

# Design Research Seminar: Artifact Analysis

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# A Pipe



# 1. Describe the components of the artifact

The artifact is a small, S-shaped tubular object. It is made of hard and durable materials and has smooth, curved outlines.

**1.** a small chamber (the bowl) for the combustion of the tobacco to be smoked

**2.** a thin stem (shank) which has a long channel running through it

**3.** a mouthpiece (the bit)



## 2. Represent its Affordances as well as its Constraints.

### **Affordances:**

- can be held in hand and carried along
- can be held in mouth
- the chamber can be filled with stuff
- air can be sucked or blowed through the pipe
- pipe can be used to smoke tobacco ( or other substances)
- other uses include blowing soap bubbles

### **Constraints:**

- external source of fire is needed to ignite the tobacco
- chamber size limits the max amount of tobacco in the chamber
- tube diameter limits the air flow speed

# What does affordances & constraints tell us about:

## **a) the environment of the artifact?**

- the pipe's owner is a smoker
- smoking the pipe is allowed in the environment

## **b) the structure of the artifact?**

- materials and outlook suggest that it is not an electronic device,
- nor is it a machine: it doesn't appear to have any moving parts which could perform work
- it's a simple tool of some sort
- the smooth design suggests that it is not meant to be used forcefully, but
- durable materials tell that it is a long-lasting device
- expensive pipes can act as status-symbols

The meaning of a pipe isn't obvious. The way the mouth-piece is shaped suggests that it could be put and held in mouth, while the chamber part looks more like a container, which it is. If one holds the pipe in mouth, one is likely to discover that air can be sucked or blown through it.

One needs the knowledge about smoking tobacco in order to come up with the idea of smoking it with pipe.

### 3. Is it an enabling artifact?

It enables a person to conveniently inhale smoke from burning tobacco.

## 4. How would you translate the artifact into the digital dimension?

### **a. Form**

The digital pipe must allow to be easily carried along, so a mobile phone application would be a reasonable form.

### **b. Interaction**

- The idea of burning substance to create a pleasurable experience
- old, deleted files (text messages) could act as 'tobacco'
- 'burning' the messages could create some sort of statistical information about the contents of deleted files

### **c. Emotional investment, response**

- Nicotine calms you down while enhancing your ability to concentrate.
- Relaxing, but not really a useful application