

TEXTURE +

MATERIALITY

ARCH1101 LOWE

**TEXTURE +
MATERIALITY**

ARCH1101

HARKINS

DEFINITIONS

MATERIAL/IMMATERIAL

MAPPING

TEXTURE PARAMETERS

BENEATH THE SURFACE

TEXTURE + GEOMETRY

STUDENT WORK

SKETCHUP TUTORIAL

tex·ture

n.

A structure of interwoven fibres or other elements.

The distinctive physical composition or structure of something, especially with respect to the size, shape, and arrangement of its parts: *the texture of sandy soil; the texture of cooked fish.*

The appearance and feel of a surface: *the smooth texture of soap.*

A rough or grainy surface quality: *Brick walls give a room texture.*

Distinctive or identifying quality or character: "an intensely meditative poet [who] conveys the religious and cultural texture of time spent in a Benedictine monastery" (New York Times).

The quality given to a piece of art, literature, or music by the interrelationship of its elements: "The baroque influence in his music is clear here, with the harmonic complexity and texture" (Rachelle Roe).

ma·te·ri·al

n.

The substance or substances out of which a thing is or can be made.

Something, such as an idea or information, that is to be refined and made or incorporated into a finished effort: *material for a comedy.*

materials Tools or apparatus for the performance of a given task: *writing materials.*

Yard goods or cloth.

A person who is qualified or suited for a position or activity: *The members of the board felt that she was vice-presidential material.*

adj.

Of, relating to, or composed of matter.

Of, relating to, or affecting physical well-being; bodily: "the moral and material welfare of all good citizens" (Theodore Roosevelt).

Of or concerned with the physical as distinct from the intellectual or spiritual: "Great men are they who see that spiritual is stronger than any material force, that thoughts rule the world" (Ralph Waldo Emerson).

Being both relevant and consequential; crucial: *testimony material to the inquiry.* See Synonyms at [relevant](#).

Philosophy. Of or relating to the matter of reasoning, rather than the form.

materiality

n 1: relevance requiring careful consideration [ant: immateriality] 2: the quality of being physical; consisting of matter [syn: physicalness, corporeality] [ant: immateriality]

MATERIAL /

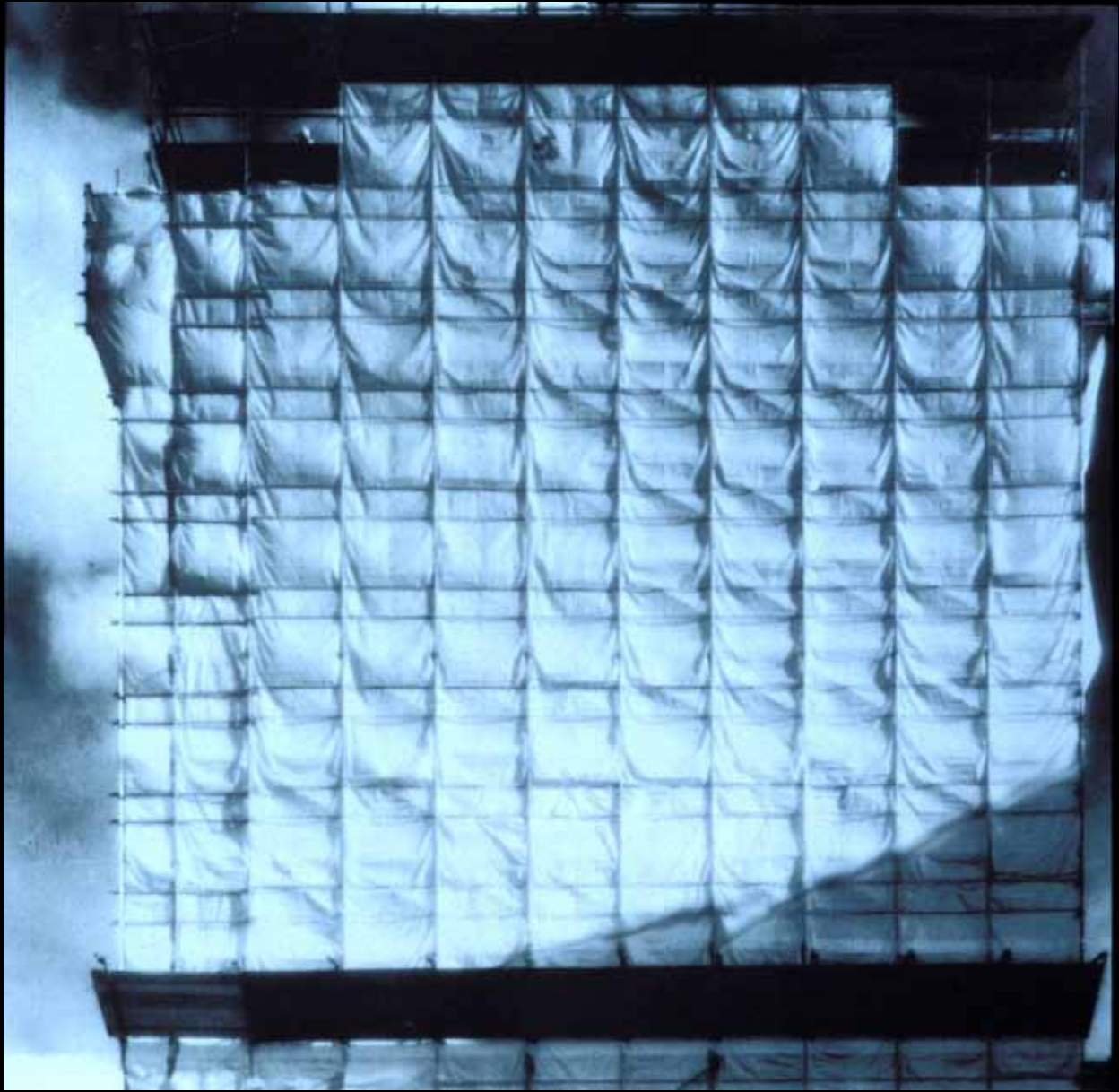
IMMATERIAL







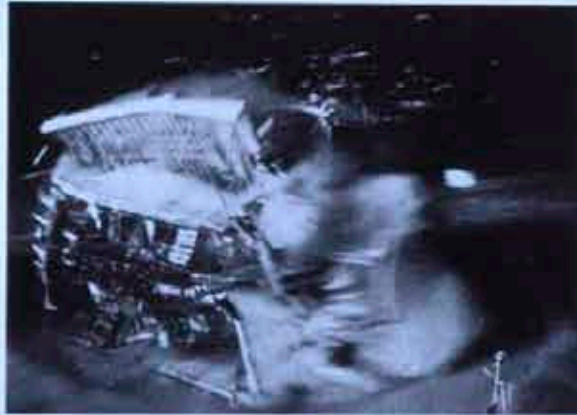
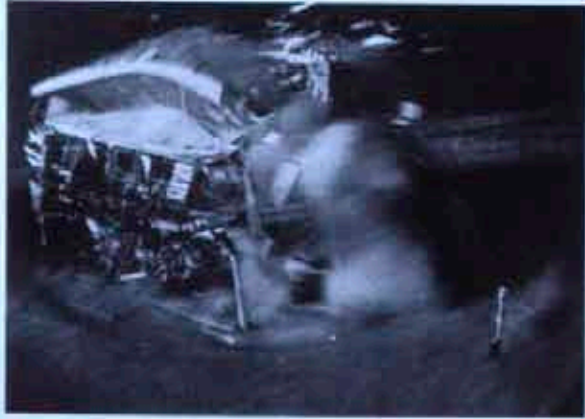
CONGREXPO. EURALILLE. OMA. REM KOOLHAAS.

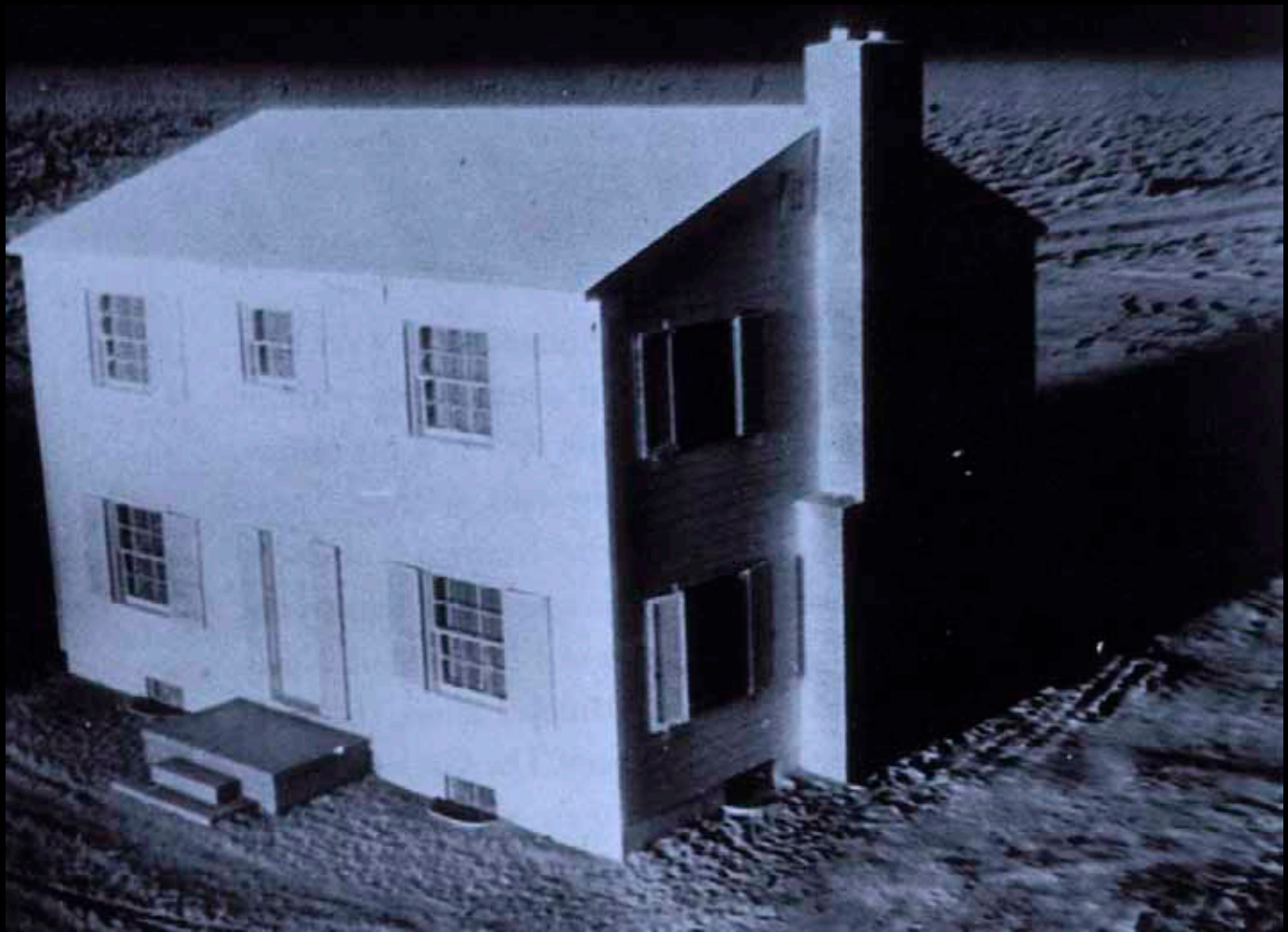


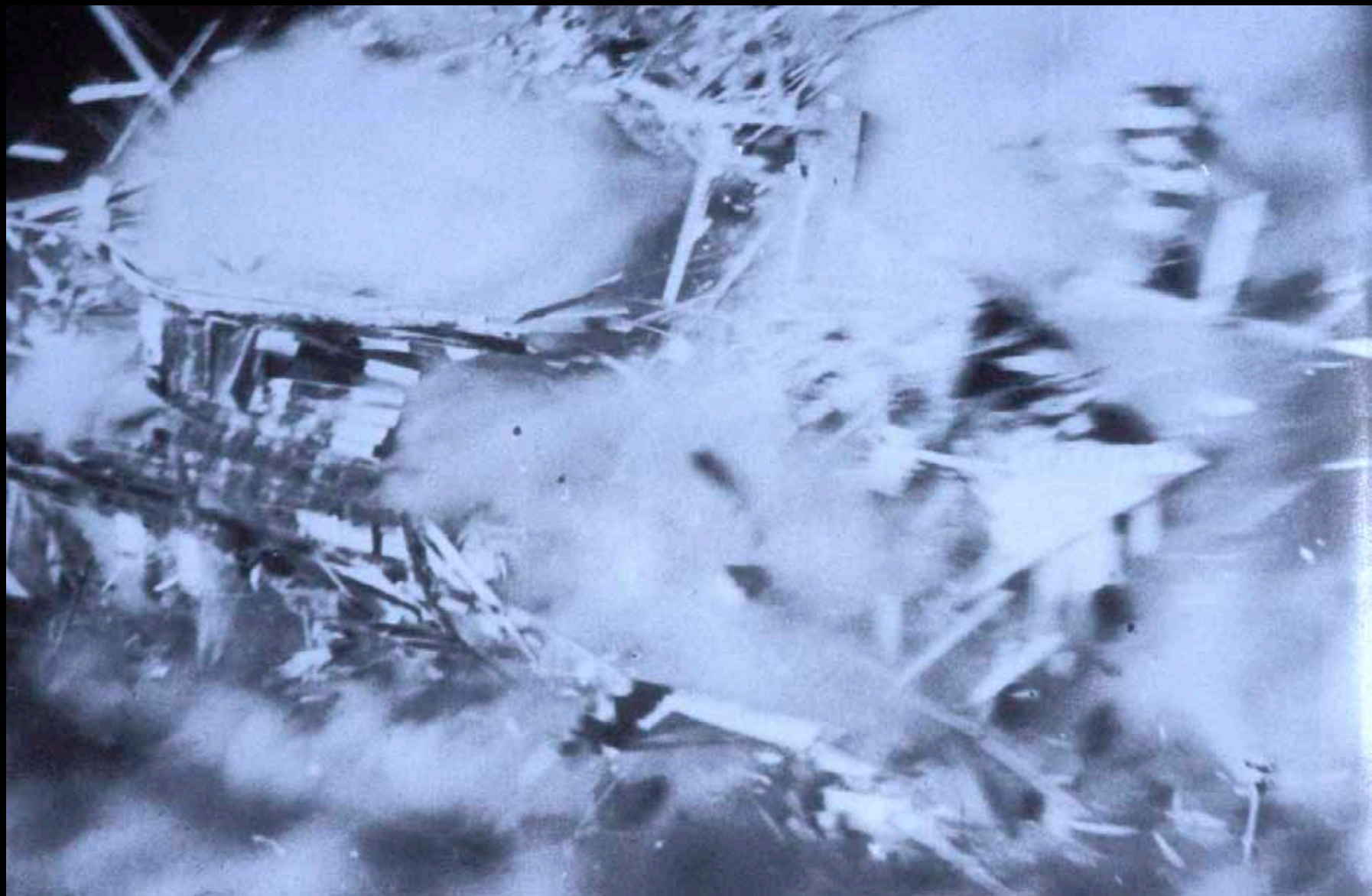




BROOKLYN MUSEUM



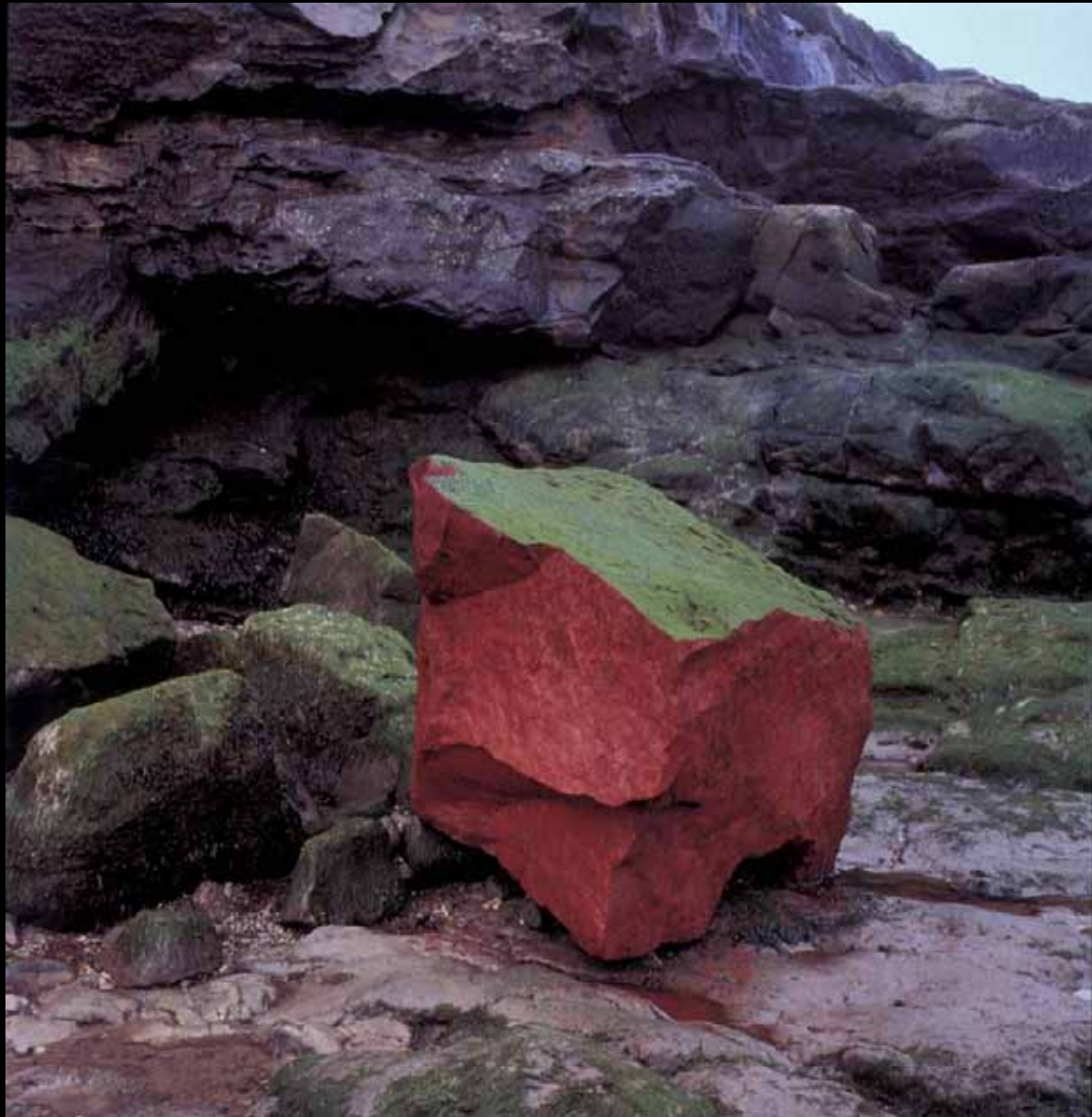






BIOMEGA. MARC NEWSON





ANDY GOLDSWORTHY

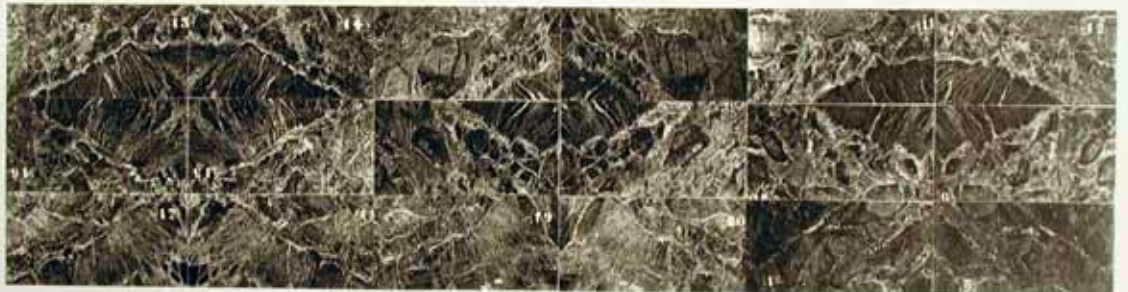
PETER ZUMTHOR.
THERMAL BATHS. VALS.
SWITZERLAND







Fig. 25. Study for the positioning of the slabs of green marble on the wall over the interior pool.



BARCELONA PAVILION.
MIES VAN DER ROHE.



EURALILLE SHOPPING CENTER. JEAN NOUVEL.







JEFF KOONS





LOUD #9

PS, UNO GENEVA (1995-)
SWITZERLAND

all-functional offices and public space for
Nations, Geneva.

the Transit Public space, Geneva, Geneva

SAU
Robert Swiczinsky - Partner

W. Wacombe
K. Niska, P. Pöhlhofer, S. Serr



WE A MESSAGE AFTER THE BEEP."

IM IS THREAT'NING MY VERY LIFE TODAY

E SHELTER, OH YEAH I'M GONNA FADE AWAY...

Shelter

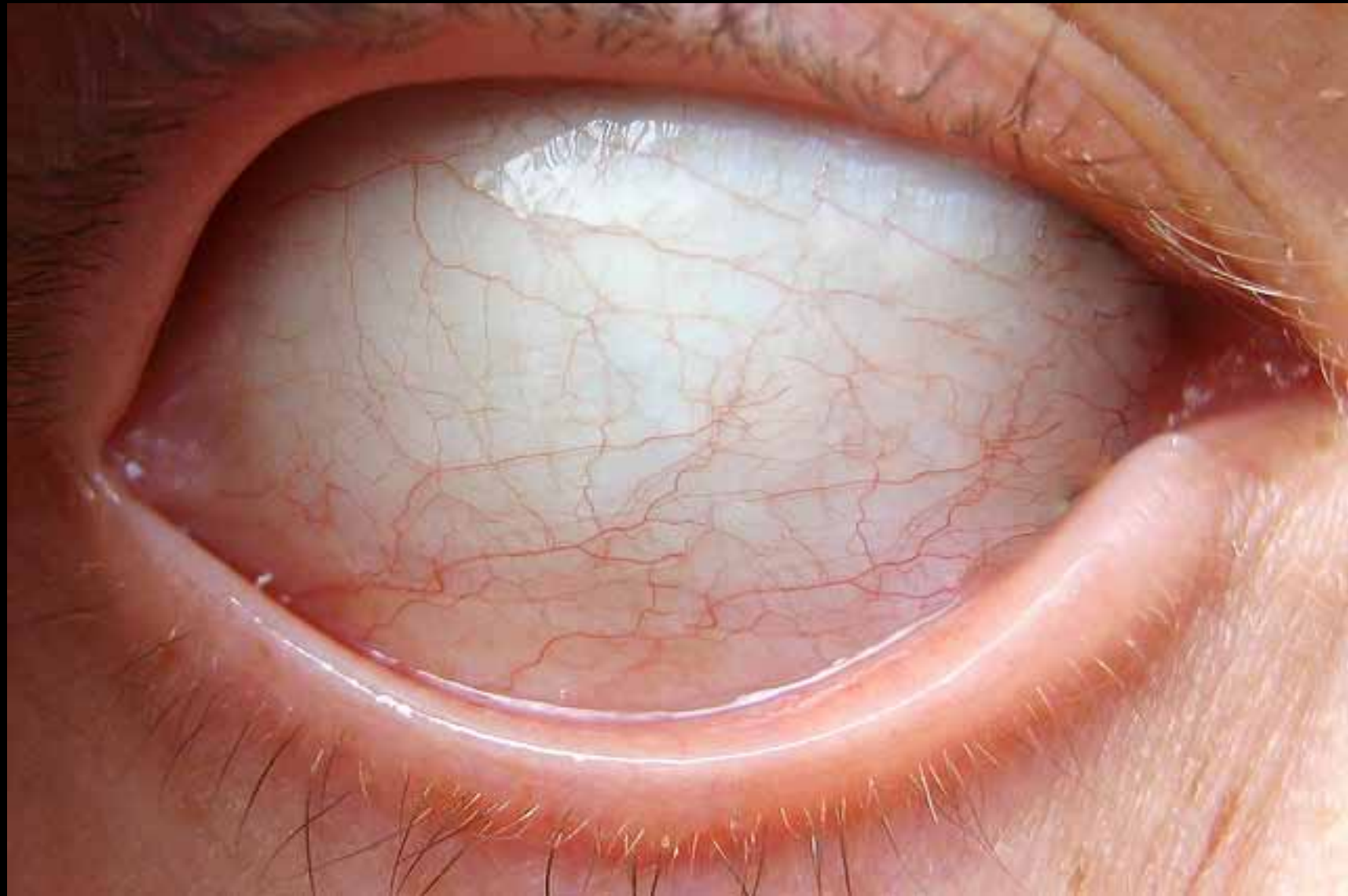


COOP HIMMELBLAU

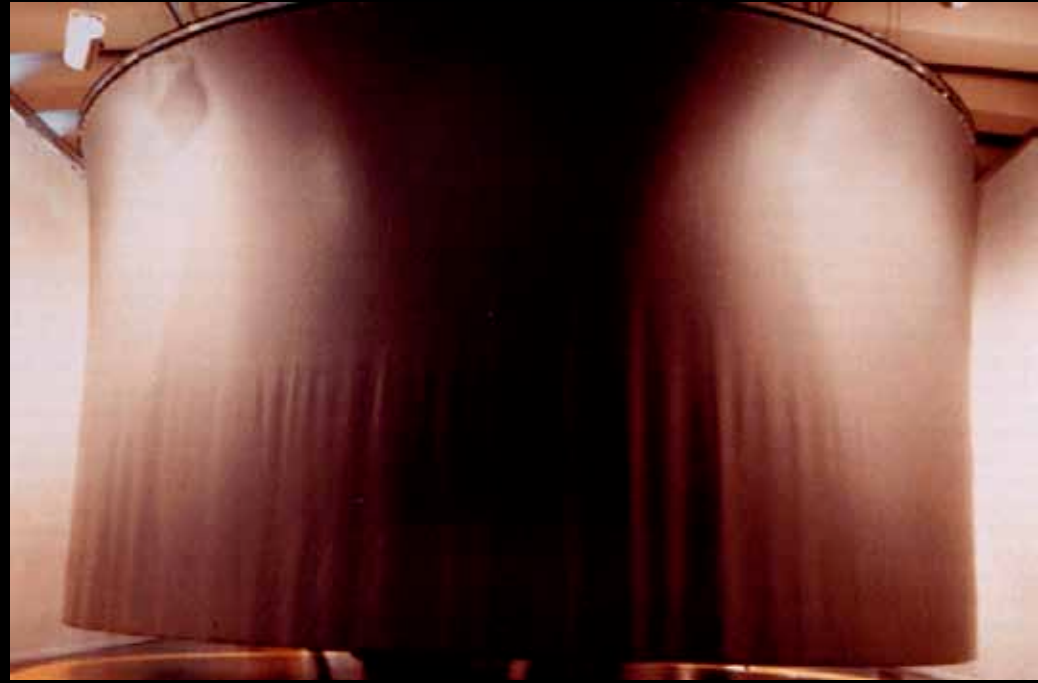








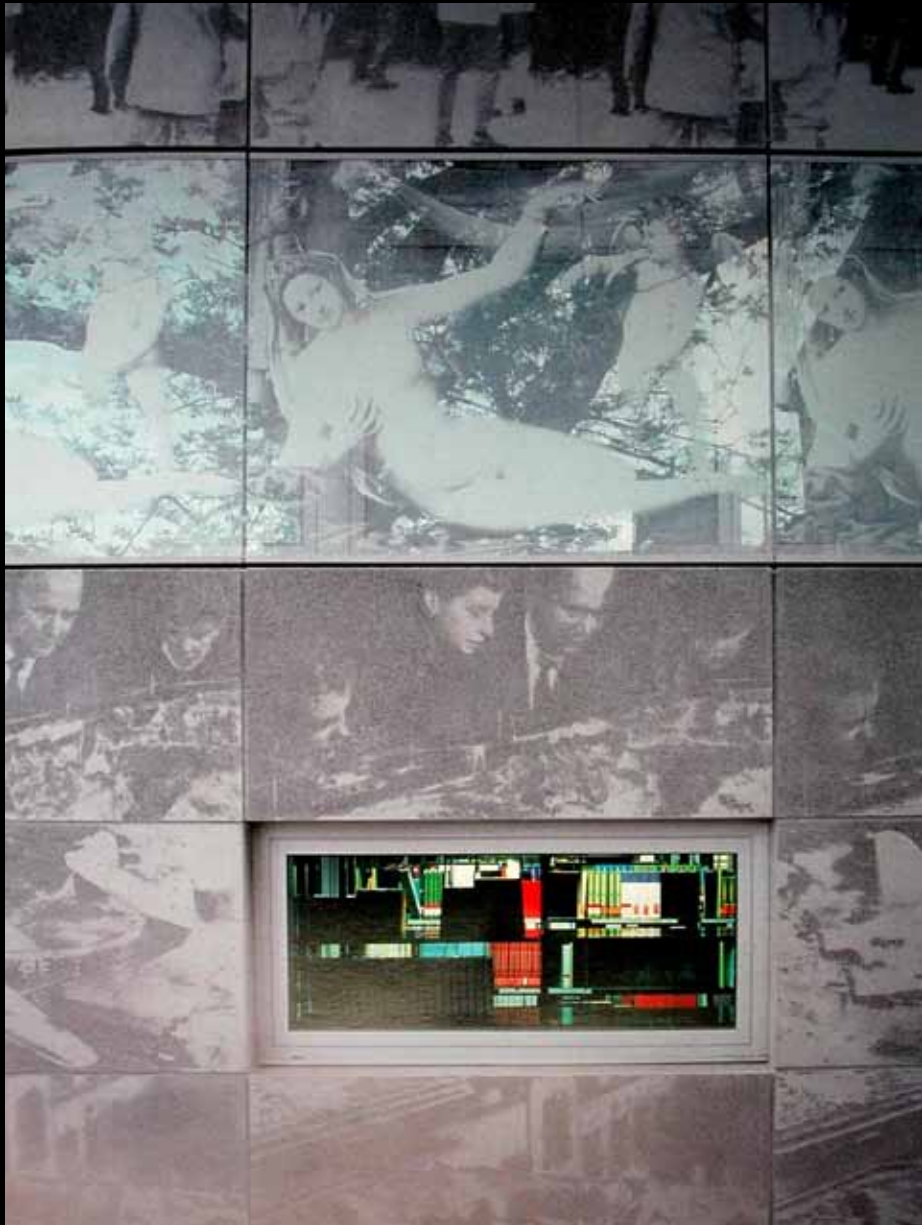




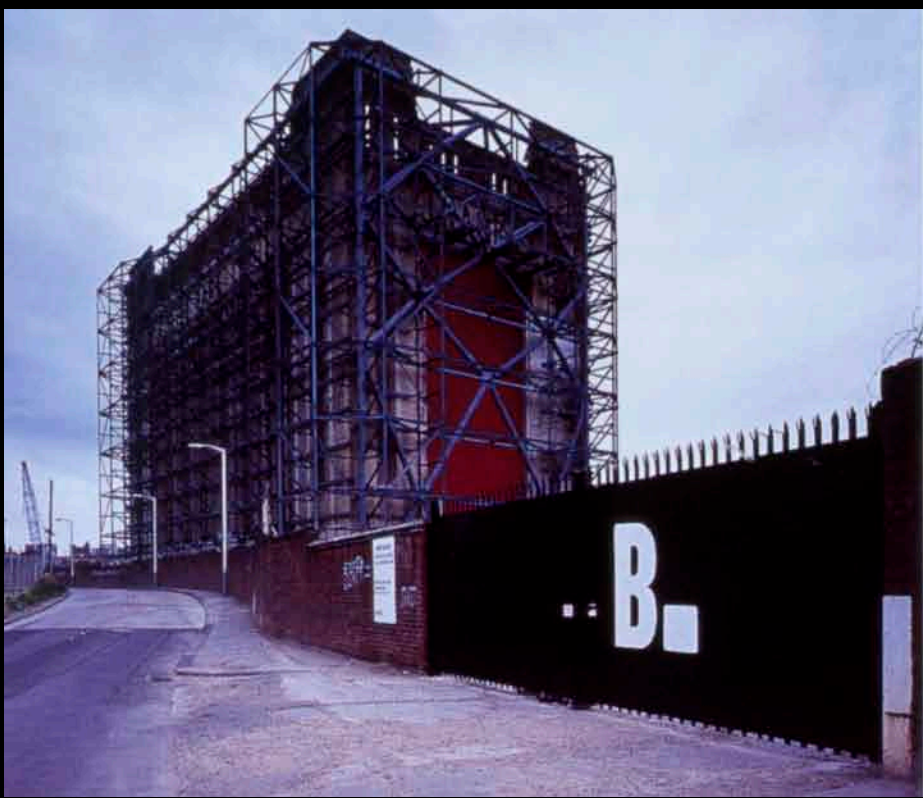
HERZOG AND DE MEURON



HERZOG AND DE MEURON







ANISH KAPOOR



Sine Language

RENDERING art can be tough to interpret, but this particular piece is easy to explain. It's a visual expression of the function $g(x,y) = (\ln|\sin(x)|)^2 + (\ln|y|)^2$, $h(x,y) = (\ln|\cos(y)|)^2 + (\ln|x|)^2$. MIT professor John Belcher and his colleagues developed a Java applet that turns vector field mathematics into kaleidoscopic landscapes. Belcher uses the app in his freshman physics course as an interactive exercise designed to help students understand concepts like electromagnetics. "Forces that are normally invisible are given a sense of reality," Belcher says. "You get a totally different feel for what's going on." The results are so off the wall that he holds a contest each semester and posts the most stunning designs online. To make your own, visit web.mit.edu/8.02/www/levnd/ — **Aaron Clark**

MAPPING



ACROSS THE AMERICAN LANDSCAPE. JAMES CORNER.



ut Bank, Montana. Wheat fields on tablelands cut by the Marias River.



ad area, Montana. wheat strips running perpendicular to the prevailing wind.





the area, California. Agricultural fields in the Colorado River Valley.







TATE. MODERN. LONDON. HERZOG AND DE MEURON





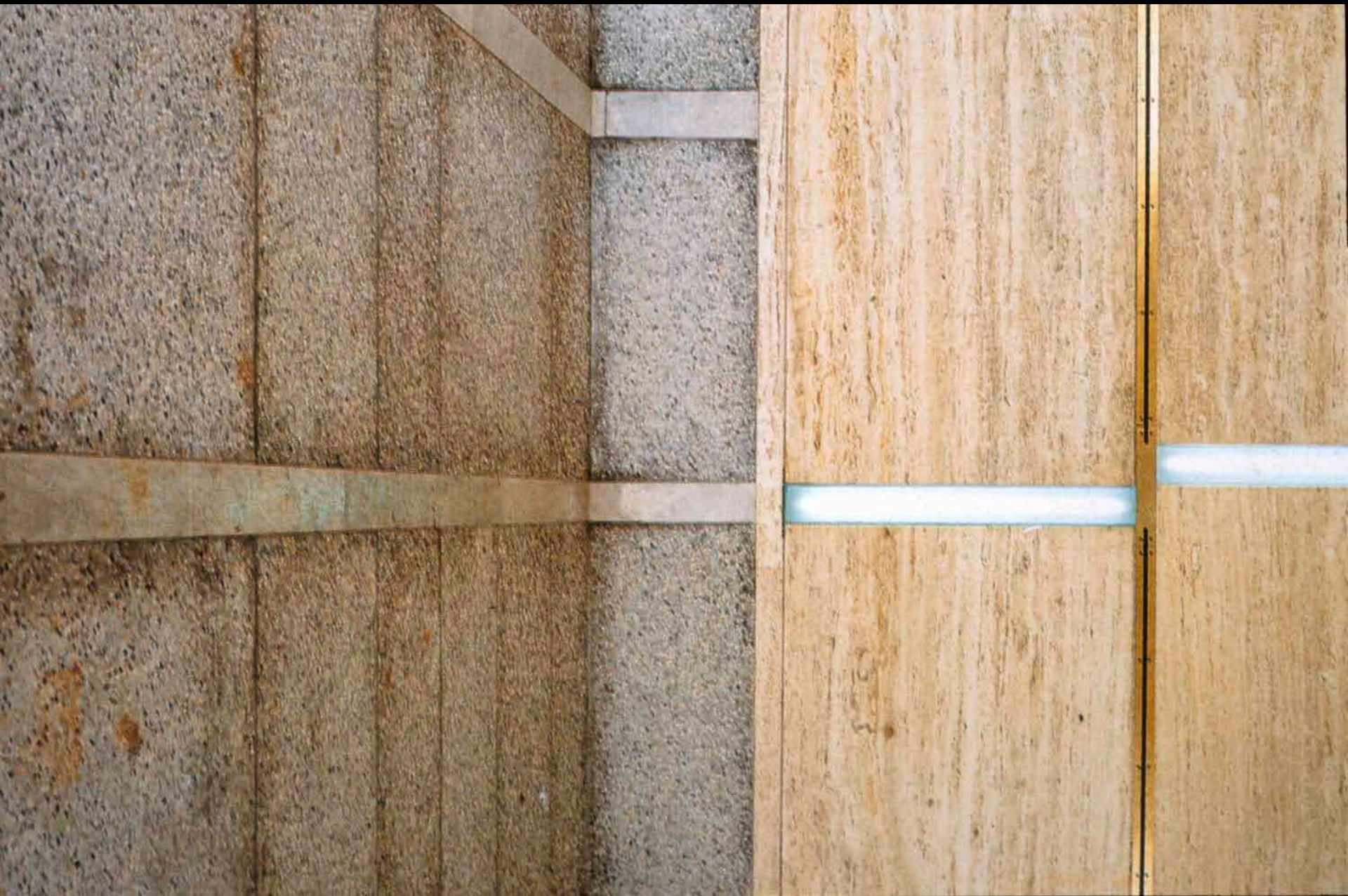


ZAHA HADID: <http://www.zaha-hadid.com/>

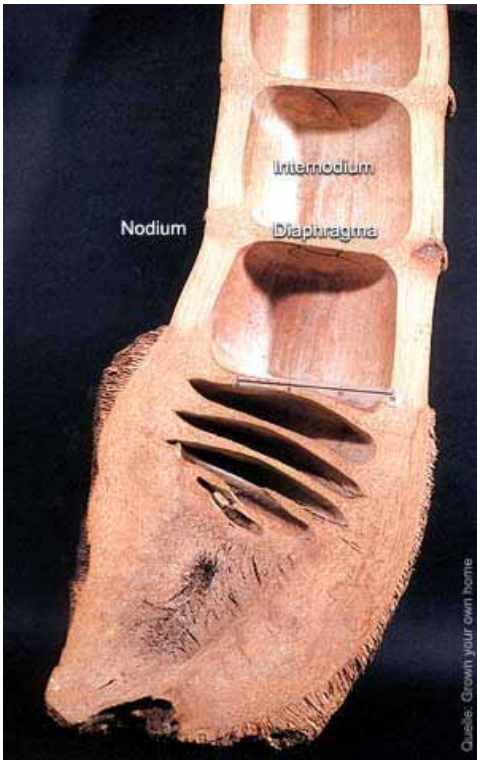


CARLO SCARPA





**BENEATH THE
SURFACE**



WoodWorking Information System - [Information on Wood]

Commands: Wood Tools Techniques Safety Options Help

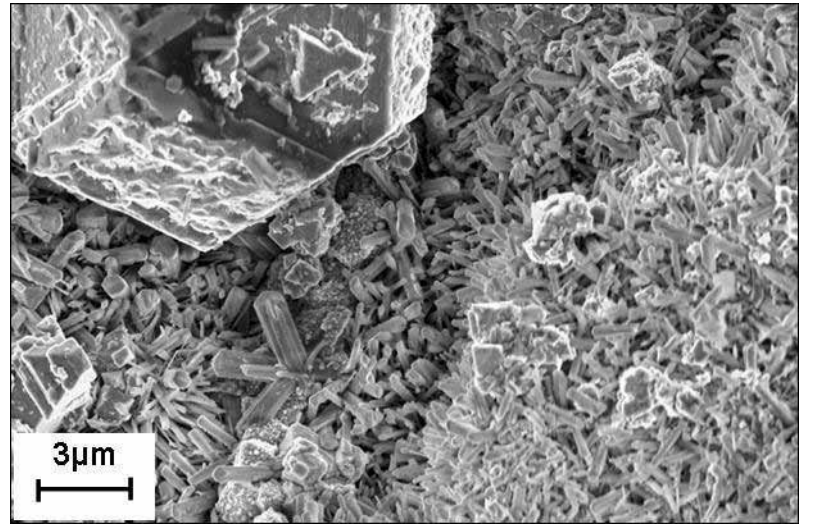
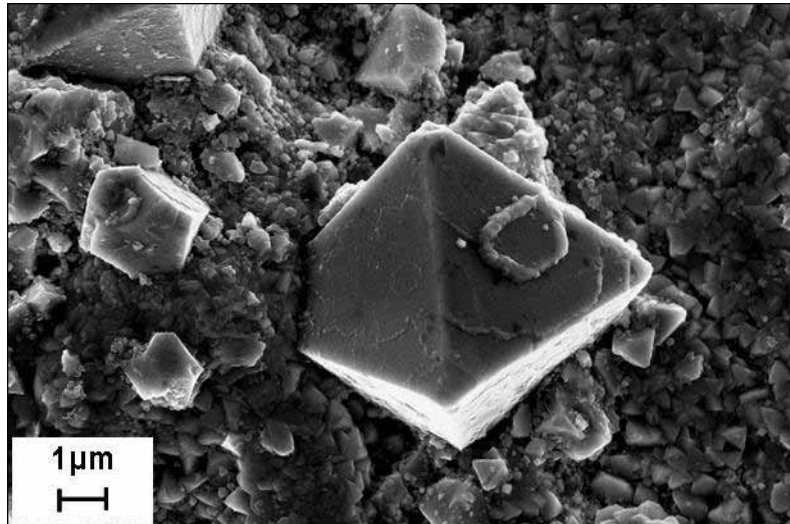
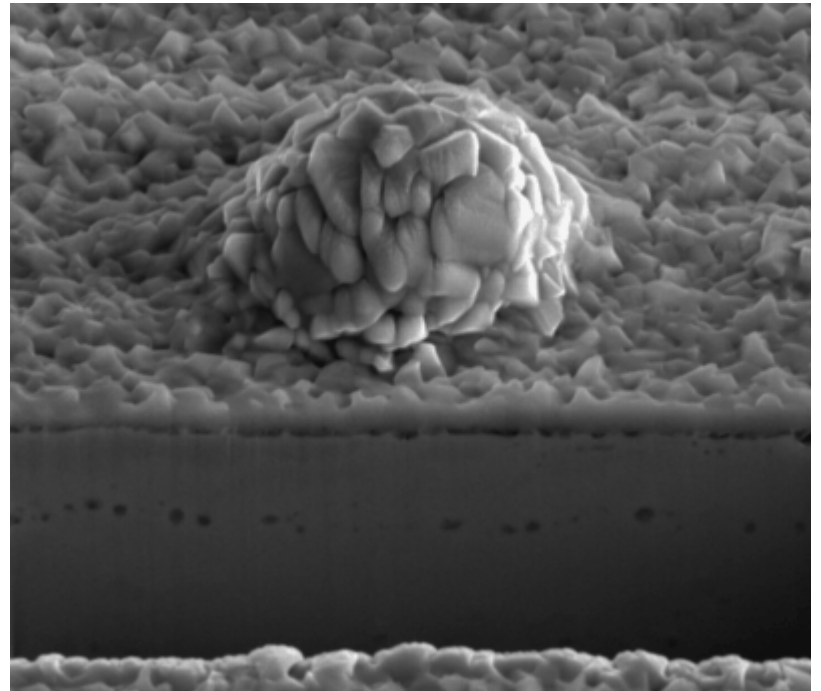
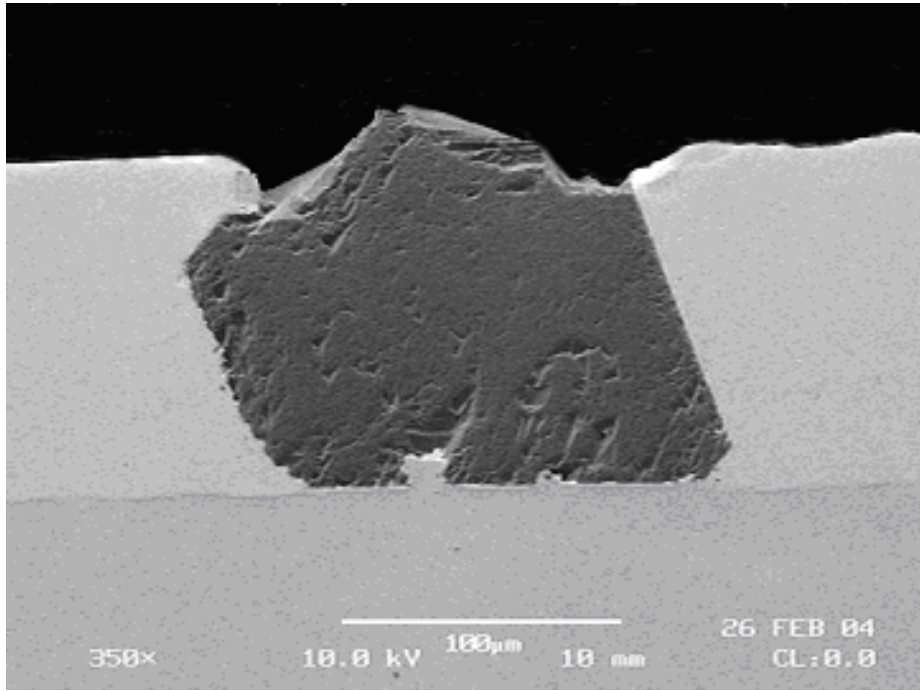
Solid Stock

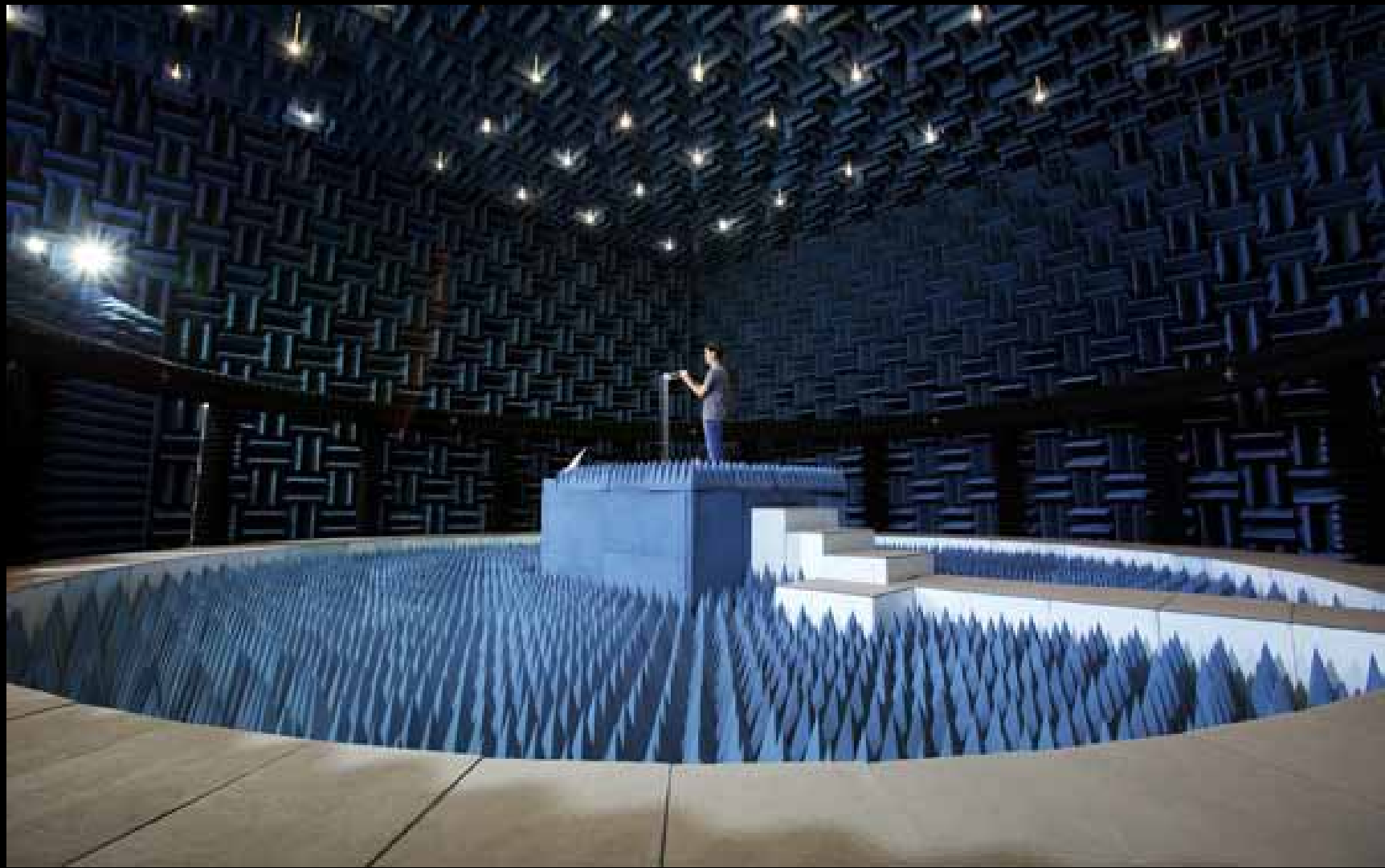
- General Info...
- Characteristics...
- Identification...
- Water and Wood...
- Standards...

Sheet Stock

- General Info...
- Characteristics...
- Standards...

This section provides (a) General information on wood, including general properties; (b) Species specific characteristics (including a search program); (c) An algorithm leading to species identification; (d) Information about drying (including an algorithm to evaluate shrinkage); (e) Typical classification standards for woods and plywoods.



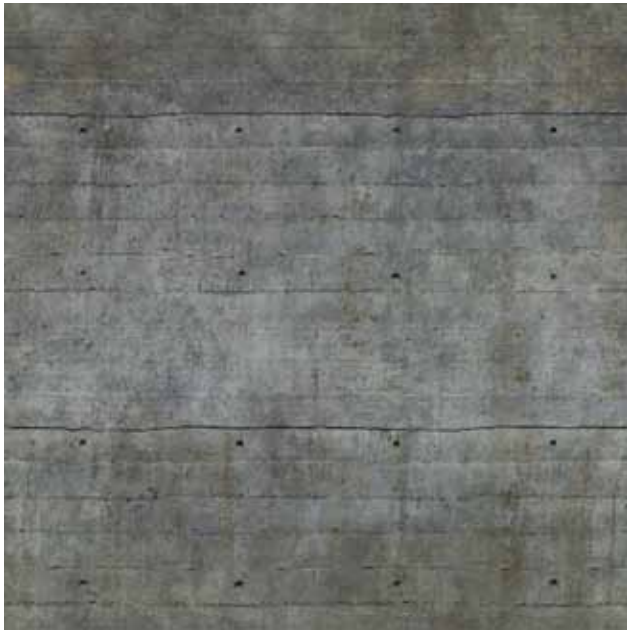




TEXTURE

PARAMETERS





PIXEL DIMENSIONS IN POWERS OF 2

128 x 128

512 x 512

1024 x 1024

ARCH1101

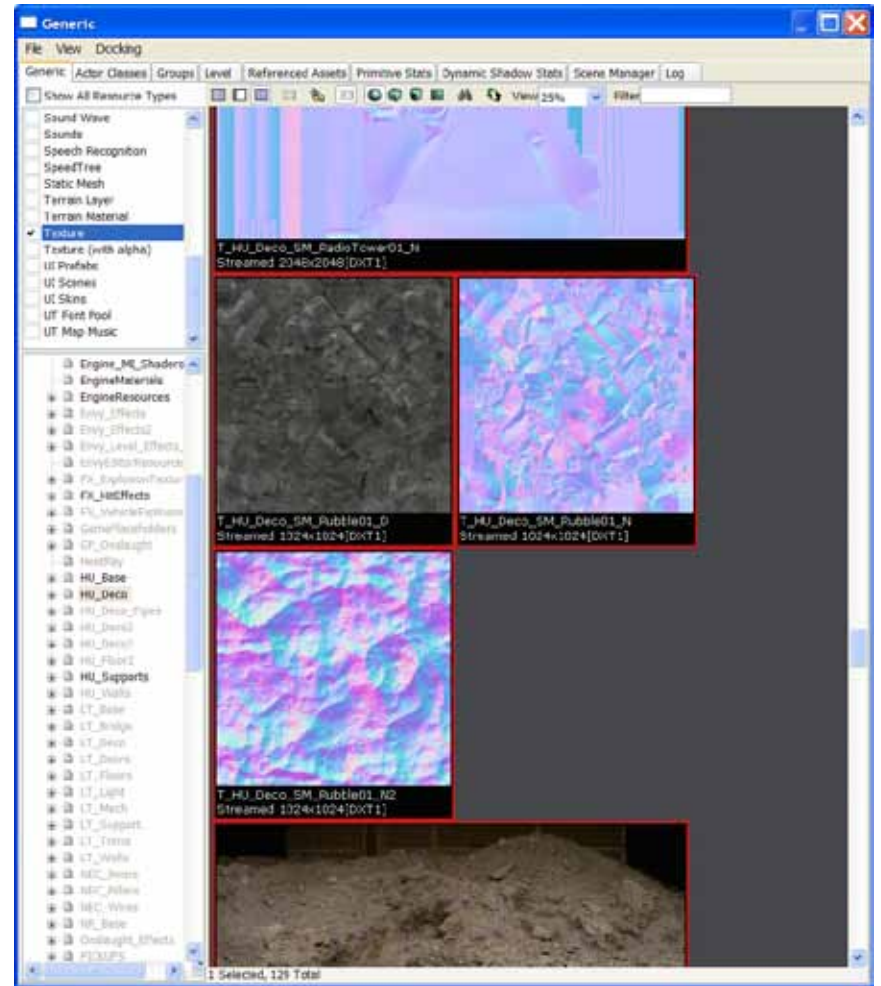
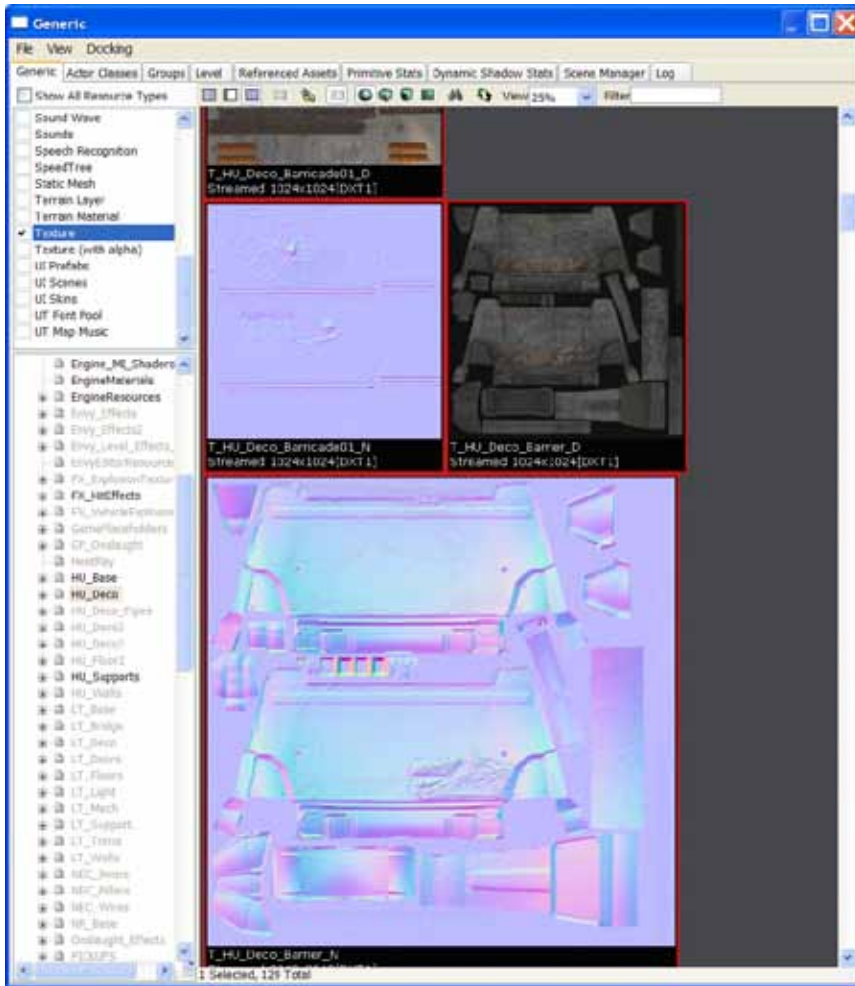
512 x 512

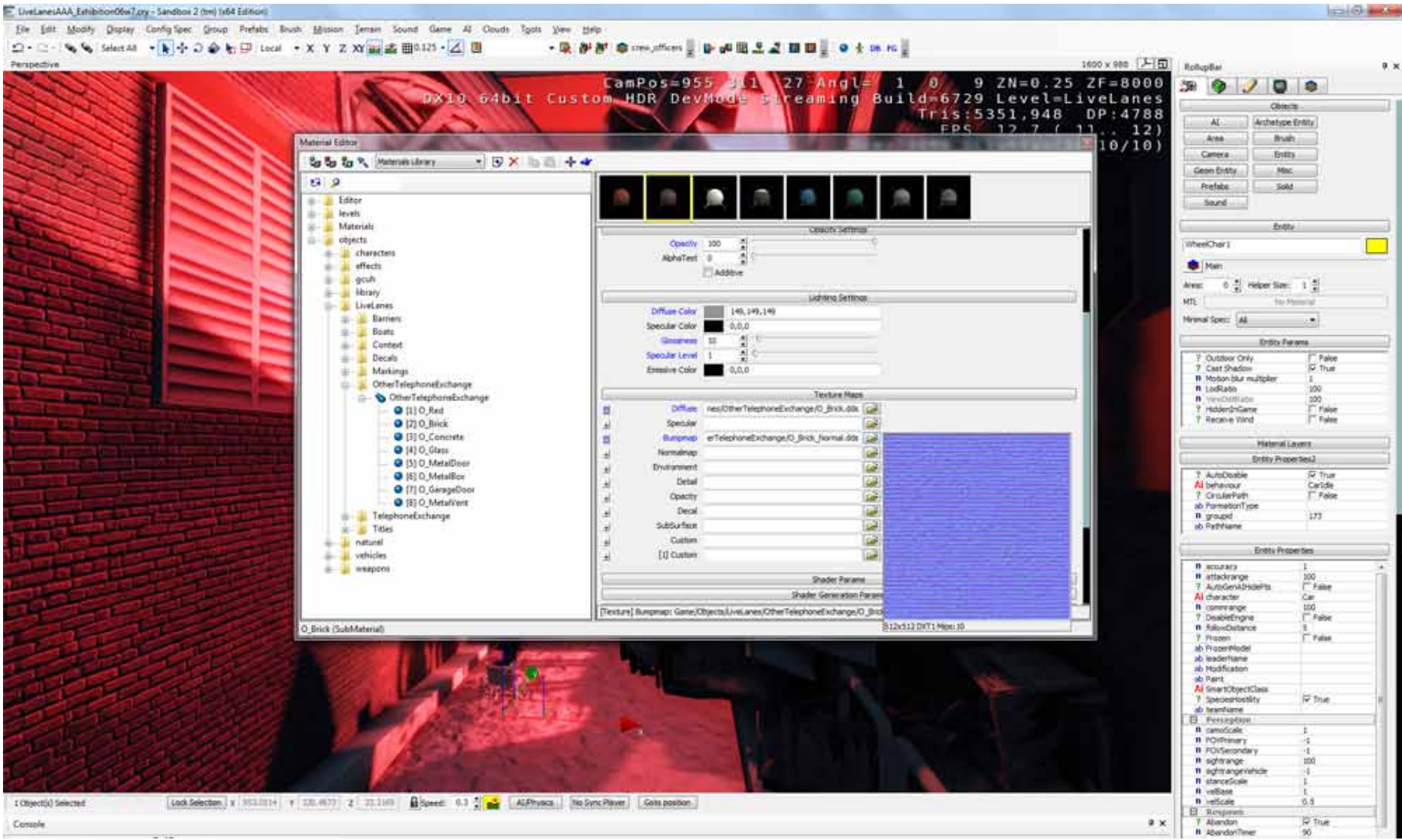
FILE TYPE = *.JPG



UT2004. EPIC GAMES.







Material Editor

Materials library

Editor
levels
Materials
objects
characters
effects
gcnh
library
Livelines
Barnes
Boats
Context
Decals
Markings
OtherTelephoneExchange
 [1] O_Red
 [2] O_Brick
 [3] O_Concrete
 [4] O_Glass
 [5] O_MetalDoor
 [6] O_MetalBox
 [7] O_GarageDoor
 [8] O_MetalVent
TelephoneExchange
Titles
natural
vehicles
weapons

Opacity: 100
AlphaTest: 0
Additive

Lighting Settings
Diffuse Color: 149, 149, 149
Specular Color: 0, 0, 0
Glossiness: 33
Specular Level: 1
Emissive Color: 0, 0, 0

Texture Maps
Diffuse: res/OtherTelephoneExchange/O_Brick_006
Specular: [Texture]
Bumpmap: res/OtherTelephoneExchange/O_Brick_Normal_006
Normalmap: [Texture]
Environment: [Texture]
Detail: [Texture]
Opacity: [Texture]
Decal: [Texture]
SubSurface: [Texture]
Custom: [Texture]
[1] Custom: [Texture]

Shader Params
Shader Generation Params

[Texture] Bumpmap: Game/Objects/Livelines/OtherTelephoneExchange/O_Brick_006

O_Brick (SubMaterial) 812x513 DX11 Max: 10

RollupBar

Entities

AL: Archetype Entity
Area: Brush
Camera: Entity
Gen Entity: Mac
Prefabs: Solid
Sound

Entity

WheelChar 1: [Yellow]

Main

Area: 0 Helper Size: 1
MTL: No Material
Minimal Spec: All

Entity Params

Outdoor Only: False
Cast Shadow: True
Motion blur multiplier: 1
LodRate: 100
ViewDistance: 100
HiddenInGame: False
Receive Wind: False

Material Layers

Entity Properties

AutoDisable: True
behaviour: CarIdle
CirclePath: False
FormationType: [Texture]
groupID: 173
PathName

Entity Properties

accuracy: 1
attachrange: 100
AutoGenSubsets: False
Character: Car
comrange: 100
DisableEngine: False
FollowDistance: 5
Frozen: False
FollowerModel: [Texture]
leaderName: [Texture]
Modification: [Texture]
Paint: [Texture]
GenerateObjectClass: True
speciosibility: True
teamName

Formation

camoflage: 1
POPrimary: -1
POSecondary: -1
sightrange: 100
sightrangeVehicle: -1
stanceScale: 1
velocity: 1
velocity: 0.3

Respawns

Abandon: True
AbandonTimer: 90

1 Object(s) Selected
Lock Selection x 353.0314 y 230.4677 z -22.2169
Speed: 0.3
All Physics No Sync Player Get position

Console

**TEXTURE +
GEOMETRY**

**TEXTURE +
GEOMETRY =
MATERIALITY**

beet your meat

Grill sausages with a sweetcut and hot sauce.

1 cup sweetcut beef sausage

2 beef sausages

1/2 cup hot sauce

1/2 cup ketchup

1/2 cup onion, sliced

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

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1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

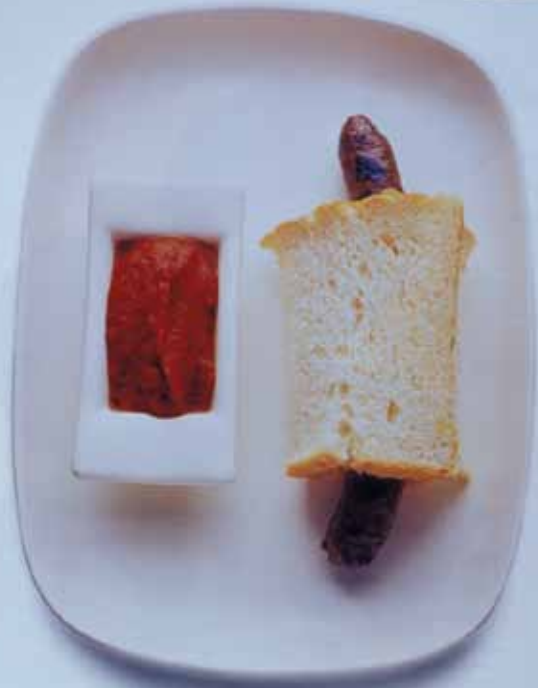
1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce



keep it under wraps

Hot beef sausages with hot sauce.

1 cup hot sauce

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

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1/2 cup bread

1/2 cup oil

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1/2 cup pepper

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1/2 cup pepper

1/2 cup onion

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1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

1/2 cup pepper

1/2 cup onion

1/2 cup lettuce

1/2 cup tomato

1/2 cup cheese

1/2 cup bread

1/2 cup oil

1/2 cup salt

VICE

This guy's ex-girlfriend kept trying to get us to put him in the DON'Ts because apparently he looks like a homeless Willy Wonka, but fuck that. When you work this hard on your look it shows that you're not too cool for school, you're not scared of being laughed at, and you're here to participate!



ALEXANDER ROSS





The most architectural thing
about this building is
the state of decay in which it is.



VILLA SAVOYE, 1935

VILLA SAVOY.
POISSY, PARIS.
LE CORBUSIER.

Architecture only survives
where it negates the form that
society expects of it.
Where it negates itself by
transgressing the limits that
history has set for it.

**Sensuality has been known
to overcome even the
most rational of buildings.**



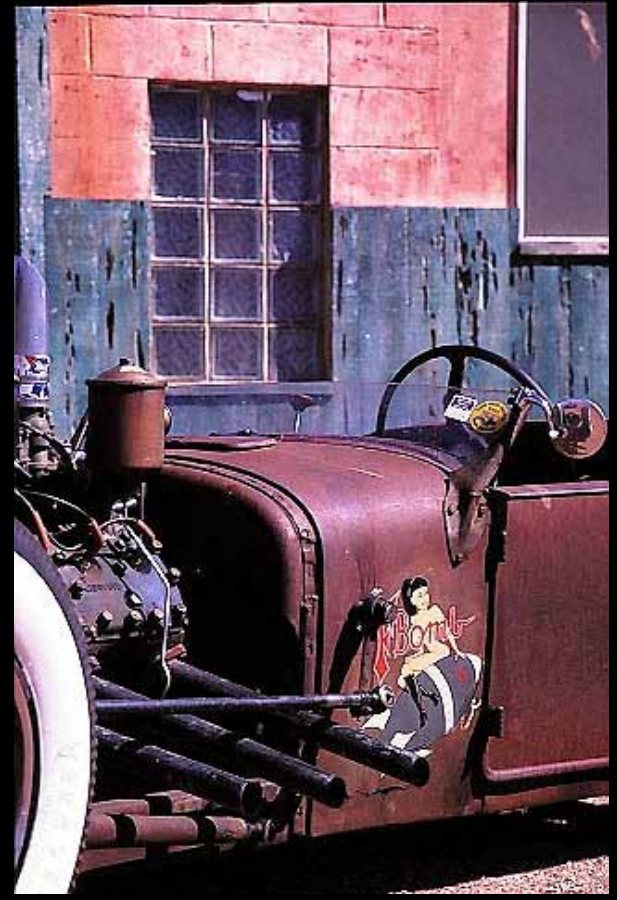
VILLA SAVOYE, 1935

Architecture is the ultimate erotic act.
Carry it to excess and it will reveal
both the traces of reason and the sensual
experience of space. Simultaneously.

BILLETPROOF™

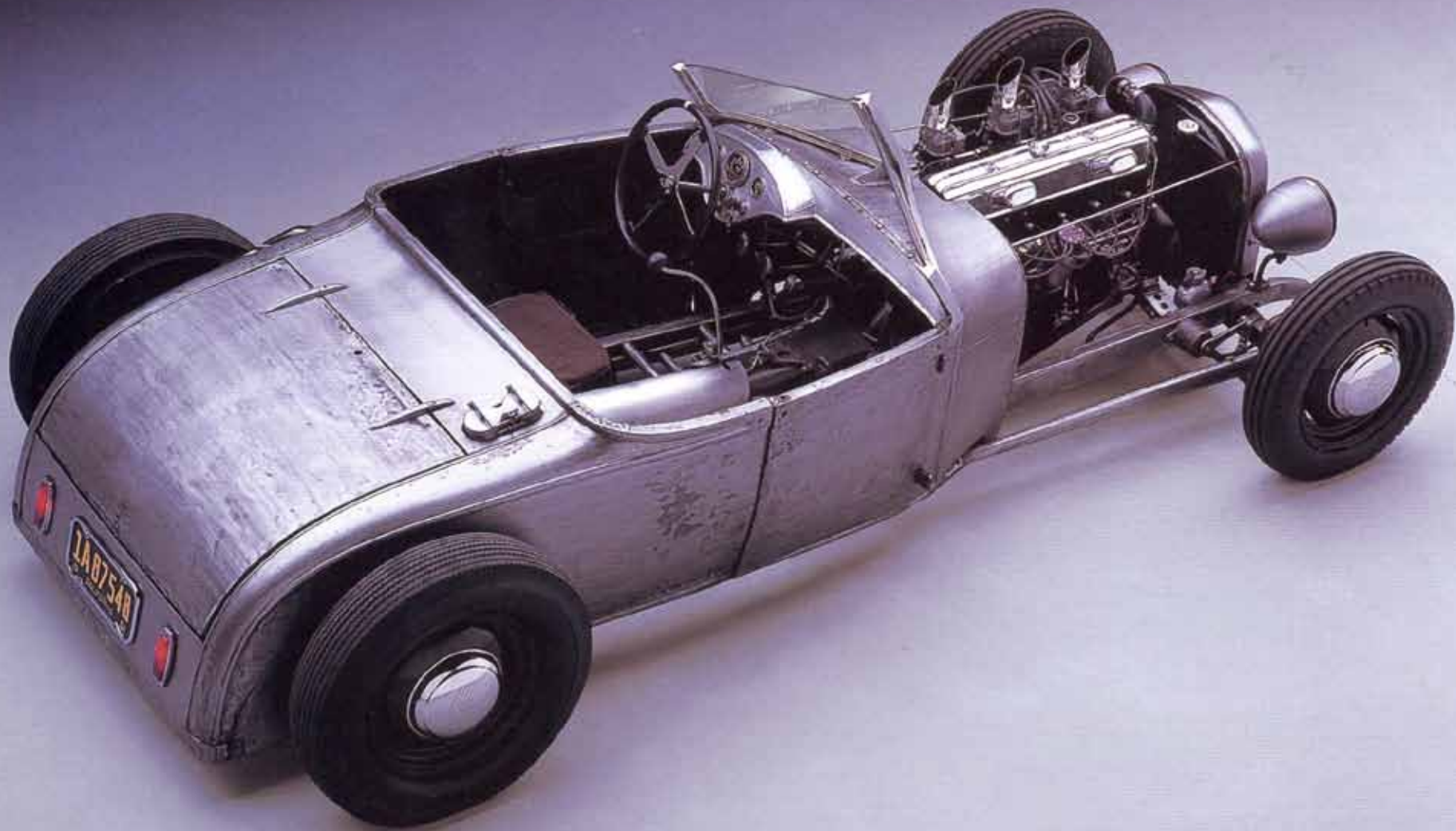


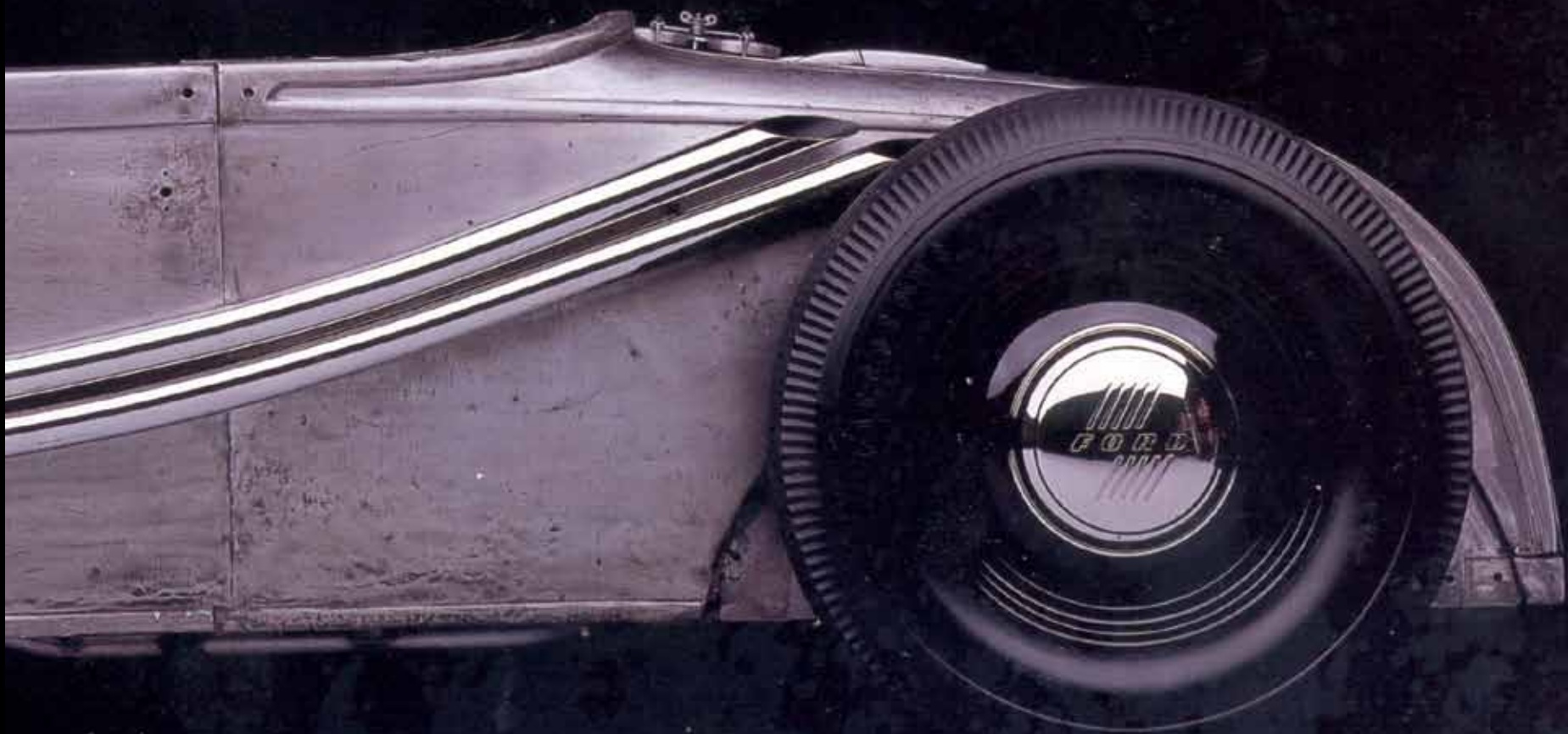
*Dirty.
Loud
& Fast*



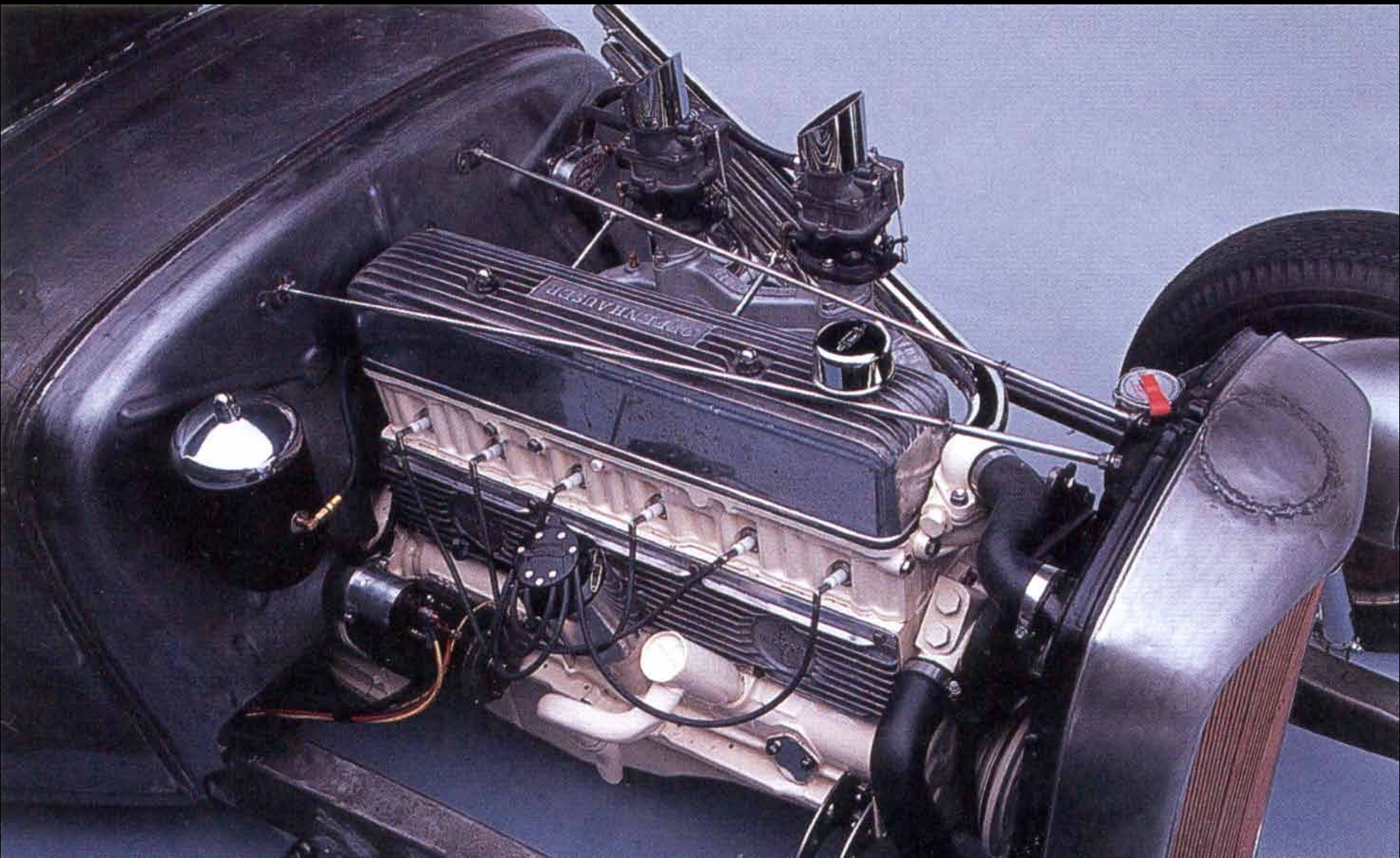


One car everyone was talking about was Jim Cherry's fabulous '40 coupe. Sporting a burnt burgundy finish that only Father Time and Mother Nature can provide, the coupe still carries the trademark attention to detail that Cherry puts in every car. The engine bay and interior were nicely detailed in a persimmon paint and chrome garnish moldings inside add a splash of brightwork.



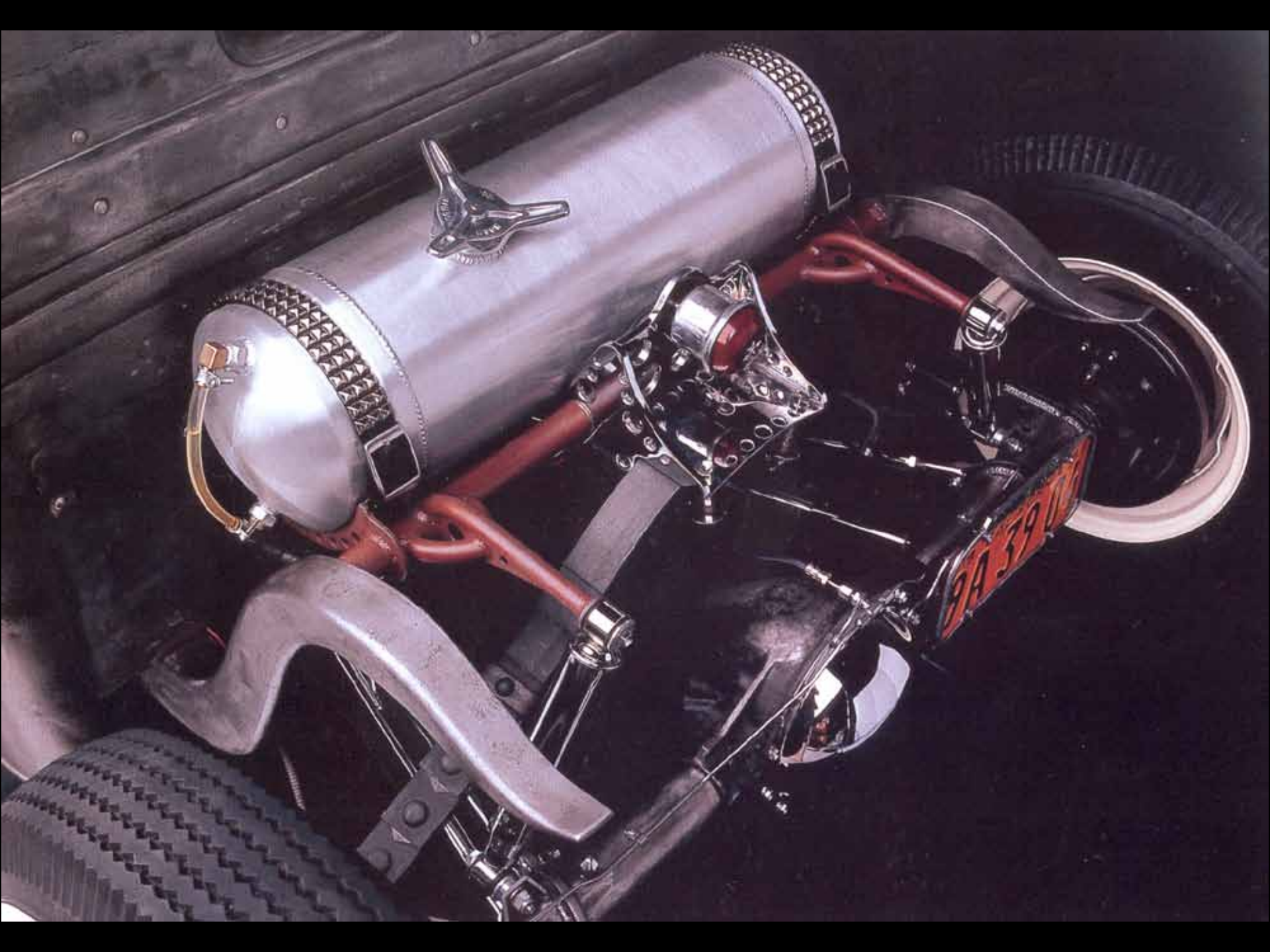


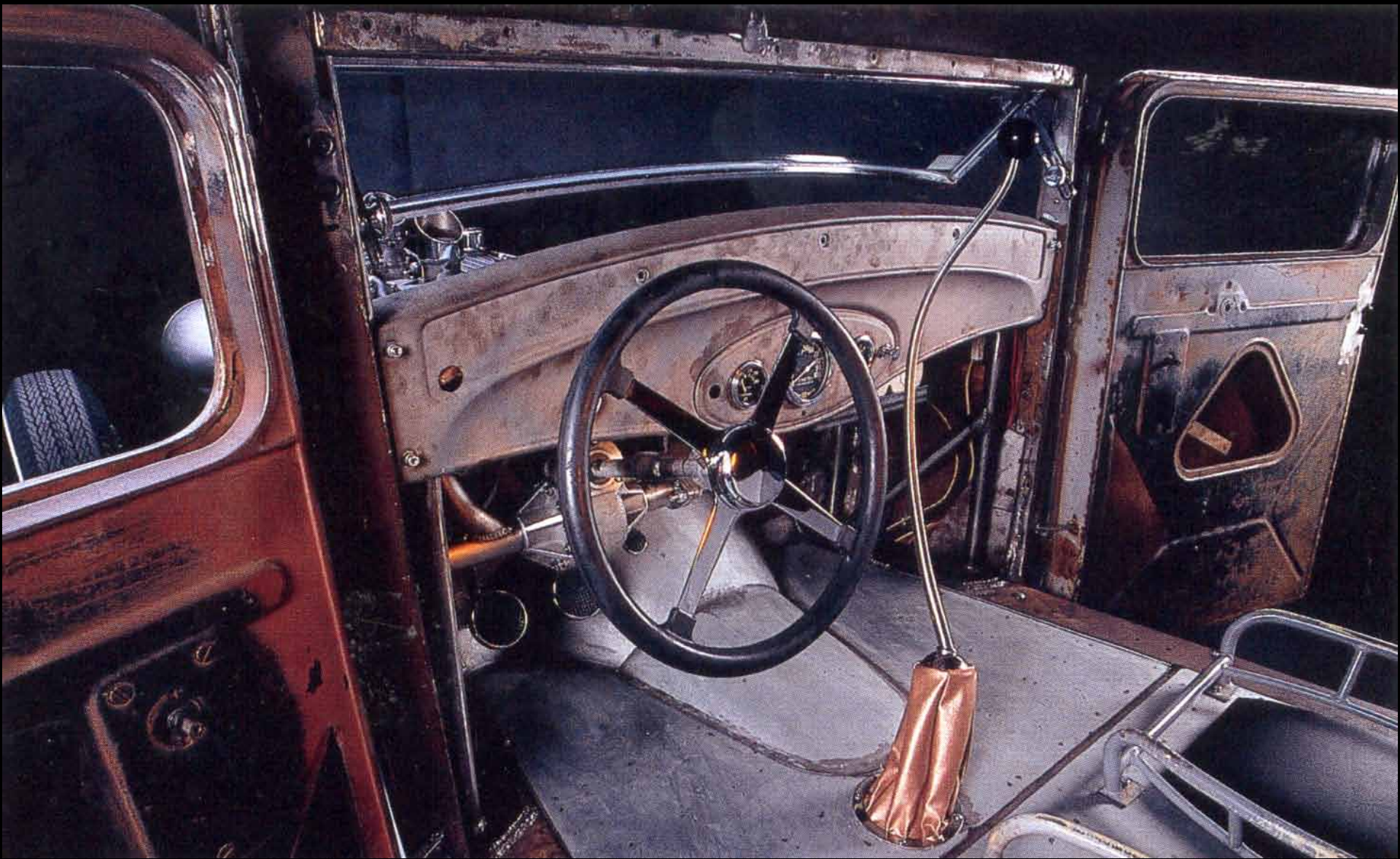




When you first look at this kooky pickup, you might think it's all akimbo, with the rear kicked up so high, the front down so low, and the body squashed in the middle. But study this profile. Follow the line from the gas tank top, through the beltline and cowl, across the valve cover, to the grille top. Now do the same thing on the bottom. Check the drag link, the frame rail, the intake manifold, even the generator—all on the same line. It's impressive. Did you notice the faired door hinges, done by some unknown San Jose lead artist years ago? Even with some chrome and store-bought parts, Reeps figures he's got well under ten grand in this rod. That's impressive, too.









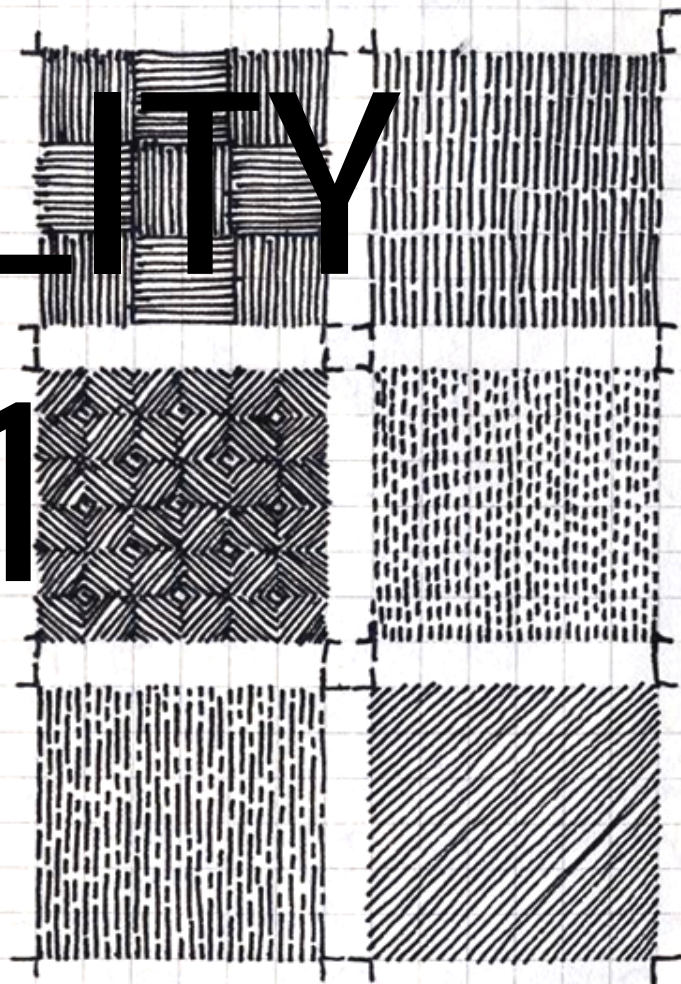


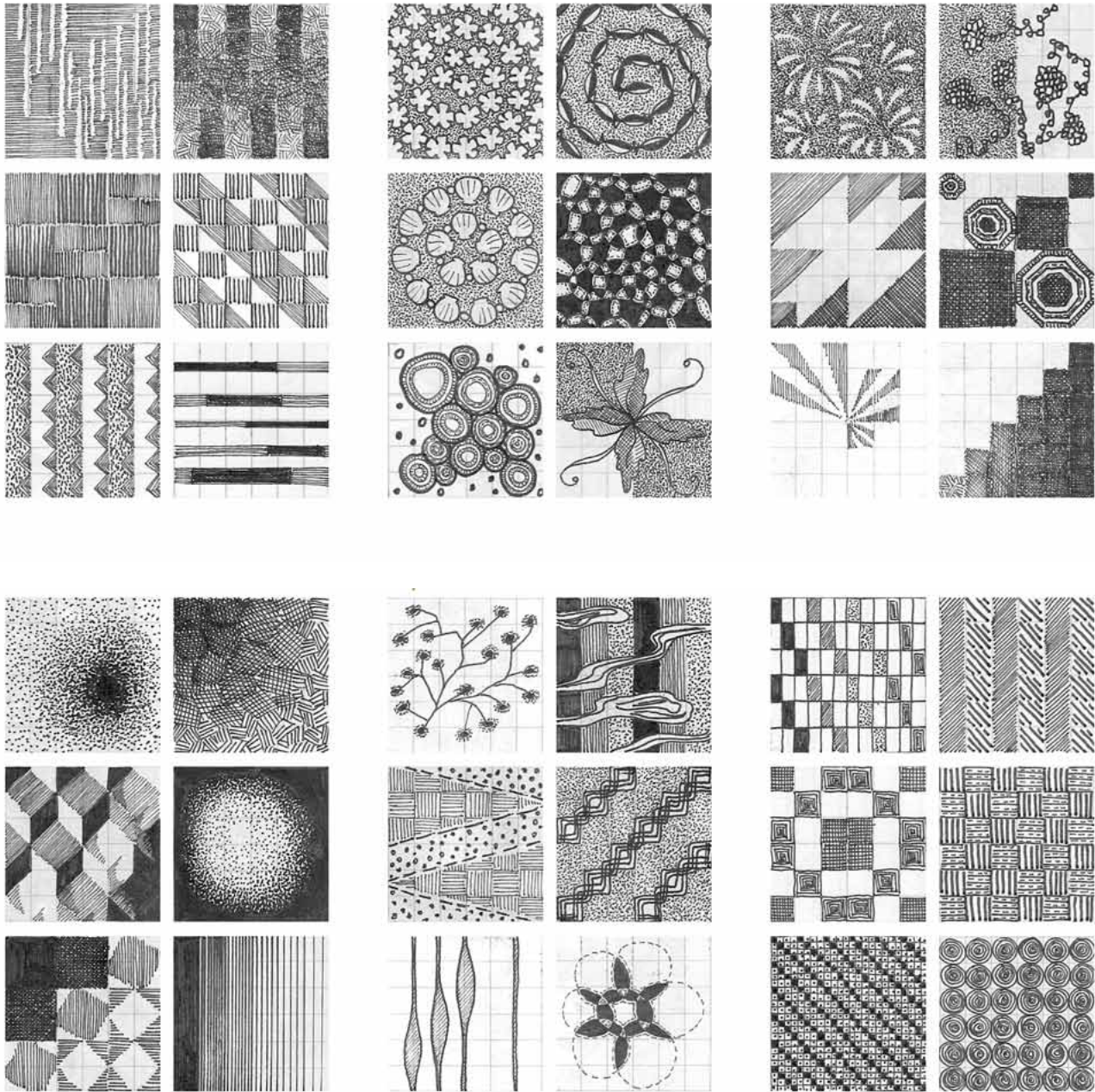
TEXTURE +

MATERIALITY

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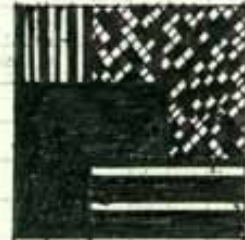
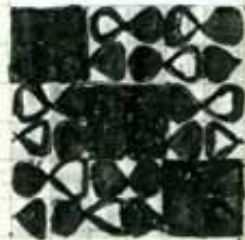
STUDIO





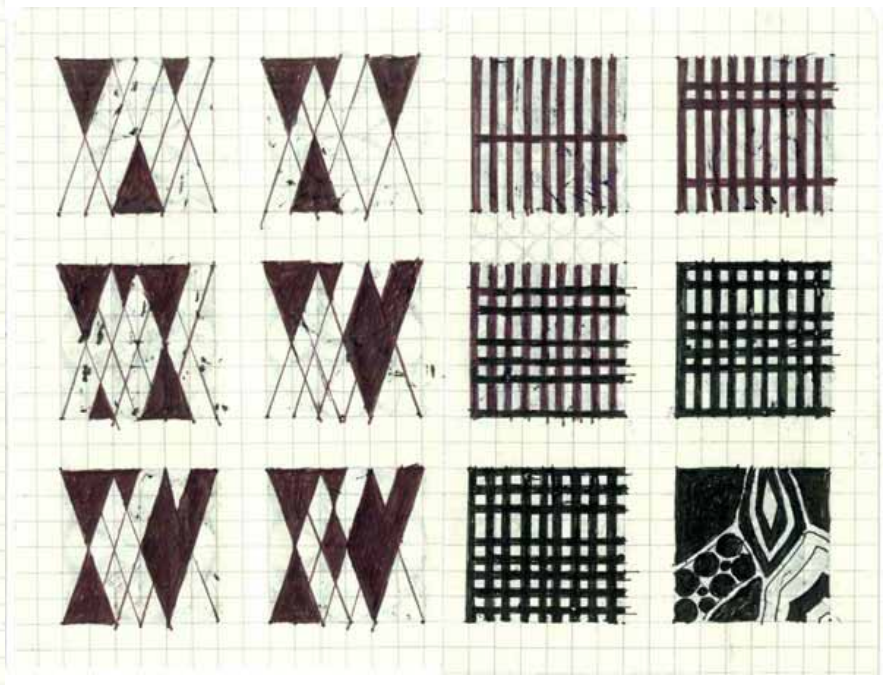
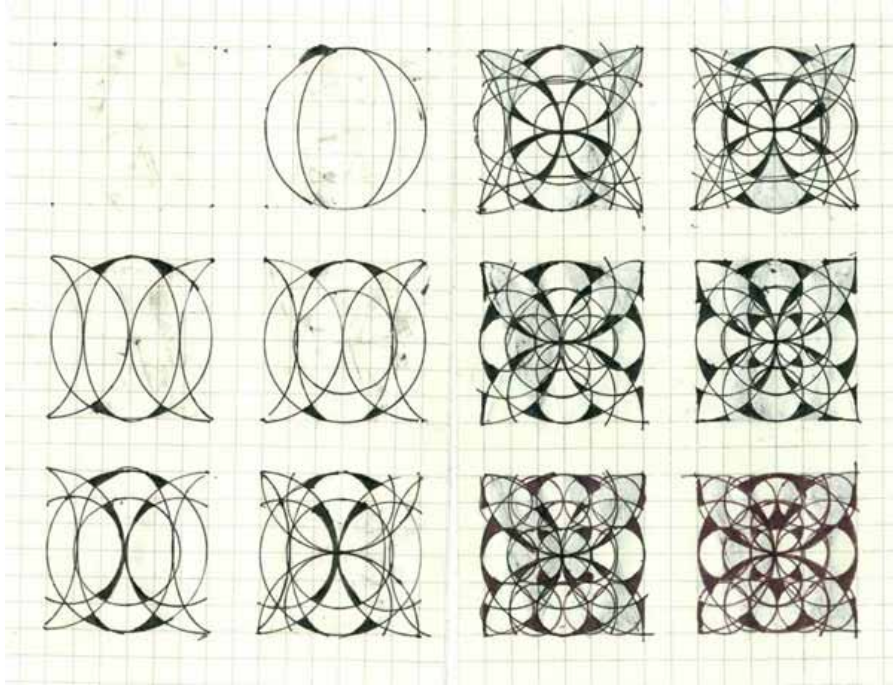


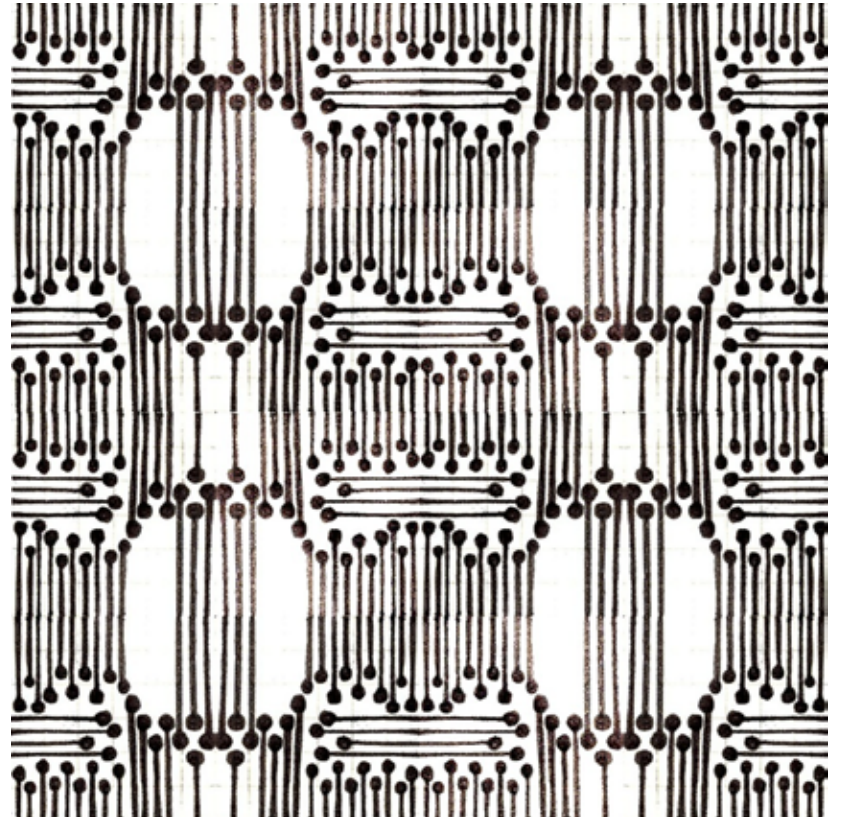
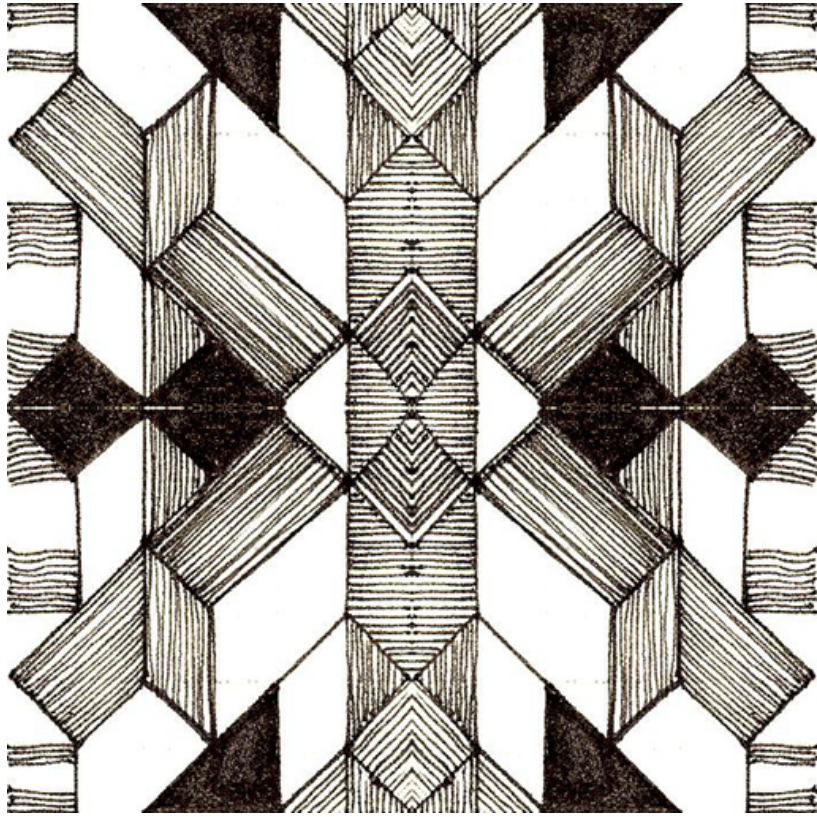
PREDESTINED PREDAS'
 LINED PREDESTINED
 CROSS THE ROAD CROSS
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 THE ROAD LOOK LOOK
 LOOK LOOK LOOK PRE
 DESTINED PREDESTIN
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 REDISTINED PREDST.

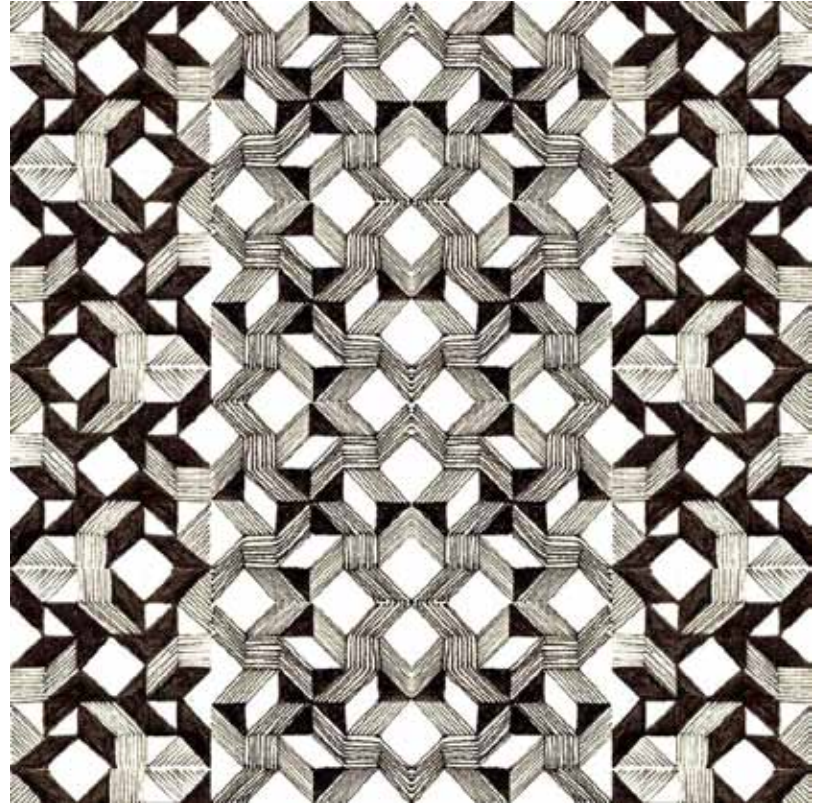
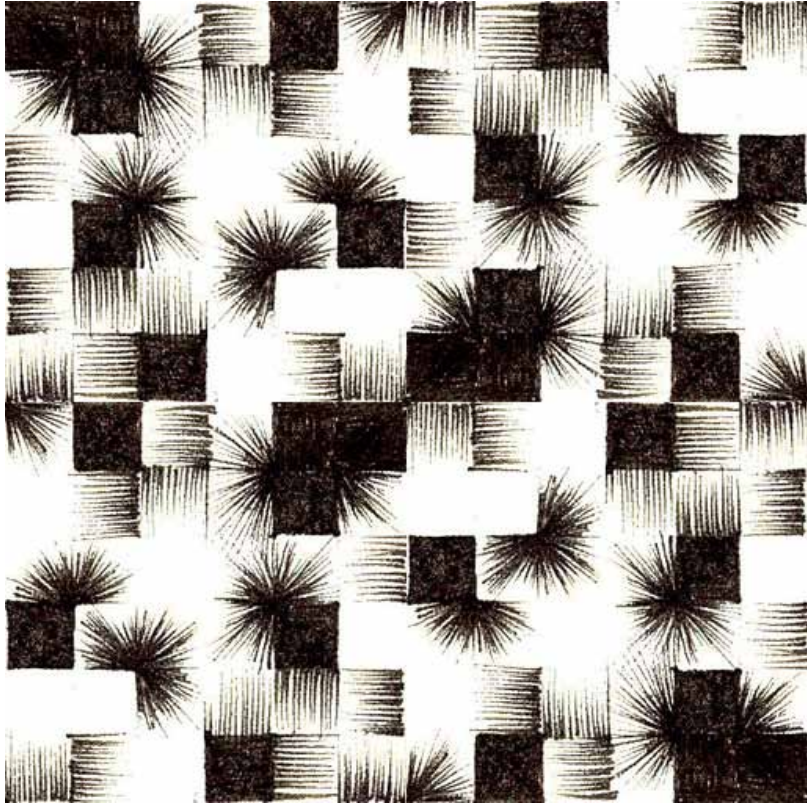


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SKETCHUP

CUSTOM

MATERIAL

TUTORIAL



SKETCHUP

MODELING

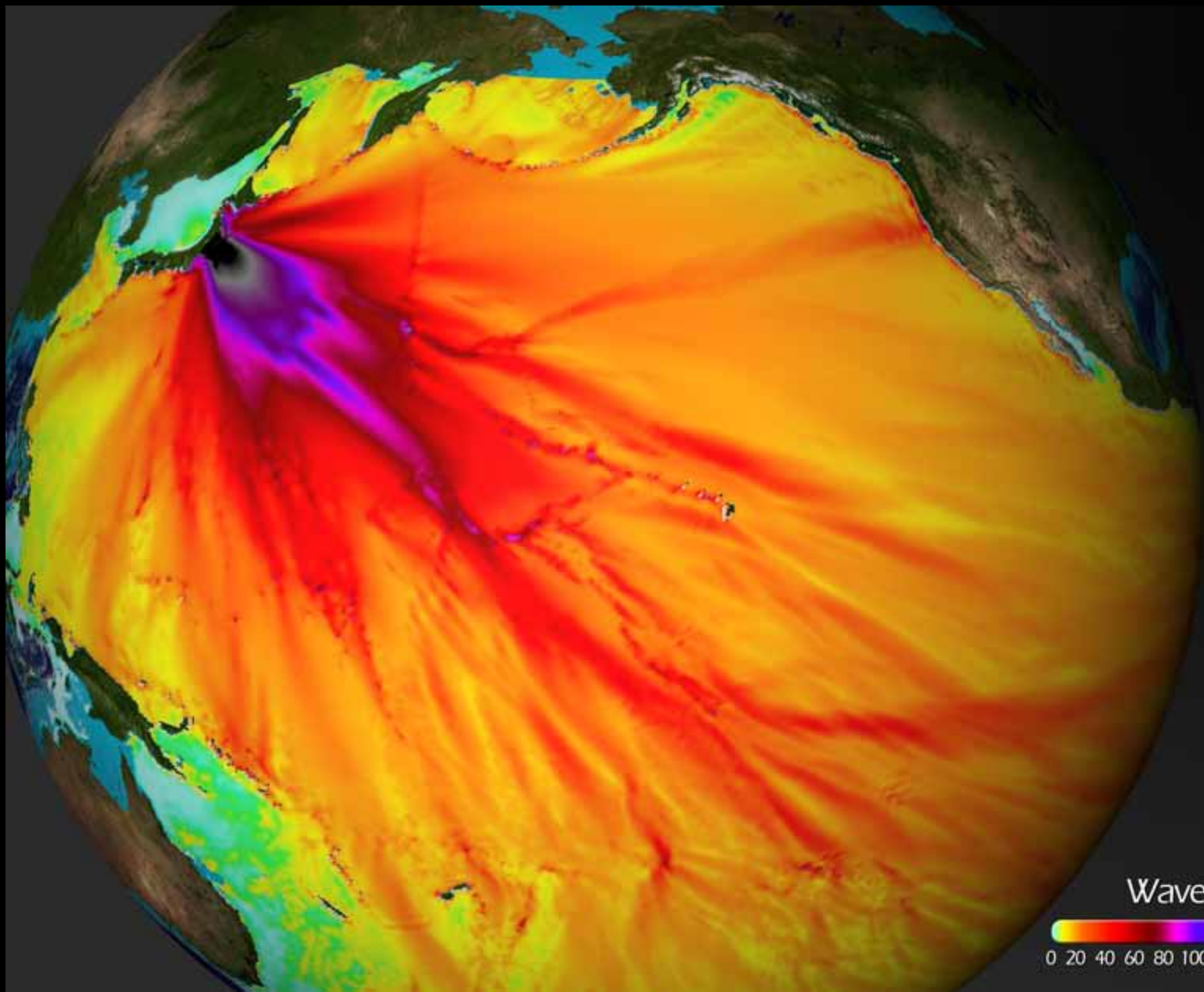
TUTORIALS

TASK FOR TODAY

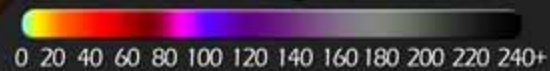
1. In groups of 5 come up with 36 words to describe the features/qualities/properties of materials.
2. Once you have a list work individually to place them into 3 categories (above, below and in between), reflect on the 2 draft sketchup models and your artists work to help you to do this.
3. In squares of 6 x 6 units in your notebooks (or a manageable size on your iPhone, or similar) carefully draw a material section that represents each of the words, taking care also to emphasize the category that word is in.
4. Throughout the class your tutors will be selecting students at random to offer a critique of other students work. Use the marking schedule to focus your comments.
5. Following these discussions you will chose one of the two draft schemes to develop into your final submission.

Note: throughout the class students will be demonstrating the methods for modeling and texturing objects in SketchUp. Jeremy Harkins will also demonstrate some advanced SketchUp techniques at some point during the class.

IMPORTANT!: We will be having a student rep meeting at 4pm in the forum space at the end of level 5, so please let your tutorial representative know of any issues you'd like them to raise with me before then.



Wave Height (cm)



QUESTIONS?