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**The Aesthetics of Amplified Everyday Artifacts**

Master's Project for summer term 2011 and winter term 2011/2012

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**Abstract**

Digital technologies have an immense impact on the artifacts we, as a society, produce. Artifacts become more complex, more precise, more interactive, more connected, more in number, more ... everything. In other words, we amplify our artifacts.

Our everyday experiences are more and more mediated by ›amplified artifacts‹ [1], while these artifacts increasingly yield an unprecedented expressiveness, far beyond function and appearance. They become multi-faceted. Still we choose to evaluate them by their functionality, efficiency and effectiveness. It is time to take a step back from this technocratic point of view, slow down, take a deep breath and have an impartial look on our artifacts. We will find that they are more than tools, we are more than users and that we need less solutions but more engaging situations.

There is a huge design potential for interesting artifacts and meaningful interactions and relations right in front of us. Exploring and understanding it will greatly enrich the repertoire of all things digital.

**›Things can be useful beyond their function. Things become useful when they are meaningful.‹**

To better understand the complexity and the multi-faceted nature of our artifacts we propose an egocentric experimental design approach in which we emphasise aspects other than beauty and function. We will start to observe ourselves, our everyday life and identify relevant situations. We will conceive and build artifacts with a poetic, narrative, critical, optimistic, nonsense, or playful perspective in mind. We will live with these artifacts to experience and document them in an everyday context. We will debate and rationalise the relevance of these artifacts and the approach in general.

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**What are  
Amplified Artifacts?**  
[1]

We use the term ›artifact‹ in reference to anything that has come into existence through the influence of humans. In the term ›amplified‹ we appreciate the connotation to electricity. We use the accumulated term ›amplified artifacts‹ to describe a set of artifacts that are, due to interaction with digital technology, somewhat ›more‹ than artefacts used to be; thus amplified. We relate the term to two classes of artifacts. On the one hand we have artifacts that are intrinsically digital or are augmented by digital technology, like personal computers, mobilephones, PDAs, electronic toys, or gadgets in general, and on the other hand we have simple, non-digital objects, that are amplified by for example customization through digital fabrication methods or are integrated into the digital world through tags or RFID technology.

**Detailed Project  
Description**  
[2]

This project won't be so much about ›users, functionality and developing solutions‹ but more about ›people, needs and finding situations‹.

To keep things focused we will apply a few, otherwise arbitrary, constraints on the context of our experiments:

- \* We will focus on everyday life in contrast to a special purpose or expert context.
- \* We will focus on objects in contrast to services, installations or spaces.
- \* We will focus on readily available technologies. We are interested in the application and contextualisation of existing technologies, not near-future technologies.
- \* We won't focus on functionality, as it can be deceiving and will divert from the whole spectrum of an artifact.

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-) **Conceiving and building ›amplified artifacts‹.**

We will conduct a series of experiments, each one with a different aspect in mind. These aspects are poetic or narrative, critical or optimistic, nonsense, and playful.

With the ›poetic or narrative‹ aspect we will describe a subjective, personal relationship with an object; a relationship that might mean a lot to a small group of people but less to a wider public. The artifact might be the container and initiator of a story.

The ›critical or optimistic‹ aspect represents a comment on a real-world social, cultural, technological, and economic issue. Its presence alone might make people think, disturb them or even give them a bright prospect for things to come.

The ›nonsense‹ aspect lets us explore the concept on meaning through the absence of function or sense. The object might even be of humorous nature.

The ›playful‹ aspect yields objects that investigate alternative interaction strategies.

As a group we will populate these categories with objects, built by individual students, as a collaboration between a group of students, or even in collaboration with external experts.

We will pursue a holistic design approach in which we feel responsible for all steps involved in realizing an object: the concept, the production ( appearance, material, soft- and hardware), the documentation and rationalization.

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**Living with ›amplified artifacts‹.**

Next to the building and prototyping of the objects, user testing will be an integral part of the project. This notion we won't leave an empty promise but vividly experience it by actively integrating the objects into our everyday lives over the course of the project.

We will develop strategies to evaluate and document the experienced.

**Debating and rationalizing the observed.**

We will develop ( scientific and non-scientific ) ways of evaluating our objects and the experiences with them. We will explore, negotiate and develop a design-centered and design-driven approach to object-creation. We will discuss not just how but also why objects are created?

<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>* Learning how to observe and identify needs and relevant situations</li> <li>* Learning how to apply and contextualise existing technologies ( in contrast to near future-technology )</li> <li>* Learning how to build prototypes, with a focus on digital fabrication</li> <li>* Learning how to prototype in hardware ( e.g. using ›arduino‹ ) and software ( e.g. using ›processing‹ )</li> <li>* Learning to appreciate the complexity and depth of the relationship between objects and people.</li> <li>* Learning to appreciate the mulit-facetted nature of ›amplified artifacts‹ in order to create deeper and richer experiences.</li> <li>* And finally nothing less than getting closer to finding a subjective answer to the fundamental question ›What is good digital media design?‹.</li> </ul>
<b>Intended Outcomes</b>	<ul style="list-style-type: none"> <li>* exhibitable object series</li> <li>* material to reflect upon, rationalise and possibly write about</li> </ul>
<b>Prerequisites</b>	<p>Students should have an interest in programming, electronics, designing objects, and digital fabrication. Profound practical experience in one of the above is strongly advised.</p> <p>Applicants should have a background in one of the following disciplines: Design, Visual Arts, Engineering or Computer Sciences.</p>
<b>Mandatory Preparing Lectures</b>	<p>Mastering Digital Media</p> <p>The course will prepare the student for programming (Processing), electronics (Arduino), fabrication (Manual Workshop), and digital fabrication (Computer Controlled Machines).</p>

- Selected Readings**
- \* ›Designing Everyday Computational Things‹, Johan Redström, Göteborg : Göteborg University, Department of Informatics, 2001
  - \* ›Design Noir: The Secret Life of Electronic Objects‹, Anthony Dunne and Fiona Raby, Basel : Birkhäuser, 2001
  - \* ›Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design‹, Anthony Dunne, Cambridge : MIT Press, 2008 \*
  - \* ›Designing Interactions‹, Bill Moggridge, Cambridge : MIT Press, 2007
  - \* ›101 Unuseless Japanese Inventions: The Art of Chindogu‹, Kenji Kawakami, New York : W. W. Norton & Company, 1995 \*
  - \* ›The Design of Everyday Things‹, Donald Norman, London : MIT Press, 2001
  - \* ›Everyware: The Dawning Age of Ubiquitous Computing‹, Adam Greenfield, Berkeley : New Riders, 2006
  - \* ›Shaping Things‹, Bruce Sterling, Cambridge : MIT Press, 2005 \*
  - \* ›Fab: The Coming Revolution on Your Desktop - from Personal Computers to Personal Fabrication‹, Neil Gershenfeld, New York, NY : Basic Books, 2005
  - \* ›Processing: a programming handbook for visual designers and artists‹, Casey Reas and Ben Fry, Cambridge : MIT Press, 2007
  - \* ›Getting started with Arduino: the Open Source electronics prototyping platform‹, Massimo Banz, Beijing : O'Reilly, 2009
  - \* ›Physical computing: sensing and controlling the physical world with computers‹, Dan O. Sullivan, Boston : Thomson, 2007
  - \* ›Making Things Talk: Practical Methods for Connecting Physical Objects‹, Tom Igoe, Beijing : O'Reilly, 2007

- Keywords**
- \* Ubiquitous Computing
  - \* Physical Computing
  - \* Digital Fabrication
  - \* Critical Design
  - \* Playfulness
  - \* Mujicomp
  - \* Blogjects
  - \* Spimes
  - \* Device Art

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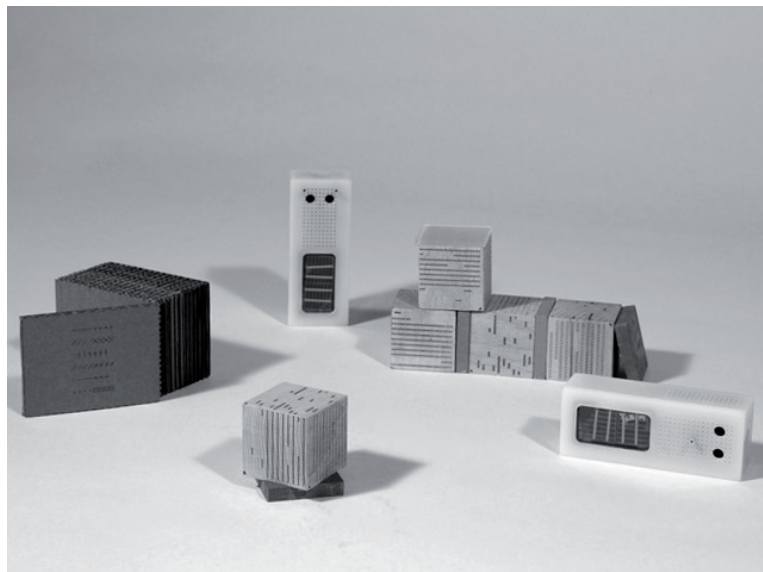
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**Selected Reference  
Projects**



›Living with Things‹, Monika Hoinkis

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›Memory Shapes‹, Frederic Gmeiner

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›Zihotch‹ and two sculptures, Maywa Denki

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›DuperLooper‹, Ryota Kuwakubo

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›Risk Watch‹, Dunne & Raby

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