

**Bauhaus-
Universität
Weimar**

**Anton Brams
Homero Ruiz**

UI Anatomy

the state
of art

Google Materials



Material System

Introduction

Material studies

Material Foundation

Foundation overview

Environment

Layout

Navigation

Color

Typography

Iconography

Shape

Motion

Interaction

Communication

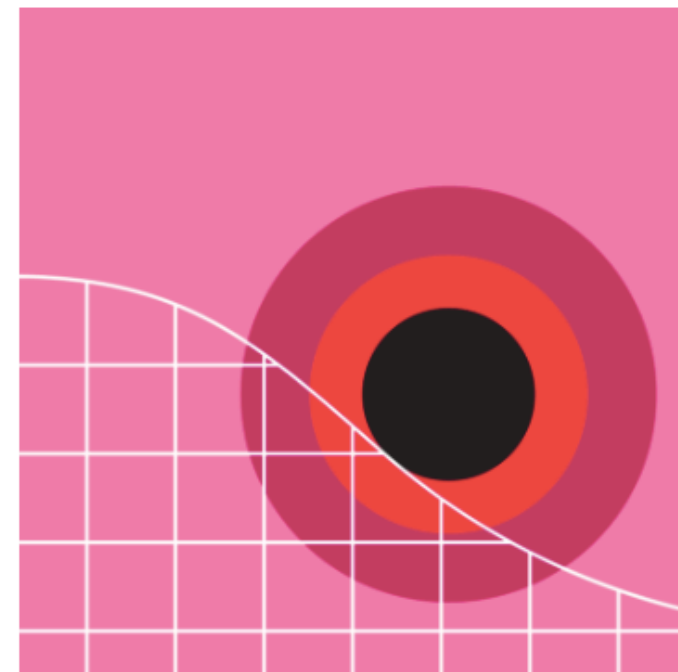
Material is the metaphor

Material Design is inspired by the physical world and its textures, including how they reflect light and cast shadows. Material surfaces reimagine the mediums of paper and ink.



Bold, graphic, intentional

Material Design is guided by print design methods — typography, grids, space, scale, color, and imagery — to create hierarchy, meaning, and focus that immerse viewers in the experience.



Motion provides meaning

Motion focuses attention and maintains continuity, through subtle feedback and coherent transitions. As elements appear on screen, they transform and reorganize the environment, with interactions generating new transformations.

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Google Materials
Bootstrap



Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery.

[Get started](#)[Download](#)

Currently v4.1.1



All the tools your team
needs in one place.
Slack: Where work
happens.
ads via Carbon



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Google Materials
Bootstrap
iOS Framework



Apple Developer Documentation

Browse the latest developer documentation including
API reference, articles, and sample code.



App Frameworks

[AppKit](#)[Foundation](#)[Swift](#)[TVML](#)[TVMLKit](#)[TVMLKit JS](#)[TVUIKit](#) Beta[UIKit](#)[WatchKit](#)

Graphics and Games

[AGL](#)[ARKit](#)[ColorSync](#)[Metal](#)[Metal Performance Shaders](#)[MetalKit](#)

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Google Materials

Bootstrap

iOS Framework

Microsoft Fluent Design

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Google Materials

Bootstrap

iOS Framework

Microsoft Fluent Design

Native Script

the state of art

Josef Müller Brockmann

Josef Müller-Brockmann

Grid systems

in graphic design

A visual communication manual
for graphic designers,
typographers and
three dimensional designers

Raster systeme

für die
visuelle Gestaltung

Ein Handbuch für
Grafiker, Typografen und
Ausstellungsgestalter

Niggli

in graphic design

A visual communication manual
for graphic designers,
typographers and
three dimensional designers

für die
visuelle Gestaltung

Ein Handbuch für
Grafiker, Typografen und
Ausstellungsgestalter

Form- und Flächenelemente

Wer sich der Fülle von Druckerzeugnissen aller Art bei-
notwendig eine strenge Trennung versuchen und das
unterscheiden dabei nach Art und Anlage vor allem zwi-
schen dabei einmal zu dem Anteil der reinen Typographie
Druckerzeugnissen, bei denen das rein Typographische
ausgesprochen sekundärer Bedeutung ist. Die erste

Druckerzeugnisse

Wer sich der Fülle von Druckerzeugnissen aller Art bei-
notwendig eine strenge Trennung versuchen und das h
unterscheiden dabei nach Art und Anlage vor allem zwei
mitten dabei einmal zu dem Anteil der reinen Typographie
Druckerzeugnissen, bei denen das rein Typographische
ausgesprochen sekundärer Bedeutung ist. Die erstere t

Art bei ein

schließt für uns Arbeiten, die in ihrer Gesamtkonzeption sind, gleichviel ob diese Erzeugnisse ihre Entstehung Setzers verdanken, streng genommen also Arbeiten, die Form- und Flächenelementen, soweit sie als typographisch gebaut werden können. Negativatzungen und mehrfarbige Züge sein. Demgegenüber steht die zweite Gruppe, die

verloren hat, ja, daß der offenkundige Einbruch der freien ausschließlich dem Setzer vorbehalten war, eine nicht stürmische Aufwärtseentwicklung von Industrie und Wirtschaft die Auseinandersetzung um Absatzmärkte und Käufer, die die Einbeziehung immer neuer und phantasievolles, wenn man «im Geschäft bleiben will». Die aufgewendete

Hier sollen einige prinzipielle Möglichkeiten präsentiert werden, die in der Praxis Anwendung finden.

elegant, zurückhaltend und wirkt doch selbstsicher.

Beispiel 2: Der Titel wird halbfett im Schriftgrad des Textes mit einer Leerzeile Durchschuss über den Textteil gesetzt.

Beispiel 3: Der Titel wird in einem grösseren Schriftgrad an den Kopf der Druckseite gestellt. Es ist dieselbe Lösung wie im Beispiel 1, nur wird hier der Akzent stärker gesetzt.

Beispiel 4: Die Titelschrift ist nochmals grösser gesetzt. Der Kontrast zwischen Text und Titel ist noch markanter.

National Film Theatre of Australia
The New Swiss Film
Carolina Milosovic Hubert Ahdich Sydney
Pamela Rindler

THE NEW SWISS FILM is a collection of 25 black and white film stills arranged in a grid. The stills are organized into four rows: the first row has 5 stills, the second and third rows have 6 stills each, and the fourth row has 8 stills. Each still is a small, square frame containing a different scene from a Swiss film. The scenes vary in subject matter, including landscapes, portraits, and action shots. The overall layout is clean and minimalist, with the film stills being the primary focus.


The poster "The New Swiss Film" is laid out with a 72-field grid and printed in black and white. It is one of a series of posters designed with the same typography throughout but a variable pattern of pictures. The horizontal spaces between the pictures are considerably larger than the vertical since they must provide space for 4 lines of caption text. The marginal zones are kept large so as to surround the photographic illustrations with the greatest possible black background. The poster is 59.3 x 41.8 cm in size.

National Film Theatre of Australia

New Swiss Film

Carlotta Millesimo Huber Address Sydney
Book Station

THESE FILMS ARE AVAILABLE FOR RENTAL FROM THE NATIONAL FILM THEATRE OF AUSTRALIA. BOOK STATION IS THE EXCLUSIVE BOOKING AGENT FOR SYDNEY. CONTACT: CARLOTTA MILLESIMO HUBER, ADDRESS, 100 DOWLING STREET, SYDNEY NSW 2008. TEL: (02) 9212 1234. FAX: (02) 9212 1235. EMAIL: carlotta@address.com.au



A blank sheet of graph paper featuring a uniform grid of squares. The grid consists of 20 columns and 30 rows. A vertical margin line is positioned on the left side, creating a narrow column. A horizontal margin line is located near the bottom, leaving a small space at the very end. The paper is otherwise empty, with no text or markings other than the grid lines.

Das Plakat «The New Swiss Film» ist mit einem Raster mit 72 Feldern konzipiert, ist schwarz- Weiss gedruckt und gehört einer Serie von Plakaten an, die mit derselben Typografie, aber unterschiedlicher Bildanordnung gestaltet ist.

Die horizontalen Bildabstände sind bedeutend grösser als die vertikalen, da sie für 4 Zeilen Legendentext Raum bieten müssen. Die Randzonen sind gross gehalten, um die fotografischen Abbildungen mit möglichst grossem schwarzen Hintergrund umgeben zu können.

Das Plakatformat ist 59,3 x 41,8 cm.

the state of art

Josef Müller Brockmann
Armin Hofmann

Basler Freilichtspiele
beim Letziturm im St. Albantal
15.-31. VIII 1963

Wilhelm Tell

Basler
Freilichtspiele
1959
19.-31. August
im
Rosenfeldpark

Giselle

Preise der Plätze:
Fr. 38.-, 32.-, 24.-, 18.-, 13.-
Vorverkauf:
ab Montag, 26. Mai
„au concert“

Basler Münster
Basler Bach-Chor
Basler Gesangverein

Freitag, 6. Juni
und Samstag, 7. Juni, 20.00 Uhr
Sonntag, 8. Juni, 19.00 Uhr
Rosmarie Hofmann, Sopran
Kurt Widmer, Bariton
Basler Sinfonieorchester
Leitung:
Hanns-Friedrich Kunz
Freiburg i.Br.

J. Brahms Ein Deutsches
REQUIEM

the state of art

Josef Müller Brockmann
Armin Hofmann
Bob Noorda

[illegible]

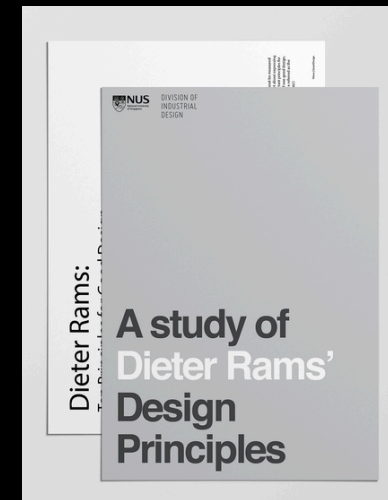
the state of art

Josef Müller Brockmann

Armin Hofmann

Bob Noorda

Dieter Rams



aim

consistency

aesthetic

understandable for developers

remove complexity

combination of different ideas

use as a framework

accessibility

**research
question**

what the user interface design consist of?

research question

what the user interface design consist of?
which parameters are the most common in UI?

research question

what the user interface design consist of?
which parameters are the most common in UI?
is it possible to see a tendency in design
and compile it into a reusable framework?

selection
of rules

vertical rhythm

Header

Header two

*The purpose of this book
is to show connections
between typography
and architecture.*

Today we are witnessing the
birth of a new and splendid
architecture, which will set its
stamp on our period.

Anyone who has recognized
the deep underlying similarity
between typography and
architecture and has
understood the true nature
of new architecture can no
longer doubt that the future
will belong to the new
typography and not the old.

selection of rules

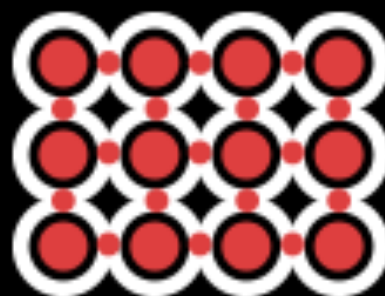
vertical rhythm
atomic design



ATOMS



MOLECULES



ORGANISMS



TEMPLATES



PAGES

selection of rules

vertical rhythm
atomic design
number sequences

fib: 1, 2, 3, 5, 8, 13, ...
bin: 1, 2, 4, 8, 16, 32, ...
4*n: 1, 2, 4, 8, 12, 16, ...

selection of rules

vertical rhythm
atomic design
number sequences
hierarchy of fonts

MOBILE & WEB - UI KIT

Error Illustrations



Not Enough Space

You do not have enough storage left to save this file...

MANAGE



Oh no!

Something went wrong,
Please try again.

TRY AGAIN



Page Not Found

The page you are looking for
doesn't seem to exist...

GO HOME



Camera Access

Please allow access to your
camera to take photos

ALLOW



Missing Article

Article you are looking for
is not available

BACK



Connection Failed

Could not connect to the network,
Please check and try again.

RETRY

RETRY

No Connection
Your internet connection was
interrupted, Please retry.



Oh oh!

The file you are looking for
is not here...

GO BACK



Somethings Not Right..

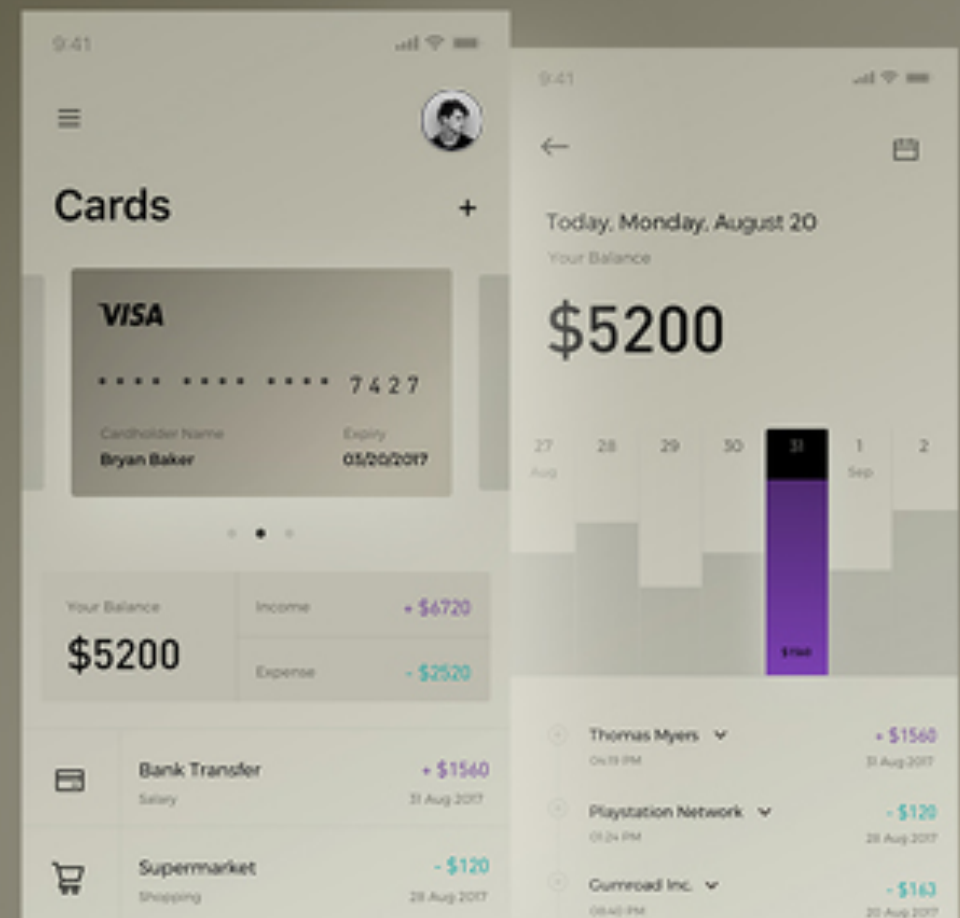
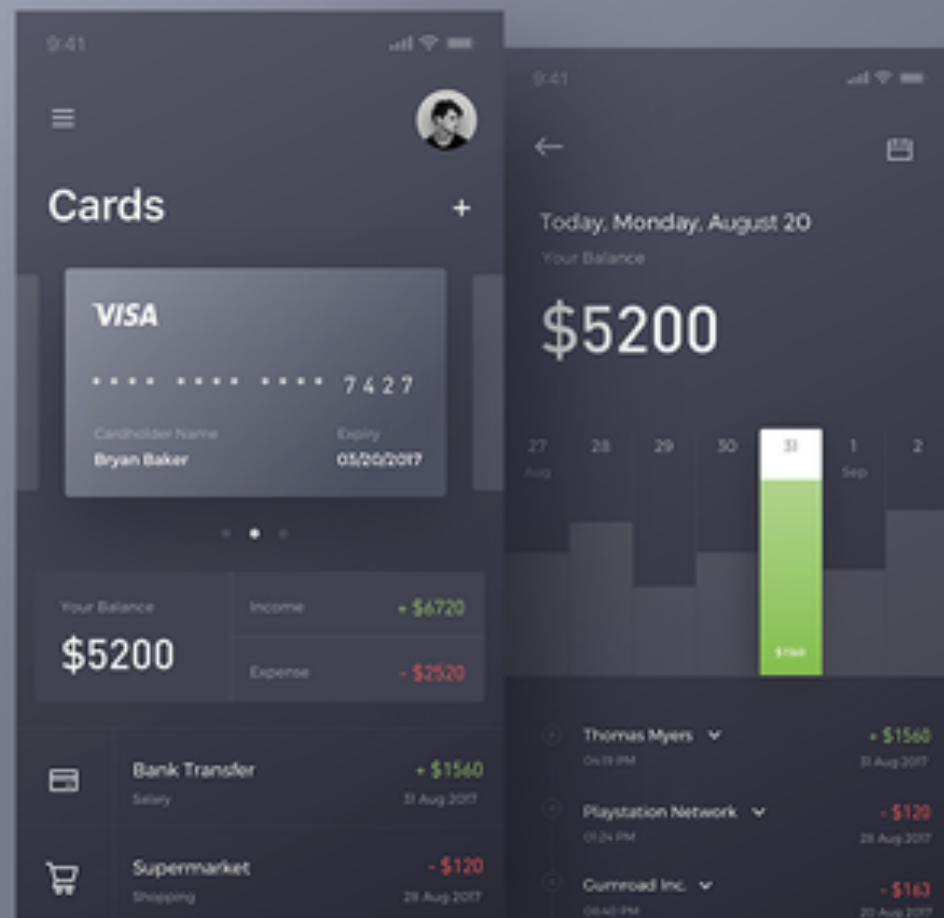
Please check the status of your
device and retry

RETRY



selection of rules

vertical rhythm
atomic design
number sequences
hierarchy of fonts
smart colors



layout and composition

proximity

layout and composition

proximity
white space

layout and composition

proximity
white space
alignment

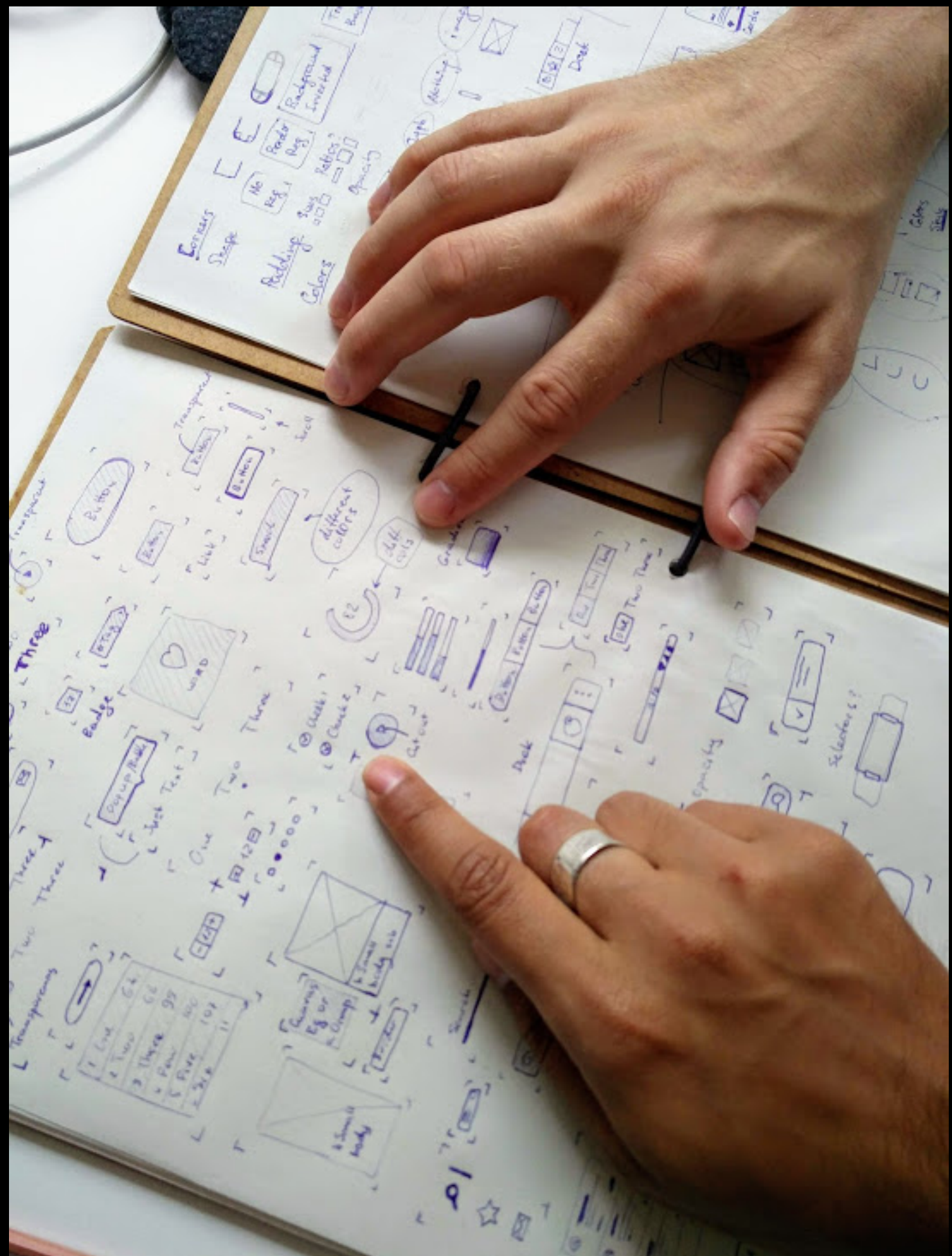
layout and composition

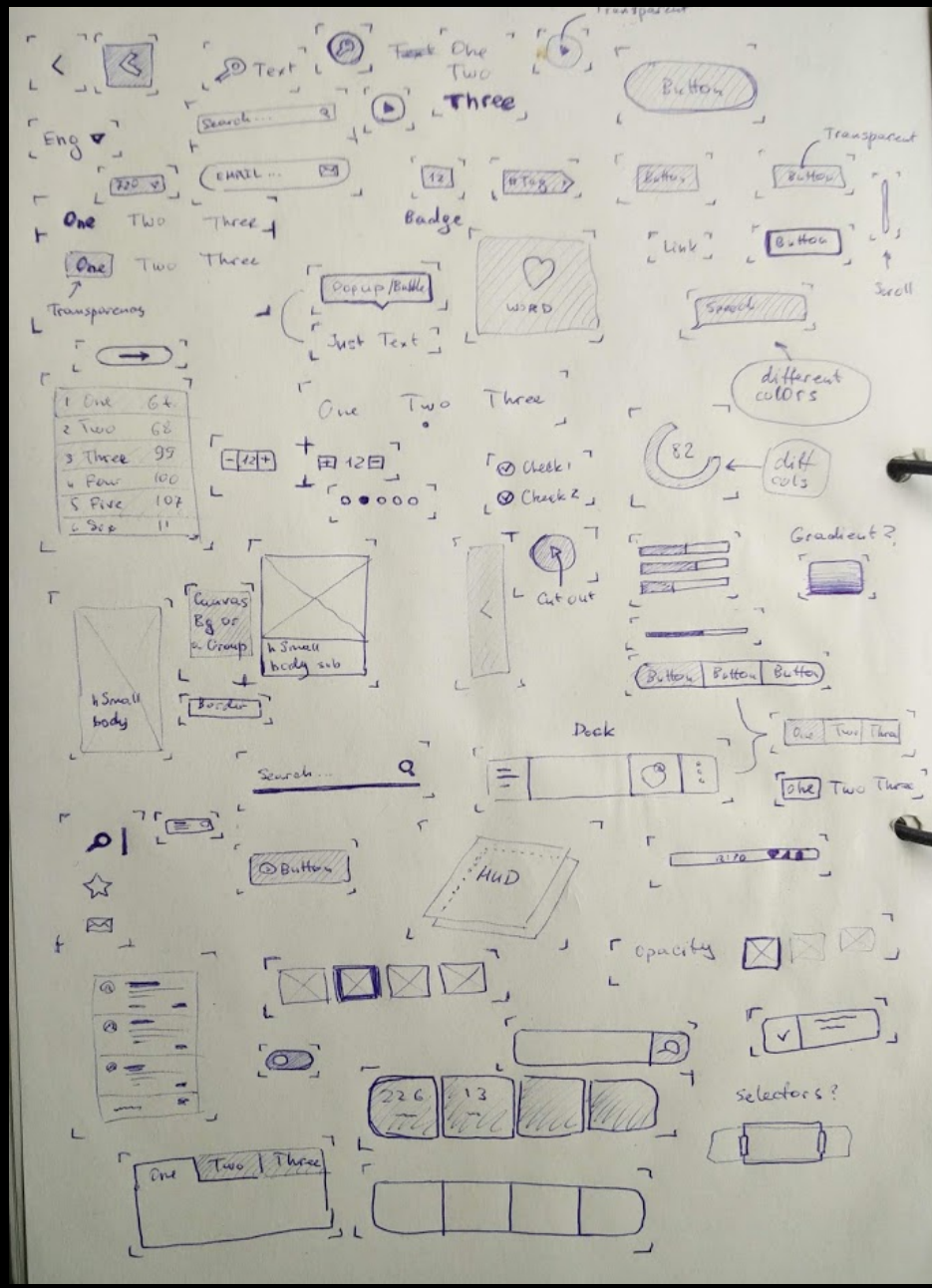
proximity
white space
alignment
contrast

layout and composition

proximity
white space
alignment
contrast
repetition

first idea





prototype
practical results

javascript
css
html
layout

The Anatomy of the UI

in silver

What is a good Design?

Topics include: Measuring type,
Classifying type, Using the Glyphs
app tools, windows, layers,
palettes...

Every designer has a typeface in them. The Glyphs app is a friendly yet powerful program that will help unlock that inner visual voice. This course helps you make your own fonts using the Glyphs app, starting with an introduction to the parts of letters (type anatomy) and the parts of a font (the character set). Charles Nix leads a tour of the Glyphs workspace and then coaches you through the construction of a complete font

—from outline to stroke, stroke to character, characters to typeface. There are special sections dedicated to spacing, kerning, optional OpenType features, and font testing and export. Charles also shows how to create type families with multiple masters. The conclusion includes resources for further learning about typography and typeface design.

Sign Up

Name

app tools, windows, layers,
palettes...

tour of the Glyphs workspace and then coaches
you through the construction of a complete font

and typeface design.



very nice interface

Sign Up

Name

john@appleseed.com

Password

Submit

One

You probably heard of the term Vertical Rhythm if you researched a little about typography on the web.

Two

This is often done with the help of a baseline – A common denominator used to create the consistent spaces.

Three

Vertical Rhythm is a concept that originated from print typography (I think).

< Back

Mom

Online



I definitely want to see
new beautiful places

Like this one?



Wow! Where is this?

Google Images ^^

last seen at 15:34



Text Message...

Send

MRI

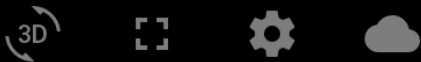
Patient Nr.
P524oi-2a9



density
52.5%

Zoom
0% 100%

z-Axis
0 255



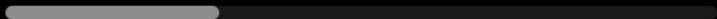
Results

Rx	Rs	Trust
0.5	1AA	--
0.3	4xB	--
0.0	5C2	No
4.0	3Av	--

Layers

Grayscale Channel	
Asistent Results	
Hot Spots	

Layers



Back Play Forward

Auto Scan

conclusion

references

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Gavin Ambrose, Paul Harris - Layout, 2nd edition, ava academia.

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<https://www.nativescript.org/> - Native Script

<https://developer.apple.com/documentation/> - Apple Documentation