



Element Design Team - Honda R&D Los Angeles

Eric Schumaker - Exterior Design

Tim Benner - Market Research

Roger Brown - Surface Development

Charles Eddy - Fabrication

Lori Ishida - Color & Materials Design

Daiya Kaku - Design

Koji Kamata - Interior Design Modeling

Mike Narazaki - Packaging

Jose Wyszogrod - Interior Design

Bill Yex - Design Modeling

Kazunori Yasuda - Surface Development



Truck n 3:a: A strong horse drawn or automotive vehicle for hauling

Element n 4: The state or sphere natural or suited to a person..

rudimentary, basic, fundamental



Accord Civic Odyssey CRV Pilot

It is expected of Honda to create excellent vehicles. How does Honda create the unexpected?





"Irreverent" "Quirky" "Totally cool" "Best new vehicle of the year." "...consciously anti-cool" "An un-apologetically frivolous design." "Ugly"





"The Honda Way"

Market Research - Engineering - Sales - Design Designers from beginning to end of project





Assignment

"Design a vehicle for Gen Y..."

"Consider using small vehicle platform."

"Be additive to current Honda Line."



Truck n 3:a: A strong horse drawn or automotive vehicle for hauling

Element n 4: The state or sphere natural or suited to a person...



"Action without philosophy is a lethal weapon. Philosophy without action is worthless"

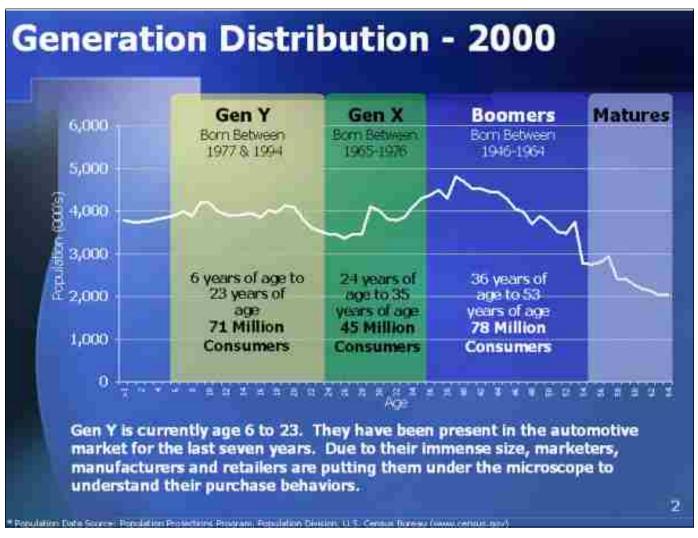
Soichiro Honda



MARKET RESEARCH



Who are we designing for? Generation Y



In 2010 Gen Y will become nearly 35% of all eligible drivers and account for almost 40% of the population.

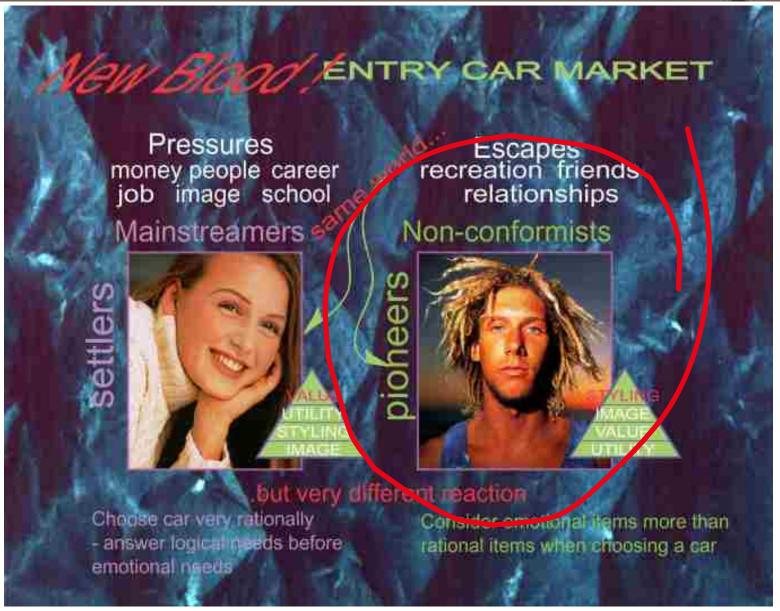
MARKET RESEARCH





MARKET RESEARCH







Honda 'Three Reality Principle' actual place - actual situation - be realistic



What's going on in the Mountain Dew Airstream?



Concept 1

Buyer - Personal Best Seeker

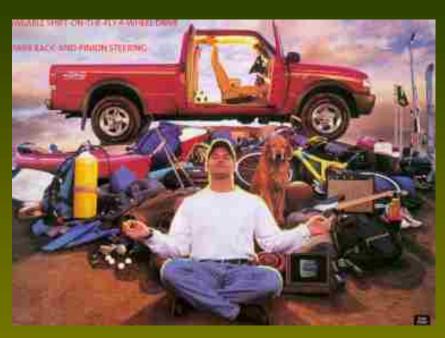
- Adventurous
- Outdoorsman
- No fear
- Extreme sportsman
- Drives pickup





R.A.T. Patrol

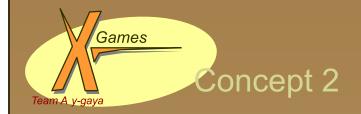
Rapid Attack Team Vehicle Baby Hummer



This guy does the extreme sports

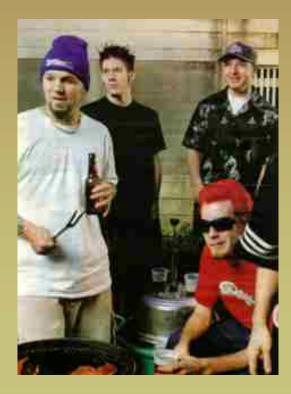
Fast, agile, tough vehicle for special forces.
Transports Echo team to their adventures.
Surfing, hiking, skating, skiing, camping





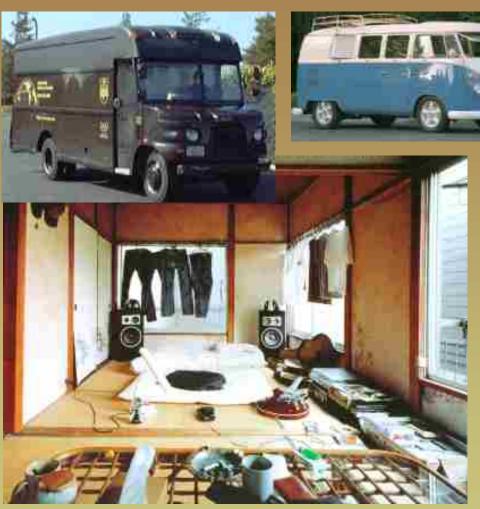
Buyer - Party Planner

- Pack rat
- Social
- Friends are priority
- Nomadic, Road trips



Animal House

Dorm Room on Wheels



A place for friends, activities, and stuff. Your first own space.

These guys watch extreme sports... and party



Concept 3

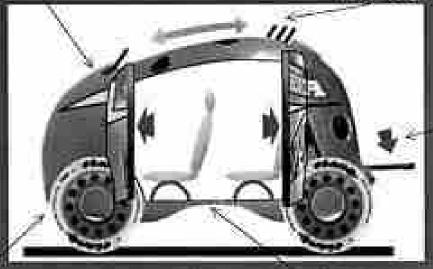
Exterior Concept: Brain Cage on Wheels'

'Free to be extreme!'

Shell body image (i.e. bike helmet)'

Big open top or detachable hard top (wind in your face!)

Unique door design aids in loading gear Avoids the 'sedan'-like 4D appearance



Truck
Like
tailgate
with slide
in window
(tough
image yet
practical)

Big wheels and higher ground clearance: ability to tackle the 'urban' jungle!

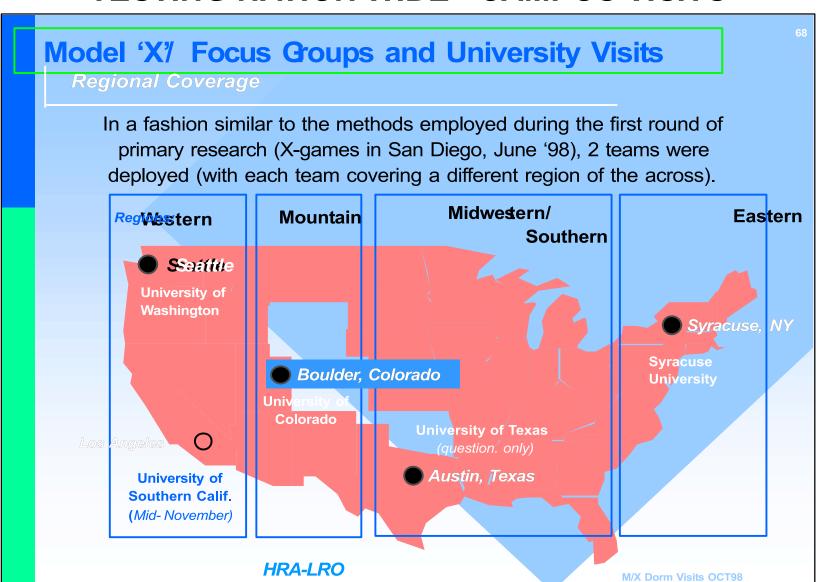
Short front & rear overhang (tight package maximizes space; avoids excessive bulk = 'Efficient Design')

PRE-DEVELOPMENT











TESTING NATION WIDE - CAMPUS VISITS

Model 'X'/Focus Groups and University Visits

Methodology: Benefits

'Dorm' Visit Forums:

•The 'dorm' visit forum allowed for frank and honest discussion among students M/X team members.

• The sessions were not only informative to M/2 (providing first hat the designers that attend), but also put to 'vent' their con automotive indus

This open environments open environ







Sketches that provoked comments relative to R.A.T. PATROL



Kinda cool, but a little too girly, friendly looking

Looks too much like a Hummer

Typical truck attributes

- + ground clearance
- + big wheels & tires
- + macho, basic styling
- + Long hood, stiff W/S
- 'over styled' vehicles
- 'imitation' designs
- anything minivan like
- mainstream SUV's

How can we make it?

Sketches that provoked comments relative to ANIMAL HOUSE

New version of VW Bus. Kinda cool, but not 'manly'

Excellent! New looking.
Tough, roomy, basic sporty... and lots of room inside



Too tall, stubby. A small, ugly Minivan.

Small minivar

Too much like a minivan Too bubble shaped. Not Strong looking



Nice minivan. Hope I never have to have one.

- + big wheels & tires
- + macho, basic styling
- + Fun, flexible features
- + space
- minivans
- round, smooth shapes
- 'over styled' vehicles

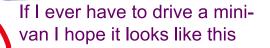
Could be excellent fit - image is everything.

Sketches that provoked comments relative to BRAIN CAGE



Modern and high tech, But looks like a minivan



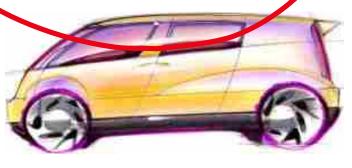


- + big wheels & tires
- + macho, basic styling
- + Fun, flexible features
- + space
- minivans
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Could be excellent fit - image is everything.



A smashed minivan



Looks like a modern VW Bus. Cool, but still a minivan



"Focus Concept"

Define precise Who, What, Where of the vehicle.

Create package

Define hardware needs



"Action without philosophy is a lethal weapon."



TESTING NATION WIDE - CAMPUS VISITS Lifeguard Station Concept Performance:

Concept Acceptance: Lifeguard







Positive Comments:

(+) Functionality

1999

October,

HRA Los Angeles Advanced Product Planning

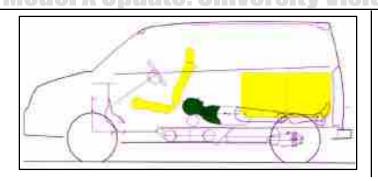
- (+) Innovative ideas (including sleeping, hard/ flat floor, storage interior, etc.)
- (+) Party on wheels!
- (+) Great for weekend activities (snow-skiing, hiking, snowboarding, surfing, camping, etc.)
- (+) New Idea if this is aimed at a younger market
- (+) Open-top concept
- (+) Generational Association

Potential Concept Barriers:

- (?) How can this not look like a minivan?
- (?) Concern about price (\$25K)
- (?) Concern that it is TOO BIG, not personal enough ("I may not need that much room 7 days a week")



Concept - totally flexible vehicle



Warning Warning

Concerns: If the execution does not look cool/ distinct/ youthful, it will fail. Customers are not willing to trade image/ design for functionality. If it is remotely associated with a minivan or family vehicle concept, it will fail.



Lifeguard Station Design Performance:



Model X Update: University Visit #2



Lifeguard Station Design Performance:

Positive comments: "Cool" mini-van Looks urban

October,

HRA Los Angeles Advanced Product Planning

1999

October,

HRA Los Angeles Advanced Product Planning

Negative comments:

- Mom would drive
- (-) Minivan with big
- (-) Too boxy/ square
- (-) Squat - Not for yo
- (-) Too big!
- (-) Family orientatio
- "Old Greyhound t
- Inefficient perforn size (I.e. MPG)

LifeGuard





Positive comments:

- (+) More personal yet very functional
- (+) Car + Van function = Pickup carefree attitude
- (+) New concept appeal
- (+) Functional with open bed option
- (+) Size (doesn't look like a big car)
- (+) Sporty, distinctive Very Audi/ VW like
- (+) Safari truck
- (+) European people mover

Negative comments:

- (-) Needs more character in the design (still not sure if it is a car or truck)
- (-) Needs more ground clearance
- (-) Too Retro, not enough "toughness"

This particular sketch seemed to resonate the highest with the respondents; however, it was not without hardware assumptions:

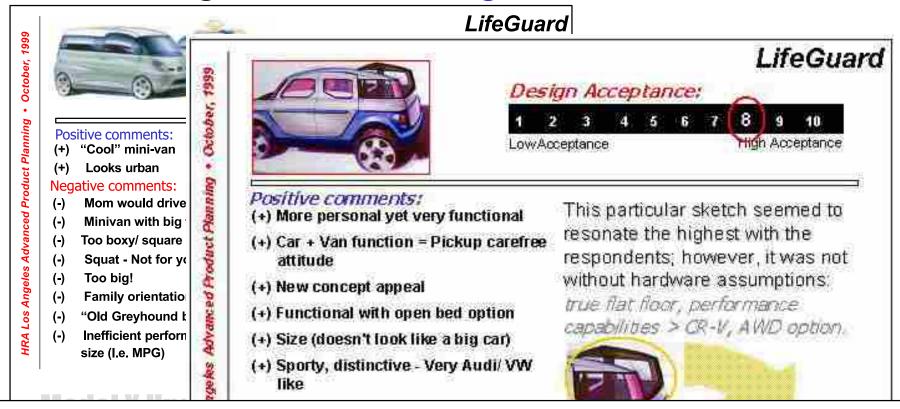
true flat floor, performance capabilities > CR-V, AWD option.



Open-rear option made this concept "innovative" in cohorts minds.

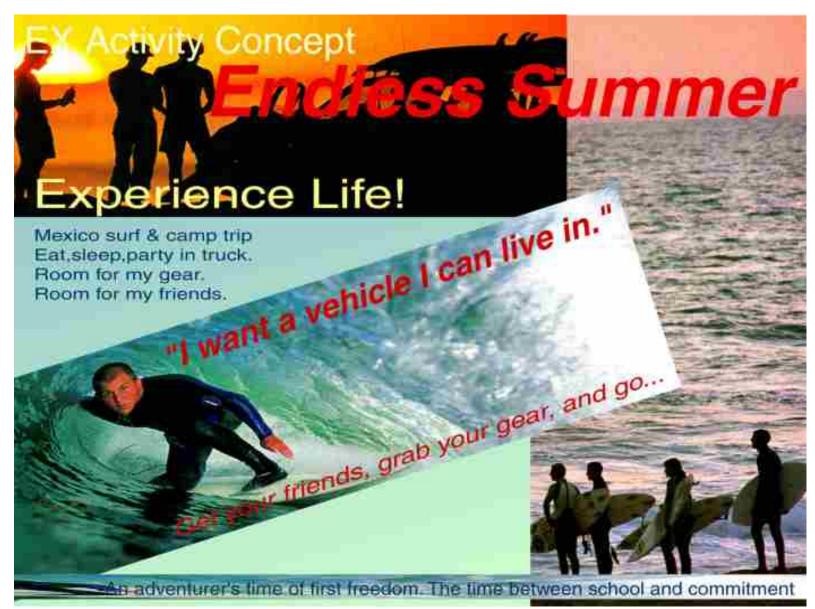


Lifeguard Station Design Performance:



- Design is key to success of concept
- -Opportunity in creating a new truck image How to combine space needs + image wants?







Beach camping with the team



Cargo/ Passenger Flexibility

Hobby Space

Versatility / Function

Structural Design

Fun Dynamics





Apartment on Wheels

Hobby Space

Functional Interior Independent Design "New" Fun Dynamics

Surf Camping Actual place, Actual situation

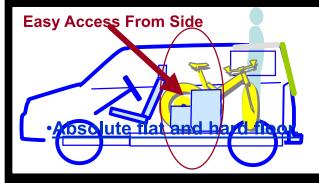
FINAL CONCEPT TOTAL CONCEPT



Apartment on Wheels

Campground Friendly

Cargo/ Passenger Flexibility

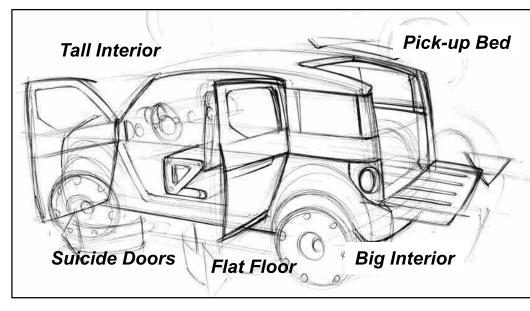


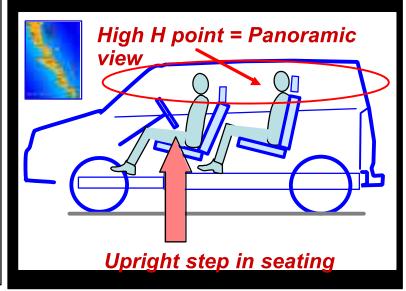
- Interior compartments & storage
- Secured living & cargo space
- Easy side loading/ unloading
- Cargo/Passenger Separation
- Open top or 'Pop-up' top

- Voluminous cargo area + 4P
 - •Key modules: long surfboard
 - mountain bike
- Tough, durable interior

Three vehicles in one

- Pickup
- SUV
- Camper

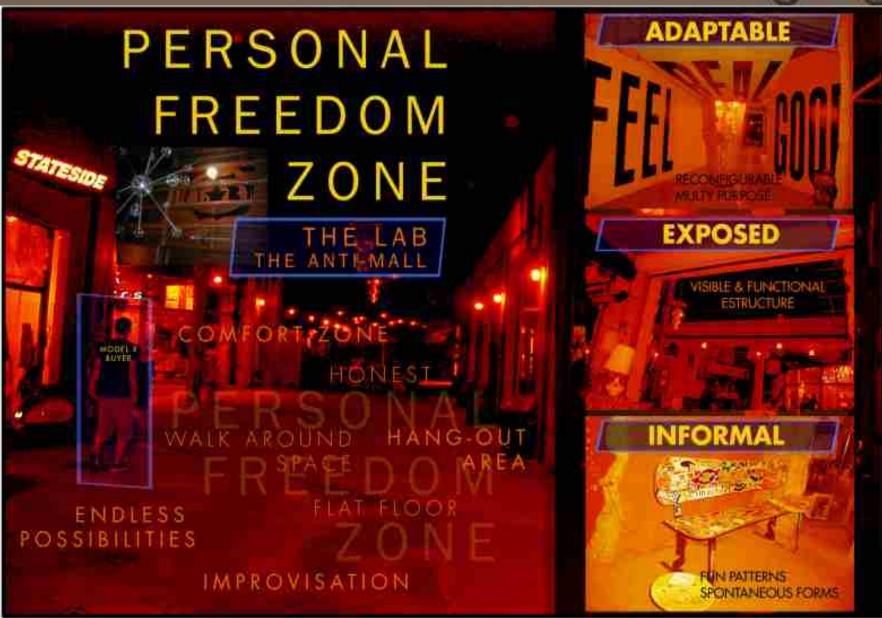














PERFORMING PACKAGE

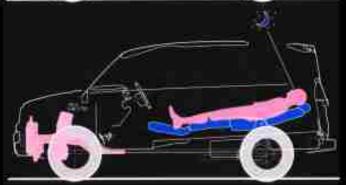


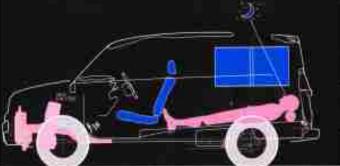


SPACE

- FREEDOM SPACE Store everything in it
- -NEW ROOF TECHNOLOGY

Open feeling Open roof utility





SEATS

- -FREEDOM COMFORT
- 2+2 passenger seats
- -NEW SEAT TECHNOLOGY Flexible and reconfigurable





FLOOR

- -NEW FLOOR FUNCTIONS
- More storage spaces
- -RAT ROOR
- Simple, durable, usable

DESIGN



"Action without philosophy is a lethal weapon Philosophy without action is worthless"

Soichiro Honda



Team common philosophy -Endless Summer - Young man's first freedom Youthful, Authentic, Active



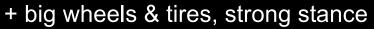












- + non-automotive proportion
- + macho, basic styling
- + Fun, flexible features
- + space
- + rough road ability
- minivans
- round, smooth shapes
- -'over styled' vehicles





New truck image design balance





Approved sketch direction

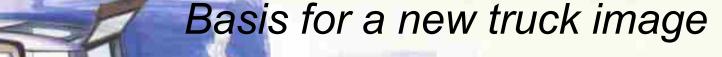
Upright industrial geometry

Graphics dominate - define passengers vs cargo / separate different functions Simple shapes and lines accentuate tires / stance & working parts

Thick sill, body, pillars, roof set to motion through big line work













Key Features

- + truck doors / no pillar
- + tall interior
- + fold flat / flip up seats
- + flat floor
- + new, strong styling
- + stance big tires in corners
- + strong materials, graphics, form

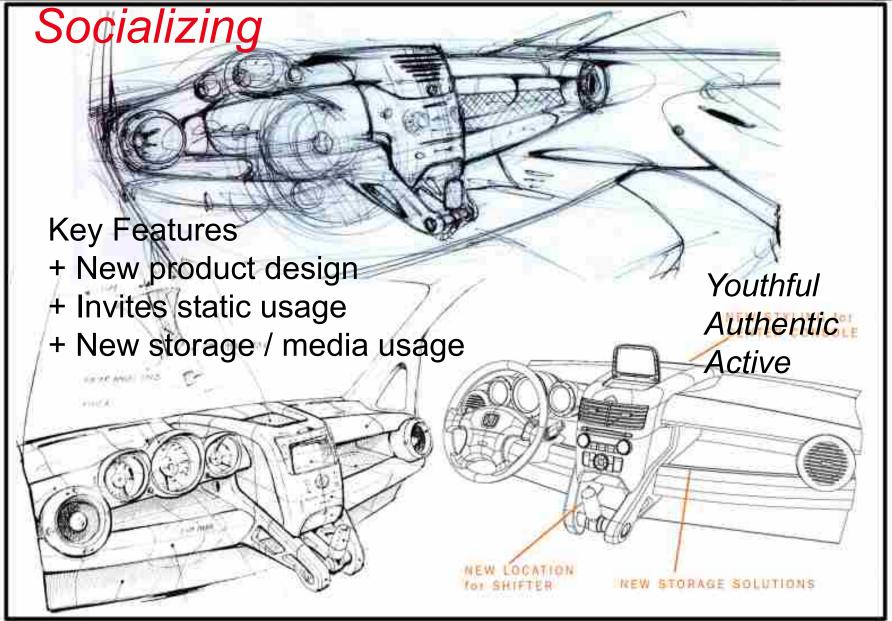
DESIGN sketch selection





DESIGN sketch selection





DESIGN sketch selection



PERSONAL FREEDOM ZONE DASH POCKETS OMERSIZED VENTS A VINE TO THE REAL PROPERTY. -HAVIGATION CENTER RESIDENCE PROPERTY AND ADDRESS. EXPOSED SHIFT MECHANISM BENCH-TYPE SEATHER **BUICIDE DOORS** CONTRACTOR CONTRACTOR SHOWN TO FOLO -STANAGE COMPARTMENTS Matthewiden unshalled and other MISTRY CHUCE-EXPERIENCE NAMED IN COLUMN 2 DOOR STORAGE POCKETS Key Features DE DESTRUCTION DE PARTICIONES + New product de RECORD MOCRETINE POR ARTHUR. DOOR DESCRIPTION OF THE PROPERTY FLUBH MOLDED FLOOR WATE AND THE RESIDENCE IF THE CENTANTING OF SHEEM AND THEIR + Invites static usa + New storage / media usage





Upright industrial geometry

Graphics dominate - define passengers over cargo, different functions of areas Simple shapes accentuate large tires, strong stance & working parts Thick sill, body, pillars, roof set to motion through big line work

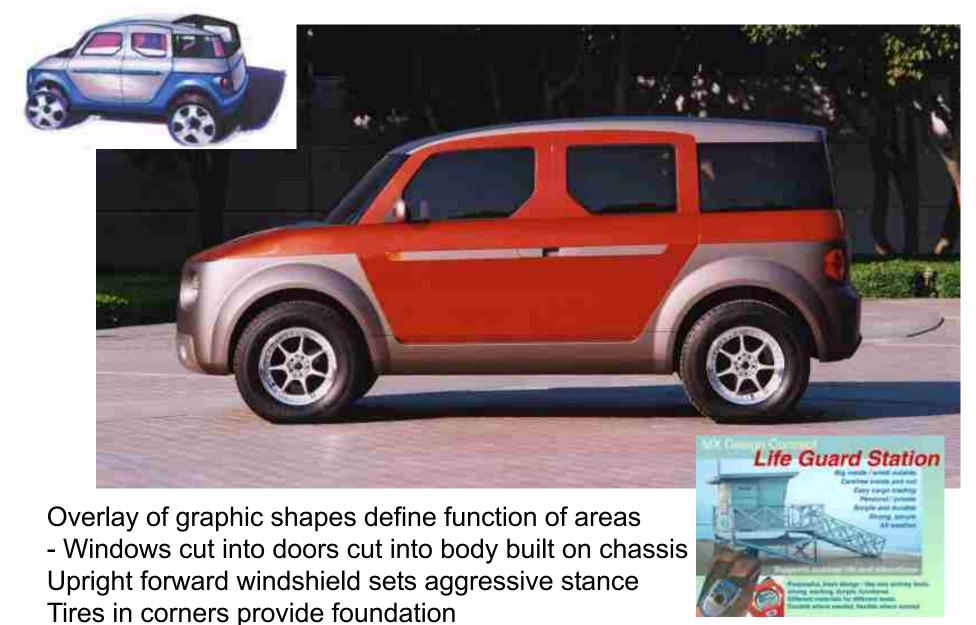




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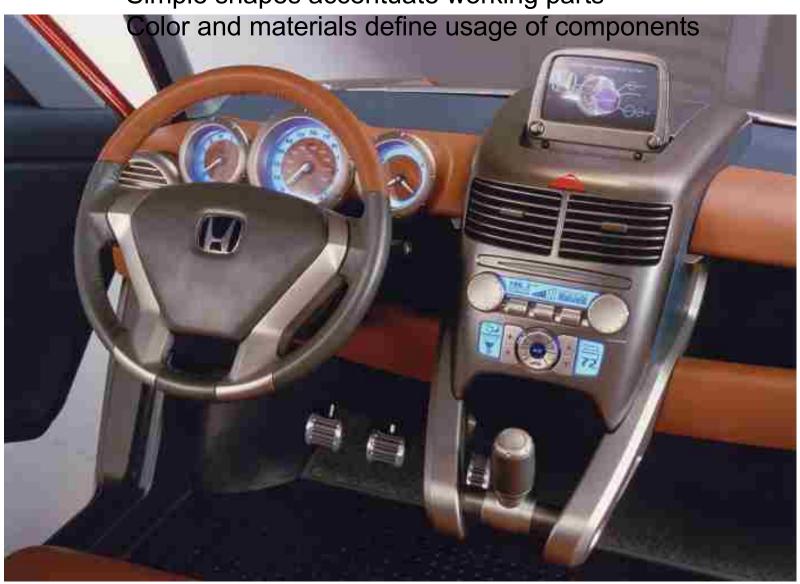


Graphics dominate - not so automotive forms Simple shapes accentuate working parts





Graphics dominate - not so automotive forms Simple shapes accentuate working parts



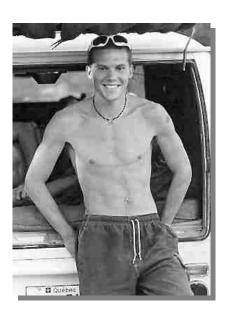
DESIGN image models research



Evaluation comments by team of 'The Buyer'









Evaluation Perspective

Accord designed for Accord people Element designed for young man The design needed more truckness



Project Approval - Getting real FIRST FEASIBILITY

Respect to platform & packaging







FIRST FEASIBILITY

Respect to platform & packaging Make trucky while keeping new image





FIRST FEASIBILITY

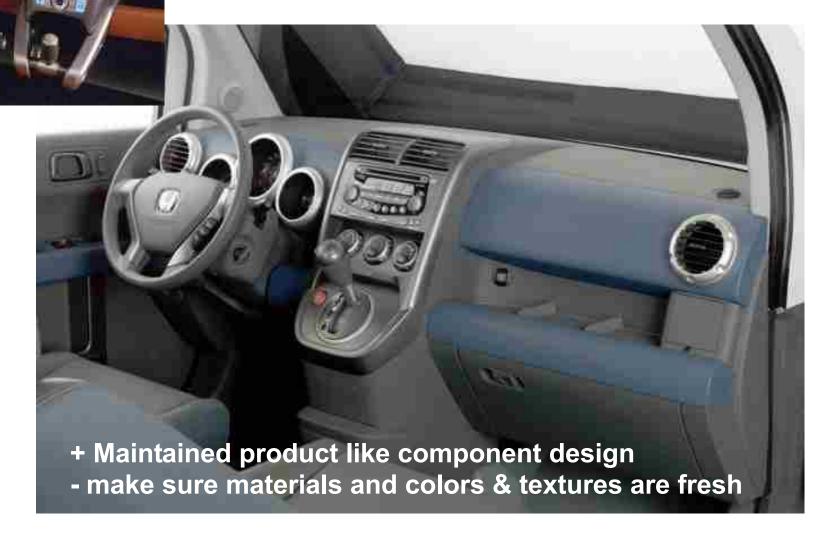
Respect to platform & packaging Make trucky while keeping new image





FIRST FEASIBILITY

Respect to fesibility & packaging









Making it buildable - making it a Honda



Item by item design refinement to satisfy manufacturing, cost, and styling



ENGINEERING + DESIGN Integrating styling, design, and manufacturing throughout design process

results in clear execution of concept



Noteables

- Molded in color front bumper, grille, front skid, front fender
- CRV basic front structure with forward upright windshield
- Increased track and tire size (235/70/16)





Engineering Innovation

Materials - bumpers, body, roof, glass 80 deg opening front door 90 deg rear hinged rear side door w/o B-pillar Side impact safety



- Molded in metallic rear fenders assist assembly
- B- pillarless doors with seat belts in rear side door





Engineering Innovation

Materials - bumpers, body, roof, glass Tires and track Door and rear opening systems and cut lines



- Tailgate opens flush to new rear floor
- rear quarter glass wraps around corner







Engineering Innovation



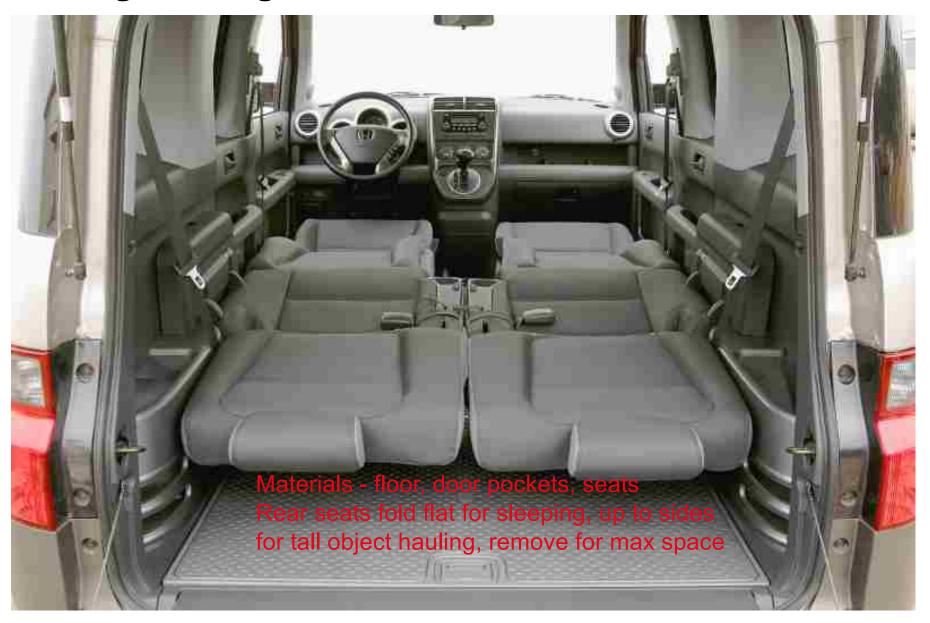


Engineering Innovation





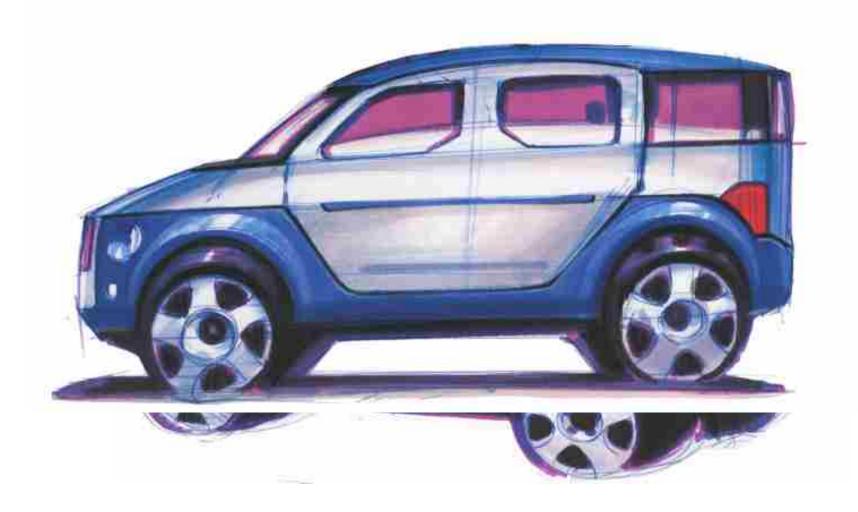
Engineering Innovation





Making an original idea...

Generation Distribution - 2000





Making an original idea...into an unexpected vehicle.



Would you expect anything less from Honda?

