



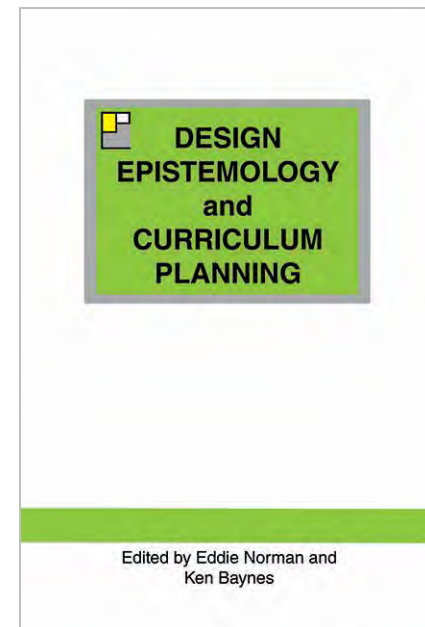
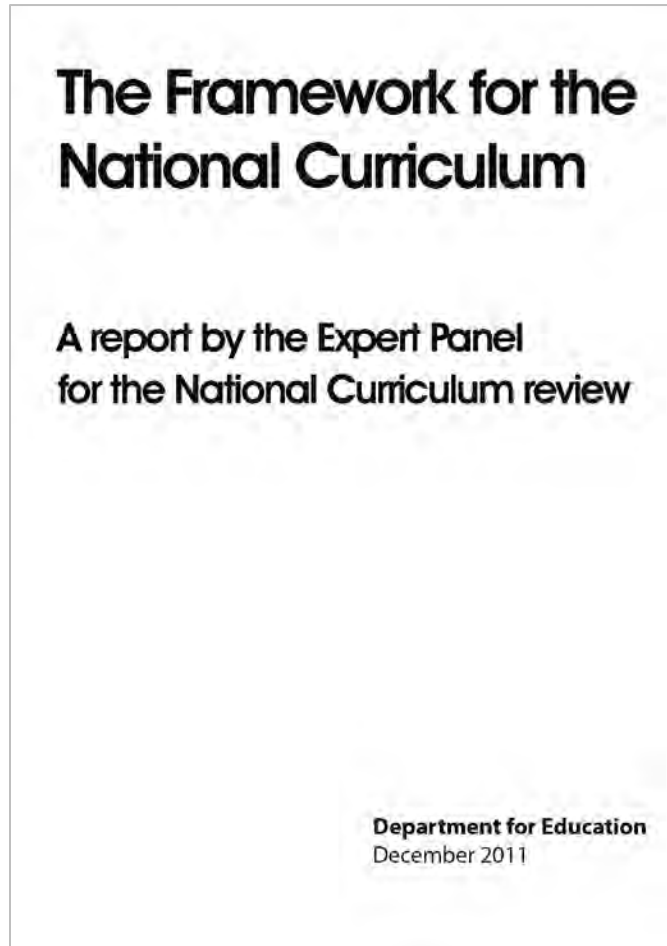
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Design Epistemology and Curriculum Planning

Eddie Norman

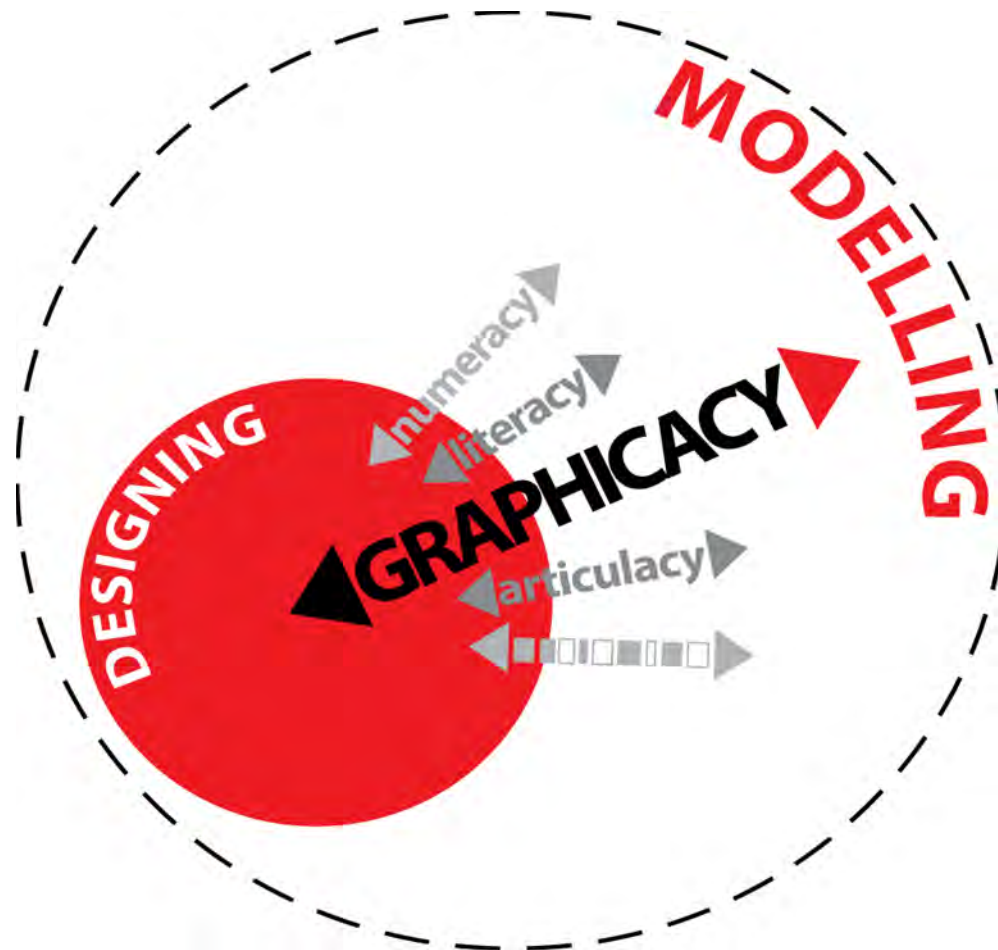


Expert Panel Report ... 2011





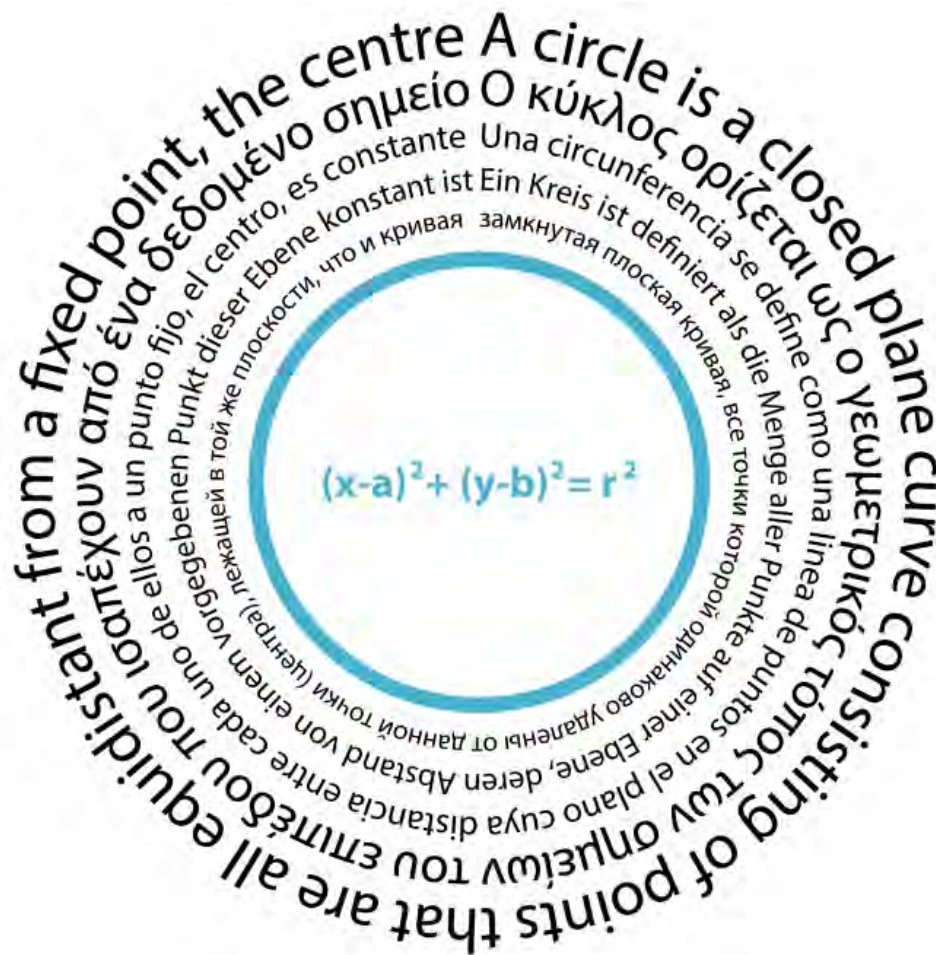
Key relationships





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Ceci n'est pas un cercle





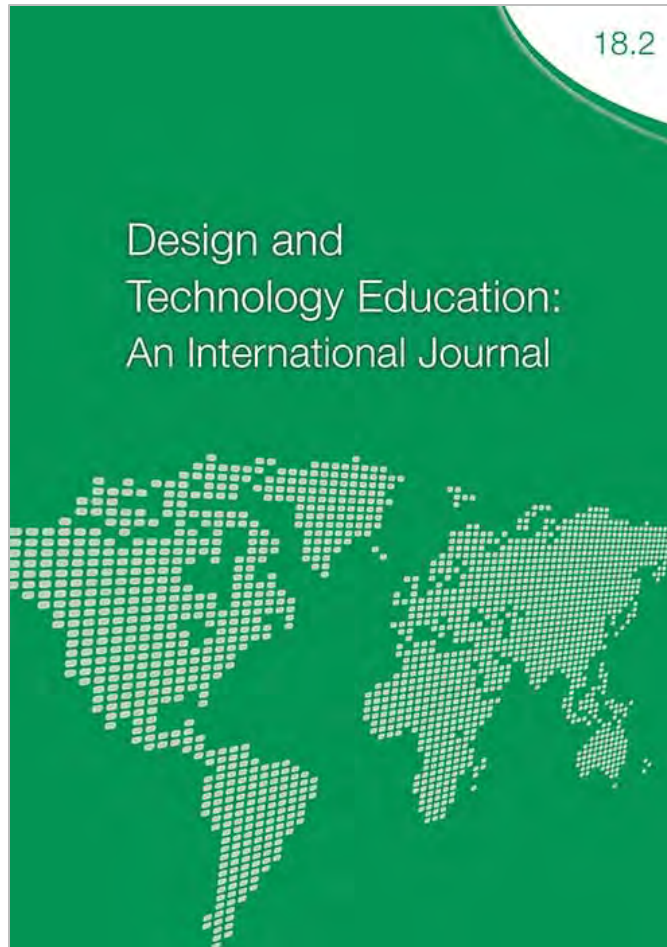
Early APU perspective

	Value judgements				Knowledge			Skills				
	Moral	Technical	Economic	Aesthetic	Control	Materials	Energy	Communication	Evaluation	Implementation	Invention	Investigation
Technology	■	■	■	■	■	■	■	■	■	■	■	■
Craft, design and technology	■	■	■	■	■	■	■	■	■	■	■	■
Home economics	■	■	■	■	■	■	■	■	■	■	■	■
Art, craft, pottery,	■	■	■	■	■	■	■	■	■	■	■	■
Woodwork, metalwork	■	■	■	■	■	■	■	■	■	■	■	■
Geography	■	■	■	■	■	■	■	■	■	■	■	■
Science (combined)	■	■	■	■	■	■	■	■	■	■	■	■
Sciences (separate)	■	■	■	■	■	■	■	■	■	■	■	■
Economics (business studies)	■	■	■	■	■	■	■	■	■	■	■	■
History	■	■	■	■	■	■	■	■	■	■	■	■
Mathematics	■	■	■	■	■	■	■	■	■	■	■	■
English	■	■	■	■	■	■	■	■	■	■	■	■
Languages	■	■	■	■	■	■	■	■	■	■	■	■
Religious education	■	■	■	■	■	■	■	■	■	■	■	■



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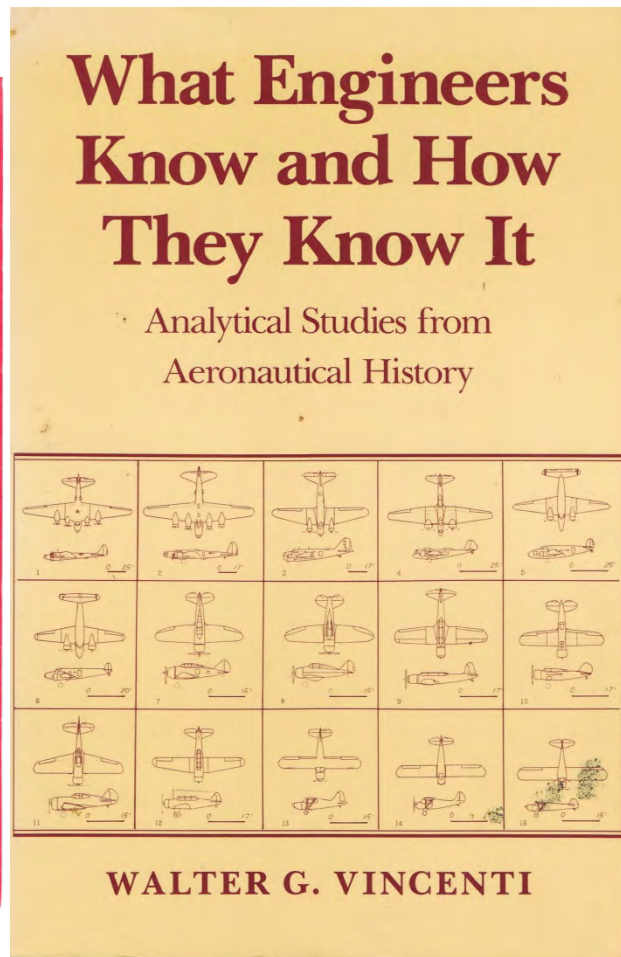
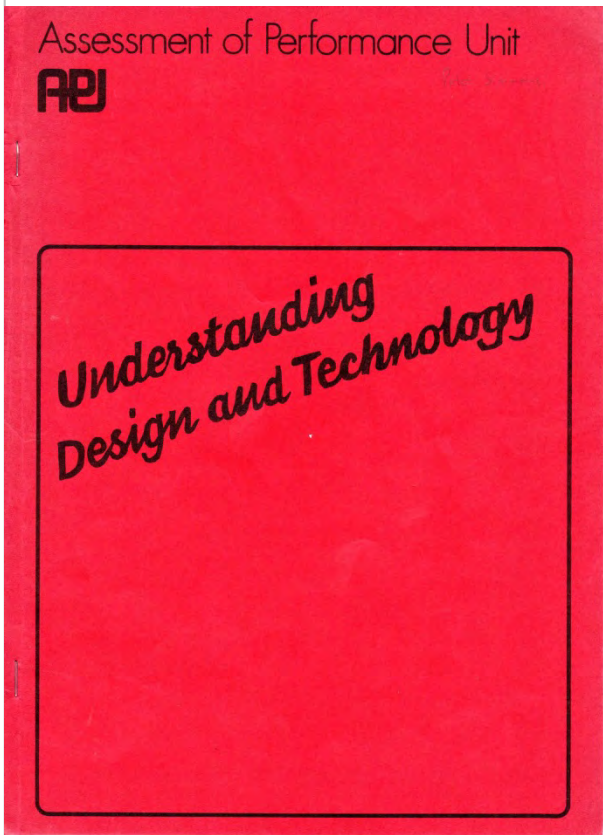
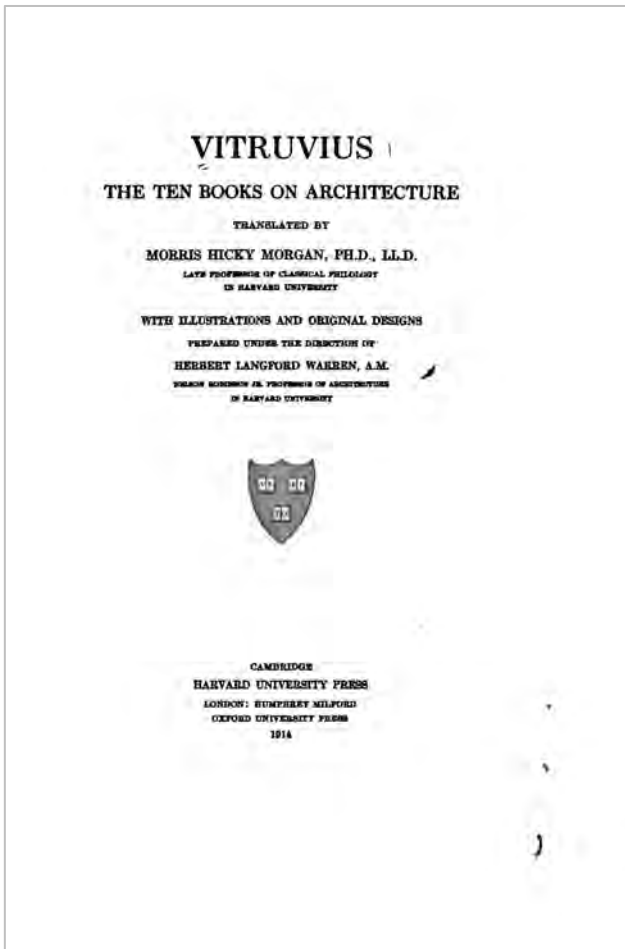
Editorial ... June 2013





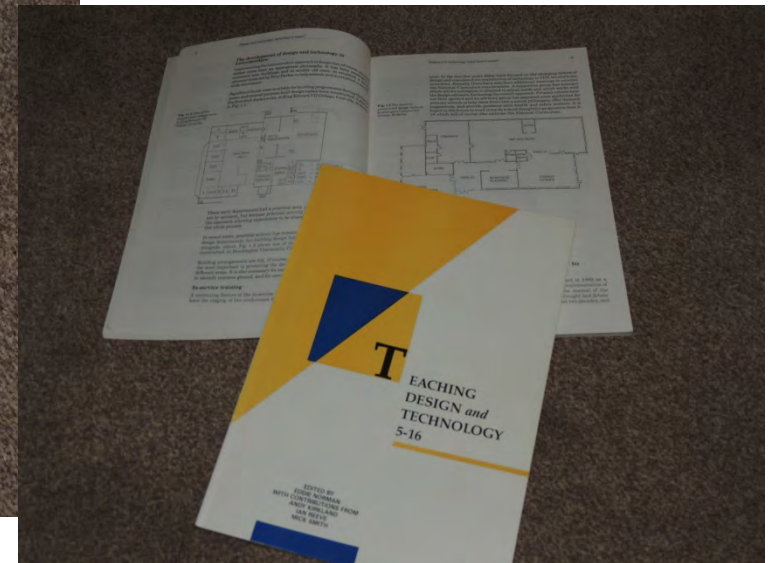
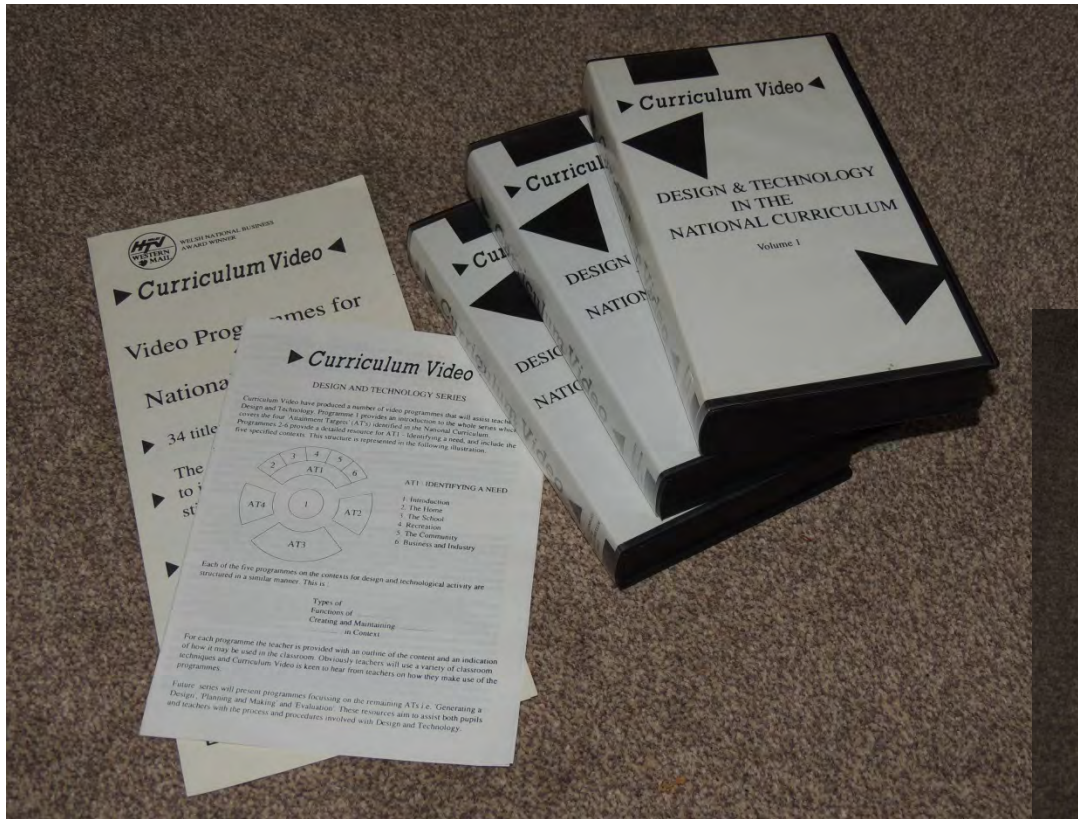
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Vitruvius, APU, Vincenti





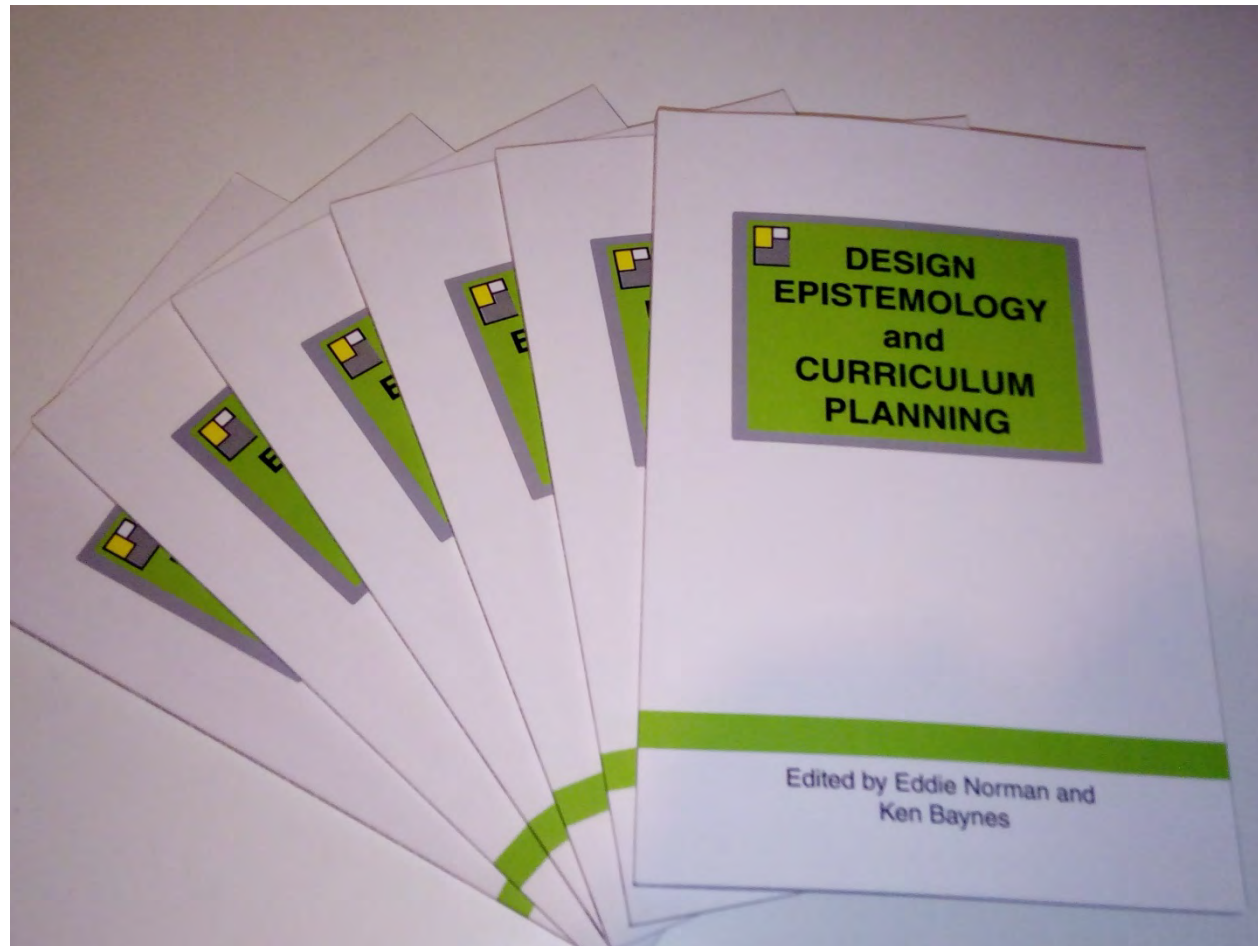
Design Contexts in 1990





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Initial explorations





Many contributions

- **Stephanie Atkinson** ... So what went wrong and why?
- **Alison Hardy** ... How did the expert panel conclude that D&T should be moved to a basic curriculum?
- **Steve Keirl** ... Some thoughts on locating design knowledge
- **Graham Newman** ... How we know, what we should know: The building blocks of cultural awareness in design education
- **Tristram Shepard** ... Knowledge by design
- **David Spendlove** ... Design thinking: what is it and where might it reside?

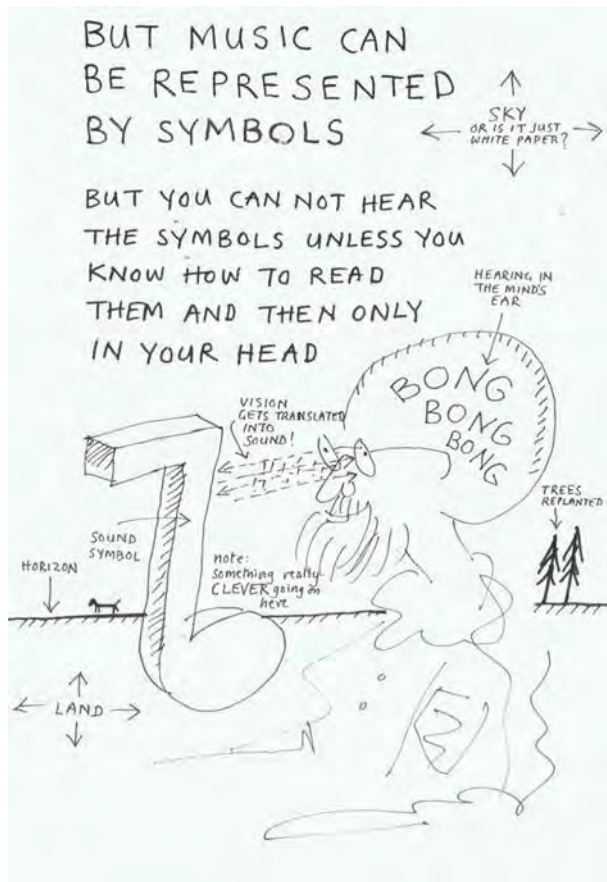
And, perhaps surprisingly for some, 'Epistemology and visual thinking':

- **Ken Baynes** ... Meaning without words
- **Xenia Danos** ... Graphicacy and a taxonomy



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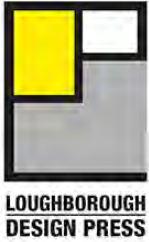
Epistemology and visual thinking



A Taxonomy of Graphicacy Danos (2014)

Category description

PICTORIAL; WESTERN ART				
LIFE DRAWING	LANDSCAPE	STILL LIFE	PORTRAITS	OTHER COMPOSITIONS
<ul style="list-style-type: none"> • Representations from an individual artistic perspective. • Usually the item produced is a finished product itself. • To be decoded, the observer needs to interpret these images within the artists' cultural, educational or professional context. 				
PICTORIAL; DRAWING				
DRAFTS	SKETCHING	DRAWING		
<ul style="list-style-type: none"> • Products finished to an appropriate level of accuracy to closely mirror an idea/ observation. • This is often a means to achieve/ get to the next stage. • To be decoded the observer needs to identify the idea/ observation. 				
PICTORIAL; DIAGRAMS				
PERSPECTIVE	ARCHITECTURAL	ENGINEERING / TECHNICAL	EXPLODED	PROJECTIONS
<ul style="list-style-type: none"> • Technical diagrams to define clearly features, details and/or requirements such as relationships, processes, components. • To be decoded, the observer has to have developed the relevant spatial abilities and understanding of the technique. 				



Eddie Norman



Eddie Norman is Emeritus Professor of Design Education at [Loughborough Design School \(LDS\)](#), UK. He joined Loughborough University as a Lecturer in 1984 and retired as Professor of Design Education in 2012. He was Leader of the Design Education Research Group (DERG), Co-Editor of IDATER (1998-2002) and the Design and Technology Association's International Research Conferences (2003-2009) and Chief Editor of *Design and Technology Education: an International Journal* (2005-2014).

Eddie Norman's research concerned the relationship of technologies and designing in relation to general and higher education, and associated pedagogical issues and he was a partner in the related musical instrument innovation project Cool Acoustics. He contributed to teaching on undergraduate and masters programmes, and to PhD supervision. Prior to joining LDS he had careers both in secondary education and as a professional engineer.

On retirement, Eddie joined forces with Ken Baynes to found the specialist publisher of Design Education research, [Loughborough Design Press](#). Further information about Eddie Norman's publications can be found in his research profile on [ResearchGate](#).

