

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	7
PART 0: CONTENTS AND INTRODUCTION	9
TABLE OF CONTENTS	11
INTRODUCTION	15
I. Framework and Questions	19
II. Methodological Principles	21
III. Thesis Outline	23
PART 1: AUTOMOBILITY AND URBAN SPACE	27
CHAPTER 1: THE APPROPRIATION OF AUTOMOBILITY	29
1.1. The history of automobiles	31
1.1.1. Early automobiles	31
<i>Steam and electric powered early automobiles</i>	33
<i>Internal combustion engine powered automobiles</i>	35
1.1.2. The birth of the automotive industry	38
<i>Automobile mass production in the U.S.A.</i>	39
<i>Automobile assembly lines in Europe</i>	43
1.1.3. The triumph of the automobile	45
<i>Automobile production during the Interbellum</i>	45
<i>Automobile production during and after World War II</i>	46
1.2. The development of road infrastructures	48
1.2.1. First attempts in road construction	49
1.2.2. Road infrastructure construction programs in Europe	53
<i>European road construction paradigms</i>	55
1.2.3. Road infrastructure in the U.S.A.	59
<i>The Interstate highway System</i>	60
1.3. The influence of automobility in spatial organisation	61
1.3.1. Conquering the land. The creation of suburbia	63
1.3.2. Transformations of an automobilised society	67

CHAPTER 2: URBAN TRANSFORMATIONS DURING THE 19TH CENTURY	69
2.1. Cities of the early 19th century	71
2.1.1. The end of the walking cities	73
2.2. Breaking apart from old city structures	75
2.2.1. First attempts at organising the urban road network	75
<i>Regent Street, London</i>	77
<i>Ringstrasse, Vienna</i>	79
2.2.2. The first total reorganisation of an urban centre	80
<i>The Haussmannian proposal for Paris</i>	80
<i>Haussmann's principles on urban mobility</i>	83
2.3. The open city development	85
2.3.1. Gridiron applications	85
<i>The triumph of the gridiron system</i>	87
2.3.2. Oppositions to the gridiron organisation model	88
CONCLUSIONS	91

PART 2: VISIONARY CITIES FROM MOBILITY TO AUTOMOBILITY _____ **95**

CHAPTER 3: MOBILITY IN URBAN VISIONS OF THE LATE 19TH CENTURY	97
3.1. Linear City. A new perception of roads	97
3.1.1. The linear City project	99
3.1.2. Applications of the linear city organisation model	101
3.2. Garden City. A reconfiguration of the urban - rural relationship	103
3.2.1. The theoretical background of Howard's proposal	104
3.2.2. Garden City. Urban organisation and mobility	105
3.2.3. Later realisation attempts	111
3.3. Industrial City. An attempt to accommodate technology into the city	115
3.3.1. Organisation policies of the project	115
3.3.2. Mobility and urbanity in the Industrial City project	117
CHAPTER 4: AUTOMOBILITY IN URBAN VISIONS OF THE EARLY 20TH CENTURY	119
4.1. Futurism. The city as artwork	119
4.1.1. Futurism and the city	121
4.1.2. The project of La Città Nuova	123

4.2. Le Corbusier. The city as a machine	127
4.2.1. Le Corbusier	128
4.2.2. Une Ville Contemporaine – Contemporary City	133
4.2.3. Plan Voisin	137
4.4. Frank Lloyd Wright. The disappearing city	141
4.4.1. Frank Lloyd Wright	142
4.4.2. Broadacre City	145
4.5. Norman Bel Geddes. The city as exhibit	155
4.5.1. The Futurama project	157
4.5.2. Futurama and Automobility	159
CONCLUSIONS	161
I. The role of the design approach	163
II. The role of auto-mobility	164
III. The role of the automobile	167
PART 3: IN PLACE OF A CONCLUSION	171
CHAPTER 5: VISIONS, AUTOMOBILITY AND CONTEMPORARY URBAN FORMS	173
5.1. Reflections of automobility in contemporary urban structures	173
5.2. Reflections of visionary urban design in contemporary urban structures	174
5.3. Learning from the visionary cities of the early 20th century	177
5.3.1. Rethinking the role of the automobile	179
5.3.2. Rethinking the role of mobility	180
5.3.3. Rethinking the role of the design	181
5.4. Future research perspectives	181
PART 4: REFERENCES AND APPENDICES	185
BIBLIOGRAPHY	187
ILLUSTRATIONS	213
SUMMARY	219