
Things and 物 in In-situ Making and Evaluating: A Case Study

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Abstract

We present a case study of in-situ culturally inspired design of things driven by the challenge of 'designing the new music box with local culture' which resulted in the creation of four interactive prototypes. We compare our design practices and explore the multiple roles of things in in-situ making and evaluating across cultures.

Author Keywords

Research through Design; design artifact; in-situ; culture inspired design; culture exchange.

ACM Classification Keywords

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

Introduction

Prototypes are important in both the generation and evaluation of incomplete design ideas (Lim 2008). We present our design practice of in-situ culturally inspired design of things in a remote rural Chinese community (Dong minority) on the topic of 'designing the new music box with local culture' to investigate the roles of prototypes in creation and evaluation across cultures.

In-situ Making and Evaluating

We use 'in-situ making', as the vehicle for collectively exploring, expressing and testing (Sanders & Stappers,

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Figure 1: 8bit Memento.



Figure 2: Doye Boxes.



Figure 3: Dong Tunes.



Figure 4: Dong Shine.

2014) within a local context, to drive an agile and culturally inspired design process with cultural exchange. The two week case study discussed here included activities from cultural immersion and ideation to implementation with four teams of cross-cultural designers from across the world. Each team took different research strategies in exploring local culture and undertaking in-situ making which resulted in different outcomes, design processes, and design things. A temporary makerspace was built and four new artifacts were created in-situ responding to different understandings of the design topic, local experiences and individual creativity:

- '8bit Memento' is a bamboo tube made keepsake. It uses sound as the basic interaction, playing audio recorded in local nature, and displays a digital pattern from local brocade deep within the tube, which sparks the designers' memory of their cultural immersion. The designers used found materials with digital elements to create a new form.
- 'Doye Boxes' is a set of wooden cubes like tangible sonic toys. They use playful embodied interaction such as pairing boxes or turning them and touching different sides to play and switch local songs. They also create an exotic atmosphere by projecting local Doye patterns, reflecting the spirit of unity in the local community. Doye Boxes are a novel physical manifestation of traditional cultural elements.
- 'Dong Tunes' is a windbell-like narrative decoration covered by yarn-knitting. It is designed based on the basic shape and tradition of a local craft, lucky flower, which is a blessing hung in the beams of symbolic buildings in local communities. It uses physical turning, twisting and tilting to play

embedded songs, narration and stories recorded from local elders who make lucky flowers daily. It is an evolutionary artifact derived from a local archetype but augmented with new forms of interaction.

- 'Dong Shine' is a portable gesture-controlled music lantern. It uses knocking and waving as the basic interaction to control music, which reflects local social behaviors of evening visitors carrying rice-paper lanterns. The shape is reused from bamboo strip-woven creel which was found through culture probes. The artifact creates a new meaning and function mixed with local elements.

During the creation and in our evaluation, we shared every artifact with local audiences in different social occasions to gather their feedback and perceptions of the meaning and experience conveyed by the artifacts.

In the workshop, we would present all artifacts and their design process, discuss the design constraints imposed by our rural setting, and compare results from local feedback and designers' reflections. We would discuss the diverse roles of things in in-situ making and evaluating for cultural exchange, especially the role of prototypes in communication in an extreme cross-cultural setting, and the post-making life of artifacts.

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