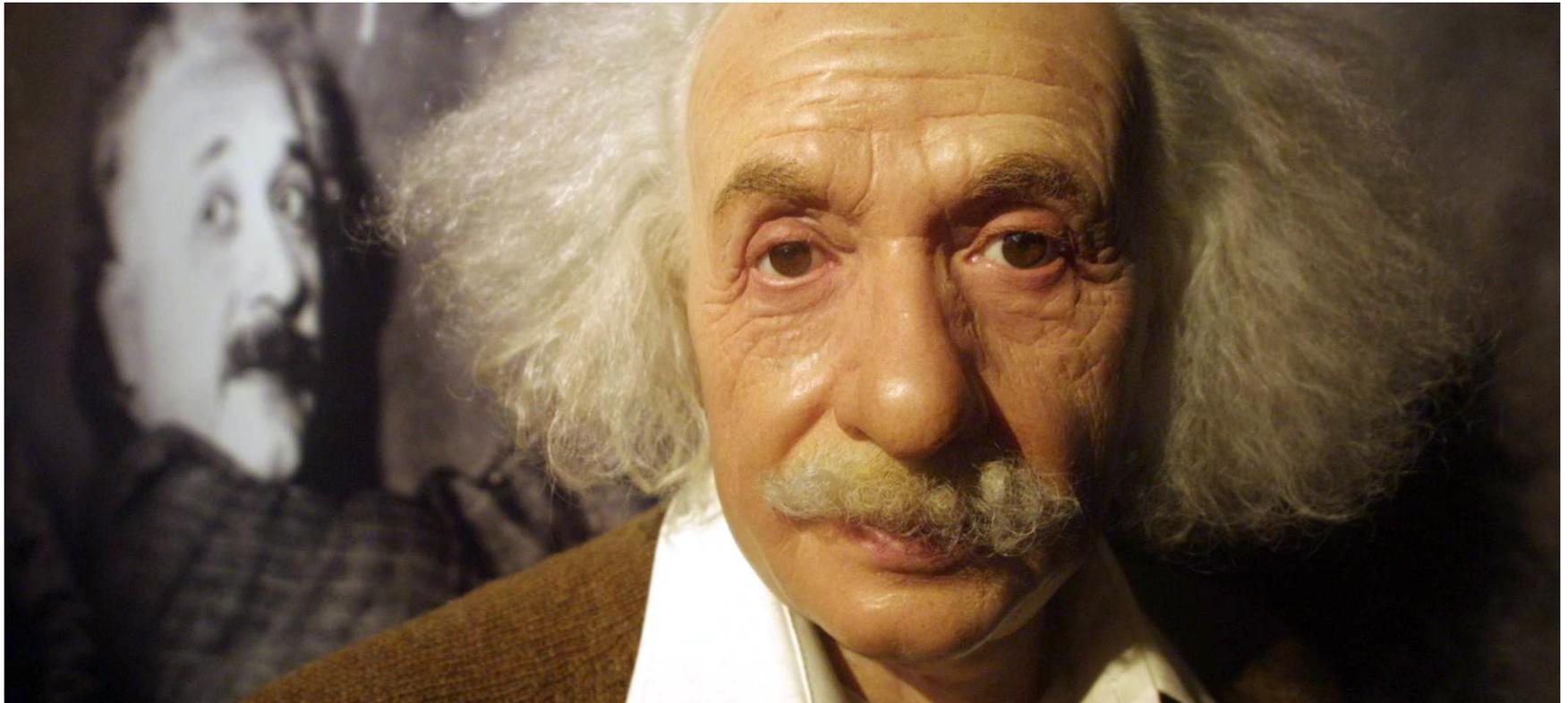


# BACKGROUND

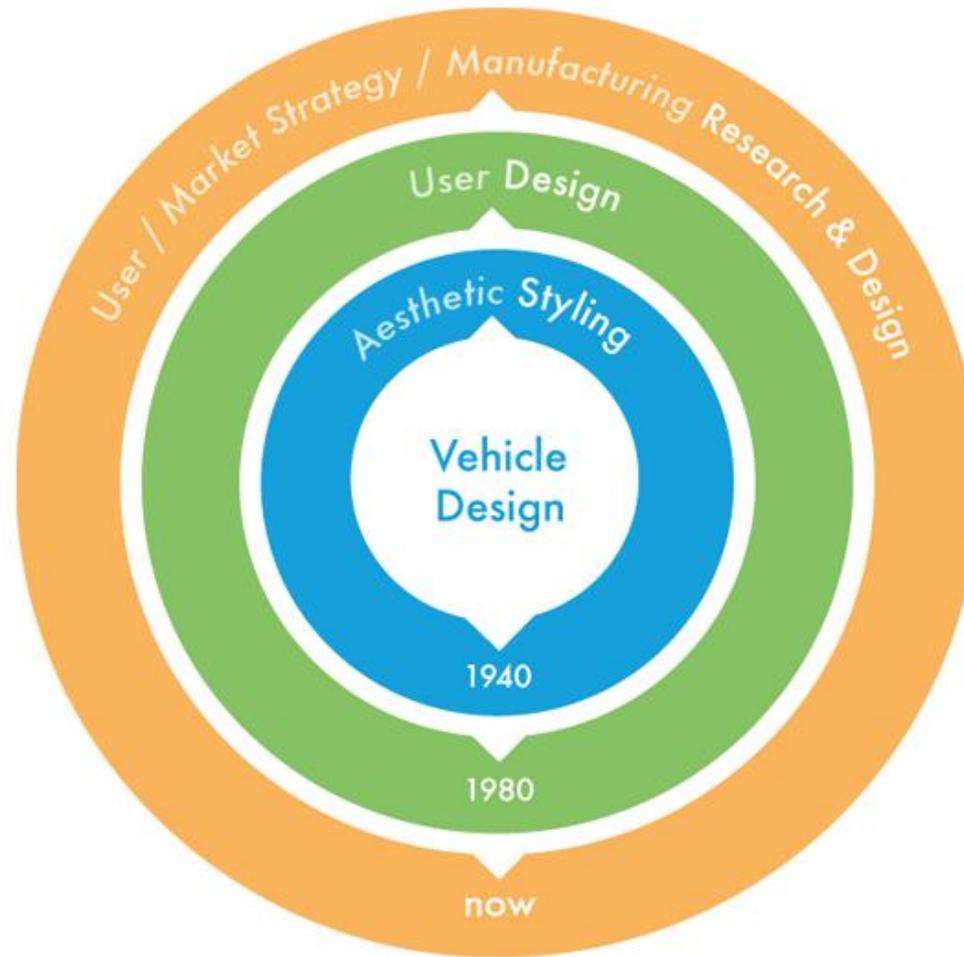
An overview of study at the Royal College of Art

Core approach of the department is to consider the broader issues of vehicle design, e.g: sustainability, emotive consumer relationships, inclusiveness, corporate messaging, recycling, the customer journey.

Aims to foster a sense of enquiry and self-directed study such that every student graduates as an expert in a specific area of Vehicle Design with a strong awareness of the wider context.



# changing role for designers.....



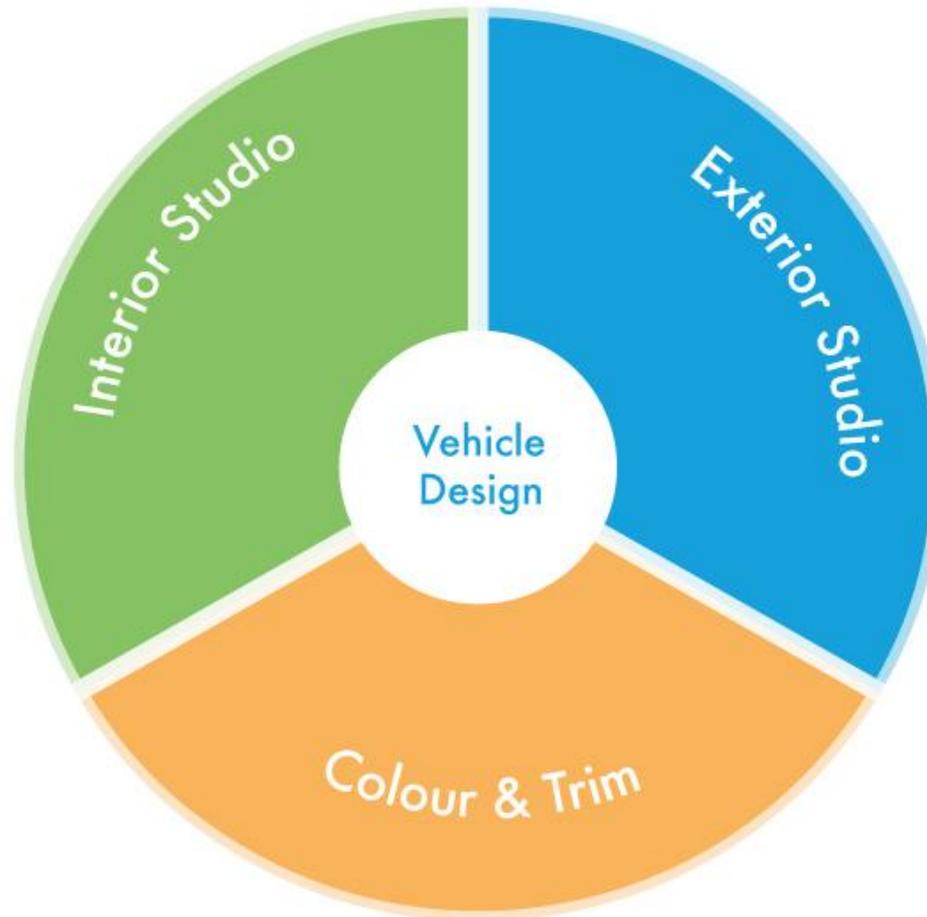
**moving on**

# over the fence....



**moving on**

# isolated studios.....



**moving on**

# international moves.....



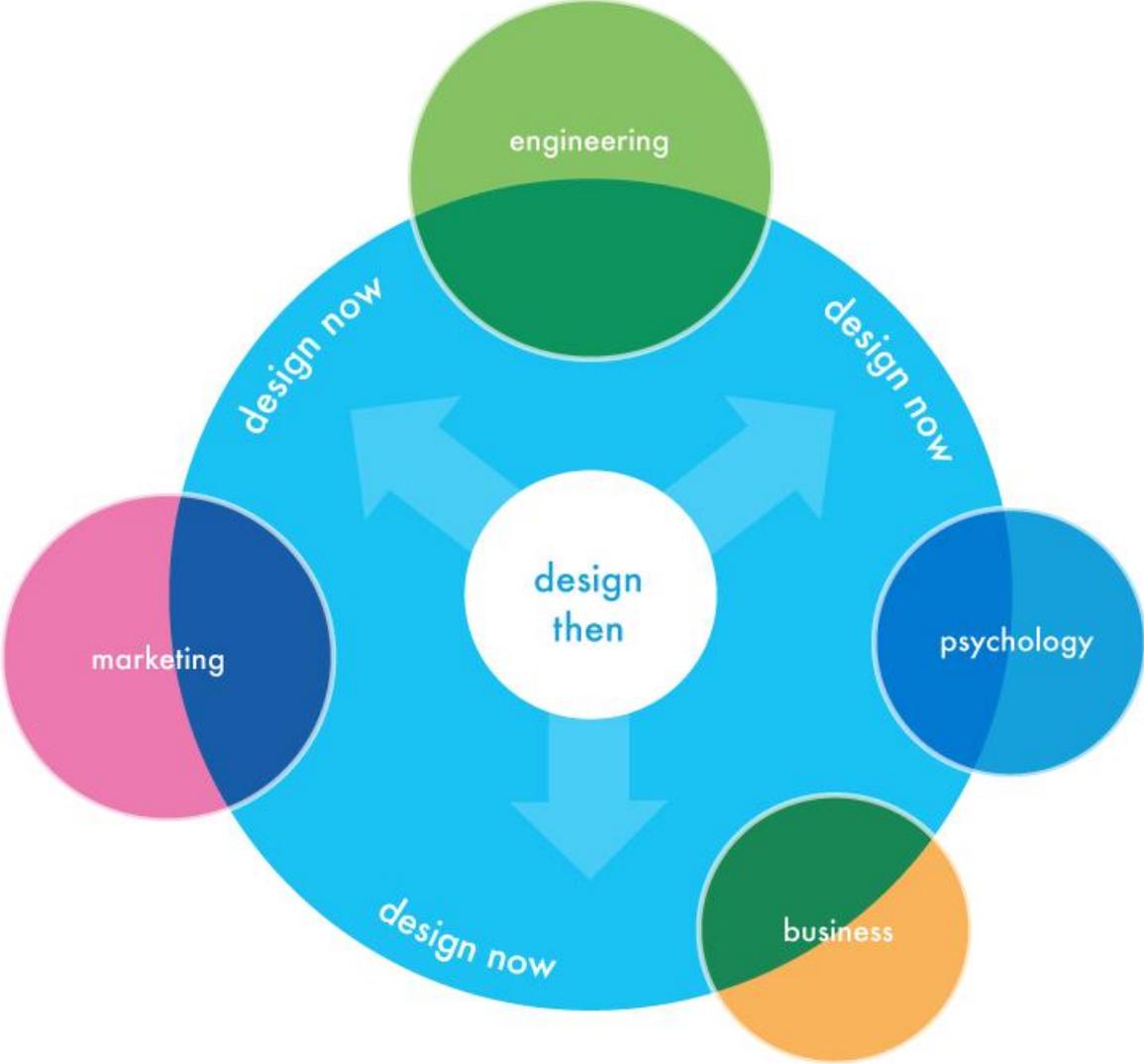
**moving on**

# international competition.....



**moving on**

# changing role for designers.....



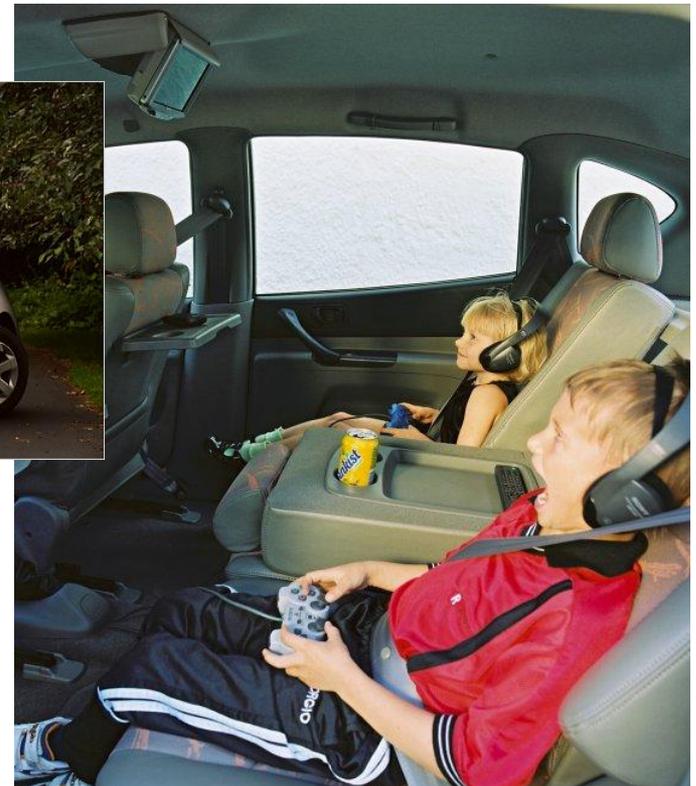
**moving on**

# BACKGROUND

An overview of study at the Royal College of Art

Research and the two year Master of Arts (MA) programme are structured around three 'pathway' themes:

*Automark*: end-user relationship and the commercial context.



# BACKGROUND

An overview of study at the Royal College of Art

Research and the two year Master of Arts (MA) programme are structured around three 'pathway' themes:

*Automark*: end-user relationship and the commercial context.



# BACKGROUND

An overview of study at the Royal College of Art

The pathways provide a breadth of study platform to the Vehicle Design discipline area, which continues to diversify and grow in importance, whilst ensuring a high level of depth to the intellectual engagement between student and subject.

Students work in pathway groups on projects, both inside and outside the department, interfacing with students from other disciplines, such as Industrial Design Engineering, Sculpture, Architecture, and Fashion and Textiles.



# Projects



# Students

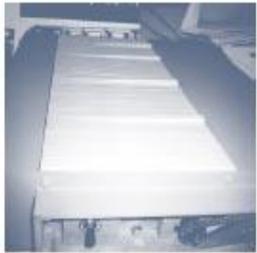
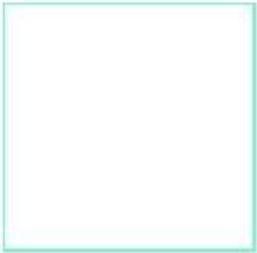
# Projects



# new skills, research, teamwork



Research



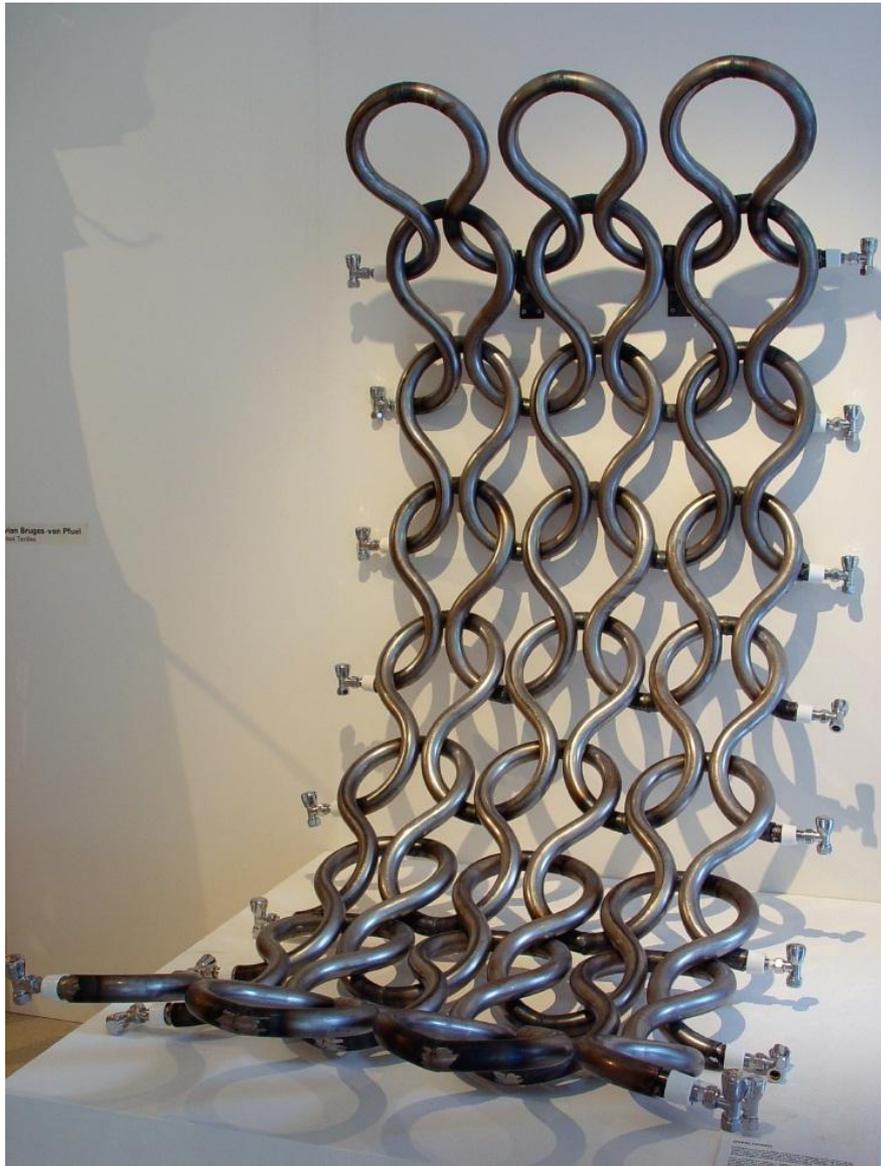
- ▶ Manufacturing
- ▶ Milling machine
- ▶ New methods

- ▶ Arrow
- ▶ Question mark
- ▶ Being clever

- ▶ Cycle path
- ▶
- ▶

- ▶ Plastic car
- ▶ Ceramic inspiration
- ▶ Cycle path 2





**moving on**



Royal College of Art  
Postgraduate Art & Design



**moving on**

Levi's



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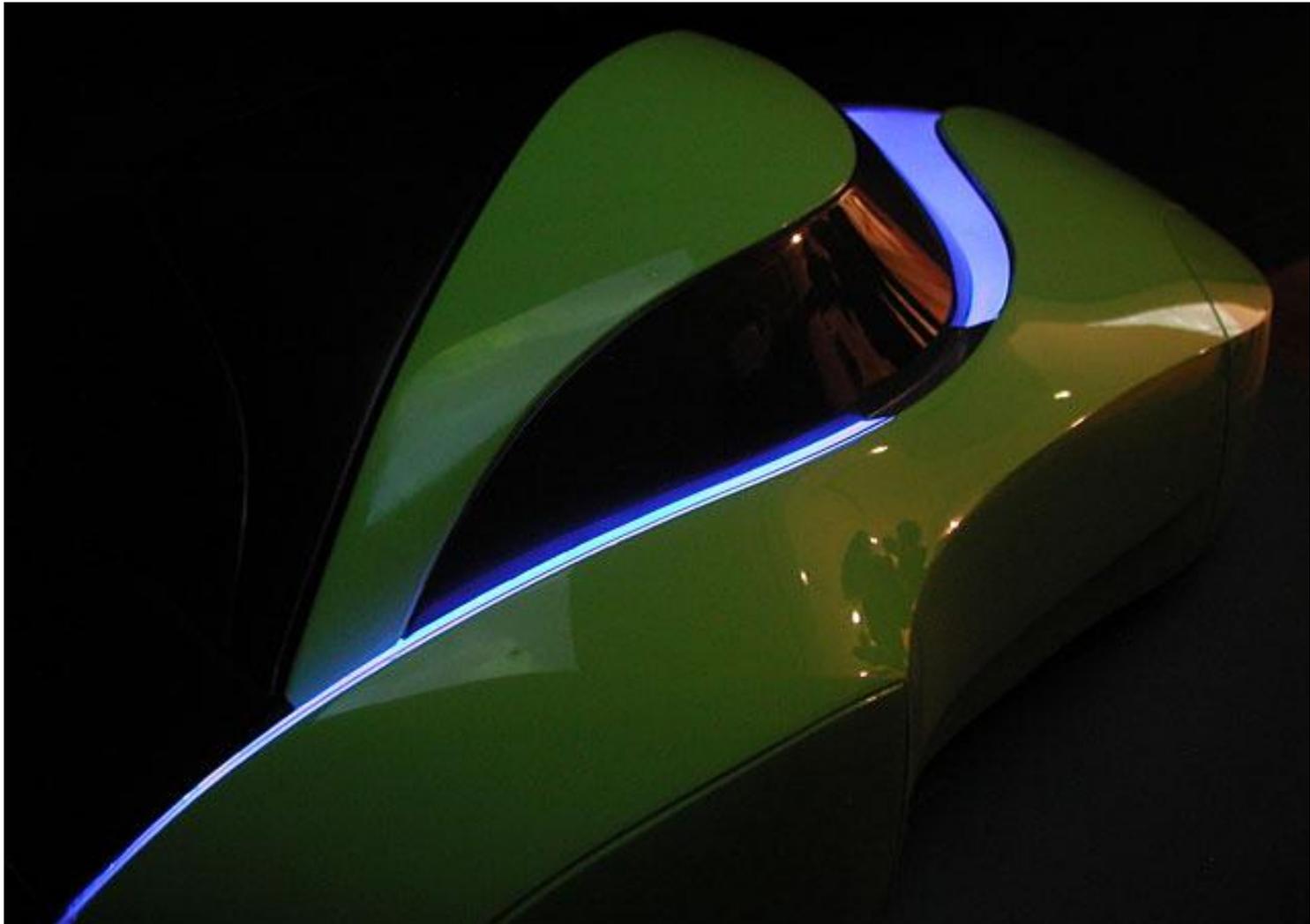
**moving on**



**moving on**



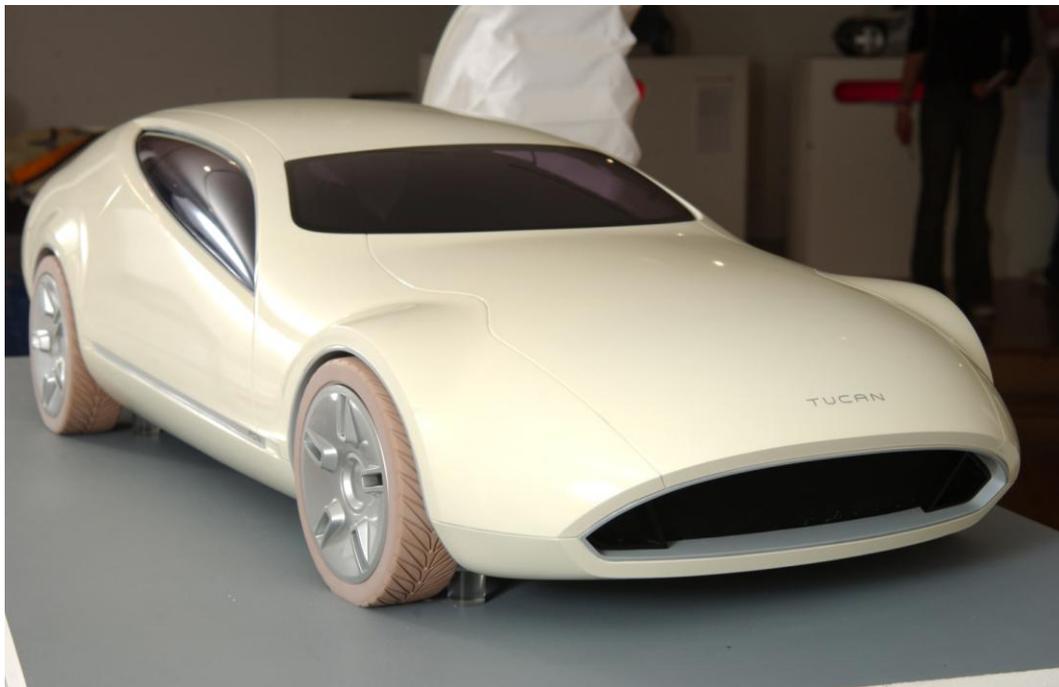
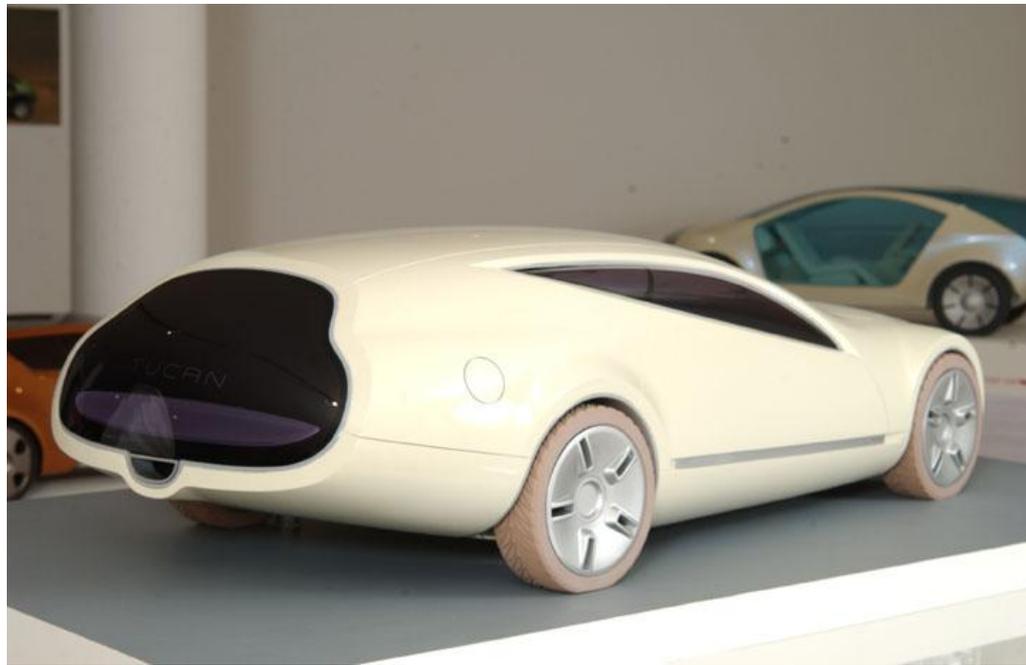
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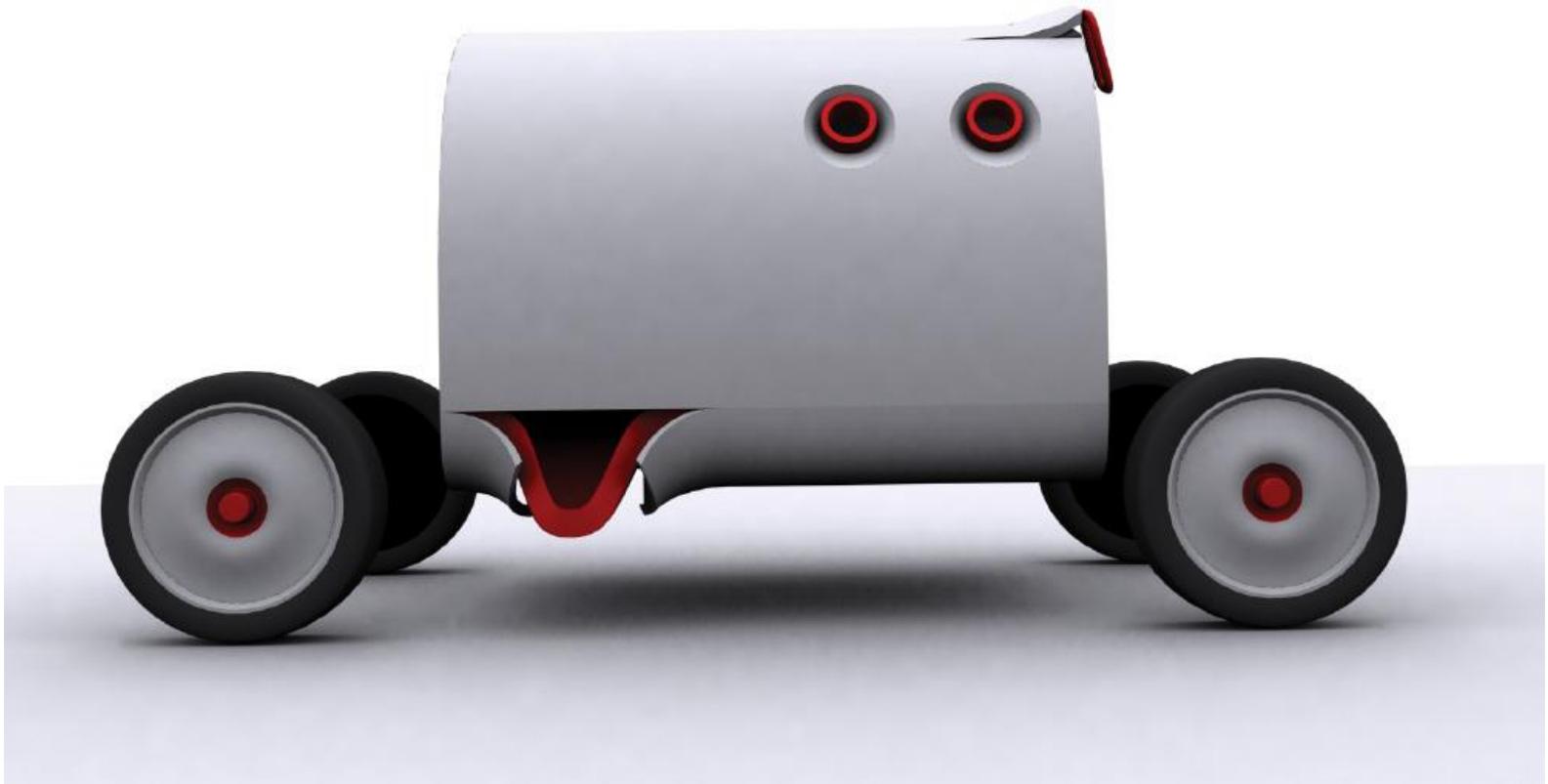
**moving on**

# form finding experiments in ceramics





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# RE-FUEL

## Briefing to inspire

**moving on**

# Design Briefing Map - Inclusive Integrated Transport Design



## Key to lines

— Assessing existing solutions

— Demographic Data

— Technological Developments

— Design Brief

— User Testing

— Parallel Design Development

— Exploring Alternatives

— Prototyping

— Communication Strategy

★ Berkowitz Jones

**moving on**



**moving on**

# Designer Journeys



# Urban Flow

## Cycle-Wave



**moving on**

# Urban Flow



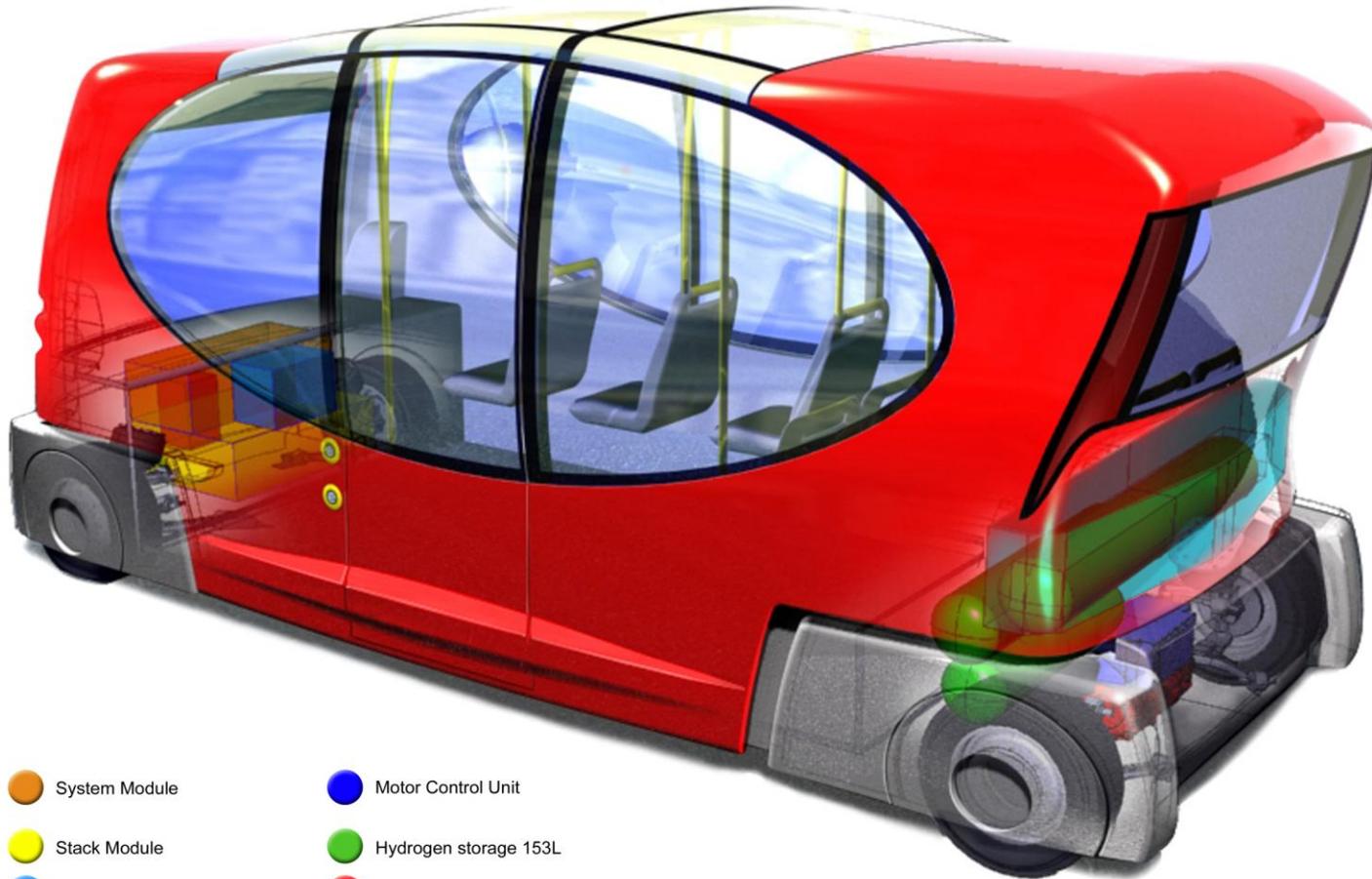
**moving on**

# Urban Flow



**moving on**

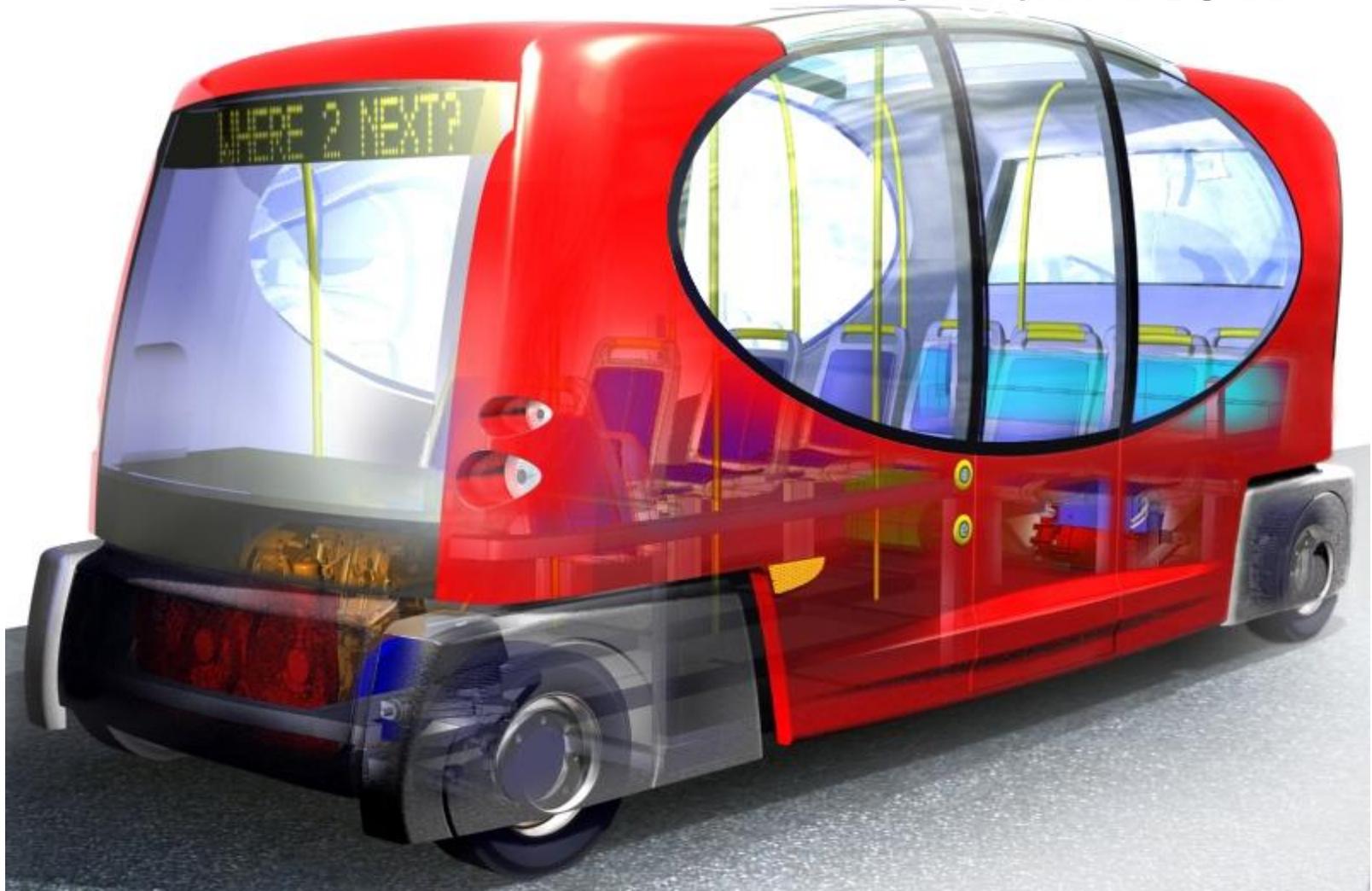
# Urban Flow



- |   |   |
|---|---|
|  System Module             |  Motor Control Unit      |
|  Stack Module              |  Hydrogen storage 153L   |
|  P.D.U                     |  Motor, Ballard A300V100 |
|  Cable & Piping Interfaces |  Batteries, 280 Cells    |

**moving on**

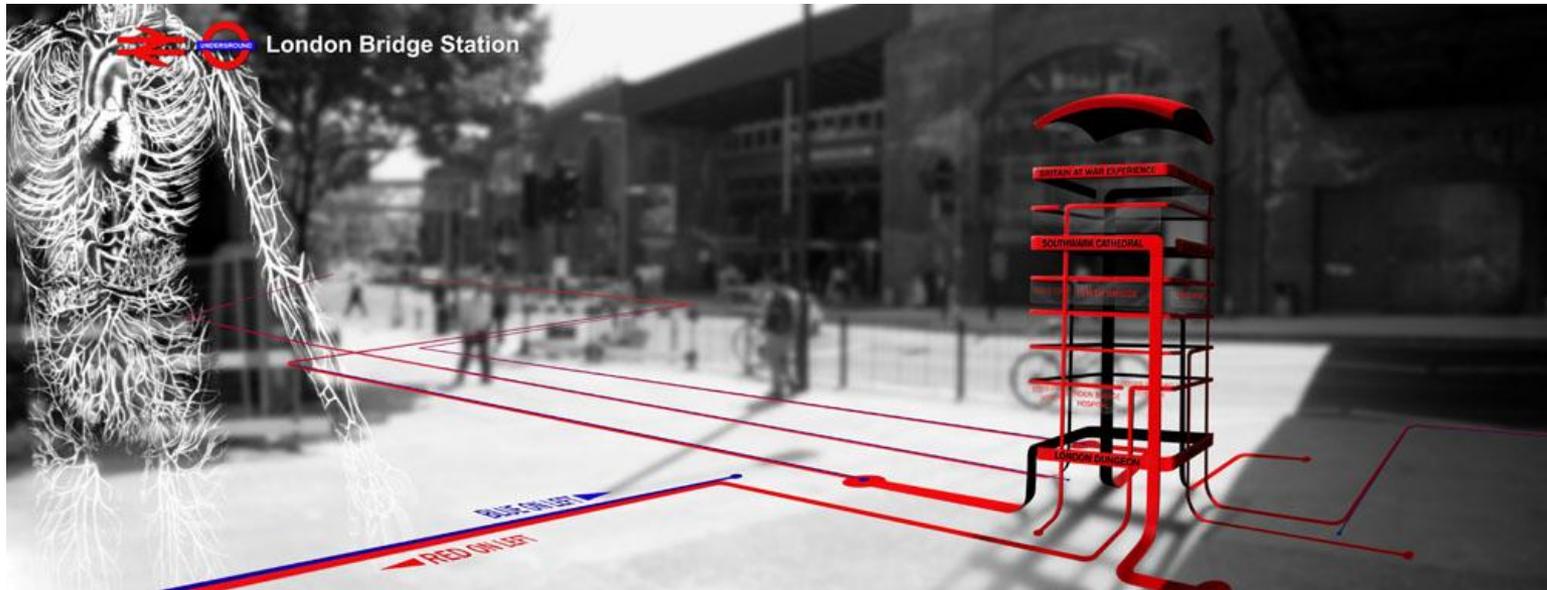
# Urban Flow



**moving on**

# Urban Flow

## Communication



**moving on**

# Automark



Ford  
Mondeo



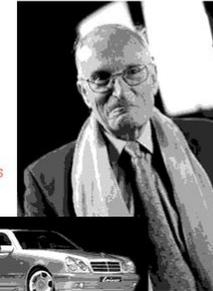
**Charlie, 46**  
pattern maker  
married, two sons



Saab 900  
convertable



**Steve, 50**  
graphic designer  
married, one daughter  
and one son



Mercedes  
c-class



**John, 89**  
retired  
married, one daughter

the interviewed

## users

**Maria, 30**  
barrister  
lives together with  
her boyfriend



Mercedes  
32 SLK AMG



**Jan, 54**  
physiotherapist  
married, two daughters



BMW Z3



**Barbara, 60**  
receptionist  
widow, one daughter  
and one son



Honda  
Civic



moving on

the interior

**A**  
childhood  
aspirations

**B**  
spaces  
travel spaces,  
personal space

**C**  
products  
consumer attitude

**D**  
attitude  
to cars

**E**  
car interiors

John, 89

best journeys



favourite thing

worst journeys



best journey

in control of the road



enjoy flying



spend money on fuel



more comfortable today

enjoy driving  
radio living room



air-conditioning

Steve, 50



not a 'space invader'



I just want to feel good

the power and beauty



character

personal space



the lounge

Charlie, 46

best journey



worst journey

claustrophobic



prefer my bicycle

spend money on music...



...and travelling with my family

too many cars



practical

happy  
bathroom

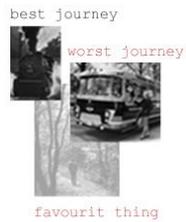


calm

moving on



**Barbara, 60**



**Jan, 53**



**Maria, 30**

**A**  
childhood  
aspirations

**B**  
spaces  
travel spaces,  
personal space

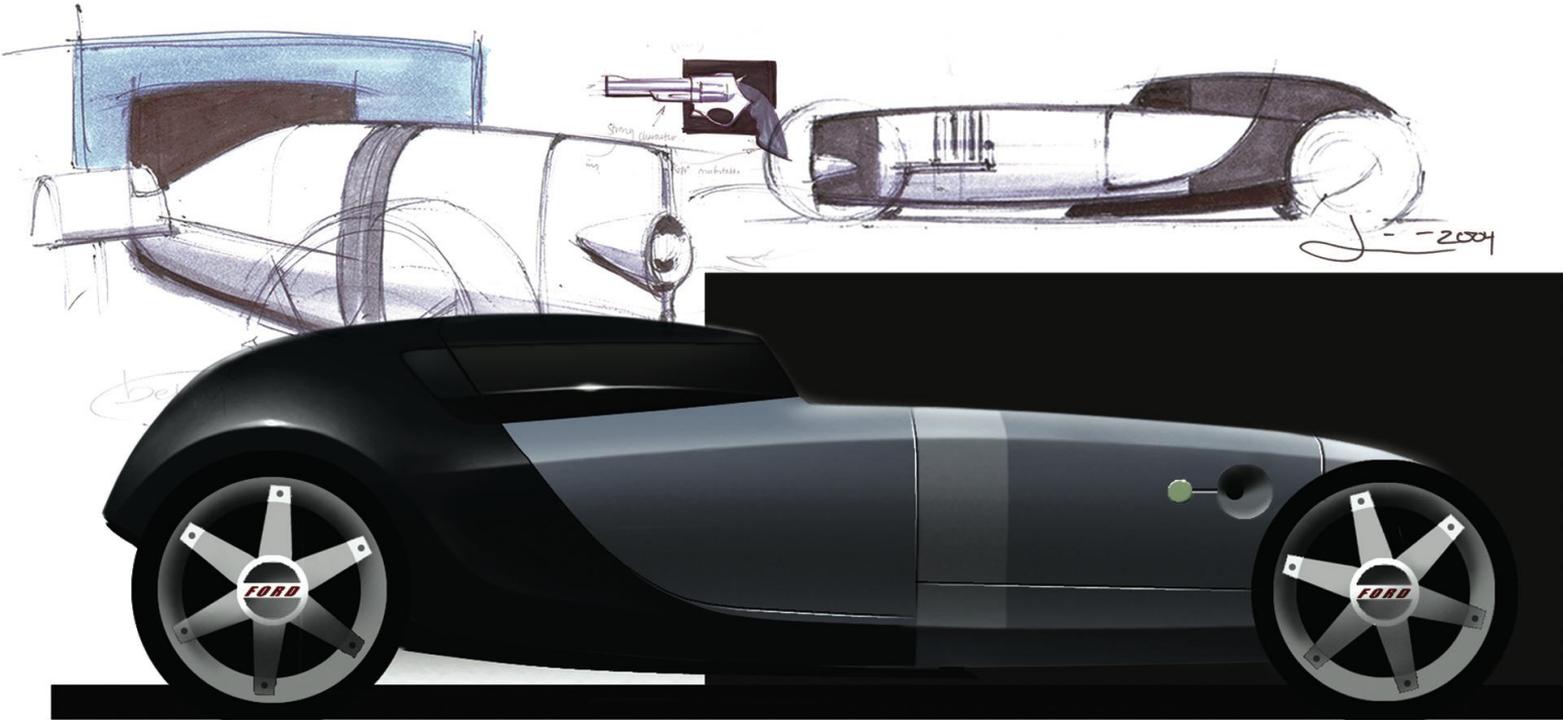
**C**  
products  
consumer attitude

**D**  
attitude  
to cars

**E**  
car interiors

**moving on**

# Automark



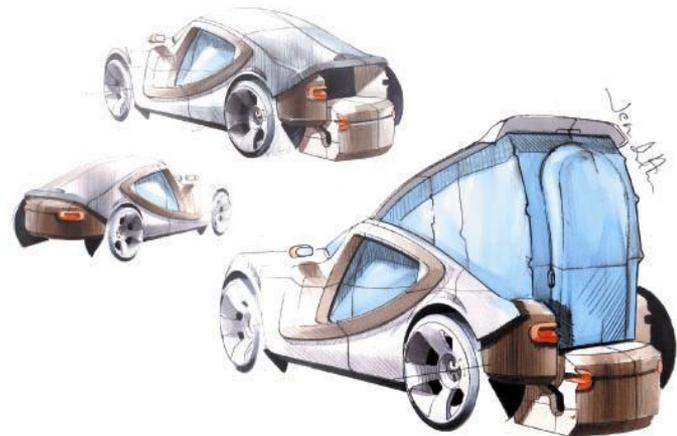
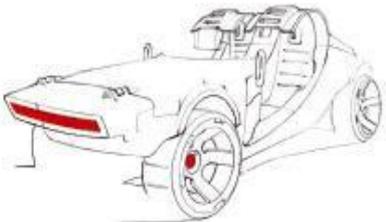
moving on

# Automark



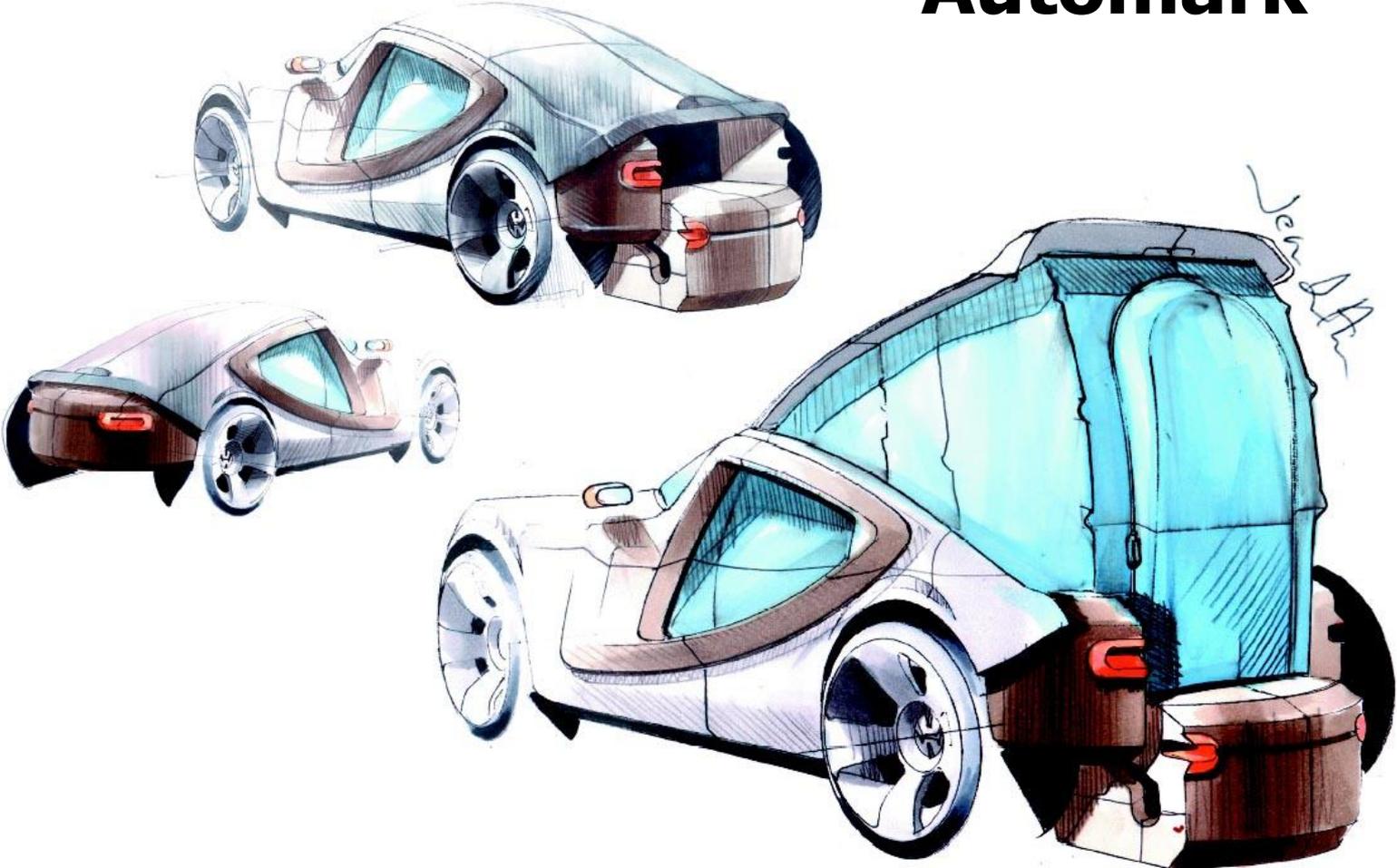
**moving on**

# Automark



moving on

# Automark



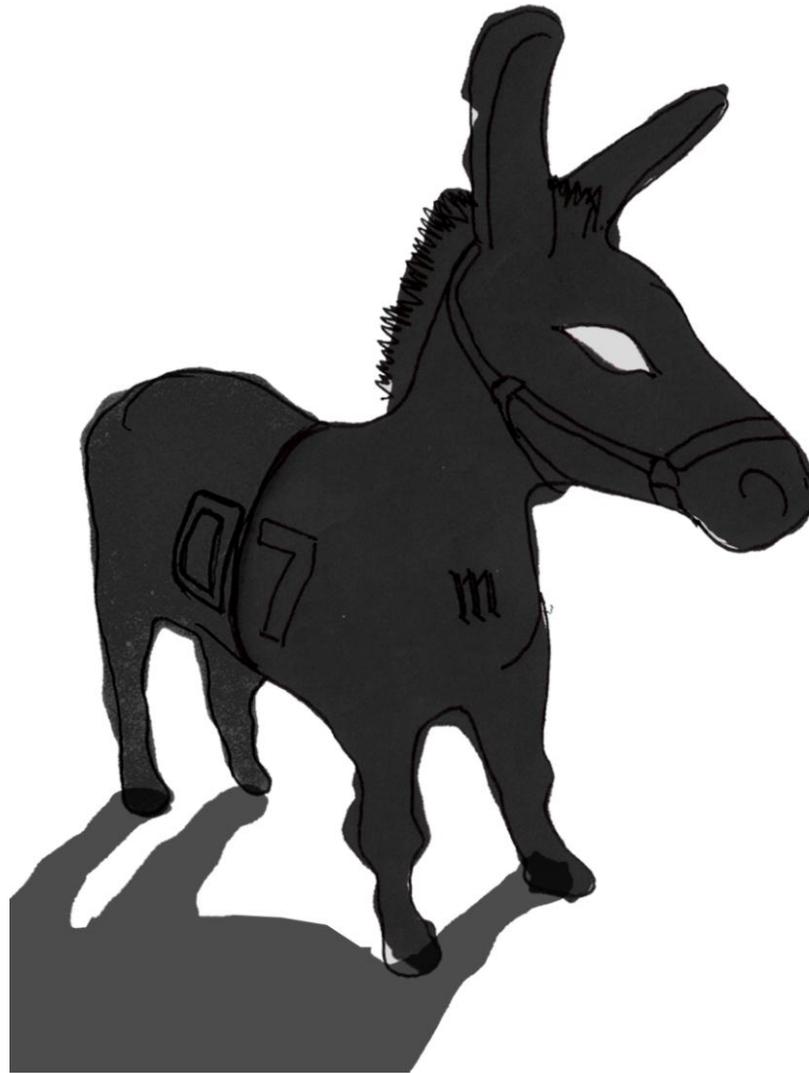
moving on



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# Inside-out





\* FROM THE RURAL WORLD TO THE EMERGING WORLD

\* A MEETING POINT FOR TRADITION - MODERN EAST - WEST OLD - NEW

\* WALK SLOW

\* A GUIDE TO GO. SLOW IN A FAST CITY

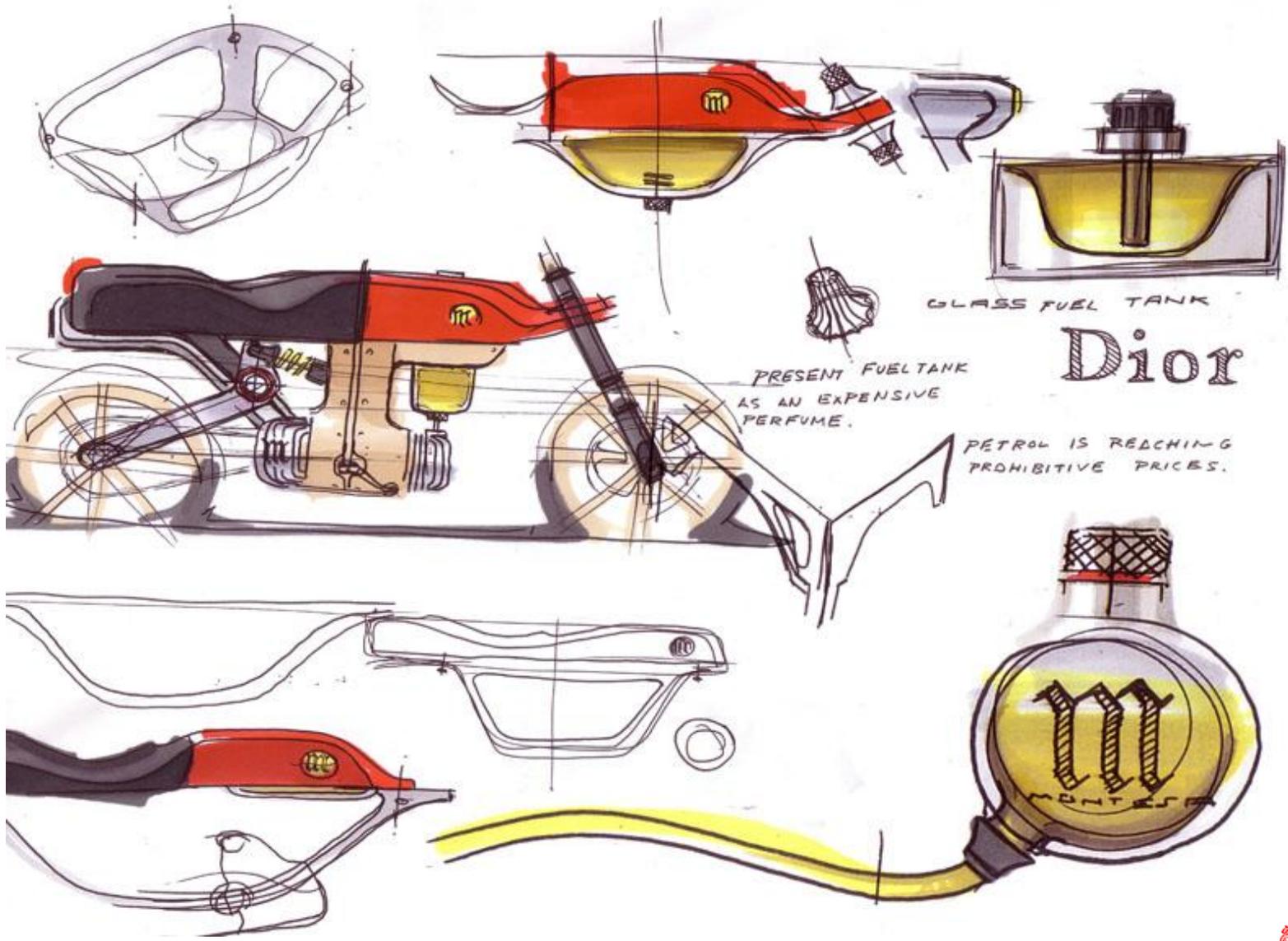
\* THINK ABOUT WHAT YOU ARE DOING

\* FRIENDS DON'T RUN

\* WALKING IS USEFUL FOR LONG LIFE

\* SLOW IS A STATE OF MIND

moving on



**moving on**

# Inside-out



# Inside-out



**moving on**

# Inside-out



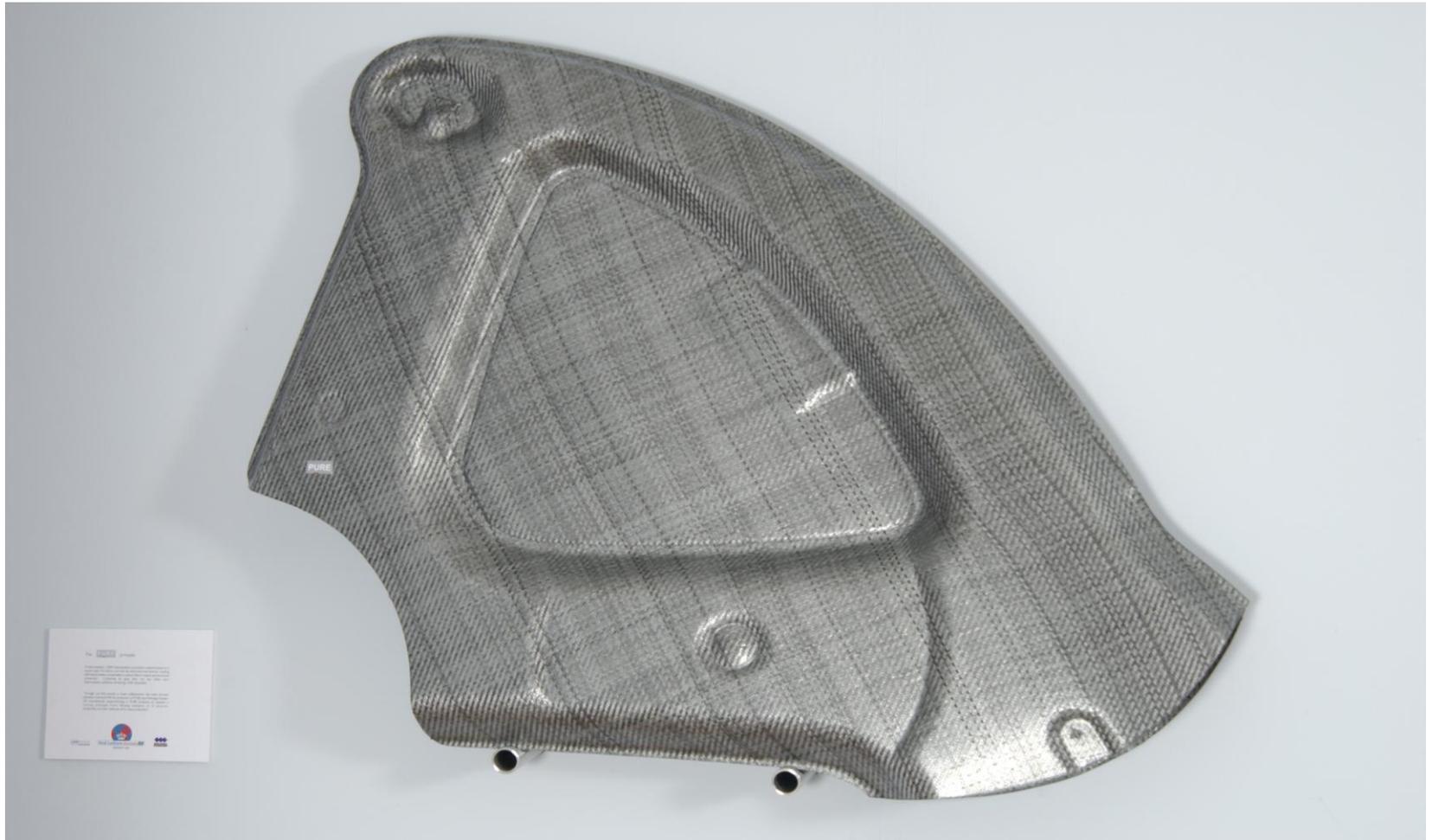
**moving on**

# Inside-out



**moving on**

# Inside-out



**moving on**

# Inside-out



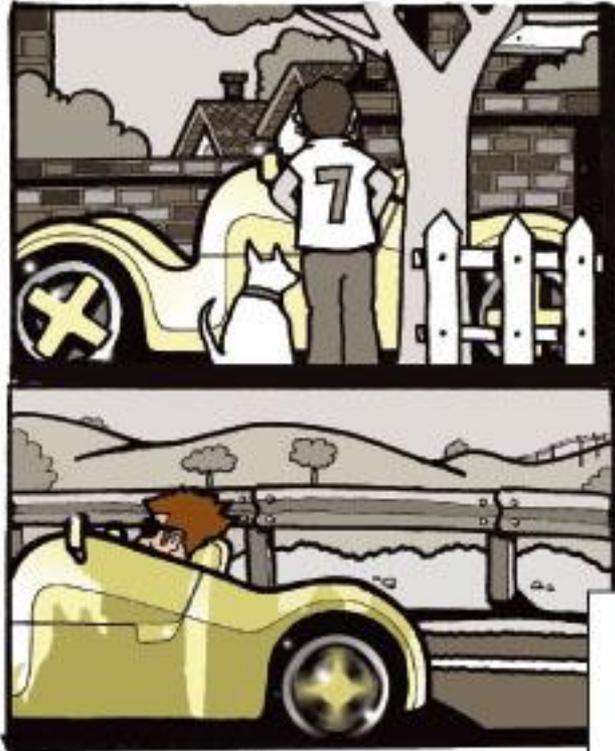
**moving on**

# Inside-out



**moving on**

# Inside-out



## ENVIRONMENT

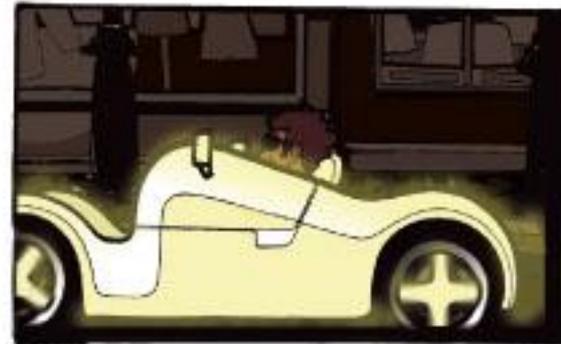
Technology some time is much faster than the human mind for example, driving your car but still thinking at the place that you have been before like your home.

The body colour of the car can project on the environment shadow and keep them while driving.

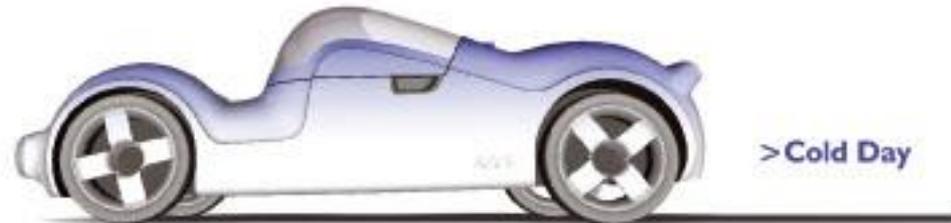
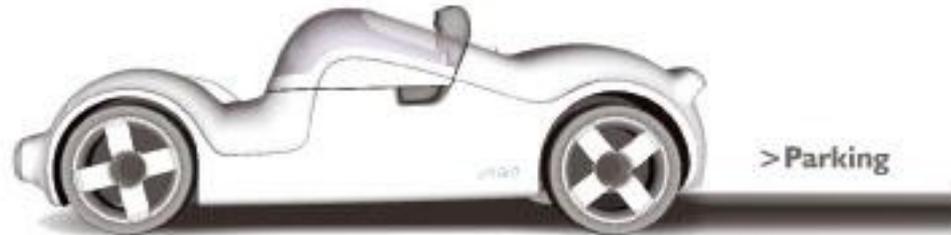
It's like taking the environment with you.

## NIGHT

Plastic car body charge itself at daylight and at night it glows for better visibility.



# Inside-out



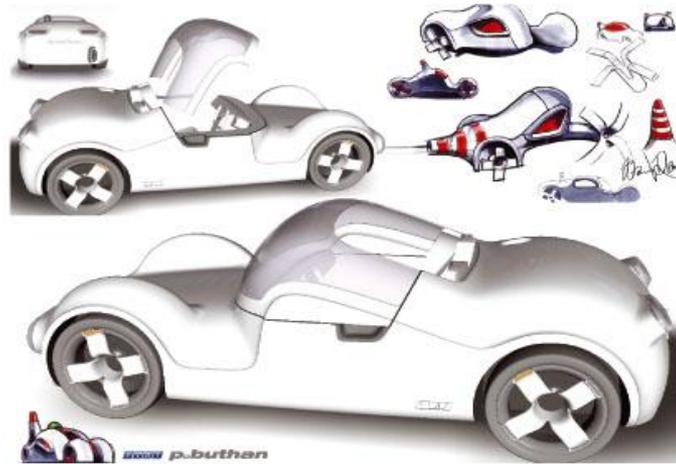
FIAT P. Buthan made out of a thermo chromatic thermoplastic that creates varieties of colour interaction effects.

"any colour so long as it's white"

**FIAT**

**p.buthan**

# Inside-out



Part of the process was to find out a new smell and flavour for plastic car partly by using vacuum forming for 3D sketch modelling looking for hints in the martial reaction.



# Fiat



**moving on**



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# **INNOVATING PRACTICE**

## **Research, Teamwork, Experimentation**

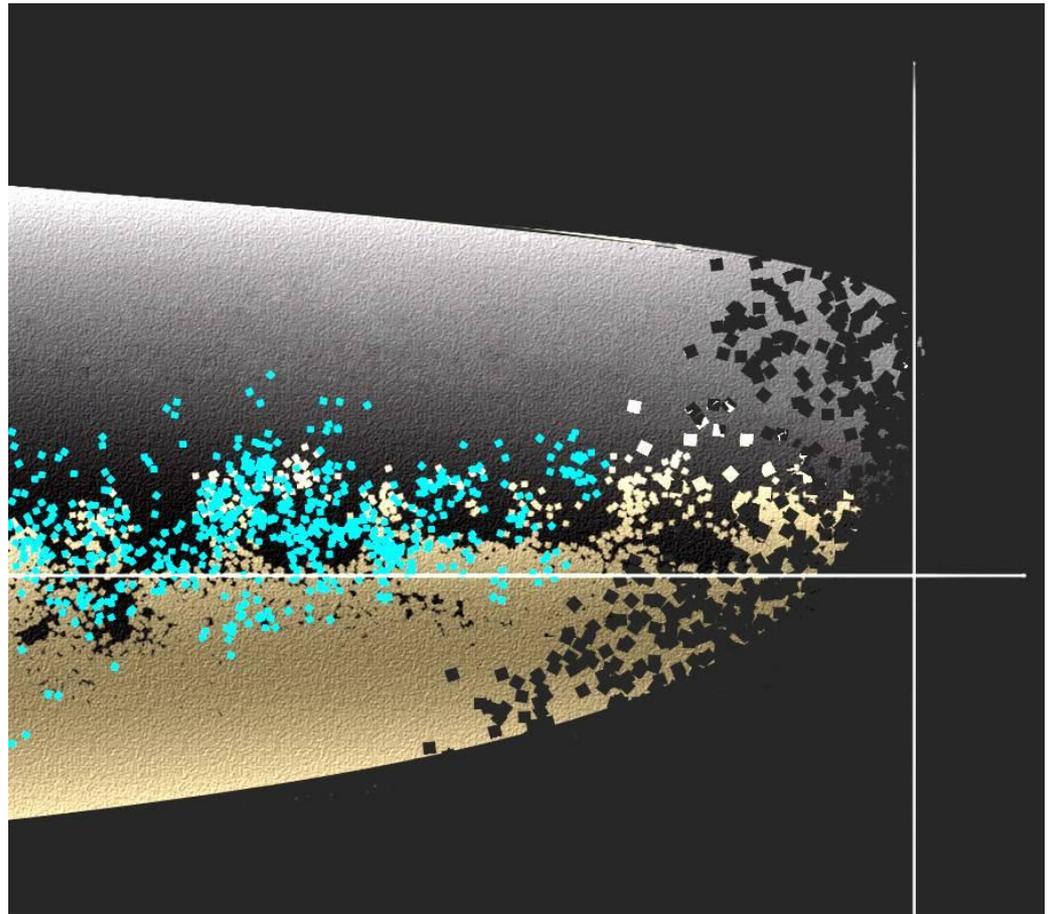
**moving on**

The plastic  
itself creates  
the shapes.

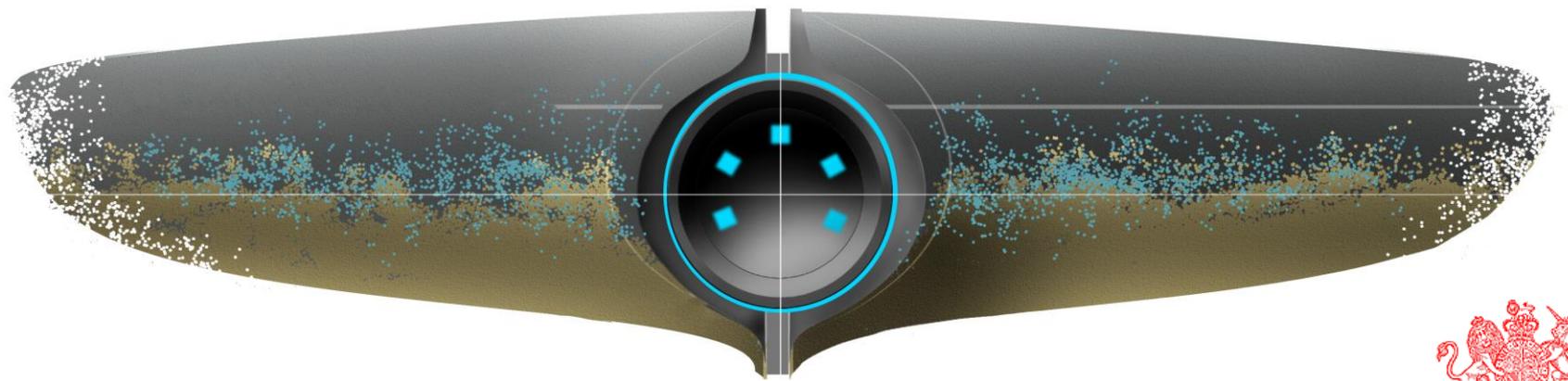
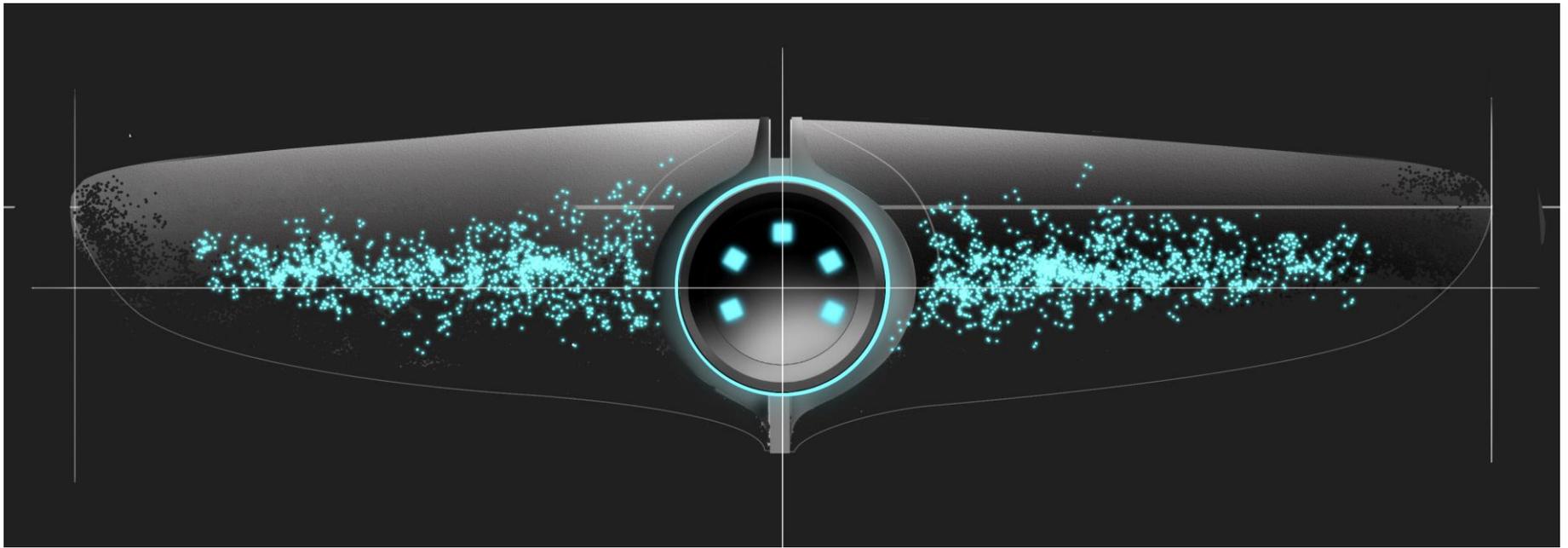


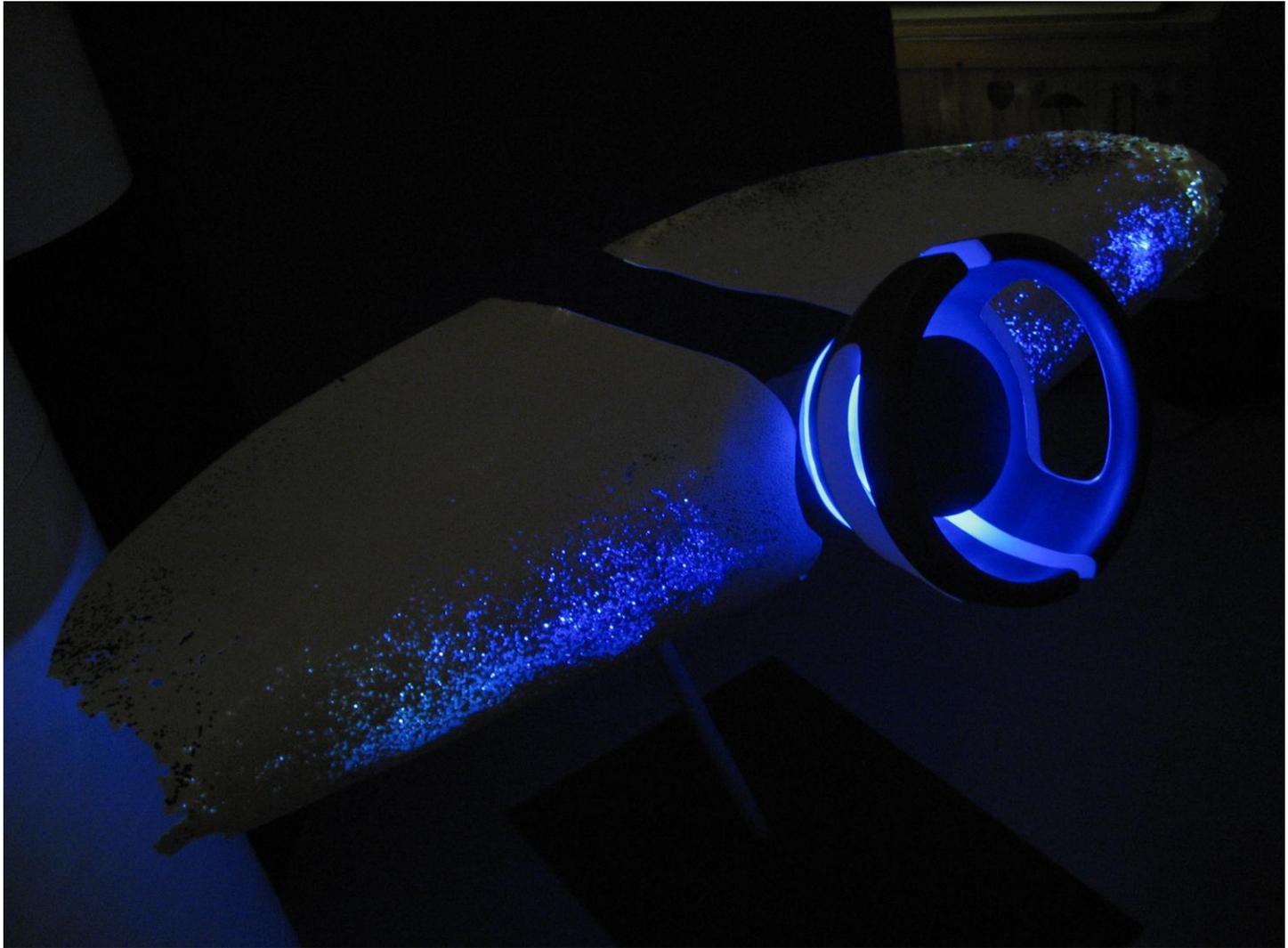
**moving on**

The plastic  
itself creates the  
shapes

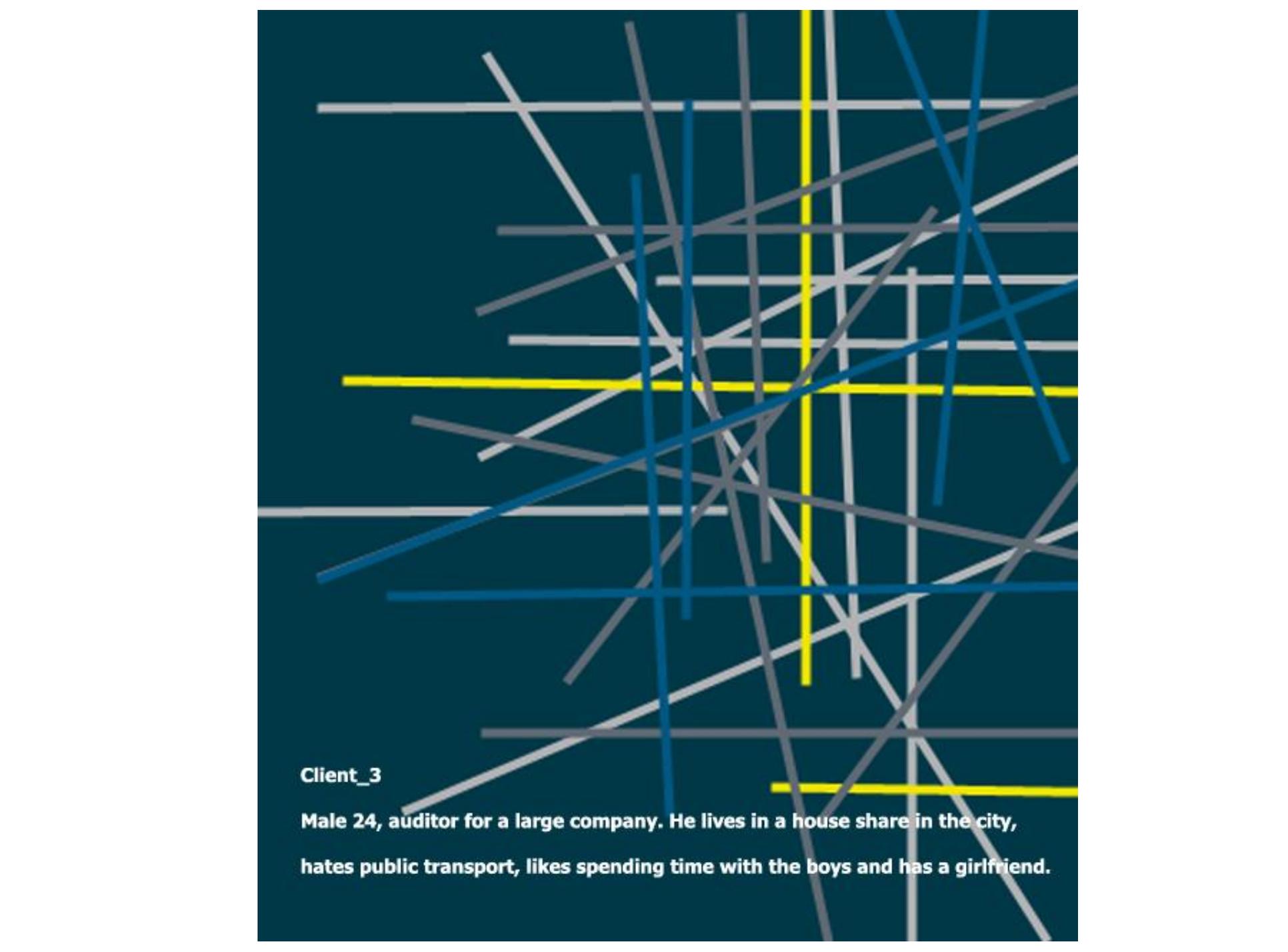


**moving on**





**moving on**



**Client\_3**

**Male 24, auditor for a large company. He lives in a house share in the city, hates public transport, likes spending time with the boys and has a girlfriend.**



**moving on**



**moving on**



**moving on**

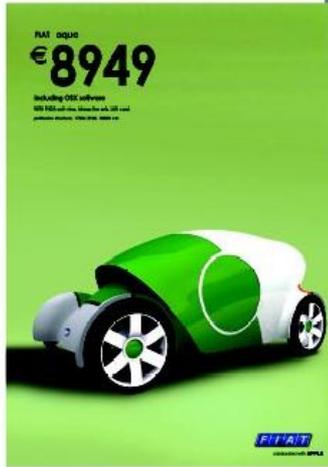
# PRODUCT TO SERVICE

**Co-driving:  
MIXING DISCIPLINES, PIXEL:  
IMAGINE THE BIGGER PICTURE**



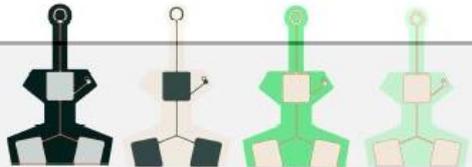
**moving on**

Leslie Lau, UK, vehicle design  
 Julio Lozano, Spain, vehicle design  
 Eiyung Min Lee, Korea, vehicle design  
 Lianne Mallott, UK, textiles  
 Philippa Caley, UK, textiles



### Fiat Inside

The exteriors reflect the flexibility of the system, demonstrating the collaboration with partner companies. Some of the proposals also reflect the theme of water - the only by-product of the fuel cell.



Textiles with integrated electronics for maximum flexibility and upgradeability.



moving on



"HOW CAN WE BETTER INTEGRATE A CAR INTO DAILY LIFE?"



UP  
▶  
DOWN

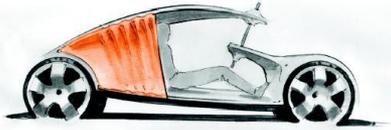


DIGITAL UPGRADEABILITY

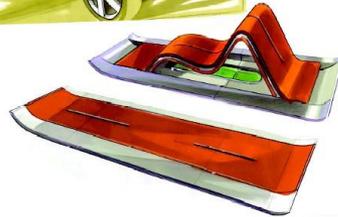
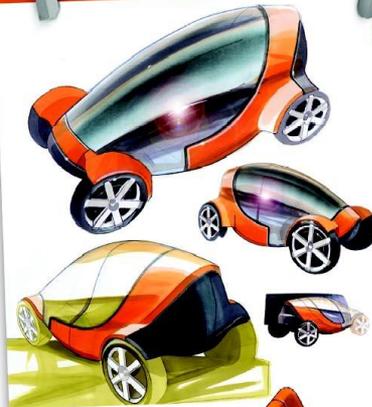
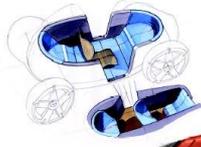


moving on

> SPORT TEXTILE JAMES



> INDIVIDUAL LUNA



Living room

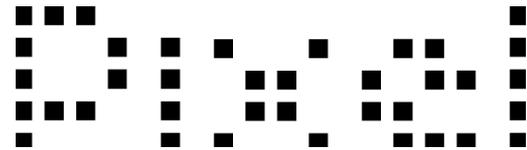


Textiles — Dry Clean Only

Agus explores the use of textiles and looks at the ways in which textiles and fabrics enrich our living experience and is a departure from the hard artificial surfaces towards soft natural materials. The proposals integrate interface systems and circuits by weaving them into the fabric.



moving on



**moving on**

# **INNOVATING PRACTICE**

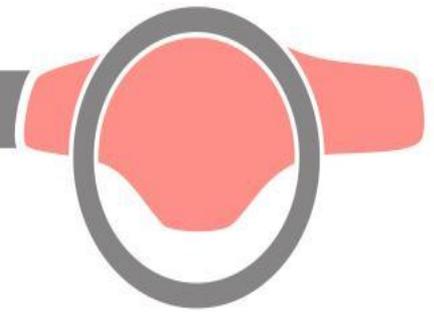
## **collaborative design research**

**moving on**

# Visteon



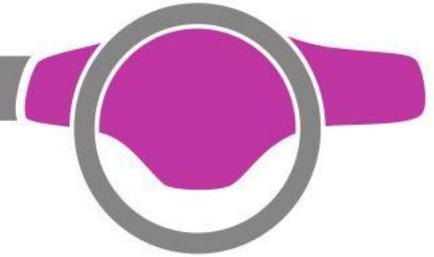
# Innovation



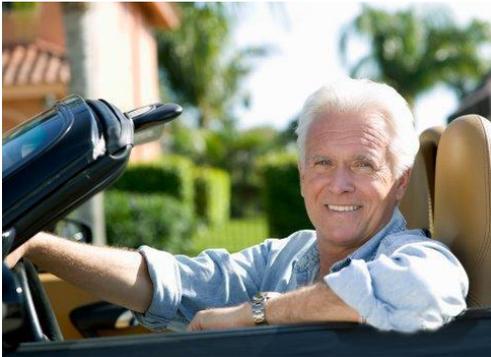
## Introduction



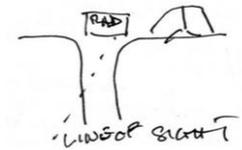
# Info-motion



User research

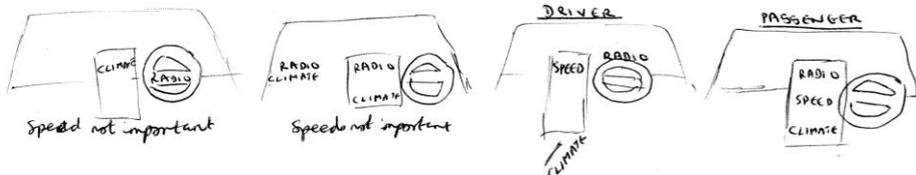


„Bigger dials when I need them“



„A customisable dashboard, just as on the desktop of my PC“

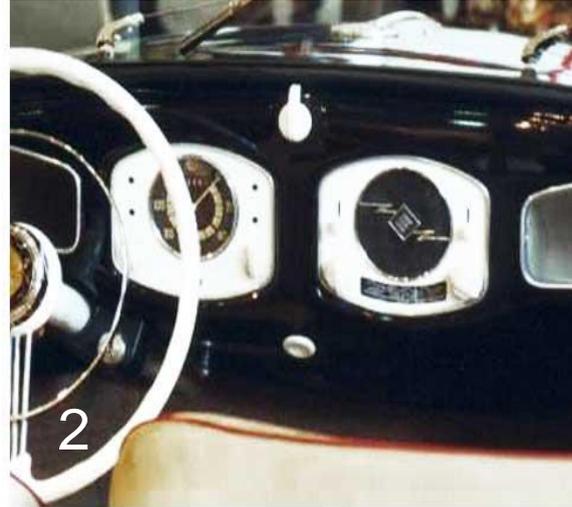
„Just the information I want ... no more!“



# Innovation



## Research - interior history



# Innovation

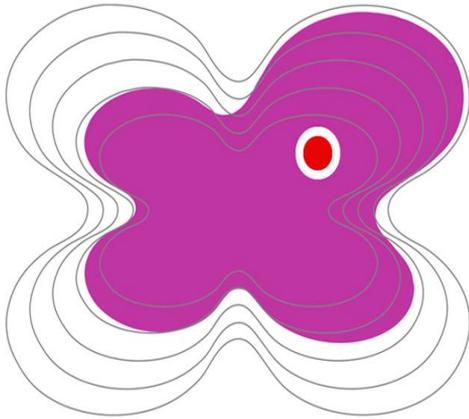
Research - technology



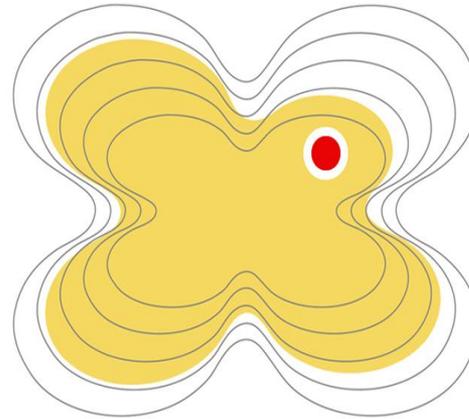
# Innovation



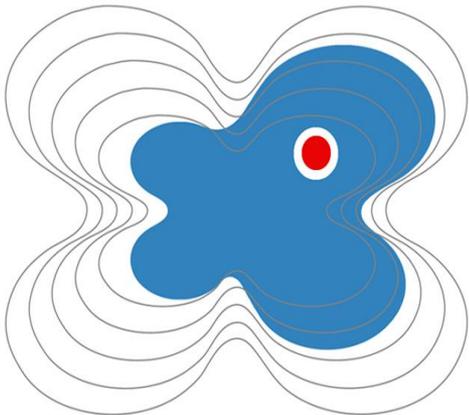
Research - interaction with the vehicle



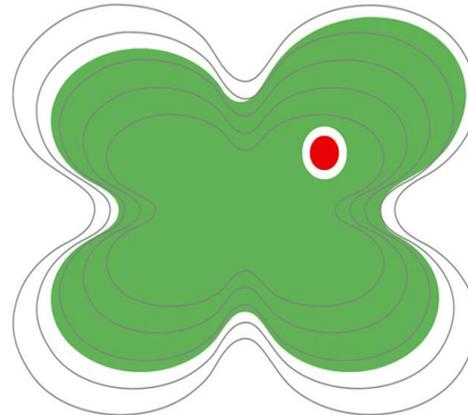
vehicle



architecture



navigation



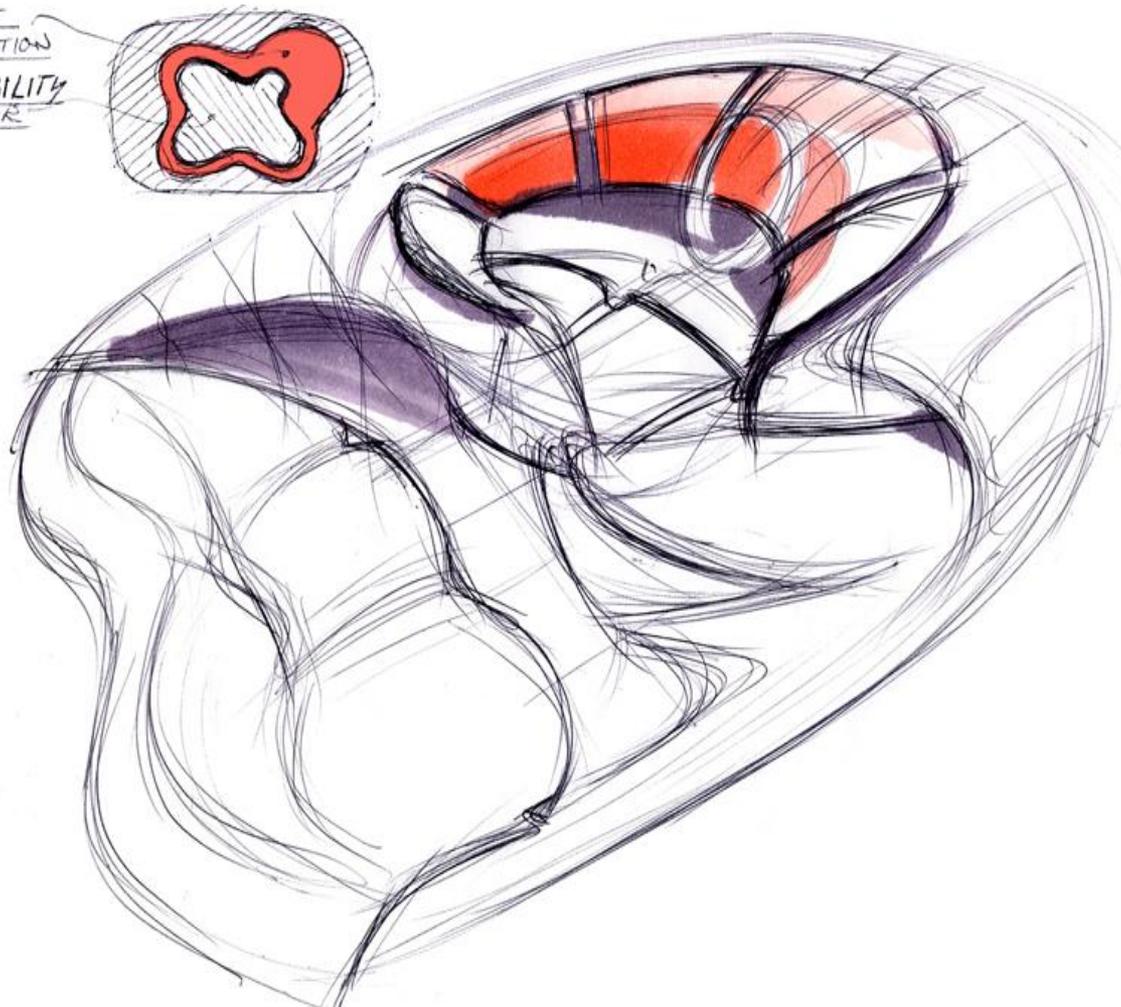
entertainment

# Innovation



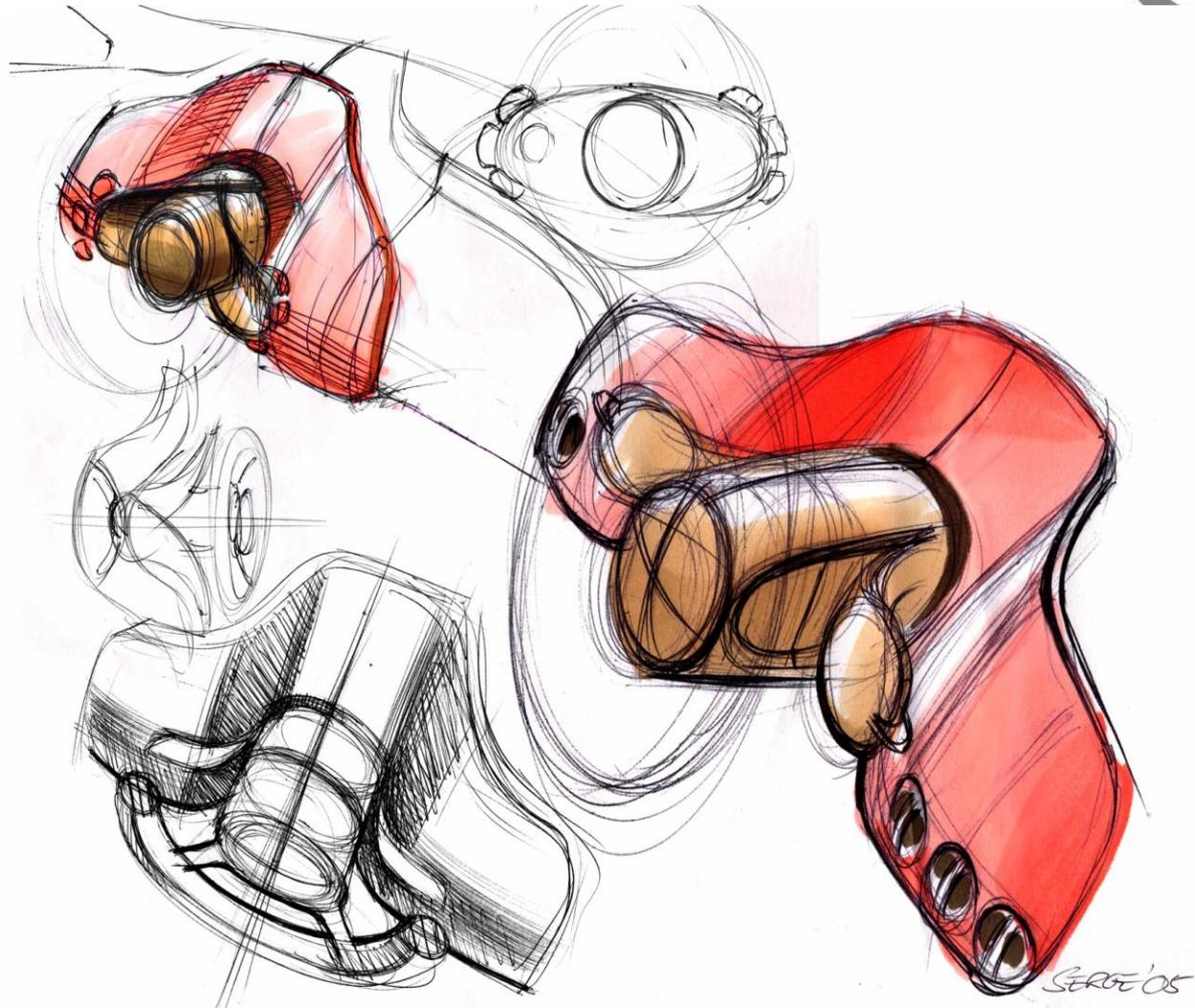
## Sketchwork

VEHICLE  
INTERACTION  
FLEXIBILITY  
INTERIOR



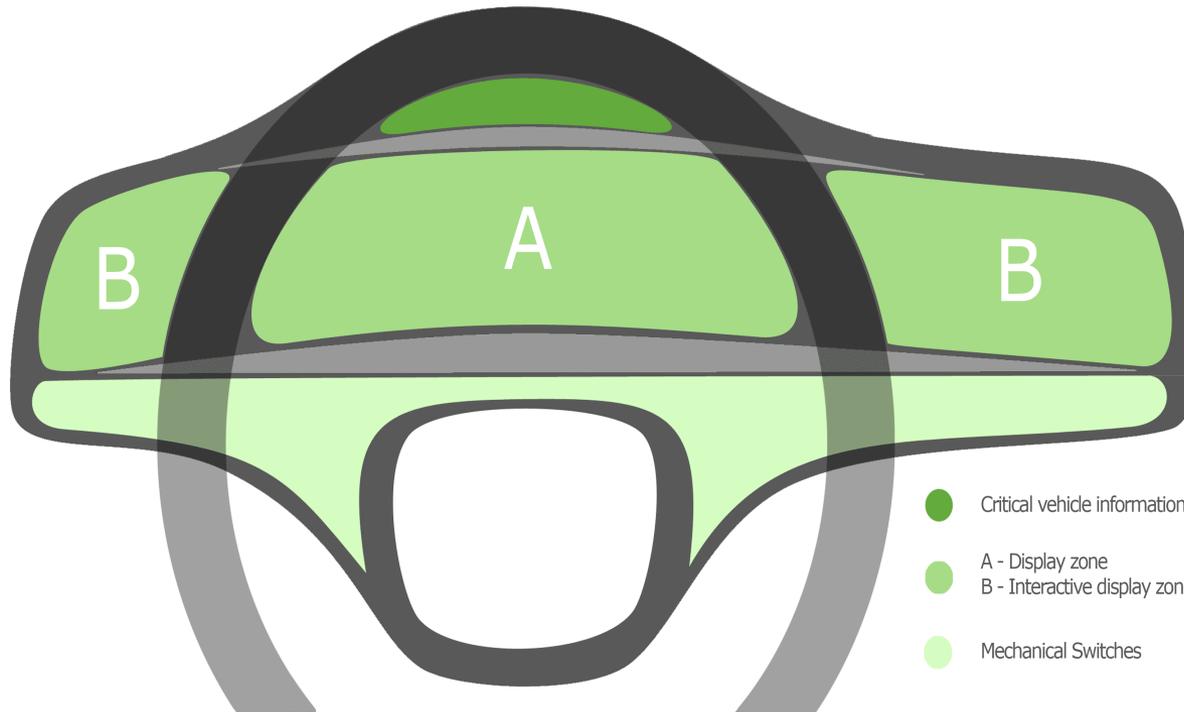
# Innovation

## Sketchwork



# Innovation

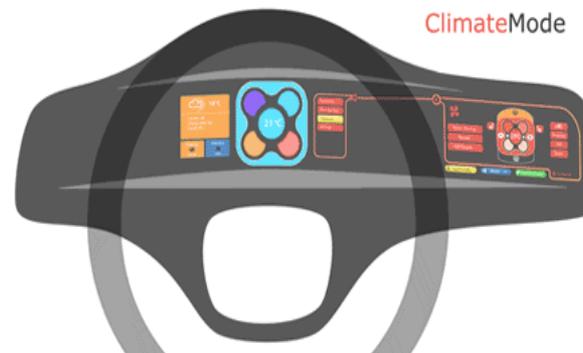
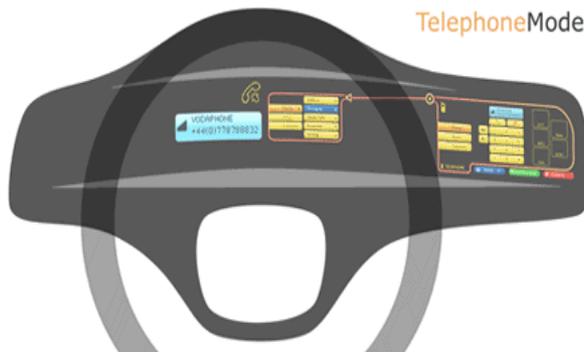
HMI - information hierarchy



- Critical vehicle information
- A - Display zone
- B - Interactive display zone
- Mechanical Switches

# Innovation

HMI - four colour-coded driving modes

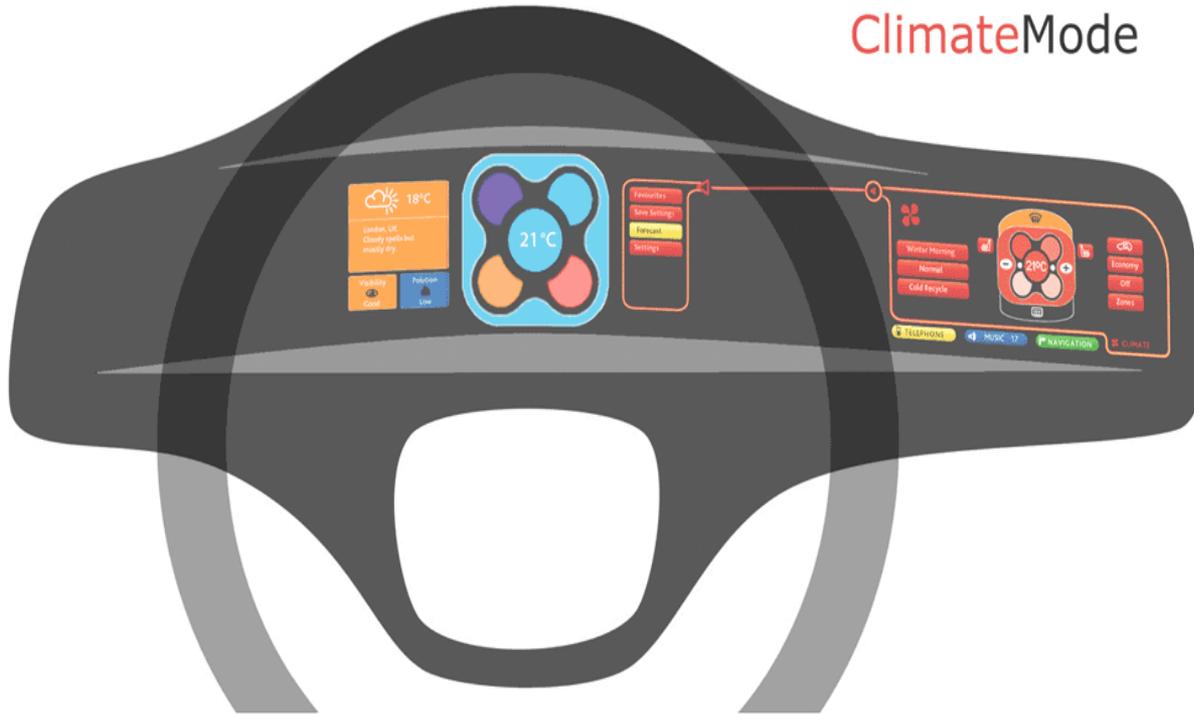


# Innovation



HMI

ClimateMode



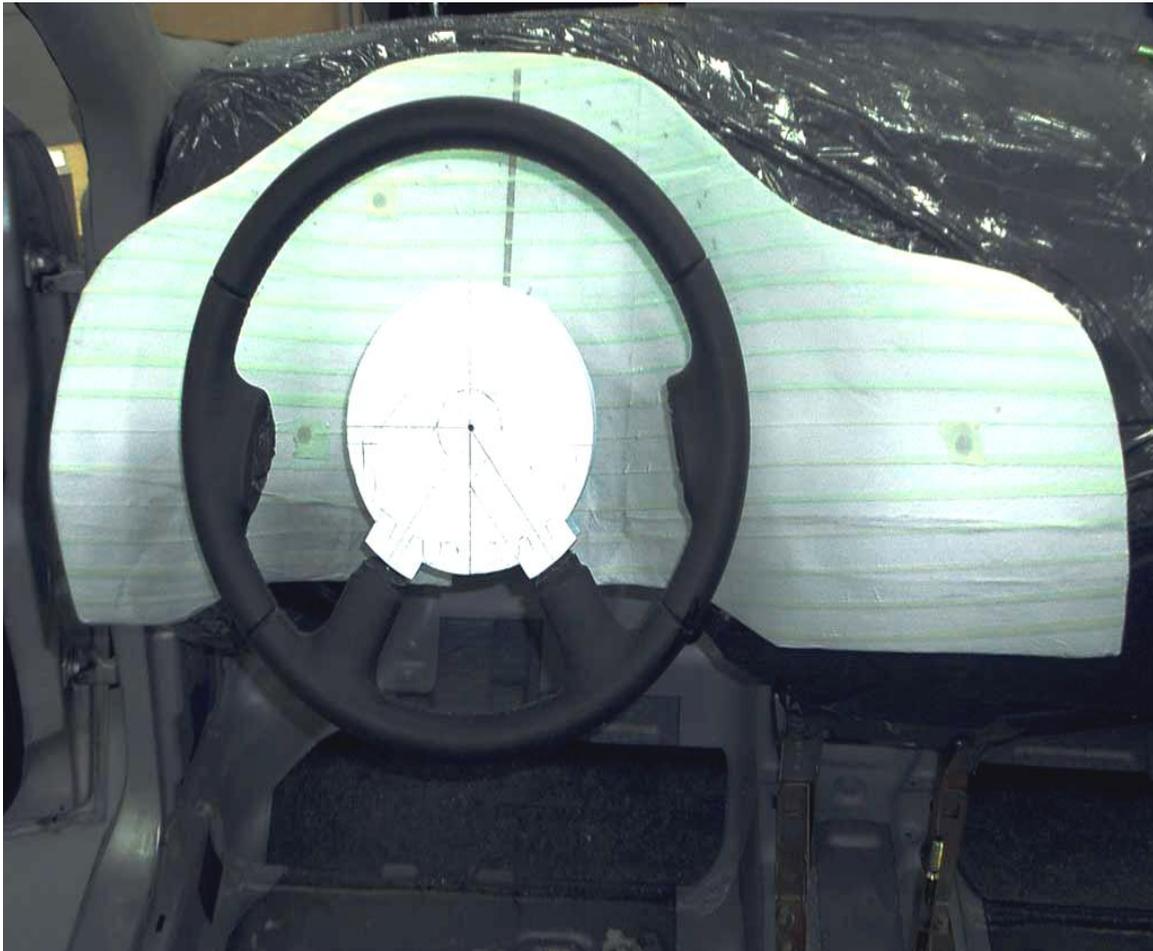
# Innovation

## Feasibility - package



# Innovation

Feasibility - ergonomics



# Innovation



## Feasibility - ergonomics



# Innovation



Dashboard model - Final design



**INNOVATING PRACTICE**  
**collaborative design research**  
**Sheila Clark Textiles Designer**

**moving on**



**moving on**



**moving on**





**moving on**



**moving on**



**moving on**

**‘Imagination is more important than knowledge’**

**Albert Einstein**



**moving on**

## '21C designers need imagination and knowledge'



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