User Experience Design I
(Interaction Design)

Simplicity and Design

Part One

"Great design is as much about prospecting in the past as it is about inventing the future."

Bill Buxton

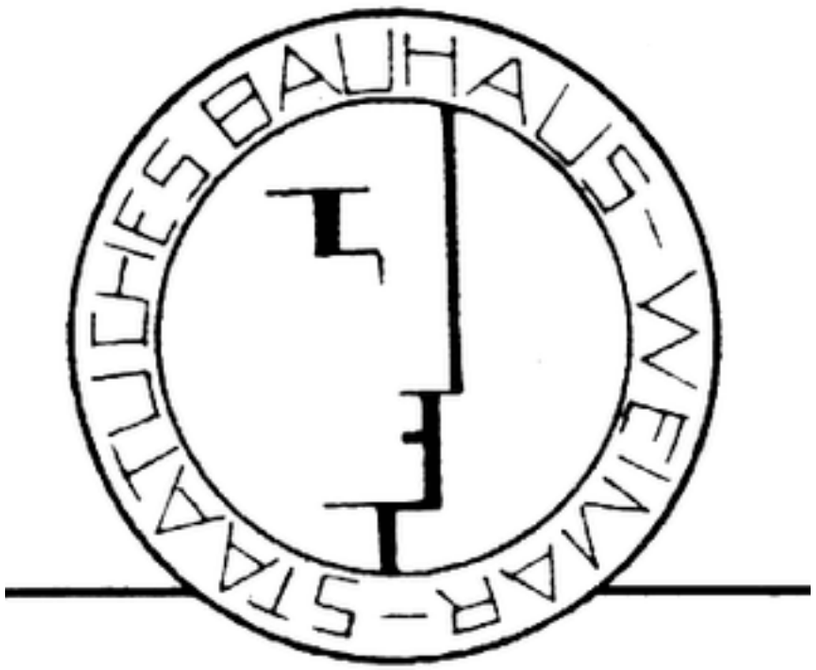
source: [6]

Design and Simplicity

- Bauhaus: History and Directors
- Bauhaus: Structure and Products
- From Bauhaus to Braun

Bauhaus

http://www.portal-dessau.de/uploads/pics/Bauhaus_TM_2010__2_.JPG



http://www.flickr.com/photos/scoobyfoo/268308263/sizes/l/in/photostream/

Key Dates:

founded 1919 in Weimar
closed down 1933 in Berlin

Key People - 3 Directors:

[1] Walter Gropius (1919-1928)
[2] Hannes Meyer (1928-1930)
[3] Ludwig Mies van der Rohe (1930-1933)

[1]

[2]

[3]

source: [7]

http://www.stylepark.com/db-images/cms/designer/img/miesvanderrohe_320_336-1.jpg
http://einestages.spiegel.de/hund-images/2009/03/30/59/3d98cebcb31abdbc318ed82e888903d6_image_document_large_featured_borderless.jpg

Art and technology - a new entity.

Walter Gropius

The investigation of human needs should be based on science - not formalism.

Hannes Meyer

God is in the details.

Ludwig Mies van der Rohe

http://www.stylepark.com/db-images/cms/designer/img/miesvanderrohe_320_336-1.jpg

http://einestages.spiegel.de/hund-images/2009/03/30/59/3d98cebcb31abdbc318ed82e888903d6_image_document_large_featured_borderless.jpg

Design and Simplicity

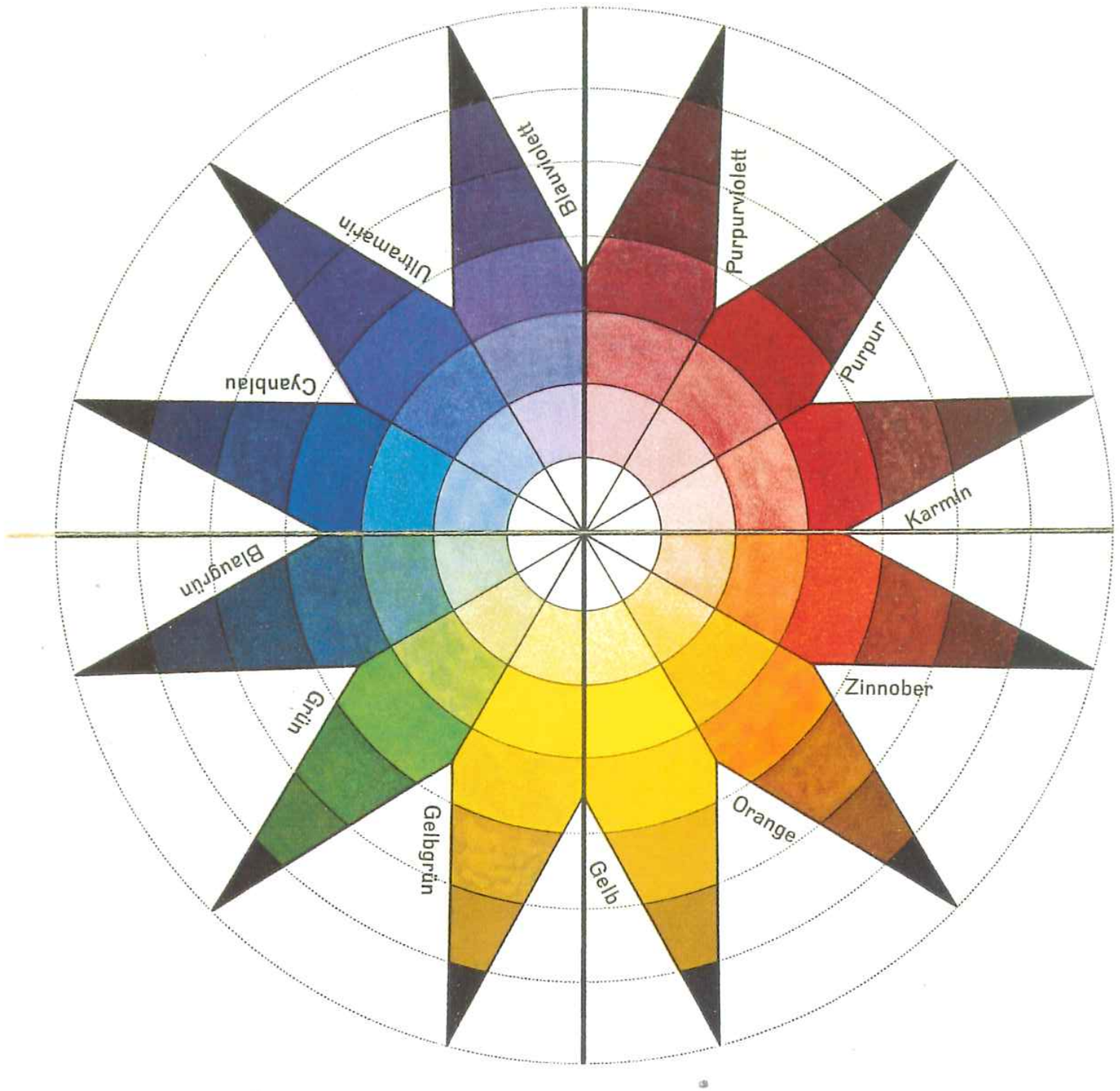
- Bauhaus: History and Directors
- Bauhaus: Structure and Products
- From Bauhaus to Braun

Pre-Course

Prototyping Design

Basic Shapes

source: [8]



Color Sphere

source: [7]

Marcel Breuer

http://www.boecker-buerogestaltung.de/images/designer/marcel_breuer.01.jpg

source: [8]

Chair B3 “Wassily”

http://upload.wikimedia.org/wikipedia/commons/1/19/Bauhaus_Chair_Breuer.png

source: [8]

Design and Simplicity

- Bauhaus: History and Directors
- Bauhaus: Structure and Products
- From Bauhaus to Braun

http://www.impressionen.de/medias/sys_impressionen/8468670013361232.image.jpg http://remodelista.com/img/sub/oilcruet2.jpg http://www.bauhaus-shop.de/templates/xt_bauhaus/img/categories/bauhaus_silberteekanne_pr.jpg

Requirements:

- Type(s) (variations of the original design)
- Basic shape(s) - few simple parts (industrial manufacturing)
- Functionality (design for human needs)

source: [7]

Charles and Ray Eames

http://luciotraficante.files.wordpress.com/2009/11/charles-ray-eames.jpg

Ray & Charles Eames

http://3.bp.blogspot.com/-E_aiFu9Pakg/TdXIT6TkiZI/AAAAAAAAA5I/dhm3kTe9VF4/s1600/Eames-Rocker-Chair-White.jpg

http://www.williammalcolmcollection.com/blog/wp-content/uploads/2009/06/eames-shell-chair.jpg

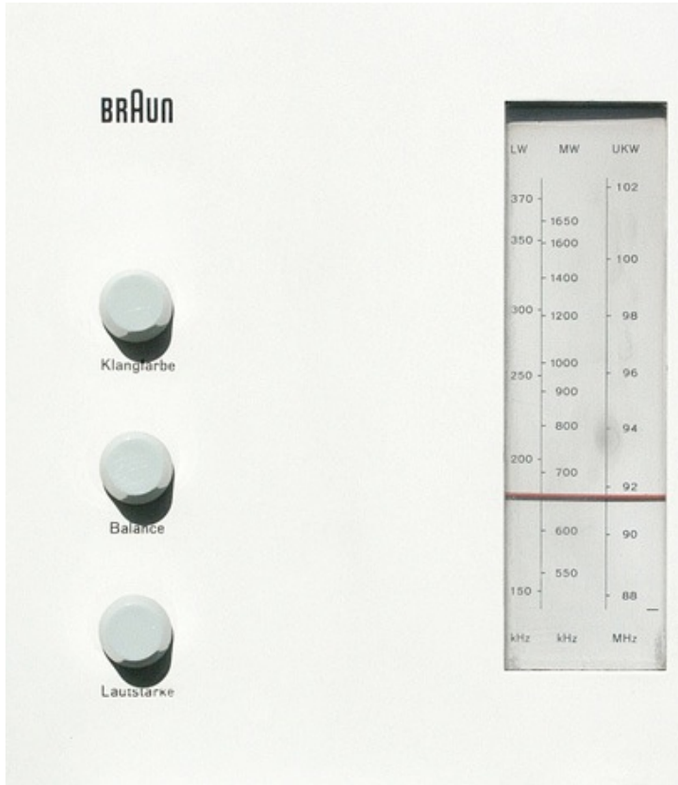
Dieter Rahms

https://d2lsod3xpjaepj.cloudfront.net/files/assets/2000/1328/crop169/650_2x.jpg

Ten Principles: Good design...

1. **is innovative** – The possibilities for progression are not, by any means, exhausted. Technological development is always offering new opportunities for original designs. But imaginative design always develops in tandem with improving technology, and can never be an end in itself.
2. **makes a product useful** – A product is bought to be used. It has to satisfy not only functional, but also psychological and aesthetic criteria. Good design emphasizes the usefulness of a product whilst disregarding anything that could detract from it.
3. **is aesthetic** – The aesthetic quality of a product is integral to its usefulness because products are used every day and have an effect on people and their well-being. Only well-executed objects can be beautiful.
4. **makes a product understandable** – It clarifies the product's structure. Better still, it can make the product clearly express its function by making use of the user's intuition. At best, it is self-explanatory.
5. **is unobtrusive** – Products fulfilling a purpose are like tools. They are neither decorative objects nor works of art. Their design should therefore be both neutral and restrained, to leave room for the user's self-expression.
6. **is honest** – It does not make a product appear more innovative, powerful or valuable than it really is. It does not attempt to manipulate the consumer with promises that cannot be kept.
7. **is long-lasting** – It avoids being fashionable and therefore never appears antiquated. Unlike fashionable design, it lasts many years – even in today's throwaway society.
8. **is thorough down to the last detail** – Nothing must be arbitrary or left to chance. Care and accuracy in the design process show respect towards the consumer.
9. **is environmentally friendly** – Design makes an important contribution to the preservation of the environment. It conserves resources and minimizes physical and visual pollution throughout the lifecycle of the product.
10. **is as little design as possible** – Less, but better – because it concentrates on the essential aspects, and the products are not burdened with non-essentials. Back to purity, back to simplicity.

Lovell, S. (2011). *As little design as possible: the work of Dieter Rams*. Phaidon.



http://blog.smow.com/wp-content/uploads/2010/05/dieter-rams-braun-sixtant-sm2.jpg http://www.kofferradios.de/rr/br/br030f01.jpg http://www.iainclaridge.co.uk/blog/wp-content/uploads/0909/braun_sk6_1.jpg

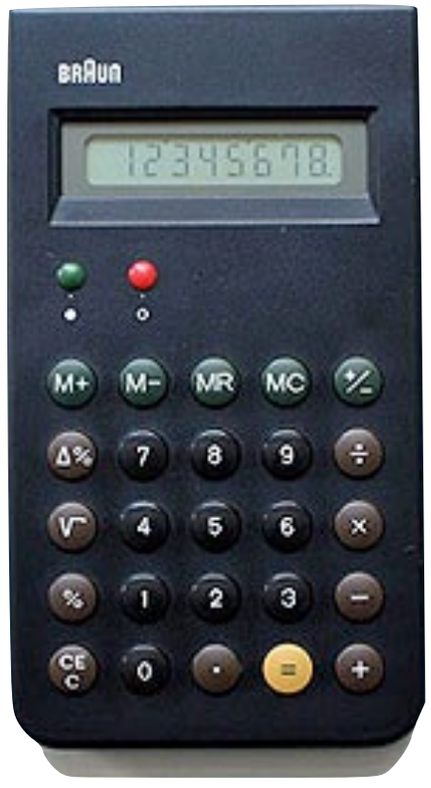
Braun SK6

http://www.flickr.com/photos/faasdant/3974968657/

Braun Radio

iPod (1st gen)

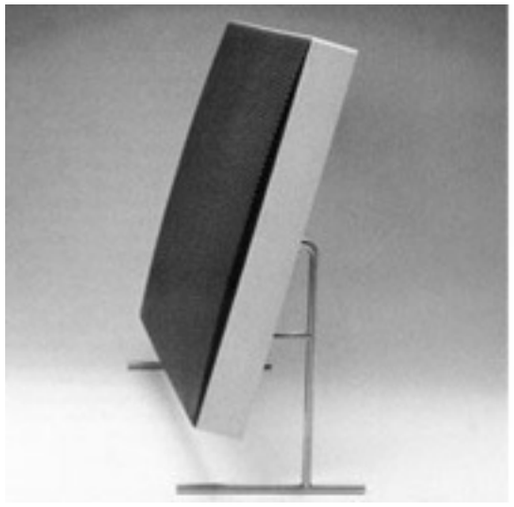
iPhone Calculator



Braun Calculator

http://blogs.telegraph.co.uk/technology/files/2011/04/iphone-braun2.jpg

Braun Speaker



iMac

Braun Radio

Powermac G5

http://blogs.telegraph.co.uk/technology/files/2011/04/iphone-braun2.jpg

Part Two

Graphical User Interface Design

- Principles
- Layout, Typography, Color & Contrast
- Controls and Widgets
- Simplicity

Like all forms of design, visual design is about problem solving, not about personal preference or unsupported opinion.

Bob Baxley

Interface design is only the **experienced representation** of the interaction, not the UX/interaction design itself.

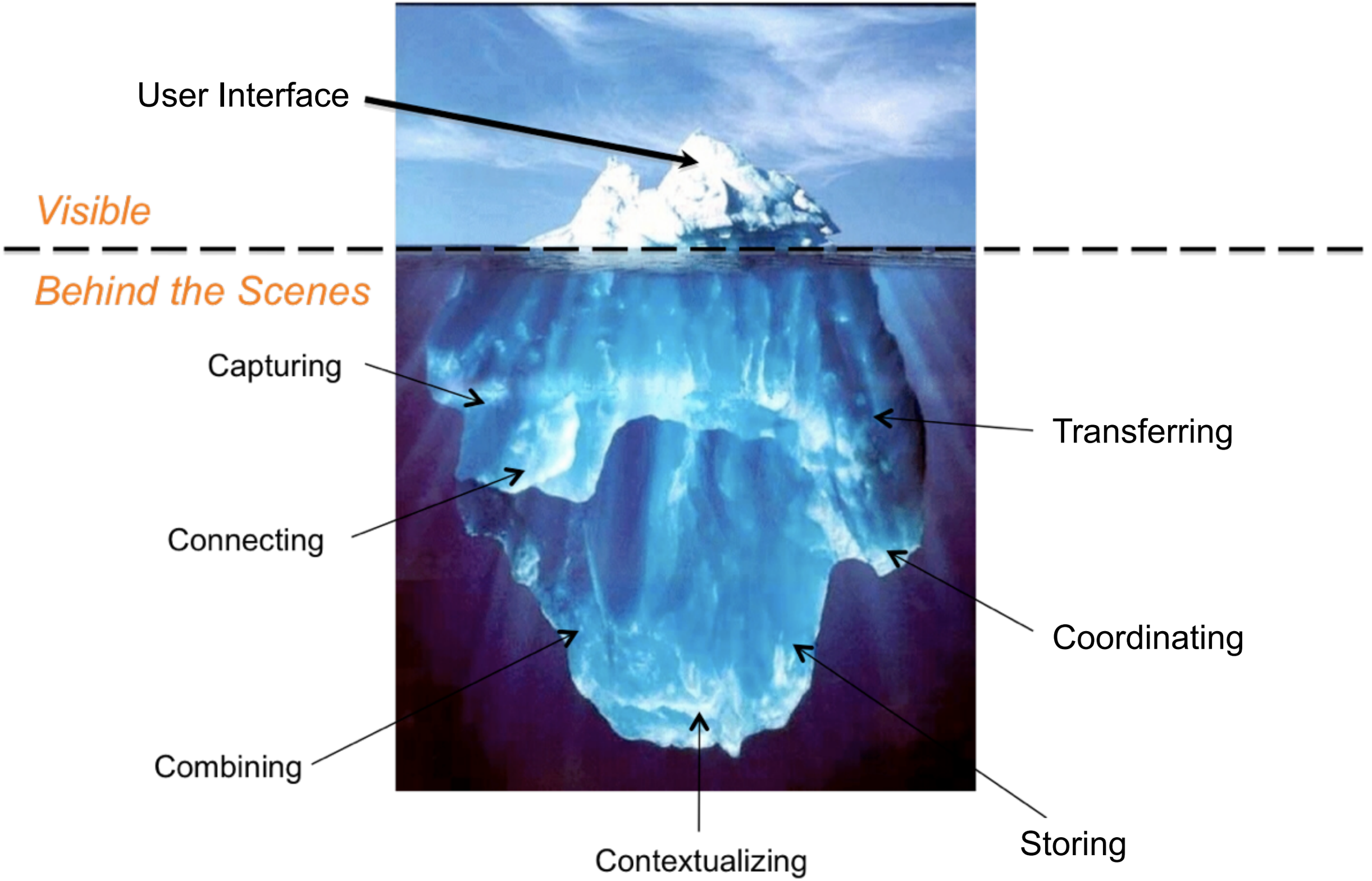
source : [4]

User Interface (UI) Design focuses on anticipating what users might **need to do a**nd ensuring that the interface has elements that are **easy to access, understand, and use to facilitate those actions.** UI brings together concepts from interaction design, visual design, and information architecture.

source : [13,14]

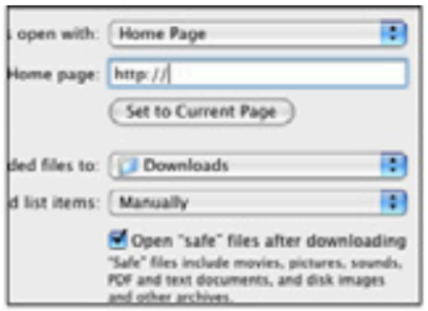
Users have become familiar with interface elements acting in a certain way, so try to be **consistent and predictable** in your choices and their layout. Doing so will help with task completion, efficiency, and satisfaction.

source : [13,14]

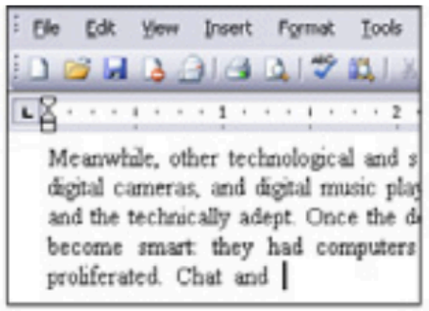


http://orbitalrpm.com/wp-content/uploads/2008/12/cop-iceberg.png

source : [4]

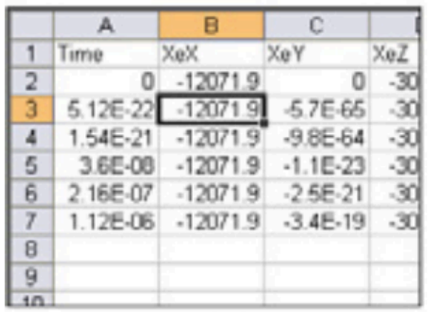


Forms



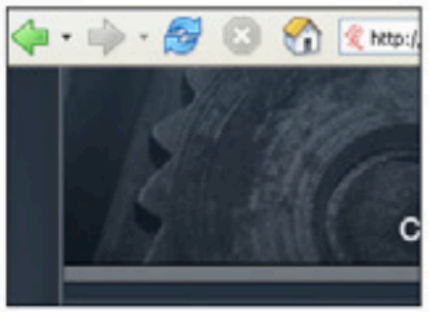
Text editors

Graphic editors



	A	B	C	
1	Time	XeX	XeY	XeZ
2	0	-12071.9	0	-30
3	5.12E-22	-12071.9	-5.7E-65	-30
4	1.54E-21	-12071.9	-9.8E-64	-30
5	3.6E-08	-12071.9	-1.1E-23	-30
6	2.16E-07	-12071.9	-2.5E-21	-30
7	1.12E-06	-12071.9	-3.4E-19	-30
8				
9				

Spreadsheets



Browsers

Calendars

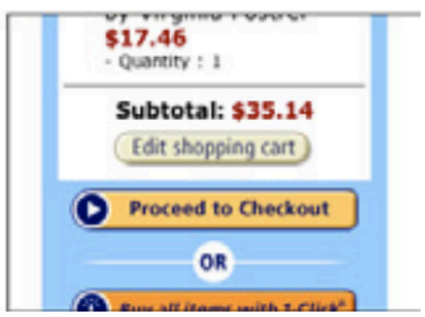
Media players

Information graphics

Immersive games

Web pages

Social spaces



E-commerce sites

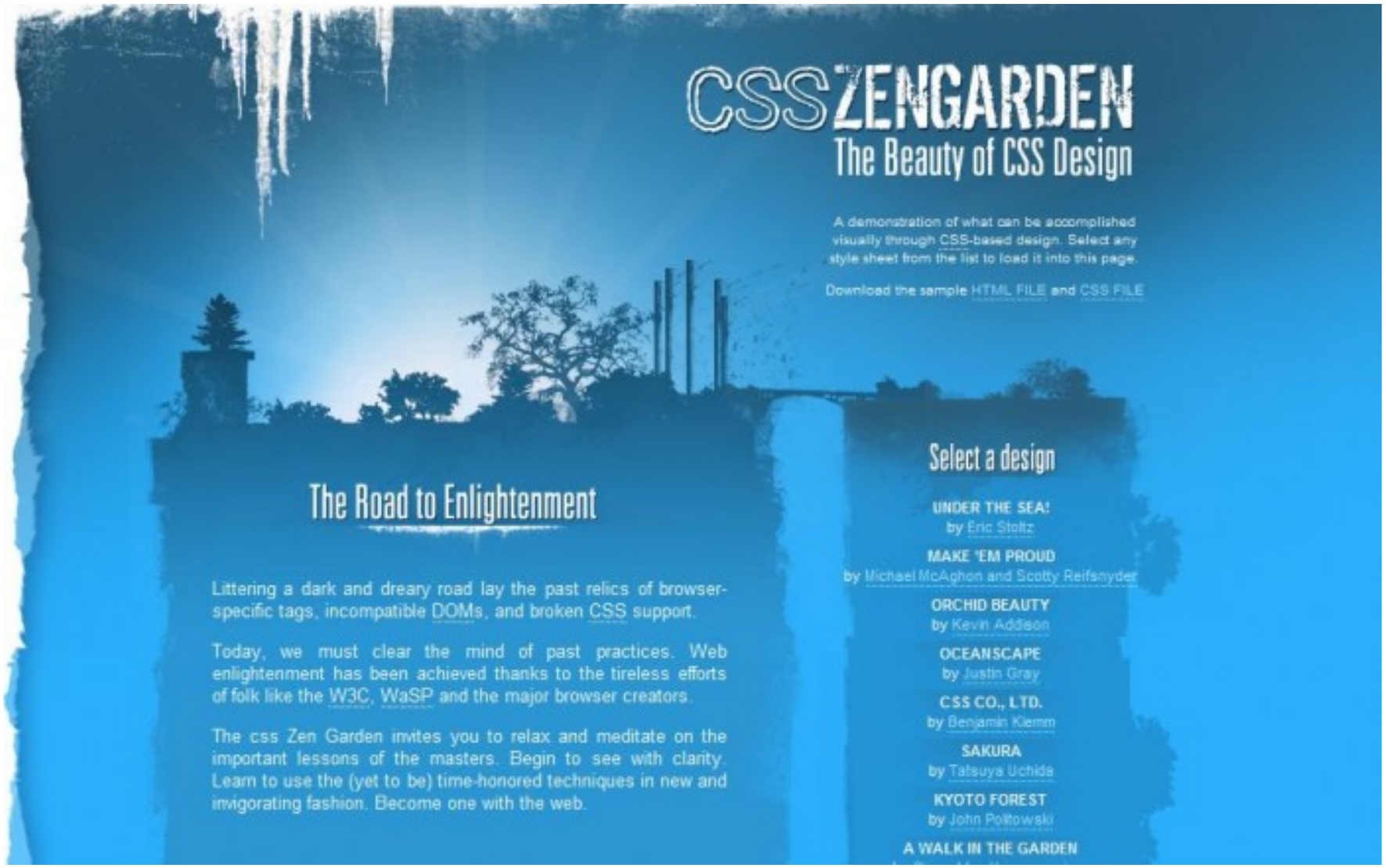
source : [9]

- Desktop applications
- Websites
- Web applications or “rich internet applications” (RIAs)
  Professional products or embedded devices
- Software for mobile devices
- Turnkey systems like kiosks
- Operating systems

source : [9]

UI design communicates attributes such as reliability, excitement, playfulness, energy, calmness, strength, tension, and joy.

source : [9]



http://pixeltango.com/wp-content/uploads/2010/08/css-zen-garden-03-700x437.jpg

http://trentwalton.com/assets/uploads/2014/06/css-zen-garden-221-AL.gif

http://csszengarden.com/

Tools

http://www.waynetaylordesign.com/storage/all%20tools%20large.jpg?__SQUARESPACE_CACHEVERSION=1273952138121

source : [4]

UI Toolboxes

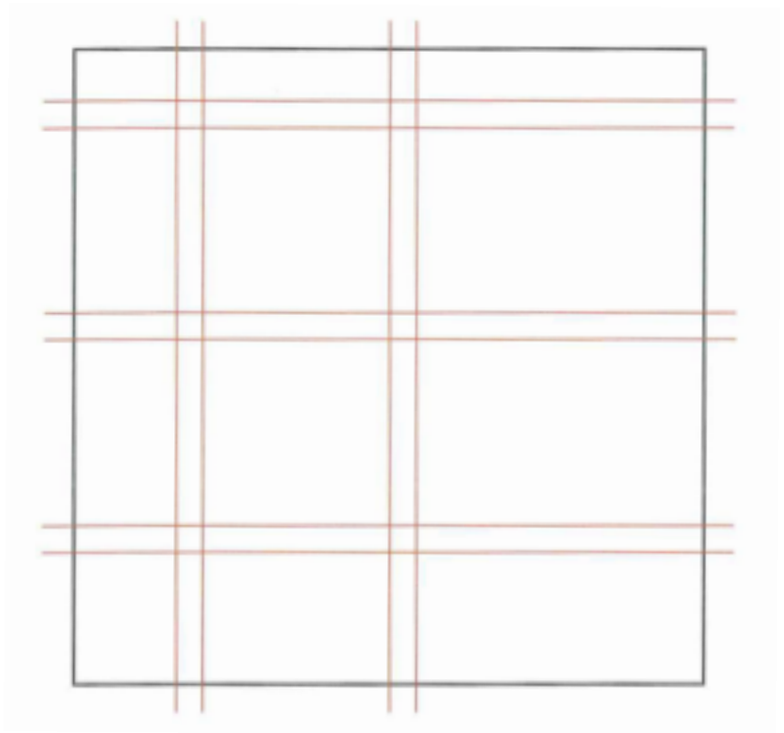
http://3.bp.blogspot.com/_bVtGlUaW-tA/TJIyNKvmK4I/AAAAAAAAO0A/CtgM11vozYE/s1600/22.jpg

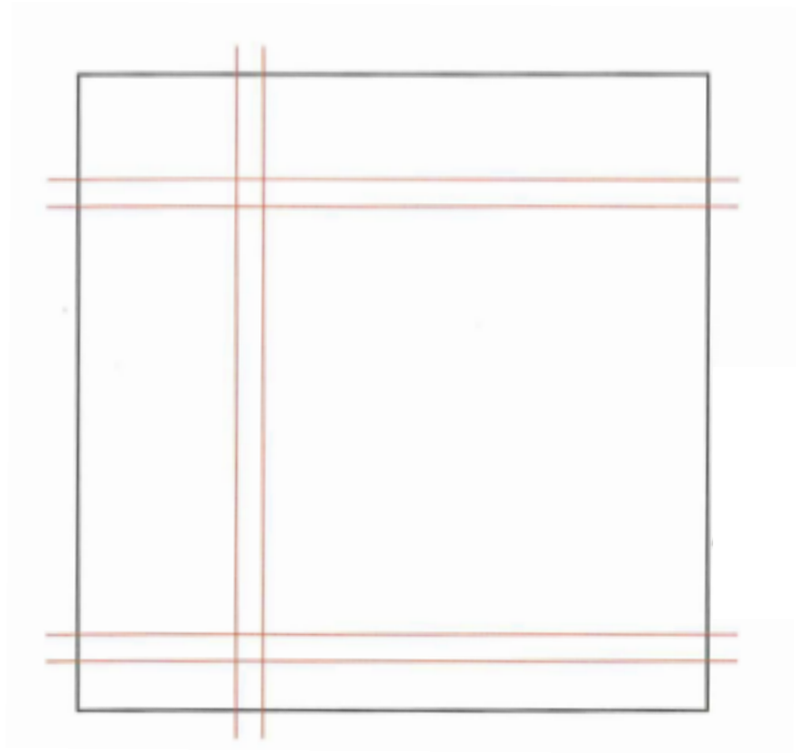
source : [4]

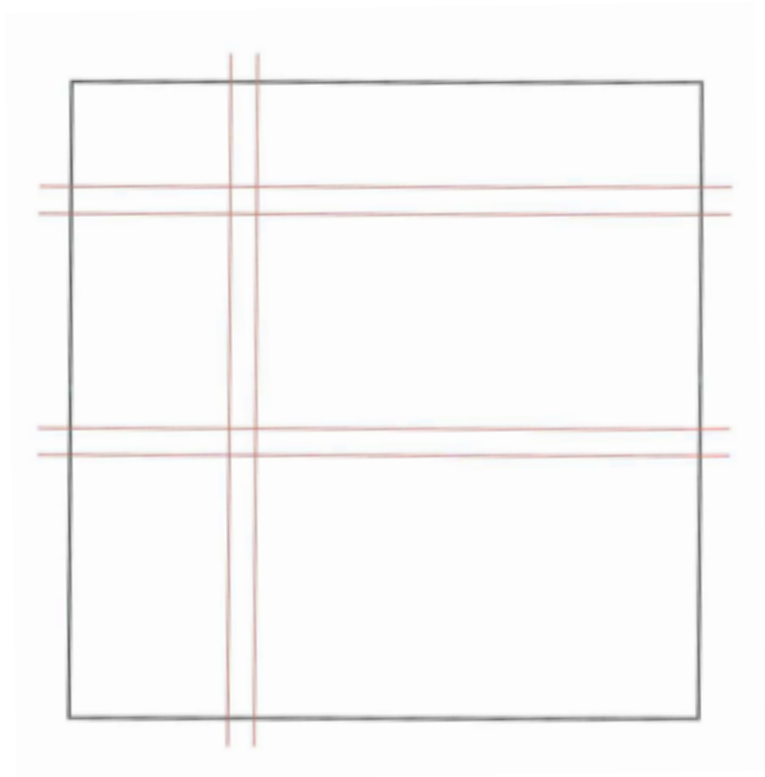
Graphical User Interface Design

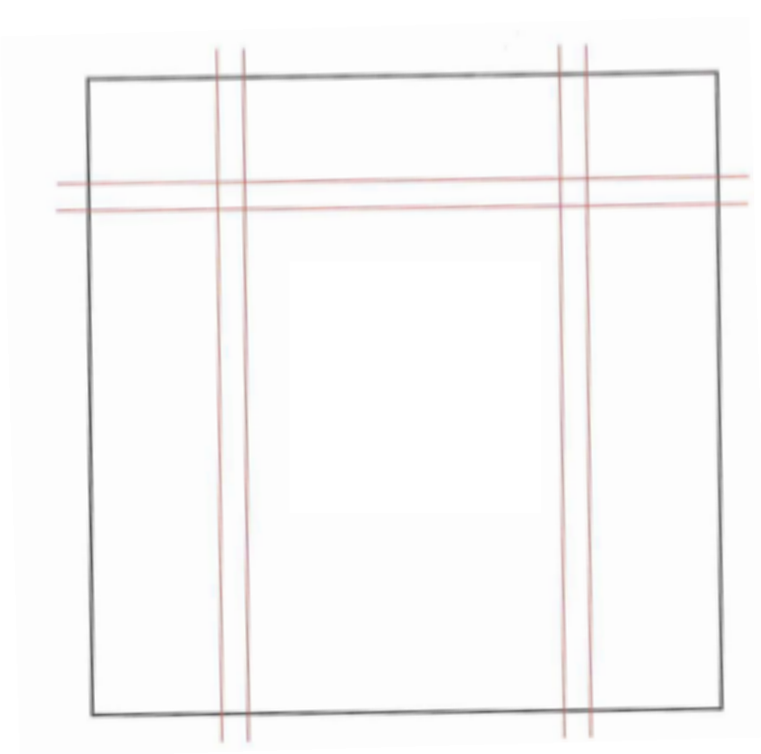
- Principles
- Layout, Typography, Color & Contrast
- Controls and Widgets
- Simplicity

Layout









source : [4]

Grids

WIKIPEDIA
The Free Encyclopedia

Main page
Contents
Featured content
Current events
Random article
Donate to Wikipedia

Interaction
Help
About Wikipedia
Community portal
Recent changes
Contact Wikipedia

Toolbox

Print/export

Languages
Simple English
العربية
Bahasa Indonesia
Bahasa Melayu
Български
Català
Česky
Dansk
Deutsch
Eesti
Ελληνικά
Español
Esperanto
Euskara
فارسی
Français
Galego
한국어
עברית

Welcome to Wikipedia,

the free encyclopedia that anyone can edit.

3,994,652 articles in English

- Arts
- Biography
- Geography
- History
- Mathematics
- Science
- Society
- Technology
- **All portals**

Today's featured article

The **Cross of Gold speech** was delivered by William Jennings Bryan, a former congressman from Nebraska, at the Democratic National Convention in Chicago on July 9, 1896. In the address, Bryan supported bimetallism or "free silver", which he believed would bring the nation prosperity. He decried the gold standard, concluding the speech, "you shall not crucify mankind upon a cross of gold". Bryan's address helped catapult him to the Democratic Party's presidential nomination; it is considered one of the greatest political speeches in American history. For twenty years, Americans had been bitterly divided over the nation's monetary standard. Many Americans believed bimetallism (making both gold and silver legal tender) was necessary to the nation's economic health. Bryan's speech, delivered at the close of the debate on the party platform, electrified the convention and is generally credited with getting him the nomination for president. However, he lost the general election to William McKinley and the United States formally adopted the gold standard in 1900. (**more...**)

Recently featured: *Dendrocollybia* – *Killer7* – Calgary Stampede

Archive – **By email** – **More featured articles...**

Did you know...

From Wikipedia's newest content:

- ... that during the **Antinomian Controversy**, Anne Hutchinson *(pictured)* withstood two separate trials without counsel before being banished from Massachusetts?
- ... that **Argentine nationalism** sees José de San Martín, Juan Manuel de Rosas and Juan Perón as a line of historical continuity?
- ... that one of the most popular Polish cabarets, **Pod Egidą**, performing since 1967, has faced persecution from the communist authorities in the People's Republic of Poland?
- ... that 2012 College World Series Most Outstanding Player **Robert Refsnyder** was born in South Korea and adopted by a California couple when he was three months old?
- ... that the print identity of UK music newspaper *The Stool Pigeon* is modelled on Victorian tabloids?
- ... that 2012 Australian Olympic canoeist **Hannah Davis** won a bronze medal in the sport at the 2008 Summer Olympics?
- ... that the starfish *Anasterias rupicola* feeds on the limpet *Nacella macquariensis*, sometimes hunting it in groups?

In the news

- At least 141 people are killed in **a flash flood** in the Krasnodar Krai region of Russia.
- **The Shard** *(pictured)* in London is inaugurated as the tallest building in Europe, with a height of 310 metres (1,020 ft).
- In association football, the Copa Libertadores concludes with Corinthians defeating Boca Juniors in **the Finals**.
- CERN announces the discovery of a new particle with properties consistent with the **Higgs boson** after experiments at the Large Hadron Collider.
- **GlaxoSmithKline** pleads guilty to criminal charges of health care fraud and is fined a record US$3 billion.
- In association football, UEFA Euro 2012 concludes with Spain defeating Italy in **the final** to win a second consecutive European Football Championship.

Wikinews – **Recent deaths** – **More current events...**

On this day...

July 9: Independence Day in **Argentina** (1816) and **South Sudan** (2011)

- 455 – Roman military commander **Avitus** was proclaimed Emperor of the Western Roman Empire.
- 869 – **An earthquake and subsequent tsunami** struck the area around Sendai, Japan, leaving sand deposits up to 2.5 miles (4 km) inland.
- 1850 – Following Zachary Taylor's death, **Millard Fillmore** *(pictured)* became President of the United States, the last member of the Whig Party to hold that office.
- 1962 – In a seminal moment for pop art, Andy Warhol's ***Campbell's Soup Cans*** exhibition opened at the Ferus Gallery in Los Angeles.
- 2008 – Under the belief that Israel and the United States were planning to attack its nuclear programme, Iran conducted the **Great Prophet III** missile test and war games exercise.

More anniversaries: July 8 – **July 9** – July 10

Archive – **By email** – **List of historical anniversaries**

Grids

Visual Clutter

http://howto.wired.com/mediawiki/images/Sprint-dashboard600.jpg

Clutter creates visual noise and makes an application hard to use

source : [4]

Gestalt Psychology

• The Gestalt laws prescribe for us what we are to recognise as one thing' (Köhler,1920)

• How smaller objects are grouped to form larger ones

• Rules of the organisation of perceptual scenes (Heuristics)

source : [12]

Gestalt Laws

- Proximity
- Collinearity
- Co-circularity
- Continuity
- Parallelism
- Symmetry
- Closure
- Convexity

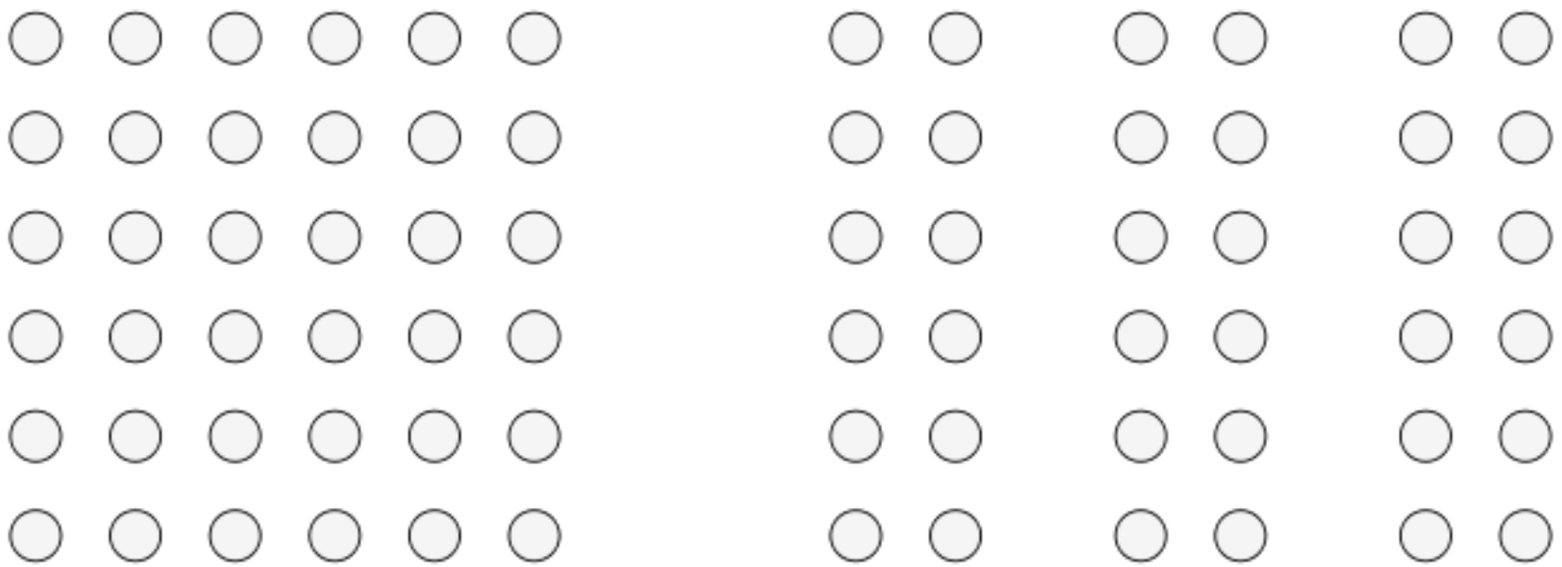
...

source : [12]

In summary the Gestalt Theory believes individuals use insight and their prior experiences to determine the **response to stimuli…**

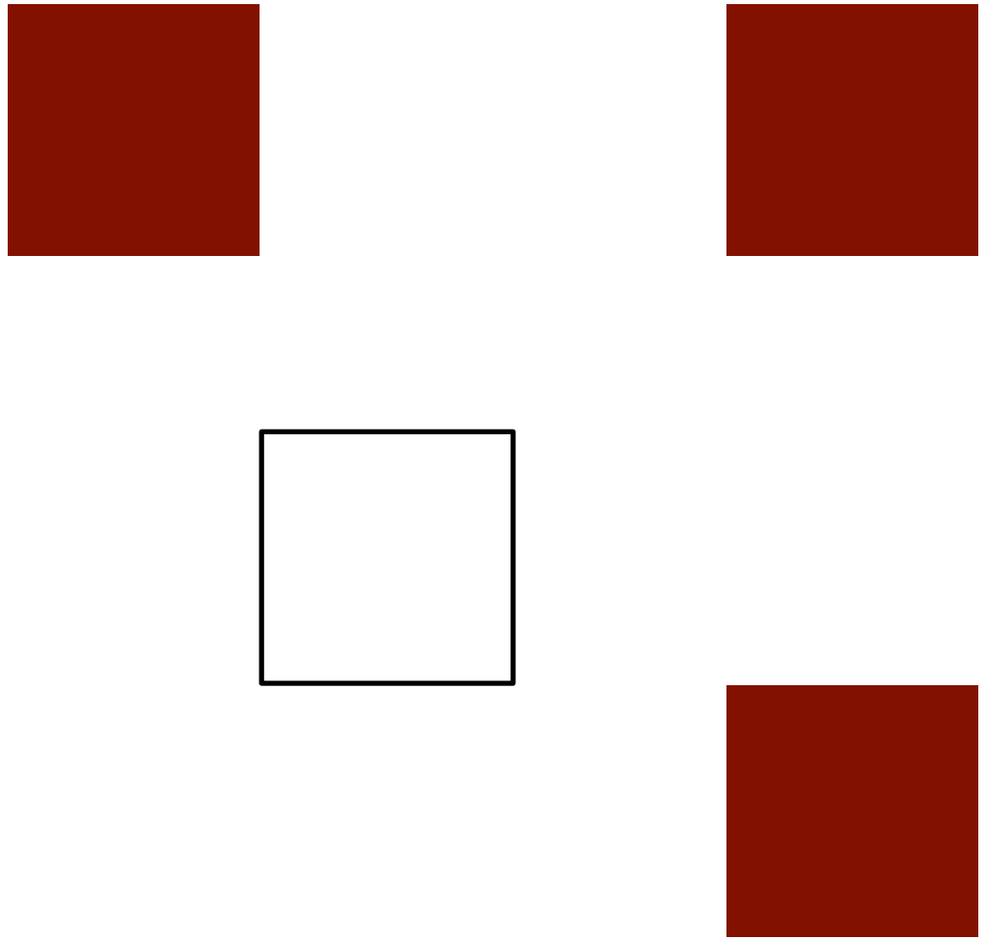
….(uses) Gestalt Theory to try to **make sense** of, and provide order to, information in their perception.

source : [12]



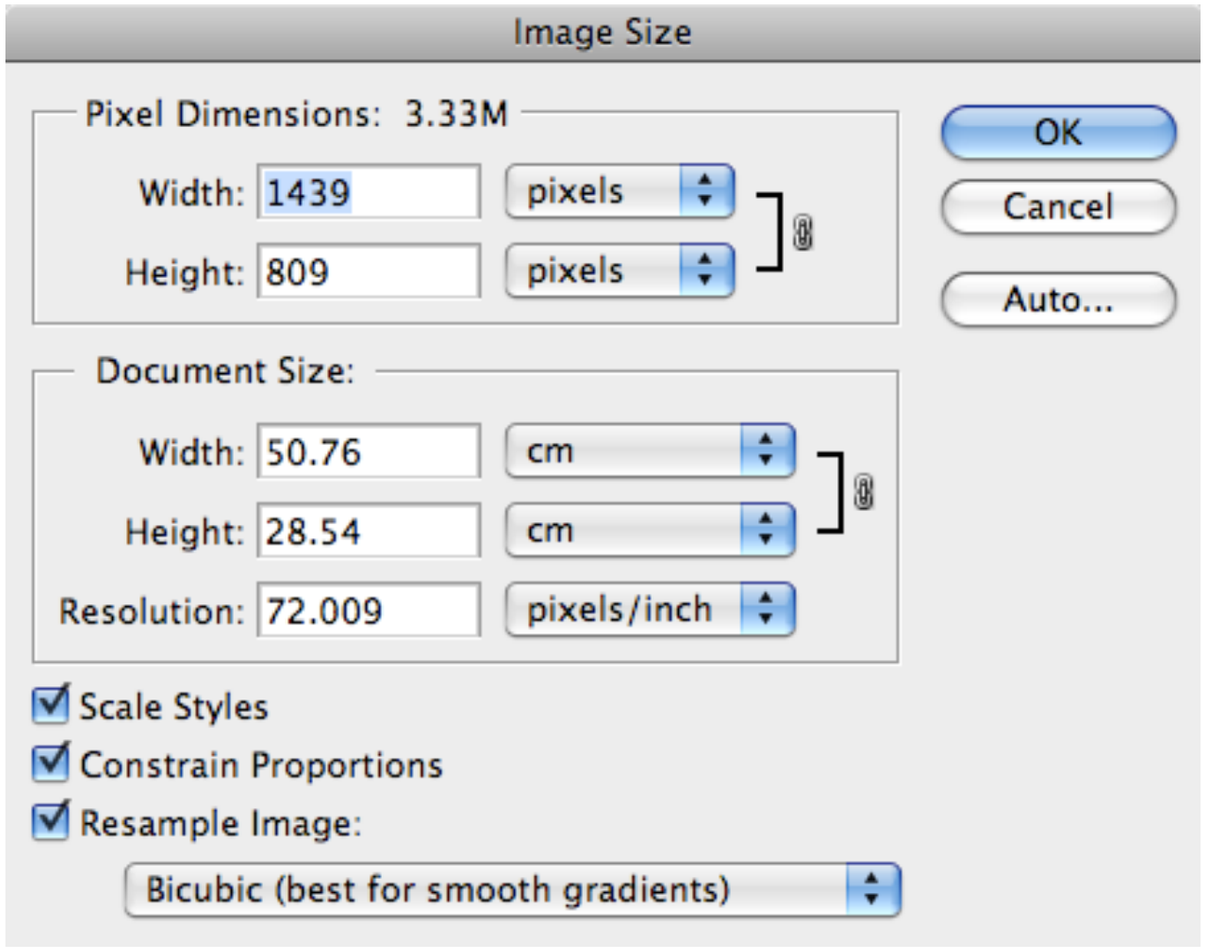
Proximity & Grouping

source : [12]



Alignment

source : [4]



By grouping similar elements together, the designer helps the user deal with a **complex information** display by reducing it to a manageable number of units.

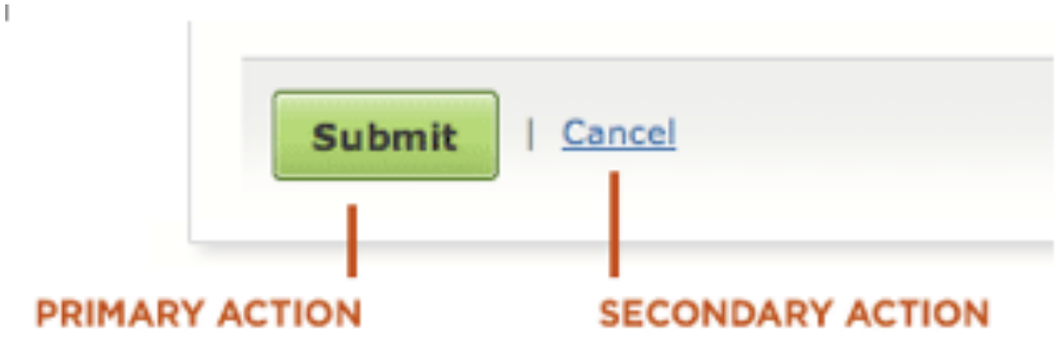
source : [2]

Primary Action / Secondary Action

source : [2]

All form actions are not equal, and therefore the visual presentation of actions should match their importance to make it easier to complete a form.
Visual distinction helps users **make "good" choices**.

source : [2]



Example: “Web Design, Filling the Blanks”

Yammer

source : [2]

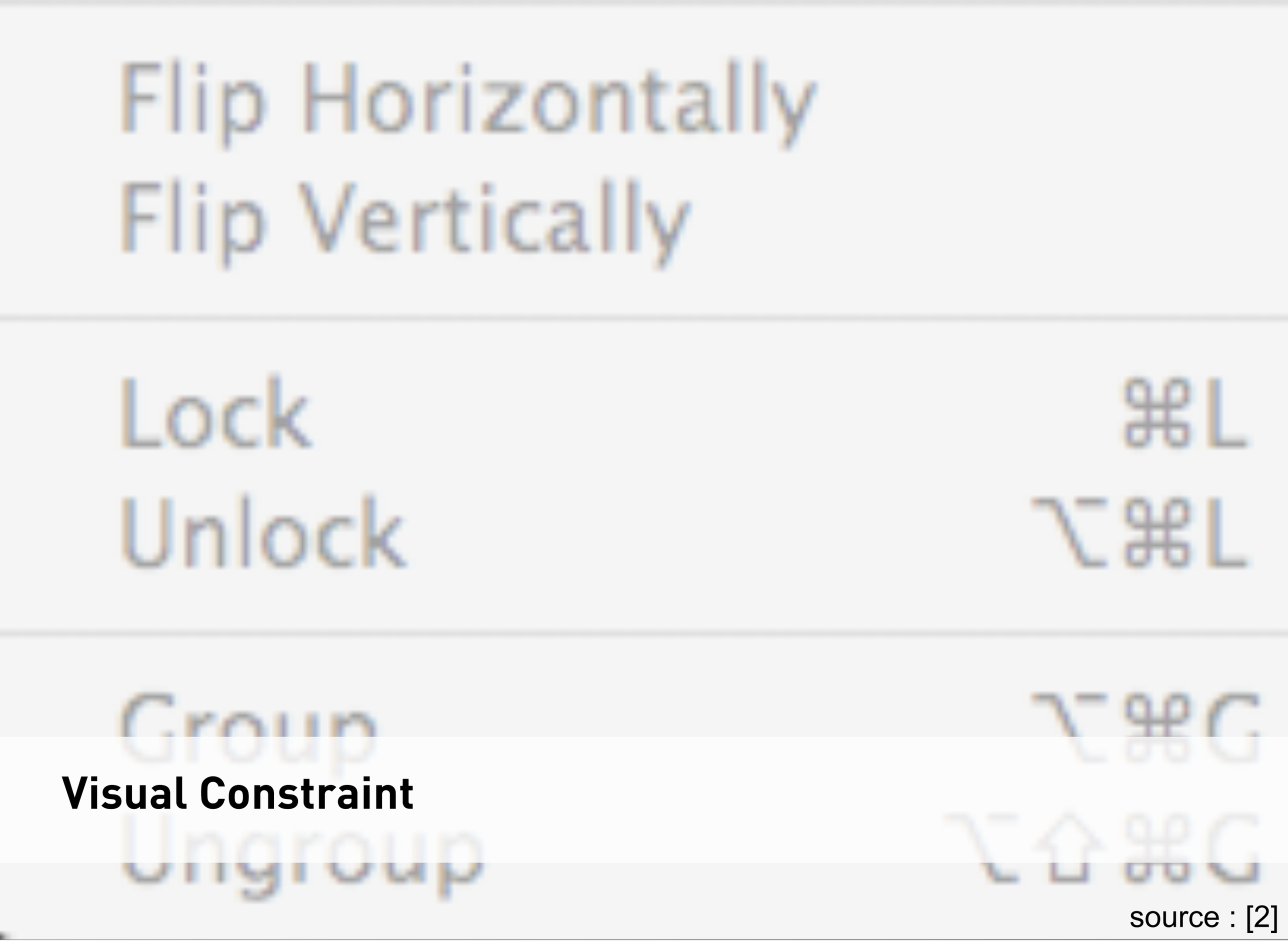
Constraint

source : [2]

Constraints are closely related to **real affordances**: For example, it is not possible to move the cursor outside the screen: this is a physical constraint.

Locking the mouse button when clicking is not desired would be a physical constraint. Restricting the cursor to exist only in screen locations where its position is meaningful is a physical constraint.

source : [2]



Visual Constraint

source : [2]

Scalability of Interfaces / Flexibility

80/20 rule

http://www.swissknifeshop.com/media/catalog/product/cache/1/image/5e06319eda06f020e43594a9c230972d/v/m/vm_53831--91_sol_front_ax1000.jpg

source : [1]

A principle for setting priorities: users will use 20% of the features of your product 80% of the time. Focus the majority of your design and development effort (80%) on the most important 20% of the product.

source : [1]

Overcrowded Widget

http://www.codinghorror.com/blog/2006/11/this-is-what-happens-when-you-let-developers-create-ui.html

Users are overwhelmed by options, limitless flexibility

Only show me what I need to see

Implement one easy to discover and easy to learn core pattern for common actions across the platform.

Adjust to users' preferences.

Make less common actions harder to reach.

source : [5]

Aesthetic-Usability Effect

http://www.swissknifeshop.com/media/catalog/product/cache/1/image/5e06319eda06f020e43594a9c230972d/v/m/vm_53831--91_sol_front_ax1000.jpg

source : [1]

Aesthetic-Usability Effect

Aesthetic designs are perceived as easier to use than less-aesthetic designs.

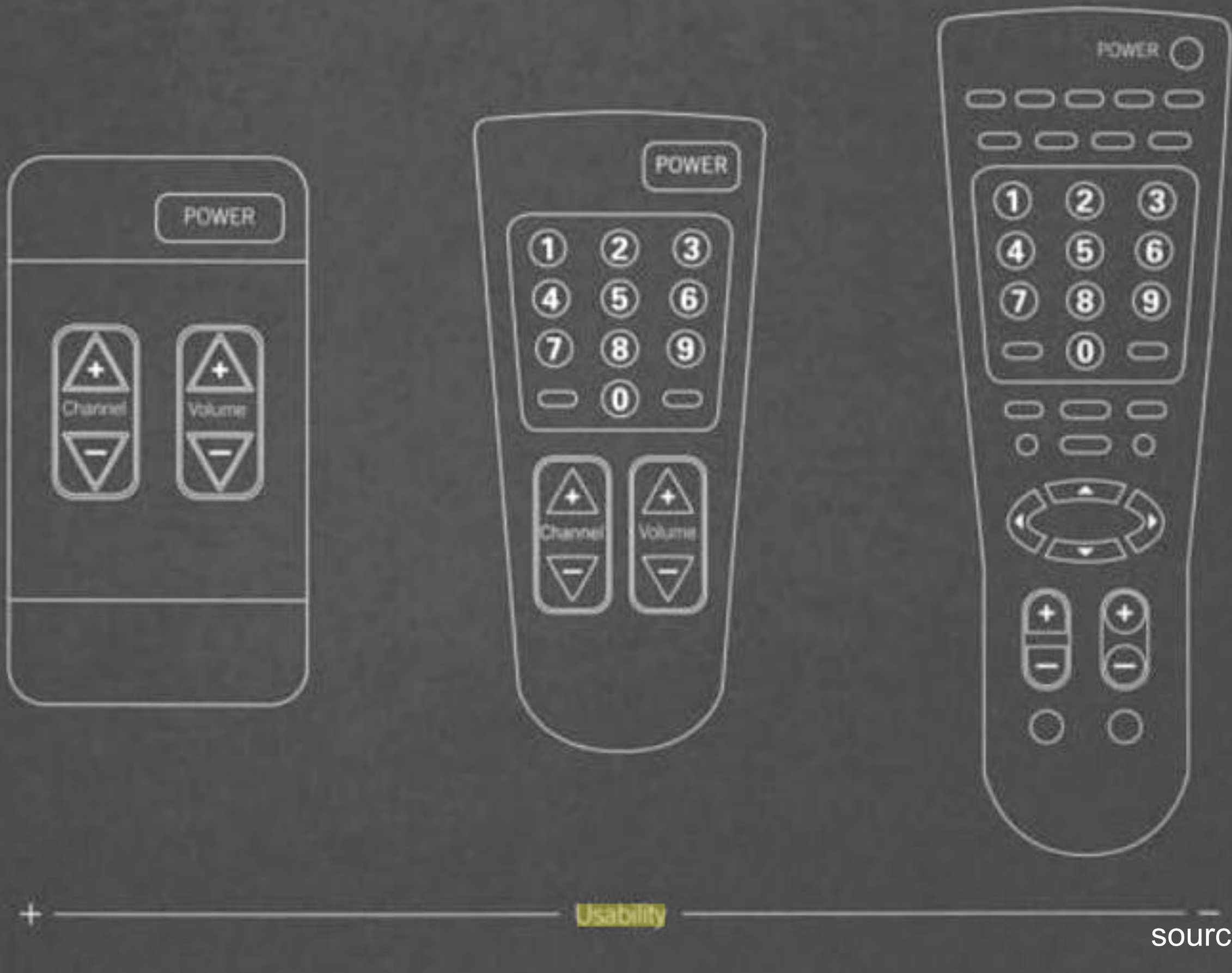
Aesthetic designs look easier to use and have a higher probability of being used, whether or not they actually are easier to use.

source : [1]

The flexibility-usability tradeoff is exemplified in the well known maxim “jack of all trades, master of none”.

Flexible designs can perform more functions than specialised designs, but they perform the functions **less efficiently**.

source : [1]


Flexibility
POWER
Channel
Volume
POWER
1 2 3
4 5 6
7 8 9
0
Channel
Volume
POWER
1 2 3
4 5 6
7 8 9
0
Usability

source : [1]

http://4.bp.blogspot.com/_ghXMgLjKiLI/TNPb4-vMLAI/AAAAAAAAAJk/ytWQWHjZ6YE/s1600/PEOPLE+PSD+03.jpg

Akkolade (Nasenklammer, geschweifte Klammer, geschwungene Klammer, Binde, systematische Klammer)
→Notensatz, Seite 348

In Manuskripten sind mehrzeilige Akkoladen schwer zu setzen und später noch schwerer in das Layoutprogramm zu konvertieren. Man behilft sich, indem man ans Ende jeder Zeile, die »akkoladiert« (Susanne Fischer) werden soll, eine einzelne Akkolade setzt:

```
so }
wie }
hier }
```

Akkoladen können nach links, rechts, oben oder unten weisen, je nach Art und Ausrichtung der zusammenzufassenden Elemente. Sie weisen von den Listenelementen zu den Erklärungselementen, nicht umgekehrt.

Akkoladen in der Größe normaler Klammern werden gesetzt wie normale Klammern.

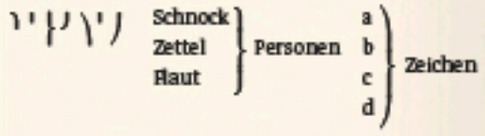
Akkoladen, die über mehrere Zeilen gehen, dienen als Zusammengehörigkeits-Zeichen über mehrere Zeilen hinweg, etwa in Personenverzeichnissen. Man muß sie recht mühsam aus einzelnen Teilen zusammenbasteln, die in Sonderfonts zu finden sind.

Wenn man eine Akkolade in der Größe einer normalen Klammer über mehrere Zeilen vergrößert, wird sie fett, groß und plump, sogar bei Verwendung eines extraleichten Schnittes. Statt einer Akkolade tut es übrigens auch eine Linie.

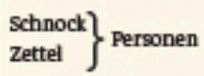
Hier ein hübsches Beispiel für Akkoladen-Verschachtelung im Tabellensatz. Die Auspunktierungen sind höchst verzichtbar, da Tabellen nicht mehr auf Kolumnenbreite ausgetrieben werden müssen.

Die {Akkoladen} als Parenthesen im Text dienen der Differenzierung in wissenschaftlicher Typografie.

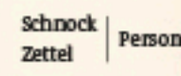
Material: **Beispiele:**

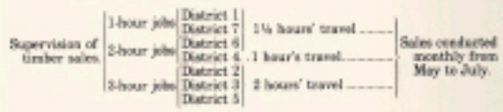


zu plump:



mit einfacher Linie:



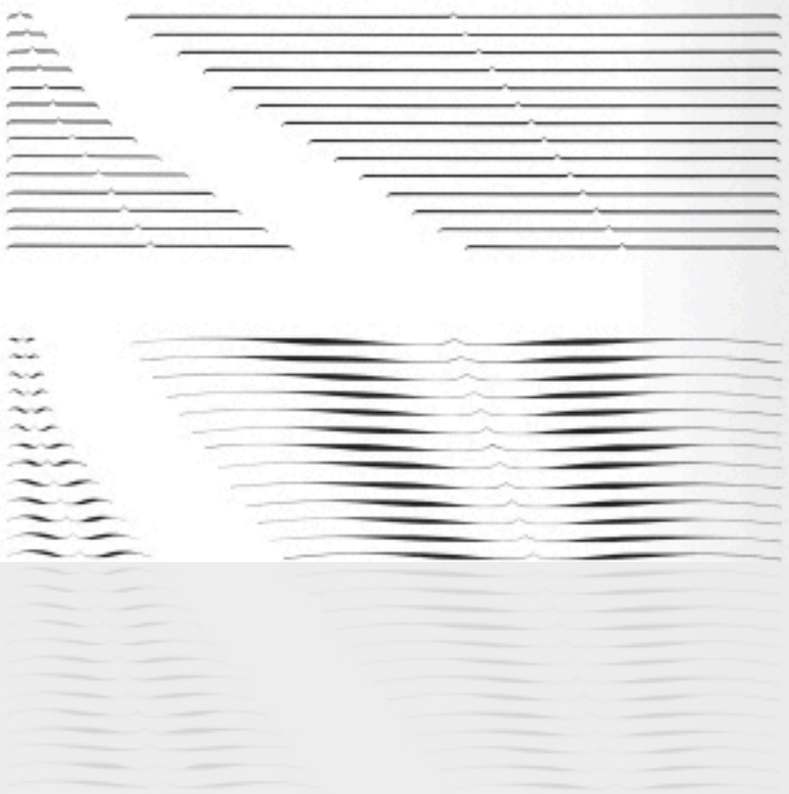


Oft ist es schöner und kaum mühsamer, große Akkoladen aus alten Schriftmusterbüchern zu scannen und als Bild einzubauen; die zusammengebastelten Nasenklammern sind meist nicht sehr schwungvoll.

rechts oben: »englischer Schnitt«

rechts unten: »französischer Schnitt«

unten: Akkoladen aus einem Stück werden bei Skalierung, je nach Umfeld, fett und plump (Thesis Sans extraleicht in den Punktgrößen 10/12/14/18/24/36/48/60/72/96).



Alltägliche Sonderzeichen

- Gradzeichen ° und Hoch-»o« ª
- Minute ′ und Sekunde ″ / ASCII-Strichlein ' und "
- Paragraphzeichen §
- Währungszeichen $ ¢ £ ¥ €
- Nummer-Zeichen #
- »Et«-Zeichen &
- »At«-Zeichen @, Mail- und Internet-Adressen
- Gleich = und Plus + und Minus −
- kleiner als < und größer als >
- höchstens ≤ und mindestens ≥
- Alinea-Zeichen ¶
- Kreuz † und Doppelkreuz ‡ und Stern *
- Copyright-Zeichen ©
- Eingetragene Marke ®
- Mal-Zeichen ×
- Unterstrich _
- Durchschnitt(lich) ∅
- Unendlich ∞
- Akzente und ungefähr-Zeichen ≈
- Vorsicht bei Sonderzeichen auf dem Macintosh

Grad-Zeichen: °

Bei Winkelgraden wird das Grad-Zeichen unmittelbar an die Zahl gesetzt, vielleicht etwas spationiert.

Ein Winkel von 360°.

Temperaturangaben ohne Einheit: Das Grad-Zeichen steht direkt an der Zahl. Mit Einheit: Es steht direkt vor dem Einheitenkürzel, von der Zahl durch ein geschütztes Flexibles Leerzeichen getrennt.

Bei 15° gehe ich nicht ins Wasser.
Es müssen 25 °C sein.
Ein 15°-Bad. Ein 25-°C-Bad.

Es ist kein hochgestellter Buchstabe »o«, sondern ein spezielles Zeichen.

15°: richtig 15º: falsch

Hochgestellter Buchstabe o und weitere hochgestellte Buchstaben und Zeichen
→Tarturbelegung, Seite 368

Das hochgestellte kleine »o« findet in Abkürzungen wie »N°« oder »n°« Verwendung. Hier darf das Grad-Zeichen nicht stehen, das kein kleines »o« ist, sondern ein Kreis.

N° 6: falsch N°6: richtig Gesprochen: »Numero 6«
Band 1: 8vo, Blatt 12 r° und 2 v°.
Gesprochen: »Band eins: Octavo, Blatt 12 recto und 2 verso.«

Minute: ′ und Sekunde: ″
Fuß: ′ und Zoll: ″
Auch Orgelregister bezeichnet man mit diesen Strichen (Fuß-Länge der Orgelpfeifen).
Die ASCII-Strichlein ' und " sind hier und für Anführungen falsch.
→Anführungszeichen, Seite 199

Die kleinen etwas schrägen Strichlein verwendet man nur für Zeit- und geografische Angaben sowie für Fuß und Zoll. Sie stehen direkt an der Zahl, vielleicht etwas spationiert, danach ein Wortzwischenraum. (Zeitangaben besser mit »:«)
→Zeitangaben, Seite 199

1. Satz Allegro 9′ 40″ »neun Minuten vierzig Sekunden«
11° 14′ 30″ östlich Greenwich, 47° 12′ 7″ nördlicher Breite »elf Grad vierzehn Minuten dreißig Sekunden«

11º 14′ 30′′ 11º 14`30`` 11˚14′ 30″ alles falsch
11˚14′ 30″ einzig richtig

Paragraph-Zeichen: §
»das §-Zeichen hat auch so was wie halbFrau halb Sehpferdchen«
Arno Schmidt

Das Paragraph-Zeichen steht immer vor einer Zahl. Es kann nicht das Wort »Paragraph« in einem Text ersetzen. Es ist von der Zahl durch ein geFLgetrennt – wie auch ein eventuell folgender Buchstabe.

Ich zitiere hier § 59, vor allem § 59 b.
Plural: Die §§ 59 bis 61 sind zu tilgen.
falsch: 14 §§ nach dem ersten § tilgen!
richtig: 14 Paragraphen nach dem ersten Paragraphen tilgen!

Währungszeichen: $, ¢, £, ¥, € etc.
→Unterteilung von Zahlen, Seite 197

Währungs-Zeichen oder Währungs-Abkürzungen wie »SFr.« stehen mit geFLhinter oder vor dem Betrag. Reihenfolge in Texten: »Summe-Währung« (noch besser: ausschreiben). In Listen: »Währung-Summe«. Währungsabkürzungen wie »dkr«, »SFr.« oder »kan$« setzt man ohne Abkürzungspunkt.

Ausgeschriebene Währungen setzt man nach der Summe und einem Wortzwischenraum.

Text: Geben Sie mir 50.000 $ in kleinen Scheinen! – In seinem Geldbeutel waren 76 SFr, 63 €, 69.000 ¥ und 480 kan$.

Liste: $ 3.455,00
$ 30.935,60

Geben Sie mir 50.000 Dollar in kleinen Scheinen!

Wenn das Euro-Zeichen in der verwendeten Schrift nicht existiert (bei neu gekauften Schriften sollte man darauf bestehen), muß man es aus einer ähnlichen Schrift nehmen, oder man nimmt das geometrische Euro-Zeichen der EU. Die EU-Kommission akzeptiert auch die Schreibweise »EUR« als offizielles Euro-Zeichen.

Fonts

source : [11]

https://typografie.de/produkt/detailtypografie/

Rule of thumb

-two general groups: serif & sans serif
-sans serif can be scanned quickly
-avoid very heavy or light typefaces for UIs
-avoid combining too similar typefaces
-stick with standards first

http://bytescout.com/files/images/examples/bytescoutpdf/standard_fonts.png

source : [4]

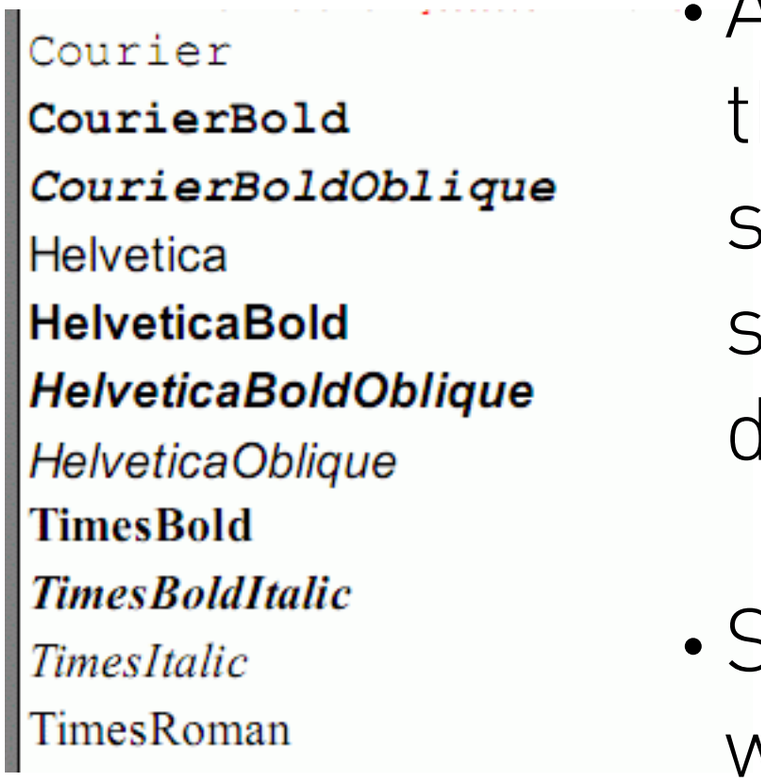
- On computer displays, sans-serif fonts often work better at very small point sizes, unlike print, in which the serifed fonts tend to be more readable as body text.

- Avoid italicised, cursive, or otherwise ornamental fonts;

- Highly geometric fonts tend to be difficult to read at small point sizes, as the circular letters (e, c, d, o, etc.).

http://bytescout.com/files/images/examples/bytescoutpdf/standard_fonts.png

source : [4]



- All-caps is too hard to read for body text, though it works fine for headlines and short texts. Capital letters tend to look similar, and are hard for a reader to differentiate.

- Set large amounts of text in a medium-width column when possible—say, around 10 to 12 English words on average.

http://bytescout.com/files/images/examples/bytescoutpdf/standard_fonts.png

source : [4]

ABCDEF

ABCDEF

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed a sem. Nullam nonummy libero id libero. Donec libero erat, consequat in, tincidunt at, malesuada id, urna. Fusce tincidunt consectetuer ante. Nam sit amet lorem. Nulla nec ante ac risus tincidunt suscipit. Aliquam luctus. Vivamus lobortis odio at risus porttitor ultrices. Maecenas odio libero, rhoncus et, dignissim id, rhoncus at, quam. Vivamus dolor. Quisque feugiat fringilla enim.

Didot

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed a sem. Nullam nonummy libero id libero. Donec libero erat, consequat in, tincidunt at, malesuada id, urna. Fusce tincidunt consectetuer ante. Nam sit amet lorem. Nulla nec ante ac risus tincidunt suscipit. Aliquam luctus. Vivamus lobortis odio at risus porttitor ultrices. Maecenas odio libero, rhoncus et, dignissim id, rhoncus at, quam. Vivamus dolor. Quisque feugiat fringilla enim.

Georgia

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed a sem. Nullam nonummy libero id libero. Donec libero erat, consequat in, tincidunt at, malesuada id, urna. Fusce tincidunt consectetuer ante. Nam sit amet lorem. Nulla nec ante ac risus tincidunt suscipit. Aliquam luctus. Vivamus lobortis odio at risus porttitor ultrices. Maecenas odio libero, rhoncus et, dignissim id, rhoncus at, quam. Vivamus dolor. Quisque feugiat fringilla enim.

Goudy Old Style

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed a sem. Nullam nonummy libero id libero. Donec libero erat, consequat in, tincidunt at, malesuada id, urna. Fusce tincidunt consectetuer ante. Nam sit amet lorem. Nulla nec ante ac risus tincidunt suscipit. Aliquam luctus. Vivamus lobortis odio at risus porttitor ultrices. Maecenas odio libero, rhoncus et, dignissim id, rhoncus at, quam. Vivamus dolor. Quisque feugiat fringilla enim.

Futura

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed a sem. Nullam nonummy libero id libero. Donec libero erat, consequat in, tincidunt at, malesuada id, urna. Fusce tincidunt consectetuer ante. Nam sit amet lorem. Nulla nec ante ac risus tincidunt suscipit. Aliquam luctus. Vivamus lobortis odio at risus porttitor ultrices. Maecenas odio libero, rhoncus et, dignissim id, rhoncus at, quam. Vivamus dolor. Quisque feugiat fringilla enim.

Verdana

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed a sem. Nullam nonummy libero id libero. Donec libero erat, consequat in, tincidunt at, malesuada id, urna. Fusce tincidunt consectetuer ante. Nam sit amet lorem. Nulla nec ante ac risus tincidunt suscipit. Aliquam luctus. Vivamus lobortis odio at risus porttitor ultrices. Maecenas odio libero, rhoncus et, dignissim id, rhoncus at, quam. Vivamus dolor. Quisque feugiat fringilla enim.

Arial Narrow

THIN

Roboto

BLACK SMALL CAPS

SUNGLASSES

ITALIC

Self-driving robot ice cream truck

BOLD

Fudgesicles only 25¢

BOLD CONDENSED

ICE CREAM

MEDIUM

Marshmallows & almonds

LIGHT

#9876543210

BOLD ITALIC

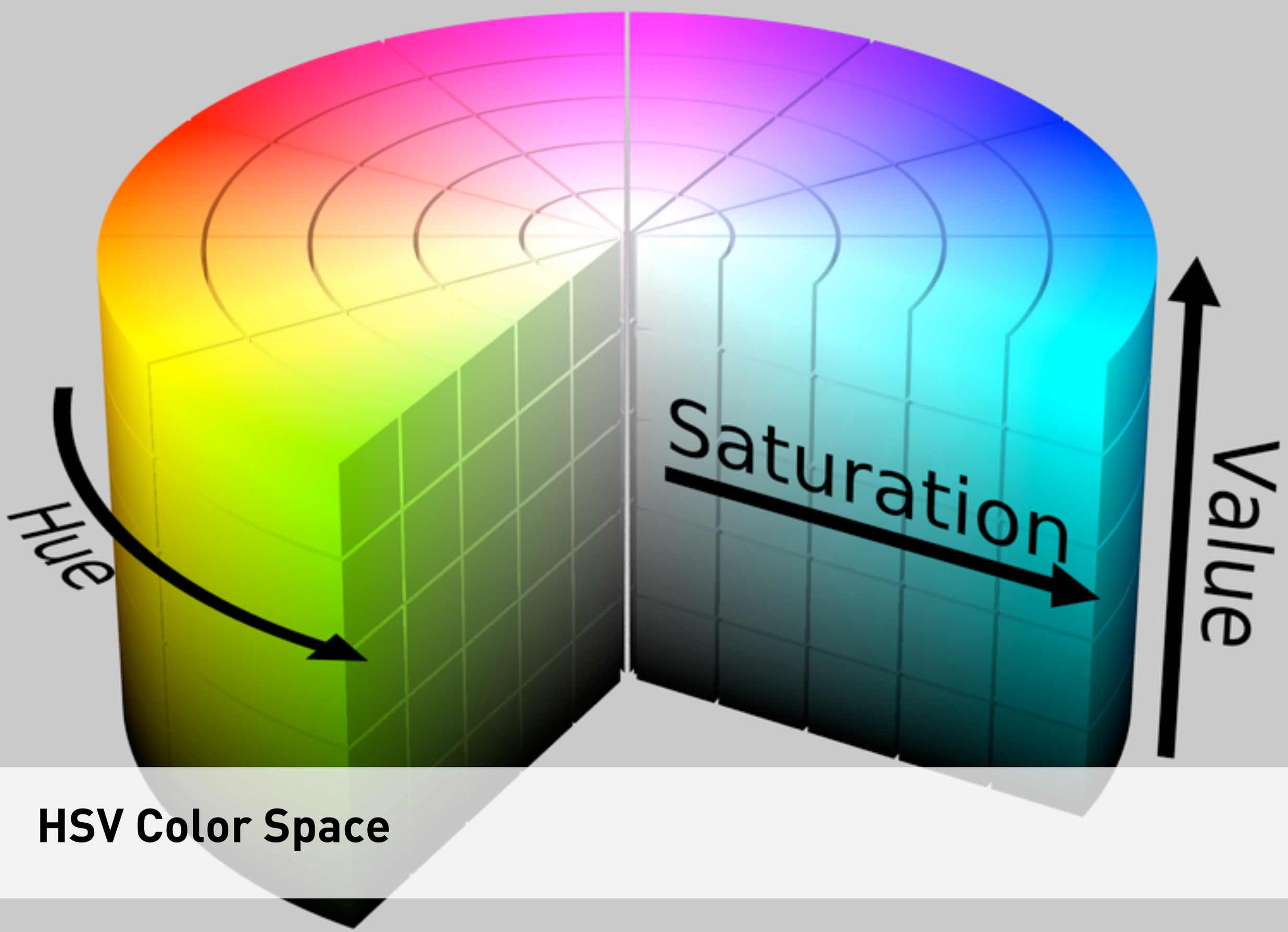
Music around the block

REGULAR

Summer heat rising up from the sidewalk

source : [5]

Color



HSV Color Space

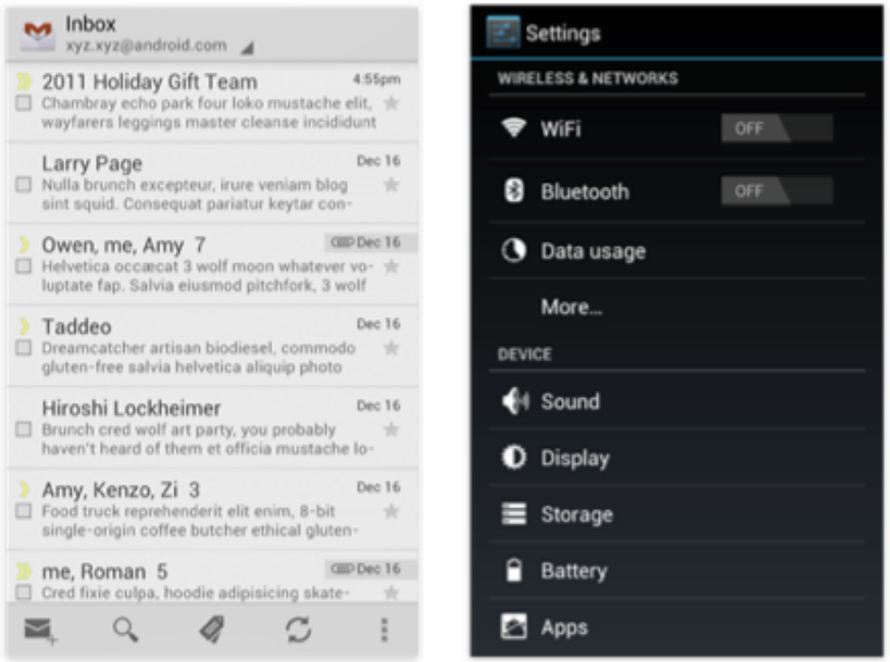
-three main properties: hue, saturation (or intensity) and value (or brightness)
-hue refers to the color itself (the particular color within the optical (visible) spectrum of light), saturation refers to the brightness, value refers to the amount of black in a color

-color can provide cues for use
-color can establish a relationship
-color can indicate importance
-consider human factors such as color blindness and cultural differences

source : [4]

Warm versus cool
Dark versus light background
High versus low contrast
Saturated versus unsaturated
Combinations of hues

Colors



source : [5]

BEST VIEWED WITH INTERNET EXPLORER Ver 6+ WHY?
TO HEAR AWESOME MUSIC DO NOT BLOCK POPUNDER

Ads - Rates - Site Stats - WeBLOG-12/31/06
LINKS View/Add FREE Classifieds/View/Add
Welcome to the hosanna1.com Portal Page
Home of AAA World Wide Web Design
& Hosanna Afghan Hounds

Welcome to
www.hosanna1.com
PORTAL Page HOME OF
The Most Beautiful Pages On The WWW
Hosanna Afghan Hounds
& AAA World Wide Web Design

3A Home Business Resources and Education
Background ~ MY RESUME ~ ASP
NEW! The Most Beautiful MUSIC On The WWW!
hosanna1.com JUKEBOX!!!

AN AMERICAN who LOVES FREEDOM ? CLICK HERE

We BOYCOTT ALL Smoking Ban Areas- CLICK HERE
EMERGENCY - HELP SAVE OUR PETS!
CA Smoking Ban Costs them 100 Billion$
Smoker's Health & Rights hosanna1.com Weblog

USE REFRESH BUTTON - We Update OFTEN FULL SCREEN SETTING
ARCHIVES | AFGHAN HOUNDS: | Gwich'in | Hosanna+PUPPIES! | Mahadi | Polo ~ BIS National Specialty 2003
travel-hound | Other DOG Breeds: Cyrano Hounds (whippets/greyhounds) | Play Kennel (KEES/PYRS) KEESHOND PUPPIES HERE NOW!
SKY Shelties | ART/CobraOriginals Afghan, dog breeds, horses
HORSES: Step Of Faith Farm | SPIRITUAL: 911 | AALF

SOME SAY TIMES ARE CHANGING,
Hosanna Afghans HISTORY Page CLICK HERE

From the Mouths of Babes
~~~~~~~
My daughter said, 'I wonder...'
~~~~~~~
I had NEVER thought of that, so I did a Bible Search...

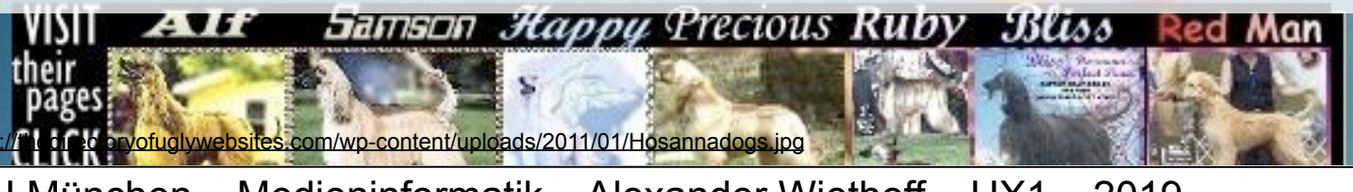
NEVER FORGET!

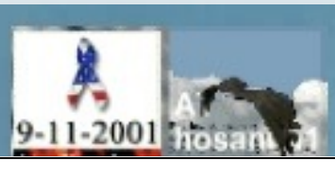
LOST
AFGHAN HOUNDS
Joy - in Indiana
CLICK HERE

PRECIOUS is still lost

We have BEAUTIFUL PUPPIES available SOON, whelped JUNE 17, 2010, with AKC Champion sire & dam!
We also have some BEAUTIFUL Champion sired young male and female Afghan Hounds AVAILABLE NOW. If you have room in your heart to love one of these 'most beautiful dogs in the world, please check out THIS PAGE

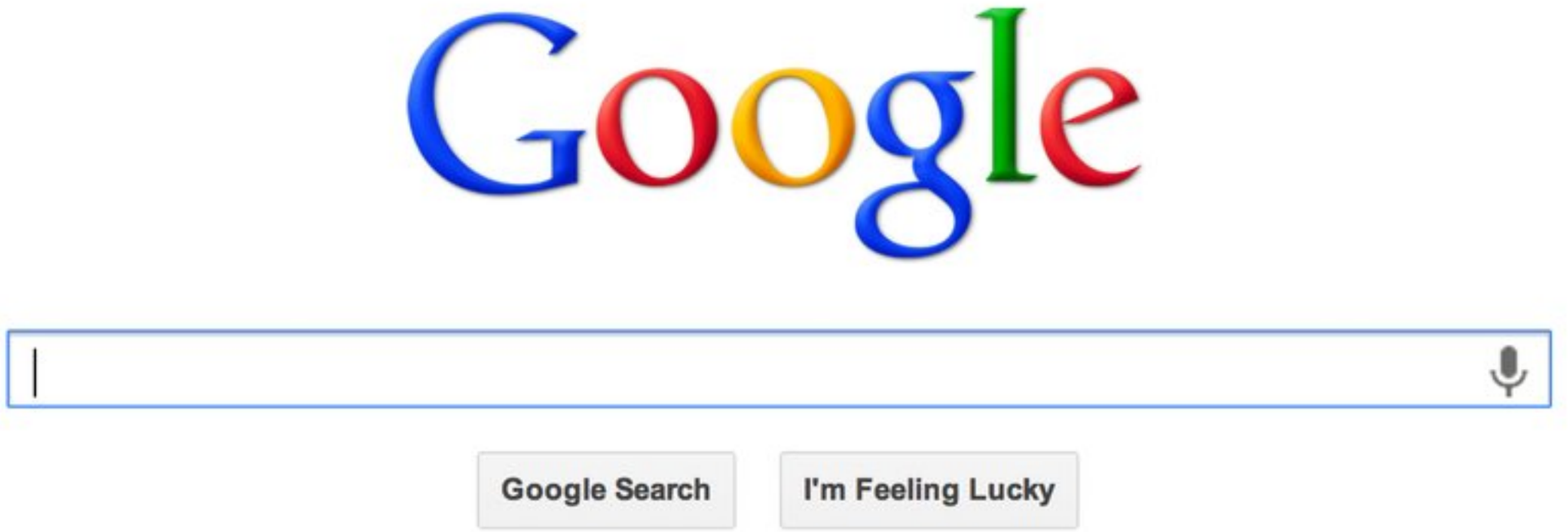
COME SEE THE MOST BEAUTIFUL ART CAR IN THE WORLD, AWARD WINNING PARADE CAR, AND OUR HOSANNA AFGHAN HOUNDS DOG SHOW





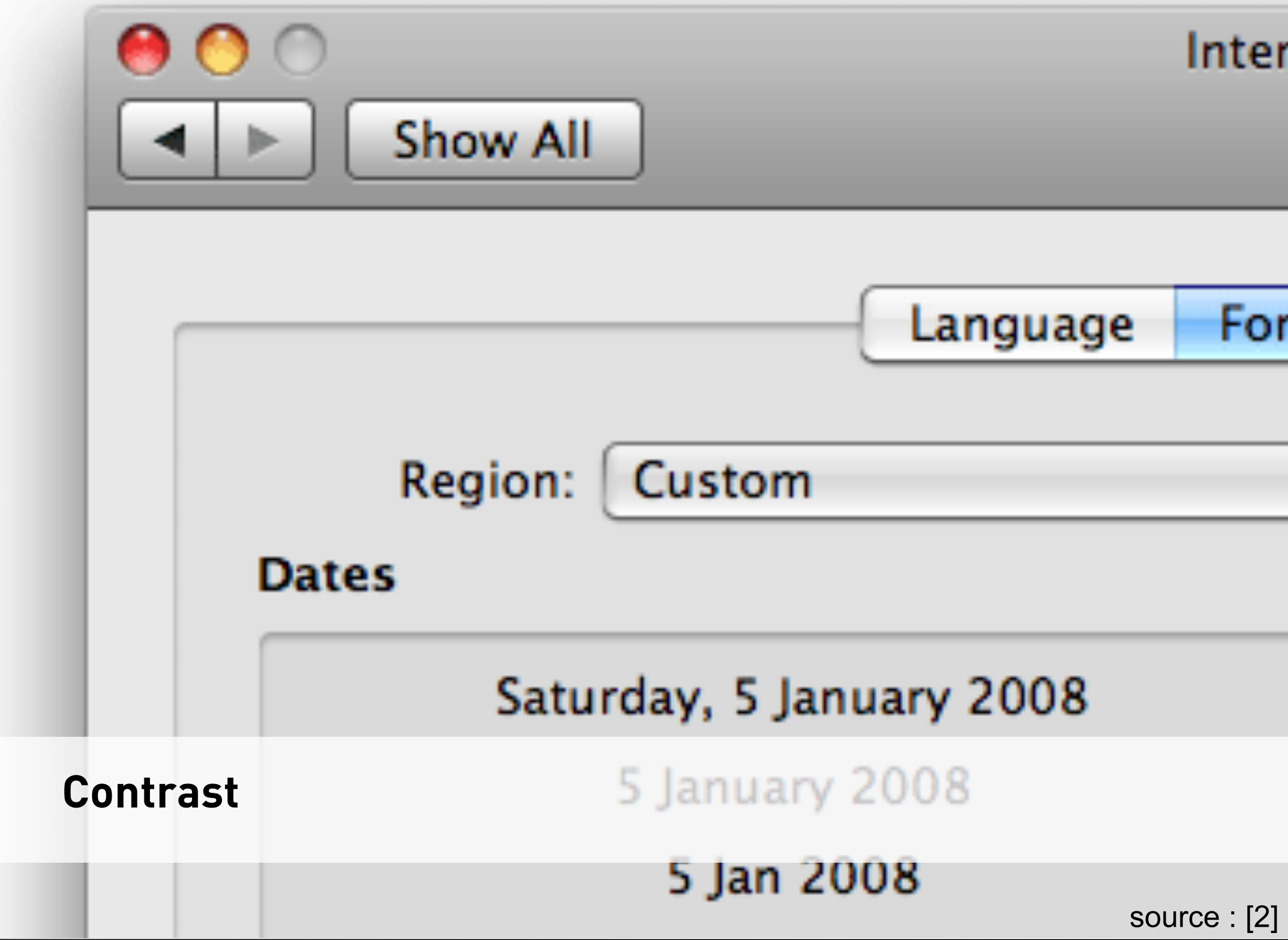
http://theoryofuglywebsites.com/wp-content/uploads/2011/01/Hosannadogs.jpg

Questionable Website



Googles Search Page

https://static.giga.de/wp-content/uploads/google-search-startseite-rcm992x0.png



Contrast

source : [2]

Effective design crates **no more contrast than necessary**.

This allows the viewer to easily identify the elements in question as a strongly defined subset of the available information.

source : [2]

Show All
Language
Region:
Custom
Dates
Saturday, 5 January 2008
5 January 2008
5 Jan 2008

source : [2]

Symmetry

source : [2]

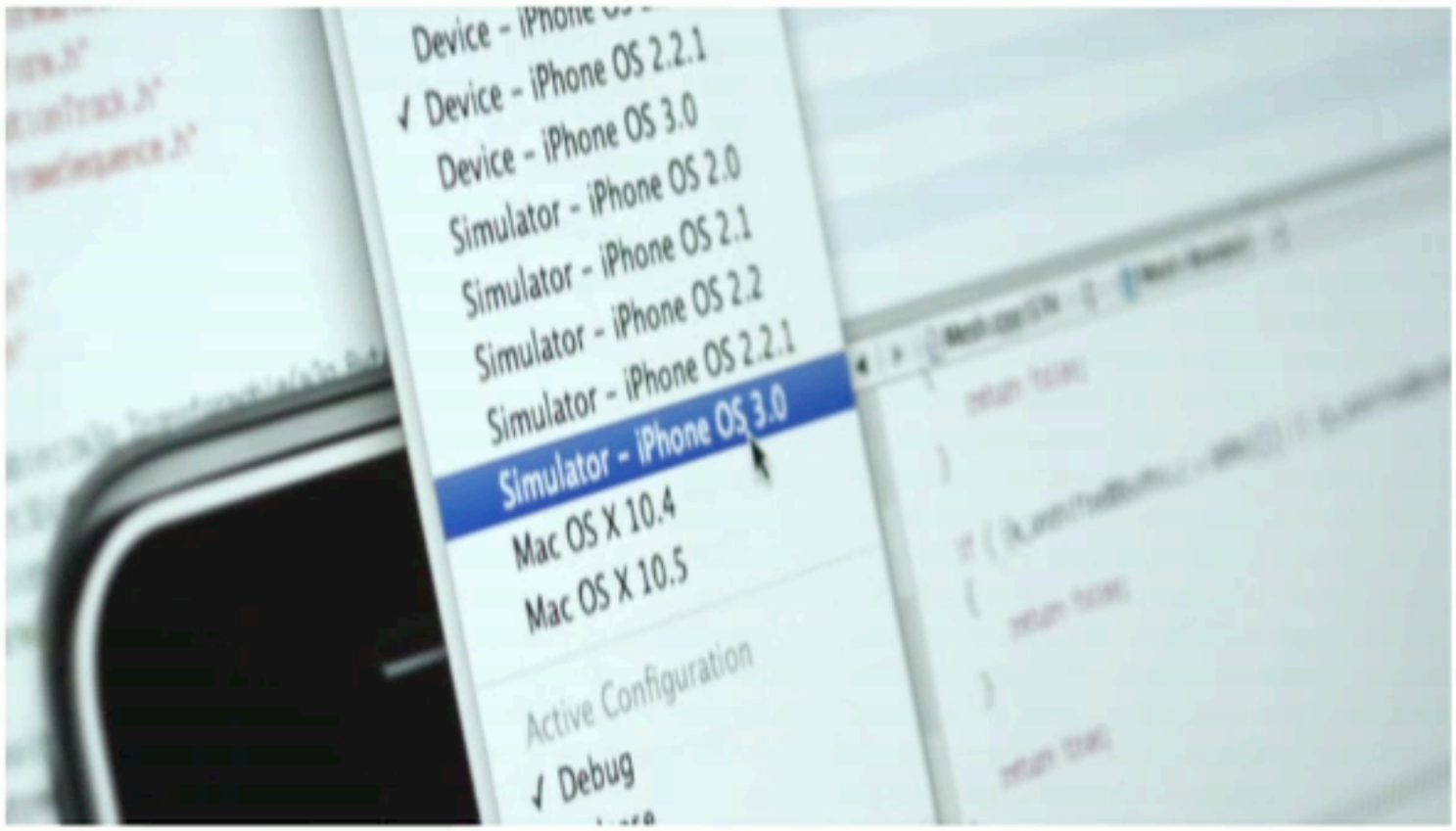
Symmetry ensures **balance and clear organisation**, if sometimes at the expense of visual interest. While this may be a drawback for a poster or retail packaging, it is perfectly appropriate for a user interface.

http://www.jailbreakbox.de/ipod-nano-mit-kamera-und-spielen

source : [2]

UI Kits

Developing Apps for iPhone



//oppian-prod-files.s3.amazonaws.com/blog/neil/actionsheet1_small.jpg

Browse Palettes :: COLOURlo

www.colourlovers.com/palettes/most-favorites/all-time/meta

Other Bookmarks

COLOURlovers

Sign Up | Log In

Browse | Create | Search | Community | Channels | Trends | Tools | Store

Explore Over a Million Color Palettes

Search

You'll find over 1,666,068 user-created color palettes to inspire your ideas. Get the latest palettes RSS feed or use our color palette maker to create and share your favorite color combinations.

NEW | MOST LOVED | MOST VIEWS | MOST COMMENTS | **MOST FAVORITES**

Browse Palettes

DAY | WEEK | MONTH | ALL

Giant Goldfish by manekineko

508 COMMENTS | 3005 FAVORITES | 232796 VIEWS | 3510 LOVES

Thought Provoking by Miss_Anthropy

285 COMMENTS | 1938 FAVORITES | 139170 VIEWS | 2738 LOVES

Terra? by GlueStudio

442 COMMENTS | 1567 FAVORITES | 89562 VIEWS | 1463 LOVES

ColorSchemer Studio 2

COLOURlovers

RECENT PALETTE COMMENTS

huege
POSTED 2 MINUTES AGO

Lovely pattern Dawn! After a few minutes of looking at it, I realized she had a cigarette :)
American Women wrote:

> Smoking Lady
>
>
>
> by American Women
> 3
> 0
> Rank #137256
> COLOURlovers.com
>
> *huege wrote:*
>
> > *I love it! I don't know why, but to me this looks like the palette should on a package of cigarettes. I don't even smoke, but I love the palette so much that I think it's making me want to start smoking?!?!*

Color Scheme Designer 3

colorschemedesigner.com

Undo | Redo | Random | Colorblind | Color space | Export | Help

Color Scheme Designer

2002-2010 © Petr Stanicek • Version 3.51 • NEWS

mono | complement | triad | tetrad | analogic | accented analogic

Scheme ID: 0011Tw0w0w0w0

CREATE FREE STUNNING WEBSITES GO >>

Hue: 0°

opposite

warm

cold

R: 100 %
G: 0 %
B: 0 %

RGB: FF0000

Show sample text

Hues | Adjust Scheme | Color List

Preview | Light page example | Dark page example

Do you like this app?

Donate

Related: Dedicated Server | FREE Logo Design | Wedding Invitations | Save the Dates

Lhando_Javier_1_9717....jpg

Show all downl

HMI Project | Concept Laser - S

Color wheel | Color schemes -

Secure https://color.adobe.com/create/color-wheel/

Apps Blog Teaching UX Tools WBT 10-Day Cloud CST to

Adobe Color CC Create Explore My Themes

IMPORT IMAGE COLOR WHEEL

Change Color Harmony

Analogous

Graphical User Interface Design

- Principles
- Layout, Typography, Color & Contrast
- Controls and Widgets
- Simplicity

Switch

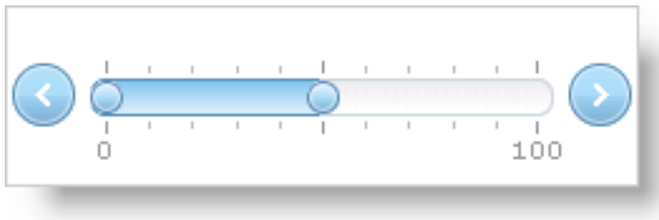
http://fbelec.en.made-in-china.com/product/QeZnIxqKZikC/China-Switch.html

Button

http://www.conrad.de/ce/de/product/701855/Vandalismusgeschuetzter-Taster-16-mm-mit-Ringbeleuchtung-48-VDC-2-A-GQ16F-10EJB12V-Loetpins-48-VDC-2-A/SHOP_AREA_17386&promotionareaSearchDetail=005

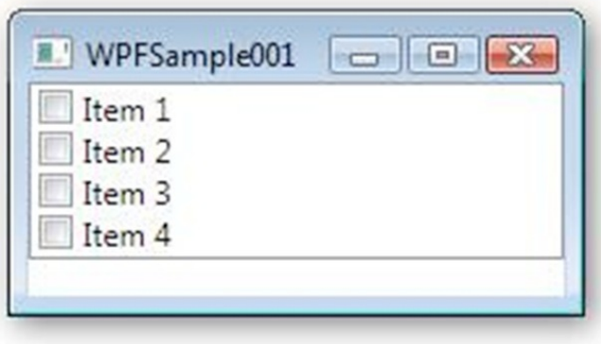
Dial

http://www.conrad.de/ce/de/product/718295/Universal-Geraeteknopf-mit-Skala-A-x-B-x-C-mm-23-x-37-x-233-Aluminium-eloxiert-Aluminium-eloxiert-Achs-Durchmesser/?ref=search



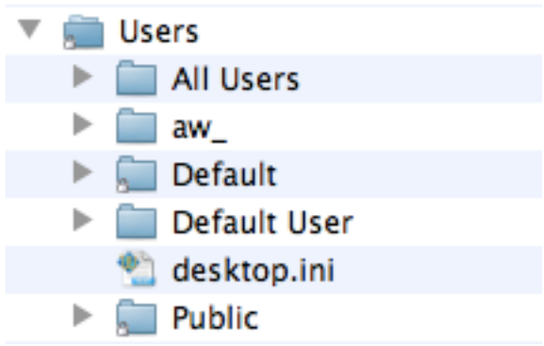
Slider

http://help.infragistics.com/Help/NetAdvantage/ASPNET/2011.2/CLR4.0/html/images/Web_New_WebSlider_Control.png

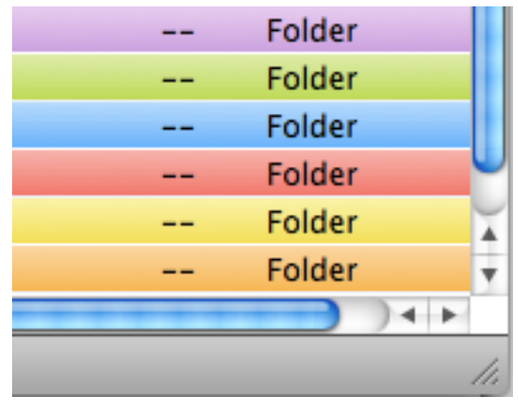


Checkbox

Radio Button



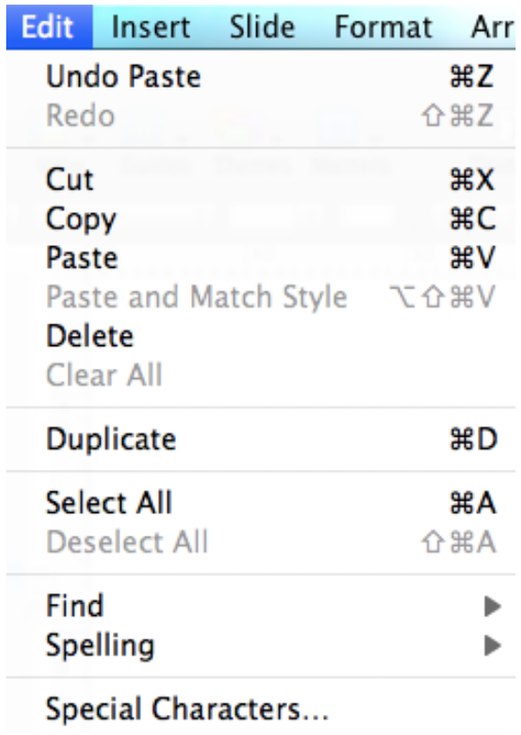
Twist



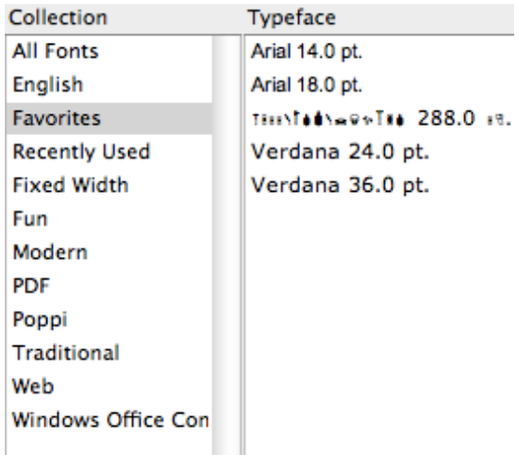
Scroll Bar

http://arcanecode.files.wordpress.com/2007/09/wpf035.jpg

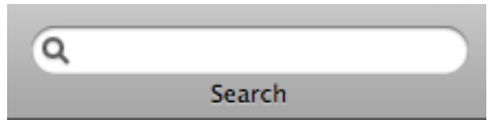
http://www.satimage.fr/software/images/gui/radio_button.png



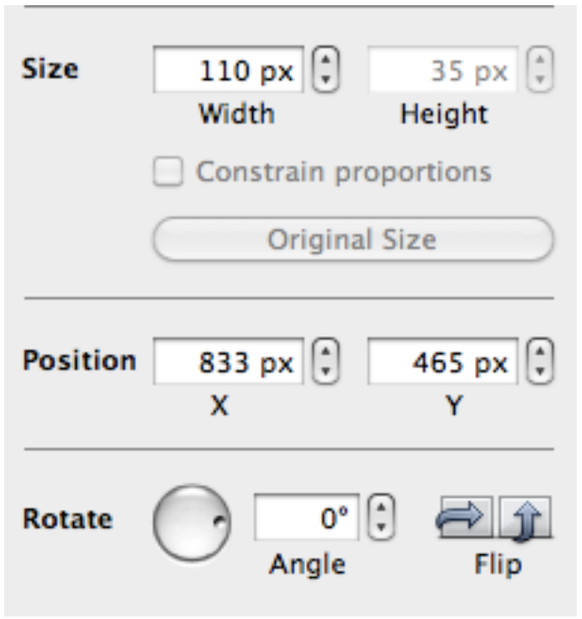
Drop-down menu



Multiple Selection List



Text Box



Spin Box

http://arcanecode.files.wordpress.com/2007/09/wpf035.jpg

http://www.satimage.fr/software/images/gui/radio_button.png

Controls

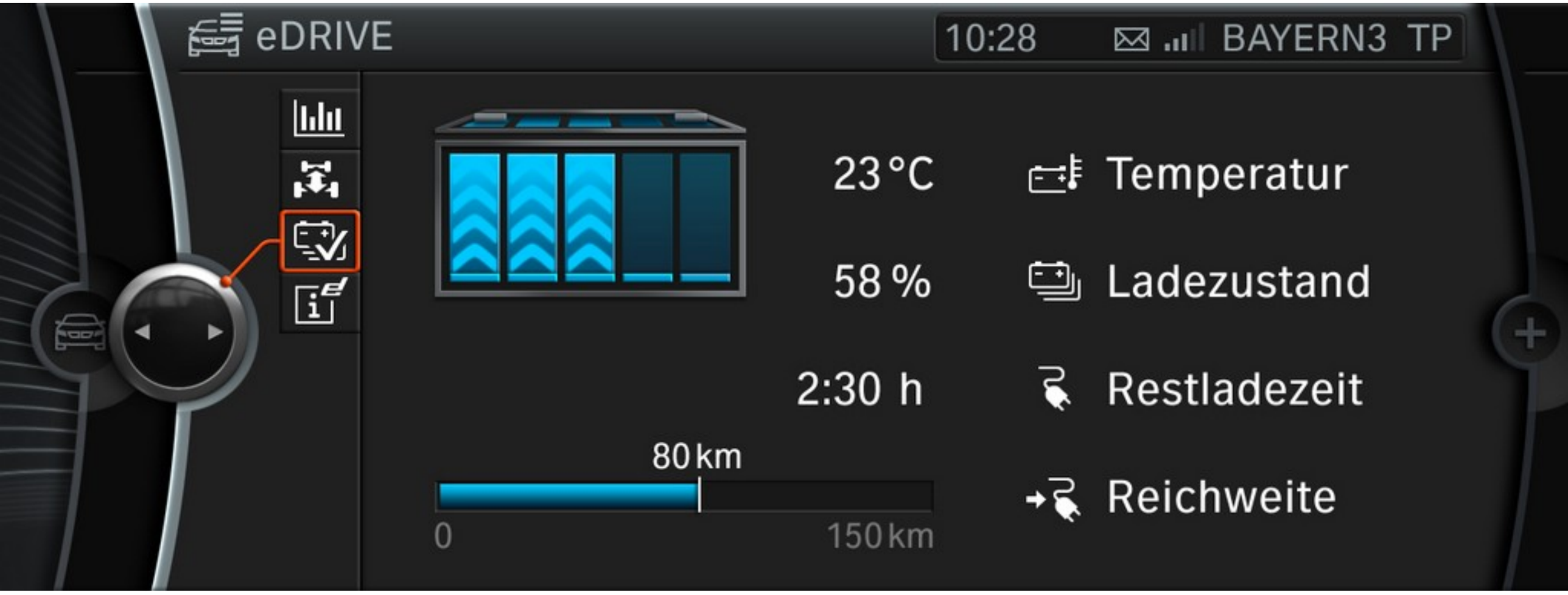
http://www.flickr.com/photos/merlijnhoek/2055606176/

source : [4]

Controls

source : [4]

http://epautos.com/wp-content/uploads/2011/07/BMW-iDrive.jpg



Mapping of Representation and Control

http://www.treffseiten.de/bmw/info/Pressebilder/2011/02/activee/03.jpg

Graphical User Interface Design

- Principles
- Layout, Typography, Color & Contrast
- Controls and Widgets
- Simplicity

Simplicity

http://blog.webexpedition18.netdna-cdn.com/wp-content/uploads/2011/11/braun03.jpg

Approachability

Simple designs can be rapidly apprehended and understood well enough to support immediate use or invite further exploration.

http://blog.webexpedition18.netdna-cdn.com/wp-content/uploads/2011/11/braun19.jpg

source : [2]

Recognisability

Simple designs can be recognised more easily than their more elaborate counterparts. Because they present less visual information to the viewer, they are more easily assimilated, understood and remembered.

http://blog.webexpedition18.netdna-cdn.com/wp-content/uploads/2011/11/braun31.jpg

source : [2]

Immediacy

Simple designs have a greater impact than complex designs, precisely because they can be immediately recognised and understood with a minimum of conscious effort.

http://blog.webexpedition18.netdna-cdn.com/wp-content/uploads/2011/11/braun35.jpg

source : [2]

Usability

Improving the approachability and memorability of a product necessarily enhances usability as well. Simple designs that eliminate unnecessary variation or detail make the variation that remains more prominent and informative.

source : [2]

Reduction through successive refinement is the only path to simplicity

source : [2]

Reduction means that you eliminate whatever isn't necessary. This technique has three steps: (1) decide what essentially needs to be conveyed by the design; (2) critically examine every element (feature, label, UI widget, etc.) to decide whether it serves an essential purpose; (3) remove it if it isn't essential.

source : [2]

GRAPHIC DESIGN

2D

PRODUCT DESIGN

3D
+Z-axis
(spatial depth)

INTERACTION DESIGN

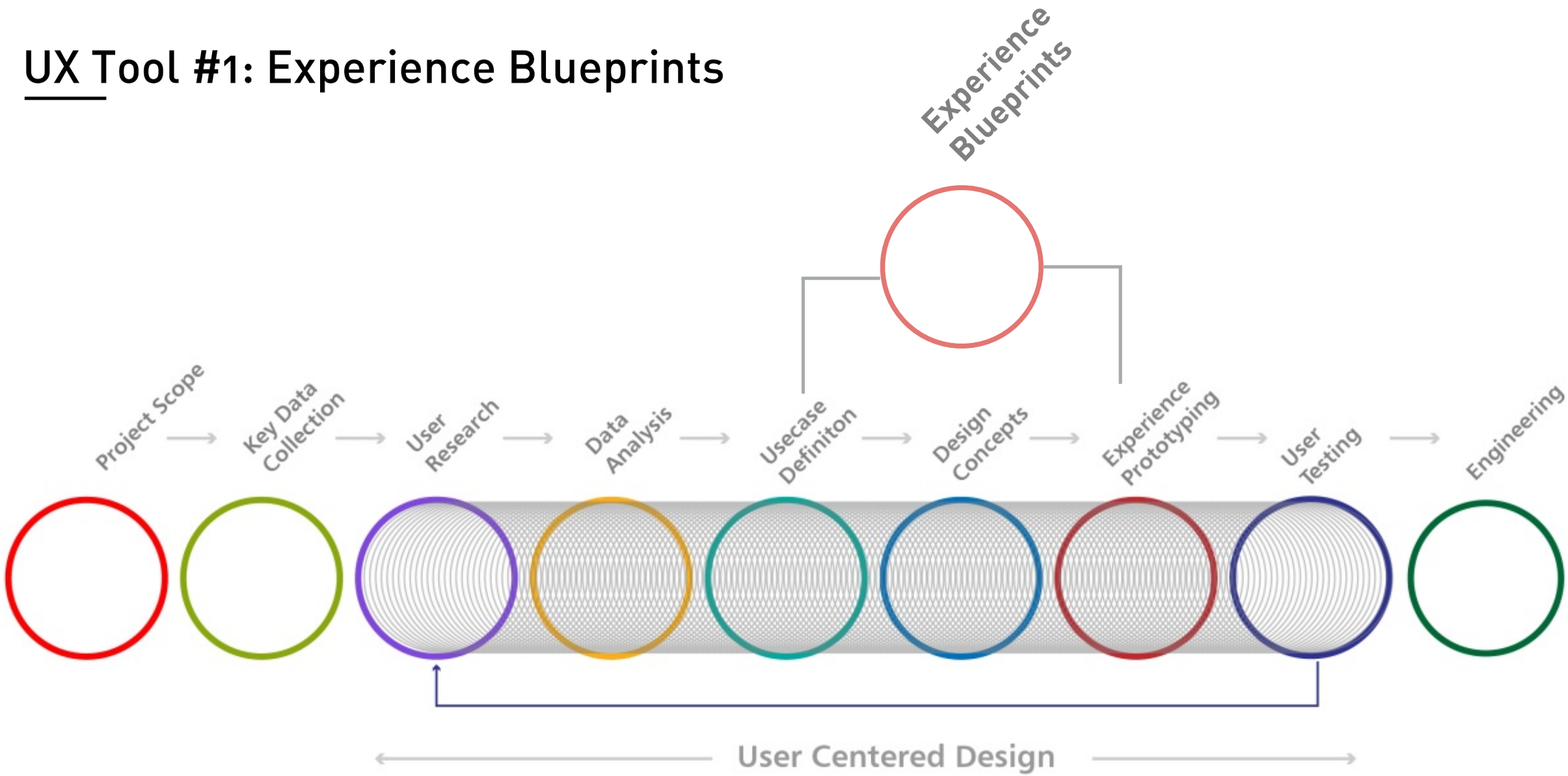
4D
+T-axis
(temporal dimension)

SERVICE DESIGN

5D
+W-axis
(multi-local simultaneity)

Model: Benjamin N.N. Schulz; Icons: Dima Yagnyuk, Daphne Espinosa, George Agpoon / The Noun Project

UX Tool #1: Experience Blueprints



What is an Experience Blueprint?

An experience blueprint is a diagrammatic representation of the user journey that maps processes, touch points, people and support activities involved in creating the experience.

It helps in visualising the correlation between the front stage (user end) and the back stage (provider end). It also helps to interconnect the tangible elements with intangible and deal with them more objectively.

source: [2]

History and Use

Blueprinting services was pioneered by G. Lynn Shostack, former VP of Citibank, in the 1980's as a way to plan the cost and revenue associated with operating a service.

Ever since it has been interpreted in many different ways and used by many leading design and management consultancies.

source: [2]

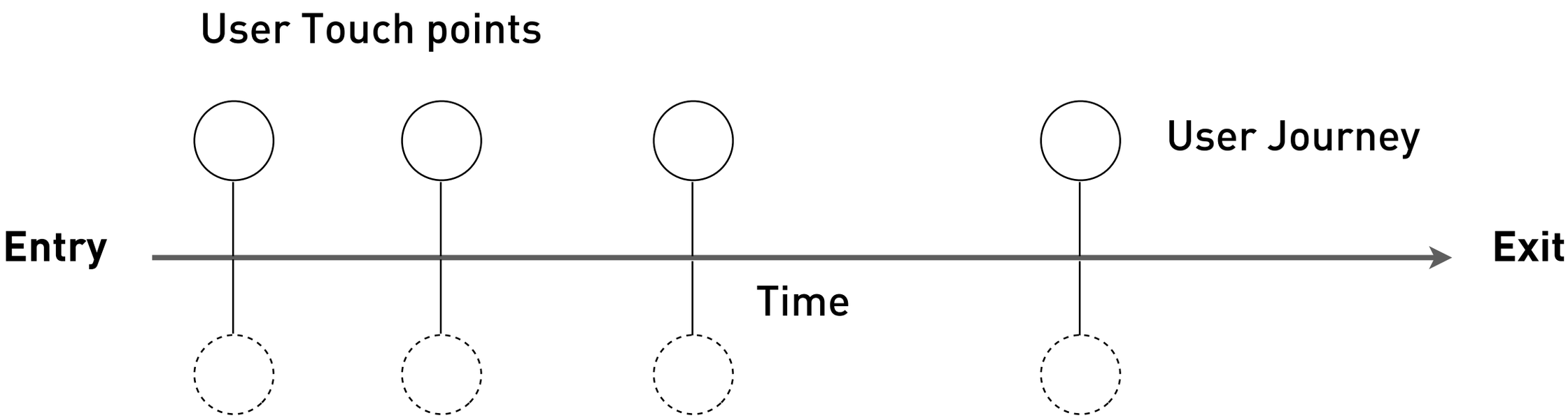
Definition

In the British Standard for Service Design (BS 7000 -3, BS 7000 -10, BS EN ISO 9000), blueprinting is described as the mapping out of a service journey identifying the processes that constitute the service, isolating possible fail points and establishing the time frame for the journey.

We interpret this in a much broader sense. We look at it as an experience blueprint which covers both the service elements as well as the product interactions.

source: [2]

Front Stage



Support Processes

Back Stage

source: [2]

User Actions

Line of interaction

Touch Points

Line of visibility

Backstage activity

Line of internal interaction

Support process / Stake Holders

source: [2]

USE CASES

USER ACTIONS

TOUCH POINTS

BACKSTAGE

STAKEHOLDER

STAKEHOLDER 1

STAKEHOLDER 2

STAKEHOLDER 3

STAKEHOLDER 4

STAKEHOLDER 5

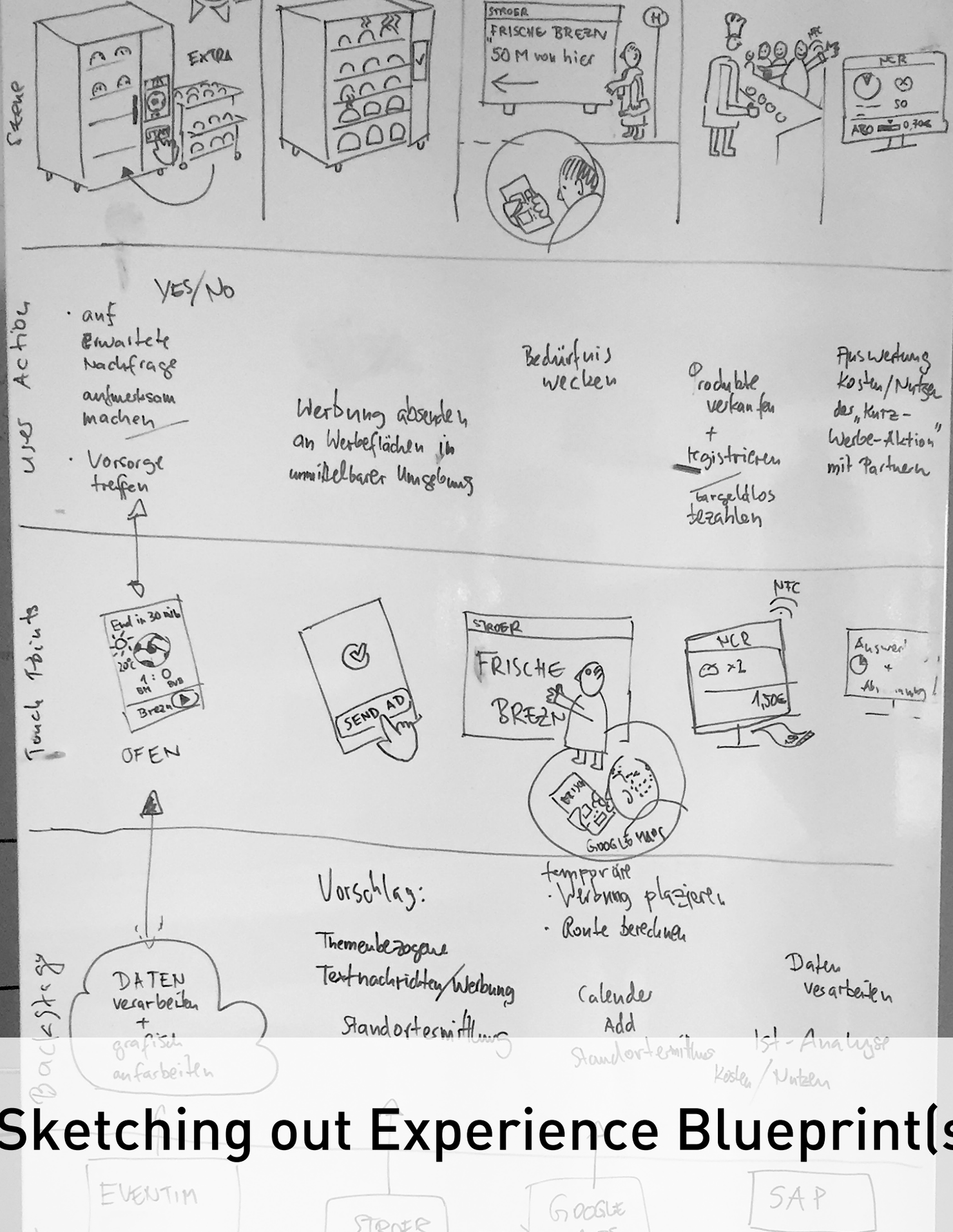
STAKEHOLDER 6

UX Blueprint Template

© IMAGO DESIGN GmbH

Example: FoodSense® Connected Kitchen

Professional Foodservice Equipment



Ideation: Sketching out Experience Blueprint(s)

FOODSENSE®

USE CASES

USER ACTIONS

Reagieren auf Information zu Events

Ofen mit zusätzlichen Produkten bestücken

Werbung an digitale Werbeflächen in unmittelbarer Nähe senden (Guerilla-Kurzwerbe-Aktion / Promo-Aktionen)

Sich über neue Events informieren

Information erfassen (Endkunde)

vom Smartphone in den Shop leiten lassen (Endkunde)

Mit Eintrittskarte Rabatt erhalten (Endkunde)

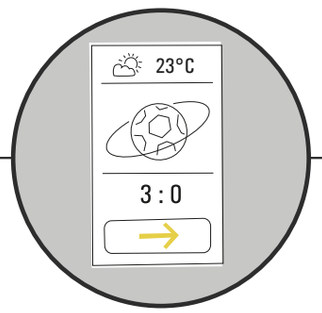
Produkte verkaufen und über das Kassensystem registrieren

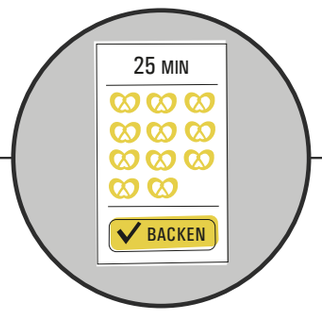
Bargeldlos bezahlen (z.B. per Smartphone / NFC)

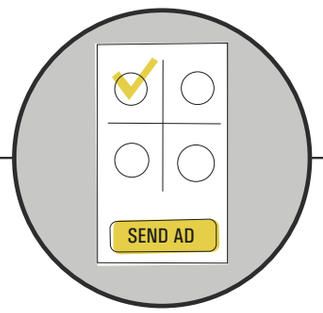
Auswertung von Kosten und Nutzen der Kurzwerbe-Aktion mit Partnern

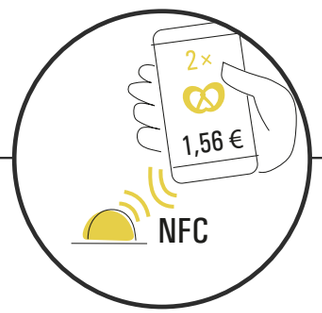
Planung

TOUCHPOINTS









BACKSTAGE

Daten verarbeiten und Informationen bereitstellen

Über erhöhte Nachfrage informieren

Standortermittlung

Ofen vorheizen (automatisch)

Rezepte vorschlagen (passend zu Event / Saison / Tageszeit / Wetter)

Werbetext generieren (passend zum Rezept / Backgut)

Standortvorschläge digitaler City-Light-Poster

Temporäre Werbung platzieren

Neue Events anzeigen

Daten verarbeiten

Abrechnung

Daten verarbeiten

Umsätze / Werbekosten vergleichen

Daten verarbeiten und grafisch aufbereiten (Dashboard)

Werbekosten („ABO Sekunden-Ad“) mit Partner abrechnen auf Grundlage der zusätzlich verkauften Produkte

STAKEHOLDER

EVENTIM

STRÖER

PAYPAL

WETTER.DE

MVV / ÖPNV

APPLE / GOOGLE MAPS

ORDERMAN / NCR

SAP

TELEKOM

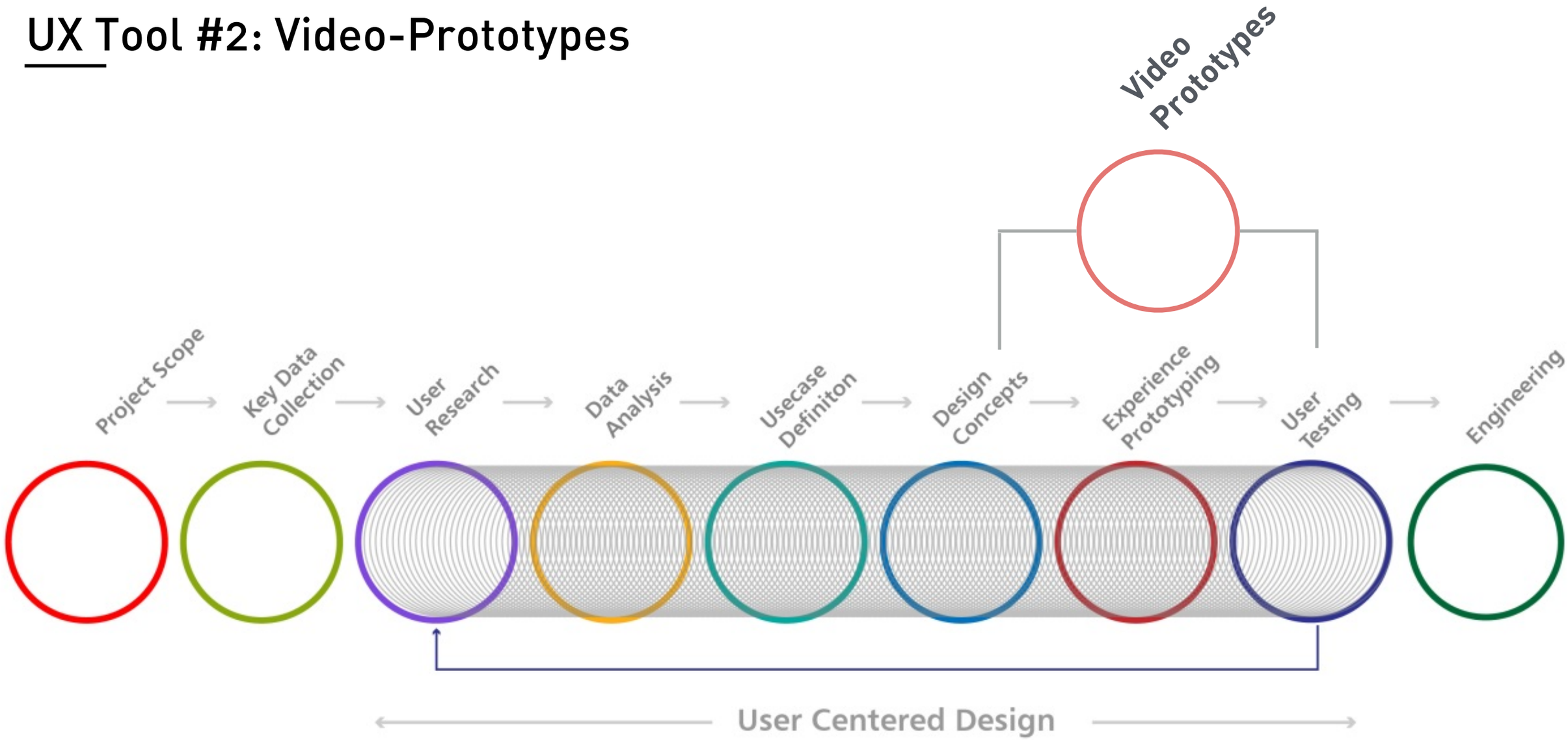
PAASPHERE

BACKOFENHERSTELLER

Selection: Refined Experience Blueprint

© IMAGO DESIGN GmbH

UX Tool #2: Video-Prototypes



Why Video-Prototypes ?

Representing complex relationships, new behaviours and attitudes are an integral part of user experience design.

These can be represented through many means including sketching and making physical prototypes.

However, capturing a journey over time and at multiple locations requires a linear medium like video.

Example: 2 Video-Prototypes for IoT Kitchen Services

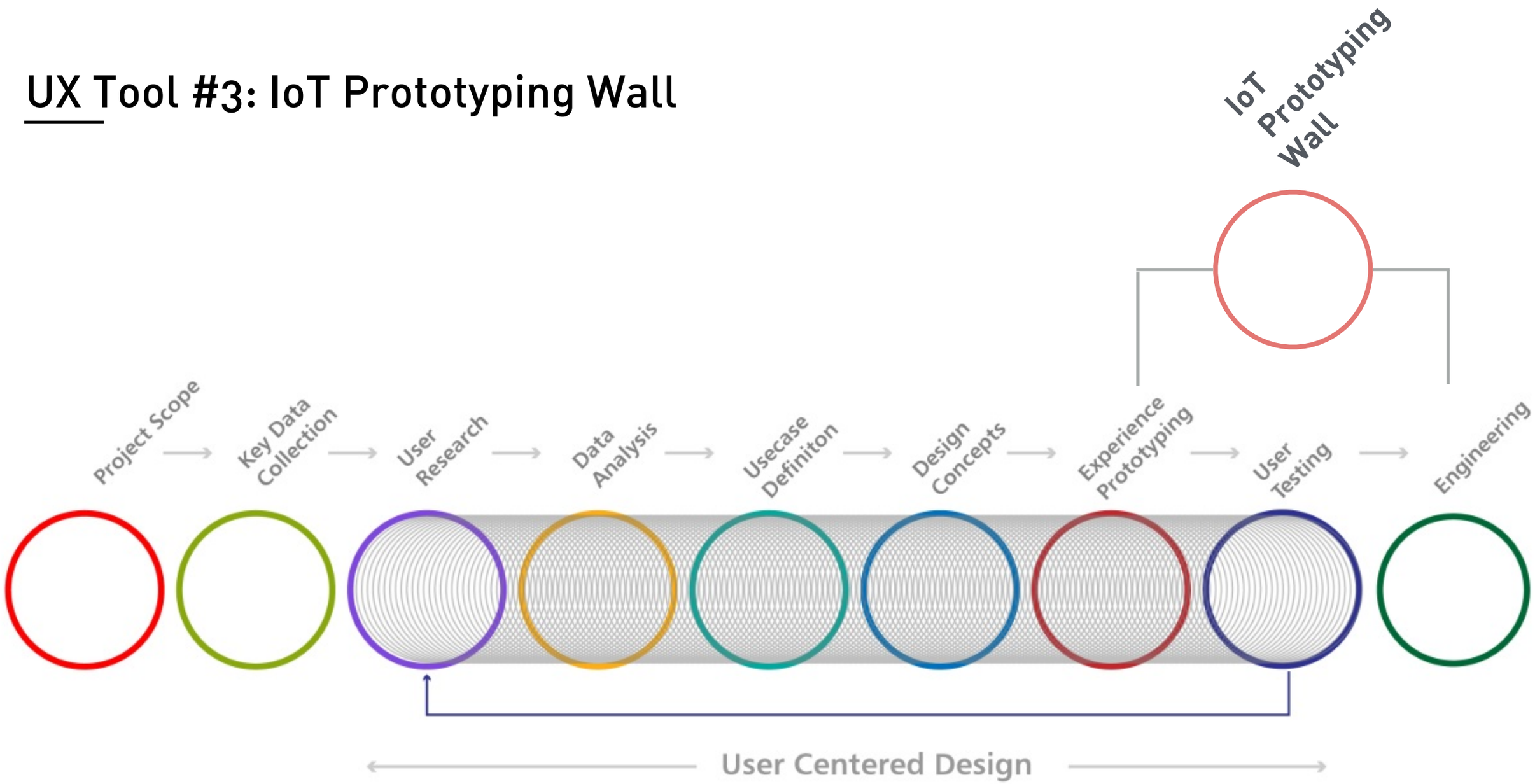
21:30
3:0
22 min
38 min

WARNING

CLEANING NEEDED!

Proceed to first cleaning step

UX Tool #3: IoT Prototyping Wall



Sketching in Technology: IoT Prototyping Wall

References (Books):

[1] Buxton, W. Sketching User Experiences, *Morgan Kaufmann 2007.*
[2] Copenhagen Institute of Interaction Design, *Service Design Workshop 2008.*
[3] Moggridge, B. Designing Interactions, *MIT Press, 2006.*
[4] Rogers, Y., Preece, J. & Sharp, H. Interaction Design, *Wiley & Sons 2011.*
[5] Saffer, D. Designing for Interaction, *New Riders 2009.*

References (Books):

[1] Lidwell, W., Holden, K. and Butler, J. Universal Principles of Design, Revised and Updated: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decision, Second ed. *Rockport, 2010.*
[2] Mullet K. and D. Sano, Designing Visual Interfaces: Communication Oriented Techniques, 1st ed. *Prentice Hall, 1994.*
[3] Moggridge, B. Designing Interactions, *MIT Press, 2006.*
[4] Saffer, D. Designing for Interaction, *New Riders 2009.*
[5] Ouilhet, H. The soul of the new machine: A story about Android design, *UX LMU Talks 2011-12.*
[6] Buxton, W. Sketching the User Experience, Elsevier 2007
[7] Droste, M. Bauhaus, *Taschen 2010.*
[8] Fiedler, J. & Feierabend, P. Bauhaus*, Könemann in der Tandem Verlags-Gmbh 2005.*
[9] Tidwell, J. Designing Interfaces*, Wiley and Sons Publishers 2010.*
[10] Kapr, A. (1971). Schriftkunst: geschichte, anatomie und schönheit der lateinischen buchstaben. *Verlag der Kunst.*
[11] Forssman, F., & De Jong, R. (2008). Detailtypografie:[Nachschlagewerk für alle Fragen zu Schrift und Satz]*. Schmidt.*
[12] Clark, D. (1999). Gestalt Theory.
[13] *Jesse James Garrett's The Elements of User Experience: User-Centered Design for the Web and Beyond (2nd Edition).*
[14] *Peter Morville and Louis Rosenfeld's Information Architecture for the World Wide Web: Designing Large-Scale Web Sites.*