

# Ritual Machine V: Where are You?

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## ABSTRACT

We present *Where are You?* a bespoke machine for parents regularly separated from their son by their working practices. It is designed to create a ritual of location sharing and reflective discussion. The machine is a telescope that allows a little boy to explore an illustrated world in search of a flag placed by his parents on their travels. We have developed this as Research Through Design and here consider our specific material concerns through this process.

## Author Keywords

Ritual; Family; Bespoke; Mobility; Materiality.

## ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## INTRODUCTION

Changing patterns of both work-related mobility and domestic arrangements mean that ‘mobile workers’ face challenges to support and engage in family life whilst travelling for work. This is the subject of our enquiry in the project Family Rituals 2.0.

Through a Research Through Design process, incorporating phases of design ethnography, critical technical practice and prototyping we have developed five bespoke Ritual Machines for five real families who experience separation from home due to work, as material explorations of their lives and practices. The machines are playful and provocative; they are not solutions to *the problem* of absence from home, but rather a way of provoking reflection about the family's attitudes to home and work life. We identified existing domestic rituals by using cultural probes and interviews and created a bespoke machine that enables, extends or perturbs these during absence. Each machine typically lived with the family for a period of one month.

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Here we describe the machine we designed for family five. Emmie, Mark and their eight-year-old son Joseph live in rural Cornwall, in a house that is adjoined by Emmie's parents. Both Emmie and Mark are self-employed. Mark is a lawyer with clients who are based across the South of England; he makes visits to them in their homes and will typically spend two or three nights away per week. Emmie is a management consultant for cultural organisations; she also has periods of working away from home, but less regularly than Mark.

We got to know Emmie, Mark and Joseph through interviews and the materials they generated from a set of cultural probes. We responded to their love of their geography and the outdoors and became interested in the way in which Joseph communicated with his mum and dad when they were away. Mark has a small stuffed toy given to him by Joseph saying *No.1 Daddy*, which he carries on his travels to various landmarks, which he then photographs to share with his son. We decided to extend this ritual. We describe our use of cultural probes in [3] in the tradition of Gaver et al [2].

## WHERE ARE YOU?

The machine we built in response is a telescope for Joseph. *Where are You?* allows Joseph to discover the world beyond his village. By moving the telescope in different directions and by zooming with the wheel, the whole country can be explored. Inside he sees an illustrated world showing the towns, cities and landmarks. When his parents go away they take a second device that allows them to plant a flag wherever they go - we see this as a digital totem. This flag will appear at the correct place in the telescope world. We also produced a paper map on which Joseph can record these places. We hoped this would begin conversations on the telephone or together with the map on their return.

At the time of writing the development of the telescope is complete, but we have not delivered it to the family. This moment of delivery has been a key design consideration from early in the process, as it has with all our machines - each arriving in bespoke cardboard packaging with illustrated instructions. As a work in progress we concentrate here on the machine's design and will report the family's experiences elsewhere on completion.

In addition to the packaging concerns there are four elements to the design: the telescope, the digital totem, the illustrated world and the paper map.

### The Telescope

The telescope shows the illustrated view through the viewfinder. As the telescope is pointed in different directions the view reveals the world. By moving the focus wheel the distance is changed. The body of the telescope is constructed from a sheet of laser-cut cardboard, folded and held together with elastic bands, see Figure 1. The telescope is designed to be delivered flat-packed, to be assembled by Joseph. An iPhone runs the app that uses the electronic compass and gyroscope to determine the position and display the illustrated content. It is contained within an acrylic laser-cut 'raft' and the cardboard is rolled around this. Through our use of cardboard and uncomplicated construction we offer Joseph the opportunity for modification and with it we hope an ownership and voice in the project. We find much to recommend cardboard [1].

### The Digital Totem

The digital totem sends the location of the device (acquired by GPS) to the telescope (via our servers) so that the flag is rendered correctly in the view. This is triggered by planting a small flag in the hole, which causes the colour of the light in the aperture to change from yellow to red; see Figure 2. We chose this configuration to create a dramatised moment and a ritual artifact. The device's materials mirror those of the telescope. It contains an Android phone with custom software, using GPS and the mobile data network.

### The Illustrated World

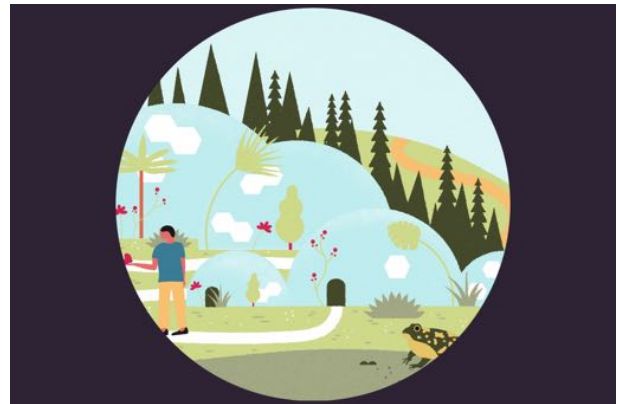
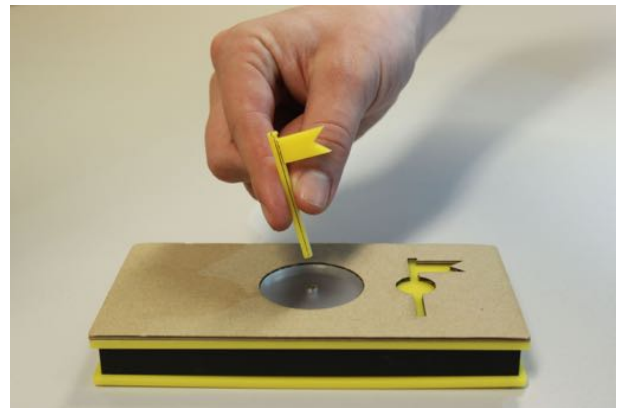
The illustrated world runs an iOS app containing some 13 depth layers covering the United Kingdom and Ireland, at approximately 60 kilometer intervals. In addition there is an outer *rest of the world* layer. Each layer is a detailed panorama image across which the view scans, showing significant landmarks and places. There are day and night versions of each. The resulting images are gigantic, many up to 20,000 pixels wide. See Figure 3.

The world was the result of intense collaboration with the illustrator Naomi Elliott (naomielliott.co.uk). First as a guide for illustration we generated a series of templates indicating the location of places in the landscape, the coasts and the land between from topology data. As with any map-making endeavour countless representational decisions were taken. The image sizes presented challenges in the production of the illustrations and technically in their display. Some elements are animated, such as the position of the sun (depending on the date and time), the appearance of the flag when found and transitions between layers.

### The Paper Map

As a site for dialogue between Joseph and his parents we produced an A2 paper map on which the same visual landmarks are shown with the addition of place names. We hoped that he might use pins to record his parent's travels.

Our multiple material choices for these objects illustrate our process of Research Through Design.



Figures 1-4 The Telescope; The Mobile Digital Totem; The Illustrated World: the Eden Project; The Paper Map.

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## **BIOGRAPHIES**

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