State Change

Artists
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Place of Origin: Hong Kong

Year of Production: 2008

Format: Public sound performances, documented as a single-channel video with stereo sound. The video can be shown on a TV monitor or as a video projection. It is important to use good speakers, since the sound is a crucial aspect of the work.

Detailed Description
State Change is an ongoing series of sound performance events held in Hong Kong in 2008. Every performance involves a minimum of 20 people, and takes place in a commercialized public space, such as for instance a shopping mall, which should have one or more mechanical escalators.

The performances were held at two shopping malls: **Times Square** and **Festival Walk**.

To start the event, participants divide themselves into two groups, who then walk together to the chosen shopping mall. The members of the first group begin going down an escalator while members of the second group begin going up the opposite escalator at the same time. When a person reaches the top, s/he starts going down again and, conversely, anyone who reaches the bottom proceeds to go back up. Thus the whole performance consists in the execution of a cyclical movement, constantly ascending and descending the same escalator system.

At the outset, every participant randomly chooses one of two possible initial states. A person who elects to be ON opens her/his mouth and makes a sound. She must open her mouth wide to signal to everyone that she is now ON. The sound must be the letter "a" as pronounced in Spanish or Japanese. The tone and pitch of the sound are up to the performer. A person who chooses to be OFF covers her mouth with her right hand to signify that s/he is silent. It is important that every participant should be in one of these two possible states, either ON of OFF, and that she should communicate her state to others by means of unequivocal bodily signals.

Every participant must stand in the escalator facing directly towards the people who are moving in the opposite direction. Thus participants going upwards stand facing those who are moving down, and vice versa. When two participants come face to face, they must update their states according to the following instruction set:

> 1. If both persons are in the same state (for instance, both are ON or both are OFF), then each must switch to an ON state.

2. If their states are different (one person is ON and the other is OFF), each must switch to an OFF state.

Suppose for instance that you are covering your mouth at a given time, but the person directly across is making a sound. The two of you are not in the same state, and so you must both switch OFF. Since your state is already OFF, you must then remain as you are, but the other person must immediately stop making the sound and cover her mouth. Or suppose that you are OFF and the other is also OFF, then you must both start making a sound immediately. In this way, participants continually switch one another ON and OFF during the course of the performance.

The instructions are thus extremely simple. We can write them as a Boolean table:

Current State	Input State	New State
0	0	1
0	1	0
1	0	0
1	1	1

Every person is always in a certain state (the "current state"), and when she perceives the state of another participant (the "input state"), she must adjust her own state accordingly (switching to the "new state").

These rules must be followed strictly. One deviation, however, is permitted: If a person has been ON for a long time, and feels too tired to continue, it is permissible for her to cover her mouth (thus switching to an OFF state). This possibility introduces an element of decay and indeterminism into the system. But every participant must understand that this should only be done if s/he feels extremely tired and is absolutely incapable of continuing to make noise. Everyone should respect the discipline of the rule system, and so avoid switching to another state for a capricious purpose. The strict subjection of every individual to an impersonal system of rules is the point of this project.

Some participants maintain a serious demeanor throughout the event. Others prefer to display a strongly playful spirit, screaming loudly, making faces, etc. The latter behavior is not discouraged, so long as everyone abides by the core instruction set. Every person can choose a personal tonality. This project gives a way of making sound together, and turns everyone into a sonic artist and an instrument.

State Change thus recovers the fundamental concept of music as an active affirmation of community.

Conceptual implications
The project developed out of the artists' research into the cybernetics movement of the 1950s. This movement is important to us because its participants consciously aimed to forge a new, transdisciplinary way of thinking rooted in the theory of computation. The members of the cybernetics movement examined their own fundamental concepts with a

clarity and depth that has seldom been equaled. They explained foundational ideas, such as the concept of a finite state machine, simply and lucidly. In their view, it is possible to construct a computational model for any system whose dynamics can be described as a change from one discrete state to another.

In developing *State Change*, we wanted to express the foundations of computational art in the simplest, purest possible manner.

According to Gregory Bateson, "information is any difference that makes a difference." The existence of a difference presupposes the possibility of a change of state. This concept can be implemented through mathematical symbols (0 and 1), colors (a traffic light system), electrical voltages (a modern digital computer), and other media. The original aim of *State Change* is to implement this concept of information in sonic terms.

The artists originally intended to use two different sounds, one high-pitched and one low-pitched, but the difference may not be clearly audible to other participants in a crowded space. A difference only makes a difference when it is clearly and unambiguously detected. To emphasize this idea, the artists chose two actions that can be easily recognized: a person who is ON must open her mouth wide; a person who is OFF must cover her mouth with her hands. There is thus no room for ambiguity. At any given time during the performance, every participant will be in one of these two possible states, and no other. The system is updated in discrete time steps, whenever one participant comes across another participant, according to fairly precise rules. It is conceivable in future developments that the performance should be designed in order to execute a more complex "program" or "score".

This concept brings out the close connection between the idea of music and the idea of computation, since both rely on a score, a set of digital instructions to be executed by one or more performers.

State Change expresses an ambivalent response to technology. On the one hand, the two artists are also programmers who insist on writing their own source code. They strongly believe that digital creativity should be based on a solid understanding of computational technologies. We regard computation as a powerful artistic medium in its own right, not an extension of traditional media. Our work is a celebration of the power and creativity at the heart of computational media.

On the other hand, however, *State Change* could just as well be seen as a parody of computation and a critique of its ubiquity. People who happen to walk into a performance of *State Change* normally react with puzzlement. The performance is often viewed as a mysterious system whose internal rules are not immediately obvious. Every performance is deliberately opaque to external observers. In the same way, the internal organization of the modern computer essentially hides itself from any external observer. Technology thus reduces the ordinary layperson to the role of a passive user or consumer unable to understand its internal operation. *State Change* playfully highlights and exposes this reification.

Anonymous strangers sometimes try to join in the performance by making sounds and covering their mouths randomly, without any understanding of

the rules of the game. The actual participants are instructed to respond to such people as they would respond to any other participant, even if those strangers' actions do not accord with the rule system. It is possible that strangers might even treat this performance as a black box, and to try to understand its operation by experimenting with it, thus potentially overcoming the alienation constitutive of computational technologies.

We were particularly interested in the relationship between sound and public space. We wanted to reclaim public spaces, particularly shopping malls, as sites of popular creativity, at a time when the management of space has become an important topic of discussion among Hong Kong artists, social activists, and critical scholars. We wanted to expose the extent to which shopping malls are only pseudo-public. We do this by organizing collective moments of sound creation that render visible the private security apparatus charged with enforcing social order and discipline. Collective action here helps to build community and, in the process, to reappropriate public spaces that have become thoroughly commercialized, managed, and surveillanced.

Our presence in a shopping mall often provokes paranoid responses from security personnel. The creation of crisis situations reveals the control structures that manage urban space by undercutting the appearance of public access. The artists insist that security personnel should *not* be notified in advance that a performance is about to take place. One purpose of this project is to test the response of commercial institutions to the presence of small groups making sounds for no apparent reason. Security personnel in Hong Kong have often responded with a paranoid desire for control, sometimes threatening to call the police, videotaping the performance, and demanding that the entire group should leave the shopping mall immediately.

In view of the aggressive responses of security personnel during our first performance, the artists decided to introduce an additional rule into their system. Should a security guard for any reason speak to any participant, whether to ask a question or to make a threat, the participant should immediately cover her mouth and change to an OFF state. Thus security personnel functioned as external inputs into the system. The decision to make the security forces become unwitting participants in the event entailed a cooptation of the repressive apparatus of commercial organizations as a medium of popular creativity.

State Change is thus an open system, in three ways. First of all, because the human participants often make errors, particularly when learning the structure of the rules. Secondly, because the security guards often alter the deterministic evolution of the system by approaching participants. Finally, participants sometimes become tired and have to switch to an OFF state whenever they have been screaming without interruption for a long span of time.

State Change also makes an important point concerning the experience of freedom and pleasure that accompanies the performance. Most people were at first reluctant to participate, since they were afraid to suffer public embarrassment and provoke some sort of police retaliation. Many also worried that this event would be tedious, since the rules are so simple and mechanical. It came as a surprise that a highly mechanical and disciplined action can also be extremely pleasurable. Most

participants experienced it as profoundly liberating. Every participant is, moreover, welcome to personalize the implementation of the rules; she can choose a particular pitch, volume, and intonation, so long as she adheres to the basic rule set.

Participants often report feeling a sense of release, because they are doing something that is normally considered "inappropriate" or "forbidden". We were inspired by the social philosopher and novelist Georges Bataille, who emphasized the phenomenon of heterogeneity (the experience of a loss of self that often accompanies moments of collective transgression). We believe that the origin of music in collective forms of rhythmic activity potentially exemplifies the experience that Bataille characterizes as "excess", and so our work is a recovery of the original experience of musical production.

There is a philosophical lesson to be learnt here: Western scholars often assume that freedom is the absence of constraint. To be free, from this point of view, is to be unlimited. We strongly disagree with this romantic notion. We believe that freedom often arises within limitations. It is precisely because *State Change* imposes a strict system of rules that participants dare to execute actions that they would normally consider embarrassing or risky. The rules function to facilitate transgression instead of enforcing servitude. We believe that this is a core aspect of modern art. The practice of automatic writing and other surrealist games, for instance, afford a transgressive practice rooted in a stringent system of constraints. We believe that this subjection to a system opens the way for a transformation of the self, which can potentially subvert the disciplinary apparatus of commercial culture.

Summary description
State Change is a series of public sound performances conducted in Hong Kong shopping malls. Every performance consists of approximately 20 persons who follow a system of Boolean rules, and so comprise a human digital music system. The work aims to illustrate the fundamental concepts of "computation" and "information" in the simplest possible terms, by transforming every performer into a living micro-computer. When conducted in a shopping mall, perhaps the emblematic institution of postmodern consumption and control, this idea takes on strongly subversive implications. *State Change* emphasizes that human freedom is not incompatible with rules; freedom from conformity is often made possible by the existence of rules that facilitate transgression. By allowing performances to maintain a strict subjection to an impersonal rule-system, *State Change* demonstrates that transgression and pleasure often depend on losing one's sense of autonomy and merging with a collective in the process of making sound together.

Acknowledgment

allowing its policies to be determined by the commercial interests of local property developers.