

# CAR INTERIOR/ EXTERIOR PERCEPTION



SPEAKER: CARLOS SANCHEZ

CAR INTERIOR/ EXTERIOR PERCEPTION

FORM FOLLOWS FUNCTION, AND BOTH FOLLOW...

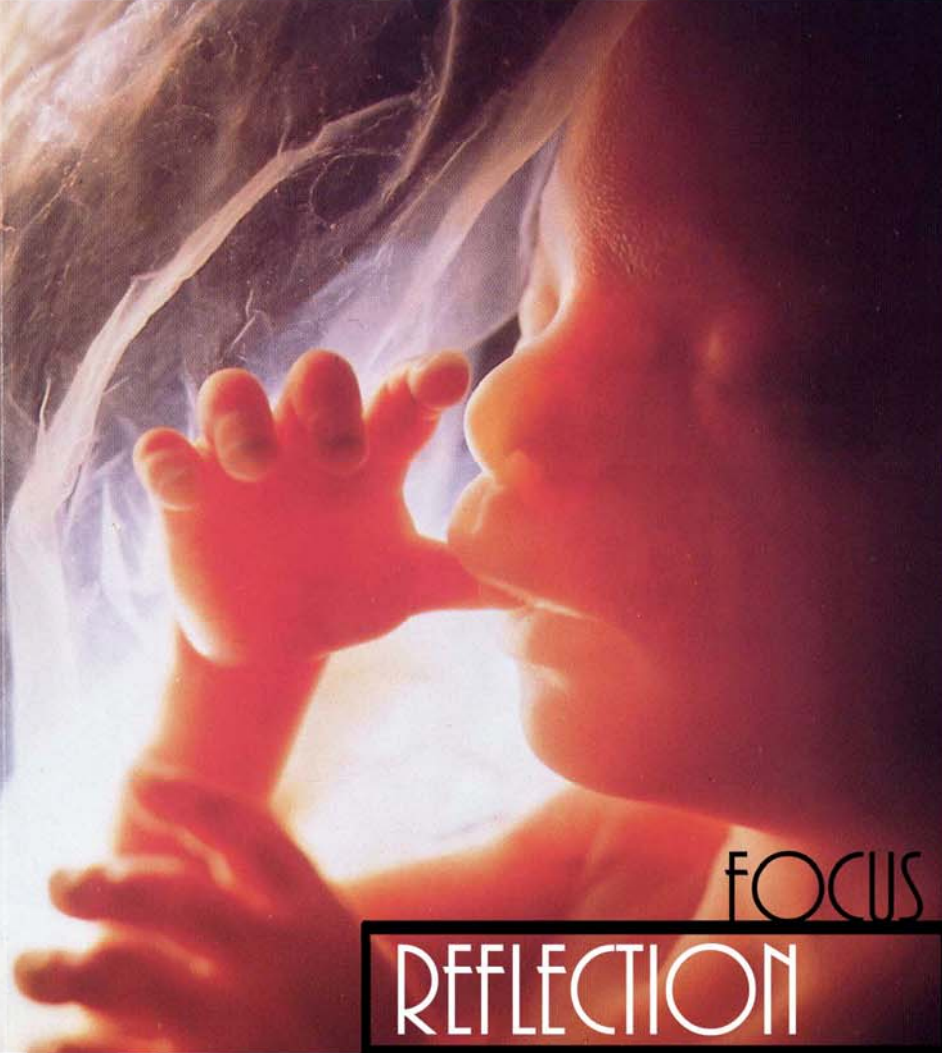


EMOTION

WHAT IS AN INTERIOR?

CAR INTERIOR/ EXTERIOR PERCEPTION

“ INTERIOR SPACE IS THE COMPLEMENTARY  
OPPOSITE OF THE OUTSIDE AND A  
MIRROR WHERE THE MIND REFLECTS ITSELF”



FOCUS  
REFLECTION

INSIDE IS SAFE AND PREDICTABLE  
I CAN HIDE, PROTECTED FROM OTHERS  
WHO MIGHT WISH ME HARM AND EVIL  
OR WORSE, NOTHING AT ALL  
MY WORLD IS NEATLY DEFINED  
ALIGNED IN PERFECT SQUARES  
THAT PROHIBIT OR ENSNARE  
FOR THOSE CAUGHT UNAWARE...

A. KEITH BARTON

PROTECTION

SENSES

FREEDOM



CAR INTERIOR/ EXTERIOR PERCEPTION

HOW SHOULD AN INTERIOR BE?

ELEGANT?  
SPARTAN?



THE FIRST INTERIOR

RELAXING?

STRESSING?



LIGHT, AIRY?

SHAPING THE INSIDE

WHAT IS A CAR INTERIOR?

CAR INTERIOR/ EXTERIOR PERCEPTION

WHAT ARE THE NEW  
TRENDS, THE NEW  
NEEDS??



NO STOP AND GO,  
NO ABSOLUTE SPEED,  
REAL LIFE



FAST DRIVE UTOPIA



CONSTANT FLUIDITY



FORM FOLLOWS FUNCTION

LE CORBUSIER

CAR INTERIOR/ EXTERIOR PERCEPTION

# WHAT'S THE FOCUS ?

DRIVING ORIENTED ???



LIVING ORIENTED

FORMAL, ELEGANT



CASUAL, FREE



CLASSIC, LUXURIOUS



AVANT-GUARDE, TECHNOLOGIC



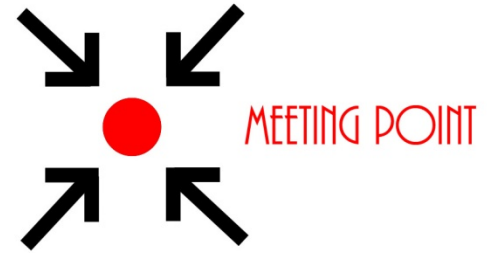
SOLID, LIGHT





CAR INTERIOR/ EXTERIOR PERCEPTION

# HUMAN INTERACTION



WHILE WE MOVE

INTERFACE



ISOLATION



CAR INTERIOR/ EXTERIOR PERCEPTION

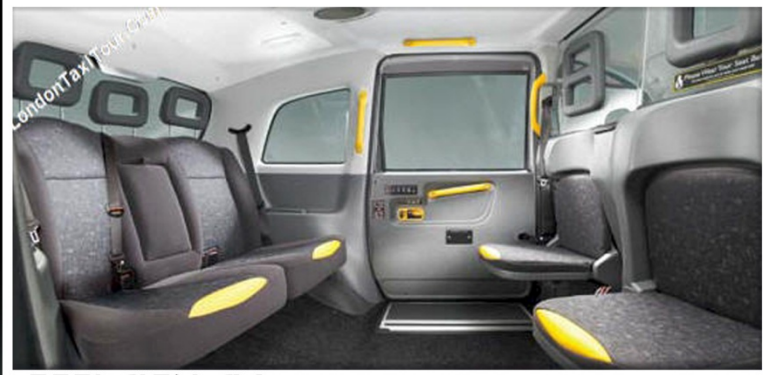
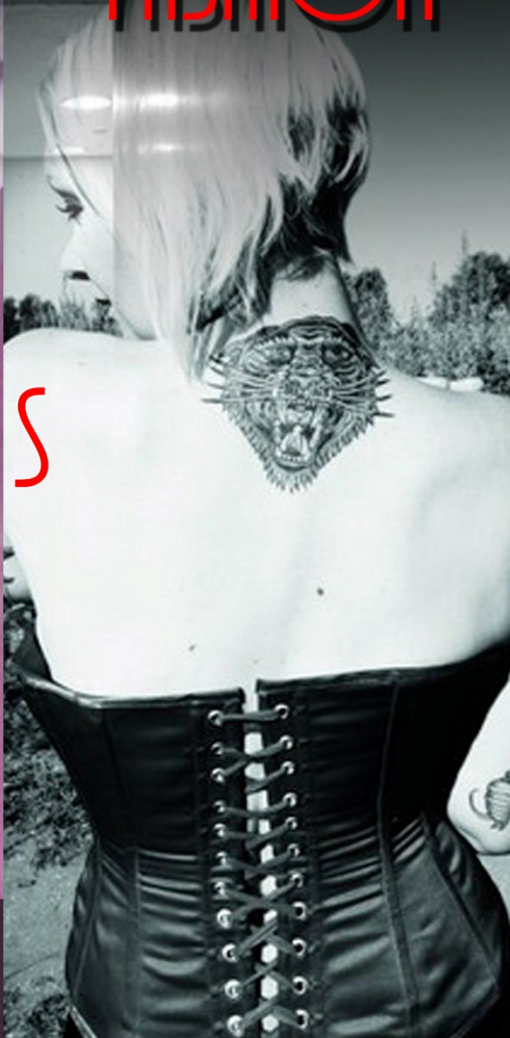
INTERIOR SHAPED BY  
TREND



COMFORT

VS

FASHION



EFFICIENCY



SAME EXTERIOR FOOTPRINT



STYLE



# THE CAR CABIN IS MADE

## Of SENSATIONS



THESE SENSATIONS ARE CREATED BY  
A NUMBER OF FACTORS:

1. AMOUNT OF LIGHT
2. COLORS
3. MATERIALS
4. TEXTURES
5. AMBIENT LIGHT
6. INTERIOR FLEXIBILITY
7. SHAPES

# 1. DLO (DAY-LIGHT OPENING)

## PROPORTION

AMOUNT OF LIGHT THAT ENTERS THE CABIN



50%- 50%

THIS ALLOWS FOR MORE LIGHT ENTERING THE CABIN



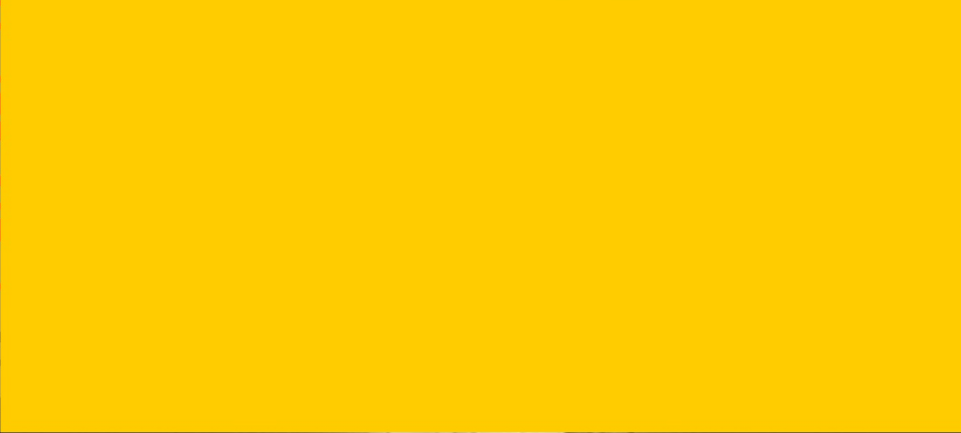
65%- 35%

THE CABIN IS DARKER, THUS LIGHTER MATERIALS SHOULD BE USED TO AVOID CLAUSTROPHOBIC SENSATIONS



CAR INTERIOR/ EXTERIOR PERCEPTION

COLORS



CAR INTERIOR/ EXTERIOR PERCEPTION

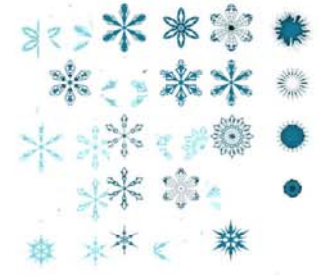
# COLD COLORS



TREND GOES TO USING MORE PASTEL- LOOKING COLORS- SOOTHING CALMNESS



## ADVANCED TECHNOLOGY



# HOT COLORS



WARM COLORS ARE OFTEN USED IN CONTRAST WITH BLACK, IN ORDER TO MIMIC WARNING COLORS IN ANIMALS

RACING, SPEED





# TAN COLORS

EARTH COLORS HAVE A SOOTHING EFFECT AND CAN TOLERATE A WIDE AMOUNT OF TEXTURES BECAUSE THEY ARE NEUTRAL

LUXURY





# STONE COLORS



GREY HUES ARE USED ALWAYS TOGETHER WITH COLORED OR SILVER ACCENTS, AND IS MEANT TO SHOW BASIC ELEGANCE



SOBRIETY, SERIOUSNESS

WHEN CREATING CONTRAST WITH STRONG COLORS IT CAN ADD A "CHIC" EFFECT





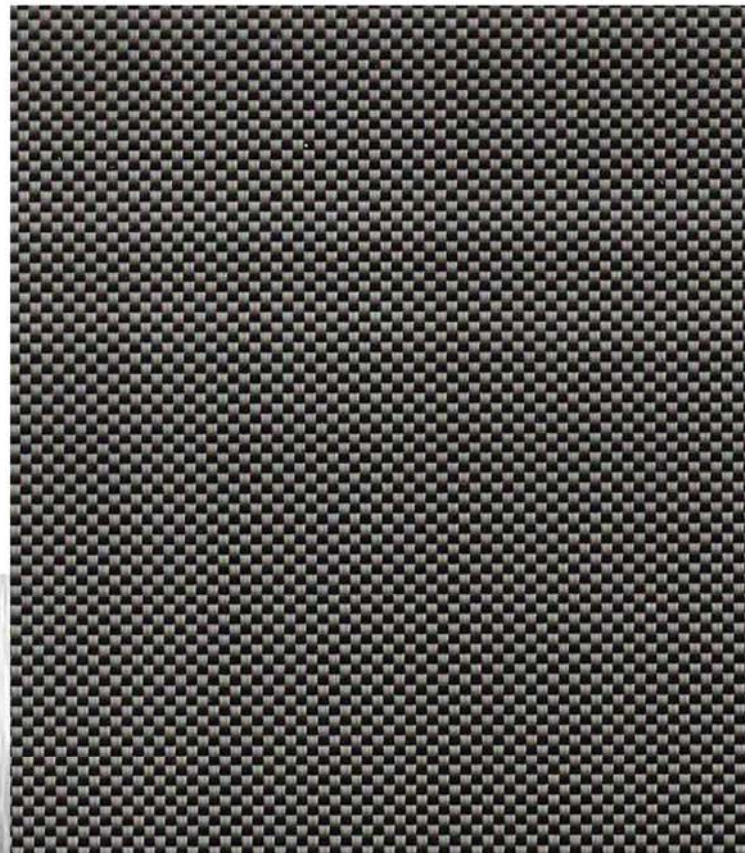
# 3. MATERIALS



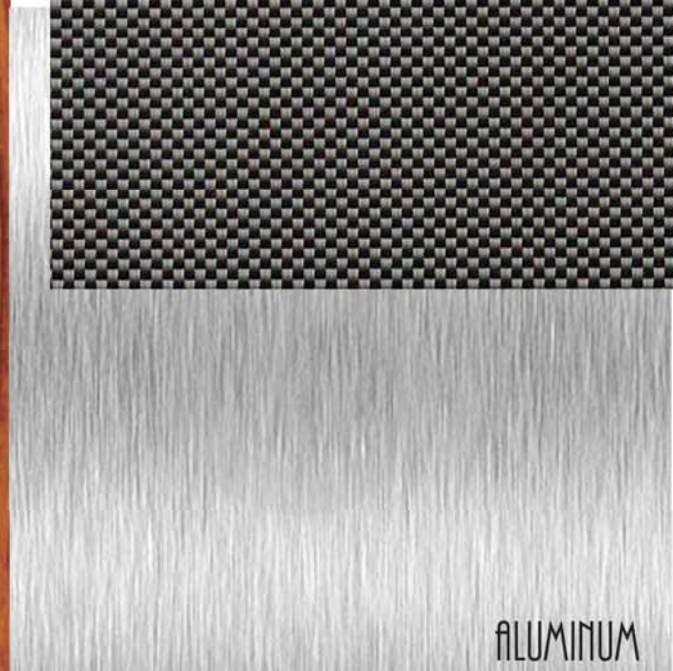
LEATHER

WOOD

CARBON FIBER



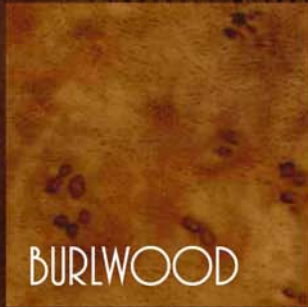
ALUMINUM



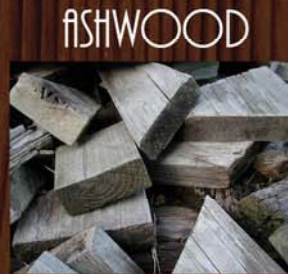


# 3. MATERIALS

## NATURAL MATERIALS



BURLWOOD



ASHWOOD

WOOD



NATURAL MATERIALS ARE OFTEN USED TO SHOW CLASSIC LUXURY, SINCE THEY REQUIRE MORE TRADITIONAL HAND LABOR METHODS TO WORK WITH THEM



ALCANTARA



LEATHER

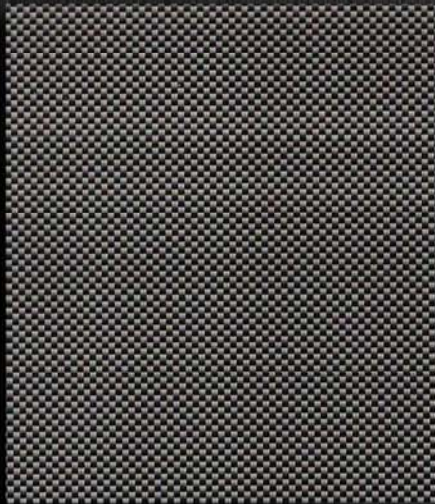
# 3. MATERIALS

## COLD MATERIALS



TITANIUM

COLD MATERIALS ARE OFTEN USED BECAUSE OF THEIR PHYSICAL OR MECHANICAL ADVANTAGES, THUS THEY REPRESENT A **HIGHLY TECHNOLOGICAL** LEVEL OF ENGINEERING AND COMPETITIVE 'AVANT GARDE' NATURE



CARBON FIBER



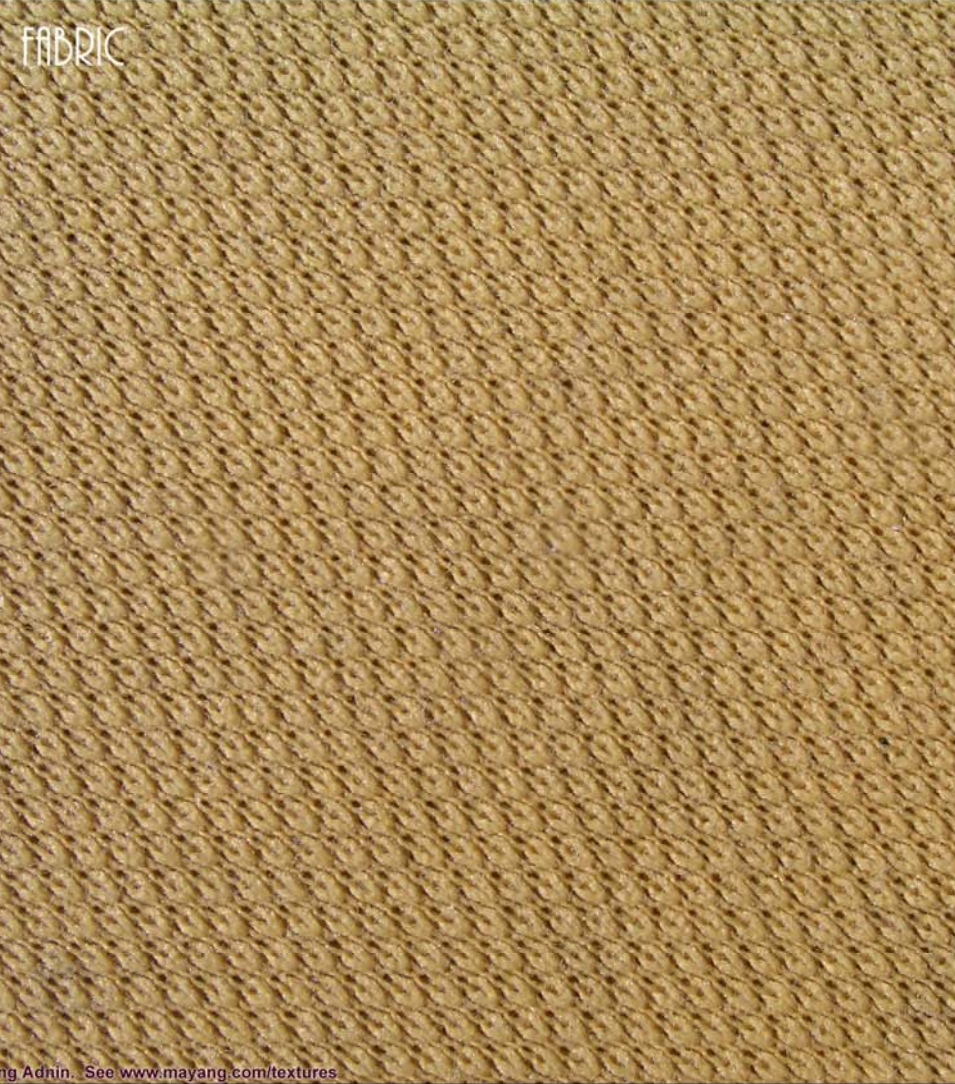
ALUMINUM



# 4. TEXTURES

## SOFT TEXTURES

FABRIC



TEXTURES IS WHAT GIVES THE QUALITY TO THE MATERIALS, A STRONG, BOLD TEXTURE REASSURES US THAT WHAT WE ARE TOUCHING IS REAL.

SOFT MATERIALS, FOR THIS REASON, ARE PREFERRED IN ORDER TO GIVE A SENSE OF QUALITY, WITH A DOWNSIDE TO MAINTENANCE.

WOOL



LEATHER



FOAM





# 4. TEXTURES

## HARD TEXTURES

BRUSHED METAL

WHICH ONE FEELS MORE QUALITY-LIKE?

SMOOTH METAL

HARD MATERIALS NEED TO BE TEXTURED IN ORDER TO GIVE A PLEASANT FEEL. FOR EXAMPLE, THE BRUSHING IN ALUMINUM ALLOWS THE PERSON TO SENSE THE DEPTH AND QUALITY OF THE MATERIAL.

ON THE OTHER HAND, WOOD NEEDS TO BE VERY WELL POLISHED AND SMOOTH TO GIVE A SENSE OF LAVISHNESS.

Metal Texture

Dark Metal Texture

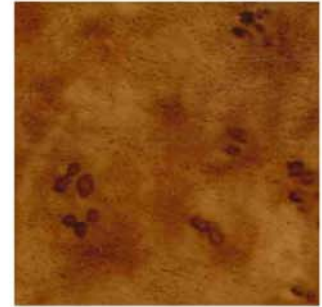
Stainless Steel

Titanium Texture

Speaker Grille Texture

Metal Plate

SMOOTH WOOD



GRAINED PLASTIC



CAR INTERIOR/ EXTERIOR PERCEPTION

# 5. AMBIENT LIGHT CROMOTHERAPY



INTERIOR AMBIENT LIGHT ALLOWS FOR THE CREATION OF DIFFERENT SCENARIOS, AND CAN IMPROVE AND ENHANCE THE DRIVING AND LIVING EXPERIENCE



SOFT AMBIENT LIGHT





CAR INTERIOR/ EXTERIOR PERCEPTION

# 5. INTERIOR FLEXIBILITY

# SPACE

SPACE (EVEN SUBJECTIVE SPACE) IS PROPORTIONAL TO THE SENSE OF FREEDOM



LOW ROOF

SOME PACKAGES ARE MORE EFFICIENT THAN OTHERS



SAME FOOTPRINT, MORE SPACE

PEOPLE + LUGGAGE

+ EFFICIENT



ALMOST SAME INTERIOR SPACE



- EFFICIENT

WAGON/ MONOVOLUME



WAGON/ TWO VOLUMES



SEDAN/ THREE VOLUMES



FOUR DOOR COUPE/ COUPE



HUMMER



# 5. INTERIOR FLEXIBILITY SEATS

TWO PEOPLE,  
FOUR PEOPLE,  
FIVE?



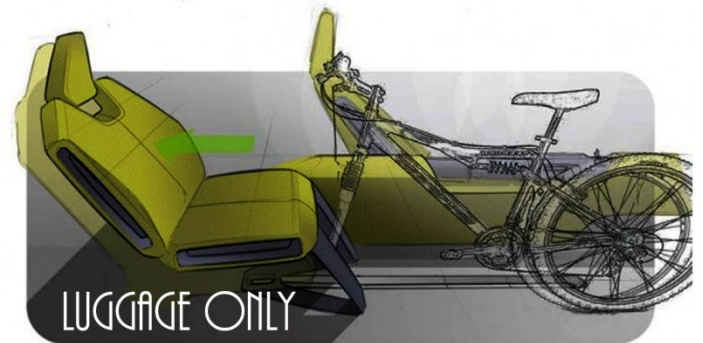
SEATS UP OR DOWN?

## CONFIGURATION

A SMALL INTERIOR CAN FEEL BIG IF IT GIVES PLENTY OF OPTIONS



PART OF THE FREEDOM SENSE IN A CAR INTERIOR COMES FROM THE WAY IT LETS YOU PLAY ACCORDING TO YOUR NEEDS.





# 6. INTERIOR FLEXIBILITY COMPARTMENTS



## + EFFICIENT

STORAGE



VALUABLE OBJECT KEEPING



I- PHONE JACK



Three-part glove compartment



# 7. SHAPES, FORMS

## FLOWING

DYNAMIC, PRECISE, LOGICAL



# SOLID



FAMILY ORIENTED, SENSE OF STURDYNESS



# GEOMETRIC

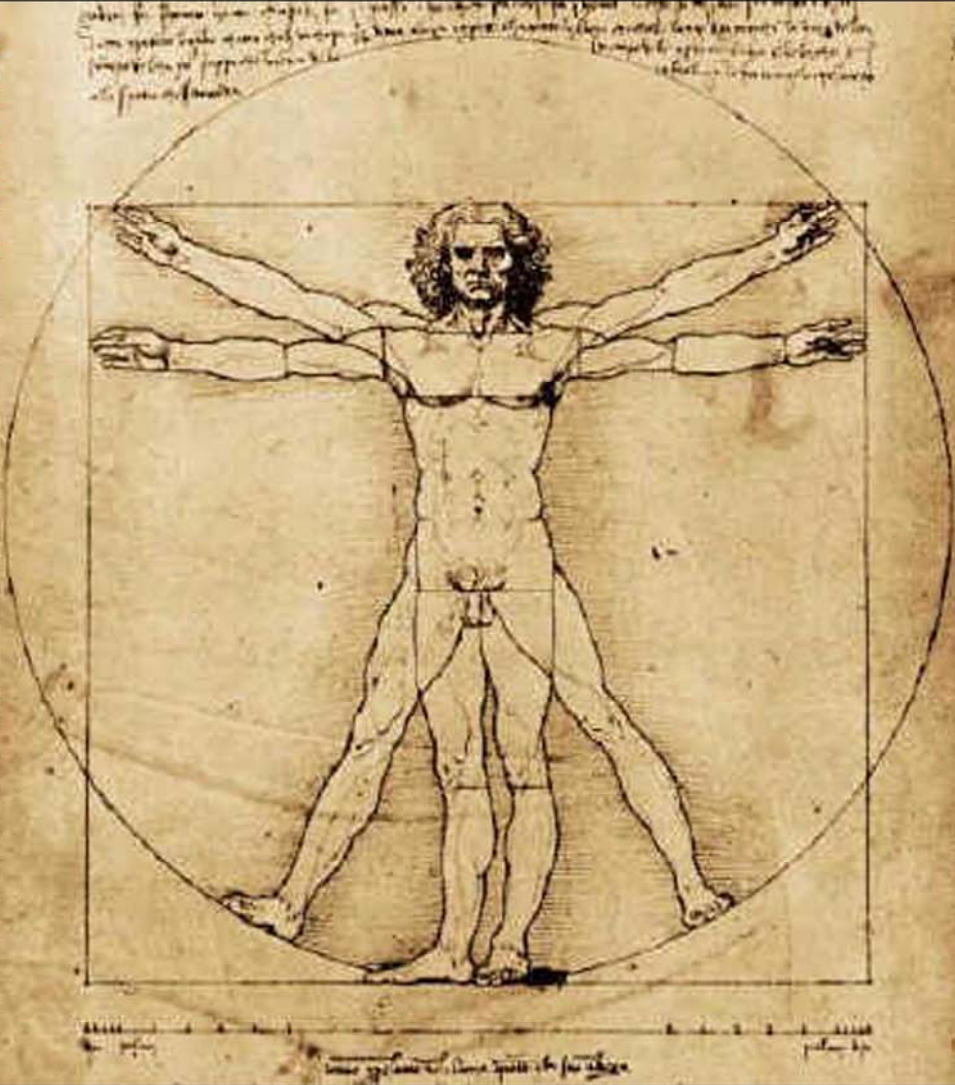
ELEGANT, IMPOSING, ICONIC



CAR INTERIOR/ EXTERIOR PERCEPTION

# ERGONOMICS

ALL MUST BE DESIGNED AROUND THE HUMAN BODY



# INTERFACE



BUTTONS,  
MULTIMEDIA  
INTERFACE?



LOGICAL WARNING LIGHTS



CAR INTERIOR/ EXTERIOR PERCEPTION

# BUTTONS VS TOUCHSCREEN

THE DILEMA: TOUCHSCREENS ARE PRACTICAL, BUT ARE THEY MORE INTUITIVE TO A DRIVER **ON THE MOVE?**



WILL WE MISS THE TOUCH OF A BUTTON?

VS





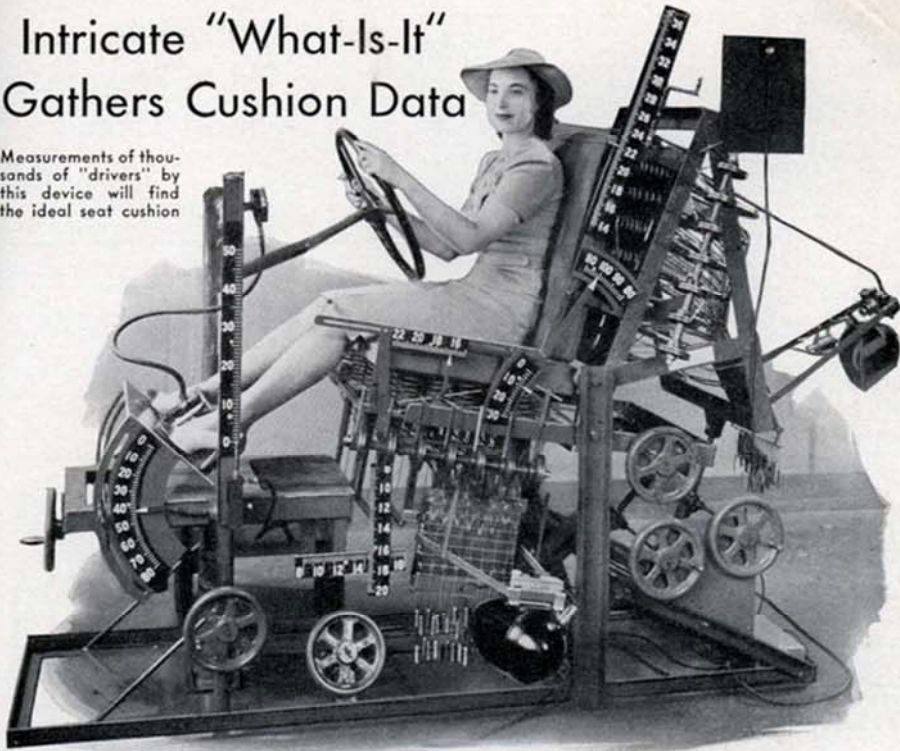
CAR INTERIOR/ EXTERIOR PERCEPTION

# ERGONOMICS

## THE HUMAN FIGURE IN THE CAR

### Intricate "What-Is-It" Gathers Cushion Data

Measurements of thousands of "drivers" by this device will find the ideal seat cushion



NO, it's not a car of the future; nor the past either. The strange-looking contraption in which the young woman seems to be going for a drive is designed to gather information for engineers. Installed at the University of Michigan, at Ann Arbor,

where thousands of persons have sat in it, the apparatus was built for a cushion manufacturer who hopes from countless measurements made on it to obtain an average-size automobile-seat cushion that will be comfortable for the majority of motorists.

THE CAR MUST RESPOND TO THE HUMAN SHAPE AND NEEDS, IN A GENERAL WAY, ALLOWING DRIVERS TO FOCUS



TAKE INTO ACCOUNT THE PHYSIOMY



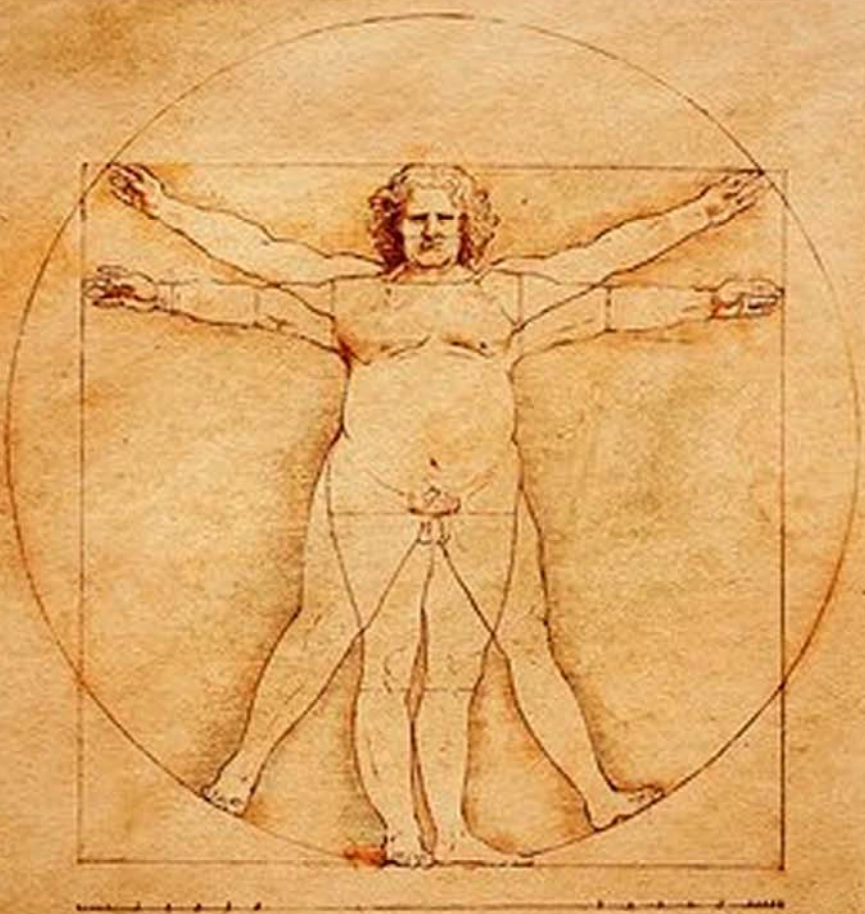
SHAPES



CAR INTERIOR/ EXTERIOR PERCEPTION

# ERGONOMICS

BUT HOW MUCH IS TOO MUCH?



TO MAKE LIFE SIMPLER, BETTER

REMOTE CONTROL EFFECT



TOO MANY FUNCTIONS = TOO MANY BUTTONS

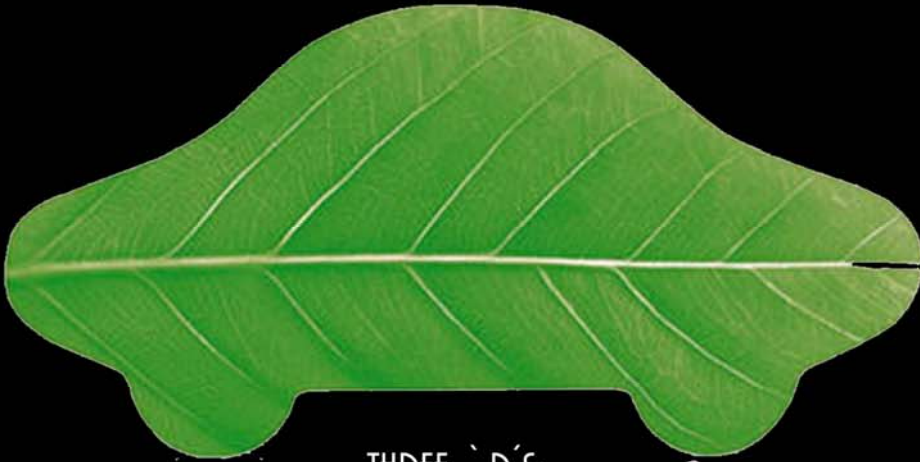


COMPLICATED



# ECOLOGY

RECYCLED, RECYCLABLE MATERIALS



THREE 'R'S:

- REDUCE
- RECYCLE
- REUSE

## NEW WAYS

REDUCE PROCESSES AND  
NUMBER OF PIECES



RECYCLED WOOD



NATURAL TEXTILES



SEE POTENTIAL  
IN THE  
'GARBAGE'

# ECOLOGY

## PRODUCT LIFE



### 3. STAGES

PRODUCTION

USAGE

DISMANTLE



A CAR, TO BE ECOLOGICAL, NEEDS TO BE ECOLOGICAL IN ALL THE STAGES OF ITS LIFE



OPTIMIZATION OF PROCESSES

USE OF MATERIALS THAT DONT EXPEL TOXIC FUMES IN THE AIR

REUSE, USE OF RECYCLED MATERIALS AND RESPONSIBLE DISPOSAL OF RESIDUES





CAR INTERIOR/ EXTERIOR PERCEPTION

# CONCLUSION



CARS ARE EVOLVING TO ACHIEVE THEIR MOST EFFICIENT FORM

## INTERIORS FOR THE FUTURE



A CAR INTERIOR MUST REFLECT AND ENHANCE THE EXPERIENCE OF DRIVING, WHATEVER THE FOCUS OF THIS IS

# THANK YOU