

# Contents

List of figures	ix
Preface	x
Acknowledgements	xii
<b>1 Introduction: Radical media archaeology</b>	<b>1</b>
<i>Media Arché: Locating primary scenes of technology</i>	1
A remark on techno-mathematical competence	8
<b>Part One Radical media archaeology as a method of media science, and as techno-logical practice</b>	
<b>2 Towards a more radical understanding of media as technology and logotechnics</b>	<b>15</b>
Thinking media from within	15
Rethinking ‘technology’ beyond Heidegger	18
Techno-mathematical implementations: <i>Disembodied lógos</i>	21
<i>Arché</i> and <i>lógos</i> of electronic media	22
Materialist media archaeology	25
Radical technoanalysis: Theory and method	28
<b>3 The hands of <i>lógos</i>: ‘Digitality’, literally</b>	<b>30</b>
Relieving the optical signal from human subjectivity: Case study photography	30
Beyond anthropocentrism in the ‘hands on media’ approach: ‘Manipulation’, and technology	33
Typewriting: The de-coupled relation of the hand to writing	34
When <i>lógos</i> encounters the machine: The discretizing keyboard	36
<i>Digitality</i> instead of the whole ‘hand’: Fingers and numbers	37
<b>4 Human performance vs. technical operation: Mechanically informed music from the past</b>	<b>39</b>
Automatic invariance: Baroque music machines	39
Audio-technical ‘archiving’ of musical presence	41
Phono-graphical analysis vs. hermeneutic interpretation	42
Techno-logical tradition of media music	45

<b>5</b>	<b>(Re)enactments of <i>technológos</i></b>	<b>48</b>
	Analytic media diagrammatics	48
	Techno-scenic knowledge: Media theatre	49
	Re-enacting the technological past	50
	Manual experimentation of time with machines	51
	Symbolical re-enactment of machines: From Yugo back to Babbage	53
<b>6</b>	<b>Technical logification of the optical image</b>	<b>57</b>
	Logification of the image: The oxymoron of the analogue 'picture element'	57
	Escaping the control of <i>lógos</i> : Video as a material memory medium	59
	Digital logification of the video image	60
	Video compression	63
	Human and/or machine 'vision': Computer graphics	64
	Is there a <i>lógos</i> within technical images? Machine vision	68
<b>7</b>	<b>Discretely addressing media artefacts</b>	<b>70</b>
	'Post-digital' nostalgia for materiality? Towards a redefinition of the 'archaeological' artefact	70
	Archaeologizing the present: The <i>alógos</i> of video noise, and digital sound compression	71
	Object and agency of media archaeology: The <i>Restauration</i> of early television recordings	73
	'E.T.' as topic of computer (game) archaeology, and microprocessor ageing	75
	Really 'forensic' media archivology: Reading a ROM	78
<b>Part Two Radical media archaeology in close alliance with operative logotechnics (computing)</b>		
<b>8</b>	<b>Technológos from action: The matter of computation and the (with)inhuman symbolic machine</b>	<b>83</b>
	Machine operations: Redefining the 'human' from within	83
	Mechanization of the calculating mind: Karsakov 1832	84
	The calculating human as a computational machine 'it'self	86
	Where algorithmic reasoning actually takes place: Techno- mathematical computing	90

Algorithmic computation in media archaeological perspective	93
How close can computing come to the material world?	99
<b>9 Time-discrete computing as articulation of <i>technológos</i></b>	<b>104</b>
Listening to computational time	104
Challenging the 'time' axis: Computation	105
<i>Lógos</i> in technical being: Actual computing	105
Counting (and) time	106
Time-discrete technical procedures: Cinematography, computing	107
<b>10 A new kind of 'love for <i>lógos</i>': Material media philology as a more radical understanding of software</b>	<b>110</b>
Media philology as critical enquiry of digital humanities practice	110
Operative encounters of <i>lógos</i> and matter: Algorithms as 'software'	111
The unexpected behaviour of code	113
'Text' in the age of computer-based literacy: Software	114
Second-order <i>lógos</i> ? The literary code comment	116
Digital anachronism	117
<b>11 Experimental <i>technológos</i>: Humanities of the digital</b>	<b>118</b>
'Digital humanities' <i>avant la Lettre</i> : Archaeology proper and techno-mathematical reason	118
Counting by numbers instead of story-telling: The <i>lógos</i> of Markov chains in information aesthetics	119
'Hermeneutics' after Shannon: Algorithmic experimentation of text and speech	120
Rooting digital humanities: Techno-mathematics	122
New methods of content retrieval: Algorithmic data identification	123
'Active archives'	125
The self-organizing archive	127
Media <i>archivology</i> : Kittler's case	127
<b>12 Informatized matter: Computing <i>for</i> and <i>as</i> architecture</b>	<b>129</b>
Architectural matter and informational <i>lógos</i>	129
The cybernetization of architecture	130
Architecture in terms of information aesthetics	132
Opening/closing 'gates': The flip-flop	132
Towards an archaeology of digital architectures from within	133

Algorithmicized architectures	135
Architecturally embedded <i>lógos</i> vs. autonomous algorithmic thought	136
Computational vs. computing 'architectures'	137
Resubstantiation of code into matter: 3D printing	139
<b>13 There is no 'memory' for technológos: Digital storage beyond the 'memory' metaphor, and its return in/as machine learning</b>	<b>140</b>
Only in quotation marks: Digital 'memory' from a technological view	140
Not yet memory, or 'memory' no more? Intermediary storage, delay lines	143
Neural 'memory', reformulated in technical terms	145
The return of 'memory' in artificial intelligence	147
A media archaeological prototype of machine learning: The 'perceptron'	150
Human and/or nonhuman sorting of images by association: <i>Pockets Full of Memories</i>	153
<b>14 Against metaphysics in artificial intelligence: A reminder of its technological ground</b>	<b>156</b>
The neocybernetic model and its electro-technical <i>a priori</i>	156
'From' machine analysis 'to' statistical AI? Neural nets and/or the algorithmic approach to intelligence	160
How 'deep' is machine intelligence? 'Emergent' artificial knowledge and the metaphysical risk	163
When the human voice is revealed as technológos: The anthropomorphic allure of machine 'learning'	166
<b>15 Preliminary conclusions from the question concerning technológos</b>	<b>171</b>
<i>Arché-lógos</i> , technically revealed from matter itself	171
Does technológos still matter? Discussing the limits of technological analysis	173
Technológos within the Anthropocene	176
For a techno-logically renewed media materialism	179
References	183