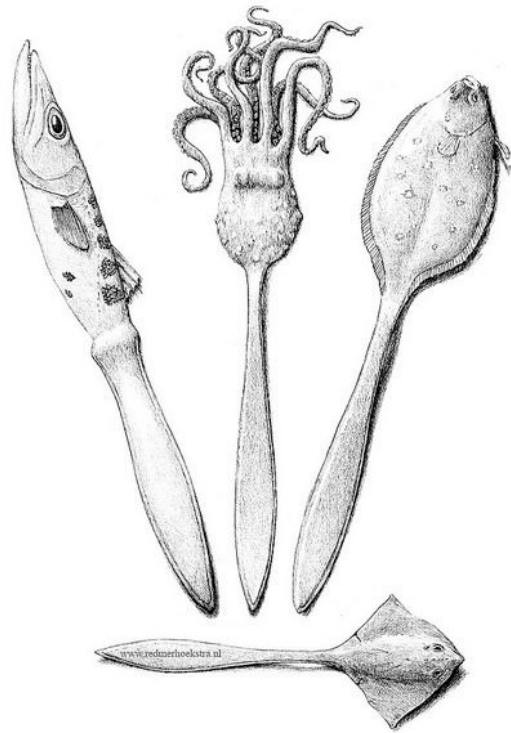


## “Wicked problems”



## WICKED PROBLEMS (RITTEL)

- Suunnittelun luonteesta johtuu, että suurin osa muotoilijan työstä on ns “wicked problems”. Käsitteen lanseerasi Horst Rittel 1960-luvulla etsiessään tapaa kuvata design-työn luonnetta. Rittel oli matemaatikko, designers ja esim opetti Ulmin korkeakoulussa.
- “Wicked problems”-määrittely haastaa ns “lineaarisen ongelman” mallin, eli sellaisen, jossa designtyö nähdään suoraviivaisena ongelman määrittelyn ja ratkaisun mallina.
  - “*Problem definition* is an *analytic* sequence in which designer determines all of the elements of the problem and specifies all of the requirements that a successful design solution must have. *Problem solution* is a *synthetic* sequence in which the various requirements are combined and balanced against each other, yielding a final plan to be carried into production” (Buchanan 1992: 15)
- Rittel esitti, että vain triviaaleimmat ongelmat ovat ratkaistavissa lineaarisesti. Suurin osa design-ongelmista on “wicked”.
  - Wicked problems are a “class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are throughly confusing.” (Churchman, 1967 cited in Buchanan 1992: 15)
- Buchananin mukaan wicked problems ovat “indeterminate”: ongelman piirteiden määrällä ei ole rajaa, ja ongelman määrittely riippuu siitä, miten kokonaisuutta määritellään.

# WICKED PROBLEMS (RITTEL)

1. Wicked problems have no definitive formulation, but every formulation of a wicked problem corresponds to the formulation of a solution.
2. Wicked problems have no stopping rules.
3. Solutions to wicked problems cannot be true or false, only good or bad.
4. In solving wicked problems there is no exhaustive list of admissible operations.
5. For every wicked problem there is always more than one possible explanation, with explanations depending on the *Weltanschauung* of the designer.
6. Every wicked problem is a symptom of another, “higher level,” problem.
7. No formulation and solution of a wicked problem has a definitive test.
8. Solving wicked problem is a “one shot” operation, with no room for trial and error.
9. Every wicked problem is unique.
10. The wicked problem solver has no right to be wrong — they are fully responsible for their actions.

Horst W. J. Rittel & Melvin M. Webber. “Dilemmas in a General Theory of Planning,” working paper presented at the Institute of Urban and Regional Development, University of California, Berkeley, November 1972. Cited in p 16, Buchanan, Richard. 1992. Wicked problems in design thinking. Design Issues 8, no. 2: 5-21.

“Design problems are ‘indeterminate’ and ‘wicked’ because design has no special subject matter of its own apart from what a designer conceives it to be. The subject matter is *universal* in scope, because design thinking may be applied to any area of human experience.

But in the process of application, the designer must discover or invent a *particular* subject out of the problems and issues of specific circumstances. “  
(Buchanan 1992: 16)

Buchanan, Richard. 1992. Wicked problems in design thinking. Design Issues 8, no. 2: 5-21.