Design Issues

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Creating Webpages

- Content
- Context
- Message
- Visualization and Sonification
- Hierarchical Creation of the Picture 2D
- Fun and humor
- USER mystery (population stereotypes, rules of sensing…)

Selected Links

- www.w3.org/XML

- www.w3.org/Math

- www.w3.org… VRML, X3D…

- www.w3.org… anything else

- … WWW Consortium

- Easy access from AF page, btw

Web Page Design Issues

- Art for Computer Graphicists >> logo

- + 150 pages on Color and Art Techniques

- TODAY:

- Mitchell SIGGRAPH98 Course Notes

- Intent and Audience

- Type 1 of Site: information-based

- Type 2 of Site: offer experiences, emotion

General Issues

- Browsers, platforms, bandwidth

- Testing in various environments

- Copyright Issues

- Keeping Information Up to Date

- Comments

Principles of Design & Page Layout

- Stucturing Whitespace
- Balance, visual weight: size, value, density
- Symmetrical Balance
- Lack of Balance
- Consistency Across Pages
- Designing for Paper or WWW: safe area
- Using Grids
- Focal Point and Path

3D online

- 3D graphics online
- For example – www.vhce.info

- Games, CPL - www.thecpl.com
- No. 1..3: Counter-Strike 1.6, Quake 3, Internet petition 4 Warcraft III (Defense of the Ancients - DotA)

cyberathlete professional ★ league®
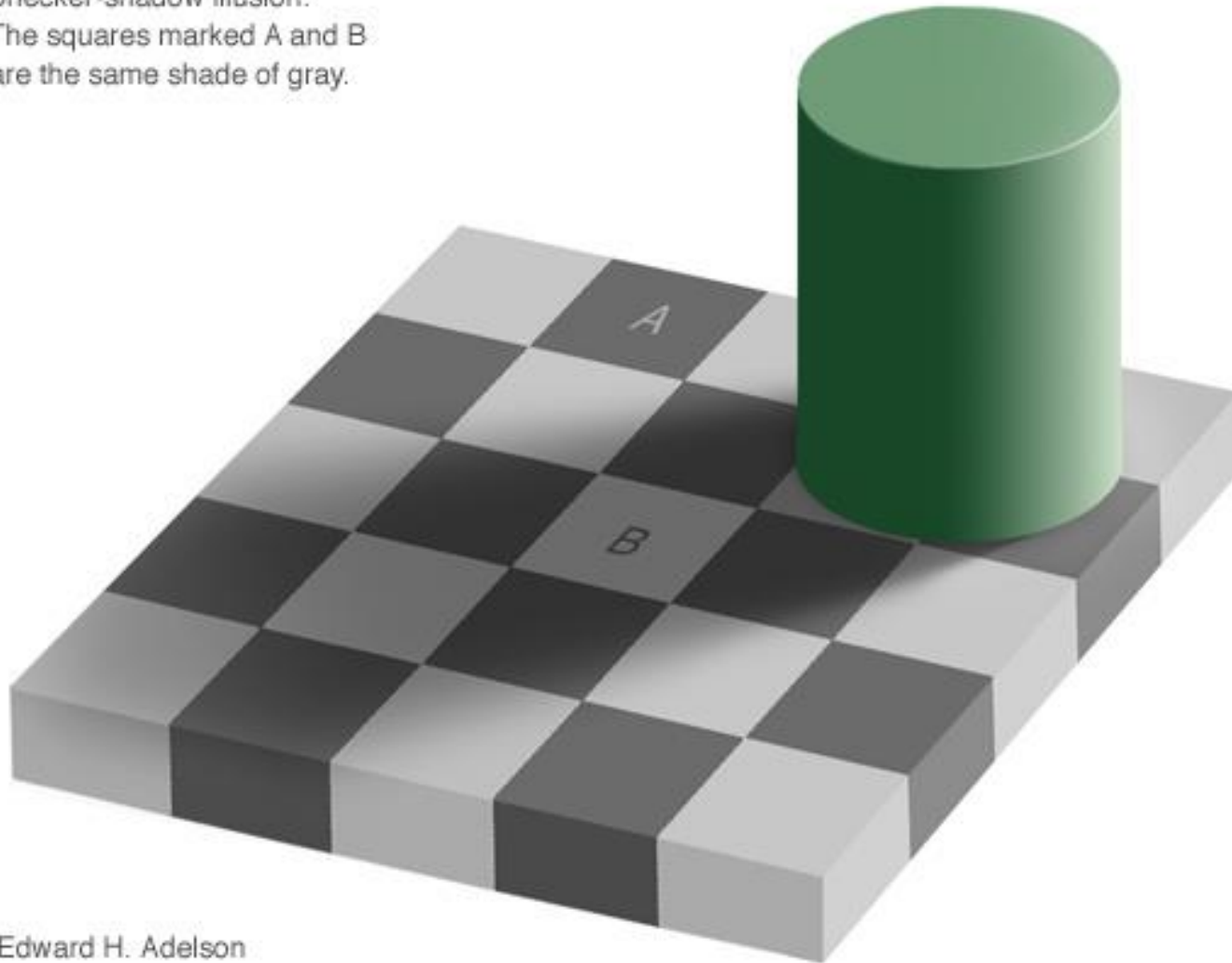
Virtual Heart of Central Europe

- Awarded by EuroPrix Quality Seal

www.VHCE.info

- 330 kEUR, 150 kEUR from EC, submitted – Pirelli Award, AE
- follow-up 2005-2006 (SK, SI, PL, CZ), submitted,reject... VrBa

Color Perception

Checker-shadow illusion:
The squares marked A and B
are the same shade of gray.
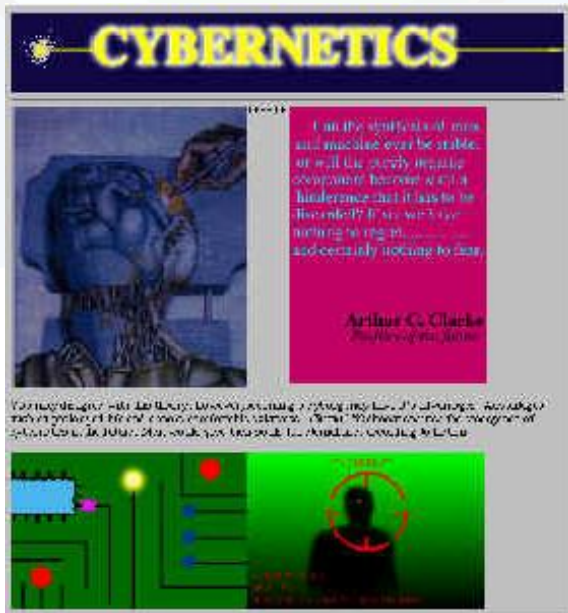

Edward H. Adelson

Color Perception 2 – E. Wenner

Color Perception 3 – E. Wenner

Design Issues

Creative Use of Color in Page Design

- By Bonnie Mitchell
- Color - an important help to support your intent
- Color - Too Much vs. Not Enough

Design Issues

figure 1-21 Colorful graphics used

figure 1-22 No color or graphics used

Web Page Design Issues

- **Mitchell SIGGRAPH98 Course Notes**

- Intent and Audience

- Type 1 of Site: information-based

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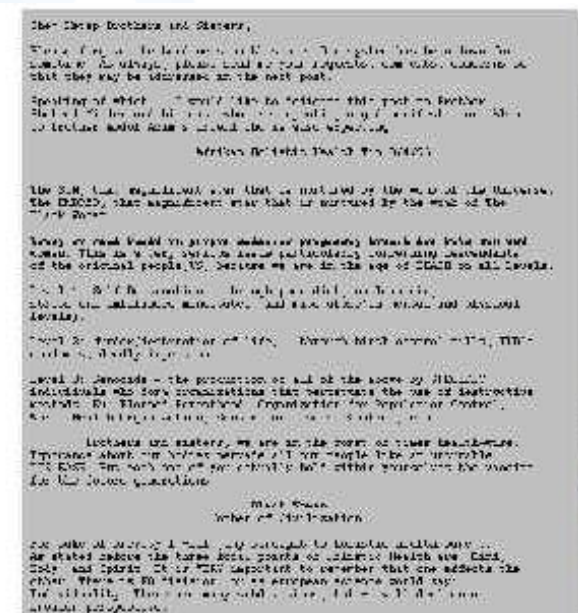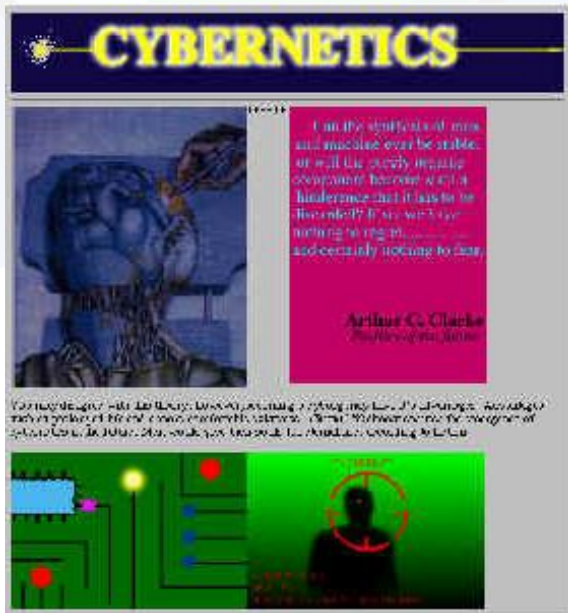**Design Issues**

figure 1-21. Colorful graphics used

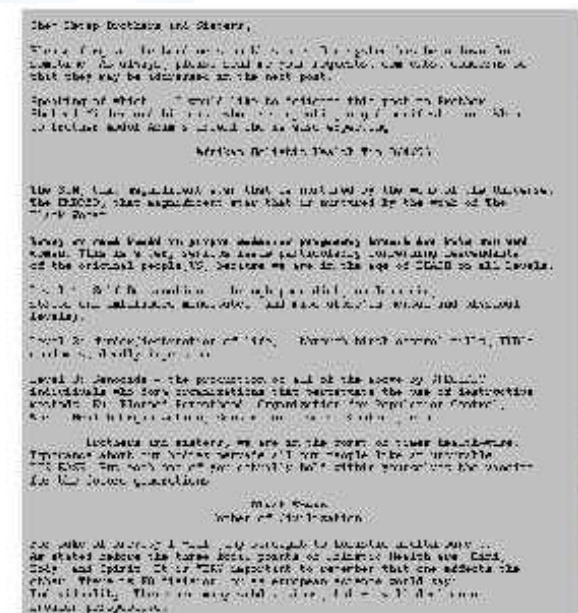*figure 1-22 No color or graphics used*

Use of Color 2

- By Bonnie Mitchell

- Limited Palette - Selected color scheme

- Complex Palette

figure 1-24 Limited use of color to create color unity on the page

figure 1-25 Page using losts of different colors but dominant colors help create color unity

Use of Color 3

- By Bonnie Mitchell

- Color Contrast (Background Images)

figure 1-26 Readability of text affected by the pattern of the background

figure 1-27 Readability of text affected by lack of contrast
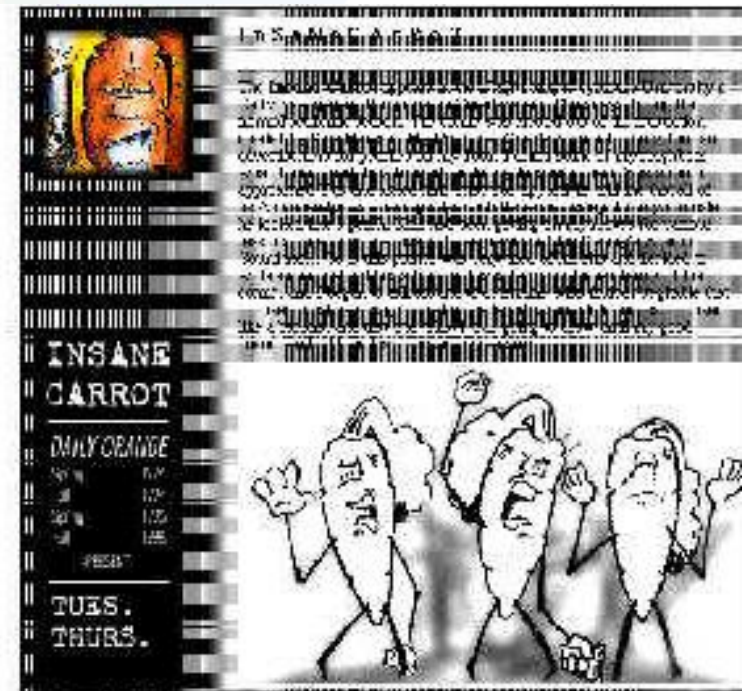
fig.1-26

fig.1-27

Use of Color 3

- By Bonnie Mitchell

- ## Variation: Newspapers ... varying the font size
- Graphics ... distinguish important images from supplementary ones

- ## Page Hierarchy
- "Back to the Home Page" error

Come on in and raid the fridge.

HOME
Page

last update: April 5, 1996

figure 1-6 Raid the Fridge,
an interactive experience-based site

Design Issues

Creating Effective Graphics

- By Bonnie Mitchell

- Aesthetics and Graphics - a number of tricks

- A Critical Eye - recognize shortcomings

- Technical Art Skills – draw & study

- Sharing Graphic Qualities (Devising a Formula)

Creating Effective Graphics 2

- By Bonnie Mitchell

- Formulas (Shadows) - an illusion of depth

- Formulas (Sizes) - very important to agree on a uniform size

- Formulas (Alignment) – look chaotic if the graphics are not aligned creatively, use grid => structure

- Simulate other media (Devising a Formula)

Creating Effective Graphics 3

- By Bonnie Mitchell

Figure 1-14 Orange Source, an asymmetrically balanced page

Design Issues

Figure 1-42 Creating the illusion of 3D through use of shadows and overlapping

Creating Effective Graphics 4

- List of tricks by Bonnie Mitchell

- Linear perspective/Foreshortening (converging lines - vanishing point)
- Overlapping of shapes (shape on top appears closer)
- Atmospheric perspective (less saturated color and detail in the distance)
- Size relationship (large objects appear closer)
- Modeling/Shading/Gradients (adding virtual 3d form to objects)
- Shadows/Directional lighting (emphasize the distance of object to surface)
- Placement in the picture plane (higher in picture is further away)
- Heavy lines (appear to come forward)
- Colors (bright/warm colors come forward -cool/dark colors recede)

Creating Effective Graphics 5

- By Bonnie Mitchell

- Filters and Simulation – misuse & overuse

- Defying the frame – break out of the rectilinear frame

- Animating Graphics – slow download
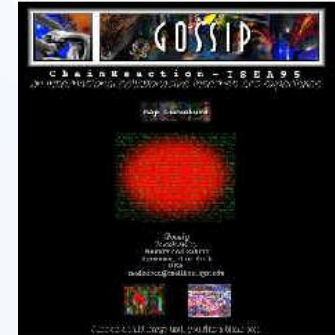
Design Issues

Color in Graphics

- By Bonnie Mitchell

- Color and Emotive Effects

- Color and Symbolism

- Color (Warm and Cold)

figure 1-21 Colorful graphics used

figure 1-22 No color or graphics used

- Technical Issues Associated with Color: JPG, GIF, SVG, PNG, SWF...

Effective Graphics

- By Bonnie Mitchell

- Consider the whole WWW site – Gestalt

- No graphics?

- Graphics can be an effective way of conveying your concept

Working with Text

- By Bonnie Mitchell

- Another time

Designing Interaction & Exploration

- By Bonnie Mitchell

- Sublevels and Mapping the Structure

figure 3-1 AMS-Latex, diagram of the structure

Designing Interaction & Exploration

- By Bonnie Mitchell

- Hierarchy charts or maps to assist with the navigation

figure 3-2 Diversive Paths, copasetic facial structure map
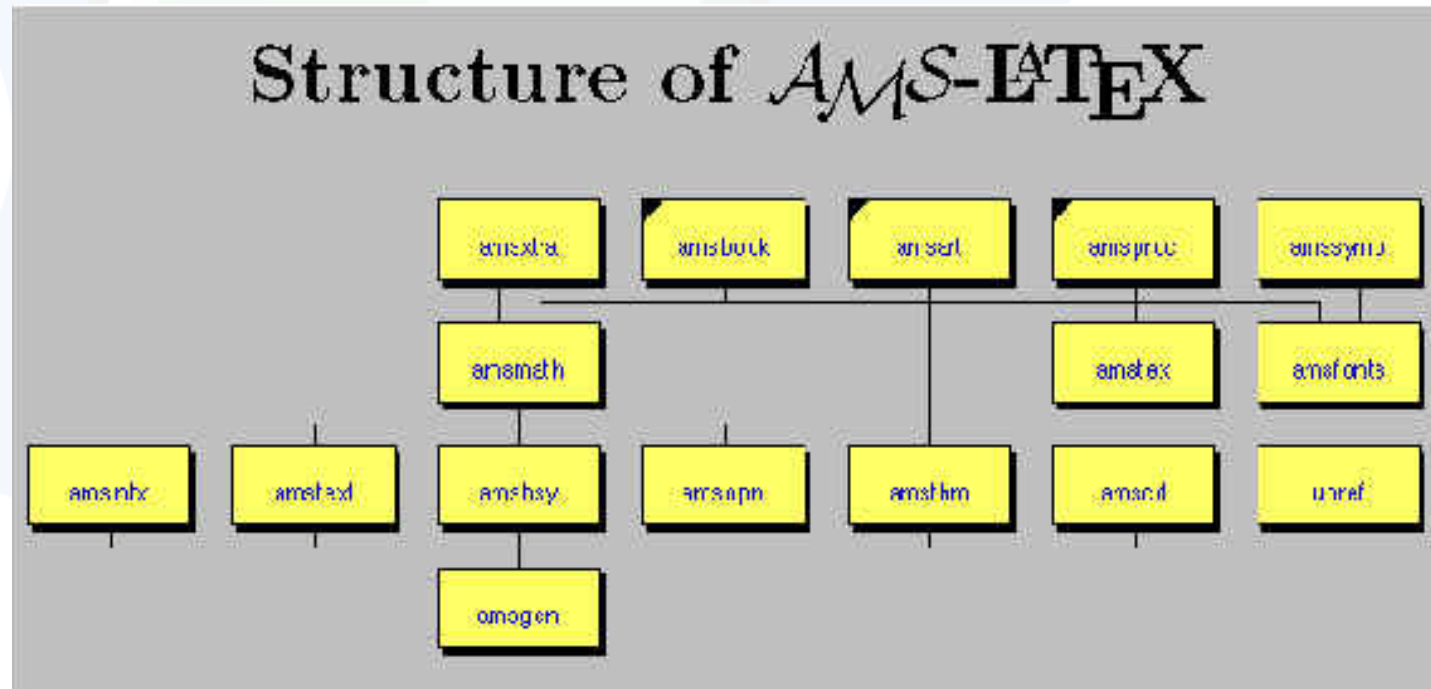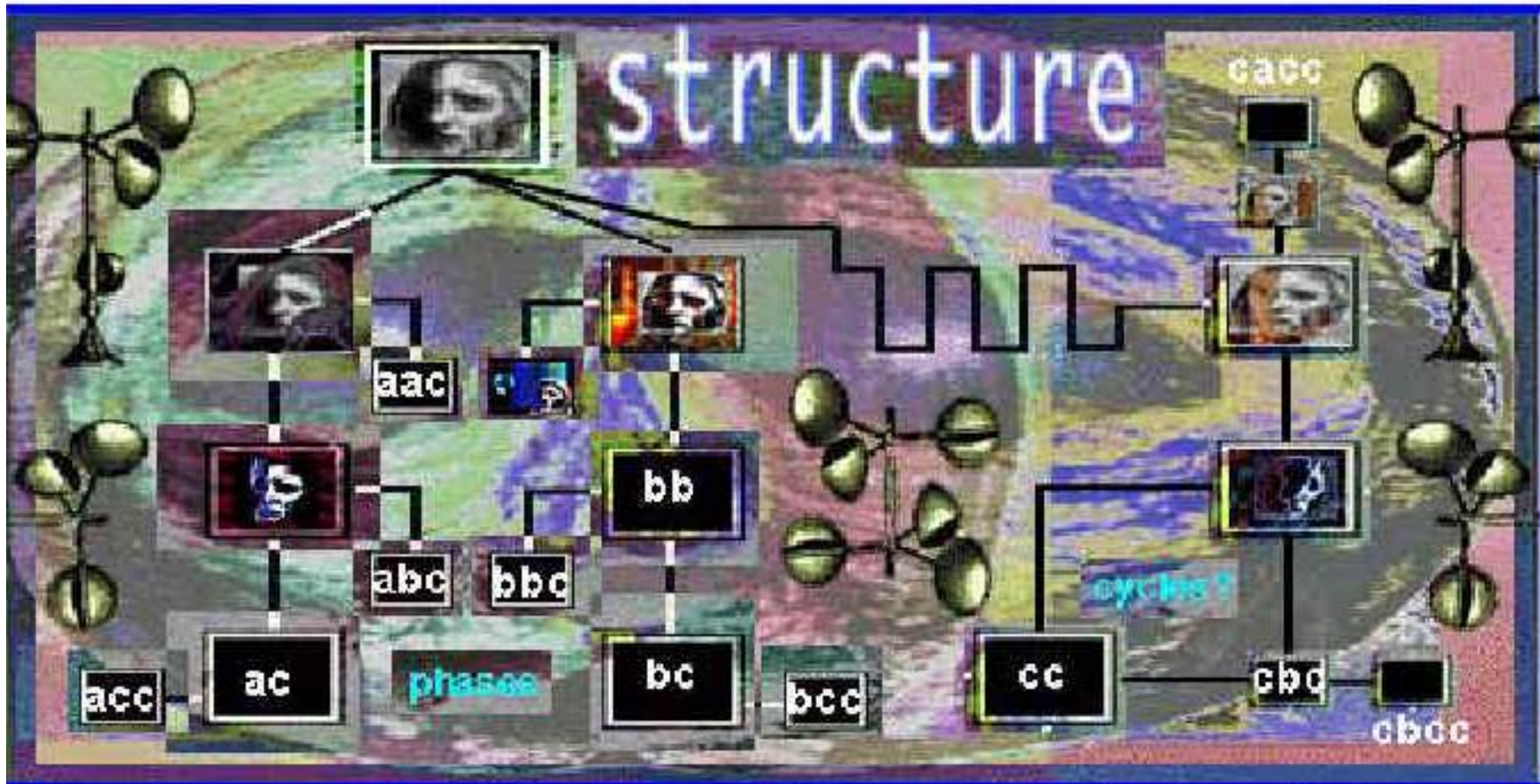
Designing Interaction & Exploration

- By Bonnie Mitchell

- Hierarchy charts or maps to assist with the navigation

figure 3-3 ChainReaction structure map
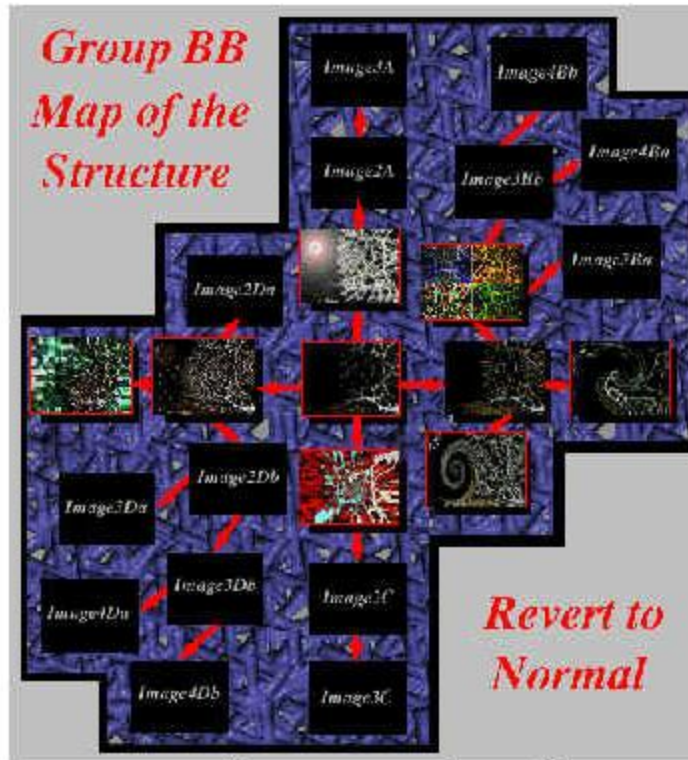
figure 3-4 Diversive Paths, revert to normal map of the structure
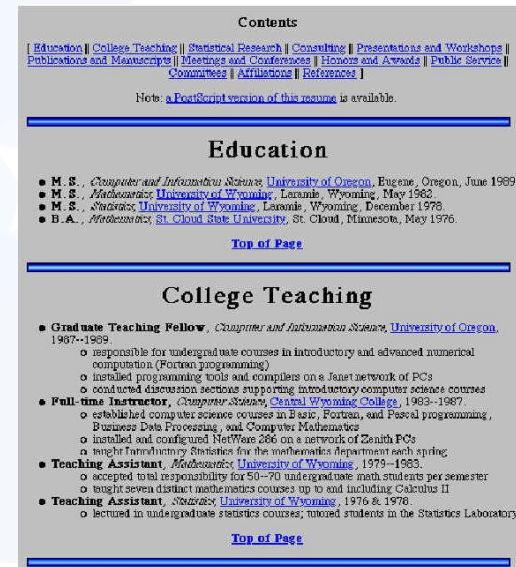
figure 3-5 Note that there are Anchors (links) to all sections of the resume

Designing Interaction & Exploration

- By Bonnie Mitchell

- Structuring Navigation (Anchors)

- Intuitive vs. Exploratory:

  - Links should be easy to identify (this includes graphics)
  - Graphic icons should use commonly understood metaphors
  - There should be consistency in the placement of key navigational devices
  - Use color to indicate important navigation elements
  - Specify what the link connects to (label your icons)

- Exploratory Interfaces

Complex or Confusing Interfaces

- By Bonnie Mitchell

- Too much information

- Not enough information

- Too many links

- Not enough links

Navigational Graphics

- By Bonnie Mitchell

- Icons - typically small graphics that represent
- a concept,
- place,
- or thing

figure 3-6 Icons that resemble the characters in a newspaper cartoon

Larry the Egg   BoyScout Egg   Cherry   Insane Carrot

Kinky Coconut   Paul the Pepper

figure 3-7 Icons that are intuitive based on the content of the site

figure 3-8 Icons that need text to clarify the meaning

ChainReaction   Diversive Paths   Digital Journeys   ChainArt Project
Sum/Fall 1995   Spring 1995   Spring 1994   Spring 1993

Design Issues

Navigational Graphics 2

- By Bonnie Mitchell

- Imagemaps
- Clickable
- Specific picture areas

figure 3-10 Imagemap of the ChainReaction starter images

figure 3-11 Imagemap used as a navigation bar

Main Page

Starter Images

Engine and Statistics

How to Submit

Concepts

Image Count

Chain Reaction ISEA95

List of Partici-pants

Credits

Sponsors

figure 3-12 Imagemap with text used for navigation inChainReaction

Navigational Graphics 3

- By Bonnie Mitchell

- Linked Graphics

- Beveled edge or a short text caption near it

figure 3-13
Clickable
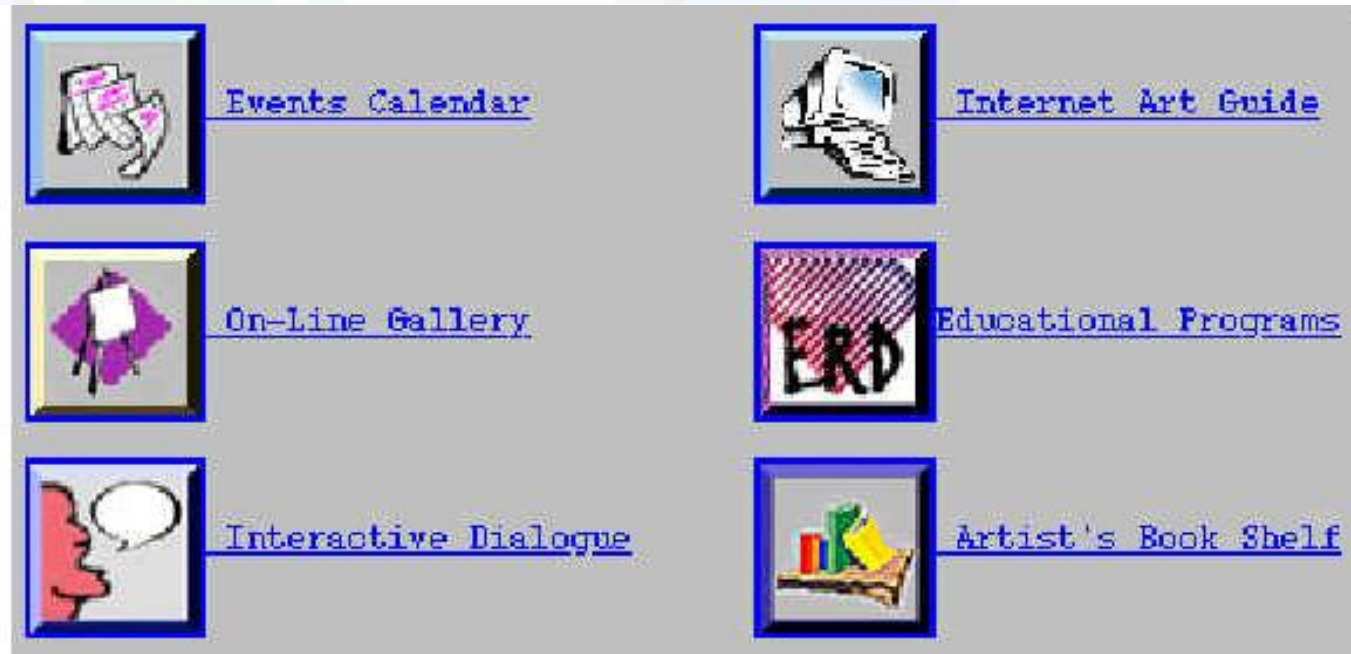images with
beveled edges

Events Calendar	Internet Art Guide
On-Line Gallery	Educational Programs
Interactive Dialogue	Artist's Book Shelf

Navigational Graphics 4

- By Bonnie Mitchell

- Placement of Navigational Graphics

- - navigational devices should not overpower the content of the page

- Most important ones should be placed to the top of the page where they could be easily found

- Don't Forget the User

- E.g. on every page, the "go to next page„ should not be placed randomly

Communication Interfaces

- Author - Application Programmer - GS Author - User

WWW ⟷ | APP | ⟷ | GS | ⟷ | WS |

Eg. OpenGL   Workstation
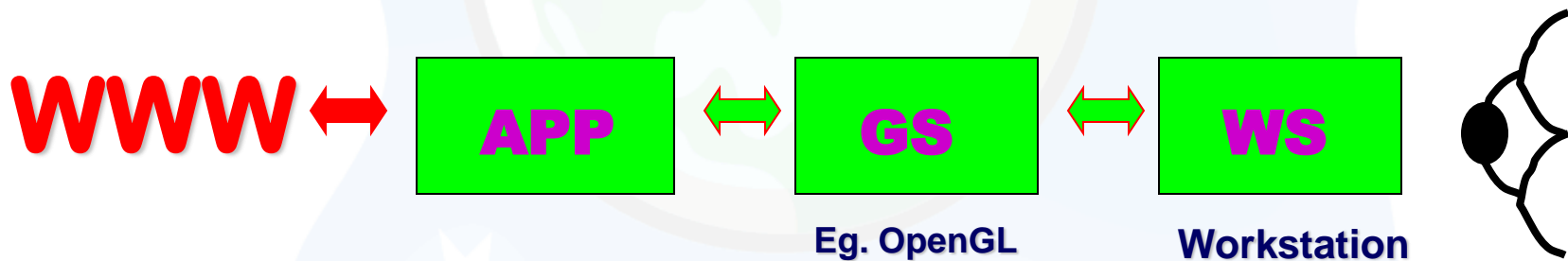
- What is interesting for users?

- Media & Content

Web Page Life Cycle

- Logo, title, message

- Idea, project, preproduction, production, postproduction, publishing (promotion), remake

- Page maintenance

- Internet history archive

Web Page Perception

- Document

- Painting

- Radio

- Theater

- Movie

- Human (audio)visual system

- VR

- Interactive & Adaptive Hypermedia

- IT product

- Legal entity

- Future avatar

Conclusions++

- WWW Design Issues Survey
- We will discuss errors later in WEGA course…
- Color Perception & Use as Local Navigation Inside
- Navigation against Intentional Blindness
- **Famous Usability Guru Page – Useit**
- Jakob Nielsen, UX… WUD
- *Easy to access from www.sccg.sk/ferko*

Thank You

- **For**
- **Your**
- **Attention**
-

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