

# Café Tools: Contents that Connect People

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## 1. Introduction

Our activities are affected by our surrounding environment any time. Several projects of architecture and product design have been developed and examined these designs of environmental effects that enhance human's activities in the aspects of structural or material approach. But our approach is to expand them from system aspects with ubiquitous technology. We thought that by designing the dynamic relations between people and their surroundings with sensing and feedback systems of environment, we can naturally and seamlessly enlarge the sensitivity of people and support their activities.

Our challenge is to prepare an integrated supportive environment not by changing the environment itself, but by composing contents as demands of activities. In this paper, we describe about Café Tools. We designed them for usual communication in a café where as a very important public communication space.

## 2. Café Tools

Café Tools present a new style for the real communication in a public space of the future. A set of a chair and a lamp embedded in space as a background of real communication works subliminally and uplifts an intimate feeling with a partner. These mechanisms are plotted based on our primitive physical feeling, and open the new communication channel with our corporal sense and peripheral vision for the blank sphere besides the conventional face to face communication with words and voices. Café Tools consist of the following two works.

### 2-1. Parabola



Figure 3: Parabola

When you sit on a bench in a park with your friend, you sometimes felt the vibration of your company's voice from the back of the bench. This is a completely physical phenomenon but it secretly functions on you to feel closer with your company.

Parabola is a pair of single sofa look like a parabola antenna. They are designed for intimate friends or couples to share vibration signals through the chairs in addition to verbal and facial expressions in their usual conversation. They help user's relaxation in talking and increase the joy of conversations with a

feel of mental approach with their companies.

The voice of speaker is transformed into low frequency signals in between 20 to 150Hz to drive embedded body-sonic transducers in the chair. This range of frequency leads people in a deep transport and relaxation. And still the feeling of voice remains.

At first, a speaker gets real-time feedback of voice then it is delivered to a partner after 600ms delay. This delay time allow listener to feel the comfortable distance from a speaker.

### 2-2. Breathing

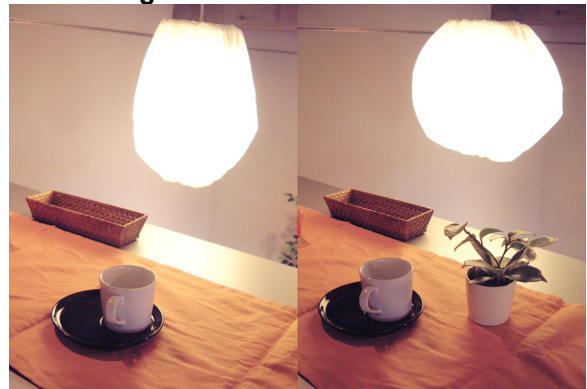


Figure 2: Breathing

When we are talking at seashore, we are unconsciously affected by the rhythms of waves. The sound and motions of waves make us relaxed and synchronized with the tempo of them. Their cyclic sights affect us subliminally to feel sympathies with people who are in next at that time.

Breathing is a table lamp that affects subliminally on the talking people by acting like an ambient metronome that synchronizes their conversation. It repeats the cyclic motions of expanding and contracting like breathing of human. The speed of this cycle changes in accordance with the tempo of conversation. Therefore it reflects the atmosphere of the table.

The Breathing expands its lamp shade by the wind of fan and controls its speed based on the mute time of conversation. This time is measured and calculated by micro controller with the input of built-in microphone. If the people become excited, the lamp moves fast. If they are calm and quiet, the lamp moves slowly.

## 3. Conclusion

The Café Tools are experimental prototypes for communication but we believe that they have several possibilities in future. And they also indicate the possibilities of collaborations with physical and environmental approaches in other fields of design.

Further explanation applies to this concept in various fields of our activities. Especially, the office environment is expected as an effective field for our future investigation.