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**Coded Cultures and  
Japan Media Arts  
Festival Panel Session**

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Festival**  
文化庁メディア芸術祭

Support  
**CODED  
CULTURES**  
EXPLORING CREATIVE EMERGENCES

CODED CULTURES  
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■ Georg Russegger (at/jp):  
CODED CULTURES: Exploring Creative Emergences

■ Georg Tremmel (at/jp), Shiho Fukuhara (jp):  
Common Flowers / White Out. Bio-Hacking, Open-Sourcing  
and Exorcising GM Flowers

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Exploring Creative Emergences

### **Codes and Cultures of Creative Delineation**

Since a couple of years the codes of creative cultures have been put into perspective pretending globalized societies and city policies. Questionable terms like creative and cultural industries (Landry 1995, Florida 2002, et. al.) are not able to subsume the complex states of art in which new innovative operations have been pushed by artistic modes of delineation. Within the framework of CODED CULTURES, a platform established 2004 by the group "5uper.net", the focus lays on ability profiles, knowledge cultures and projects of artists, researchers and producers departed from the digital realm. Working on the intersection of disciplines like Art, Science, Technology and Design, requires strong networks of cooperation between individuals, communities and projects. Beside the cultural diversities, which have been accomplished via the Festival CODED CULTURES ([www.codedcultures.net](http://www.codedcultures.net)) during the "Austria - Japan Year 2009", complementary issues are already applied trough socio-technological requirements and requests. Based on the idea of intermeditation between heterofactorial cultures of delineation, CODED CULTURES as an interactional network, festival platform and research unit. We are interested in giving an outlook to creative clusters, questioning how contemporary cultures are shaping the conditions of complex media realities and polylogic artistic strategies in the age of post local and transclassic patterns of society and culture. Artists, researchers and curators in this sense play a mayor role in developing test environments for upcoming cultural emergences in a prototypical sense. One importance is a deeper reflection on creative practices to bridge the gap between expert knowledge and educational approaches within artistic production processes. The sharing of knowledge leads to a communicational challenge and art as an idiosyncratic representation or idea can transform highly accumulated topics from fields like biotechnology, space research, games studies, informatics a.s.o.

### **Emergence of Artistic-Creative Practices**

Enabled by the rise of digital-linked network cultures, a re-organization of creative practices forced by new forms of information, attended by emerging possibilities of communication, connectivity, accessibility and interactivity, is accomplished. These shifts take heterogeneous effects on societies and foment transformations of abstraction models and delineation processes. Artistic projects dealing with these issues are on the forefront to explore ideas and invent prototypical test-runs, questioning these shifts on a level, which marks an inimitable position under the circumstances of complex media realities. Artistic developments and projects based on experimental interventions bring forward a thinking outside the box of standardized forms of cultural self-organization and self-design. In this sense ability-profiles like playfulness, problem sensibility, open-ended learning, hack-ability and error-friendly behavior gain ground in unstable, media-integrated delineation environments. These complexities enable artists to explore projects within different communities and cultures, which cannot be generalized with terms like creative industrialization. Operating in proto-mode of dynamic adaption, artistic communities develop qualifications and framesets to apply uncertain and critical perspectives on established forms of organization and representation. Within these scopes the outcomes of artistic project cultures dealing with these multi-factorial issues have to be questioned concerning their patterns of configuration, formalizing methods and assembly models. Creative practices have to be contextualized within different aspects and references of delineation to explain these combinations within the conditions of exploring creative emergences and their codes and cultures.

### **Frameset of the Presentation**

“CODED CULTURES – Exploring Creative Emergences” presents artistic-creative production mechanisms which are based on digitally linked media-cultural organizations which have actively integrated these into the delineation process of their operating level. Thereby, new options of coherence emerge within further developments related to art / culture / economics / knowledge development / idea aggregation / intermediation a.s.o. Therefore, CODED CULTURES creates a surrounding in which new ways of emerging arts, creativity, theories, projects and ideas can be explored in the field of digital media related forms of creative delineation and arts. The particular aim is to present, discuss and criticize topics which are situated on the intersection of disciplines and activities in order to enforce new potentials of artistic practices and positions. Within this frameset the presentation will give an inside look of the proceedings from the festivals in Japan and Europe. Besides the presentation at the ISEA symposium we have a section at the ISEA exhibition which has been developed in close cooperation with the “Japan Media Arts Festival!”. In total four artworks have been selected by both organizations to intensify the outcomes of the “Austria - Japan Year 2009”.

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## Common Flowers/White Out

Bio-Hacking, Open-Sourcing and Exorcising  
GM Flowers

### Introduction

Suntory Ltd., the Japanese drink and biotechnology company, acquired Australian-based Florigene in the middle of the 1990's and along its research on the genetic modification of the pedal colour of carnations (*Dianthus caryophyllus* L.). Suntory and Florigene not only succeeded in creating blue coloured carnations, they also introduced them in 2005 into the general market.

The significance of this is not the bio-technical feat of creating a novel pedal colour – which was not possible through standard breeding techniques – but the fact that this blue GM carnation – “Moondust™” – constitutes the very first instance of a genetically modified plant with the function of aesthetic consumption.

Previously, GM-modified plants like soy, corn, tomato and rice were developed with the aim of serving as human food or animal feed. GM Food has sparked discussion and outrage, often justified, but often the issues are dealt with a gross simplification that distort the issues at stake and try to demonize the technologies involved. Technology, and especially Biotechnology can be considered neither *good* nor *evil*; as with all technologies it depends on the purpose for which they are deployed. By positioning the flowers as an aesthetic product – which is not intended for human consumption – Suntory manages to sidestep the ethical dimensions involved and exclude themselves from the ongoing debate about the possible negative effects of adding genetically modified products and their unknown consequences to the food chain. This projects tries to invite Suntory back into the discussion.



Fig. 1: Photo: BCL



Fig. 2: Photo: BCL

### **Common Flowers: Moondust™ – Blue GM Carnations**

*White Out* builds upon a previous artistic research project called *Common Flowers* in which the blue carnations were obtained as cut flowers and subsequently re-animated using basic plant tissue culture to grow, multiply and technically 'clone' the carnations. The main aspect of ComFlow was to create stable and easily replicable protocol for the recreating and replication of carnations using only ultra-low-cost supplies.

### **Flower Commons: Bio-sharing, Bio-hacking and Open-sourcing**

If ComFlow can be seen as the act bringing moribund cut flowers back to life, *Flower Commons* is the proposed mechanism of distributing the plants and releasing them into the environment. This might appear as a drastic, illogical – even illegal – step. But: before the introduction of the Moondust™ carnations to the markets, Suntory was obliged to conduct thorough field trials to ensure, that the carnation do not pose any risks to other plants, animals and the environment in general. The outcome of these trials were positive, and Suntory was granted permission to grow and sell the flowers in their target markets. Therefore it can not be considered illegal to grow and release Moondust carnations in countries, where Suntory has the right to grow them.

We are further investigating the questions of intellectual property on plants and whether our tissue-culturing and multiplication of plant cells actually constitutes a copyright infringement of Suntory's rights. Can this be considered as Bio-piracy or as an act of freeing a political prisoner?

### **White Out: Re-engineering the wild type**

*White Out* takes this project a step further by aiming to create a non-genetically modified plant from a previous GM plant. The goal is to exorcise the genes which were introduced to create the blue pedal colour, thus reverting the plant back to its wild type through bio-technological means.

This removal would change the pedal colour back to its unmodified, white state. Several techniques are currently evaluated to explore the extermination of the artificially introduced DNA, including conventional out-breeding

of the un-desired traits, chemically and/or radiological induced mutagenesis and reverse genetic modification.

### **Conclusion**

The project also exemplifies an distributed group effort and investigates whether biotechnological knowledge can be created, acquired and shared within an artistic research setting. This reversal of changes in living organisms and restoration of its original, “natural” state questions the concepts of ‘change’, ‘untainted nature’, and ‘human manipulation’ in the ongoing biosciences in particular and in a wider social context in general.

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