CONTENTS

	ACKNOWLEDGMENTS				
	ARGU	MENT		хi	
1.0		ROCESS ENGINEER AND THE AESTHETICS		1	
	1.1	Architecture: Art or Commodity	3		
	1.2	The Hand and the Machine	5		
	1.3	The Law of Economy and Value	9		
	1.4	A New Client Mandate	11		
	1.5	Integration, Not Segregation	13		
	1.6	Tools of the Process Engineer	15		
	1.7	An Example: The Car	17		
	1.8	Results: Higher Quality, More Scope and Features, Less Time, Lower Cost	21		
	1.9	Master Building	23		
2.0	ROLE REMINDERS IN THE NEW WORLD				
	2.1	The Architect: The Master Builder	27		
	2.2	The Material Scientist: Purpose,	33		
		Not Style			
	2.3	The Product Engineer: Repackaging the Parts of Architecture	39		
	2.4	The Contractor: Resurrecting the Craft of Assembly	43		
3.0	ENABLING SYSTEMS AS REGULATORY STRUCTURE				
	3.1	Enabling Communications	51		
	3.2	Representation Versus Simulation	59		
	3.3	Design Tools	61		
4.0	PROCESSES WE DO NOT SEE				
	4.1	Gravity, Evolution, Economics	69		
	4.2	Shipbuilding	73		
	4.3	Airplanes	79		
	4.4	Cars	85		
	4.5	The Architecture of the Joint	93		

5.0	ARCH	ITECTURE		
	5.1	A Century of Failure	105	
	5.2	The Century of the Realizable Dream	111	
	5.3	Pure Creation of Collective Intelligence	115	
	5.4	Materiality into Architecture	119	
	5.5	Unions	123	
	5.6	Increasing Complexity	127	
6.0	MASS	CUSTOMIZATION OF ARCHITECTURE		1
		From Dell with Love	133	
		Duke Doors	136	
		Assa Abloy Doors	138	
		Levine Wall	140	
		Modular Vanity	144	
		Pierson Vanity	146	
		Cornell Bathroom	148	
		Pierson Modular Building	150	
7.0	EVOL	JTION, NOT REVOLUTION		1
	7.1	Fabrication, Not Construction	157	
	7.2	Our Fabrication	171	