It's about time…

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Rationale

This document is the formal Final Major Project Proposal of Daniel Apt and Blythe de Gruchy.

We propose a project which will explore the theme of **time**, and discover **in what ways time can be communicated.**

The theme of time is interesting because people keep track of it in different ways all over the world. Throughout history time has been essential in navigation, philosophy and theology.

The exploration of time will exist out of 20 daily design challenges, as well as the chance to finalise an outcome to a higher standard. Our collaboration allows us to develop a **broad set of outcomes** due to us having **opposite skillsets.**

Collaboration

Through our industry projects we have learnt that the best work occurs through collaboration. This has been emphasized by LBi, icoDesign, as well as many university projects e.g. Green Week.

We have decided to collaborate together for three reasons:

Broad skillset
We both have very different skillsets. As a result collaboration will allow us to open up new possibilties for each other.

Experience
We already have experience working together, and this team has been tried and tested e.g. during icoDesign's industry project, as well as personal design projects.

Convenience
Some might think that our decision to collaborate is merely one of convenience. It is true that this collaboration is convenient, but this is not, nor has it been the main motivator. Also convenience can be good. Why would you intentionally make inconvenient decisions?

Daniel's Skills

Blythe's Skills

Web-Design

Programming

User Experience

Interaction Design

Data visualisation

Letterpress

Bookbinding

Digital Animation

Surprisingly little overlap

Crafts

Photography

Image-Making

Idea-Generation

Copy-Writing

Screen-printing

Illustration

Stop-Motion

3D

Blythe's bad at

Daniel's bad at

Research Question

Main research question
In what ways can time be communicated?

Time is a broad definition, and due to us intending to create a wide variety of outcomes, we intentionally will treat time more as a *theme*, than a concrete definition.

Instant	Seconds	4th dimension
Shortly	Minutes	Space Time
Delay	Hours	Half-Life
On Time	Days	To do (jail) time
Too Late	Weeks	In a second

Time

Fashionably Late	Months	Rhythm
Time someone	Years	Past
Lifetime	Decades	Present
Endless	Centuries	Future

The many themes that time encompasses.

Aims & Goals

This project will allow us to explore, and hopefully achieve many of our personal aims and goals. These include:

- Stay passionate about this project.

- Not to get too caught up in the process, we want to take the time to produce something.

- Maintain a steady work-flow, even with few taught days.

- Get a good grade

To achieve these aims and goals we have decided that a part of this project should have a **daily design challenge.** We both have done these in the past, and have had very positive experiences with these.

Having a daily element to our project ties in nicely with our theme of time. Also due to giving us a daily goal, we will maintain a steady work-flow, and tackle this project step-by-step.

Concurrent Activities: Clocks

To understand in what manner you can communicate time, it is paramount to understand the current practice. As a result we've decided to look at concurrent activities which go beyond the everyday communication of time.

The first part focuses on clocks, which usually communicates time in units of hours, minutes, and seconds.

A clock re-imagined for dyslexic children. Design by Lucia Torco (click image for source).
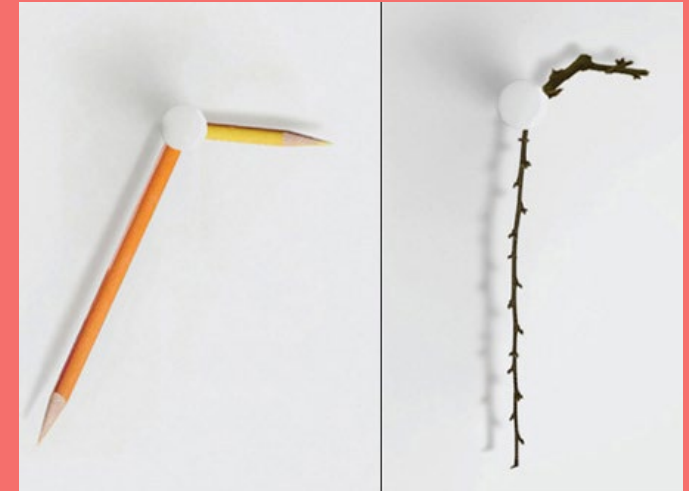
Bomi Kim has designed a minimal clock movement, which allows the user to create their custom clock. (Click image for source).
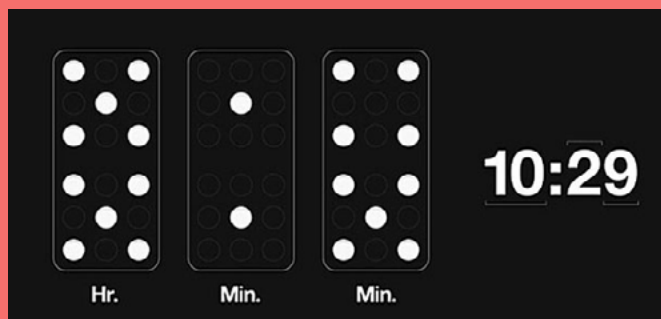
Breaking away from everyday designs, the dominos function as something completely different: a clock. (Click image for source)
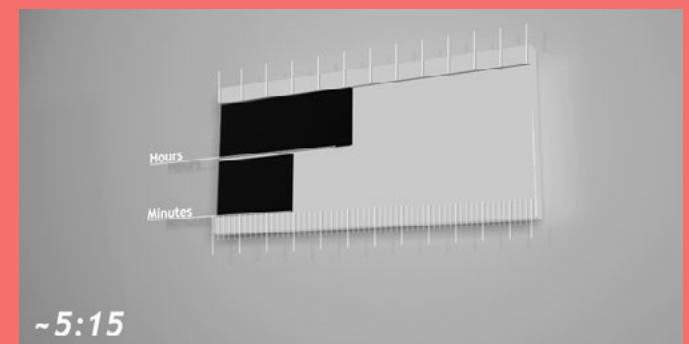
Hours and minutes are often perceived as something cyclical, the Mhin Clock designed by James Tobin presents these as a linear concept. (Click for source)

Concurrent Activities: Calendars

Time is not merely related to hours, minutes, and seconds. It can also relate to longer time spans, including days, months, and years.

As a result we also have explored innovative calendars.

Typodarium is a calendar which features a unique font everyday. This creates an intimate connection between dates and typography. (Click image for source)

Clayton Bower is an American clock builder / kinetic sculptor. Featured is a calendar which also shows the current horoscope. (Click image for source)

Life Calendar: How was your day? asks users to document their mood on a daily basis. This allows the calendar to take up a dual functionality as a diary. (Click image for source)

Using the 5 senses

This project has strong ties with product design, and as a result we looked in to the theory behind product design.

According to Jinsop Lee, good design activates all 5 senses.

We have decided to explore the current design practice and discover how time can be communicated through each of the five senses.

For more information about designing for the 5 senses, please visit the TED talk Jinsop Lee: Design for all 5 senses.

Sight

Sundials and an analogue clock are examples of time being communicated through sight.

Hearing

Alarm clocks and church bell's are example of time being communicated through sound.

Taste

Taste is more often used for calendars. Examples are advent calendars, or the more experimental Tea-a-Day calendar.

Touch
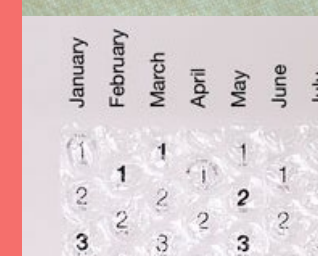
Time can be communicated through touch. The above watch is aimed at blind people. Below is a calendar where one pops bubble -wrap on a daily basis.

Smell
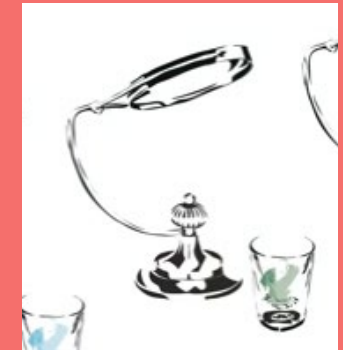
Smell is rarely used to communicate time, and we were hard-pressed to find examples.

Finally we found this: Through a magnifying glass the sun heats a scented oil. As the sun's position changes, so does the scented oil. One smells the time.

A day without time

To understand the importance of time(keeping) we decided to distance ourselves from our time-telling belongings like our watches and phones.

What followed was for Daniel a very stressful day and for Blythe an easier day. Here are each of our highlights:
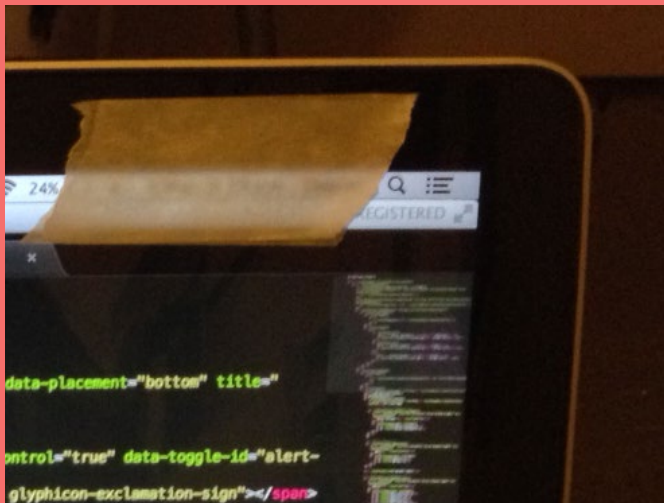
How does one disable the time on a Mac? Simple: Masking Tape!

Daniel

Waking-Up
Throughout the night I kept waking up, trying to figure out if I had overslept or not. At some point I decided to get up, and start my day.

Commute
I had trouble deciding what time to leave to work/placement. I decided to leave when the roads looked as busy as when I usually commute.

Work
At my placement/work I realised I was early—at least, I think so—as I was the first one in the office. For the rest of the day I merely copied my colleagues, I had lunch when they did, and left the office after they had left.

Baking Bread
When I bake bread I tend to use timers for everything. This time I needed to do everything by touch, smell, and sight. It actually came out alright!

Conclusion
Without knowing the time, I constantly felt out of control and paranoid I was late everywhere I went.

Blythe

Waking Up
I nearly always wake up at the same time so for me waking up was a very natural process. I'd imagine this might change if I had gone to bed uncharacteristically late.

Commute
I recognise patterns quite clearly. I left once I saw that the sightseeing buses had gone past our flat window. I've noticed I see them just before I usually leave for work.

Work
Luckily where I work follows a rota pattern so all I had to do was listen to the radio and listen out for when someone would come to cover or relieve me. This system meant that although I didn't follow a watch I was very aware of what time it was thanks to everyone else.

Cooking
I cook by estimation normally. I checked the food a little more regularly than average but I did not experience a big change.

Conclusion
I found that through other peoples patterns I was able to have a good grasp of time. Knowing what time to go to sleep was probably the thing I struggled with the most.

Time in other cultures

One of the most interesting parts of our research was coming across how time was kept in different cultures. Some made more sense than others to us:

Thailand divides their days into sub-sections

In China there are 3 calendars
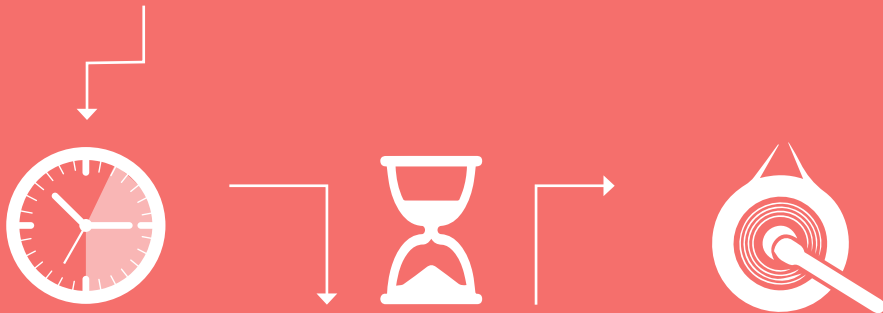
Each section of the day has a specific name, for example 1am - 5.59am is know as 'dtee'.

Each hour within that section also has a specific name, for example 2am is: 'dtee saawng' and 3am is 'dtee swam'

The names come from archaic roots. Each name sounds like the sound that would have been heard across the village, like a gong or a tinny piece of metal being hit.
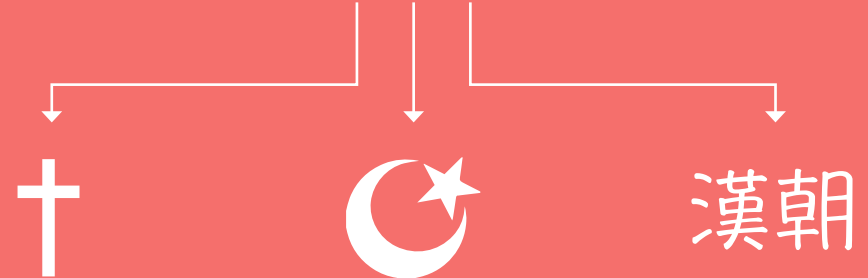
The Gregorian Calendar - which is what we follow here in the UK. It consists of 12 months and includes leap years.

The Islamic Calendar - which began in 622 AD. There are roughly 354 days in a year and the year is currently 1435 AH.

The Han Calendar - which is a lunisolar calendar. It usually has 12 months but every second or third year it has 13 months.

The Han calendar also has 12 months but is then subdivided into 24 'solar terms' which last approximately 15 days each.

Initial Outcomes

We started to play around with a few very basic prototypes and ideas that came to mind straight away.

One of our favourites so far was our tree rings time telling app for an iPhone. Although we liked it visually there is a lot of room for improvement. The app only changed how we visualised time and didn't change how we read time as our brain looks at the numbers first and then secondly notes the aesthetic aspect.
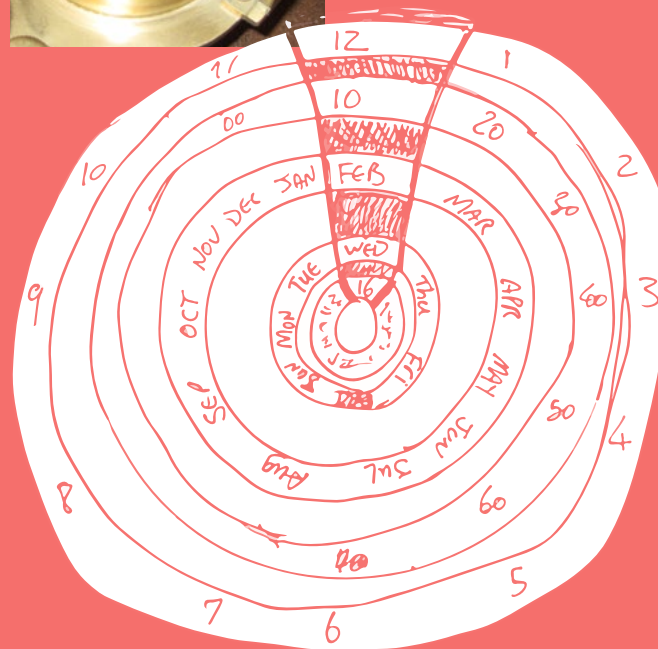
The perpetual clock. The circular rings are based on sundial compasses, used at sea. One glance allows the user to see the date, day, month, hour, and minute.

Inspired by how time can be read through a tree's growth rings, we decided to transform this natural occurrence in to something digital.
As the hours and minute pass, the rings grow.
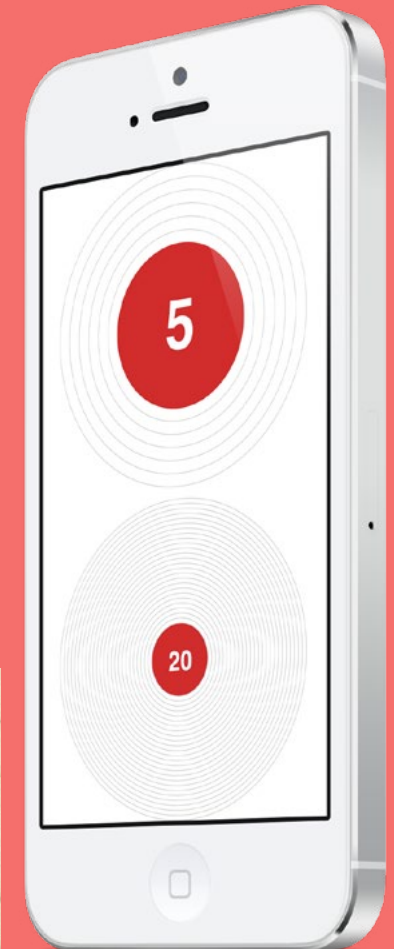
Why explore time?

Time is worth exploring for many reasons:

- A huge amount of people find it difficult to learn how to tell the time.

- We're so dependant on the system of the clock as explored in our 'day without time'

- There's always room for improvement and innovation in any system like this where even a small element of people cannot comprehend how the system works.

- In children at least, misinterpretation of scale is one of the main causes of making an error in telling the time.

- Time is already measured through clocks and calendars but can also be measured through movement of plants and the position of the sun and many more things, giving us a wide area to explore.

Quick! What's the time?

A simple change to the common clock confuses the user. It shows how delicate the interface is.

Facts and Figures

Our first findings have made us realise that time isn't as simple to a large proportion of the population as we thought. People suffering from learning difficulties including Dyscalculia, Dysgraphia and Autism have a tendency to struggle with learning how to tell time. The whole concept can seem very abstract.

From trawling though forums we found that a staggering amount of people in America in particular could not read an analogue clock face. The digital clock is so easily available on phones, kitchen timers, watched and alarm clocks, that the need to be able to read a clock face has clearly declined.

One shocking piece of information we found on the Foundation for Learning Disabilities website was that children from poorer families are more likely to have a learning difficulty. This could have an impact on our design solutions, as we must keep our solutions affordable.

Another thing that came up over and over again was that people found clock faces cluttered and confusing to read. Yet, people also said that numberless clock faces were also hard to read. The two contradict each other. We need to look for a happy medium.

1.5 million people in the UK suffer from learning difficulties.
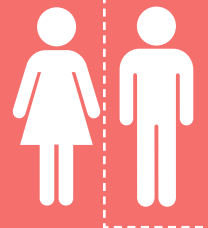
Learning difficulties are more common amongst boys.

Children from poorer families are more likely to have learning difficulties.

Analogue clocks without numbers are more difficult to read.

12 hours
4 quarters
60 minutes
3 handles
all in one clock!

Clock faces have a large amount of visual elements, this can be too much to take in.
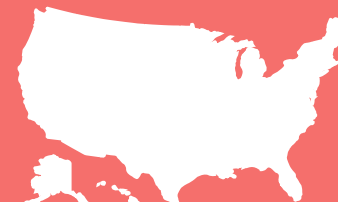
Many people in the United States of America cannot read a clock face.

Action Plan

Final Outcome
6th of June

Outcome v2
23rd of May

20 daily design challenges *
start on 21st of April

Select final design with focus group
20th of May

Finish on
16th of May

Create short-list of designs

19th of May

* A daily design challenge means we must have a design
deliverable completed on that day. Dependent on the
concept this can be a website, print, wireframes, etc.

Interesting Resources

In the process we already have come across many interesting resources. We hereby have included some of the most useful resources. The full reading list is featured on the next page.

One of the most suitable finds is *365 Days of Design* a book featuring a collection of creative calendar designs. Other resources include the famous *Data Flow* and *Information is Beautiful* books.

Classic resources include Don Norman's *Design of Everyday Things* and even *the Bible* (as Genesis explains the founding of the world and time).

Research in to production methods was very polar, with *Tangible* (and *Tactile*) suiting Blythe's skills, and *A Touch of Code* suiting Daniel's.

Feel free to click on any image to learn more about the resource.

Full Reading List

Adrian Shaughnessy (2010) How to be a graphic designer without losing your soul, London: Laurence King Publishers.

Adrian Shaugnessy (2009) Graphic Design: A User's Manual., London: Laurence King Publishers.

David McCandless (2012) Information Is Beautiful, : HarperCollins Publishers Limited.

Donald A. Norman (2013) The Design of Everyday Things: Revised and Expanded Edition, : Basic Books.

Ellen Lupton (2011) Graphic Design Thinking: Beyond Brainstorming (Design Briefs) [, San Francisco: Princeton Architectural Press.

John Ingledew (2011) The A - Z of Visual Ideas: How to Solve any Creative Brief, London: Laurence King.

José María Minguet, Marc Giménez (2011) 365 Days of Design: Creative Calendar Solutions, : Instituto Monsa de Ediciones, S.A..

Robert Klanten, N. Bourquin, S. Ehmann (2010) Data Flow: v. 2: Visualizing Information in Graphic Design, London: Die Gestalten Verlag.

Robert Klanten, N. Bourquin, S. Ehmann(2009) Data Flow, London: Thames & Hudson.

Robert Klanten, Sven Ehmann, Matthias Hübner (2007) Tactile: High Touch Visuals, : Prestel Pub.

Robert Klanten, Sven Ehmann, Matthias Hübner (2009) Tangible: [high touch visuals], Berlin: Gestalten.

Robert Klanten, Sven Ehmann, Matthias Hübner (2009) Tangible: [high touch visuals], Berlin: Gestalten.

Robert Klanten, Sven Ehmann, Verena Hanschke, Lukas Feireiss (2011) A Touch of Code: Interactive Installations and Experiences, : Prestel Pub.

Todd Henry (2013) The Accidental Creative: How to Be Brilliant at a Moment's Notice, London: Portfolio Penguin.

Michael Poh (n.a.) 30 Extraordinary Clock Designs, Available at: http://www.hongkiat.com/blog/clock-designs/ (Accessed: 4th of March 2014).

1 Design per Day (n.a.) 80+ Most Creative 2012 Calendar Design, Available at: http://www.1designperday.com/2012/01/02/80-most-creative-2012-calendar-design/ (Accessed: 4th of March 2014).

Thank you

Thank you for taking the time to read our Final Major Project proposal. We hope you are as excited about this project as we are!

We will constantly share our work, inspiration, and research online. Please see:

- [Daniel's blog.](#)

- [Blythe's blog](#)

- [Our pinterest board.](#)