Critical Thinking for Designers

Critical thinking is a disciplined approach to evaluating the character and status of human productions including claims, texts and designed things.
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Critical thinking is a mixture of analysis and evaluation aimed at understanding something in particular; e.g. what someone has said, a text, a designed thing, or a situation. In critical thinking, understanding of the thing in question is sought through attention to the relationships that the thing participates in, and to those that inhere within it.

What is it?
While critical thinking is particularly associated with the endeavour to arrive at a true understanding of the thing in question, it equally demands that the thinker scrutinise their own pre-suppositions, and be alert to the influence of those pre-suppositions upon their understanding. Thus critical thinking understands the knowledge produced through its processes as a human production, and a subject for further critical thinking.

Where do you use it?
Critical thinking aims at understanding, and provides a reasoned basis for making claims about the merit or status of a particular human production.

Designers are constantly engaged in evaluating designed work, both within their own iterative design process and in relation to completed productions. Critical thinking can assist designers in forming such judgments. It can enhance awareness of the tacit understandings and predispositions that inform design expertise. It also directs attention to the relationships that the designed thing will enter into within its contexts of use, and so to the impact of those designed things on both human practices and wider ecologies.

Designers seek to understand the human contexts within which their designs will be taken up. Engagement with these contexts will produce observations and tentative understandings. Critical thinking, moderated by empathy, can be employed in evaluating this material. Further, understanding both contexts for design and the wider impact of designed things within the world requires ongoing engagement with many different kinds of texts. Critical thinking can assist in understanding and evaluating these texts.

Finally, critical thinking assists in the production of coherent arguments when communicating research findings.
Criteria for evaluation

Clarity: Are the parts, the relationships between parts, and the relationship between parts and whole, easy to identify and understand?

Efficiency: Does everything contribute? Is everything relevant? Is there unnecessary repetition or elaboration?

Completeness: Are there gaps? Is anything missing?

Consistency: Are equivalent parts or relationships given equivalent treatment?

Transparency: Are the motivations, assumptions, sources of evidence, information and interpretation clearly identified?

Judgement: Has good judgment been employed in applying each of the criteria? i.e.:

- Is the criterion of efficiency employed too reductively?
- Has the criterion of completeness allowed too many additions?
- Has the criterion of transparency been applied to the motives and assumptions of the critical thinker, as well as those informing the thing being evaluated?