

Interstitial Landscape as Interstitial Tissue:

*Parco degli Acquedotti al'Mandrione*

by

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## AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.



## ABSTRACT

This thesis emerged from a series of journeys / *'percorsi'*, conducted between 2007 and 2009 along the course of the aqueducts and railway lines in the south-east of Rome. During this time, my focus shifted from figure to background, from the archaeological fragments to the territorial and urban contexts encountered along their passage.

This zone offers a unique cross sectional experience of the city, spanning for approximately seven kilometers - from the Aqueduct Park (*Parco degli Acquedotti*) at the outer edges of the city to the Aurelian Walls at Porta Maggiore – exposing a variety of conditions ranging from the openness of Roman Campagna to the dense agglomeration of Rome's urban periphery. This is a place of contrasts, of industrial and archaeological, in a state of abandonment and in a constant state of flux. It is as difficult to grasp conceptually as it is to traverse physically, lacking territorial continuity, legibility and ease of access. It is physically fragmented and separated from the rest of the city by infrastructural arteries and property boundaries.

This thesis proposes reversing the marginal aspect of this area by re-establishing its relationship with its urban context. It suggests a reading of this landscape as 'interstitial tissue' a connective element rather than an inert zone of separation. Using the biological connotation of the interstitial ("*the fine connective tissue lying between the cells of other tissue*") - the thesis focuses on the relational potential of this in-between zone, its ability to connect rather than separate places and neighbourhoods along it. It proposes identifying spatial continuities as well as establishing temporal connections between the past, present, and future of this area.

The thesis further proposes a design intervention along a site situated between the aqueducts and via del Mandrone, a historical road running in parallel to the railway lines. Although this site is currently enclosed and separated from its context by property boundaries, the thesis proposes re-configuring this site as a threshold, a point of intensity between the city and its margins.

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# CONTENTS

LIST OF ILLUSTRATIONS .....	viii
PREAMBLE .....	xix
INTRODUCTION .....	xxi
CHAPTER 1. JOURNEYS / <i>PERCORSI</i> .....	1
CHAPTER 2. MAPPINGS .....	49
CHAPTER 3. LANDSCAPE TRANSFORMATION .....	61
CHAPTER 4. SITE LAYERS .....	75
CHAPTER 5. STRATEGIES .....	101
CHAPTER 6. SITE VISITS .....	111
CHAPTER 7. INTERVENTIONS .....	139
CONCLUDING REMARKS .....	189
APPENDICES .....	199
APPENDIX I .....	200
APPENDIX II .....	206
BIBLIOGRAPHY .....	216

## LIST OF ILLUSTRATIONS

pg.	fig.	title/ source
xix	fig.0.1	ACQUEDOTTI, FERROVIA, VIA DEL MANDRIONE map drawn by the author
xxi	fig.0.2	INTERSTITIAL LANDSCAPE map drawn by the author; aerial underlay source: Google Earth.
xxiii	fig.0.3	SITE CONTEXT map drawn by the author; aerial underlay source: Google Earth.
xxvii	fig.0.4	SCALES OF EXPLORATION diagram drawn by the author

### CHAPTER 1. JOURNEYS / *PERCORSI*

3	fig.1.1	RAILWAY NETWORK - SE OF ROME adapted by the author from source: <a href="http://www.urbanistica.comune.roma.it/">http://www.urbanistica.comune.roma.it/</a>
6	fig.1.2	RAILWAY JOURNEY: FILM FRAMES (SELECTIONS)
8	fig.1.3	RAILWAY JOURNEY: FILM FRAMES (SELECTIONS) fig.1.2 - 1.3 - film by the author
10	fig.1.4	INTERSTITIAL CORRIDOR - PERCORSO 2 map drawn by the author; aerial underlay source: Google Earth.
13	fig.1.5	AQUA CLAUDIA
14	fig.1.6	ACQUEDOTTO - 'TRATTO' DETAIL
15	fig.1.7	AQUA CLAUDIA
15	fig.1.8	RAILWAY & AQUA CLAUDIA
17	fig.1.9	ACQUEDOTTO FELICE
18	fig.1.10	ACQUEDOTTO FELICE - ARCHWAY
19	fig.1.11	ACQUEDOTTO FELICE - DETAIL AT GROUND LEVEL
19	fig.1.12	ACQUEDOTTO FELICE - DOORWAY DETAIL
21	fig.1.13	PORTA FURBA
22	fig.1.14	PORTA FURBA - 'CAMERA' INTERIOR LOOKING OUT
23	fig.1.15	PORTA FURBA - 'CAMERA' INTERIOR
23	fig.1.16	PORTA FURBA - 'CAMERA' INTERIOR
25	fig.1.17	VIA DEL MANDRIONE
26	fig.1.18	VIA DEL MANDRIONE - GATED ARCHWAY
27	fig.1.19	VIA DEL MANDRIONE - DOMESTICITY
27	fig.1.20	VIA DEL MANDRIONE - ENCLOSURE

pg.	fig.	title/ source
28	fig.1.21	VIA DEL MANDRIONE - FOOTBALL FIELD
29	fig.1.22	VIA DEL MANDRIONE - RAILWAY
29	fig.1.23	VIA DEL MANDRIONE - UNDERPASSAGE
31	fig.1.24	VIA CASILINA VECCHIA
32	fig.1.25	VIA CASILINA VECCHIA
33	fig.1.26	VIA CASILINA VECCHIA - RAILWAY
33	fig.1.27	VIA CASILINA VECCHIA
35	fig.1.28	CIRCONVALLAZIONE TIBURTINA
37	fig.1.29	PORTA MAGGIORE
38	fig.1.30	PORTA MAGGIORE
39	fig.1.31	PORTA MAGGIORE
39	fig.1.32	PORTA MAGGIORE fig.1.5 - 1.32 - photographs by the author
41	fig.1.33	VIA DEL MANDRIONE map drawn by the author; aerial underlay source: Google Earth.
42	fig.1.34	PERCORSO 3: VIA DEL MANDRIONE (CONTACT SHEET 1)
44	fig.1.35	PERCORSO 3: VIA DEL MANDRIONE (CONTACT SHEET 2)
46	fig.1.36	PERCORSO 3: VIA DEL MANDRIONE (CONTACT SHEET 3) fig.1.34 - 1.36 - photographs by the author
CHAPTER 2. MAPPINGS		
50	fig.2.1	URBAN CONTEXT map drawn by the author
51	fig.2.2	COMMUNE DI ROMA - MUNICIPALITIES map drawn by the author. adapted from source: <a href="http://www.comune.roma.it/">http://www.comune.roma.it/</a>
51	fig.2.3	MUNICIPIO IX - NEIGHBOURHOODS map drawn by the author. adapted from source: <a href="http://www.comune.roma.it/">http://www.comune.roma.it/</a>
53	fig.2.4	DENSITY map drawn by the author
55	fig.2.5	GREEN AREAS map drawn by the author
56	fig.2.6	INTERSTITIAL CORRIDOR map drawn by the author
57	fig.2.7	INTERNAL FRAGMENTATION diagrams drawn by the author. aerial underlay source: Google Earth

pg.	fig.	title/ source
58	fig.2.8	PARCO DEGLI ACQUEDOTTI diagrams drawn by the author. aerial underlay source: Google Earth
59	fig.2.9	OPEN AREAS ALONG THE AQUEDUCTS diagrams drawn by the author. aerial underlay source: Google Earth
CHAPTER 3. LANDSCAPE TRANSFORMATION		
62	fig.3.1	CARTA TOPOGRAFICA DEL SUBURBANO DI ROMA(1839) Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv.506
63	fig.3.2	URBAN EXPANSION OF ROME 1900-1960 Italo Insolera. <u>Roma Moderna: Un secolo di storia urbanistica</u> . Torino: Giulio Einaudi editore S.p.A., 1962. foldout maps
64	fig.3.3	URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1839) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv.506
66	fig.3.4	URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1906) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv.573
67	fig.3.5	1883 MASTER PLAN
67	fig.3.6	1909 MASTER PLAN fig.3.5 - 3.6 - Danila Mancioi and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001. p.151; p.154
67	fig.3.7	1909 MASTER PLAN (DETAIL) adapted by author; source: Danila Mancioi and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001. p.154
68	fig.3.8	URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1924) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv. 584-596
69	fig.3.9	1931 MASTER PLAN
69	fig.3.10	1931 MASTER PLAN (DETAIL) fig.3.9 - 3.10 - Danila Mancioi and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001. foldout map
70	fig.3.11	URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1949) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv. 639
71	fig.3.12	1965 MASTER PLAN Roma dall'alto. Edited by Maria Filomena Boemi and Carlo M. Travaglini. Rome: Universita degli Studi Roma Tre, 2006, p.85
71	fig.3.13	1965 MASTER PLAN (DETAIL) source: <a href="http://www.kosmograph.com/urbanism/urbana/urbana_rm_3.htm">http://www.kosmograph.com/urbanism/urbana/urbana_rm_3.htm</a>
72	fig.3.14	URBAN EXPANSION IN THE SOUTH-EAST OF ROME (2000) map drawn by the author
73	fig.3.15	REGIONAL PARKS - COMUNE DI ROMA drawn by author; adapted from source: <a href="http://www.urbanistica.comune.roma.it/urbaroma/pages/it/citta_verde/parchi_aree/">http://www.urbanistica.comune.roma.it/urbaroma/pages/it/citta_verde/parchi_aree/</a>



pg.	fig.	title/ source
73	fig.3.16	PARCO DELL'APPIA ANTICA drawn by author; adapted from source: <a href="http://www.parcoappiaantica.it">http://www.parcoappiaantica.it</a>
CHAPTER 4. SITE LAYERS		
77	fig.4.1	FONTANA DI PORTA FURBA (1905) Susanna Le Pera and Rita Turchetti (editors). <u>I giganti dell'acqua. Acquedotti romani del Lazio nelle fotografie di Thomas Ashby (1892-1925)</u> . Roma: Palombi Editori, 2007. p. 143
77	fig.4.2	SITE LAYERS (1839) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv.506
77	fig.4.3	MARRANA MARIANA ALONG AQUA CLAUDIA (1904) Susanna Le Pera and Rita Turchetti (editors). <u>I giganti dell'acqua. Acquedotti romani del Lazio nelle fotografie di Thomas Ashby (1892-1925)</u> . Roma: Palombi Editori, 2007. p.148
79	fig.4.4	SITE LAYERS (1906) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv.573
80	fig.4.5	VIEW OF FONTANA DI PORTA FURBA (LOOKING NORTHEAST)
80	fig.4.6	VIEW OF PODERE SACCARDO (1900-1907) fig.4.5 - 4.6 - Susanna Le Pera and Rita Turchetti.(editors). <u>I giganti dell'acqua. Acquedotti romani del Lazio nelle fotografie di Thomas Ashby (1892-1925)</u> . Roma: Palombi Editori, 2007. p.144; p.150
81	fig.4.7	VIA DEL MANDRIONE (1905)
81	fig.4.8	AQUAE MARCIA-TEPULA-IULIA (1905)
81	fig.4.9	EXCAVATION FOR VIA DI PORTA FURBA (1905) fig.4.7 - 4.9 - Susanna Le Pera and Rita Turchetti (editors). <u>I giganti dell'acqua. Acquedotti romani del Lazio nelle fotografie di Thomas Ashby (1892-1925)</u> . Roma: Palombi Editori, 2007. p.147; p.102; p.149
83	fig.4.10	SITE LAYERS (1924) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv. 584-596
83	fig.4.11	SANTA MARIA AUSILIATRICE (1923) source: <a href="http://www.copyvitt.net/albumfotografico/SM_Ausiliatrice_veduta_aerea_1923.jpg">http://www.copyvitt.net/albumfotografico/SM_Ausiliatrice_veduta_aerea_1923.jpg</a>
85	fig.4.12	SITE LAYERS (1949) map drawn by the author; adapted from source: Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962. Tavv. 639
86	fig.4.13	AERIAL PHOTOGRAPH OF LOCAL AREA (1959) Amato Pietro Frutaz. <u>Le Piante di Roma</u> . Roma: Istituto di studi romani, 1962.
86	fig.4.14	FABBRICA M.COPPOLA
86	fig.4.15	FABBRICA ERIDIANA
86	fig.4.16	MOLINO NATALINI fig.4.14 - 4.16 - Caterina Staffieri (editor). <u>Invito al Mandrione</u> . Roma: Palombi Editori, 2000. p.42; p.41; p. 40
87	fig.4.17	'CLUB HOUSE' - EXTERIOR
87	fig.4.18	'CLUB HOUSE' - INTERIOR
87	fig.4.19	CAMPO DI CALCIO

pg.	fig.	title/ source
87	fig.4.20	<b>CAMPO DA TENNIS</b> fig. 4.17 - 4.20 - Danila Manciola and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001.p.164
88	fig.4.21	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.22	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.23	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.24	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.25	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.26	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.27	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.28	PHOTOGRAPH BY FRANCO PINNA
88	fig.4.29	PHOTOGRAPH BY FRANCO PINNA fig.4.21 - 4.29 photographs by Franco Pinna source: unknown
89	fig.4.30	BARACCHE DELL'ACQUEDOTTO FELICE
89	fig.4.31	BARACCOPOLI ALL'ACQUEDOTTO FELICE fig.4.30 - 4.31 Enzo Siciliano, Enzo and Federica Pirano (editors). <u>Pasolini e Roma</u> . Roma: Silvana Editoriale, 2005. p.64; p.70
89	fig.4.32	FONTANA DI PORTA FURBA Caterina Staffieri (editor). <u>Invito al Mandrione</u> . Roma: Palombi Editori, 2000.p.39
91	fig.4.33	CENTRO ELABORAZIONE DATI Franco Bonelli and Massimo Nunziata. <u>I Cento Edifici della Banca d'Italia</u> . Rome: Electa, 1993. p.734
91	fig.4.34	SITE LAYERS (2000) map drawn by the author.
91	fig.4.35	BANCA D'ITALIA - <i>OFFICINE CARTE VALORI</i> Franco Bonelli and Massimo Nunziata. <u>I Cento Edifici della Banca d'Italia</u> . Rome: Electa, 1993. p.737
92	fig.4.36	CENTRO SPORTIVO DELLA BANCA D'ITALIA - BIRD'S EYE VIEW
92	fig.4.37	CENTRO SPORTIVO DELLA BANCA D'ITALIA - BIRD'S EYE VIEW 2
92	fig.4.38	CENTRO SPORTIVO DELLA BANCA D'ITALIA - SWIMMING POOL
92	fig.4.39	CENTRO SPORTIVO DELLA BANCA D'ITALIA - WADING POOL
92	fig.4.40	CENTRO SPORTIVO DELLA BANCA D'ITALIA - OPEN AREAS fig.4.36 - 4.40 - Franco Bonelli and Massimo Nunziata. <u>I Cento Edifici della Banca d'Italia</u> . Rome: Electa, 1993. p.743-745
93	fig.4.41	CENTRO PER L'ASSISTENZA SOCIALE E CULTURALE - ENTRANCE
93	fig.4.42	CENTRO PER L'ASSISTENZA SOCIALE E CULTURALE - WEST FACADE fig.4.41 - 4.42 - Franco Bonelli and Massimo Nunziata. <u>I Cento Edifici della Banca d'Italia</u> . Rome: Electa, 1993. p.457; p.462
94	fig.4.43	WATER PRESSURE CLEANING OF THE AQUEDUCT
94	fig.4.44	OVERGROWN VEGETATION ALONG THE STRUCTURE OF THE AQUEDUCT

pg.	fig.	title/ source
94	fig.4.45	ACCUMULATED DEBRIS ALONG THE AQUEDUCT CONDUIT - (BEFORE RESTORATION) fig.4.43 - 4.45 - Danila Manciola and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001.p.230; p.219; p.231
95	fig.4.46	DETAIL OF RESTORED ANCIENT ROAD ALONG THE AQUEDUCTS
95	fig.4.47	RESTORED ANCIENT ROAD - LOOKING SOUTH fig.4.46 - 4.47 - Danila Manciola and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001.p.180; p.201
97	fig.4.48	NEIGHBOURHOOD EDGES: WEST OF THE AQUEDUCTS map drawn by the author
97	fig.4.49	FORMER MOLINO NATALINI
97	fig.4.50	SUPERMERCATO MAXISIDIS fig.4.49 - 4.50 - photographs by the author
99	fig.4.51	NEIGHBOURHOOD EDGES: EAST OF THE AQUEDUCTS map drawn by the author.
99	fig.4.52	STAZIONE CASILINA
99	fig.4.53	BODYFIGHT PALESTRA ( <i>RIGHT</i> ) & RESIDENZA UNIVERSITARIA ( <i>LEFT</i> )
99	fig.4.54	REPAIR SHOPS ALONG VIA DEL MANDRIONE AND ACQUEDOTTO FELICE fig.4.52 - 4.54 - photographs by the author.

## CHAPTER 5. STRATEGIES

102	fig.5.1	NPRG - "CENTRALITA LOCALE ASSISI / MANDRIONE" - EXTRACTS source: <a href="http://www.comune.roma.it/">http://www.comune.roma.it/</a>
104	fig.5.2	NPRG: AMBITO DI PROGRAMMAZIONE STRATEGICA
105	fig.5.3	NPRG - 'AMBITI STRATEGICI'
105	fig.5.4	NPRG AMBITO STRATEGICO - <i>DETAIL</i> fig.5.2 - 5.4 - source: <a href="http://www.comune.roma.it/">http://www.comune.roma.it/</a>
106	fig.5.5	AMBITO STRATEGICO ACQUEDOTTI - MANDRIONE map drawn by the author
109	fig.5.6	GREEN TISSUE map drawn by the author; aerial underlay source: Google Earth.
109	fig.5.7	VILLA LAIS
109	fig.5.8	CENTRO SPORTIVO 'A.S. LE MURA'
109	fig.5.9	PARCO ALLESANDRINO
109	fig.5.10	VIA NOCERA UMBRA
109	fig.5.11	COMMUNITY GARDENS fig.5.7 - 5.11 - photographs by the author

pg.	fig.	title/ source
CHAPTER 6. SITE VISITS		
113	fig.6.1	SITE CONTEXT map drawn by the author; aerial underlay source: Google Earth.
115	fig.6.2	SITE BOUNDARIES map drawn by the author; aerial underlay source: Google Earth.
115	fig.6.3	ENTRANCE - VIA DELLA MARRANA
115	fig.6.4	ENTRANCE - LARGO BASTIA
115	fig.6.5	ENTRANCE - VIA UMBERTIDE
115	fig.6.6	ENTRANCE - VIA TUSCOLANA
115	fig.6.7	ENTRANCE - VIA TUSCOLANA
115	fig.6.8	ENTRANCE - VIA DEL MANDRIONE
115	fig.6.9	ENTRANCE - VIA DEL MANDRIONE
115	fig.6.10	ENTRANCE - VIA DEL MANDRIONE
115	fig.6.11	ENTRANCE - VIA DEL MANDRIONE
115	fig.6.12	VIA DI PORTA FURBA fig.6.3 - 6.12 - source: Google Street View
117	fig.6.13	SITE CONTEXT map drawn by the author; aerial underlay source: Google Earth.
118	fig.6.14	CENTRAL ALLEY (LOOKING SOUTH)
120	fig.6.15	DAYCARE CENTRE AND PLAYGROUND
122	fig.6.16	ACQUEDOTTO FELICE (LOOKING SOUTH)
124	fig.6.17	ACQUEDOTTO FELICE (LOOKING NORTH)
124	fig.6.18	ENTRANCE TO PARKING (LOOKING EAST)
124	fig.6.19	SECURITY POST & ACQUEDOTTO FELICE fig.6.14 - 6.19 - photographs by the author
127	fig.6.20	WEST OF THE AQUEDUCTS map drawn by the author; aerial underlay source: Google Earth.
128	fig.6.21	AQUA CLAUDIA (LOOKING EAST)
128	fig.6.22	OLYMPIC SWIMMING POOL AND DIVING BOARDS
128	fig.6.23	WADING POOL
128	fig.6.24	OPEN AREAS
129	fig.6.25	PATH ALONG WEST SIDE OF ACQUEDOTTO FELICE (LOOKING NORTH)
129	fig.6.26	TENNIS COURTS (LOOKING WEST)
129	fig.6.27	TENNIS COURTS (DETAIL) fig.6.21 - 6.27- photographs by the author

pg.	fig.	title/ source
131	fig.6.28	EAST OF THE AQUEDUCTS map drawn by the author; aerial underlay source: Google Earth.
132	fig.6.29	PATH EAST OF ACQUEDOTTO FELICE (LOOKING SOUTH)
132	fig.6.30	AQUAE CLAUDIA - ANIO NOVUS (LOOKING NORTH)
132	fig.6.31	ANCIENT ROAD ALONG AQUAE CLAUDIA - ANIO NOVUS (LOOKING NORTH)
133	fig.6.32	PATH EAST OF ACQUEDOTTO FELICE (LOOKING NORTH)
133	fig.6.33	ANCIENT ROAD ALONG AQUAE CLAUDIA - ANIO NOVUS (LOOKING NORTH)
133	fig.6.34	ANCIENT ROAD ALONG AQUAE CLAUDIA - ANIO NOVUS (LOOKING SOUTH)
134	fig.6.35	OVERLOOKING VIA DEL MANDRIONE (LOOKING EAST)
134	fig.6.36	SPORTSFIELDS AND APARTMENT COMPLEXES (BACKGROUND)
134	fig.6.37	SPORTSFIELDS (LOOKING EAST)
134	fig.6.38	SPORTSFIELDS (LOOKING NORTH)
135	fig.6.39	SPORTSFIELDS & AQUA CLAUDIA (BACKGROUND) (LOOKING WEST)
135	fig.6.40	SPORTSFIELDS (LOOKING NORTH)
135	fig.6.41	SPORTSFIELDS (LOOKING EAST)
135	fig.6.42	SPORTSFIELDS (LOOKING SOUTH)
136	fig.6.43	AQUA CLAUDIA (LEFT) AQUAE MARCIA-TEPULA-IULIA (RIGHT) (LOOKING NORTH)
136	fig.6.44	AQUAE MARCIA-TEPULA-IULIA (RIGHT) (LOOKING EAST)
136	fig.6.45	OVERGROWN VEGETATION - SOUTH END OF THE SITE (LOOKING SOUTH)
137	fig.6.46	AQUAE MARCIA-TEPULA-IULIA (LEFT) & AQUA CLAUDIA (RIGHT) (LOOKING SOUTH)
137	fig.6.47	AQUAE MARCIA-TEPULA-IULIA (LOOKING WEST)
137	fig.6.48	AQUAE MARCIA-TEPULA-IULIA (LOOKING NORTH)
137	fig.6.49	AQUAE CLAUDIA - ANIO NOVUS (LOOKING WEST) fig.6.29 - 6.49- photographs by the author

## CHAPTER 7. INTERVENTIONS

140	fig.7.1	PARCO DEGLI ACQUEDOTTI AL'MANDRIONE - PROPOSED SCHEME rendering by the author; aerial bird's eye view from source: <a href="http://www.maps.live.com">http://www.maps.live.com</a>
144	fig.7.2	DESIGN STRATEGY - DIAGRAMS diagrams by the author
146	fig.7.3	DESIGN ELEMENTS - DIAGRAMS 3D diagrams by the author
148	fig.7.4	BOUNDARY: VIA DEL MANDRIONE diagram by the author
149	fig.7.5	VIA DEL MANDRIONE - WALL

pg.	fig.	title/ source
149	fig.7.6	VIA DEL MANDRIONE - WALL - DETAIL
149	fig.7.7	VIA DEL MANDRIONE - GATED ENTRY fig.7.5 - 7.7 - photographs by the author
149	fig.7.8	VIEW OF VIA DEL MANDRIONE FROM PARK LEVEL rendering by the author
150	fig.7.9	VIA DEL MANDRIONE (EXISTING)
150	fig.7.10	EXISTING STREET SECTIONS
151	fig.7.11	VIA DEL MANDRIONE (PROPOSED)
151	fig.7.12	PROPOSED STREET SECTIONS
152	fig.7.13	MANDRIONE SECTION AA' - DETAIL
152	fig.7.14	MANDRIONE SECTION BB' - DETAIL
153	fig.7.15	MANDRIONE SECTION CC' - DETAIL
153	fig.7.16	MANDRIONE SECTION DD' - DETAIL fig.7.9 - 7.16 - drawings by the author
153	fig.7.17	MATERIALITY photographs by the author
154	fig.7.18	BUFFER ZONE: FASCIA DI RISPETTO diagram by the author
155	fig.7.19	ANCIENT ROAD ALONG AQUEDUCTS photograph by the author
155	fig.7.20	'FASCIA DI RISPETTO' - SECTIONAL DETAIL drawing by the author
156	fig.7.21	BUFFER ZONE: FASCIA DI RISPETTO - MATERIALITY diagram by the author
157	fig.7.22	'FASCIA DI RISPETTO' - SECTIONAL PERSPECTIVE rendering by the author
159	fig.7.23	GROUND/STRATIGRAPHY diagram by the author
159	fig.7.24	MATERIALITY photographs by the author
160	fig.7.25	CONDUIT & COLLECTOR: MARRANA MARIANA CANAL diagram by the author
161	fig.7.26	MARRANA MARIANA (1900's) Susanna Le Pera and Rita Turchetti (editors). <u>I giganti dell'acqua. Acquedotti romani del Lazio nelle fotografie di Thomas Ashby (1892-1925)</u> . Roma: Palombi Editori, 2007. p.148
161	fig.7.27	AQUA CLAUDIA (DETAIL) Ashby, Thomas. The Aqueducts of Ancient Rome. Washington, D.C.: McGrath Publishing Company, 1973. p.240
162	fig.7.28	VIEW OF CANAL LOOKING SOUTH rendering by the author

pg.	fig.	title/ source
163	fig.7.29	SECTIONAL DETAIL 1
163	fig.7.30	SECTIONAL DETAIL 2
163	fig.7.31	SECTIONAL DETAIL 3 fig.7.29 - 7.31 - drawings by the author
163	fig.7.32	MATERIALITY photographs by the author
164	fig.7.33	LINK: PEDESTRIAN BRIDGE diagram by the author
165	fig.7.34	VIA DI PORTA FURBA (ELEVATION) Danila Mancioi and Giuseppina Pisani Sartorio (editors). <u>Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana</u> . Roma: Istituto Poligrafico e Zecca dello Stato, 2001.p.149
165	fig.7.35	PORTA FURBA - PRESENT DAY photograph by the author
165	fig.7.36	VIEW FROM BRIDGE (TOWARD VIA DEL MANDRIONE)
165	fig.7.37	SECTIONAL DETAIL OF PROPOSED PEDESTRIAN LINK fig.7.36 - 7.37 - renderings by the author
166	fig.7.38	SECTIONAL PERSPECTIVE ALONG VIA DI PORTA FURBA rendering by the author
168	fig.7.39	NODE & THRESHOLD: CENTRO CULTURALE PIER PAOLO PASOLINI diagram by the author
169	fig.7.40	UNDERPASSAGE - EXTERIOR VIEW
169	fig.7.41	UNDERPASSAGE - INTERIOR VIEW LOOKING OUT TOWARD VIA DEL MANDRIONE fig.7.40 - fig.7.41 - photographs by the author
169	fig.7.42	VIEW OF CULTURAL CENTRE (LOOKING EAST)
169	fig.7.43	VIEW OF CULTURAL CENTRE - VIA DEL MANDRIONE fig.7.42 - 7.43 - renderings by the author
171	fig.7.44	LOWER LEVEL PLAN
173	fig.7.45	UPPER LEVEL PLAN fig.7.44 - 7.45 - drawings by the author
175	fig.7.46	SITE PLAN drawing by the author; aerial underlay from source: Google Earth
176	fig.7.47	SITE SECTION (LONGITUDINAL)
178	fig.7.48	SITE SECTION (CROSS) fig.7.47 - fig.7.48 - drawings by the author
180	fig.7.49	VIEW A - via di Porta Furba (looking east)
182	fig.7.50	VIEW B - via del Mandrione (looking south)
184	fig.7.51	VIEW C - Marrana Mariana (looking north)
186	fig.7.52	VIEW D - Water park (looking north) fig.7.49 - 7.52 - photomontages - renderings and photographs by the author



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





## PREAMBLE

*"Cara Sandrina,*

*abbiamo finalmente deciso il tema del laboratorio del Master ASP di quest'anno che riguarderà il sistema di acquedotti romani innestati sulla via Tuscolana (la cosiddetta zona del Mandrione e del Parco degli Acquedotti): un argomento che include tematiche archeologiche, urbanistiche, di rapporto con la città storica e con la città contemporanea, nonché con un paesaggio fortemente antropizzato ma anch'esso di significativo valore storico e ambientale.*

*Fammi sapere se hai deciso di frequentare il Modulo 1 o solo una parte di esso, oppure di non frequentarlo, per poterlo comunicare alla Segreteria corsi post-lauream dell'Università Roma Tre.*

*Un saluto cordiale,  
Maya Segarra"*

*email received: Sunday, March 18<sup>th</sup>, 2007*

I was first introduced to the area of Rome that is traversed by the aqueducts within the context of the *Master Architettura | Storia | Progetto* program offered by *Università degli Studi Roma Tre* during the Spring of 2007. I was not aware at the time that the subject of this semester long studio would become the theme of my thesis research for the two years that followed.

At the beginning of the semester we explored the larger system of the aqueducts starting from Parco degli Acquedotti to Porta Maggiore through an organized tour of this area. We further examined in more detail particular zones along the aqueducts, that later became the sites for the design interventions proposed by the different groups in our class.

I revisited this theme again in the Fall of 2007, as a Teaching Assistant at the University of Waterloo Rome Programme, for the 4th year Design Studio course. I had the opportunity to re-examine, along with the students, the entire landscape traversed by the aqueducts as well as test out a series of small and large scale interventions alongside the course of the aqueducts and via del Mandrione.

Both of these 'preliminary' experiences did not only launch me into the thesis work that followed, they became an intrinsic part of the thesis process. They allowed me to get to know this area intimately and document it over an extended period of time, as well as to develop an intuitive and critical understanding of the contemporary and historical factors that have led to its gradual marginalization.

The thesis structure reflects the process as well as the outcome of the thesis investigation.

fig.0.1 ACQUEDOTTI, FERROVIA, VIA DEL MANDRIONE



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*







fig.0.2 INTERSTITIAL LANDSCAPE

## INTRODUCTION

This thesis emerged from a series of journeys / *'percorsi'*, conducted between 2007 and 2009 along the course of the aqueducts in the south-east of Rome. During this time, my focus shifted from figure to background, from the archaeological fragments to the territorial and urban context encountered along their passage.

In proximity to the aqueducts, often intersecting and interrupting their course, run the FR4, FR6 and FR7 railways (*Ferrovie Regionale del Lazio*) linking Rome's Termini Station with the Castelli Romani region and the towns of Albano Laziale, Frascati, and others, to the south. The insertion of this railway corridor in the south-east of Rome at the end of the 19th century set out a rigid infrastructural edge condition along this axis leading to the gradual marginalization and degradation of this landscape over time. The residual area bordered by the aqueducts and the railway constitutes the primary focus of this thesis.

Spanning for approximately seven kilometres - from the Aqueduct Park (*Parco degli Acquedotti*), at the outer edges of Rome, to the Aurelian Walls at Porta Maggiore – this zone offers a unique cross sectional experience of the city, exposing a variety of conditions ranging from the openness of the Roman Campagna to the dense agglomeration of Rome's urban periphery. This is a place of contrasts – of continuity and disjuncture of industrial and archaeological, of banal and sublime. It is both within and outside of the city, in a state of abandonment and in a constant state of flux.

This landscape is as difficult to grasp as it is to traverse, lacking legibility, territorial continuity and ease of access. It is physically fragmented and separated from the rest of the city by infrastructural arteries, property boundaries, as well as legal and illegal settlements, that impose both physical and conceptual challenges. The conflicting identity of this landscape arises from its duality as leftover, marginal space, as well as place of tremendous archaeological and historical value.

This thesis proposes reversing the marginal aspect of this landscape by re-establishing its relationship with its urban context. It suggests a reading of this landscape as 'interstitial tissue' a connective element rather than a zone of separation.

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



## SELECTING THE SITE

The selection of the site for intervention was a point of arrival rather than a point of departure for this thesis. The process of 'finding the site' was informed by personal experience, historical analysis and mapping. A site along via del Mandrione, a historical road running between the aqueducts and the railway, was selected for closer examination.

Although via del Mandrione runs in parallel with the aqueducts for the majority of its course, the aqueducts begin to distance themselves from the road after via di Porta Furba, to then resume their course from via della Marrana onwards.

This deviation creates a significant 'gap' between the aqueducts and the road. From via del Mandrione this interstitial landscape is experienced as a void, an area that is closed off by property boundaries, a buffer zone that interrupts the journey along the aqueducts.

This portion of via del Mandrione (running for about 1 km between via di Porta Furba and via della Marrana), is one of the most difficult to traverse on foot. It is circulated by traffic running in both directions and is enclosed on each side by masonry walls that separate it both visually and physically from the railway (to the east) and private properties (to the west). This traffic corridor is a hostile pedestrian environment, as there is little to no walking space along the side of the road, giving this space a sense of confinement.

A series of traces that imply connections between the site and the surrounding context however are identified through historical analysis.



fig.0.3 SITE CONTEXT  
scale 1:5000

## DESIGN APPROACH/ METHODOLOGY

The thesis proposes an approach to design that seeks to reveal and articulate existing relationships on site, rather than impose a design 'vision'.

A personal engagement with the site and a careful reading of this landscape is required. The hidden imperceptible traces traversing this area are articulated through carving, shaping and layering the ground as well as through resurfacing elements and 'flows' that have been hidden or forgotten.

Five design elements are proposed as an underlying framework in the design process: 1) boundary; 2) buffer zone; 3) conduit and collector; 4) link; 5) node/ threshold.

1) *Boundary* – examines the relationship between the park and via del Mandrione, the road that borders it along the east. A more permeable edge is proposed along this road that allows for a visual connection from street level, as well as accessibility at key points along it.

2) *Buffer zone* – refers to the area immediately along the aqueducts, proposing articulating the existing topography of the site through a series of stratified landscapes of soft and hard surfaces. This constructed topography follows the general inclination of the site, sloping from north to south as well as from west to east.

3) *Conduit and collector* – retraces symbolically the course of the Marrana Mariana canal, a medieval channel that traversed this site, running in parallel to the aqueducts.

4) The *Link* element proposes a bridge at the south end of the site that provides pedestrian access to the park from via di Porta Furba. This element is located along the path of an old railway line that crossed through the arches of the aqueducts at this location.

5) *Node/ threshold* proposes a Cultural Centre as well as a pedestrian passage located at a central location on site.

These 'ungrounded' objects do not attempt to reconstruct a particular historical identity of the site, rather they expose the multiplicity of factors that have shaped this area through time.

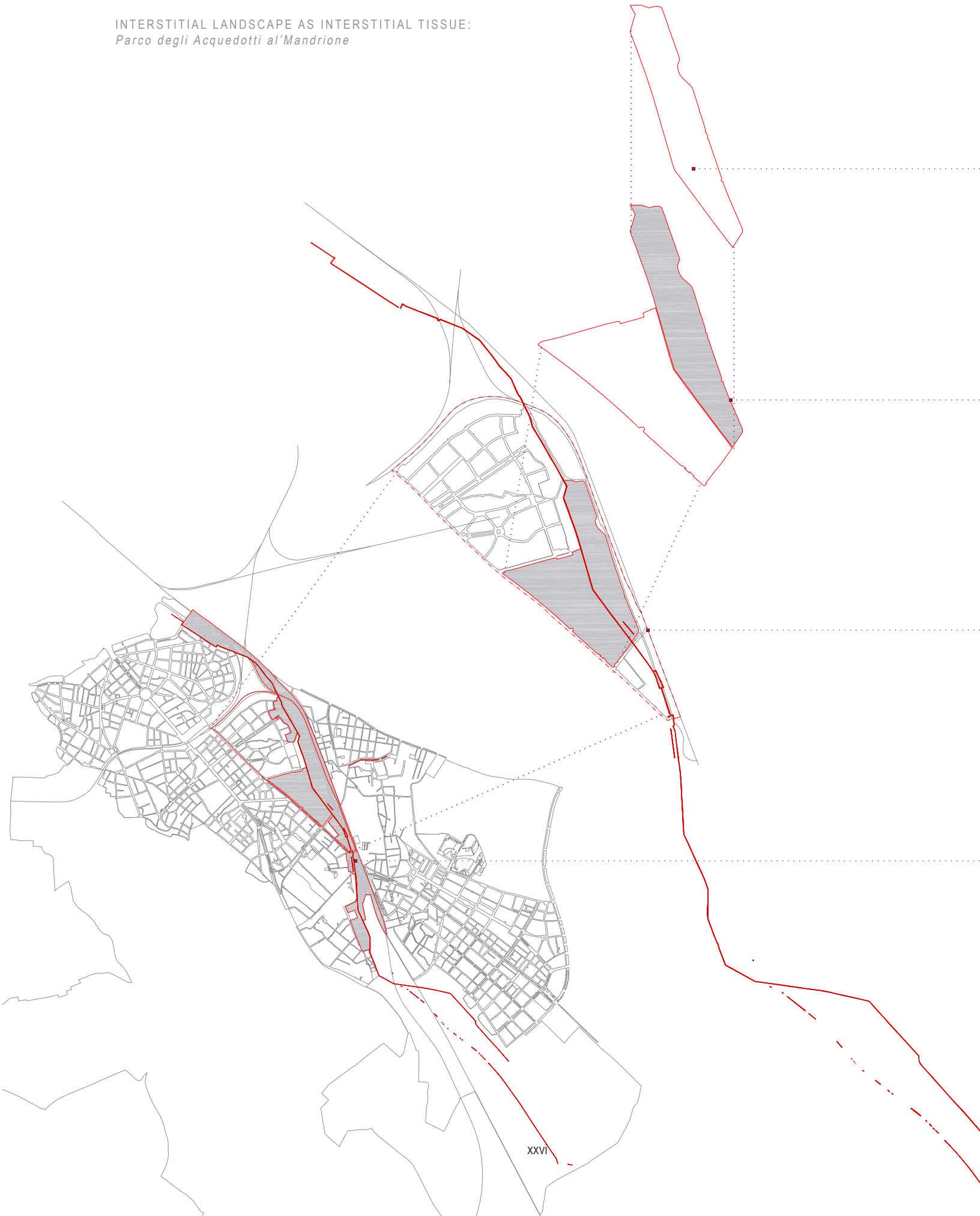
*“...archaeology comes into its own as a tool for describing, in almost physical fashion, the superimposed reading(s) of tectonic reality: of a reality that can no longer be regarded as a unitary whole but appears instead as the overlapping of different layers...Nobody could be so naïve as to imagine that, for archaeology, the system of knowledge of the past can be constituted by a simple accumulation of the objects uncovered by excavation. Rather, these objects present themselves as the outcome of a process of decomposition of superimposed systems, systems that nowhere touch, systems that move independently according to their own logic.”<sup>1</sup>*

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<sup>1</sup> Ignasi de Sola-Morales. “Weak Architecture” in *Differences : Topographies of Contemporary Architecture*. Cambridge, Mass: MIT Press, 1997, p. 66



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*





## THESIS STRUCTURE

### ■ PARK (CHAPTER 7)

The thesis proposes three different scales of exploration: the scale of the urban context, the site context, and scale of the site.

Chapter one, “Journeys / *Percorsi*”, focuses on observation, investigation and recording of the corridor traversed by the aqueducts and the railway lines within the urban context. Personal impressions - recorded through film, photography and personal narrative - are organized as a series of journeys – by train, on foot and by car - and invite an engagement with this landscape on multiple scales (from the territorial to the local), probing multiple viewpoints (from outside and from within).

### ■ SITE (CHAPTER 6)

The second chapter, “Mappings”, examines the interstitial corridor within its contemporary urban context.

The third chapter, “Landscape Transformation” begins to unfold the transformation processes acting on this urban landscape over time (from pre-industrial period to present day).

### ■ SITE CONTEXT (CHAPTER 4, 5)

Chapter four, “Site Layers”, offers a closer examination of an in-between zone located just south of the railway arch. A series of elements that become the underlying framework for the design intervention later on are revealed through historical and contemporary analysis and mapping of this area.

Chapter five, “Strategies”, examines the site’s current conditions and proposes interweaving this zone’s historical and contemporary layers as an interstitial tissue. This chapter also examines the proposals set forth by Rome’s current master plan to extend *Parco degli Acquadotti* north of its current boundaries, as well as the Local Centrality plan for this area.

### ■ URBAN CONTEXT (CHAPTERS 1, 2, 3)

Chapter six, “Site Visits”, moves toward a more detailed analysis of the landscape situated between the aqueducts and via del Mandrione, that is currently enclosed within private property boundaries. An outside/in approach is undertaken, examining first the boundaries and thresholds that define the site as well as the duality of this landscape that spans between the city (via Tuscolana) and the interstitial corridor (via del Mandrione).

The final chapter (seven), “Interventions: *Parco degli Acquadotti al’Mandrione*”, suggests contextualizing the interstitial fragment within its local and territorial setting, proposing the design of a park. It suggests a series of interventions that demarcate this area as a point of intensity along the interstitial corridor, becoming a place of transition (threshold) between the city and its interstitial margins.

fig.0.4 SCALES OF EXPLORATION



CHAPTER 1. JOURNEYS / *PERCORSI*



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE  
Parco degli Acquedotti all'Anagnina

**TERMINI**

**MB**  
REBIBBIA

**MA**

**MB**

**ALBANO LAZIALE**

**FR4**





## 1.1 PERCORSO 1 - RAILWAY JOURNEY from Termini station to the Roman Campagna

*Sunday, September 16th, 2007*

*I take the train from Termini station on an early Sunday afternoon in September, headed for the town of Albano Laziale, just 25 km south-east of Rome.*

*This railway corridor sections through the city, traversing it from the centre to the periphery before reaching the open landscape of Roman Campagna, then curving around the volcanic slopes of the Alban Hills.*

*For the first part of this journey, the railway lines run in parallel and intersect with the course of the aqueducts - an intriguing entanglement of the industrial and archaeological, and everything else in between .*

*Although I have walked these landscapes on numerous occasions, I decide to probe a different point of view. As the train sets in motion, I place my hand held camera against the window sill and begin my journey.*

fig.1.1 RAILWAY NETWORK - SE OF ROME

*The 'scenery' is far from picturesque – I am immediately confronted by a series of pitched roof houses built very close to the train tracks followed by the backs of industrial buildings covered in graffiti, set behind the railway berms.*

*Stacked shipping containers. Long, linear industrial warehouses running continuously along the margins at a monotonous pace. Another couple of two storey buildings followed by a taller, ochre façade shaded by umbrella pine trees.*

*Dense vegetation obscures the background while the foreground reveals a continuous platform along the tracks, and what appears to be a train station with a sign reading Roma Casilina.*

*I shift my focus to the background and notice, for the first time, beyond the flashing railway posts, the outline of the aqueducts - hardly discernible at first and low to the ground, then rising above with an undulating, recognizable silhouette.*

*A building interrupts this brief first encounter, then I catch a few more sporadic glimpses of the aqueducts between corrugated rooftops, coral washed stucco walls and dense vegetation. The foreground begins to move more rapidly shifting quickly between up close facades, and tall retaining walls; it then begins to dematerialize at the speed of the train. The aqueduct is dissolved in washes of green and gold, it becomes transient, ephemeral, luminous, almost transparent.*

*The scenery becomes impressionistic, with rapid horizontal strokes of colour blending figures and background together. It is intensely green, overgrown, up-close.*

*After passing through a tunnel the image comes back into focus again revealing a more domestic, pastoral setting. Two to three storey palazzi surrounded by gardens and cultivated fields set against the backdrop of the aqueduct, which runs continuously and low to the ground, separating it from the sky precisely along the middle. The earth then rises to eye level, reducing the aqueduct to a thin, uninterrupted horizon line.*

*Another tunnel interrupts this linear frame. The aqueduct is no longer discernable, however a tower appears in the distance, as a singular vertical mark slowing down the rapid horizontal flow.*

*The landscape becomes less and less inhabited, filling up with vegetation, cornfields and ploughed land.*

*The train passes under another bridge, then a tunnel, to then reveal abruptly without warning the aqueducts in their full splendour – freestanding, monumental.*

*A train coming from the opposite direction cuts short this moment of revelation, obscuring the view for a few moments.*

*The aqueduct rises victoriously above the railway before vanishing from sight completely.*

*In two minutes and thirty seconds I have left Rome behind.*

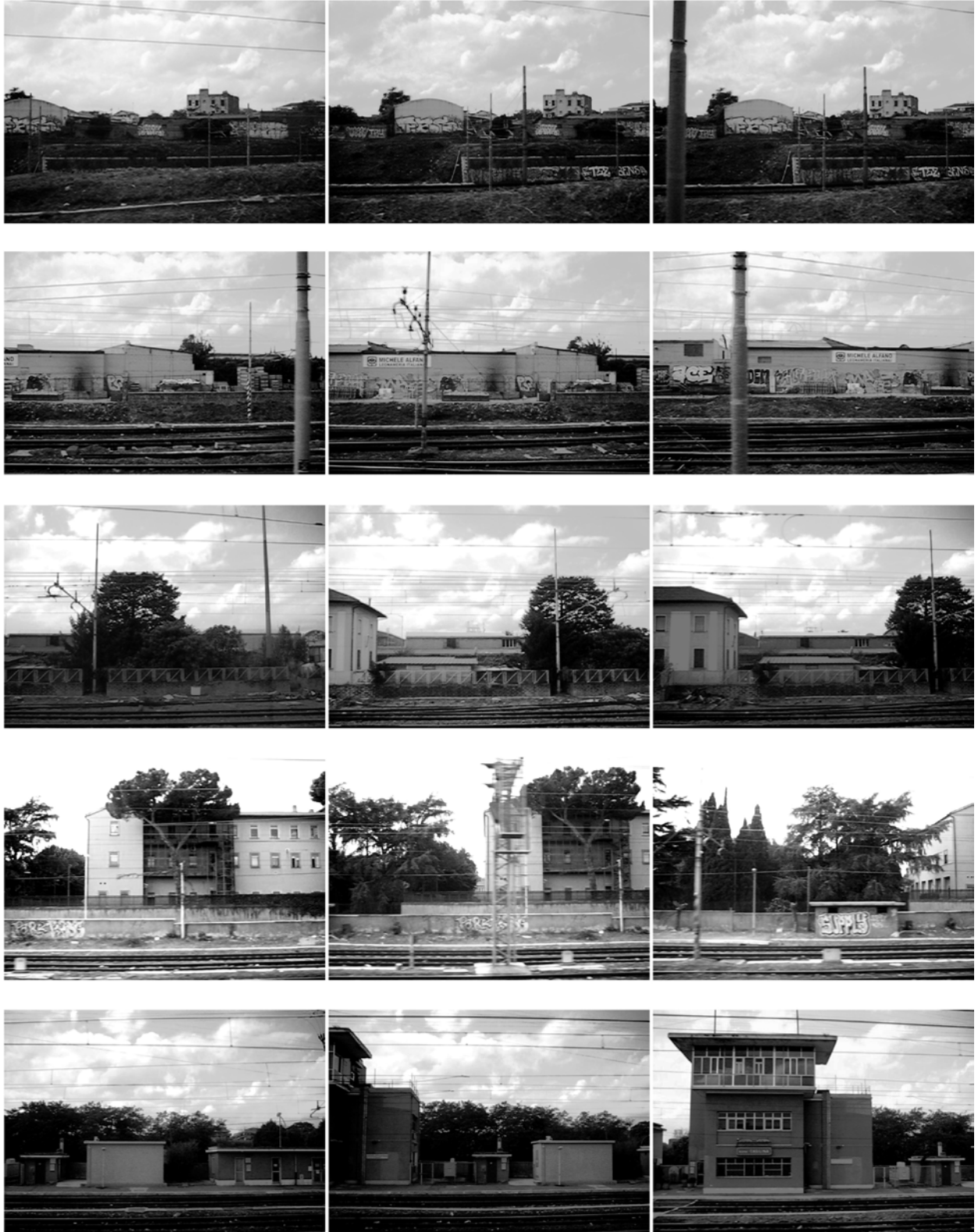
INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



fig.1.2 RAILWAY JOURNEY: FILM FRAMES (SELECTIONS)



*percorso 1: railway jouney*



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*

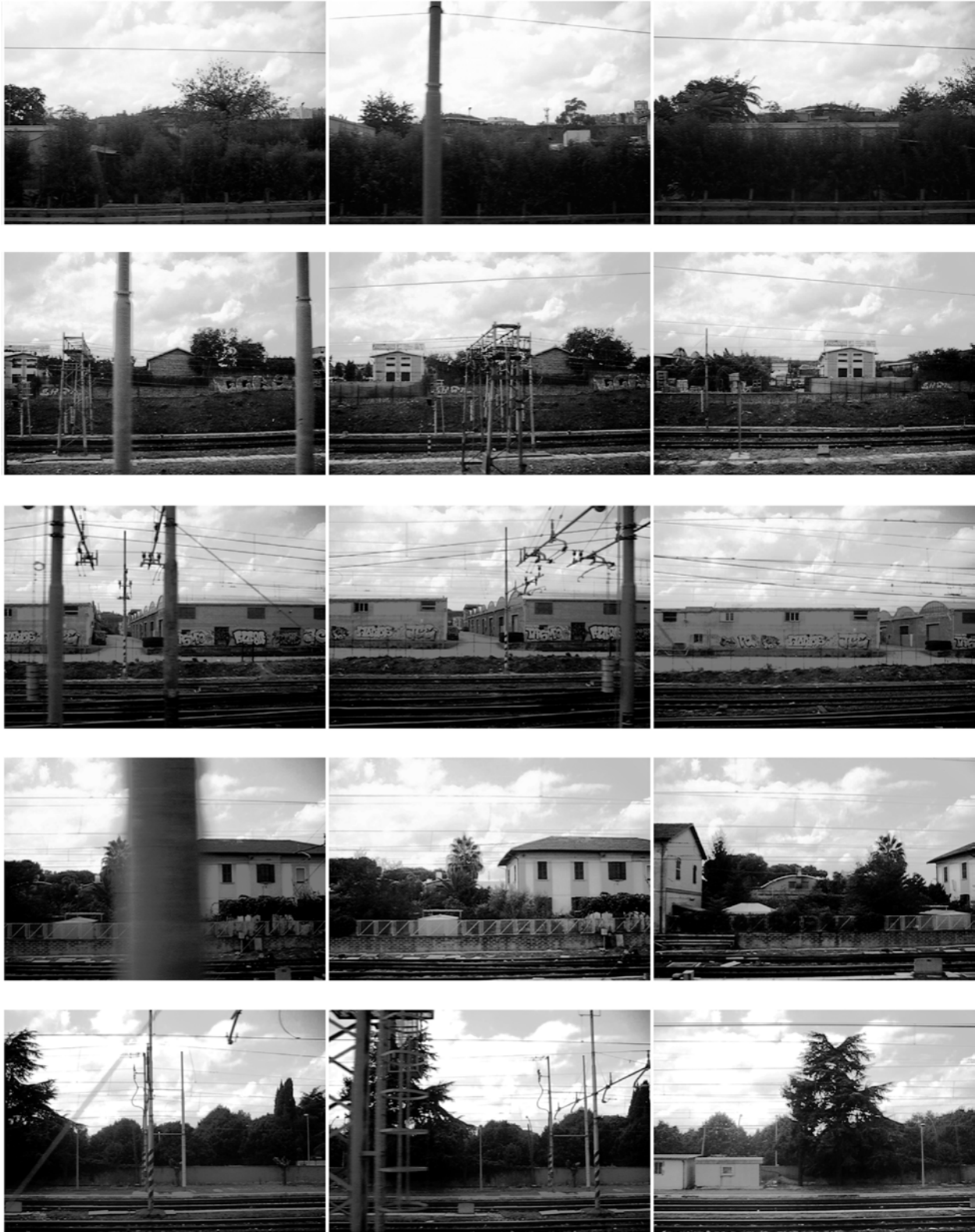


fig.1.3 RAILWAY JOURNEY: FILM FRAMES (SELECTIONS)

*percorso 1: railway jouney*





INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandorale*



fig.1.4 INTERSTITIAL CORRIDOR - PERCORSO 2

PORTA MAGGIORE  
CIRCONVALLAZIONE TIBURTINA

VIA CASILINA VECCHIA

VIA DEL MANDRIONE

PORTA FURBA

PARCO DEGLI ACQUEDOTTI



## 1.2 PERCORSO 2 - PASSEGGIATA from Parco degli Acquedotti to Porta Maggiore

The second journey proposes a return to the city from the Campagna along the course of the aqueducts. This seven kilometer walk begins at the Aqueduct Park (*Parco degli Acquedotti*) then continues north, toward Porta Maggiore, following the fragmented spine of the aqueducts wherever possible, in spite of occasional deviations imposed by infrastructural boundaries, fences, property walls or traffic. The aqueduct becomes a landmark - *“an object in the landscape, which, by its conspicuousness, serves as a guide in the direction of one’s course.”*<sup>1</sup> It is a point of reference, a constant element in an otherwise incoherent, at times chaotic environment.

This second *percorso* unfolds at a much slower pace than the train journey. It invites pause and recollection, a personal immersion and active engagement with this landscape. The fascination with the ruins alternates with the fascination for the *“terrain vague”*, for the apparent state of abandonment of this in-between place. However, elements of domesticity disclose traces of past and present inhabitations.

A series of photographs taken between 2007 and 2009, reconstructs in a non chronological order the continuity of the journey along the aqueducts. This visual narrative is broken down into six areas of distinct characteristics - 1) *Parco degli Acquedotti*; 2) *Porta Furba*; 3) *Via del Mandrione*; 4) *Via Casilina Vecchia*; 5) *Circonvallazione Tiburtina*; 6) *Porta Maggiore*.

<sup>1</sup>Oxford English Dictionary, Second Edition, 1989

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

AQUA CLAUDIA  
*Thursday, April 5th, 2007*



fig.1.5



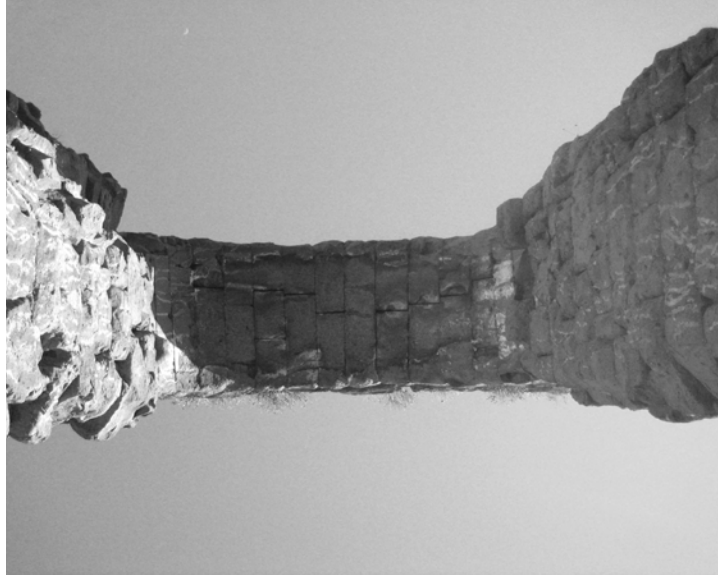




ACQUEDOTTO - 'TRATTO' DETAIL  
*Wednesday, September 5th, 2007*

fig.1.6





AQUA CLAUDIA  
*Wednesday, September 5th, 2007*

fig.1.7



RAILWAY & AQUA CLAUDIA  
*Wednesday, September 5th, 2007*

fig.1.8

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

ACQUEDOTTO FELICE  
*Thursday, April 5th, 2007*



fig.1.9







ACQUEDOTTO FELICE - ARCHWAY  
*Wednesday, September 5th, 2007*

fig.1.10



ACQUEDOTTO FELICE - DETAIL AT GROUND LEVEL fig.1.11  
*Wednesday, September 5th, 2007*



ACQUEDOTTO FELICE - DOORWAY DETAIL fig.1.12  
*Wednesday, September 5th, 2007*

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

PORTA FURBA  
*Thursday, April 26th, 2007*





fig.1.13





PORTA FURBA - 'CAMERA' INTERIOR LOOKING OUT  
*Thursday, April 5th, 2007*

fig.1.14





fig.1.15

PORTA FURBA - 'CAMERA' INTERIOR  
*Thursday, April 5th, 2007*



fig.1.16

PORTA FURBA - 'CAMERA' INTERIOR  
*Thursday, April 5th, 2007*

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

VIA DEL MANDRIONE  
*Monday, April 6th, 2007*



fig.1.17







VIA DEL MANDRIONE - GATED ARCHWAY  
*Monday, February 25th, 2008*

fig.1.18



VIA DEL MANDRIONE - DOMESTICITY  
*Monday, February 25th, 2008*

fig.1.19



VIA DEL MANDRIONE - ENCLOSURE  
*Monday, February 25th, 2008*

fig.1.20



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



VIA DEL MANDRIONE - FOOTBALL FIELD  
*Monday, February 25th, 2008*

fig.1.21





fig.1.22

VIA DEL MANDRIONE - RAILWAY  
*Monday, February 25th, 2008*



fig.1.23

VIA DEL MANDRIONE - UNDERPASSAGE  
*Monday, February 25th, 2008*

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

VIA CASILINA VECCHIA  
*Sunday, April 15th, 2007*



fig.1.24







VIA CASILINA VECCHIA  
*Thursday, April 5th, 2007*

fig.1.25



VIA CASILINA VECCHIA - RAILWAY  
*Sunday, April 15th, 2007*

fig.1.26



VIA CASILINA VECCHIA  
*Sunday, April 15th, 2007*

fig.1.27

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

CIRCONVALLAZIONE TIBURTINA  
*Sunday, April 15th, 2007*





fig.1.28



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

PORTA MAGGIORE  
*Sunday, February 25th, 2007*



fig.1.29







PORTA MAGGIORE  
*Thursday, April 5th, 2007*

fig.1.30





PORTA MAGGIORE  
*Thursday, April 5th, 2007*

fig.1.31



PORTA MAGGIORE  
*Thursday, April 5th, 2007*

fig.1.32

INTERSTITIAL TISSUE:  
Parco degli Acquedotti - Quadrone



### 1.3 PERCORSO 3 - BY CAR via del Mandrione

..... VIA CASILINA VECCHIA

*Monday, May 7th, 2007*

The third and last journey retraces via del Mandrione - a 2 kilometer road running from Porta Furba to via Casilina Vecchia. A collection of still photographs taken during a drive through this area depicts a different aspect of this zone, as a traffic corridor bordered on both sides by masonry walls. In spite of the speed bumps and the road signs indicating a 30km/hr the cars seem to be advancing at an alarming pace.

The words of italian writer Eraldo Albinati capture the atmosphere and character of this area:

*"The best way is always on two wheels, approaching via del Mandrione from the outside, from Porta Furba on via Tuscolana. Even here the name, allusive: some say it is called this way because of robbers or thieves (from Latin-fur). For me it is synonymous with a gate that screws over whoever passes underneath: a type of warning about the fraudulent and ironic character of the city that pretends to welcome you with its great monuments - when in reality it makes a mockery of you. It slips off your wallet while you have your nose in the air looking for the aqueducts. It leaves you with your mouth open. And in fact, having passed through the first arch, you enter another world...." <sup>1</sup>*

..... VIA DEL MANDRIONE

..... VIA TUSCOLANA

..... PORTA FURBA

fig.1.33 VIA DEL MANDRIONE

<sup>1</sup>Eraldo Albinati. "The city between elegy and parody, Mandrione as vertigo" in *La Repubblica*, October 31st, 2001. Personal translation from Italian. Full article included in the appendix section.



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*

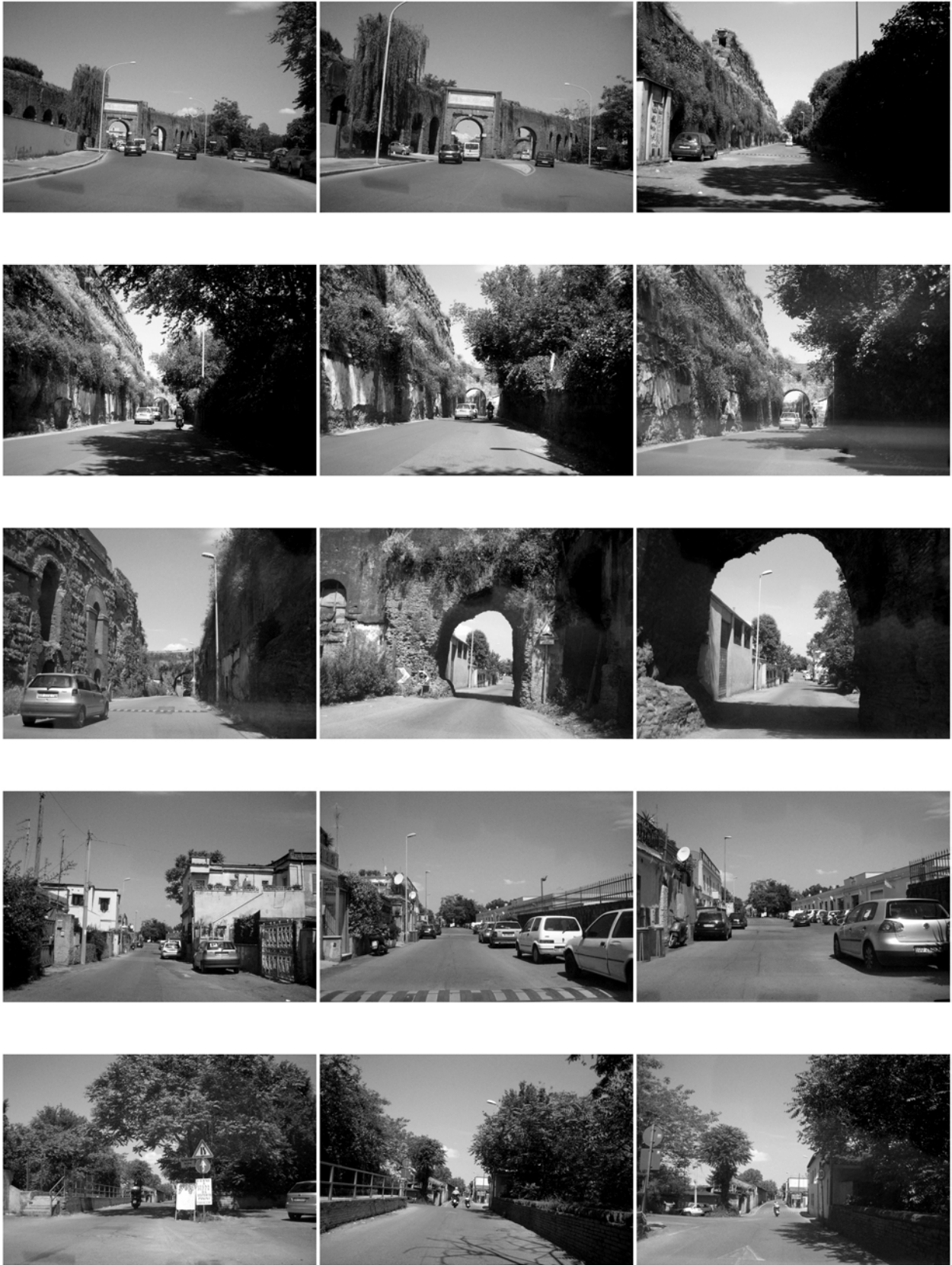


fig.1.34 PERCORSO 3: VIA DEL MANDRIONE (CONTACT SHEET 1)





INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.1.35 PERCORSO 3: VIA DEL MANDRIONE (CONTACT SHEET 2)





INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



fig.1.36 PERCORSO 3: VIA DEL MANDRIONE (CONTACT SHEET 3)







## CHAPTER 2. MAPPINGS

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



fig.2.1 URBAN CONTEXT  
scale 1:35000



## 2.1 CONTEXTUALIZING THE INTERSTITIAL LANDSCAPE



fig.2.2 COMUNE DI ROMA - MUNICIPALITIES

The aqueducts traverse an area running approximately seven kilometres between the Aurelian Walls and *Parco degli Acquadotti*.

From an administrative standpoint, they are located within the jurisdictions of the IXth and Xth municipalities, crossing the Metronio, Tuscolano (Q.VIII) and Appio Claudio (Q.XXV) neighbourhoods.

These neighbourhoods create a zone of transition between the historical center and the peripheral areas of the city, being situated in proximity to the Aurelian Walls. They are well connected to the city center through the major consular roads that traverse this south-eastern sector - via Appia Nuova, via Tuscolana, via Casilina – as well as by Linea Metropolitana A (one of Rome's two subway lines).



fig.2.3 MUNICIPIO IX - NEIGHBOURHOODS

- 9A - TUSCOLANO NORD
- 9B - TUSCOLANO SUD
- 9C - TOR FISCALE
- 9D - APPIO
- 9E - LATINO

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



## 2.2 URBAN DENSITY/ USES

There is an uneven distribution of high, medium and low density clusters along the consular roads and major circulation arteries in this area. A combination of villas (*palazzine*) and detached houses (*villini*), coexist with higher density residential areas (*intensivi*) as well as older working class suburbs.

A predominantly low density urban tissue contours the area along the infrastructural corridor on each side of the railway and the aqueducts. A variety of uses related to the presence of the railway give this area a marginal aspect - light industry, deposits, automotive repair shops, artisanal enterprises, workshops, etc. , as well as residential settlements.

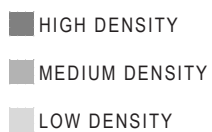


fig.2.4 DENSITY  
scale 1:35000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





## 2.3 LANDSCAPE FRAGMENTATION

This landscape possesses significant archaeological and ecological value, including large archaeological parks, historical villas, as well as public and private recreational grounds.

Three major suburban parks are located in proximity to the corridor bordered by the railway and the aqueducts : *Parco degli Acquedotti* (to the south), *Parco dell'Appia Antica* (to the west) as well as *Parco di Centocelle* to the east (recently built on the site of Rome's first airport).

Like the landscape traversed by the aqueducts, these areas are affected to various degrees by illegal occupation, unauthorized construction and marginal uses. These areas remain largely disconnected from the urban fabric, lacking territorial continuity and ease of access, in spite of their recognized archaeological value.

Only a few historical villas have survived urbanization in this part of the city – *Villa Lais*, *Villa Lazaroni* and *Villa Fiorelli*. Although these properties have been significantly reduced due to residential expansion, they are central elements in building a sense of community at the local level, accommodating a series of family oriented programs, cultural events, and recreational activities.

Also close to the aqueducts, located on the other side of the railway tracks is *Parco Alessandrino*, a small public park that frames a portion of the Alessandrino aqueduct (Aqua Alexandriana - built in 226AD). The park shares a common history with the landscape along the Claudio and Felice aqueducts but they are completely disconnected by the railway corridor.



fig.2.5 GREEN AREAS  
scale 1:35000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



fig.2.6 INTERSTITIAL CORRIDOR  
scale 1:35000

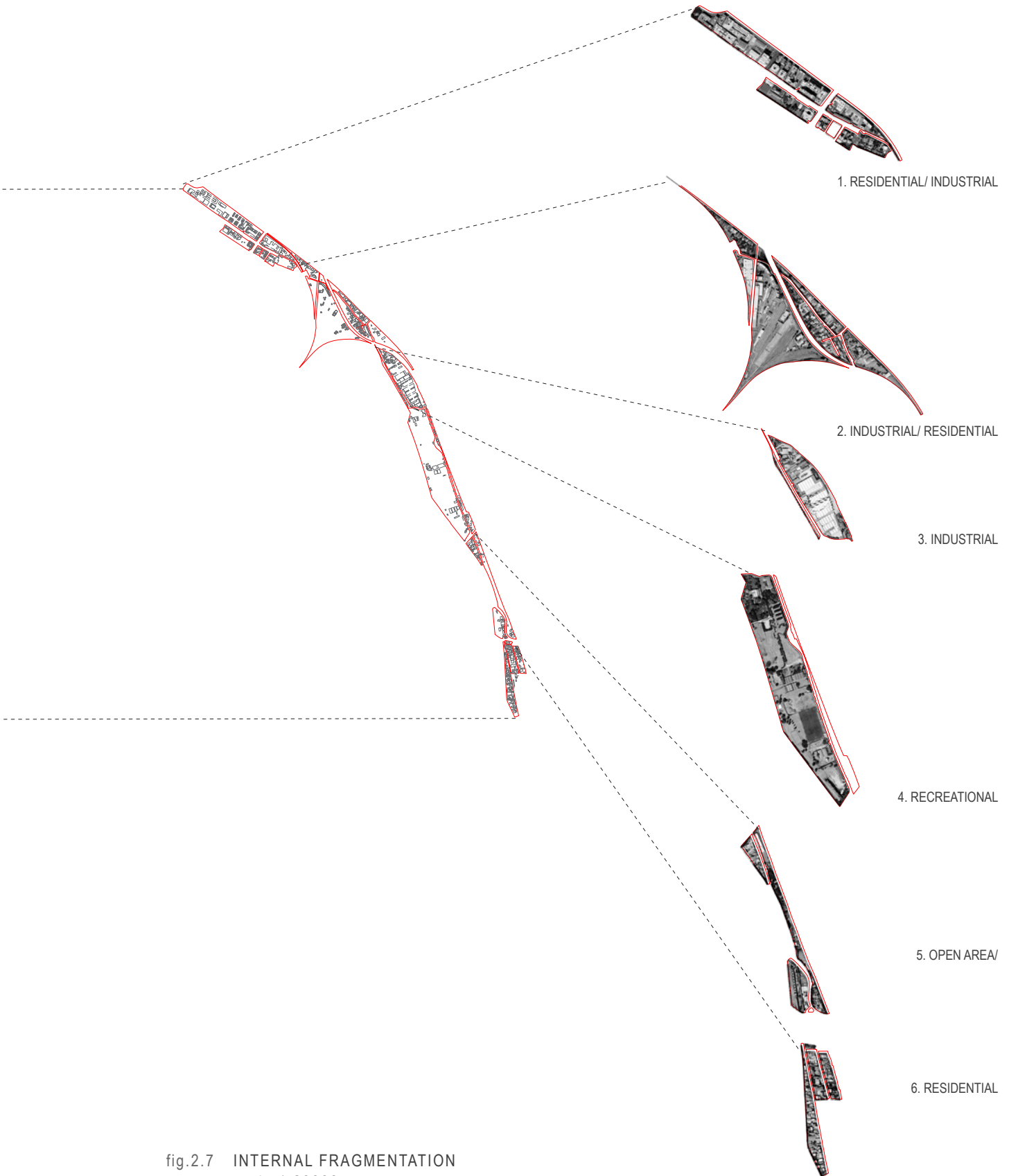


fig.2.7 INTERNAL FRAGMENTATION  
scale 1:20000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*

fig.2.8 PARCO DEGLI ACQUEDOTTI  
scale 1:25000

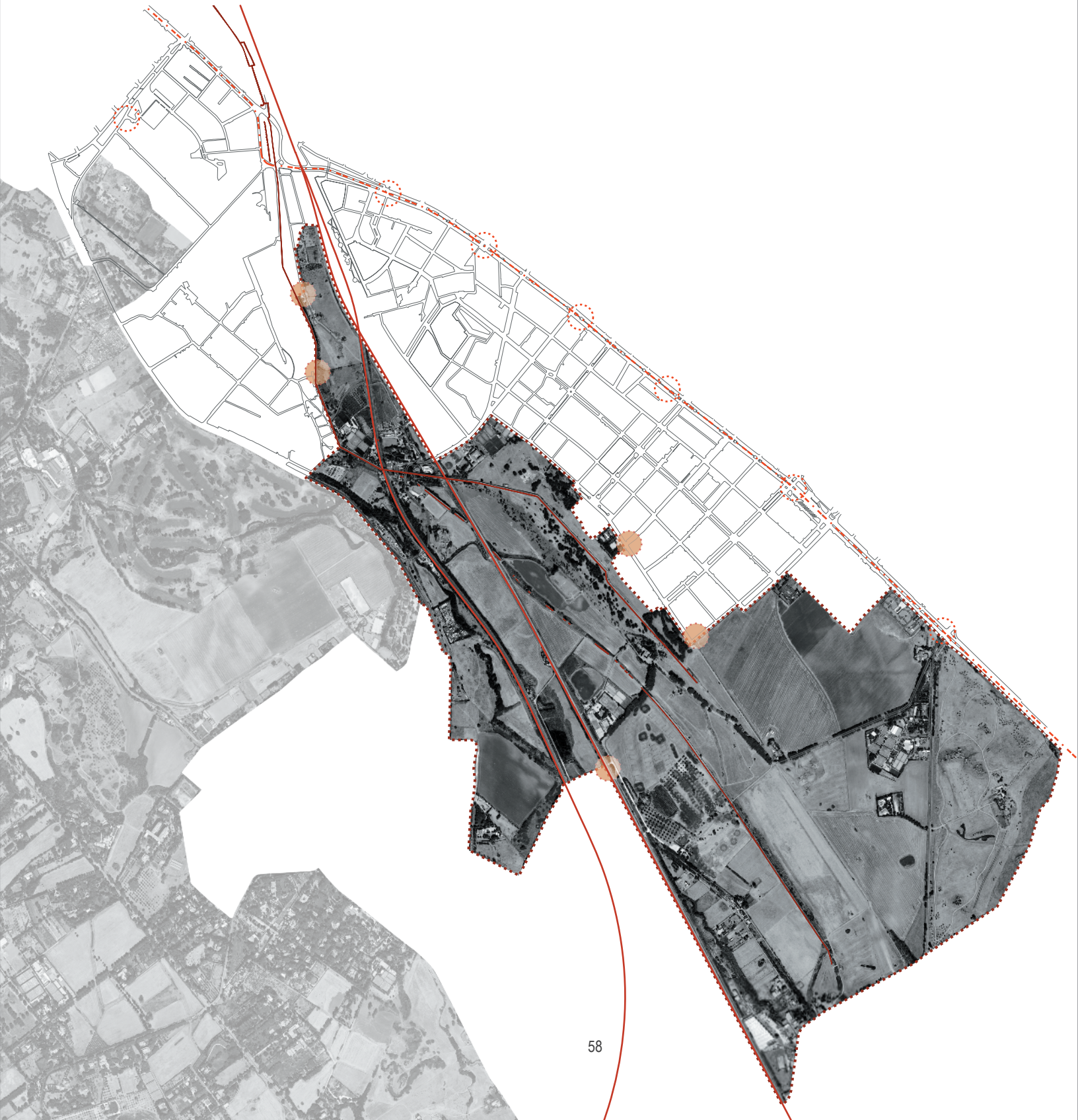






fig.2.9 OPEN AREAS ALONG THE AQUEDUCTS  
scale 1:25000



## CHAPTER 3. LANDSCAPE TRANSFORMATION

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

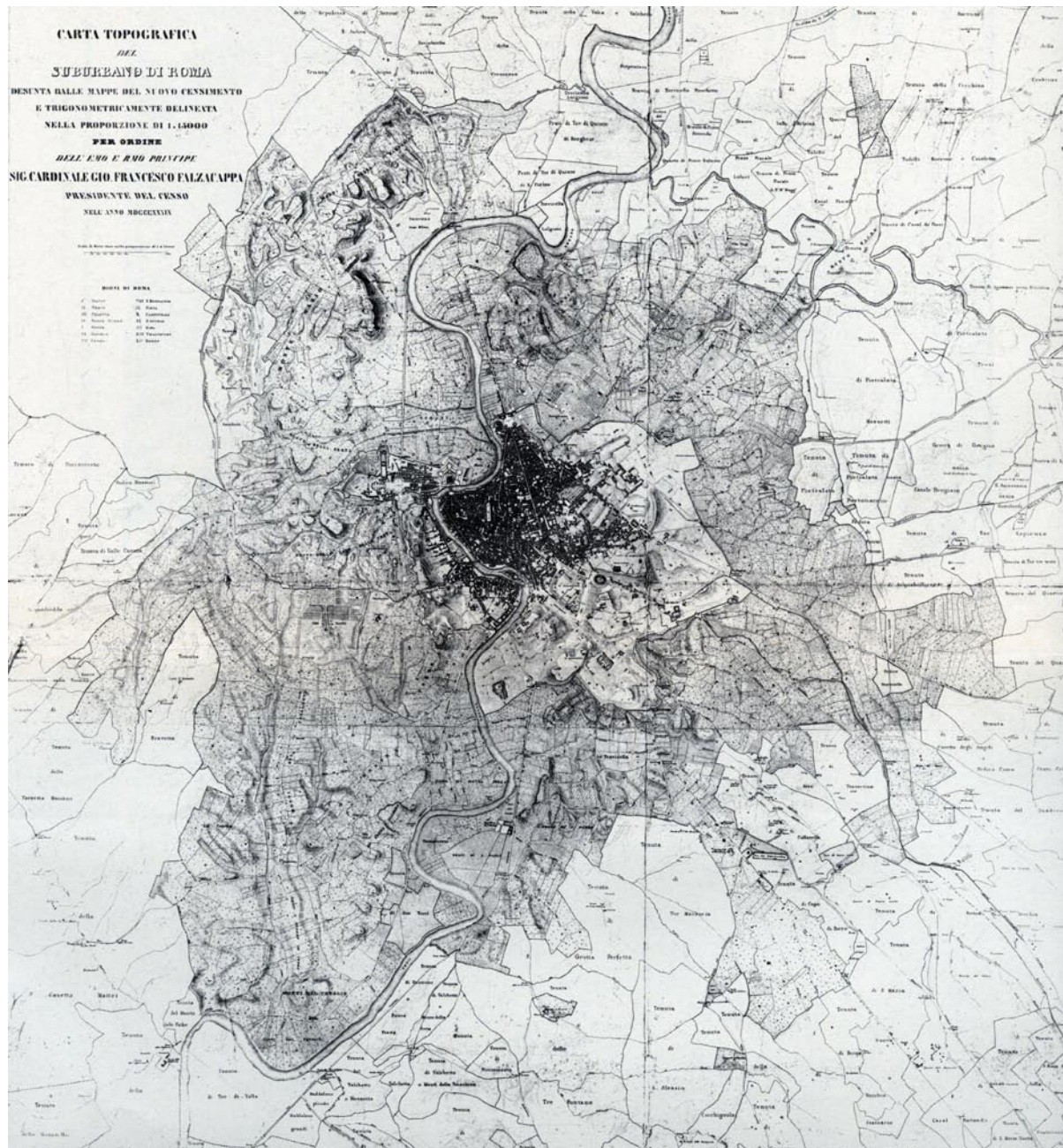


fig.3.1 CARTA TOPOGRAFICA DEL SUBURBANO DI ROMA(1839)



### 3.1 XX<sup>TH</sup> CENTURY URBAN EXPANSION



ROME - 1870's



ROME - 1900's



ROME - 1930's



ROME - 1960's

fig.3.2 URBAN EXPANSION OF ROME  
1900-1960

source: *Italo Insolera*

The Carta Topografica del Suburbano di Roma (1839), depicts Rome just 31 years prior to the Italian Unification. It shows a small urban core concentrated along the Tiber river surrounded by a large green belt of cultivated land properties, a green connective tissue occupied by villas, orchards and vineyards, and the open 'desert' of the roman Campagna.

*"The countryside that surrounded the city, with its ancient remains and pastures was extremely picturesque and the ground was fertile, though malaria was very common in most areas. Peasants were employed to cultivate, harvest and sell wheat and other agricultural products. The work in the countryside was very hard and as soon as possible the seasonal labourers with their harvested crops and livestock moved into the city, to escape contamination from malaria. Therefore in the city many granaries, barns and stables were found amongst the houses."*<sup>1</sup>

The suburban landscape of Rome underwent drastic transformations beginning with 1871, as Rome became capital of the new Italian Republic. Rome's urban expansion was largely driven by a need for residential development, due to the rapid population growth that rose from 244,000 inhabitants in 1871, reaching up to 2,624,000 by 2001.<sup>2</sup>

A series of infrastructural interventions implemented while Rome was still under Pontifical rule, conditioned the urban growth of the city toward the south-east, in the direction of the newly introduced railway lines.

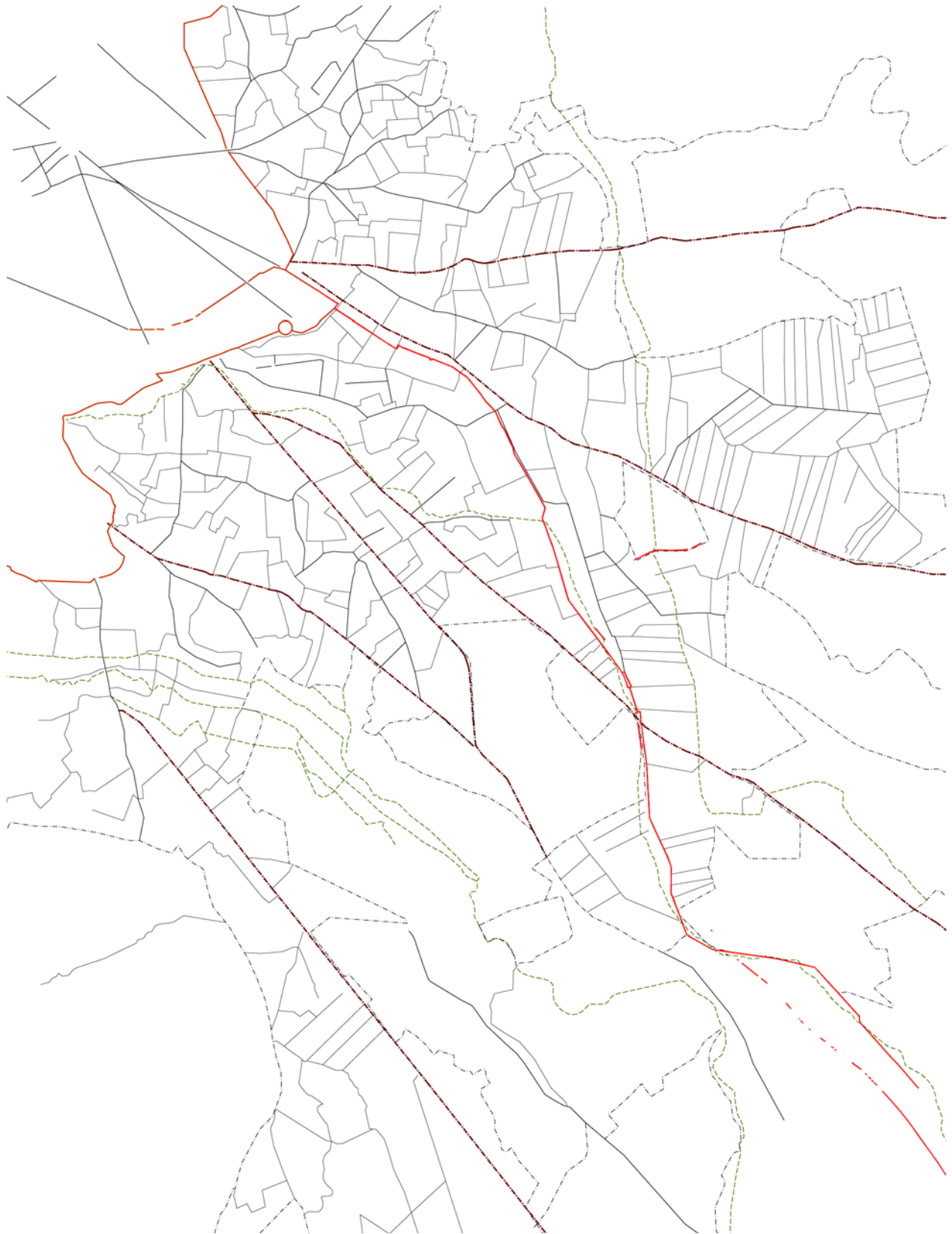
The Roma-Frascati line, inaugurated in 1856, became the first railway connection linking Rome with the Castelli Romani region (just 20km to the south east). It was soon followed by the Roma-Ceprano line (built in 1862) with the station at Termini, as well as by the Roma-Marino-Albano and Roma-Formia lines (built in 1889 and 1937 respectively).<sup>3</sup> A series of interventions were implemented after the unification of Italy to adjust the infrastructural systems suitable for the so called "Arco Meridionale"(Southern Arch) with the creation of new 'minor' stations, locomotive deposits and links.

The outward expansion of the city happened hastily, in a disorganized fashion, spreading onto the surrounding territory that was considered,

<sup>1</sup> Irene de Guttry. Guide of Modern Rome. Architecture 1870-2000. Rome: Edizioni De Luca S.r.l., 2001. p.8

<sup>2</sup> Roma dall'alto. Edited by Maria Filomena Boemi and Carlo M. Travaglini. Rome: Universita degli Studi Roma Tre, 2006, p.129

<sup>3</sup> Maurizio Forte, Italo Ceccarelli. "Eventi urbanistico-Architettonici ai margini dell'Acquedotto" in Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana. Roma: Istituto Poligrafico e Zecca dello Stato, 2001, p.148



1839

fig.3.3 URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1839)  
scale 1:35000

generally speaking, “*historically virgin land*”.<sup>4</sup> As Rome’s centre quickly filled up with residential neighbourhoods as well as new ministerial and administrative buildings – the areas outside the city walls provided an alternative for the un-accommodated growing population of the new capital.

Workers and labourers who had come from all over the country to help the rebuilding of Rome, first settled informally in the urban periphery, building low quality dwellings (*‘baracche’*) along consular roads or in close proximity to the railway lines. The suburban landscape was also quickly occupied by dispersed residential clusters (*‘borgate’*) and later on by subsidized housing neighbourhoods (*‘quartieri popolari’*).

Urban interventions happened on different levels within and outside the city walls. Within the historic centre a series of demolitions (*‘sventramenti’*) took place in order to clear the city of slums, widen and build new roads, clear out areas around monuments. The evicted residents however were not provided with alternative living arrangements, often ending up in the *borgate* along the edges of railways or outside the city walls where they had to compete with the migrant workers. “*The refugees of these ‘sventramenti’ were now housed by the regime in a series of ersatz communities called borgate, built rapidly in the open country to the east, ten miles or more away from the city proper and tied to it only by railroad lines.*”<sup>5</sup>

From an administrative standpoint, the *borgate* did not fit into either of Rome’s four regions: the city’s older areas (*‘rioni’*) were surrounded by new neighbourhoods (*‘quartieri’*), that expanded outside the Aurelian Walls, and further out by the distant periphery (*‘suburbi’*) and the Roman countryside, (*‘Agro romano’*).<sup>6</sup> “*Neither organically incorporated into the urban structure nor true agricultural settlers, the residents of the borgate led an ambivalent existence between city and country, living in one and commuting to the first for their livelihood.*”<sup>7</sup>

Attempts at controlling and directing the urban expansion proved unsuccessful, as the proposed urban master plans lacked a clear vision and were unable to keep up with the rapid growth of the city.

1883 Master Plan

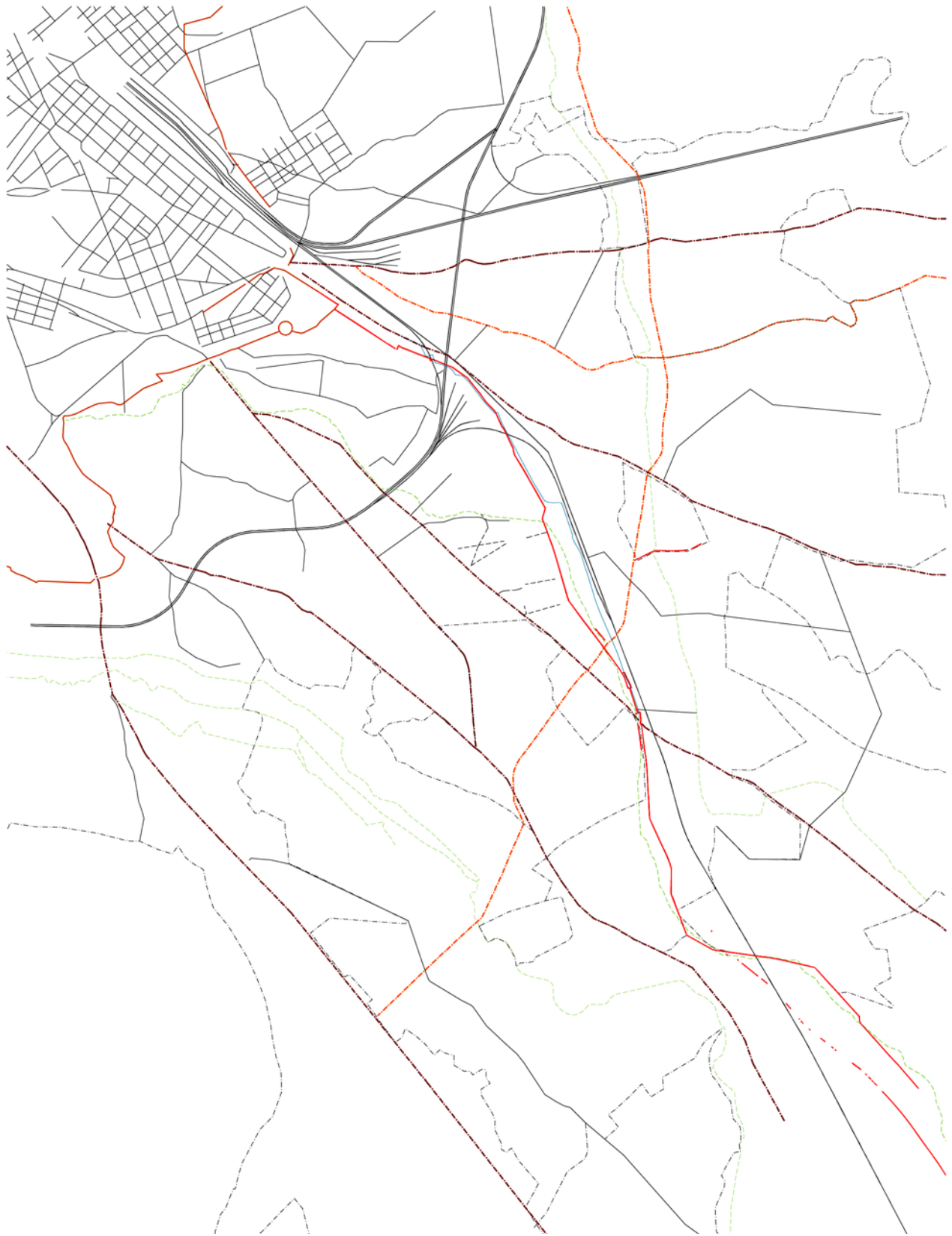
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<sup>4</sup> Spiro Kostof. *The Third Rome. 1870-1950 Traffic and Glory*. Berkley: University Art Museum, 1973. p.9

<sup>5</sup> *Ibid.* p.19

<sup>6</sup> Spiro Kostof. *The Third Rome. 1870-1950 Traffic and Glory*. Berkley: University Art Museum, 1973. p.19

<sup>7</sup> *Ibid.* p.19



1906

fig.3.4 URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1906)  
scale 1:35000



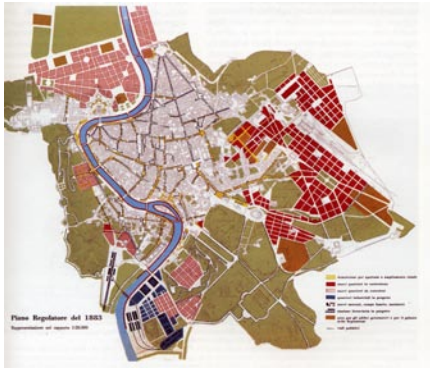


fig.3.5 1883 MASTER PLAN

After the 1873 Master Plan was presented and set aside without securing for it final government sanction, opening the way to a “furious and undisciplined building boom”, the State called for a new master plan to be drawn up. The new and first legal Master Plan became law on March 8<sup>th</sup> 1883. Alessandro Viviani, head of the Ufficio Tecnico was called to update and amplify the 1873 plan. The plan extended residential development to the east in the direction of Termini station, as well as to the South proposing the new industrial quarter of Testaccio.

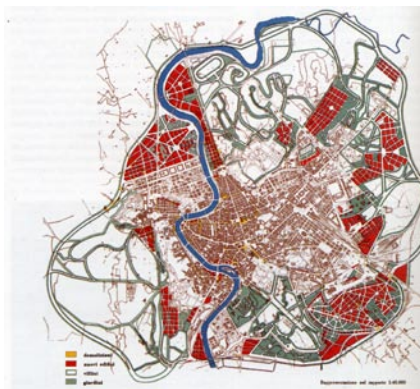


fig.3.6 1909 MASTER PLAN

### 1909 MASTER PLAN

By 1909 the city had reached a population of 550,000.<sup>8</sup> Edmondo Sanjust di Teulada (former head of Milanese Corps of Civil Engineers), was appointed by mayor Ernesto Nathan to draft up a new plan.

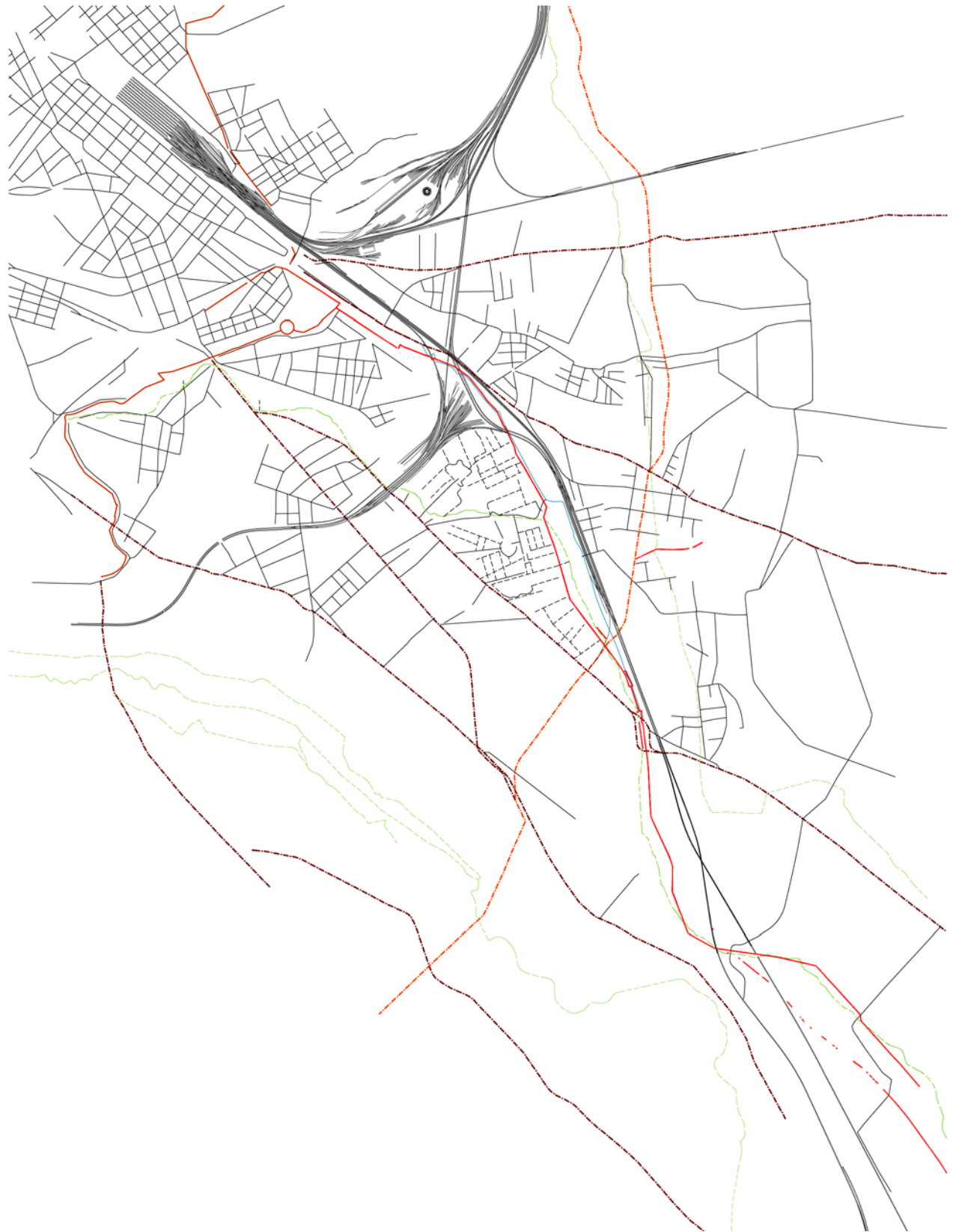
The new plan foresaw urban expansion outside the city walls. The area enclosed between the Aurelian Walls and the railway was laid out with a radial, geometric scheme, designated to new residential use. A green strip of 'gardens' was outlined along the railway arch providing a buffer zone between the proposed neighbourhoods and the industrial zone.



906  
fig.3.7 1909 MASTER PLAN (DETAIL)

<sup>8</sup> Ibid. p.47

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



1924

fig.3.8 URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1924)  
scale 1:35000

## 1931 MASTER PLAN



fig.3.9 1931 MASTER PLAN

The 1931 Masterplan was built upon the 1909 Plan as well as the variants that followed it, becoming the third official plan of Rome on July 6<sup>th</sup> 1931<sup>9</sup>. It covered a much more extensive area than the previous plan, including zones outside the railway belt, reaching out into the roman Campagna. The area between the Aurelian walls and the railway belt maintained the same organization outlined by Sanjust's 1909 plan, being predominantly occupied by high density apartment blocks (*'intensivi'*) that were also extended to the south along via Tuscolana and via Appia Nuova. The only green areas that remained in this sector were villa Fiorelli and Castellani, everything else being dedicated to low rise apartment blocks (*plazzine*).<sup>10</sup> The last portion of the aqueducts between the railway ring and Porta Maggiore was allocated as *'Zona di rispetto'*, a zone of separation between built up lots.

The area south of the railway lines followed a similar rigid geometric pattern, disregarding the underlying topography of the site (creating challenges during later implementation phases).<sup>11</sup> Villa Lais and villa Diana remained the only private green areas surrounded by lots dedicated to *palazzine*. Also identified as private green was the Bank of Italy property along via Tuscolana between via Umbertide and via di Porta Furba. The proposed church of Santa Maria Ausiliatrice of the Salesian religious order was identified on the plan just north of the Bank property.

The areas south of via di Porta Fuba, on each side of the railway lines were dedicated to detached housing (*villini*). A rigid geometric grid allocating low-rise apartment blocks was laid out along via Tuscolana between Porta Furba and Circonvallazione Tuscolana. The Centocelle airport (to the east) as well as the archaeological Appia Antica area (to the west) bordered this residential zone on each side,

Rather than protecting the course of the aqueducts as a continuous archaeological corridor (spanning from Porta Maggiore to the roman Campagna), the Plan reduced the landscape traversed by the aqueducts to a residual area trapped between the newly proposed residential fabric to the west and the industrial zones outlined along the railway lines to the east. It proposed a principal artery running along both sides of the aqueducts – the so called *'Aqueduct Highway' ('Autostrada degli acquedotti')* – reducing the

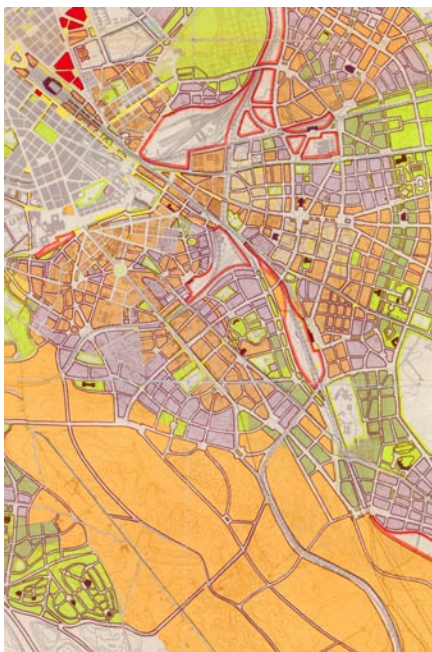


fig.3.10 1931 MASTER PLAN (DETAIL)

<sup>9</sup> Ibid. p.50

<sup>10</sup> Maurizio Forte, Italo Ceccarelli. "Eventi urbanistico-Architettonici ai margini dell'Acquedotto" in Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana. Roma: Istituto Poligrafico e Zecca dello Stato, 2001, p.160

<sup>11</sup> Ibid.



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



1949

fig.3.11 URBAN EXPANSION IN THE SOUTH-EAST OF ROME (1949)  
scale 1:35000



green corridor along the aqueducts to a traffic island.<sup>12</sup> The remaining area enclosed between the aqueducts and the railway lines was dedicated to industrial use. Only the last portion of the aqueducts was included within the boundaries of the Appia Antica area - a vast region designated by the plan as "Zona di Rispetto" that connected the central archaeological areas of the Roman Forums with via Appia Antica and its surrounding territories.

#### 1965 MASTER PLAN

The post war building boom reached its peak in the 1960's. Urban expansion happened frenetically and hastily in an attempt to accommodate the needs of a rapidly growing population that had reached two and an a half million inhabitants by 1964.<sup>13</sup> The suburbs expanded a great deal during this time. However, many buildings were constructed illegally and 'spontaneously', often without proper services and facilities. *"Though the historical centre of the city was protected by the Town Plan's extremely strict regulations, the contiguous areas were severely involved by ruthless building."*<sup>14</sup>

In an attempt to take hold of this situation, a new town plan was adopted in 1962 and approved in 1965. The new masterplan focused on residential expansion as well as on new infrastructural schemes that would alleviate the pressure of rapid growth from the historic centre.<sup>15</sup>

In the South Eastern part of the city, the 1965 Masterplan took over a series of interventions proposed by the 1931 Plan that had never been actuated. The so called "Autostrada degli Acquedotti" was reconfigured in the new plan as a major traffic artery sectioning the city from Porta Maggiore, following along the course of the aqueducts to Porta Furba, then curving to the east through the Appia Antica area headed toward the E.U.R district. The area immediately to the east bordered by the railway was designated to small industries and crafts, followed by the enclosed private park areas of the Bank of Italy. Similar to the 1931 Plan, the thickening of the infrastructural edge of the neighbourhood with major highway arteries running along the aqueducts and in parallel to the railway corridor reflected a consistent tendency to further marginalize and separate this interstitial area from the rest of the neighbourhood rather than attempting to integrate it within the urban fabric.

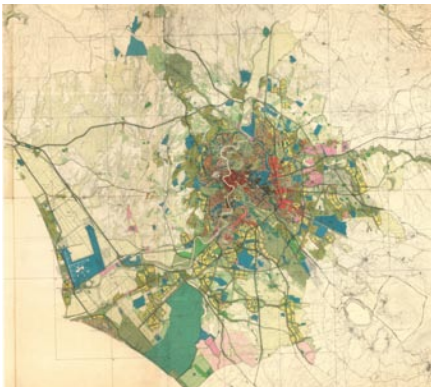


fig.3.12 1965 MASTER PLAN



fig.3.13 1965 MASTER PLAN (DETAIL)

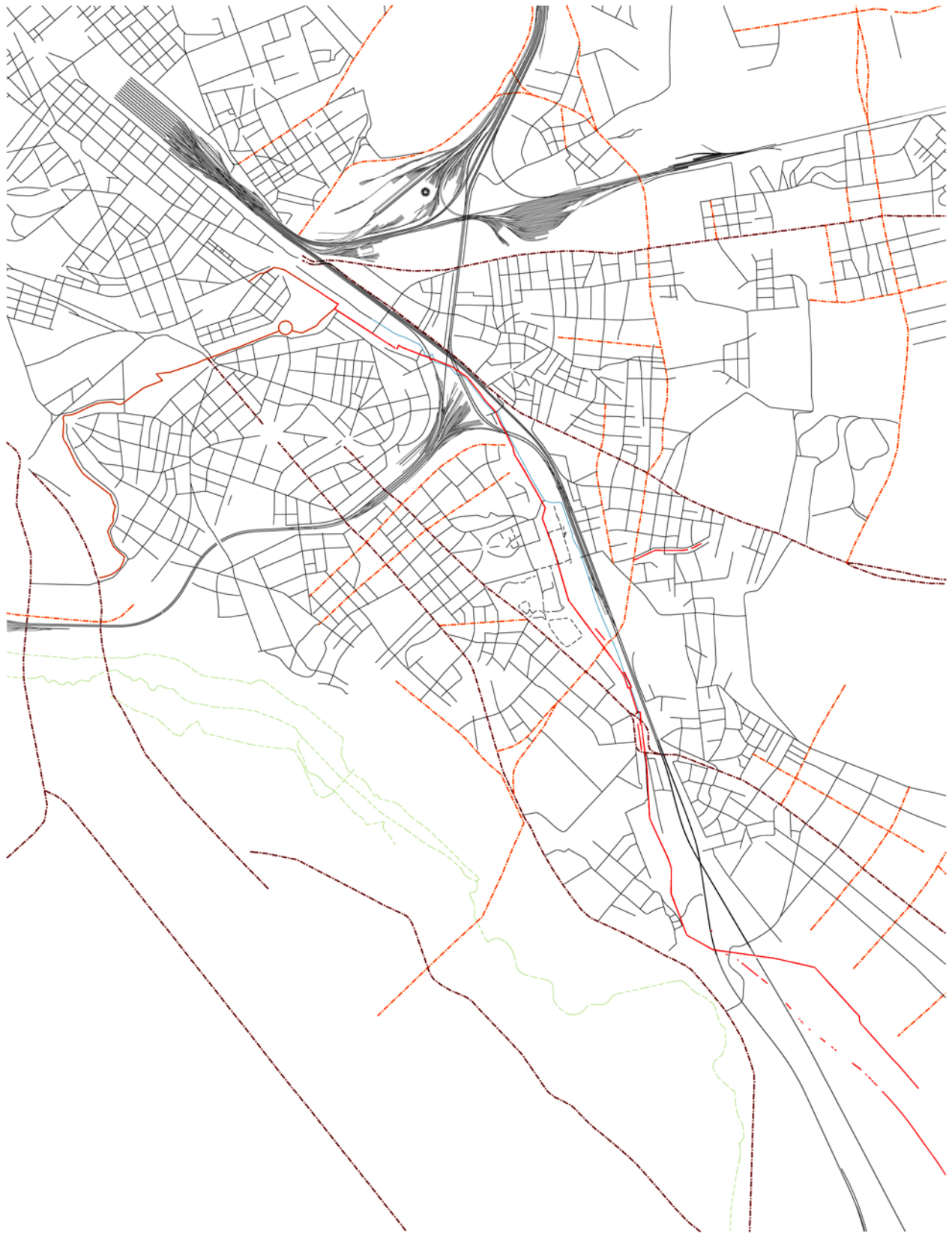
<sup>12</sup> Ibid.

<sup>13</sup> Irene de Guttry. Guide of Modern Rome. Architecture 1870-2000. Rome: Edizioni De Luca S.r.l., 2001. p.77

<sup>14</sup> Ibid.

<sup>15</sup> Franco Archibugi. Rome. A new planning strategy. New York: Routledge, 2005. p.21

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



2000

fig.3.14 URBAN EXPANSION IN THE SOUTH-EAST OF ROME (2000)  
scale 1:35000

### 3.2 LANDSCAPE PRESERVATION: THE APPIA ANTICA PARK



fig.3.15 REGIONAL PARKS - COMUNE DI ROMA

In parallel to this period of rapid expansion and consumption of the Roman territory, there was an arduous fight for the protection and preservation of endangered archaeological areas in the south-eastern outskirts of Rome, in particular of the Appia Antica road (the first consular road built in 312 B.C) and its surrounding territories (originally marked by burial constructions, columbaria, and monuments belonging to wealthy Roman families).

Unfortunately, the importance of the archaeological landscape of the aqueducts was not recognized at the urban master planning level to the same extent as the Appia Antica area. Only the southern portion of the aqueducts were included in the protected zone ('*zona di rispetto*') identified by the 1931 Masterplan, along with the areas along Via Appia Antica.

The idea of a large archaeological park linking the central areas of the Roman Forums with the Appia Antica region first came about in Napoleonic times under the leadership of Governor De Tournon, and later on during the time of Pope Pius IX. This initial step toward the recognition of the continuity of a historical landscape outside of the historical centre of Rome resulted in a series of restoration projects along via Appia Antica as well as 'archaeological walks' linking existing archaeological sites in the historical centre (such as the passeggiata archaeologica between *Circo Massimo* and *Terme di Caracalla*).

In spite of this initial zoning attempt, during the decades subsequent to the Second World War the road and surrounding monuments were again in danger of unauthorized residential developments or large authorized projects that would undermine its archaeological character. The fight for protection and preservation was led by Antonio Cederna along with a small group of town planners, architects and journalists. It started out in response to the masterplans that were drafted at the time.

The 1960 landscape plan approved the invasion of the Roman countryside by the building companies: only a few meters to each side of the road are left as public park." After 1960 the City Council began to place compulsory purchase orders on several properties along via Appia Antica. (*Valle della Caffarella, Villa dei Quintili*) In 1985 the Committee to protect Parco degli Acquedotti was formed. <sup>1</sup> In 1988, the Lazio Region finally approved the institution of the Appia Antica Regional Park (*Parco Regionale dell'Appia Antica*).

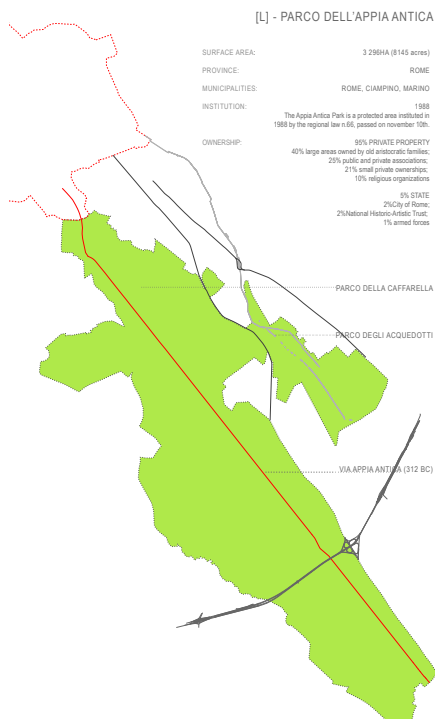


fig.3.16 PARCO DELL'APPIA ANTICA

<sup>1</sup> History of the Park. Chronology. <http://www.parcoappiaantica.it/>





## CHAPTER 4. SITE LAYERS

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*





fig.4.1 FONTANA DI PORTA FURBA (1905)

#### 4.1 HISTORICAL ANALYSIS 1800-2000

*This section examines the transformation and gradual marginalization of the landscape along the aqueducts from pre-industrial period to present day. It identifies particular historical layers that have shaped the character of this zone over time, focusing, at the local scale, on the area along via del Mandrione (from Porta Furba to the railway arch).*

#### 1800 - 1850

##### 1800's

Before the first railway lines were introduced in this area, the landscape traversed by the aqueducts had a predominantly agricultural character. This south eastern segment was traversed by consular roads expanding into the Roman Campagna (*via Tuscolana, via Casilina, via Appia Nuova*) as well as via del Mandrione that ran in proximity to the aqueducts.

At least eight aqueducts passed through this area - seven Roman ones - Aqua Claudia-Anio Novus (38-52AD), Acqua Marcia-Tepula-Iulia (144BC-125BC-33 BC), Aqua Alexandriana (226AD) - as well as Acquedotto Felice built during the Renaissance period by Pope Sixtus V (1586). This south-eastern axis was selected during roman times as a point of arrival of the aqueducts in the city due to its particular topographical configuration - a high plateau that separates the alluvial plains of the Tiber and the Aniene rivers.

A monumental archway and fountain - Fontana di Porta Furba - marked the aqueducts' entry in the city. Running below this archway was the Marrana Mariana canal. Originally built in the XIIth century by Pope Calisto to bring water to San Giovanni in Laterano church, the Marrana also provided water for the irrigation of vineyards, orchards and villas in this area.

ACQUEDOTTO FELICE

VIA DEL MANDRIONE

MARRANA MARIANA

AQUA ALEXANDRIANA

AQUAE CLAUDIA-ANIO NOVUS

AQUAE MARCIA-TEPULA-IULIA



fig.4.3 MARRANA MARIANA ALONG AQUA CLAUDIA (1904)

fig.4.2 SITE LAYERS (1839)  
scale 1:10000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





## 1850 - 1920

### *Railways*

1856

The turn of the century marked the introduction of railway lines in the south east of Rome starting with connections between Rome (still a papal state at the time) and the Castelli Romani region (20km south east of Rome) through the Roma-Frascati line (1856), followed by the Roma-Ceprano line (1862), the Roma-Marino-Albano and Roma-Formia lines (between 1889-1937).

1891

After the unification of Italy, a series of interventions were implemented to adjust the infrastructural systems suitable for the so called "Arco Meridionale"(Southern Arch) - with the development of the Termini Station (1891), and the creation of new 'minor' stations, deposits and links. In 1891 the Tuscolana Station was inaugurated with its various deposits, and between 1890 and 1891 new links were built between the Tuscolana-Portonaccio, Tuscolana-Prenestina and Tuscolana-Mandrione stations.

### *Villas*

1900s

The area east of the aqueducts continued to be occupied by agricultural use. The Lais family (led by Filippo Lais – a hydraulic engineer and president of the Acqua Mariana Consortium) began to settle gradually in this area starting with the acquisition of the Villa Santa Croce property in 1872. By the early 1900's the Lais family further extended its properties by purchasing land and adjoining dwellings from the Costantini family. The Lais transformed the rustic edifices into a suburban bourgeois residence with auxiliary service buildings and gardens. However, they also continued to maintain and cultivate the large gardens and vineyard estates in the area.

1909

In 1909, when hydraulic energy in Rome was replaced with electric energy, the Marrana remained to be used solely for agricultural purposes, its canal beginning to disappear gradually due to residential expansion.

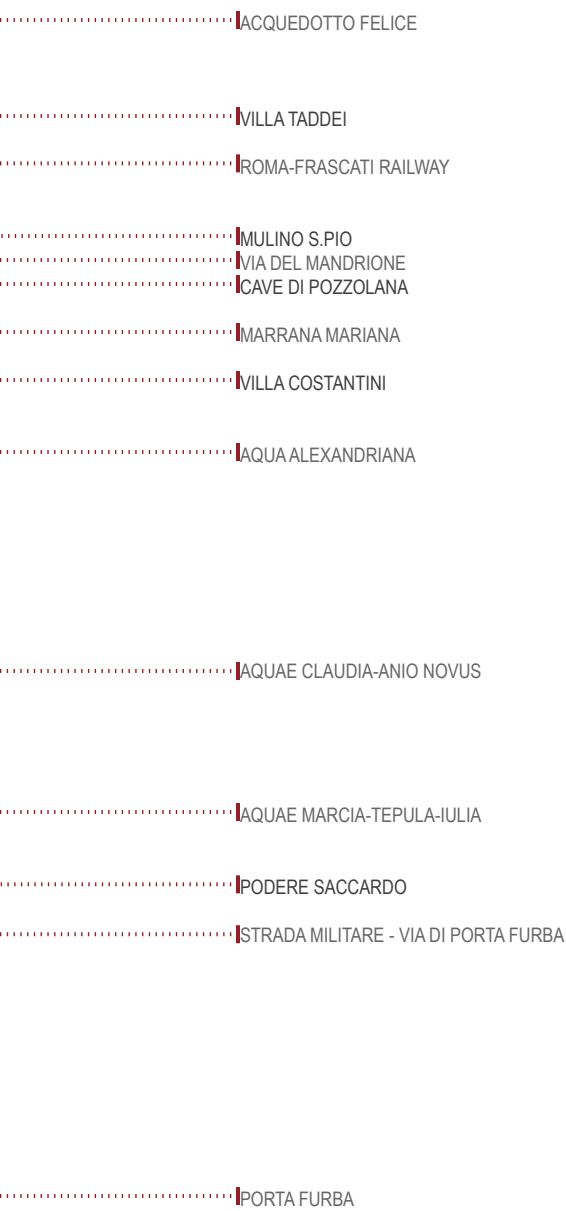


fig.4.4 SITE LAYERS (1906)  
scale 1:10000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.4.5 VIEW OF FONTANA DI PORTA FURBA (looking north-east)



fig.4.6 VIEW OF PODERE SACCARDO (1900-1907)

## Aqueducts



fig.4.7 VIA DEL MANDRIONE (1905)



fig.4.8 AQUAE MARCIA-TEPULA-IULIA (1905)



fig.4.9 EXCAVATION FOR VIA DI PORTA FURBA (1905)

The period between 1800's and 1900's was time of renewed interest in the study of the archaeology of the roman countryside ('*campagna romana*'). The golden era of the rediscovery of the aqueducts started at the end of the 1800's with Grand Tour travellers, artists and writers - such as Goethe and Ruskin - who documented this romantic fascination with the Roman Campagna, emphasizing the imposing desolation of its grand ruins.

*Perhaps there is no more impressive scene on earth than the solitary extent of the Campagna of Rome under evening light. Let the reader imagine himself for the moment with-drawn from the sounds and motion of the living world, and sent forth alone into this wild and wasted plain. The earth yields and crumbles beneath his foot, tread he never so lightly; for its substance is white, hollow, and carious, like the dusty wreck of the bones of men... from the plain to the mountains, the shattered aqueducts, pier beyond pier, melt into the darkness like shadowy and countless troops of funeral mourners, passing from a nation's grave.<sup>1</sup>*

Teams of Italian and foreign archaeologists, engineers, and photographers went on to research, rediscover and document the archaeological treasures of the Roman Campagna in the decades to follow.<sup>2</sup>

### Military road

1891

The Construction of the Roma-Albaone railway line in 1891 and *Strada Militare* (currently Via di Porta Furba) damaged the base of the aqueducts provoking protests from Lanciani who wrote:

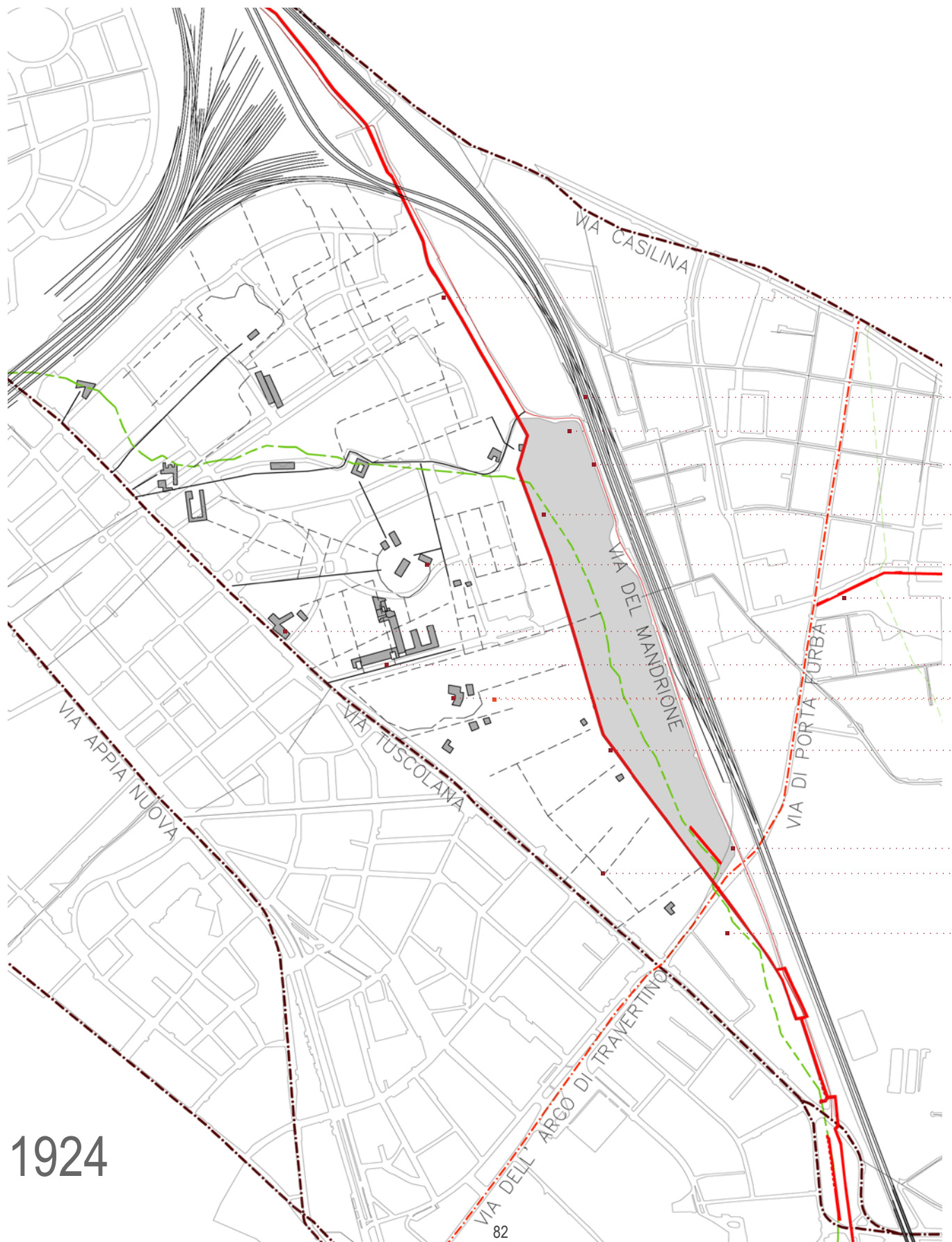
*As far as the group of Claudia-Aniene Nuovo and Felice is concerned, the military railway perforates it from one side to the other at the foundation level: so much so that the portion of the triple aqueducts is no longer supported by the ground on its ancient foundations, but rather it rests on the archways of the tunnel. If it wasn't a matter of defense works for the Capital that require the sacrifice of any other interest, I would have objected against this method of intervention, without the legitimate attention given to antique monuments, when it is a matter of cutting them or modifying their current state.<sup>3</sup>*

<sup>1</sup>John Ruskin. *Modern Painters*. New York: John Wiley, 1879. preface.

<sup>2</sup>Rodolfo Lanciani and Thomas Ashby and Esther van Deman were some of the most prominent figures in this field.

<sup>3</sup>Susanna Le Pera and Rita Turchetti. *I giganti dell'acqua: acquedotti romani del Lazio nelle fotografie di Thomas Ashby (1892-1925)*. Roma: Palombi Editori, 2007, p.149

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



1924



## 1920 - 1930

### *Marrana/ Mills*

The Marrana provided water for the irrigation of vineyards, orchards and villas. It also served as a motive force, sustaining a series of artisanal and manufacturing settlements along its course – such as wheat mills, sawmills, small copper and iron foundries. This gave rise to a particular housing typology in the area of combined residential and industrial use – the so called ‘*casali-mulini*’ or ‘*casali-opificio*’, located around a primary property such as the Villa Lais.

### *Religious properties*

#### 1920's

After the First World War, the Salesian religious order (Ordine dei Salesiani) started to acquire properties in the area. The *Ospizio Don Bosco Orfani di Guerra* (*Don Bosco Hospital for War Orphans*) was built in the early 1920's just south of the intersection of via del Mandrione and via della Marrana, in proximity to the Aqueducts. The *Santa Maria Ausiliatrice* Church and the *Istituto Salesiano Pio XI* (designed by architects N. Mosso and G. Vallotti) were built shortly after (1928 - 1936), not far from the hospital.

### *Banca d'Italia*

#### 1925

The Bank of Italy started acquiring land in this area as early as the mid 1920's, following the auctioning of the *Saturnia Tellus* property, in proximity to Villa Lais, covering an area of 110,000m<sup>2</sup>.



fig.4.10 SITE LAYERS (1924)  
scale 1:10000

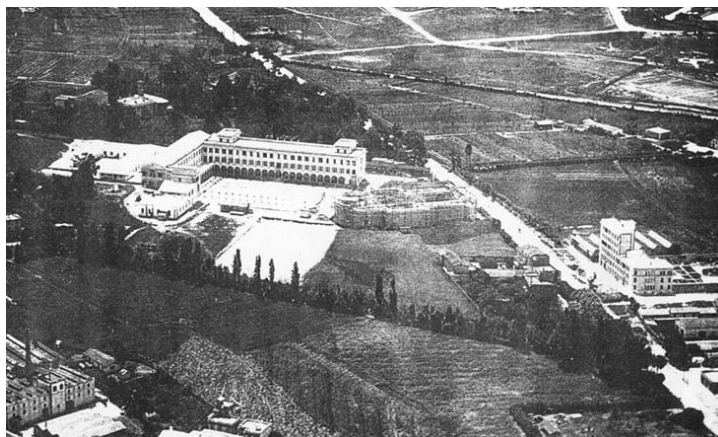
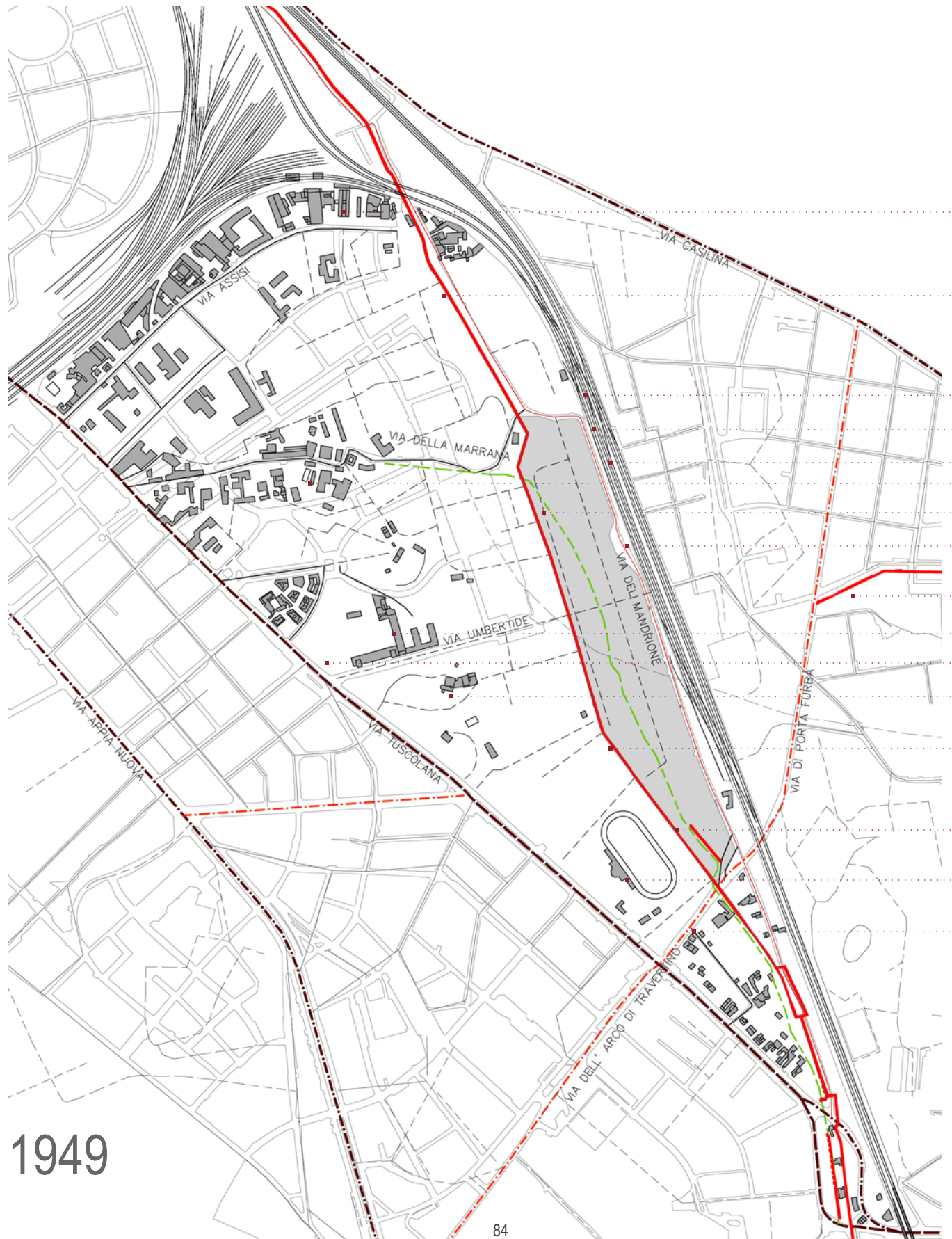


fig.4.11 SANTA MARIA AUSILIATRICE (1923)

<sup>1</sup> Danila Manciolì, Giuseppina Pisani Sartorio. *Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana*. Roma: Istituto Poligrafico e Zecca dello Stato. 2001. p.154

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



1949

## 1930-1965

### *Railway*

The Casilina Station was built at the end of the 1930's due to the quadrupling in size of the Mandrione-Tiburtina line, and the doubling of the Mandrione-Tuscolana railway. Two expansion projects for the station were proposed between 1941-1950's but were never implemented.

### *Light Industry*

The mills along via della Marrana and the Marrana Mariana canal started to be replaced gradually with light industry buildings - a beer factory, bleach factory, a distillery – that were demolished due to residential expansion beginning with the 1950's.

Prior to the Second World War, light industry also extended along via Assisi and was transformed during the War in arms depots and military industry, which explains (along with the presence of railway lines) why the area was a key target for bombings.<sup>1</sup>

Noticeable industrial buildings that still remain in the area today are: the *Mulino Natalini*; the *Fabbrica Eridiana* (active until 1955) – now converted into supermarket; the *fabbrica di lampadine e batterie M.Coppola* (1930's) – converted into a hotel.



fig.4.12 SITE LAYERS (1949)  
scale 1:10000

<sup>1</sup>Invito al'Mandrione. Edited by Caterina Staffieri. Roma: Palombi Editori, 2002, p.41



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.4.13 AERIAL PHOTOGRAPH OF LOCAL AREA (1959)



fig.4.14 FABBRICA M.COPPOLA



fig.4.15 FABBRICA ERIDIANA



fig.4.16 MOLINO NATALINI



*Banca d'Italia*

1936

By the end of the 1920's (under the fascist regime at the time), the Bank of Italy initiated an after-work recreational program for its employees (*Circolo Dopolavoristico*)<sup>1</sup>. The Recreational Club started to use the property on via Tuscolana for sporting activities – such as soccer games, and soon after, the Bank decided to provide the club with a proper Sports Centre. Il *Centro Sportivo della Banca d'Italia* was built between 1936-1940. The Centre was designed by German architect Hans Bott and was equipped with a wide variety of sporting facilities: it contained a football field surrounded by athletic tracks (that could also be used as a hockey field), a tennis field and a skating track both surrounded by travertine steps, as well as a basketball field and bowling green. The entire surrounding area was planted with umbrella pine trees. Also on the Bank's premises was the Centre's 'Club House' – with large gym facilities on the lower levels and spaces for social activities above.



fig.4.17 'CLUB HOUSE' - EXTERIOR



fig.4.18 'CLUB HOUSE' - INTERIOR

Fig. 4.17 - 4.20  
CENTRO SPORTIVO DELLA BANCA D'ITALIA  
Built between 1936-1940, designed by Hans Bott



fig.4.19 CAMPO DI CALCIO



fig.4.20 CAMPO DA TENNIS

<sup>1</sup>Danila Manciola, Giuseppina Pisani Sartorio. Gli Acquadotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana. Roma: Istituto Poligrafico e Zecca dello Stato. 2001. p. 163

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.4.21



fig.4.24



fig.4.27



fig.4.22



fig.4.25



fig.4.28



fig.4.23



fig.4.26



fig.4.29

Fig 4.21 - 4.29 GYPSIES AT MANDRIONE - by Franco Pinna (1956)

## *Mandrione*

1957

The Census conducted by the Statistical Office of Rome in 1957, after the Second World War, accounted for 13,703 families and a total of 54,576 people living in squatter settlements at that time.<sup>1</sup>

Barracks and squatter settlements extended all along via del Mandrione and the Felice Aqueduct (from via Alcamo, close to villa Fiorelli) running for approximately 4km to the Tor Fiscale area.

Via del Mandrione was attractive primarily because of the presence of the aqueducts running along it that allowed for provisional settlements to be built directly against the aqueducts, using their arches as niches or rooms. These were gradually transformed into more durable masonry settlements and permanent structures.

The population that settled in this area (of Sicilian, Calabrian, Abruzzian origin, as well as population evicted as a result of the clearing out of the Centre of Rome by Mussolini) was composed for the most part of manual labourers and construction workers that had come to Rome attracted by the residential boom.

The area was also populated by communities of Abruzzesi and Neapolitan gypsies, that in spite of the precarious living conditions - lacking running water, sewage facilities, electricity, and proper shelter - led a very lively existence.

The area between Fontana di Porta Furba and via di Porta Furba was particularly well known for prostitution. Also the music and dance of the Gypsy population along via del Mandrione attracted the interest of writers and photographers such as Paolo Pasolini, Franco Pina and William Klein that documented this area extensively.<sup>2</sup>

These squatter settlements were demolished by the end of the 1970's following the systematizations imposed by the 1965 Master Plan.



fig.4.30 BARACCHE DELL'ACQUEDOTTO FELICE  
by Franco Pinna (1956)



fig.4.31 BARACCOPOLI ALL'ACQUEDOTTO FELICE  
by Franco Pinna (1956)



fig.4.32 FONTANA DI PORTA FURBA  
by William Klein (1958)

<sup>1</sup>Invito al'Mandrione. Edited by Caterina Staffieri. Roma: Palombi Editori, 2002.  
p.47

<sup>2</sup>Ibid. p.54



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



2000



## 1965 - 2000

### *Banca d'Italia*

#### 1960's

Starting with the 1960s the Bank of Italy started its policy of expansion, purchasing additional properties in this area – Istituto Salesiano Pio XI (1963), the Aster deposits on via del Mandrione as well as the area between via Tuscolana and via di Porta Furba (1970).

#### 1963

The Sports Centre designed by Hans Bott was demolished to make room for the Bank of Italy *Officine Carte Valori* building (which was completed in 1968)

#### 1967

The Bank's Data Processing Centre (*Centro Elaborazione Dati*), designed by architects Carlo Cocchia and Marcello de Gaetani, was built in 1967 while the Bank Printing Press building (*Officine Carte Valori*), designed by Pier Luigi and Antonio Nervi, was built in 1968.

These facilities were designed with great attention to preserving the existing vegetation in the area, as well as to limiting the above ground heights of the new buildings on site in order to avoid overpowering the presence of the aqueducts. Significant difficulties were imposed by the poor subsoil conditions in the area due to the presence of subterranean galleries from previous periods used for the extraction of pozzolana. In the case of the Data Processing Centre, two out of the four years of construction were dedicated entirely to ground stabilization.



fig.4.33 CENTRO ELABORAZIONE DATI

SOCIO-CULTURAL CENTRE  
(C.A.S.C BANCA D'ITALIA)

DATA PROCESSING CENTRE  
(CENTRO ELABORAZIONE DATI)

SPORTS CENTRE  
(CENTRO SPORTIVO)

PRINTING PRESS  
(OFFICINE CARTE VALORI)

fig.4.34 SITE LAYERS (2000)  
scale 1:10000



fig.4.35 BANCA D'ITALIA - OFFICINE CARTE VALORI

1972

*Nuovo Centro Sportivo della Banca d'Italia*

The New Sports Centre of the Bank of Italy (*Nuovo Centro Sportivo della Banca d'Italia*), designed by Sergio Bonamico after a project by architects Alberto Avanzati and Carlo Cocchia, was constructed between 1968 and 1972. It included a series of open air pools, indoor sporting facilities, as well as tennis courts and open areas.



fig.4.37



fig.4.38



fig.4.36



fig.4.39



fig.4.40

Fig. 4.36 - 4.40  
NUOVO CENTRO SPORTIVO DELLA BANCA D'ITALIA

1978

*Centro per l' Assistenza Sociale e Culturale - C.A.S.C*



fig.4.41

The five storey building previously owned by the Salesian religious order, (first serving as a hospital then later converted into a College before being bought by the Bank in 1963) was restored in 1978, to accommodate the Bank's Socio-Cultural Centre (*Centro per l' Assistenza Sociale e Culturale - C.A.S.C*). The external aspect of the building was restored while the interior was entirely modified to accommodate its new functions. The need for compaction of the ground underneath the building that was traversed by numerous galleries of significant depths excavated in previous centuries, required particular attention.<sup>1</sup>



fig.4.42

Fig. 4.41 - 4.42  
CENTRO PER L'ASSISTENZA SOCIALE E  
CULTURALE (C.A.S.C)

<sup>1</sup>Franco Bonelli, and Massimo Nunziata. *I Cento Edifici della Banca d'Italia*. Rome: Electa, 1993.p.456

### *Banca d'Italia - Archaeological investigations*

1993

The Bank of Italy and the Superintendence of Cultural Heritage of Rome initiated an archaeological campaign in 1993 for the restoration of a portion of the Claudia-Anio Novus aqueducts enclosed within the Bank's premises. The archaeological works extended over a period of 46 months, during which time 371.70 m of the aqueduct were restored.<sup>1</sup>

The archaeological surveys conducted to determine the state of deterioration of the foundation of the *Aquae Claudia-Anio Novus* also led to the discovery of an ancient road in perfect condition, running along the east side of the aqueducts. It was decided that in parallel with the consolidation work on the aqueducts to commence an archaeological dig of the roman road. 250 m of the Roman Road were brought to light during this campaign.

### *Aquae Claudia-Anio Novus restoration*

The restoration interventions for the Claudia-Anio Novus aqueduct were conceived with the objective of offering the artifact an adequate degree of safety, with a minimum amount of invasive intervention, and wherever possible with a certain degree of reversibility of the proposed modifications.<sup>2</sup>

The restoration project focused primarily on the structural consolidation of the aqueduct (after conducting a careful analysis with the aid of digital modeling tools in order to examine the principal tensions within the existing structure) - as well as on the removal of build up and vegetation that had invaded both the surface and various cavities of the aqueduct, producing in certain cases damage to the structure.

The following stages of restoration were followed: 1) weed removal; 2) surveys; 3) archaeological digs; 4) scaffolding and preliminary works; 5) static consolidation; 6) consolidation of large masonry masses; 7) consolidation of the specus; 8) surface restoration; 9) final treatments.<sup>3</sup>

1 Patrizio Giuliani, Luigi Pirolli, Antonio Patriarca. *Il Cantiere. In Gli Acquedotti Claudio e Aniene Nuovo nell'area della Banca d'Italia in via Tuscolana*. Roma: Istituto Poligrafico e Zecca dello Stato, 2001, p.238  
2Ibid.  
3Ibid.



fig.4.43 WATER PRESSURE CLEANING OF THE AQUEDUCT

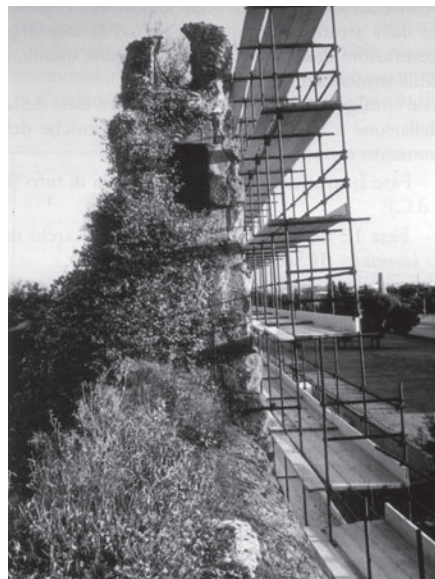


fig.4.44 OVERGROWN VEGETATION ALONG THE STRUCTURE OF THE AQUEDUCT



fig.4.45 ACCUMULATED DEBRIS ALONG THE AQUEDUCT CONDUIT - (BEFORE RESTORATION)



*Archaeological excavation of ancient road*



fig.4.46 DETAIL OF RESTORED ANCIENT ROAD  
ALONG THE AQUEDUCTS

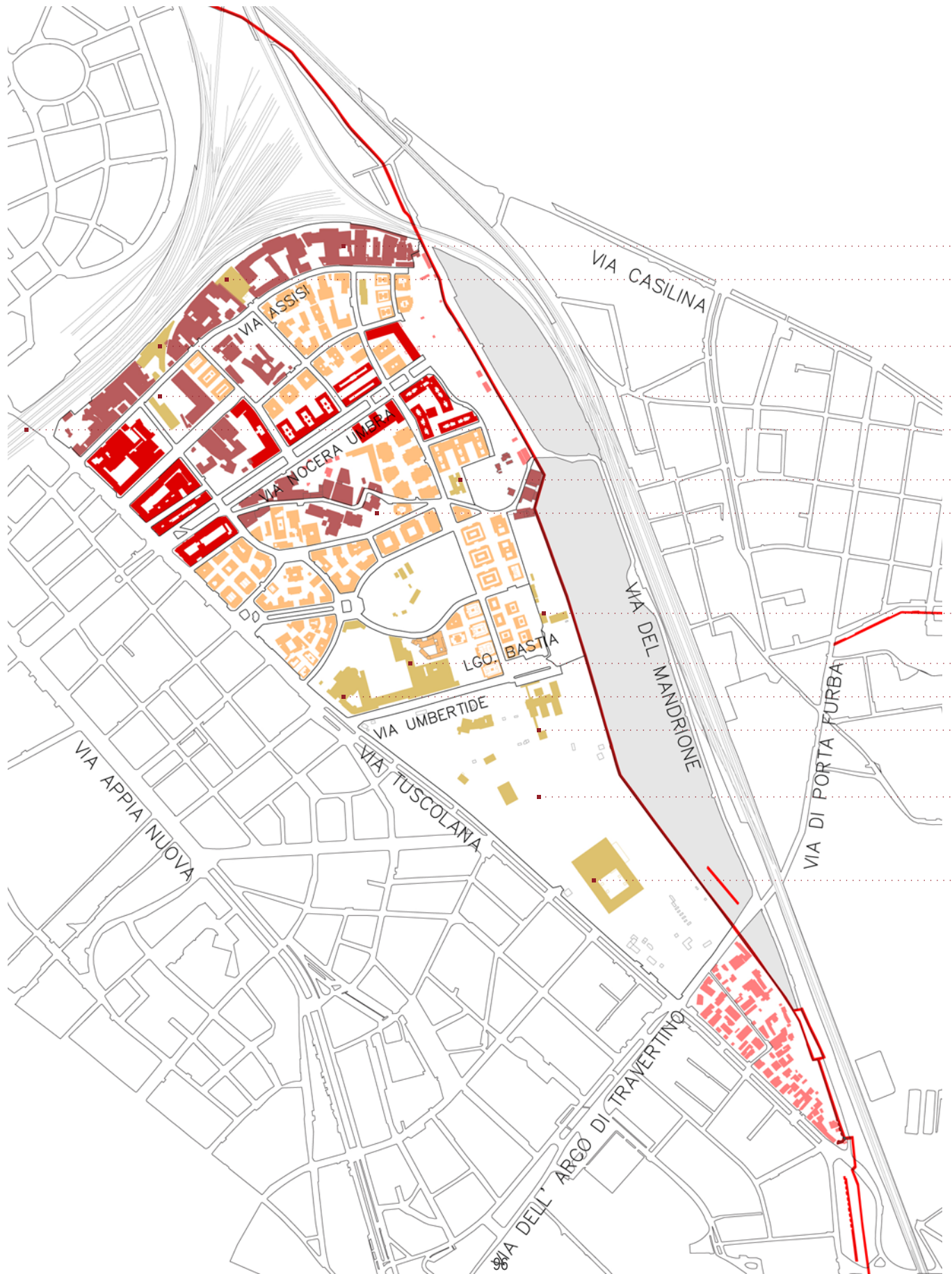


fig.4.47 RESTORED ANCIENT ROAD ( looking south)

The excavation of the roman road was done in parallel with the restoration of the aqueducts. The dimension of the road (4m) as well as the visible marks left on its pavement point out to frequent vehicular usage. Although the date of construction of the road has not been confirmed, there have been speculations as to whether the road precedes the construction of the aqueducts. It has been recognized however that the road was utilized for the service and maintenance of the aqueducts for an extended period of time, up until it was abandoned during the fifth century. An accumulation of rubble, clay and sand, reaching as high as 2 m, preserved the road in optimal condition up until its discovery during the aqueduct restoration works in the early 90's.

It has been suggested that this new fragment is a new portion of the same road that had been discovered along via del Mandrione at the end of the 1800's during the construction of the Roma-Castelli Romani railway line. This discovery documented by Lanciani and republished by Ashby, indicates that 56m of a roman road, of approx 4.10 m width, was uncovered between the Claudia-Anio Novus Aqueduct and the Aquae Marcia-Tepululia at the point of transition of the Felice aqueduct from Marcia to Claudia. Although the history of the road has not been entirely pieced together yet, it is estimated however, due to its dimensions and extent, that its role went beyond that of being a service road for the aqueducts.

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



## 4.2 CURRENT CONDITIONS

Currently, the areas on each side of the aqueducts carry distinct characteristics, functioning independently from each other.

The zone located between via Tuscolana and the aqueducts is well integrated within the rest of the neighbourhood. Traces of historic industrial fabric are interwoven within the residential tissue along with institutional and religious buildings.

A series of former industrial buildings along via Assisi and via della Marrana have been restored and converted for residential or commercial use (fabbrica di lampadine M.Coppola, Mulino Natalini, fabbrica Eridiana)

Villa Lais carries a strong presence at the local level, serving both as public park as well as local cultural center. It accommodates a series of family programs, recreational and cultural activities.



- HIGH DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- LOW DENSITY RESIDENTIAL
- HISTORICAL INDUSTRIAL FABRIC
- INSTITUTIONAL/ RECREATIONAL

fig.4.48 NEIGHBOURHOOD EDGES:  
WEST OF THE AQUEDUCTS  
scale 1:10000



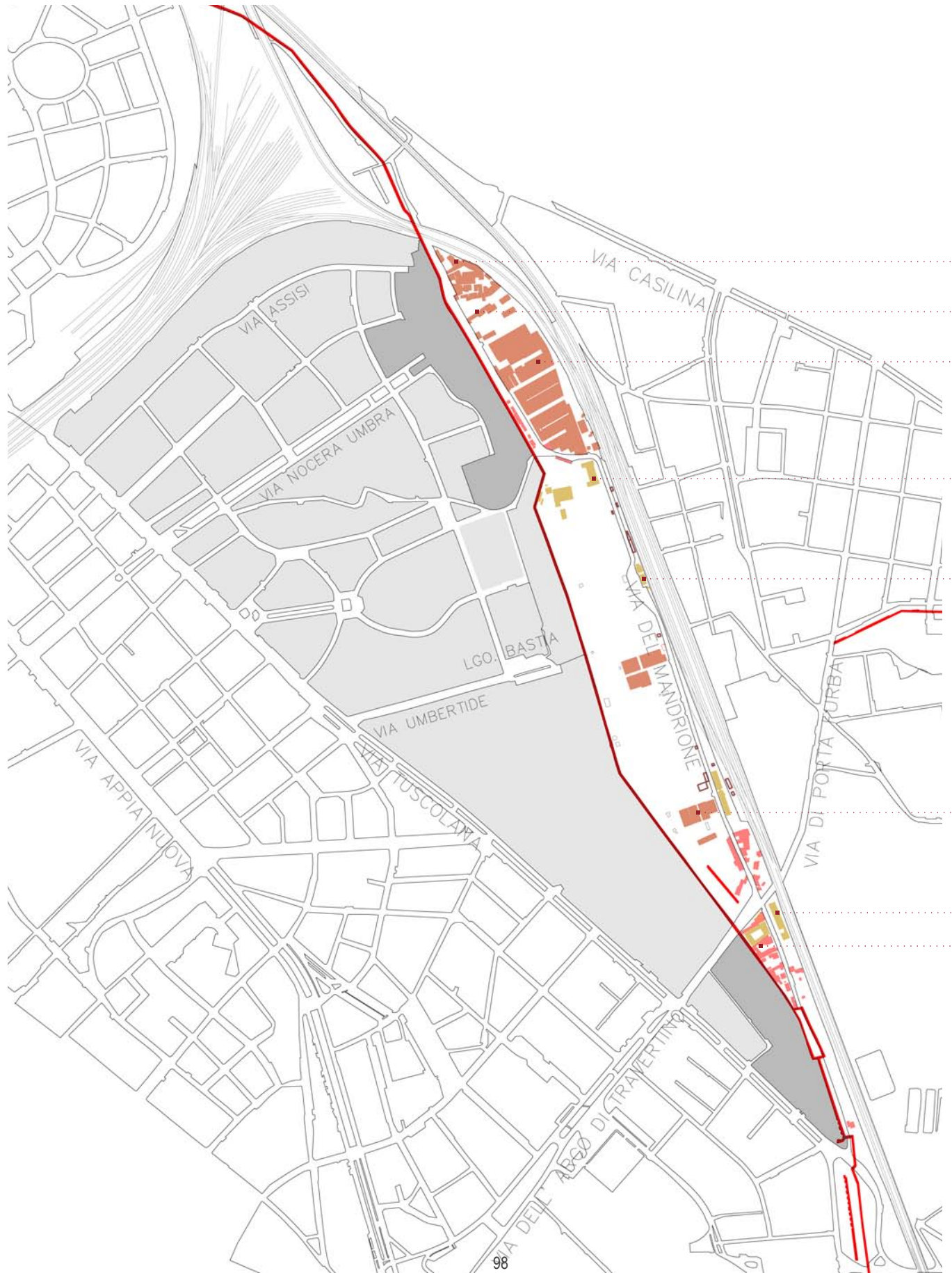
fig.4.49 FORMER MOLINO NATALINI



fig.4.50 SUPERMERCATO MAXISIDIS



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





The area east of the aqueducts however follows an internal organizational structure, accommodating a series of functions related to the presence of the railway - repair shops, work shops, as well as light industry.

A long stretch of via del Mandrone between via della Marrana and via di Porta Furba is closed off by the property boundaries of the Bank of Italy. However a few service functions are situated along the road - police barracks (Caserme dei Carabinieri) and storage areas..

The final portion of the road between via di Porta Furba and Fontana di Porta Furba accommodates a series of residential settlements, a local gym (Bodyfight Palestra), as well as a university residence (Residenza Universitaria 'Nora Federici') located in this area since 2000.

- ..... ISTE.MO. METALLI  
via del Mandrone 103
- ..... SPAGNOLO SNC  
via del Mandrone 103a
- ..... ITA - FABRICA INFISSI IN ALLUMINIO  
TULLI - FABRICA INFISSI IN ALLUMINIO  
VERNICIATURA A FUOCO  
ABBASCIANO - OFFICINA AUTO E MOTO  
via del Mandrone 105
- ..... C.A.S. C BANCA D'ITALIA  
via del Mandrone 190
- ..... STAZIONE CASILINA

- ..... CASERME DEI CARABINIERI  
"Tuscolana", "Marrana" e "Rizzieri"  
AUTORIMESSE/ DEPOSITI  
via del Mandrone n. 230
- ..... BODYFIGHT PALESTRA  
347 via del Mandrone
- ..... RESIDENZA UNIVERSITARIA 'NORA FEDERICI'  
344 via del Mandrone

- HIGH DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- LOW DENSITY RESIDENTIAL
- HISTORICAL INDUSTRIAL FABRIC
- INSTITUTIONAL/ RECREATIONAL

fig.4.51 NEIGHBOURHOOD EDGES:  
EAST OF THE AQUEDUCTS  
scale 1:10000



fig.4.52 STAZIONE CASILINA



fig.4.53 BODYFIGHT PALESTRA (RIGHT) &  
RESIDENZA UNIVERSITARIA (LEFT)



fig.4.54 REPAIR SHOPS ALONG VIA DEL  
MANDRIONE AND ACQUEDOTTO FELICE



## CHAPTER 5. STRATEGIES

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
 Parco degli Acquedotti al Mandrione

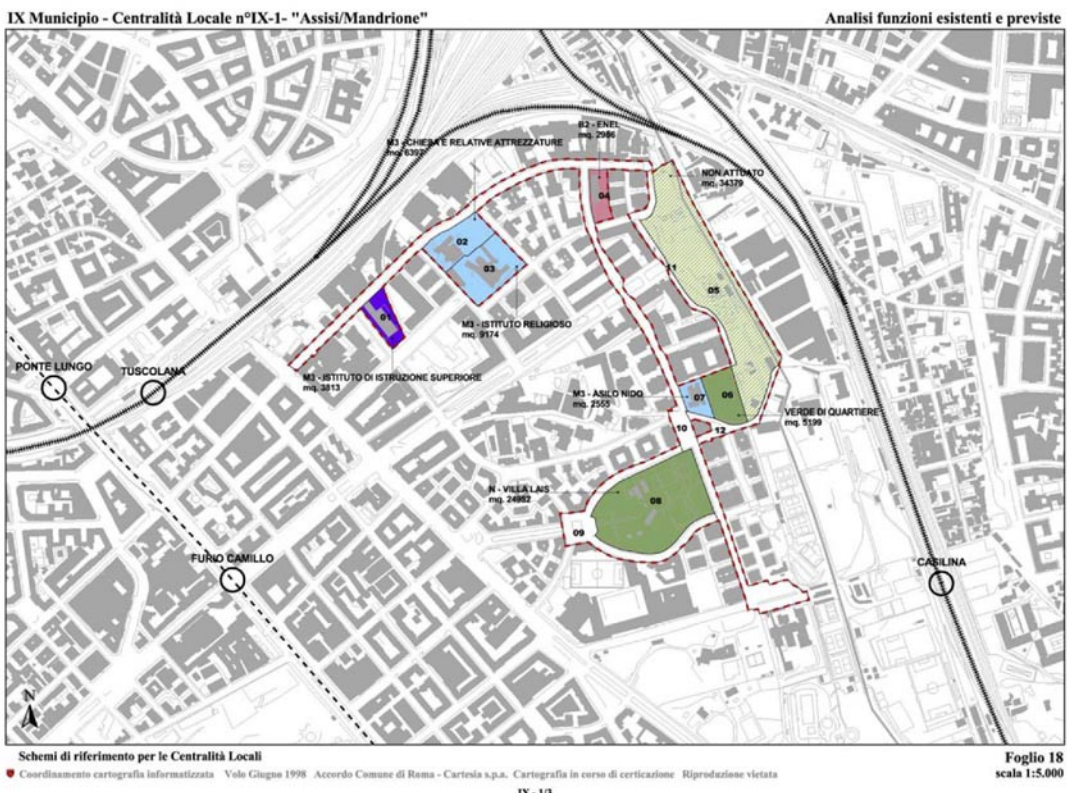
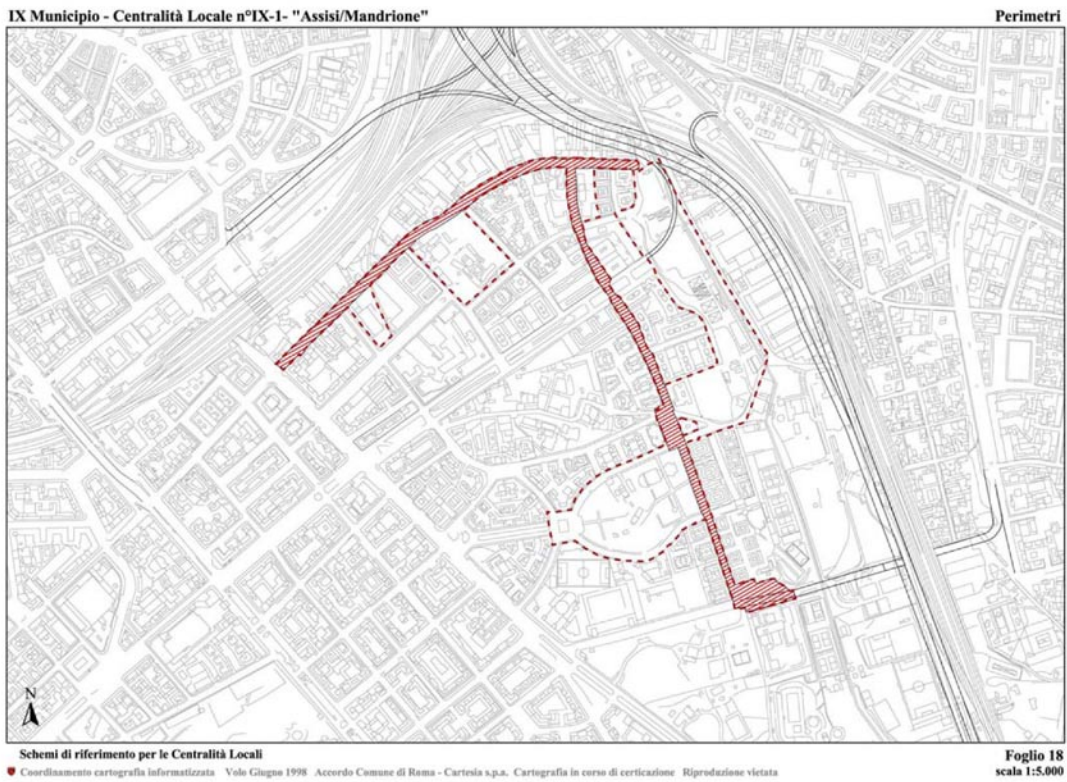


fig.5.1 NPRG - "CENTRALITA LOCALE ASSISI / MANDRIONE" - EXTRACTS



## 5.1 NUOVO PIANO REGOLATORE GENERALE LOCAL CENTRALITY: ASSISI / MANDRIONE

Rome's current urban master plan (*NPRG - Nuovo Piano Regolatore Generale - 2003*) identifies the "Assisi/Mandrione" area to have potential for urban regeneration for the IX<sup>th</sup> Municipality.

Although the plan recognizes the potential of the marginal zone along the aqueducts to become a "vertex" of the larger ecological network formed by adjacent parks - *Parco dell'Appia Antica*, *Parco degli Acquedotti* and *Parco di Centocelle* - it also proposes new infrastructural connections along this corridor that would result in a further fragmentation of this area.

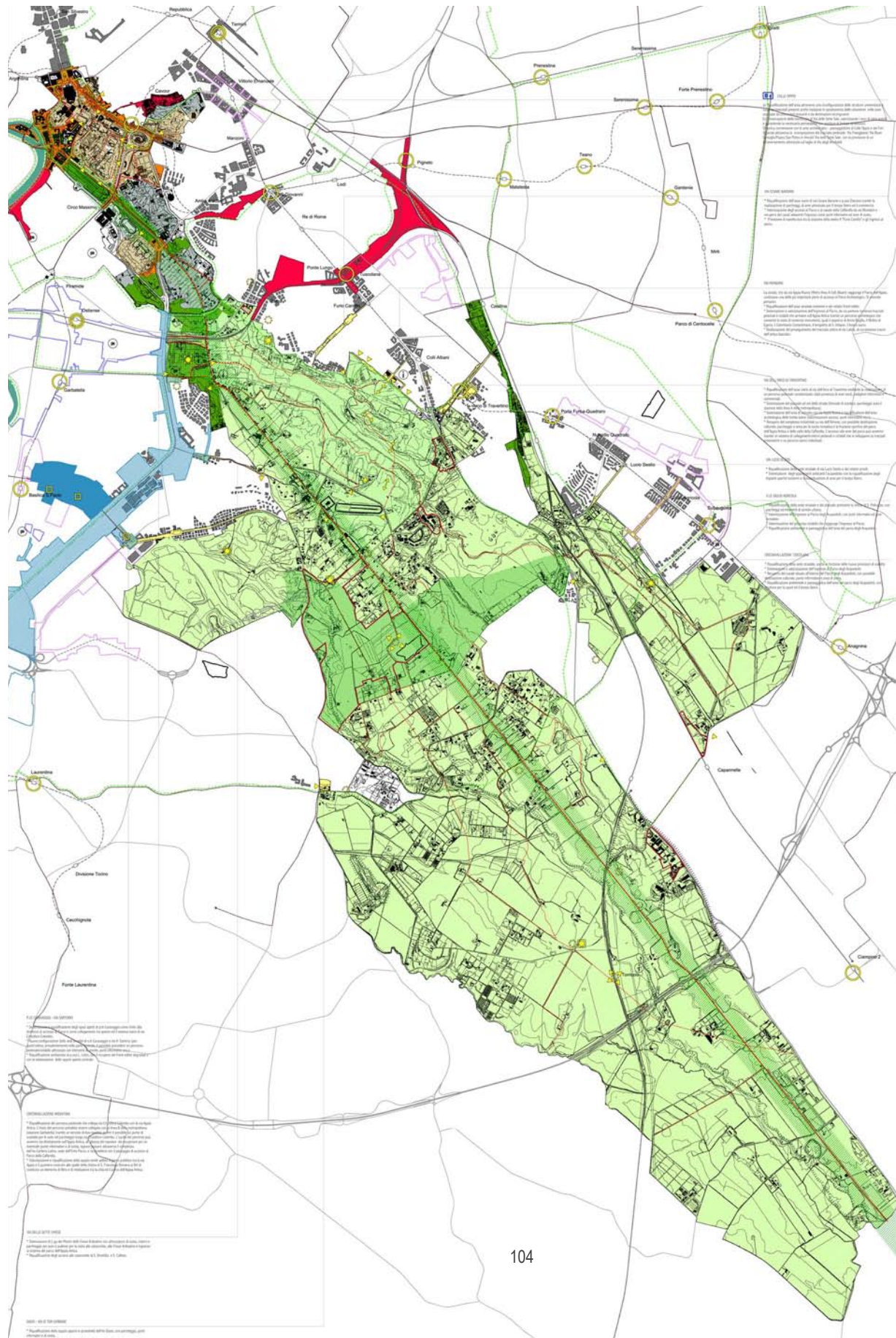
The plan promotes an approach urban requalification by organizing and 'completing' this area rather than capitalizing on the elements that give its specificity.

*"The centrality has been identified with the objective of contributing efficiently to the requalification of this undefined portion of the urban fabric, caused by the presence of factors that have so far prevented a definitive organization. The presence of the railway and of the artisanal/ productive settlements in the area along with the areas of archaeological interest have prevented the completion of the area."*<sup>1</sup>

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<sup>1</sup>Schemi di riferimento per le centralita locali. Centralita Locali Municipio IX. Assisi Mandrione

fig.5.2 NPRG: AMBITO DI PROGRAMMAZIONE STRATEGICA  
PARCO ARCHAEOLOGICO MONUMENTALE DEI FORI E DELL'APPIA ANTICA



## 5.2 STRATEGIC SCHEMES / "AMBITI STRATEGICI"

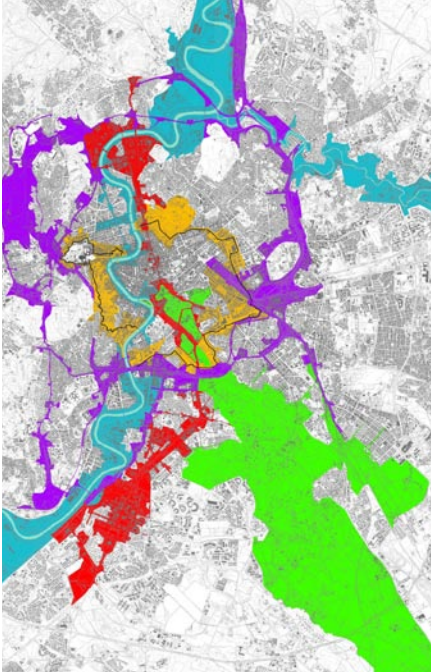


fig.5.3 NPRG - 'AMBITI STRATEGICI'

Rome's urban master plan proposes five strategic schemes that identify specific zones of intervention along particular urban elements: the *Aurelian Walls (Mura)*, the *Tiber and Aniene Rivers (Tevere)*, the *Railway Belt (Cintura ferroviaria)*, the *Via Flaminia – Roman Forums – EUR axis (Flaminia - Fori - Eur)* and the *Forums and Appia Antica Area (Parco Archeologico-Monumentale dei Fori e dell'Appia Antica)*.

The landscape situated between the aqueducts and the railway is outlined by two of these plans as area of environmental and archaeological significance.

The Strategic Plan for the Forums and the Appia Antica Park (*Ambito di Programmazione Strategica Parco Archeologico-Monumentale dei Fori e dell'Appia Antica*) identifies the possibility of extending the Aqueduct Park north of its current boundaries up to via Umbertide (at Largo Bastia). It designates an area along this corridor as zone of environmental requalification (*zona di riqualificazione paesaggistica ed ambientale*).

The Railway Belt Plan identifies a key portion along this interstitial corridor as well, outlining an area between via di Porta Furba and via del Mandrione, as "green area with potential for development."



fig.5.4 NPRG AMBITO STRATEGICO - DETAIL



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig. 5.5 AMBITO STRATEGICO ACQUEDOTTI - MANDRIONE



### 5.3 INTERSTITIAL TISSUE

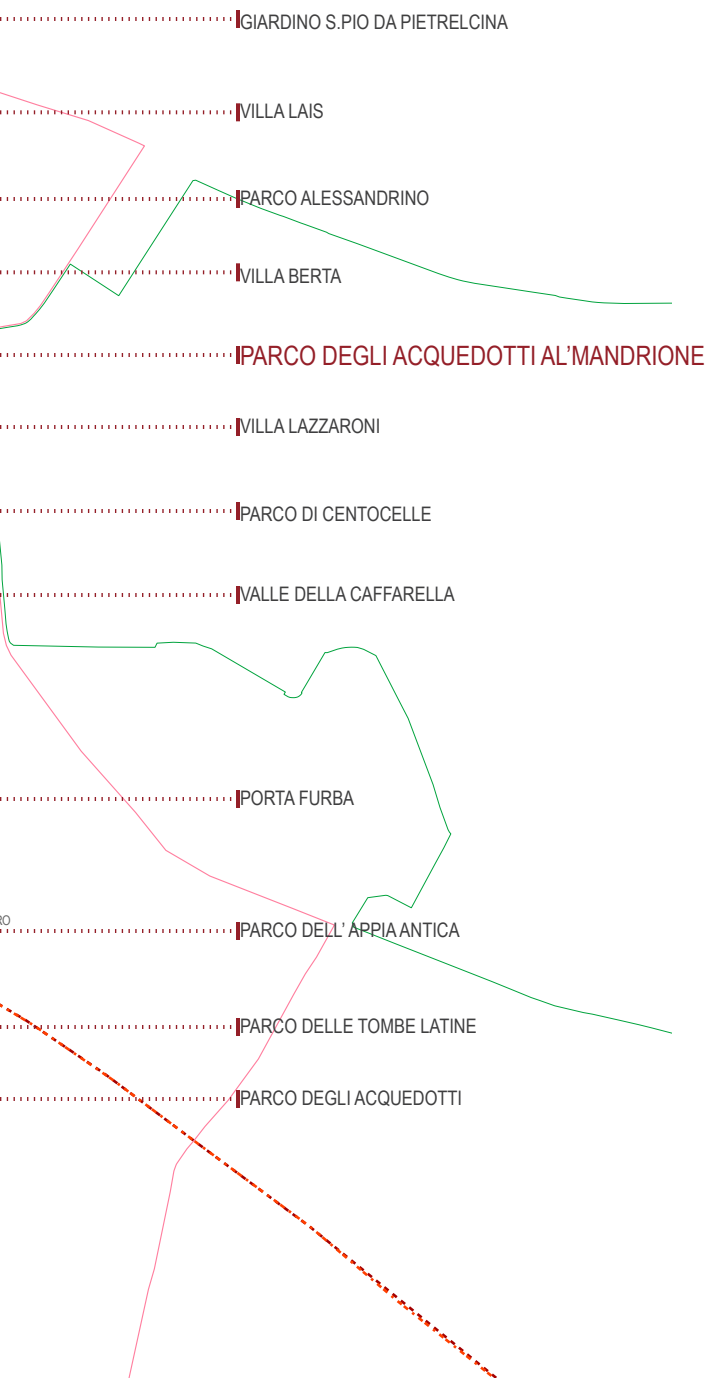
#### “AMBITO STRATEGICO ACQUEDOTTI - MANDRIONE”

Although the New Master Plan of Rome proposes the extension of the Aqueduct Park north of its current boundaries – it does not recognize the value of this archaeological element in its totality. Adopting a similar methodology with that established by Rome’s New Urban Master Plan, a new strategic axis of intervention is proposed along the aqueducts.

The *Acquedotti - Mandrione Axis* (*Ambito Strategico Acquedotti - Mandrione*) functions at the local and urban scales. It strengthens connections with the local context as well as suggests new links between the two municipalities separated by the railway - Municipio IX and Municipio VI. This axis seeks to create a sense of continuity along the course of the aqueducts connecting the Aqueduct Park with the central area of Rome.

The thesis examines the ‘open’ areas along the course of the aqueducts - such as recreational grounds, community gardens, public parks, abandoned areas - that have the potential to become elements of transition, of connection between the city and its interstitial margins.

It focuses on the area along via del Mandrione and the aqueducts that is currently enclosed within the property boundaries of the Bank of Italy. This area has the potential to establish a stronger presence at the local level, setting a precedent for future interventions along the course of the aqueducts.



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



.....|COMMUNITY GARDENS

.....|VIA NOCERA UMBRA

.....|GIARDINO S.PIO DA PIETRELCINA

.....|CENTRO SPORTIVO A.S. LE MURA

.....|VILLA LAIS

.....|PARCO DEGLI ACQUEDOTTI AL'MANDRIONE

.....|PARCO ALESSANDRINO

.....|COMMUNITY GARDENS

.....|CENTRO SPORTIVO DELLA BANCA D'ITALIA

.....|VILLA BERTA

fig.5.6 GREEN TISSUE



fig.5.7 VILLA LAIS



fig.5.8 CENTRO SPORTIVO 'A.S. LE MURA'



fig.5.9 PARCO ALLESANDRINO



fig.5.10 VIA NOCERA UMBRA



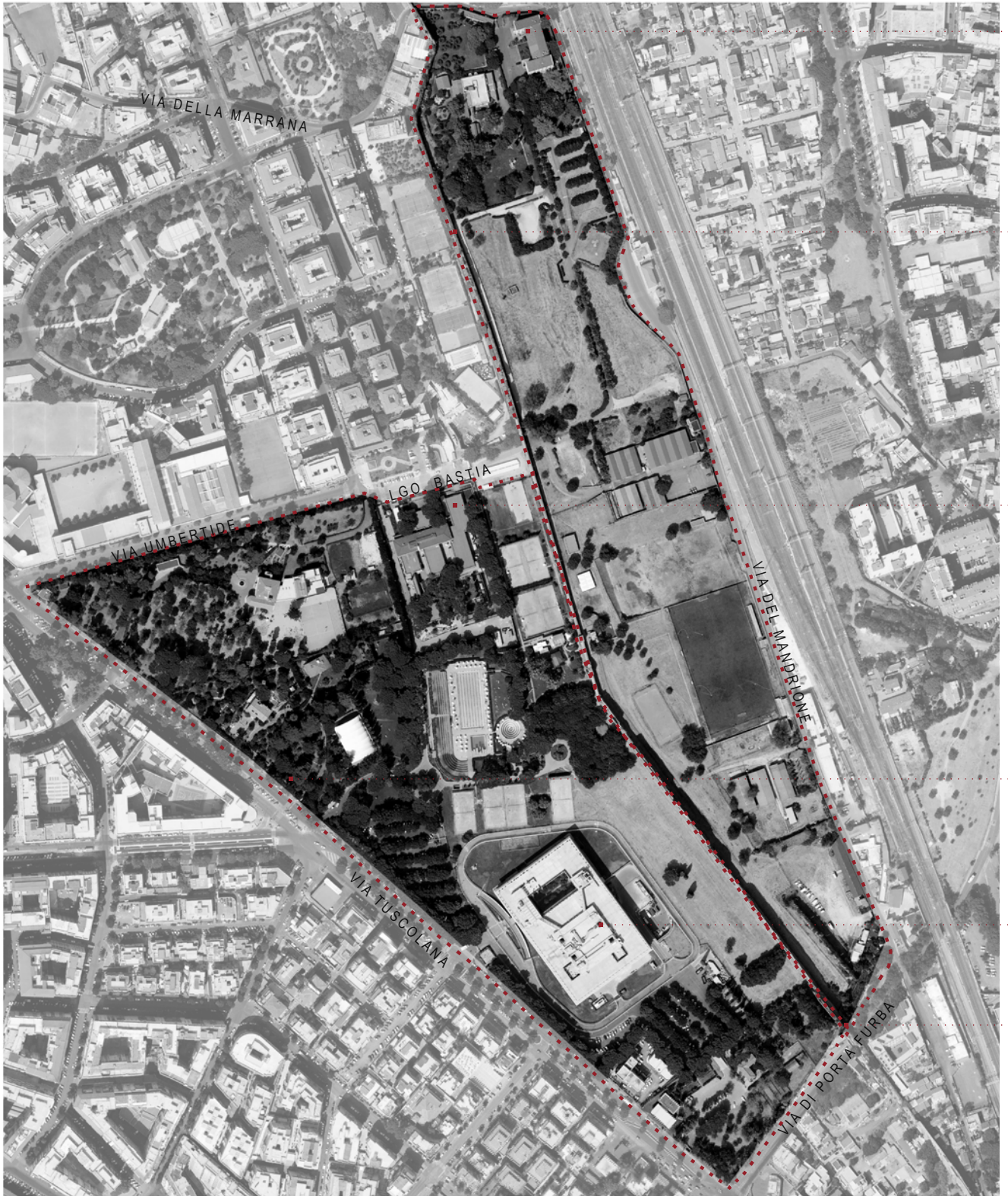
fig.5.11 COMMUNITY GARDENS





## CHAPTER 6. SITE VISITS

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



## 6.1 SITE BOUNDARIES

.....|SOCIO-CULTURAL CENTRE  
(C.A.S.C BANCA D'ITALIA)

Although the Bank of Italy site covers a considerable area, it does not have a strong presence at the local scale, being enclosed along each of the streets that border it - *via del Mandrione* along the east, *via della Marrana* and *via Umbertide* along the north, *via Tuscolana* and *via di Porta Furba* along the west and south respectively.

.....|ACQUEDOTTO FELICE

From street level this area can be easily disregarded as a void - a vast unknown within the neighbourhood, efficiently disconnected from the public realm by high reaching property walls surpassed by soaring vegetation, gated openings and highly secured entry ways. These property boundaries establish a clear separation between private grounds and local context, setting the two realms in opposition with each other.

.....|DATA PROCESSING CENTRE  
(CENTRO ELABORAZIONE DATI)

The necessity for implementation of strict security measures is imposed by the presence of a few key Bank institutions on site, such as the Bank's *Data Processing Centre*, as well as the Bank *Printing Press building*. The Sports Centre of the Bank of Italy located on the same premises maintains a similar level of exclusivity, with controlled access restricted to the employees of the Bank.

.....|SPORTS CENTRE  
(CENTRO SPORTIVO DELLA BANCA D'ITALIA)

Although the presence of the aqueducts on site seems incidental at first, providing a scenic backdrop for the Bank's facilities – it carries in fact a more active role, demarcating two areas of distinct characteristics located west and east of their course. This internal boundary does not separate the site programmatically, rather it acknowledges the site's duality, spanning between the city and its margins.

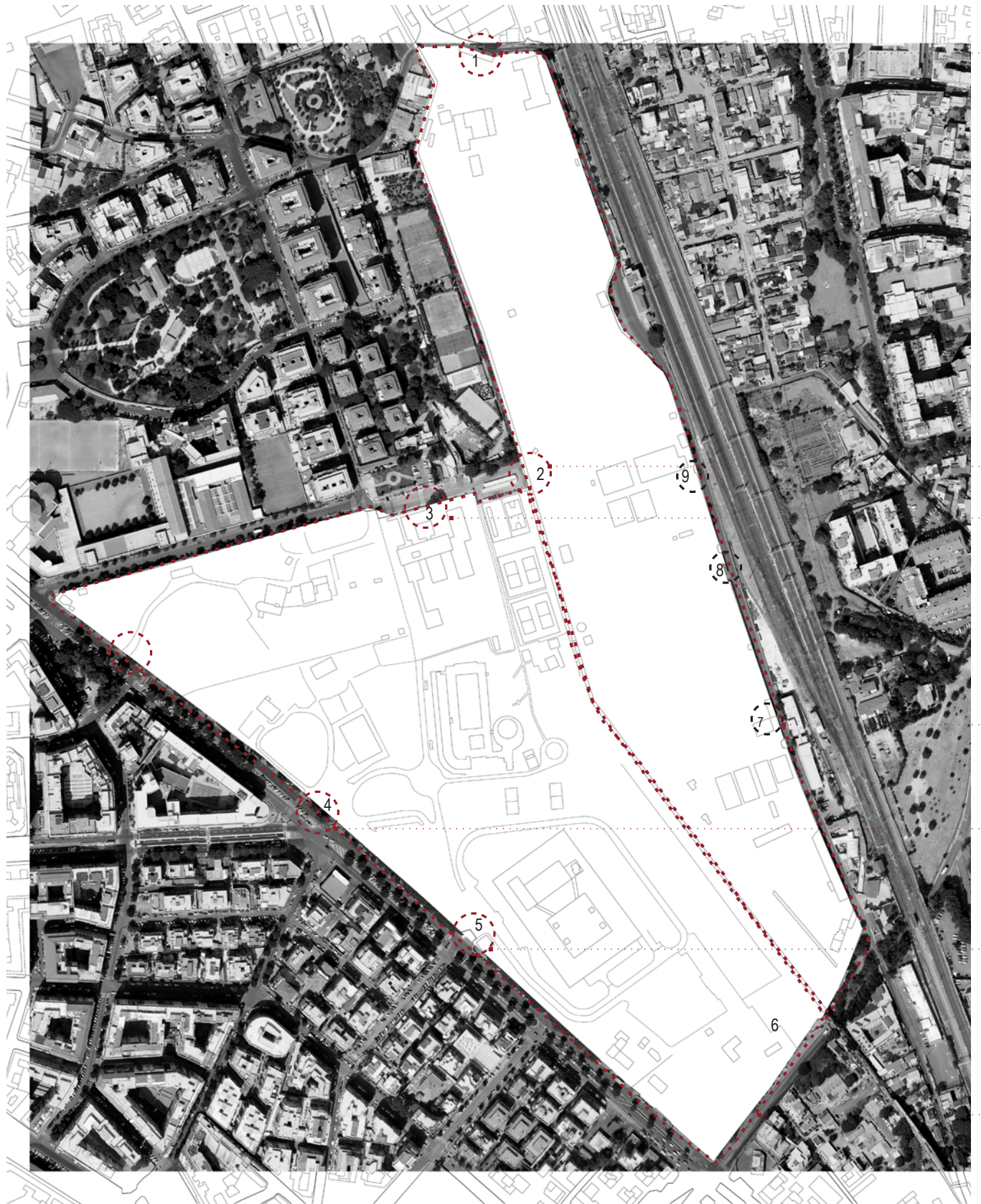
.....|PRINTING PRESS  
(OFFICINE CARTE VALORI)

.....|AQUAE CLAUDIA-ANIO NOVUS

fig.6.1 SITE CONTEXT  
scale: 1:5000



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*





VIA DEL MANDRIONE n.150  
entrance to Socio-Cultural Centre



1.

fig.6.3



10.

fig.6.8

LARGO BASTIA  
vehicular entrance to park and parking



2.

fig.6.4



9.

fig.6.9

VIA UMBERTIDE ( LARGO BASTIA) n.35  
entrance to Data Processing Centre



3.

fig.6.5



8.

fig.6.10

VIA DEL MANDRIONE n.290  
entrance to Caserme Carabinieri

4. VIA TUSCOLANA - L.go VOLUMNIA n.2  
entrance to Sports Complex



4.

fig.6.6



7.

fig.6.11

VIA TUSCOLANA n.417  
entrance to Bank Printing Press

VIA DI PORTA FURBA



5.

fig.6.7

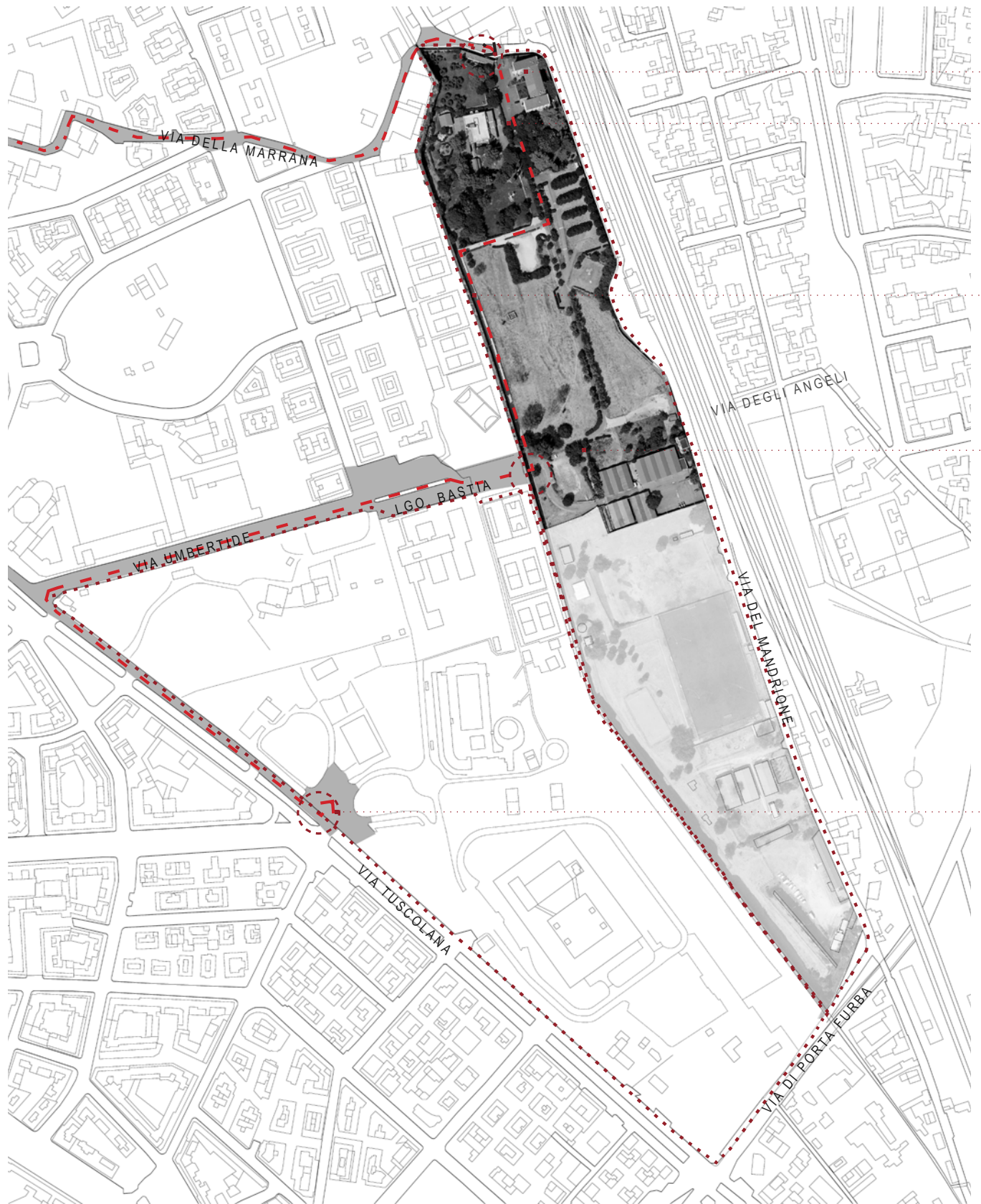


6.

fig.6.12

fig.6.2 SITE BOUNDARIES  
scale: 1:5000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



## 6.2 TRANSGRESSION

..... SOCIO-CULTURAL CENTRE  
(C.A.S.C BANCA D'ITALIA)

..... DAYCARE/ SCHOOL

..... ACQUEDOTTO FELICE

..... SECURITY POINT

..... VIA TUSCOLANA - L.go VOLUMNIA n.2  
main entrance to Sports Complex

*Friday, April 3rd 2009*

*I return to the Aqueducts more than a year from my last visit. I find it hard to believe, but I have yet to visit the site I have been working on until now.*

*Although I have walked by this place a number of times, I have never been inside. I have never even been tempted to go in, knowing it is a private property, intimidated by the surveillance cameras at the entrances from via Tuscolana and via Umbertide or the chained or walled in gateways along via del Mandrione. Only after learning more about the site later on, I had decided to come back one last time and try to take a look inside.*

*I am therefore both excited and nervous about this highly anticipated site visit. After a long bus and Metro ride from Trastevere, I get off at Furio Camillo Station and walk east toward via Tuscolana, then north on via Nocera Umbra before turning right on via della Marrana.*

*As I pass through the aqueduct arcades and turn the corner I become more uneasy about my premeditated 'trespassing' scheme and start to prepare an explanation in Italian.*

*To my surprise however, I manage to go through the front entrance quite easily and I am able to continue walking to the next set of open gates without being noticed or stopped. As there is nobody whom I can ask for permission, I go straight through. Still surprised by the ease of access, I begin to wonder whether this place is in fact open to the public, whether I could have come here all along, had I known about it.*

*As I walk in I am even more astounded by how beautiful this place really is! It surpasses my expectations. After having carefully examined it on maps and aerial photographs, drawn it, measured it, reconstructed its history, tried to catch glimpses of it from the other side of the walls from via del Mandrione - this first hand experience is entirely overwhelming.*

*It is a beautiful spring morning and I think to myself I could remain here for hours - for the entire day!*

fig.6.13 SITE CONTEXT  
scale: 1:5000





fig.6.14 CENTRAL ALLEY (looking south)









fig. 6.15 DAYCARE CENTRE AND PLAYGROUND



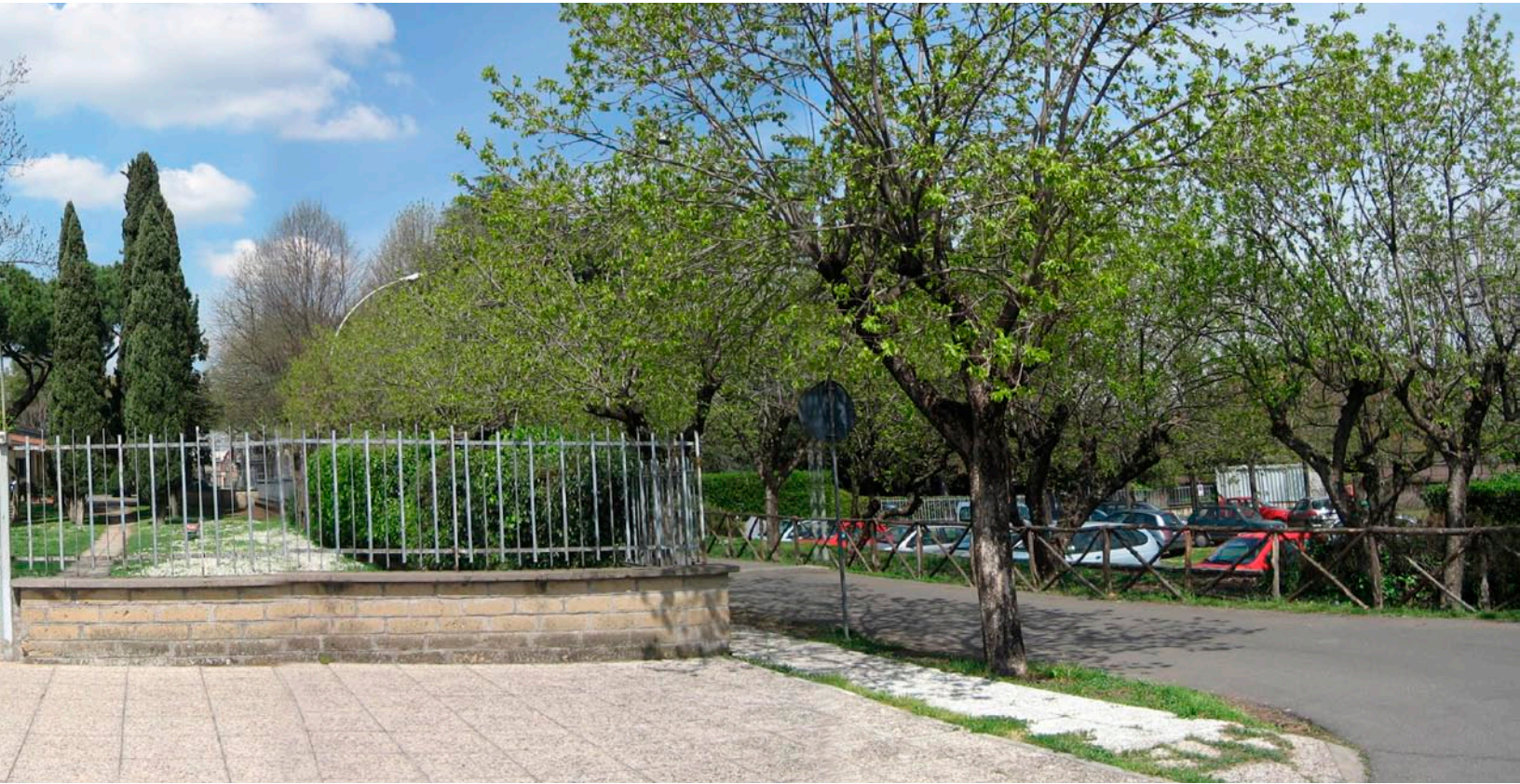






fig.6.16 ACQUEDOTTO FELICE (looking south)







INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.6.17 ACQUEDOTTO FELICE (looking north)



fig.6.18 ENTRANCE TO PARKING (looking east)



fig.6.19 SECURITY POST & ACQUEDOTTO FELICE

*A wide alley bordered by trees opens up along the middle of the park, reaching about half way through the site before curbing to the right. I decide to take another path that runs along the aqueducts, to try to get closer.*

*I look out across the park toward the railway and via del Mandrione that are now barely visible beyond the row of trees along the middle, however I can still hear the traffic noise and the trains passing by. I am surprised to notice how different this familiar landscape looks from inside.*

*Still captivated by the site, I realize at the very last moment that a security guard is waiting for me at the other end of the path. I try to walk toward him casually, hoping he will allow me to remain on site.*

*The guard asks me whether I am an employee of the Bank, but I have to admit I just happened to walk right in looking for the aqueducts. I explain I had come back to Rome from Canada specifically to visit the site - but although he understands and sympathizes with my situation he cannot allow me to remain on site without proper authorization (let alone let me take photographs). This can take a few weeks and I only have a few days left in Rome.*

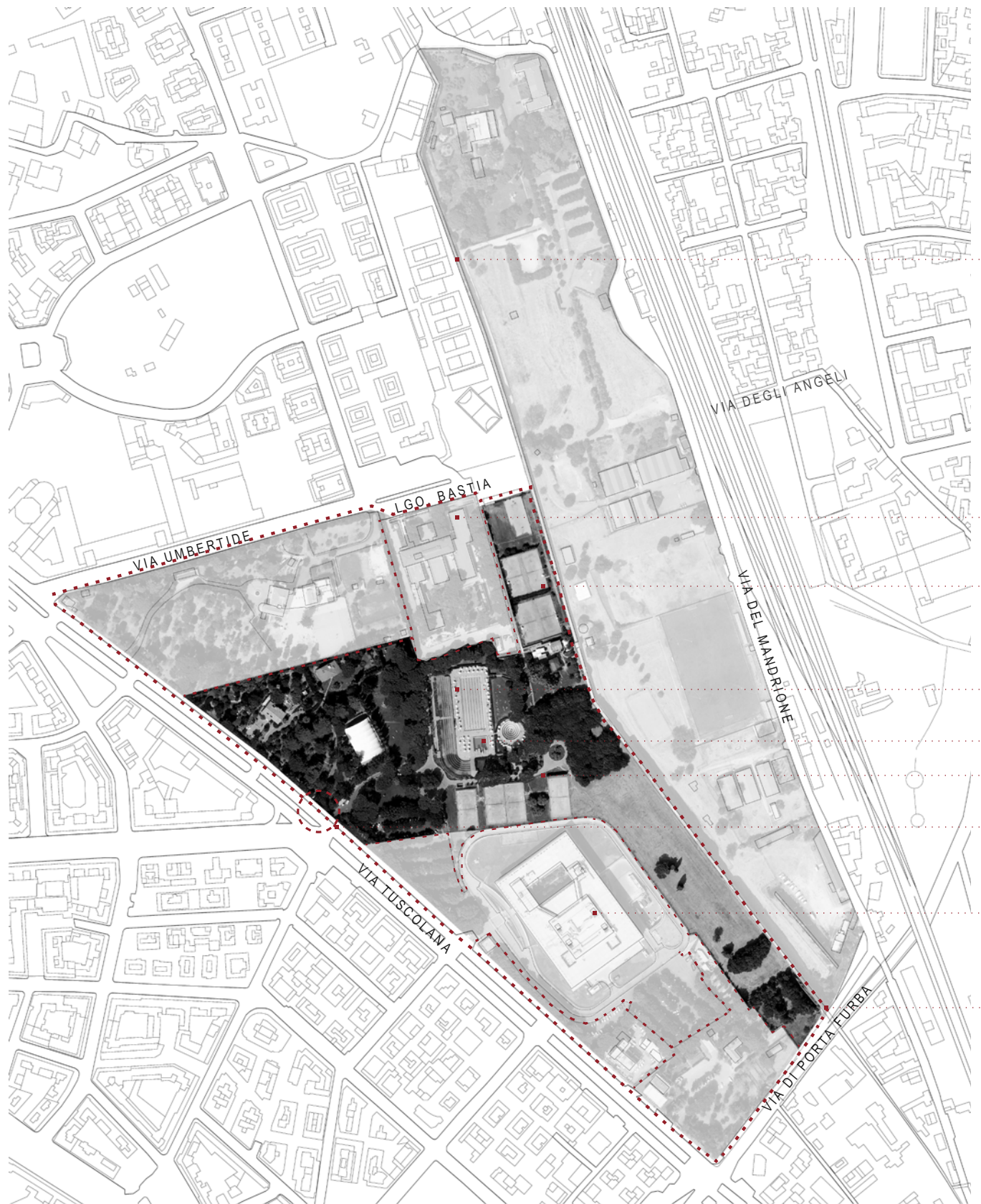
*After a few phone calls to the Bank's main office and the Centro Sportivo della Banca d'Italia (on the other side of the aqueducts on via Tuscolana), I am advised to walk there directly to try to make an official site visit request.*

*I thank him and leave through the aqueduct archways, exiting at Largo Bastia. As I look back, I recognize the gated entrance I had avoided confronting on numerous previous occasions. Once again I am on the outside.*

*I walk down on via Umbertide and turn right on Tuscolana, headed for the main entrance of the Park at Largo Volumnia, n.2.*



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





## 6.3 SITE VISITS

### Inside the Bank of Italy Property

*I was fortunate to return to the site on three occasions.*

*First, I was able to come back later that day, (on Friday, April 3rd), after obtaining an official letter from my school (confirming the intent and purpose of my visit). Although I was not allowed to photograph the site on this occasion, I was however offered a tour of the Sports Centre premises and the newly restored aqueducts. I returned on site the following Monday afternoon and again on Tuesday morning, after receiving the authorization to take photographs. Although I was required to be accompanied on both occasions, I was able to explore the area at ease.*

*The following documentation and notes are a compilation of these visits.*

ACQUEDOTTO FELICE

DATA PROCESSING CENTRE  
(CENTRO ELABORAZIONE DATI)

TENNIS COURTS

OLYMPIC SWIMMING POOL

WADING POOL

DIVING POOL

VIA TUSCOLANA - L.go VOLUMNIA n.2

PRINTING PRESS  
(OFFICINE CARTE VALORI)

AQUAE CLAUDIA-ANIO NOVUS

### AREA WEST OF THE AQUEDUCTS

The area west of the aqueducts, is largely occupied by the Sports Centre Complex, located at the centre of the site, the Bank's Data Processing Centre and the Bank Printing Press, bordering it on each side.

The sports facilities include three open air pools (an Olympic pool, a diving pool and a circular wading pool for children) as well as an indoor pool within a subterranean complex that accommodates other athletic facilities such as gyms and weight rooms, changing rooms as well as various other service areas (storage, hydrological stations, etc).

A subterranean network of tunnels links all the water basins in the area, assuring ease of access and maintenance of all the systems. The building roof is constructed as a series of stepped terraces that connect the level of the park with that of the Olympic pool, creating a sense of continuity between landscape and built form.

A number of tennis courts are arranged on staggered heights, following the natural inclination of the terrain, along the aqueducts next to the Data Processing Centre as well as north of the Printing Press building.

fig.6.20 WEST OF THE AQUEDUCTS  
scale: 1:5000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.6.21 AQUA CLAUDIA (looking east)



fig.6.22 OLYMPIC SWIMMING POOL AND DIVING BOARDS



fig.6.23 WADING POOL



fig.6.24 OPEN AREAS





fig.6.25 PATH ALONG WEST SIDE OF ACQUEDOTTO FELICE (looking north)



fig.6.26 TENNIS COURTS (looking west)



fig.6.27 TENNIS COURT (detail)



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



## AREA EAST OF THE AQUEDUCTS

A few elements of the Sports Centre spill out onto the other side of the aqueducts, to the east. This zone functions more as a 'back of house' for the Sports Centre of the Bank, accommodating a series of sports functions as well as utility shops and storage areas.

Levelled grass fields alternating with undulating topography covered by scarce vegetation and local shrubs and trees, give the area more transparency and openness than its western counterpart. Looking out through the fence bordering the east end of the site toward via del Mandrone, are visible a series of modest, disordered constructions while apartment buildings and social housing complexes rise beyond the railway lines in the background.

Immediately south of here are a series of low rise brick buildings that are used as storage areas and are accessible from via del Mandrone. Similar shed like constructions are located at the south end of the site, housing police barracks, deposits and repair shops (*Caserme dei Carrabinieri*).

A series of sports fields, dominate the middle section of the park. A large football field with spectator stands bordering via del Mandrone is used regularly on weekends by the Sports Club members.

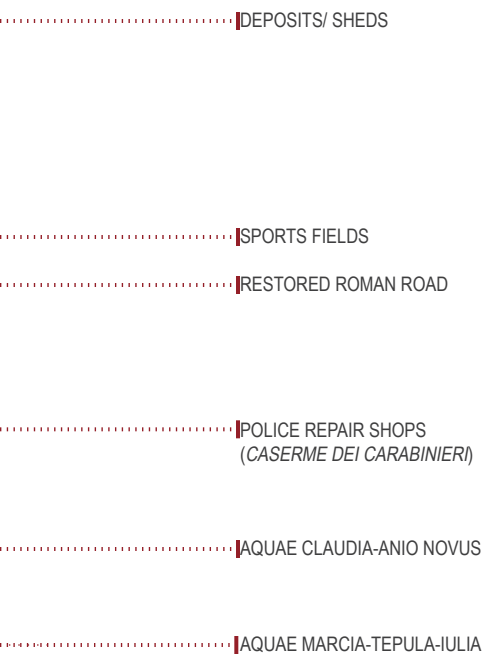


fig.6.28 EAST OF THE AQUEDUCTS  
scale: 1:5000



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



fig.6.29 PATH EAST OF ACQUEDOTTO FELICE (looking south)



fig.6.30 AQUAE CLAUDIA - ANIO NOVUS (looking north)



fig.6.31 ANCIENT ROAD ALONG AQUAE CLAUDIA - ANIO NOVUS (looking north)





fig.6.32 PATH EAST OF ACQUEDOTTO FELICE (looking north)



fig.6.33 ANCIENT ROAD ALONG AQUAE CLAUDIA - ANIO NOVUS (looking north)



fig.6.34 ANCIENT ROAD ALONG AQUAE CLAUDIA - ANIO NOVUS (looking south)



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.6.35 OVERLOOKING VIA DEL MANDRIONE (looking east)



fig.6.36 SPORTSFIELDS AND APARTMENT COMPLEXES (far background)



fig.6.37 SPORTSFIELDS (looking east)



fig.6.38 SPORTSFIELDS (looking north)



fig.6.39 SPORTSFIELDS & AQUA CLAUDIA (BACKGROUND) (looking west)



fig.6.40 SPORTSFIELDS (looking north)



fig.6.41 SPORTSFIELDS (looking east)



fig.6.42 SPORTSFIELDS (looking south)



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.6.43 AQUA CLAUDIA (LEFT) AQUAE MARCIA-TEPULA-IULIA (RIGHT) (looking north)



fig.6.44 AQUAE MARCIA-TEPULA-IULIA (RIGHT) (looking east)



fig.6.45 OVERGROWN VEGETATION - SOUTH END OF THE SITE (looking south)





fig.6.46 AQUAE MARCIA-TEPULA-IULIA (left) & AQUA CLAUDIA (right) (looking south)



fig.6.47 AQUAE MARCIA-TEPULA-IULIA (looking west)



fig.6.48 AQUAE MARCIA-TEPULA-IULIA (looking north)



fig.6.49 AQUAE CLAUDIA - ANIO NOVUS (looking west)



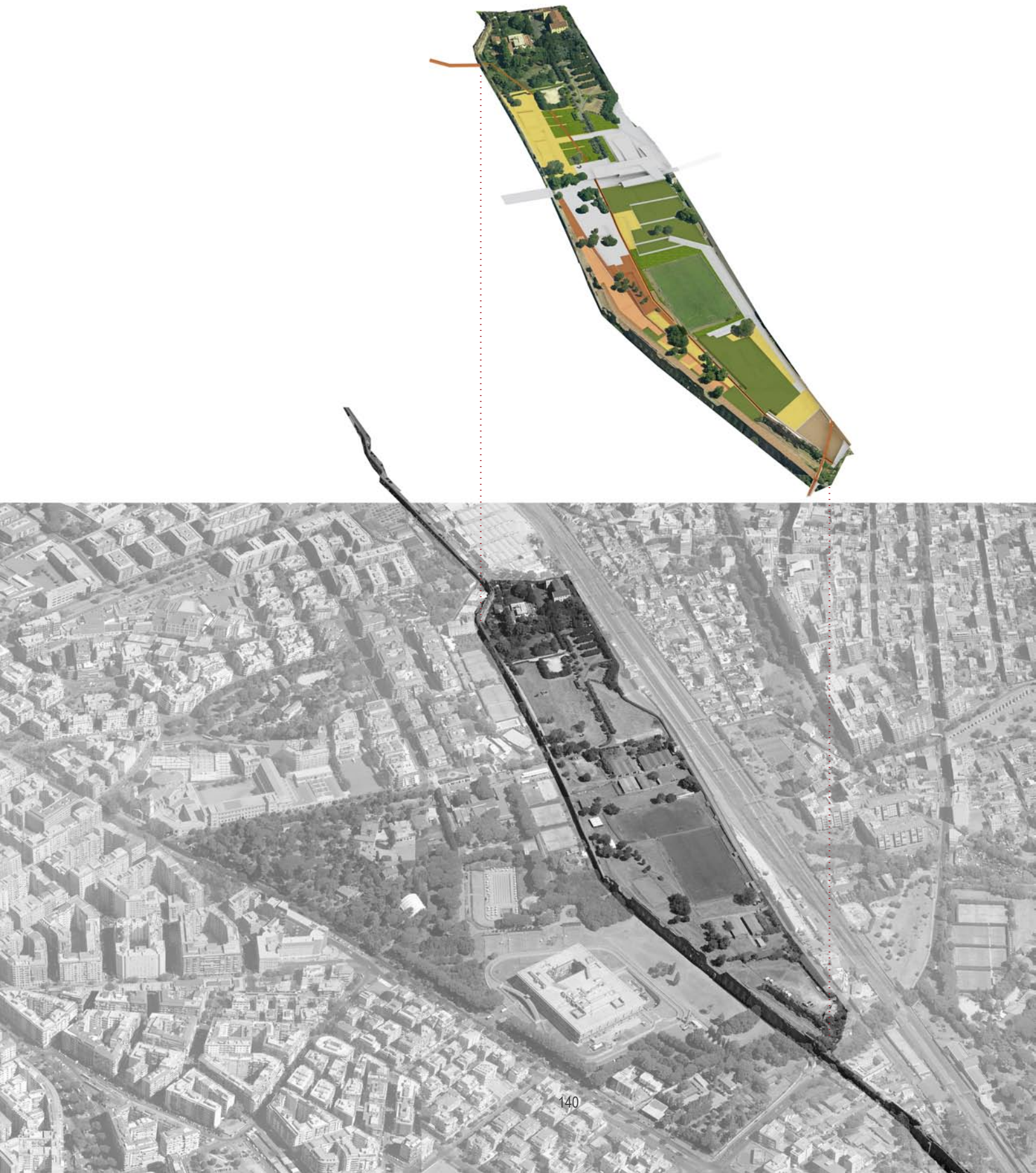


CHAPTER 7. INTERVENTIONS

PARCO DEGLI ACQUEDOTTI AL'MANDRIONE

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

fig.7.1 PARCO DEGLI ACQUEDOTTI AL'MANDRIONE - PROPOSED SCHEME



## 7.1 DESIGN APPROACH

The design seeks to integrate the area located between the aqueducts and via del Mandrione (that is now separated by the property boundaries of the Bank of Italy) within its immediate local setting, as well as to establish a sense of continuity and connection with the larger territorial context. Rather than proposing reinventing this site through the implementation of a singular design vision, an approach of minimal, strategic intervention is adopted to emphasize and reveal qualities of this place that already exist.

Four distinct objectives guide the design process: 1) establishing relationships at multiple scales; 2) uncovering and articulating the site's historical identity; 3) promoting the protection and preservation of the archaeological and ecological heritage of the site; and 4) accommodating a wide diversity of functions and users. Although each of these elements identifies particular design objectives and their respective methods of implementation, they are interrelated and operate effectively as a whole.

First, the design requires enabling the park to function at multiple scales. It proposes a series of interventions that seek to mediate between the human scale, architecture, infrastructure and landscape.

In her essay, "*Constructed Ground: Questions of Scale*", Linda Pollak states that "*A site exists at an unlimited number of scales. The potential of a project to operate at different scales relies upon a designer's investment in representing the elements and forces that exist or have existed at those scales, as a precondition for designing ways to foster interdependencies between them.*"<sup>1</sup>

The proposed park seeks to relate to the infrastructural scale of the aqueducts and railway lines that border it on each side extending far beyond the park's limits, as well as to the local scale of the neighbourhoods that are in close proximity to it. The design seeks to introduce the human scale to a context that is primarily dominated by vehicular traffic - along via del Mandrione or railway corridors - promoting pedestrian accessibility throughout the park, as well as pedestrian and cycling links to the adjacent parks - Parco degli Acquedotti (to the south), Parco dell'Appia Antica (to the west), Parco Alessandrino and Parco di Centocelle (to the east).

The design seeks to strengthen internal relationships between various park

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<sup>1</sup>Linda Pollak. "Constructed Ground: Questions of Scale" in *The Landscape Urbanism Reader*. Edited by Charles Waldheim. New York: Princeton Architectural Press, 2006. p. 130



elements that have the potential to resonate beyond the park's boundaries; concurrently the design seeks to attract and allow external factors to interact and actively engage with the park.

The scale of the interstitial park is also carefully considered in the design process. Shaped as a long and narrow strip - ranging from 80 to 140 m in width and over 900 m in length - the park covers an area of approximately 121,000 m<sup>2</sup> (or 12.1 hectares). Although the design seeks to give the park legibility and openness as a whole, it also seeks to define particular zones within the park that have specific qualities and have the ability to accommodate particular functions. These zones are defined by topographical variations, vegetation, and design elements rather than gated boundaries.

Secondly, the project seeks to articulate the sense of identity and specificity of the place by integrating the site's history in the design process. It suggests a weaving together of the site's contemporary and historical traces that transcend limits imposed by man (property boundaries) or infrastructure (railway lines), and are often hidden or imperceptible.

French landscape architect Christophe Girot promotes an approach to design that *"not only ameliorates a site but also activates cultural dimensions of the site"*.<sup>2</sup> He suggests that *"attention [must] always [be] focused on what already exists in situ. In this way, the designer may carefully and knowledgeably assess what really needs to be recovered (anew) from the relentless erosion of time."*<sup>3</sup>

Similar to Girot, Sébastien Marot introduces the principle of *'anamnesis (recollection of previous history)'* as part of his four step approach to the study of landscape sites. He states that *"the landscape architectural reading of sites is not limited to quantities and capacities. Rather, it views the land and public space as an expression of ancient culture, or as a palimpsest that evidences all of the activities that contributed to the shaping of that particular landscape and no other."*<sup>4</sup> He suggests *"digging below the surface, seaming, grafting, and reclaiming hidden and latent phenomena of places"* as ways of *"developing increasingly discriminating modes of interpreting and constructing sites and local situations."*<sup>5</sup>

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<sup>2</sup> Christophe Girot. "Four Trace Concepts in Landscape Architecture" in *Recovering Landscape. Essays in Contemporary Landscape Architecture*. Edited by James Corner. New York: Princeton Architectural Press, 1999, p.61

<sup>3</sup> Ibid.

<sup>4</sup> Sébastien Marot. "The Reclaiming of Sites" in *Recovering Landscape. Essays in Contemporary Landscape Architecture*. Edited by James Corner. New York: Princeton Architectural Press, 1999, p.51

<sup>5</sup> Ibid, p.56

Rather than relying on the recognisability of a singular, more prominent archaeological element - the aqueduct - the design proposes revealing and articulating a series of historical traces that traverse the site spanning from the ancient, medieval, renaissance and industrial periods. These traces (examined in more detail in the previous chapters) are translated into design elements that form an underlying structure, a flexible framework that organizes the site. These non-contemporaneous traces – the aqueducts, the recently discovered archaeological road running along them, the buried medieval Marrana Mariana canal, as well as the industrial remnants of railway lines crossing through the site – are all generative factors in the design process.

Thirdly, the design seeks to protect and preserve the site's archaeological and ecological worth by maintaining its sense of enclosure.

Both 'park' and 'garden' are defined as an 'enclosed piece of ground'. Although the 'interstitial park' does not seek to adhere to a particular park typology, it also carries an inherent sense of enclosure, the interstitial referring to a place that 'stands between'. Even though the proposed park's role is to transcend a variety of boundaries – imposed by infrastructure or private ownership - it also seeks to articulate rather than eliminate the various layers that prevent it from being assimilated by its surroundings. Articulated boundaries also help offer recognisability and legibility of the park as a distinct entity.

Although the site's current boundaries disconnect it from the surrounding context, they also serve the purpose of protecting the archaeological and institutional entities located on its premises. The aqueduct restoration campaign conducted in the early '90s indicates a commitment to safeguarding and maintaining the site's archaeological value. The interstitial park seeks to continue this legacy of archaeological preservation and protection, while also trying to reconnect the site with its surroundings.

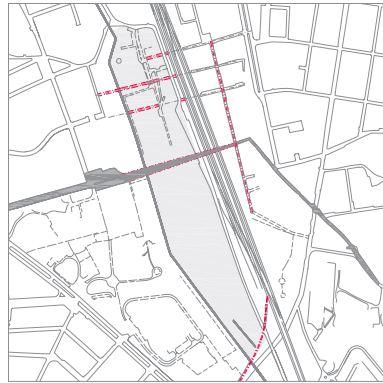
Recognizing the interstitial park as part of a much more extensive ecological corridor also requires careful consideration of boundaries. French landscape architect Gilles Clément suggests maintaining a permeable and open territory that enhances and sustains diversity.<sup>6</sup> Although Clément proposes an attitude of openness that encourages dynamic exchanges between various landscape conditions, he also points out the importance of taking into account the depths and implications of limits, rather than treating them as traces.<sup>7</sup>

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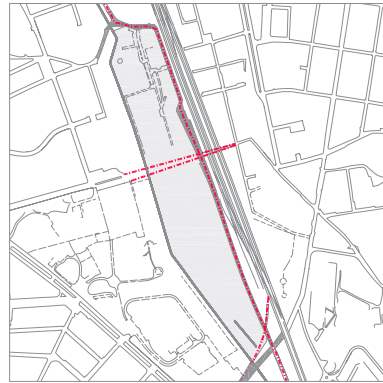
<sup>6</sup> Ibid. p. 63

<sup>7</sup> Gilles Clément. *Manifeste du Tiers paysage*. Éditions Sujet/Objet : Paris, 2004. p.64

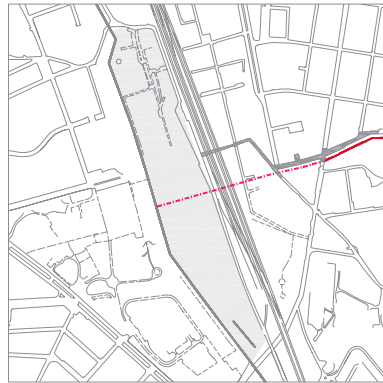
INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



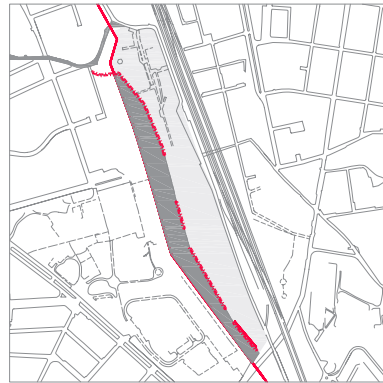
THRESHOLD  
VIA DEGLI ANGELI TO LARGO BASTIA



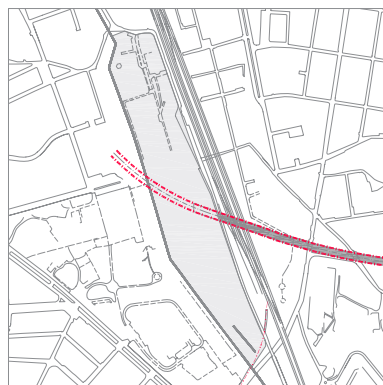
BOUNDARY  
VIA DEL MANDRIONE



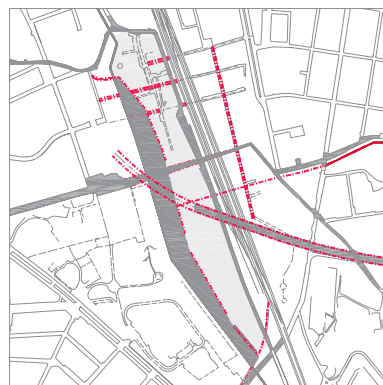
LINK TO AQUA ALEXANDRIANA



MARRANA MARIANA CANAL



UNDERGROUND CORRIDOR TO  
PARCO DI CENTOCELLE



SYNTHESIS

fig.7.2 DESIGN STRATEGY - DIAGRAMS



The interstitial park seeks to protect and nurture ecological diversity on site as well as sustain the underlying continuity of its landscape ecosystems. Fourth, the design of the park seeks to accommodate a multiplicity of functions and assemble a wide variety of users. It sets out to establish a strong presence at the local level - meeting the needs of adjacent neighbourhoods (Tuscolano, Appio Claudio) - as well as engage communities from both municipalities that border it on each side (Municipio IX and VI).

Rather than following a prescribed park typology, the interstitial park seeks to combine a diversity of archaeological, recreational, cultural, and ecological characteristics. The design proposes different programmatic components that seek to meet the needs of local residents as well as reach out to the wider community: cultural facilities, archaeological promenade, pedestrian and cycling routes, playgrounds and sport fields, water canals, terraced gardens, open green.

According to landscape architect Adriaan Geuze (discussing West 8's design for the Noorderpark in Amsterdam), "*A park is for people. For people from the neighbourhood, from the city, from the surrounding region. To rest and recover from the stress and the rush, or to be active, alone or with other people: from time to time we all need that. And so we often run into one another in the park. A park is a place to meet people... 'Boy meets girl', that's what the park is about. Open to everyone, a park is a public space that does not demand anything from anyone. Except to behave properly.*"<sup>8</sup>

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<sup>8</sup> Adriaan Geuze, Noorderpark. Edited by Lodewijk Odé. Amsterdam: Architectura & Natura Booksellers and Publishers, 2005, p.99

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*

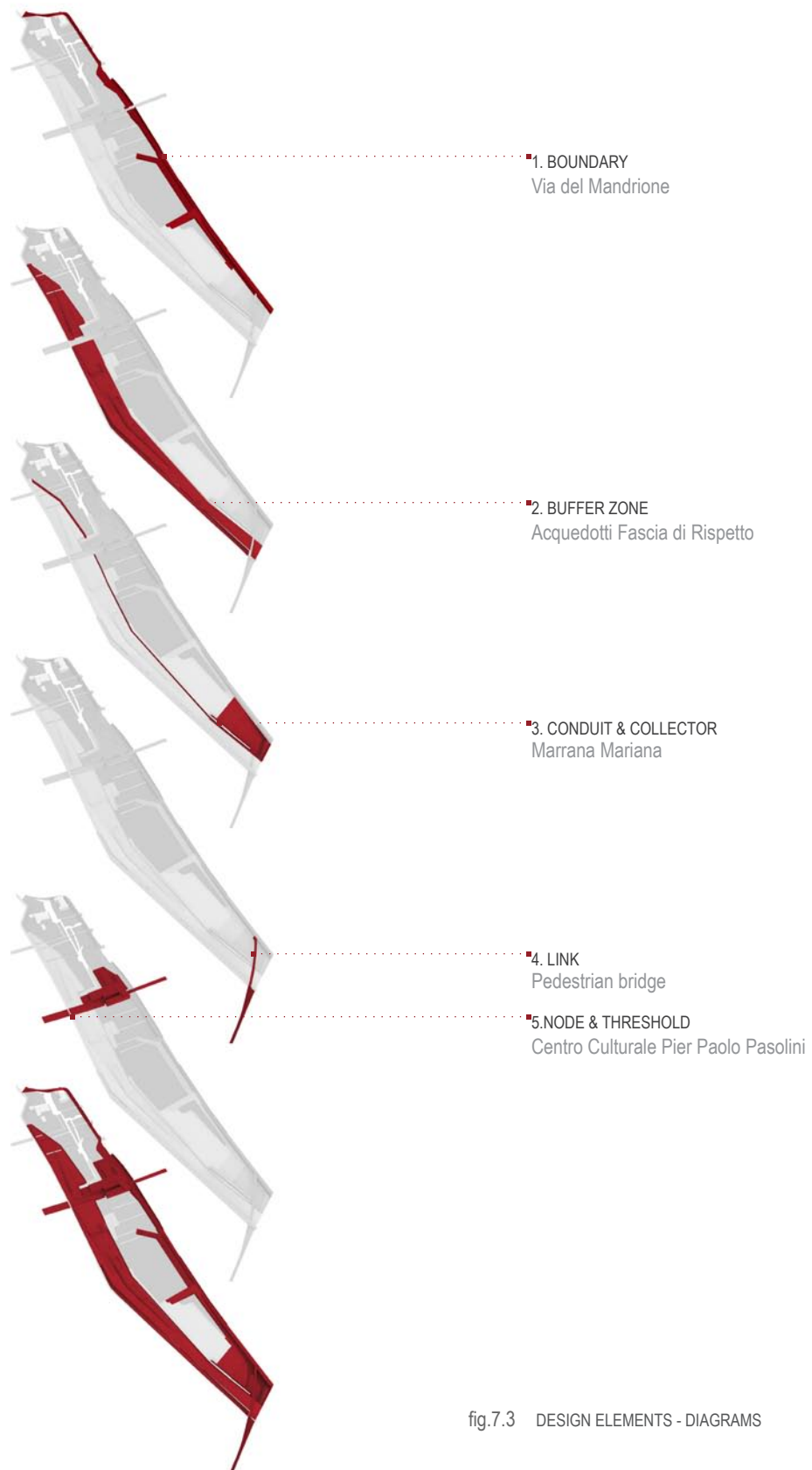


fig.7.3 DESIGN ELEMENTS - DIAGRAMS

## 7.2 DESIGN ELEMENTS

The design scheme proposes five distinct design elements that construct a flexible framework for reconfiguring the park.

They are: 1) Boundary - a series of interventions along via del Mandrione that reassess the relationship between street and park; 2) Buffer Zone or Fascia di Rispetto - a linear terraced landscape that marks the interstitial zone between the aqueducts and the proposed Marrana Mariana canal; 3) Conduit and Collector - a symbolic retracing of the Marrana Mariana Canal as well as an interpretation of the primary functions of the aqueducts as water conduits; 4) Link - a pedestrian walkway that ascends from street level on via di Porta Furba, crosses through the aqueducts over the park before reaching via del Mandrione; 5) Node and Threshold - a proposal for a Cultural Centre and pedestrian passage located at a central position on site;

These elements also suggest potential stages of implementation of the design scheme.



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

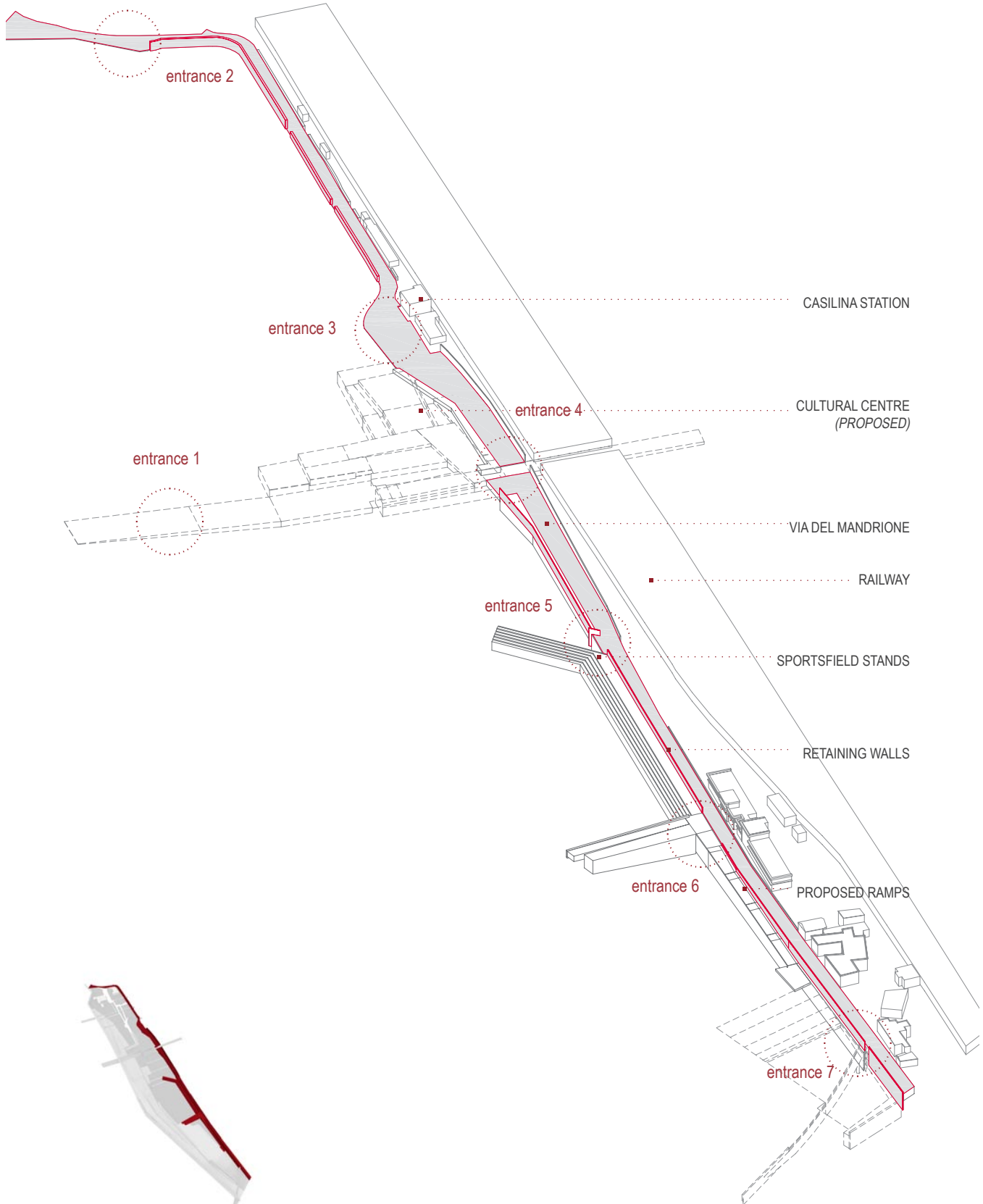


fig.7.4 BOUNDARY: VIA DEL MANDRIONE

## 7.2.1 BOUNDARY Via del Mandrione



fig.7.5 VIA DEL MANDRIONE - WALL



fig.7.6 VIA DEL MANDRIONE - WALL - DETAIL



fig.7.7 VIA DEL MANDRIONE - GATED ENTRY

fig. 7.5 - 7.7

VIA DEL MANDRIONE - EXISTING CONDITIONS

The design seeks to address the relationship between the park and via del Mandrione, the road that borders it along the east, running in parallel to the railway lines. It seeks to maintain a sense of enclosure of the park while addressing issues of accessibility and visibility from street level.

The existing sectional condition depicts a visual and physical separation between the site and the road that is bordered by masonry walls on both sides, becoming a linear, traffic corridor.

The design seeks to redefine rather than eliminate the boundaries between park and street, proposing a more permeable edge and allowing for increased accessibility and legibility of the park from via del Mandrione. The existing masonry walls are kept, however they are lowered to allow for a visual connection with the park, while the site topography is articulated in order to create a variety of sectional relationships with the street.

Five (out of the seven) entrances to the park are accessed from via del Mandrione. Vehicular access to the street is limited to one way traffic running northbound, while the remaining space is allocated to pedestrian and cycling routes.

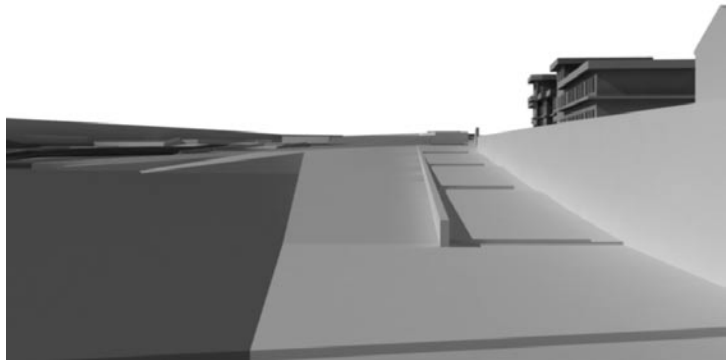


fig.7.8 VIEW OF VIA DEL MANDRIONE FROM PARK LEVEL

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

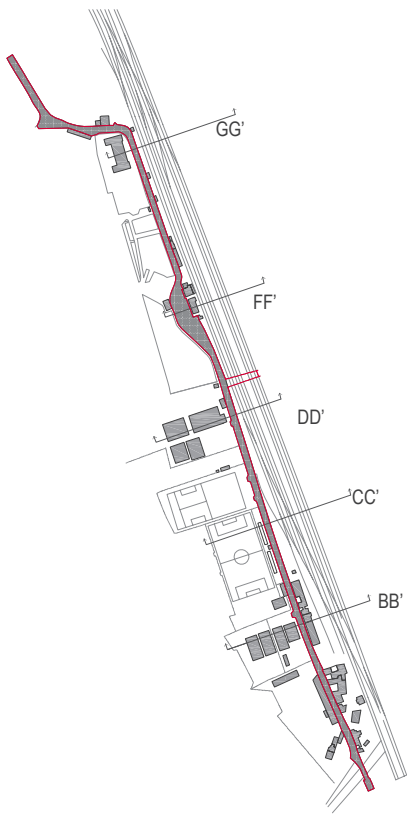


fig.7.9 VIA DEL MANDRIONE (EXISTING)  
scale 1:10000

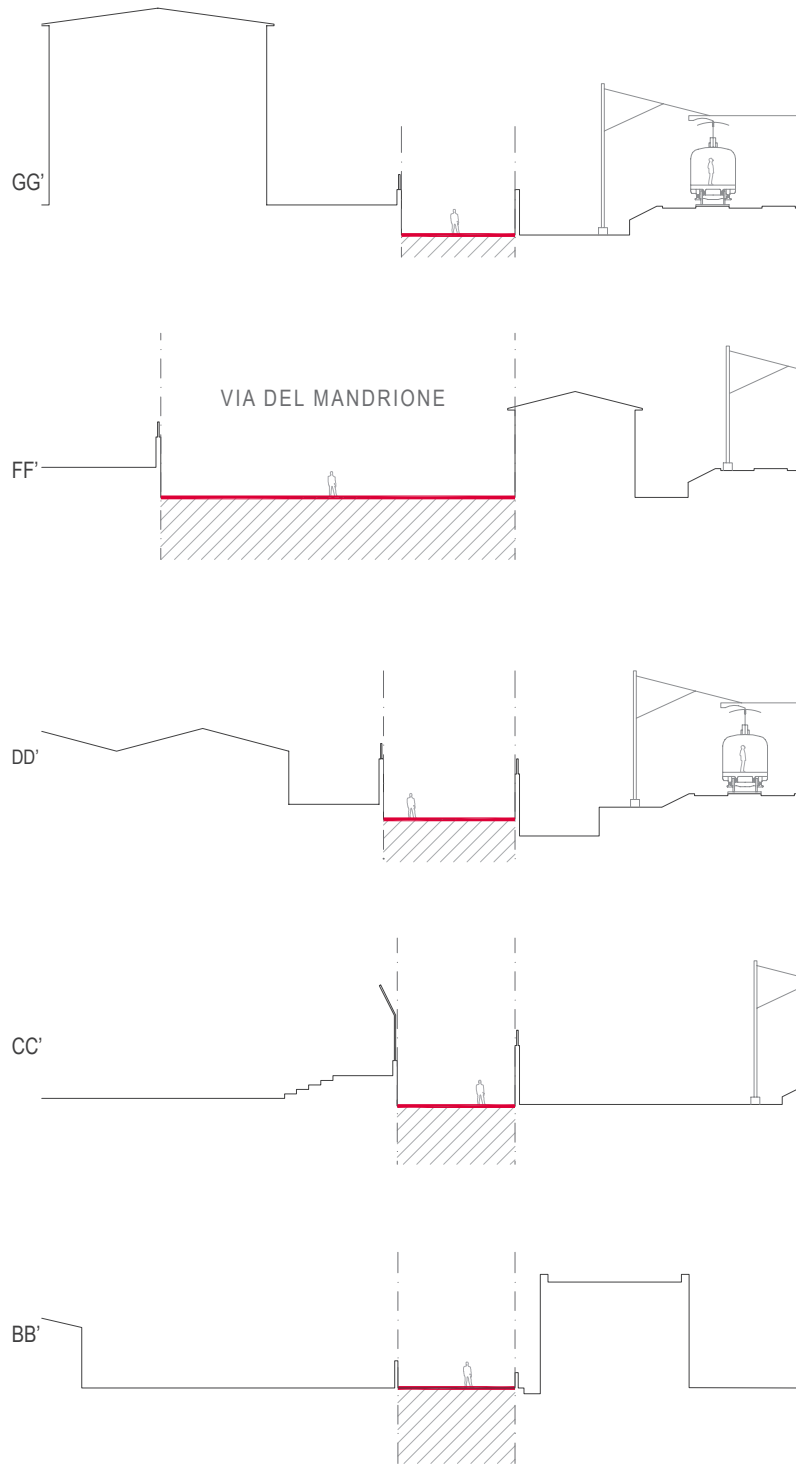


fig.7.10 EXISTING STREET SECTIONS  
scale 1:500



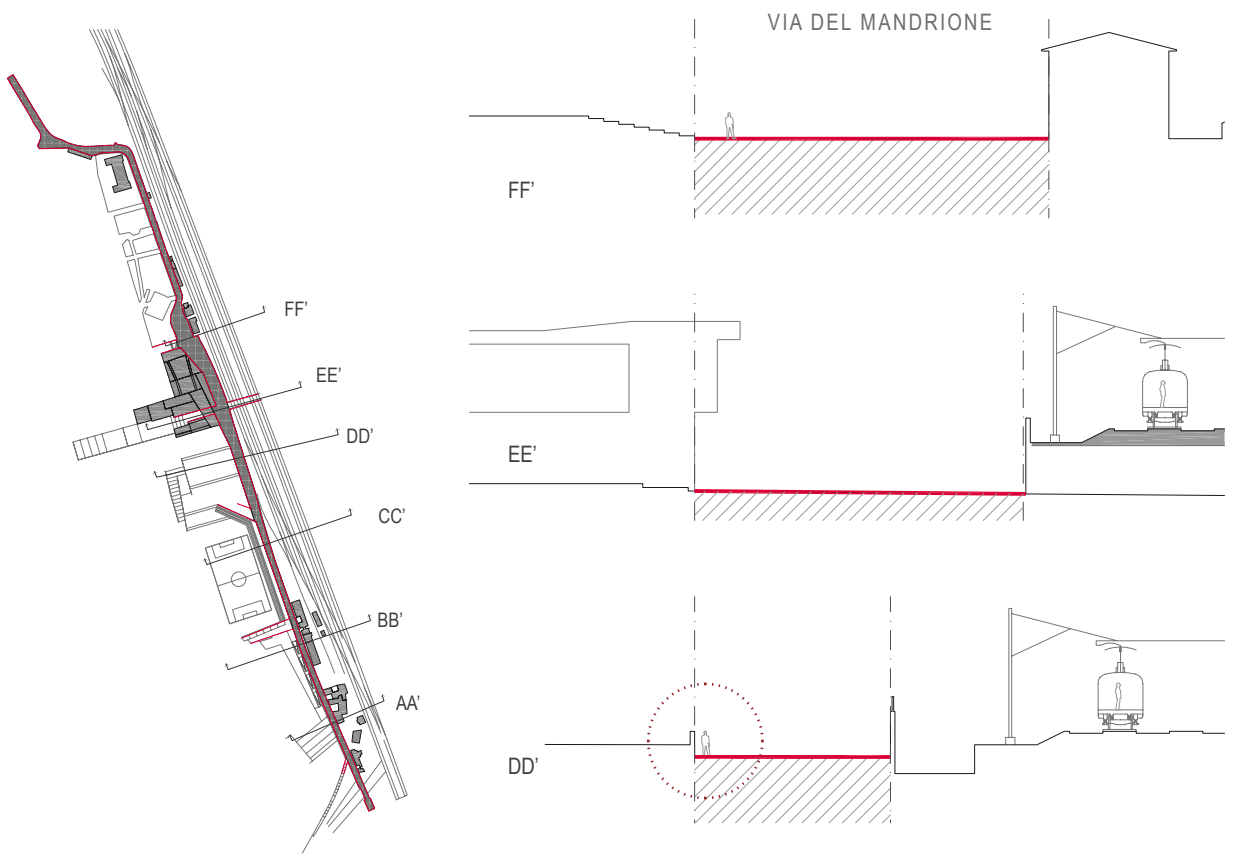


fig.7.11 VIA DEL MANDRIONE (PROPOSED)  
scale 1:10000

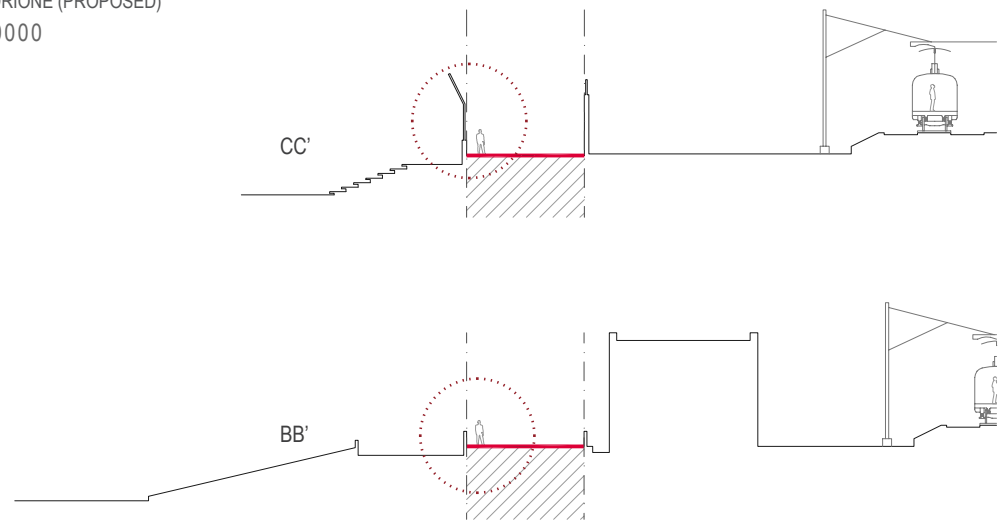


fig.7.12 PROPOSED STREET SECTIONS  
scale 1:500

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

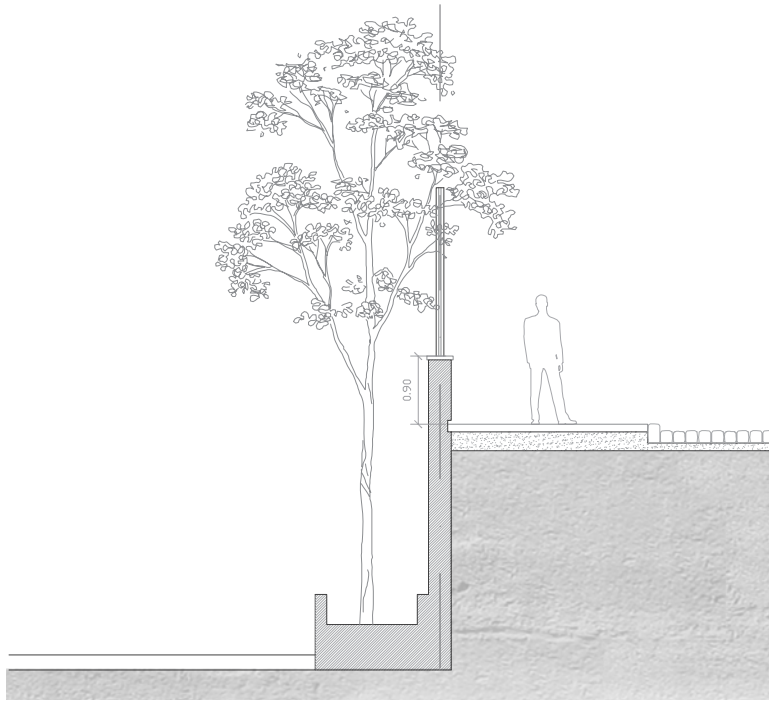


fig.7.13 MANDRIONE SECTION AA' - DETAIL  
scale 1:100

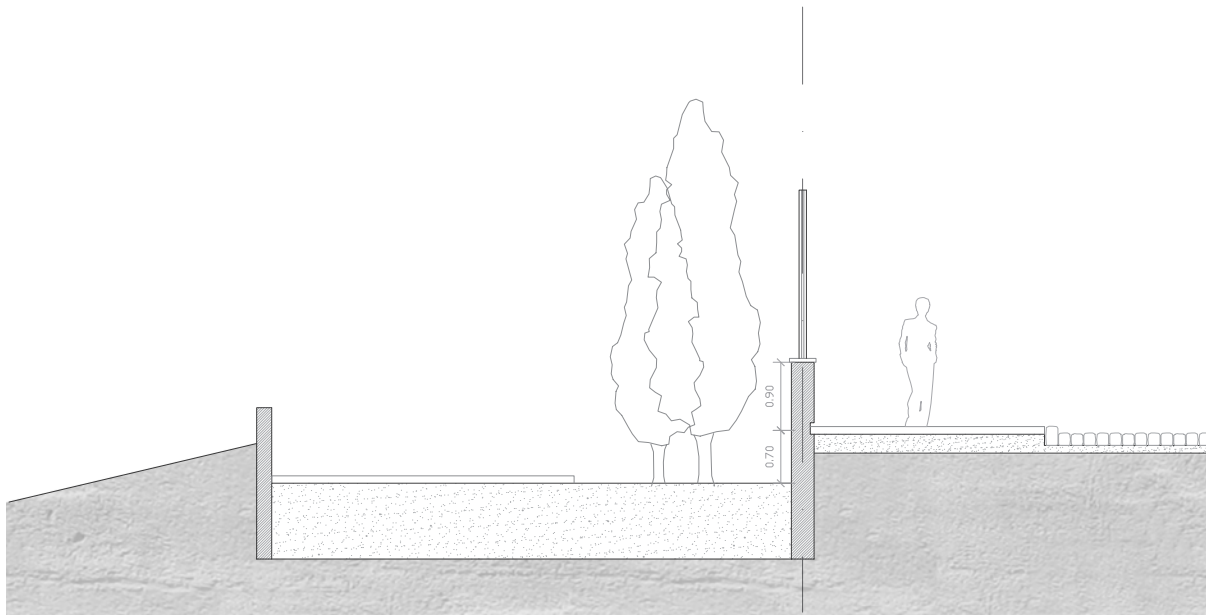


fig.7.14 MANDRIONE SECTION BB' - DETAIL  
scale 1:100

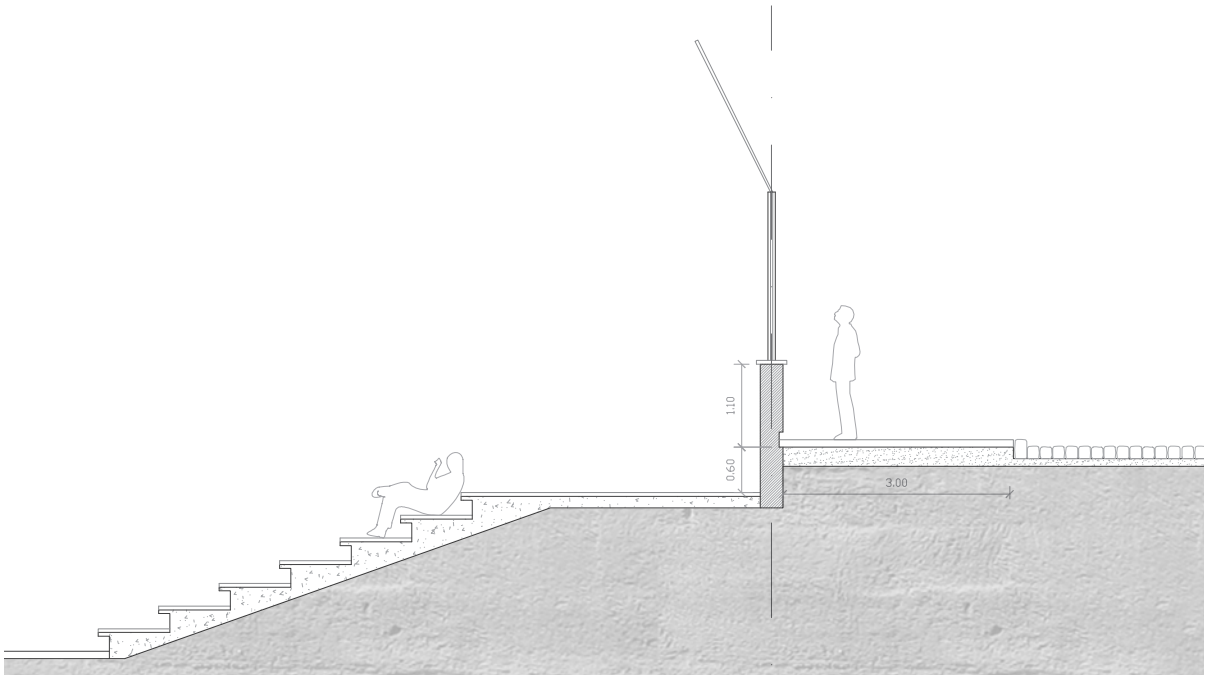


fig.7.15 MANDRIONE SECTION CC' - DETAIL  
scale 1:100

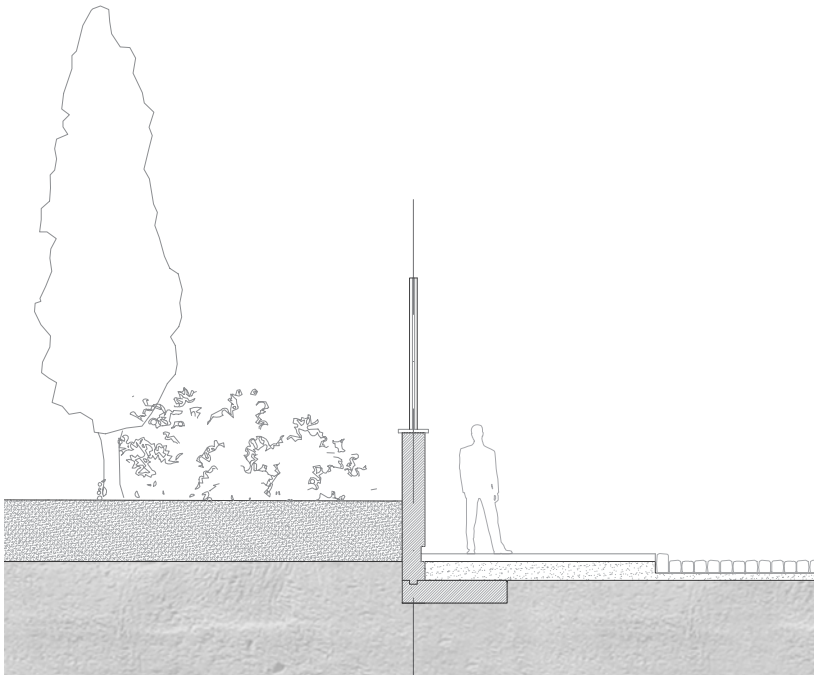


fig.7.16 MANDRIONE SECTION DD' - DETAIL  
scale 1:100



fig.7.17 MATERIALITY



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*

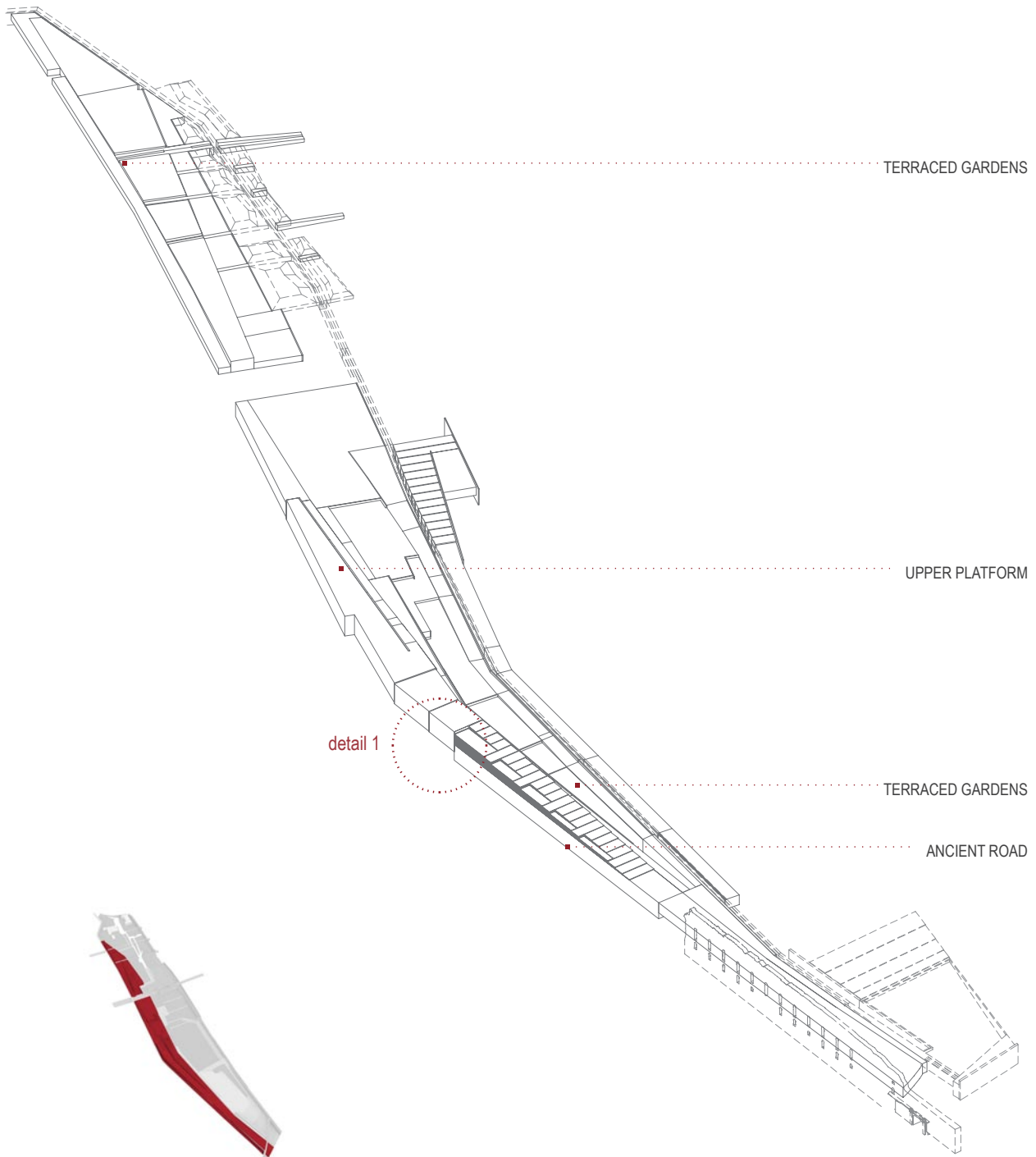


fig.7.18 BUFFER ZONE: FASCIA DI RISPETTO

## 7.2.2 BUFFER ZONE 'Fascia di Rispetto'



fig.7.19 ANCIENT ROAD ALONG AQUEDUCTS

The second design element is a proposed stratified landscape that frames the area along the aqueducts as well as the recently discovered ancient road running along them. This so called '*fascia di rispetto*' references the historically demarcated area along the aqueducts (ranging from 1.45 m for subterranean conduits and 4.5 m for the aqueducts running above ground, on each side) that was required to be left open, free of construction.

A series of terraced tufa slabs echo the texture and materiality of the aqueducts, creating an elevated viewing platform that overlooks the park. Paved areas alternate with planted areas. The different levels are connected through ramps and paths that follow the angular course of the aqueducts.

The constructed landscape steps up gradually from the south to the north end of the site, following the existing topographical inclination of this area.

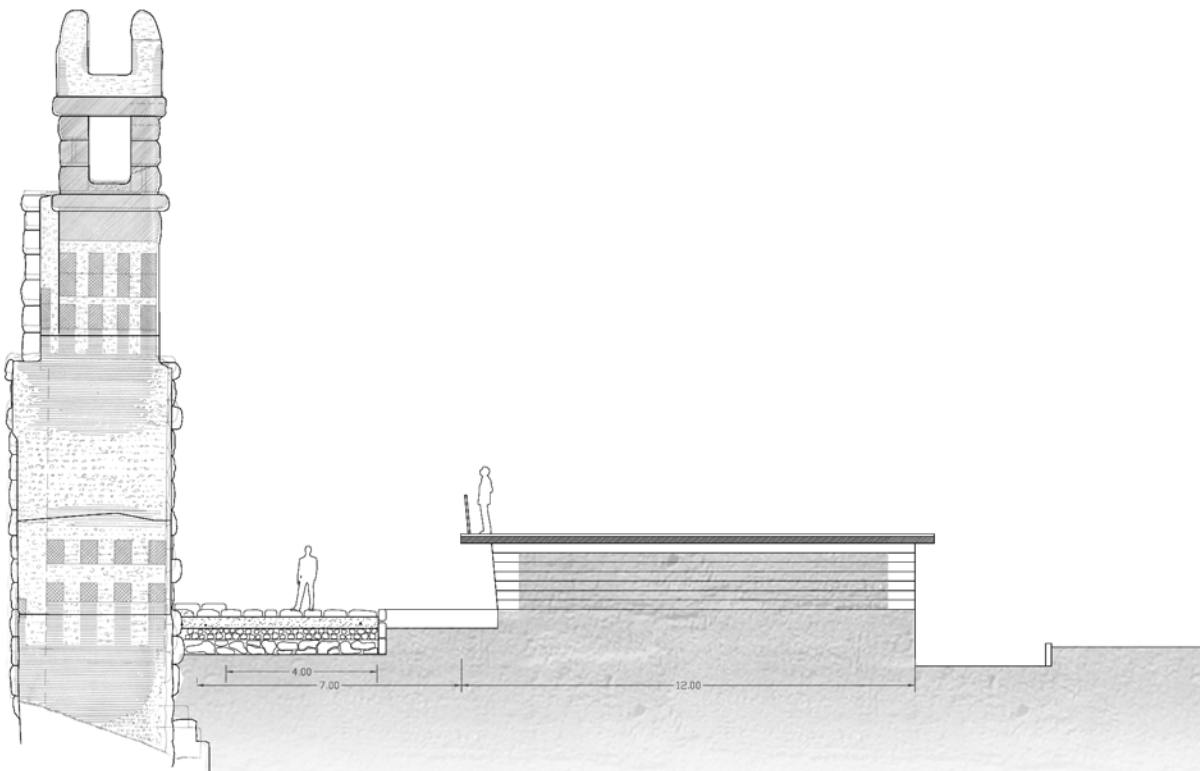


fig.7.20 'FASCIA DI RISPETTO' - SECTIONAL DETAIL  
scale 1:200

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*

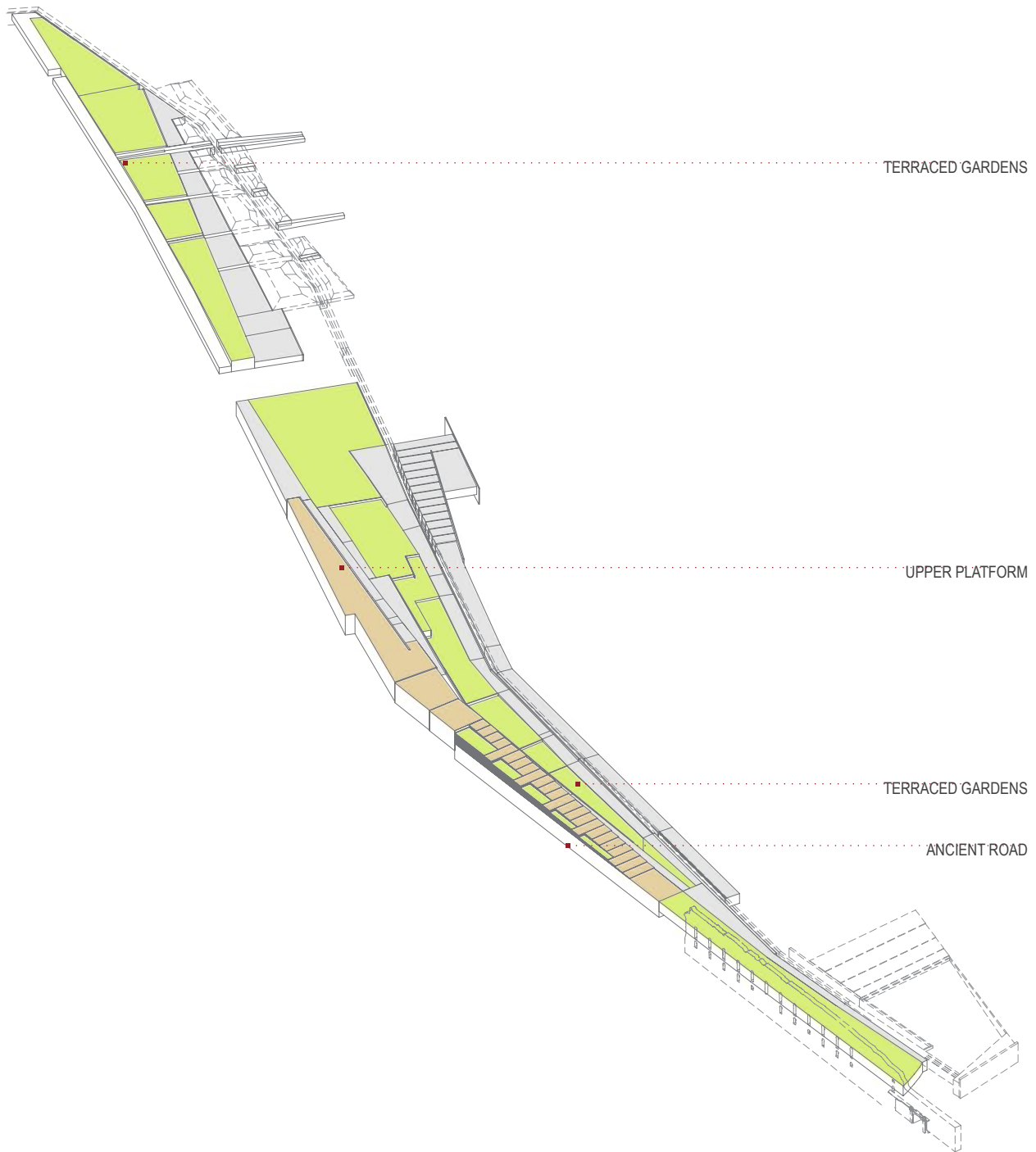


fig.7.21 BUFFER ZONE: FASCIA DI RISPETTO - MATERIALITY





ANCIENT ROAD

PLANTED / GREENAREAS

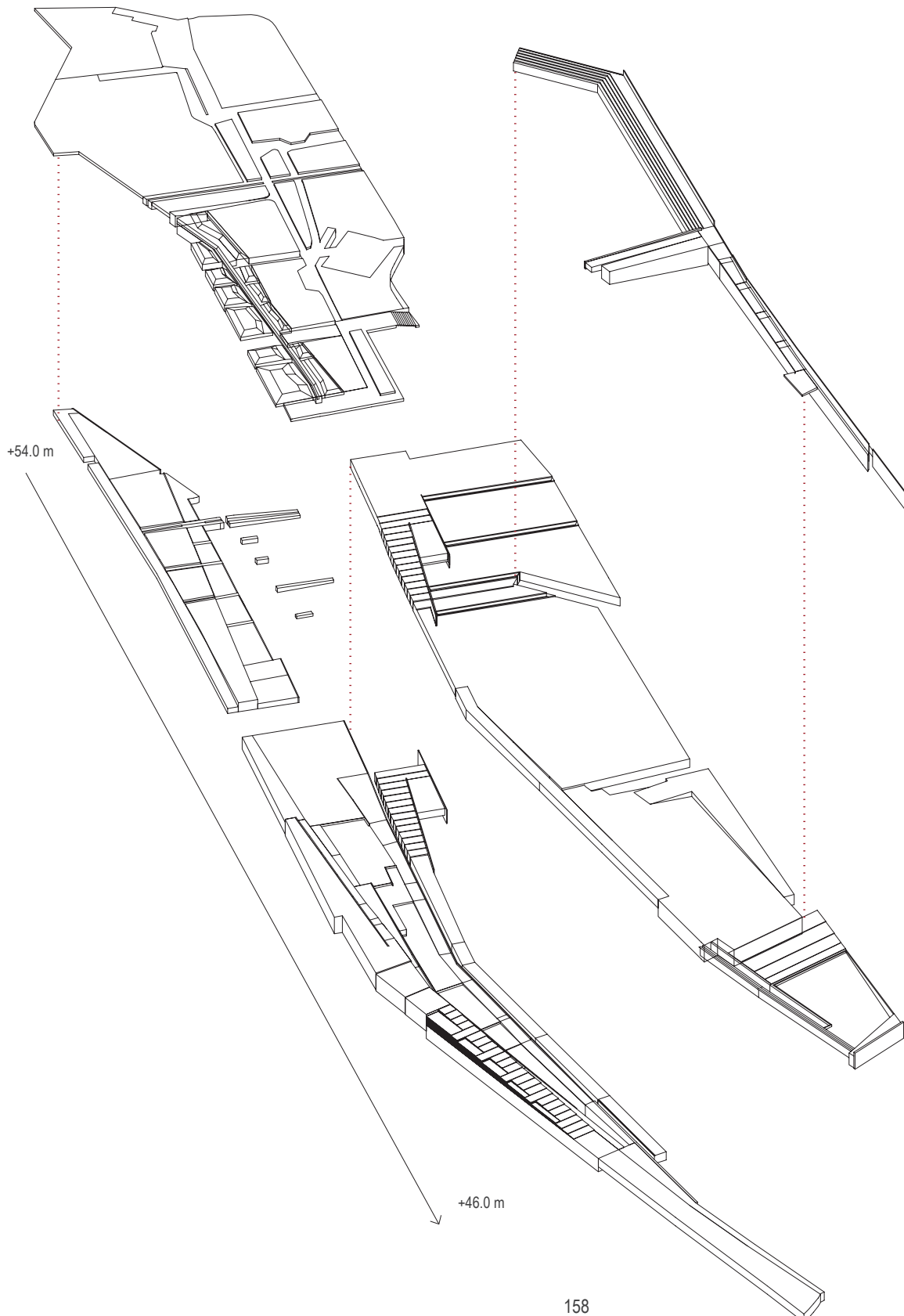
STEPS/TERRACES

PATHS

PLANTED / GREENAREAS

fig.7.22 'FASCIA DI RISPETTO' - SECTIONAL PERSPECTIVE

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*



The existing site topography becomes an organizing element in the design process. The general inclination of the terrain from north to south as well as from west to east informs the process of shaping the ground.

This proposed gradual carving of the site creates a gradual transition from the via della Marrana street level (at the north end) to via di Porta Furba (that borders it along the south.) The 'fascia di rispetto' is layered on multiple levels, gradually descending from +54m (at the north end of the site) to a +46m altitude (at the south end).

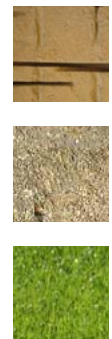


fig.7.23 GROUND/STRATIGRAPHY

fig.7.24 MATERIALITY



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

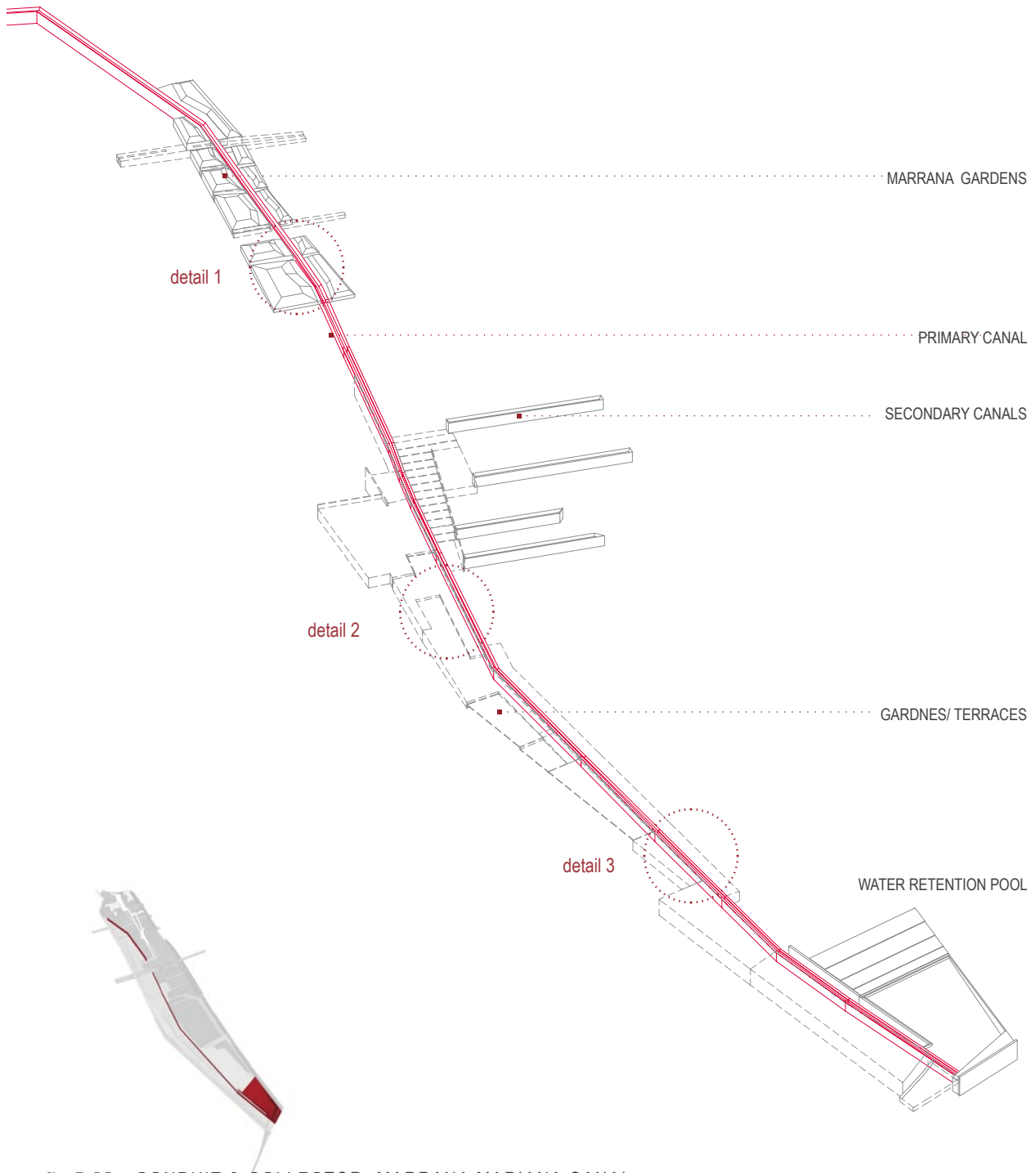


fig.7.25 CONDUIT & COLLECTOR: MARRANA MARIANA CANAL

### 7.2.3 CONDUIT & COLLECTOR

#### Marrana Mariana Canal



fig.7.26 MARRANA MARIANA (1900's)

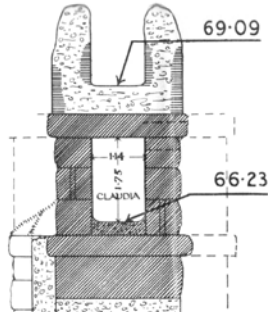


fig.7.27 AQUA CLAUDIA (DETAIL)  
(BY THOMAS ASHBY)

The third design element - the *Marrana Mariana Canal* - is a narrow water path that runs alongside the aqueducts, traversing the entire length of the park from north to south.

The new water conduit is an element of demarcation, a fluid boundary that encloses the area immediately along the east side of the aqueducts – the proposed '*fascia di rispetto*'. The canal retraces symbolically the course of the open air medieval channel - *Aqua Mariana*, (or *Marrana Mariana*) - originally built in the XIIIth century and covered only recently during the second half of the XXth century. The proposed canal however, reverses the historical flow of the Marrana (that similar to the aqueducts used to flow from the Roman Campagna to the city), following instead the gradual topographical inclination of the site from north to south.

The Marrana Canal references the aqueducts' primary function as conduit / water carrier. It accumulates water run off from the site and carries it to the south end of the park to a proposed water retention pool. The water runs continuously, uninterrupted, although the canal is covered at times to allow for ease of crossing.

The canal traverses a variety of landscapes in its passage. At the north end of the site it passes through a series of ground swellings/ a regularly shaped undulating landscape. Further to the south the canal becomes an edge, a boundary, containing the interstitial zone along the Claudia – Anio Novus aqueducts, demarcating changes in levels, surfaces and textures on either side of its course. Its sectional configuration is therefore flexible, to allow for the different level variations along its passage.



fig.7.28 VIEW OF CANAL (looking south)



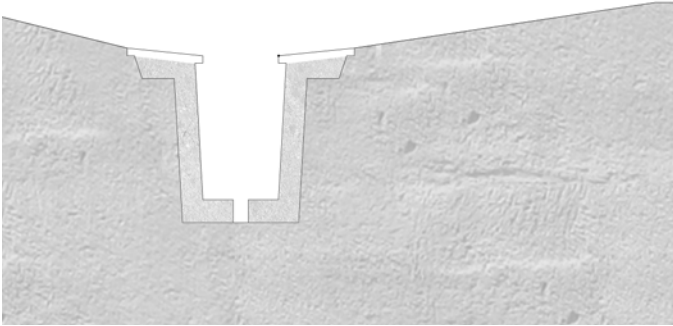


fig.7.29 SECTIONAL DETAIL 1  
scale 1:100

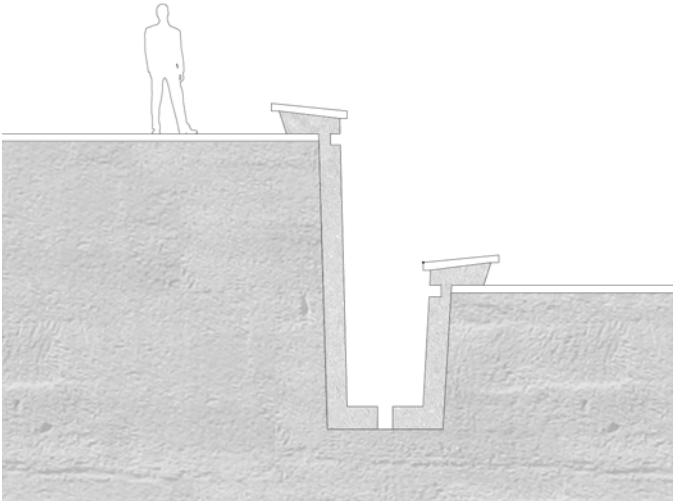


fig.7.30 SECTIONAL DETAIL 2  
scale 1:100

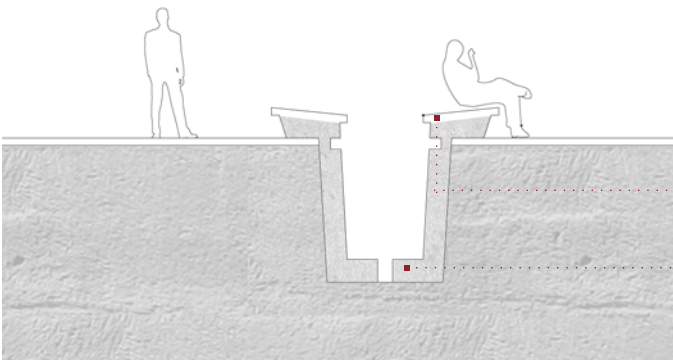


fig.7.31 SECTIONAL DETAIL 3  
scale 1:100



fig.7.32 MATERIALITY

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

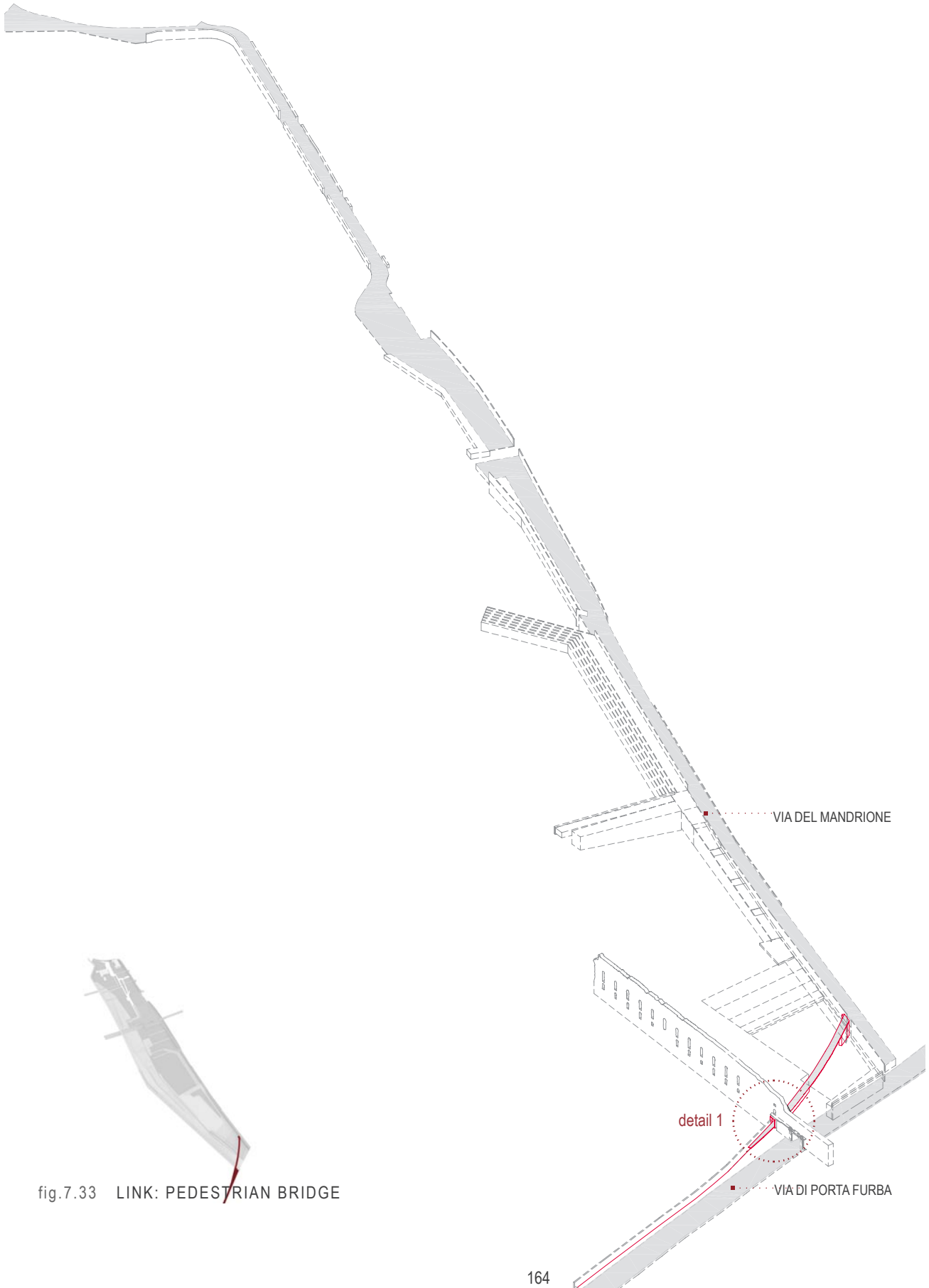


fig.7.33 LINK: PEDESTRIAN BRIDGE

## 7.2.4 LINK Pedestrian bridge

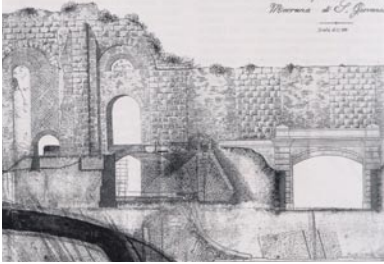


fig.7.34 VIA DI PORTA FURBA (elevation)



fig.7.35 PORTA FURBA - PRESENT DAY

The fourth proposed design element – *the link* – provides pedestrian access to the park from via di Porta Furba, a major vehicular artery that borders the site along the south end. The bridge follows the arched path of a former railway track that permeated the aqueducts at this location. Although the tracks have been removed, their presence (or rather absence) is currently demarcated by vegetation and built fabric.

Starting at street level, the bridge rises gradually, crossing through the aqueduct arch, then spans over the water retention pool before reaching via del Mandrione. The pedestrian bridge articulates this point of collision between archaeological and industrial traces, between the aqueducts and the railway.



fig.7.36 VIEW FROM BRIDGE (toward via del Mandrione)

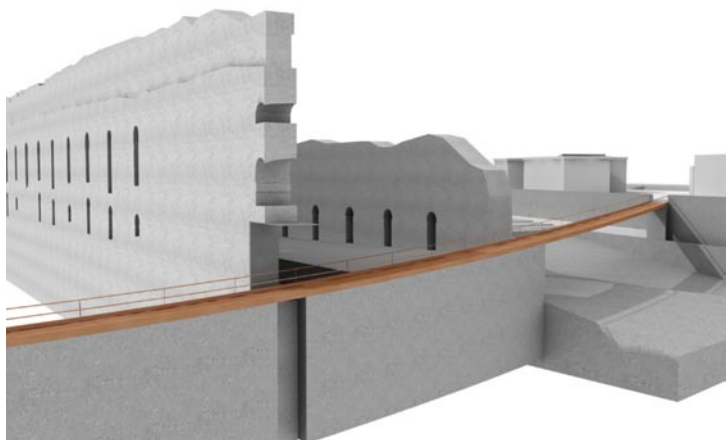


fig.7.37 SECTIONAL DETAIL OF PROPOSED PEDESTRIAN LINK

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

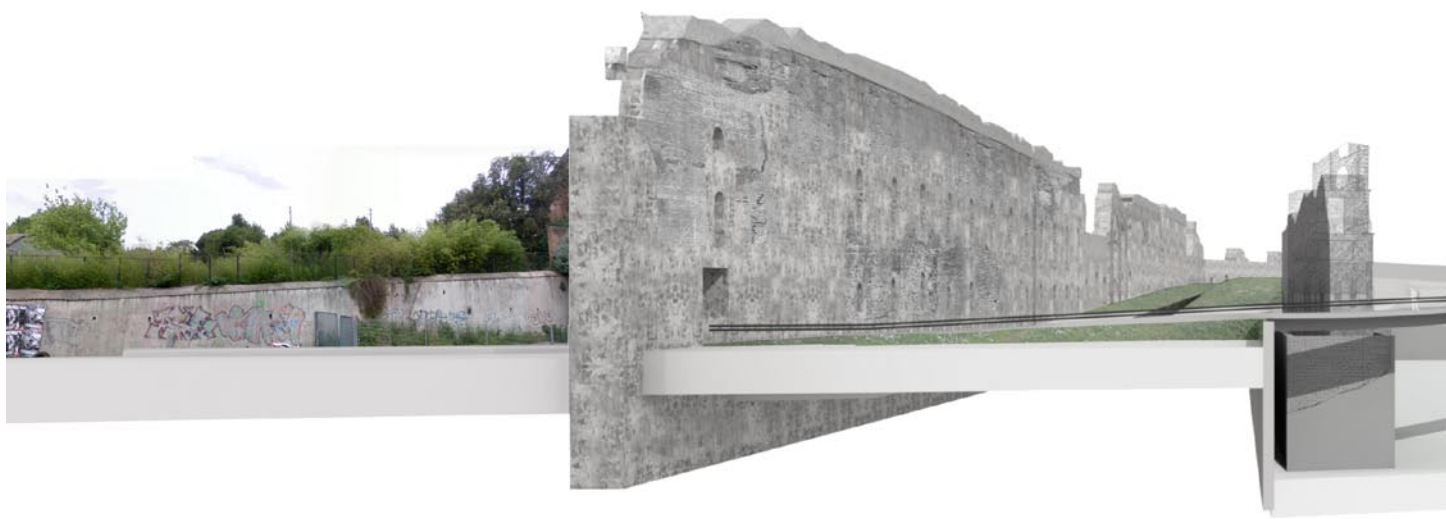
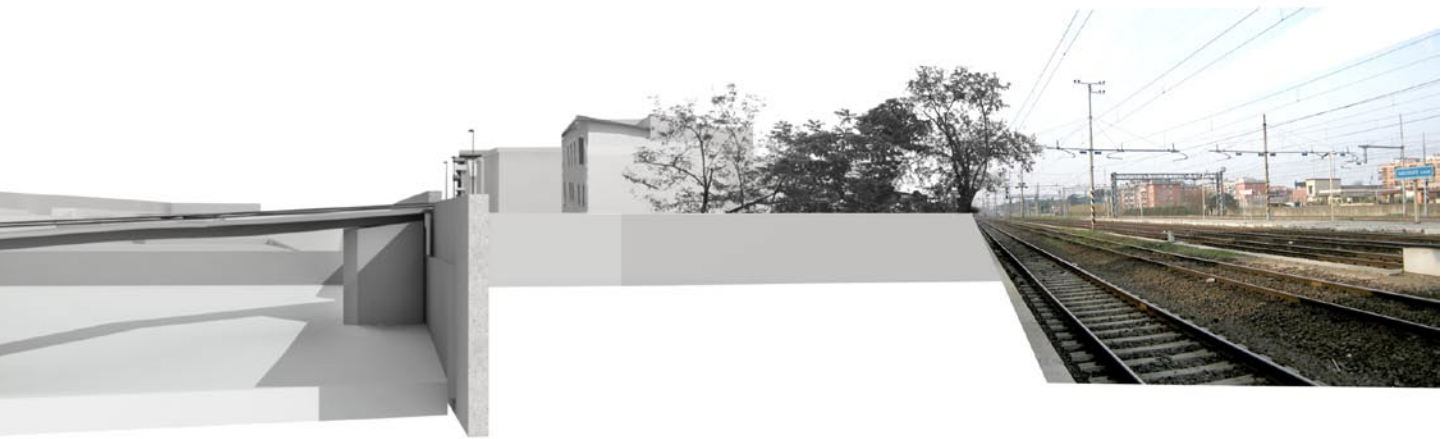


fig.7.38 SECTIONAL PERSPECTIVE ALONG VIA DI PORTA FURBA (looking north)







## 7.2.5 NODE & THRESHOLD

### Centro culturale Pier Paolo Pasolini



fig.7.40 UNDERPASSAGE (exterior view)



fig.7.41 UNDERPASSAGE (interior view looking out toward via del Mandrone)

fig. 7.41 - 7.42  
50 METER RAILWAY UNDERPASSAGE LINKING  
VIA DEL MANDRIONE WITH VIA DEGLI ANGELI

The fifth design element functions as a *'node'* or attractor - a point of intensity along the interstitial corridor, as well as a *'threshold'* - a gateway, connecting the neighbourhood edges with the interstitial zone.

The proposed *Pier Paolo Pasolini Cultural Centre* is a Performance Arts Centre that seeks to draw together communities from both sides of the railway tracks, from the IXth and VIth municipalities.

The building reconciles two axes running perpendicular to each other – it follows the contours of via del Mandrone while defining the edges of the proposed pedestrian passage that links via Umbertide to via degli Angeli.

This architectural insertion seeks to become part of the landscape embedding itself into the ground along the north, while exposing the pedestrian passage with more transparent facades along the south side. It maintains a low, two storey profile without overpowering the presence of the aqueducts on site. Programmatically, the Performance Centre accommodates an amphitheater, dance, music and drama studios, as well as a contemporary art gallery.



fig.7.42 VIEW OF CULTURAL CENTRE (looking east)

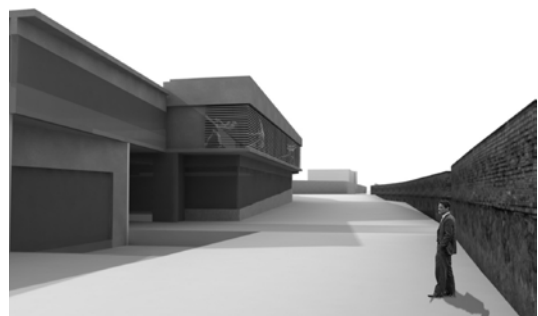
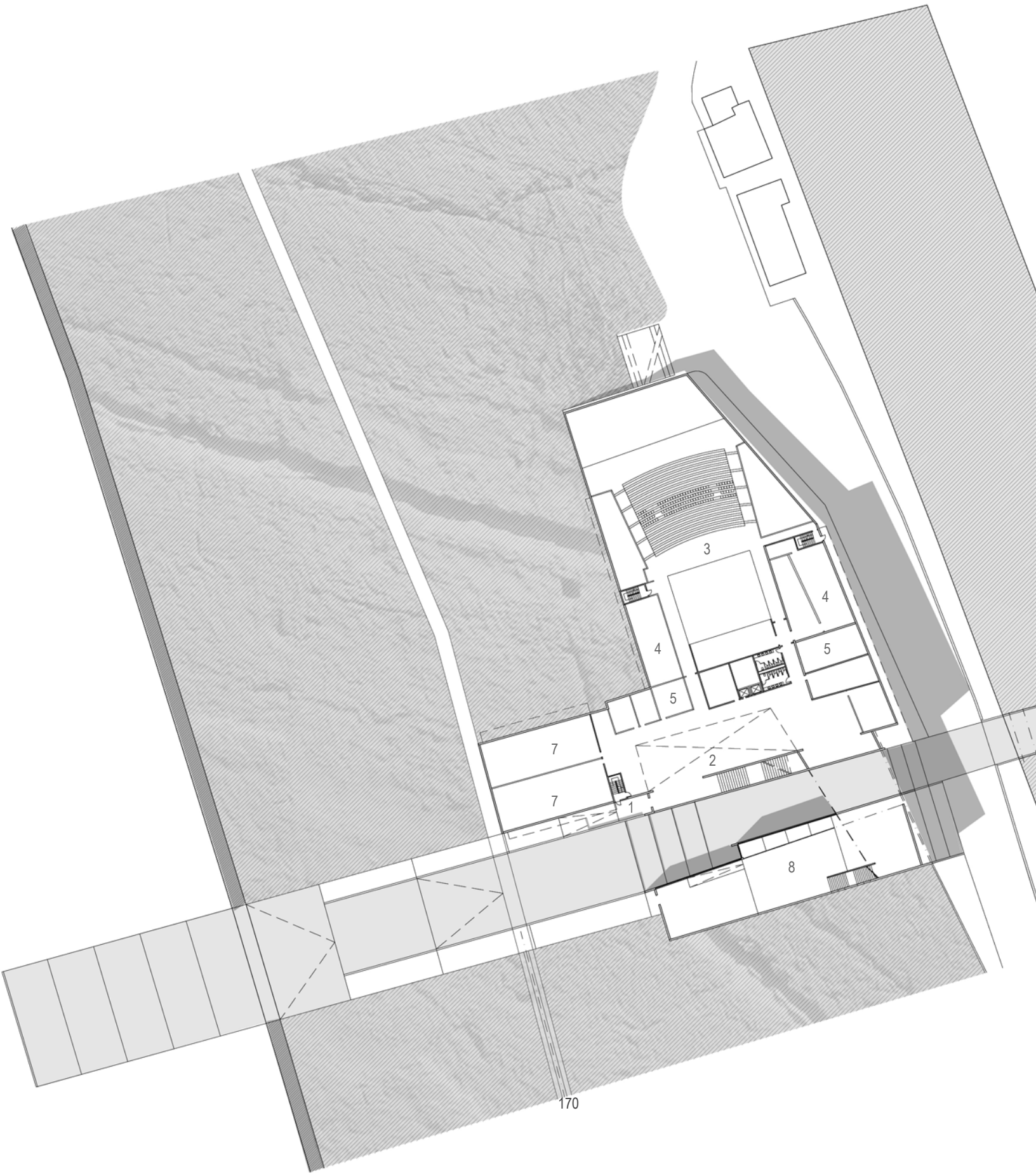


fig.7.43 VIEW OF CULTURAL CENTRE - VIA DEL MANDRIONE

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





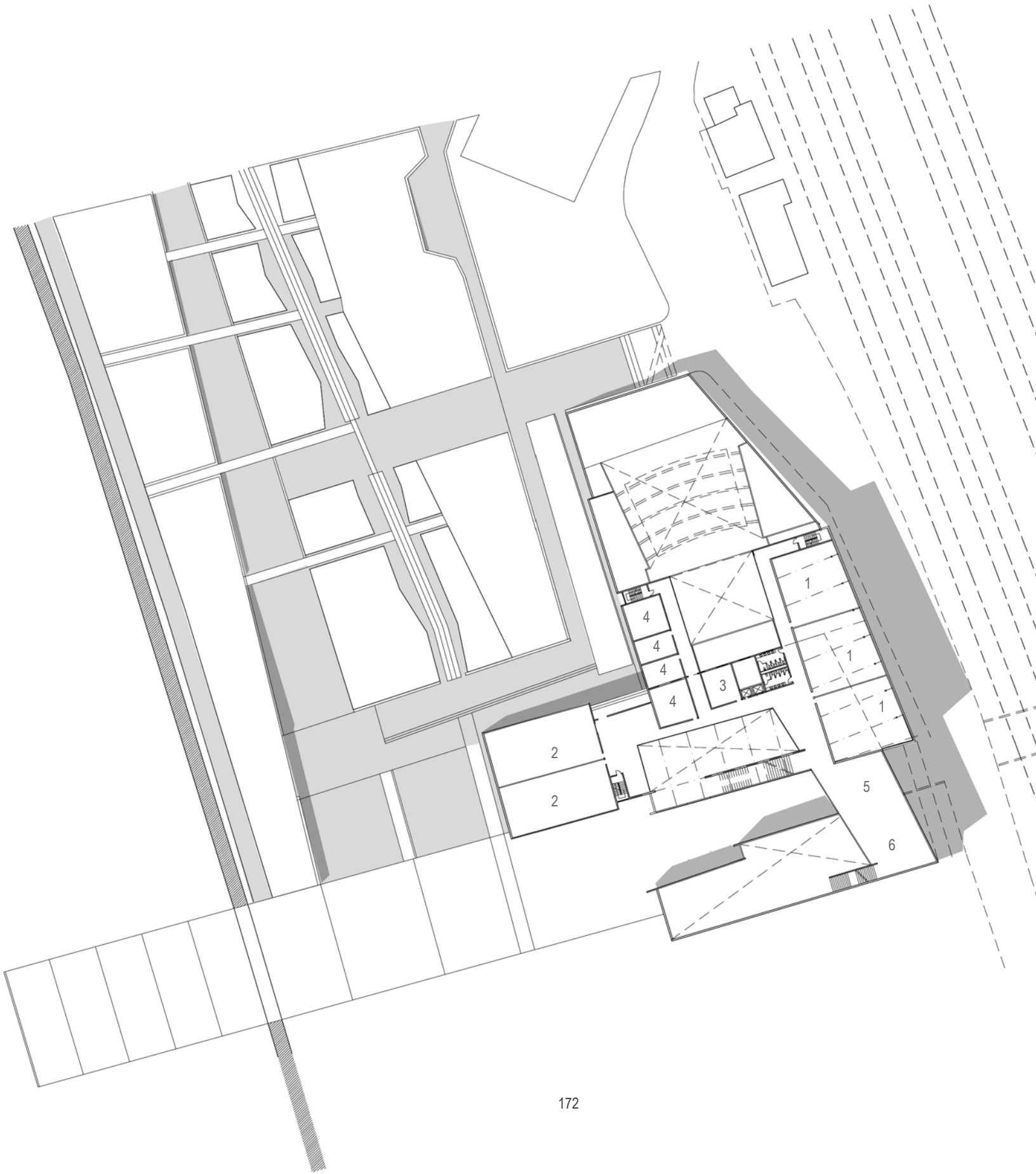


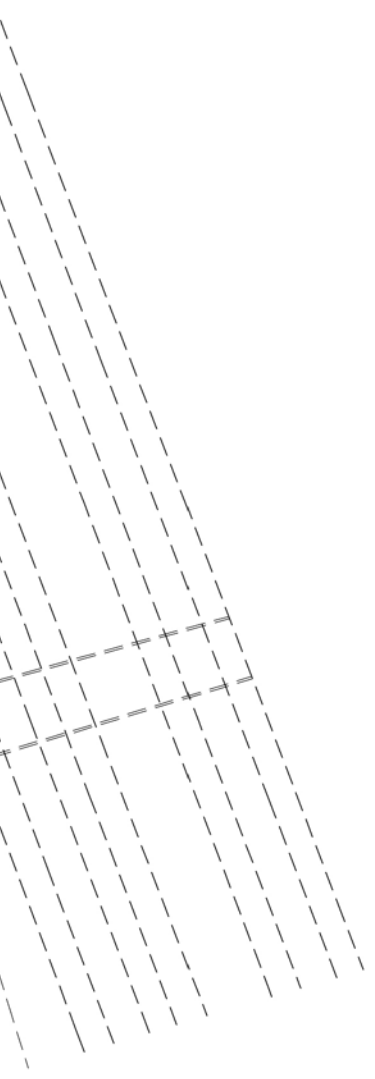
CENTRO CULTURALE PIER PAOLO PASOLINI

1. MAIN ENTRANCE
2. LOBBY
3. AMPHITHEATER
4. STORAGE AREAS
5. WASHROOMS
6. ADMINISTRATIVE OFFICES
7. DRAMA STUDIOS
8. CONTEMPORARY ART GALLERY

fig.7.44 LOWER LEVEL PLAN  
scale 1:1000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al'Mandrione*





CENTRO CULTURALE PIER PAOLO PASOLINI

1. DANCE STUDIOS
2. MUSIC STUDIOS
3. WASHROOMS/ CHANGE ROOMS
4. ADMINISTRATIVE OFFICES
5. RESTAURANT/ CAFFÈ
6. BOOKSTORE

fig.7.45 UPPER LEVEL PLAN  
scale 1:1000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*





## 7.3 SITE PLAN

### Parco degli Acquedotti al'Mandrione

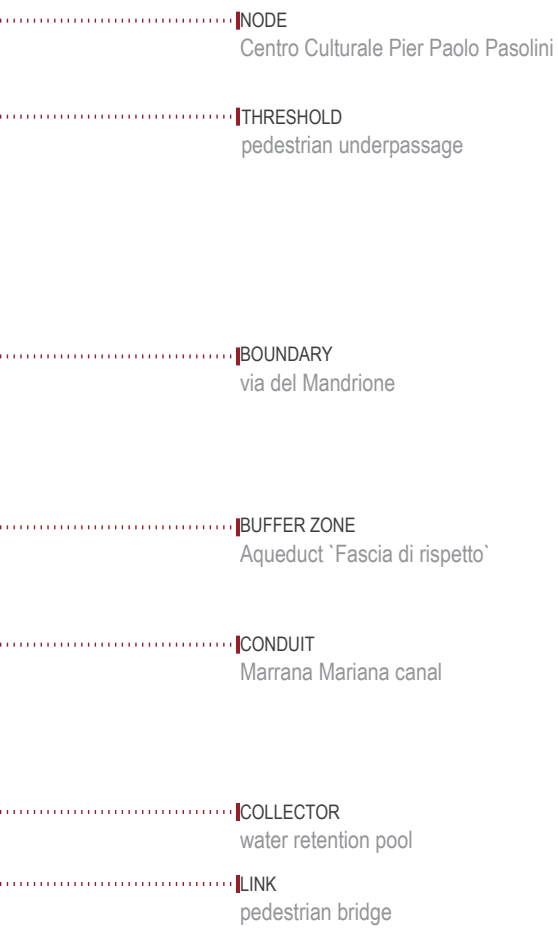


fig.7.46 SITE PLAN  
scale 1:1000

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

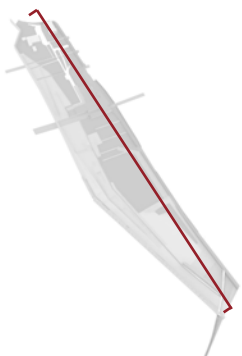
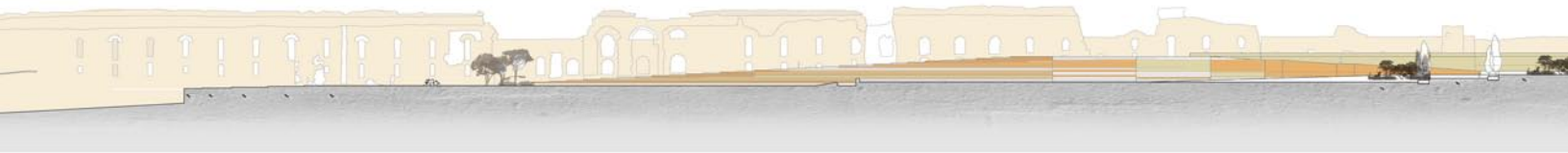


fig.7.47 SITE SECTION (longitudinal)  
scale 1:2000

7.4 SITE SECTIONS  
Parco degli Acquedotti al'Mandrione



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*

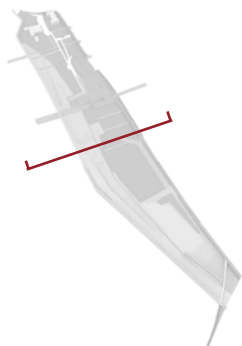
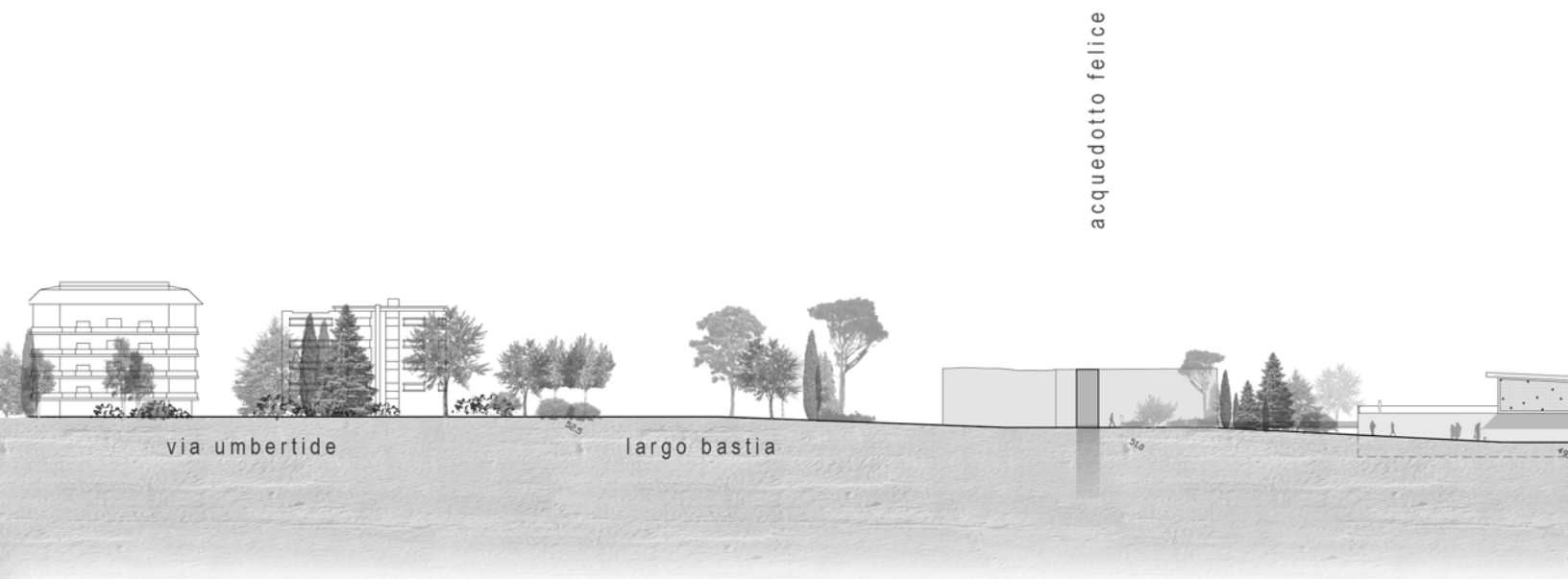


fig.7.48 SITE SECTION (cross)  
scale 1:1000



via del mandrione

via dei savorgnan

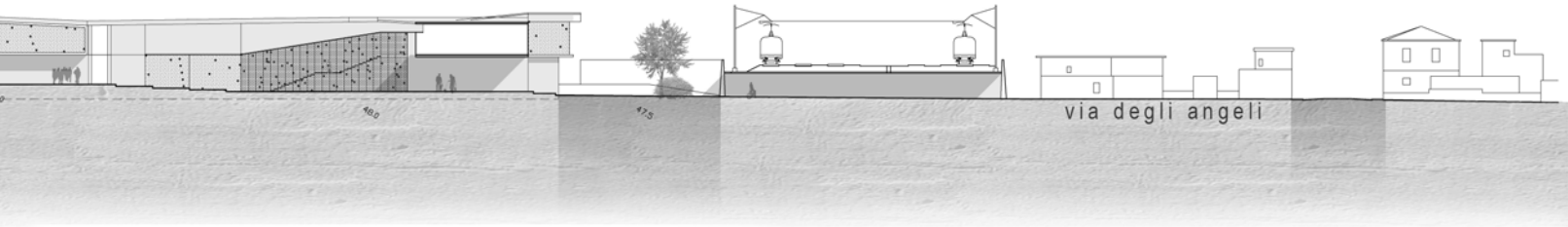




fig.7.49 VIEW A - VIA DI PORTA FURBA (looking east)



7.5 VIEWS



INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



fig.7.50 VIEW B - VIA DEL MANDRIONE (looking south)



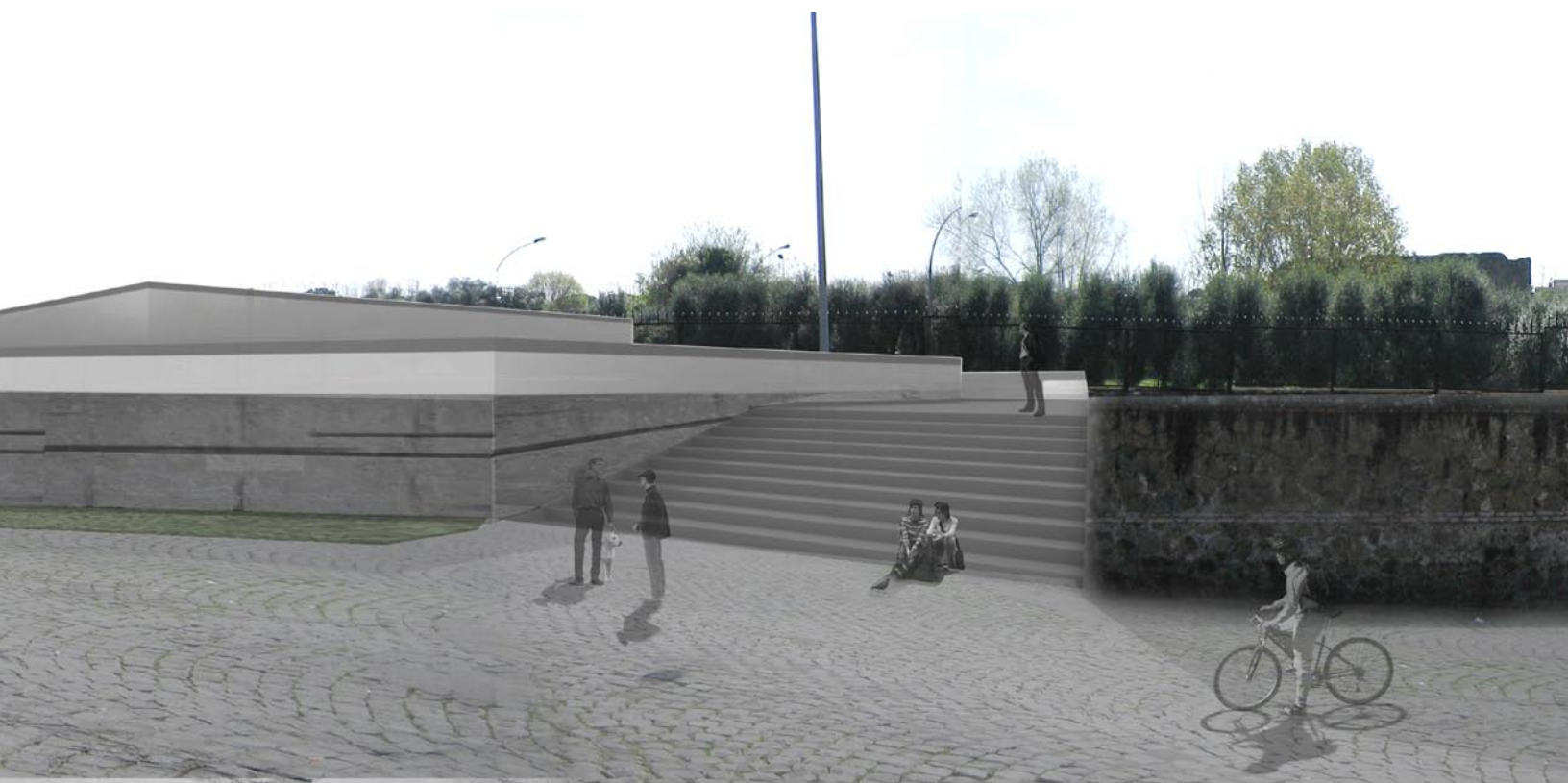






fig.7.51 VIEW C - MARRANA MARIANA (looking north)









fig.7.52 VIEW D - WATER PARK (looking north)







## CONCLUDING REMARKS





## THE INTERSTITIAL LANDSCAPE

The dynamics of urban transformation can often produce residual spaces that resist homogenization imposed by master planning schemes, places that are difficult to be organized and have no official attributed function. These 'other spaces', which Michel Foucault calls '*heterotopias*' (from Greek '*hetero*'+'*topos*' – *the other of normal, common places*), are uncertain spaces that "*incorporate and stage the very contradictions that [a] society produces but is unable to resolve*". Left open, they accommodate informal practices, unofficial communities and unplanned activities.

The apparent negative connotations implied by the indeterminate, imprecise, uncertain aspects of these areas, referred by Ignasi de Sola Morales as '*terrain vagues*', offer in fact a sense of freedom in response to the rigidity imposed by urban order. They are "*mentally exterior in the physical interior of the city, appearing as its negative image as much in the sense of criticism as in that of possible alternative*".<sup>2</sup>

These places "*foster creativity and nourish the aesthetics of ruins; they are a habitat for wildlife and plants, places in which the body has to adapt to its environment rather than being cuddly choked by its surroundings*".<sup>3</sup> This new form of urban wilderness, articulated by Gilles Clément as "*tiers paysage*" (or third landscape), also offers a welcoming environment to ecological and urban diversity that does not find a place of refuge elsewhere.

Although this thesis started out with personal explorations, observations and recording of the marginalized landscape along the aqueducts in the south east of Rome, the focus shifted toward understanding and articulating the identity of this landscape in relationship to its context, examining its potential to become a connective element rather than a zone of separation.

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<sup>1</sup> Lieven De Cauter and Michiel Dehaene. Translation notes to "Of other spaces" by Michel Foucault in *Heterotopia and the City. Public Space in a post civil society*. Edited by De Cauter and Dehaene. Paris: Editions Gallimard, 1994, p.25

<sup>2</sup> Ignasi de Sola-Morales. "Terrain Vague" in *Anyplace*, Cambridge, MA : The MIT, Press, 1995. p.39

<sup>3</sup> Gil Doron. "...those marvellous empty zones at the edge of cities. Heterotopia and the 'dead zone'." In *Heterotopia and the City. Public Space in a post civil society*. Edited by De Cauter and Dehaene. Paris: Editions Gallimard, 1994, p. 204.

## LANDSCAPE RECOVERY

How does one intervene in this environment without altering its inherent qualities? To what extent should these 'residual' areas along the aqueducts be revitalized, 'recovered'?

James Corner identifies that *"the term recovery implies that something once lost, devalued, forgotten, or misplaced has been found again, retrieved, and brought forward with renewed vitality. Also implied are repossession, taking control, and the regaining of health and normalcy, as in a rightful return."*<sup>4</sup> Therefore, he recognizes that there is an inherent double connotation to landscape recovery that has both positive and negative implications. *"On the one side, optimism and hope are attached to the re-emergence of a precious cultural treasure – one looks toward new and exhilarating prospects. On the other side, recovery implies a degree of sentimentality (nostalgia) and power (possession). Both of which are inextricably interrelated with regard to landscape and point toward a more insidious side of landscape formation."*<sup>5</sup>

This difficulty of intervening in this particular urban setting is also articulated by Ignasi de Sola Morales who questions/ (and responds to) - *"How can architecture act in the terrain vague without becoming an aggressive instrument of power and abstract reason? Undoubtedly, through attentive concern with continuity. Not, however, the continuity of the planned, efficient and legitimated city, but by listening attentively to the flows, the energies, the rhythms which the passing of time and the loss of limits have established."*<sup>6</sup>

The thesis sought to re-establish a sense of integrity of the fragmented landscape along the course of the aqueducts - not by homogenizing this landscape or restoring it to its 'original' configuration, rather by discovering its current identity that is a result of an intricate set of relationships established over time.

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<sup>4</sup> Recovering Landscape. Essays in Contemporary Landscape Architecture. Edited by James Corner. New York: Princeton Architectural Press, 1999, p. 10

<sup>5</sup> Ibid.

<sup>6</sup> Ignasi de Sola-Morales. "Terrain Vague" in Anyplace, Cambridge, MA : The MIT, Press, 1995. p.42

## MASTER PLANNING STRATEGIES

A first response to the fragmentation and degradation of the archaeological landscape of Rome's periphery is acknowledged at the master planning level, by instituting legal protective measures for areas of cultural heritage as well as areas of ecological significance.

Only the southern portion of the landscape traversed by the aqueducts is currently designated as protected archaeological area. The Aqueduct Park (*Parco degli Acquedotti*) is part of the larger regional area of the Appia Antica Park (*Parco dell'Appia Antica*), that was established in 1988 to prevent further sprawl and consumption of this part of the Roman territory in response to the rapid, disorganized expansion of the urban fabric. New planning strategies foresee a further extension of this protected area to create better connections with Rome's historical centre. The landscape comprised between the aqueducts and the railway is outlined as area of environmental and archaeological significance by a series of new municipal and local plans.

The Management Plan of Appia Antica Regional Park (published in 2003) proposes the enlargement of *Parco degli Acquedotti* to the north, to include the entire aqueduct system "from the current Park boundaries to Porta Maggiore"<sup>7</sup>. A similar proposition is sustained by the New Master Plan of Rome (Nuovo Piano Regolatore Generale - 2003) that designates a portion of the area along the aqueducts (from *Parco degli Acquedotti* to via Umbertide at Largo Bastia) as 'zone of environmental requalification' (*zona di riqualificazione paesaggistica ed ambientale*)<sup>8</sup>. Both of these plans promote reestablishing a territorial continuity between areas of high cultural and environmental value, as well as strengthening connections with Rome's historical centre.

The thesis proposed amplifying the presence of the aqueducts in this south eastern sector of Rome as a potential regenerative urban element, a historical infrastructural connection between peripheral and central areas. It set to create a sense of continuity between fragmented areas along the course of the aqueducts, linking *Parco degli Acquedotti* with Rome's historical centre at Porta Maggiore. Adopting a similar methodology with that established by Rome's New Urban Master Plan, the thesis proposed a new strategic axis of intervention - the '*Acquedotti - Manndrione Axis*' – to function as a connective tissue at both local and urban scales.

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<sup>7</sup> The Appia Antica Park Plan. p.24

<sup>8</sup> 'Ambito di Programmazione Strategica Parco Archeologico-Monumentale dei Fori e dell'Appia Antica. Obiettivi'.

## LOCAL APPROACH

Although a general zone of recovery including the entire course of the aqueducts is outlined at the master planning level, the thesis focused on the closer examination of a specific site along this interstitial corridor that has a regenerative potential both at the local and urban scales. It examined a zone that is already in the process of being restored through private initiative.

The selected area is located between the aqueducts and via del Mandrione and spans for approximately 1 km from via di Porta Furba to via della Marrana. Although this area was gradually acquired by the Bank of Italy starting with the early 60's, it has remained largely 'undeveloped' until present day, conserving the open aspect of the landscape along the course of the aqueducts. This area accommodates recreational activities related to the Bank's Sports Centre (*Centro Sportivo della Banca d'Italia* - located on the other side of the aqueducts with the entrance from via Tuscolana), as well as a series of secondary functions (deposits, sheds) related to via del Mandrione.

An archaeological campaign initiated by the Bank of Italy and the Superintendence of Cultural Heritage of Rome in the early 90's, resulted in the restoration of a significant portion of the Claudia-Anio Novus aqueducts that pass through the site (of approximately 370m), as well as the discovery of an ancient roman road running along the east side of the aqueducts.

Although the Bank's efforts and commitment to safeguarding, restoring and preserving this site's archaeological worth are considerable, the restored artefacts have virtually no exposure to the general public. This area has the potential to establish a stronger presence at the local level, setting a precedent for future restoration/ revitalization interventions along the course of the aqueducts.



## DESIGN INTERVENTION

Although the site's current property boundaries disconnect it from the surrounding context, they also protect the archaeological and institutional entities located on its premises. The thesis questioned how can this area be better integrated within its urban context while maintaining a sense of integrity, enclosure and protection?

The thesis proposed the design of a park along this area – *Parco degli Acquedotti al'Mandrione*. It examined ways to redefine rather than dismantle the boundaries between the park and the street, proposing a more permeable edge condition along via del Mandrione. It set to establish a flexible framework of interaction between this marginalized area and the urban fabric, focusing on increasing visibility, legibility and accessibility from the outside as well as on facilitating pedestrian circulation through this area. It proposed very specific design interventions that articulate internal and external relationships and encourage movement through the site.

James Corner identifies three ways of measuring the success of a recovered area: *“first, in terms of the retrieval of memory and the cultural enrichment of place and time; second, in terms of social program and utility, as new uses and activities are developed; and, third, in terms of ecological diversification and succession.”*<sup>9</sup>

The proposed design interventions articulates a sense of place of this area. Rather than relying on the recognisability of a singular, more prominent archaeological element - the aqueduct – the proposed park reveals a series of historical traces (from ancient, medieval, renaissance and industrial periods) that traverse this area but are now hidden or imperceptible. These traces – the aqueducts, the recently discovered archaeological road running along them, the buried medieval Marrana Mariana canal, as well as the industrial remnants of railway lines crossing through the site – were all generative factors in the design process.

The proposed interstitial park combines a diversity of archaeological, recreational, cultural, and ecological characteristics. It proposed different programmatic components that meet the needs of local residents as well as reach out to the wider community through cultural facilities, archaeological promenade, pedestrian and cycling routes, playgrounds and sport fields, water canals, terraced gardens, open green areas. The interstitial park protects and nurtures ecological diversity on site as well as sustains the underlying continuity of its landscape ecosystems.

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<sup>9</sup>Recovering Landscape. Essays in Contemporary Landscape Architecture. Edited by James Corner. New York: Princeton Architectural Press, 1999, p. 13

INTERSTITIAL LANDSCAPE AS INTERSTITIAL TISSUE:  
*Parco degli Acquedotti al Mandrione*



## RITORNO

*Thursday, April 5th, 2012*

*I decide to go to the park in the morning for a run. I like that it is more quiet earlier in the day before students invade it at lunch time.*

*I cross Tuscolana heading for the the park's south entrance on via di Porta Furba. As I pass through the aqueduct arches, I leave the traffic noise behind.*

*There is mist coming out of the ground, and the grass is still wet across the football field. The morning sun illuminates the aqueducts, flooding them with warm washes of gold as it rises above the railway lines.*

*I begin my run across the stepped path along the aqueducts, heading to the other end of the park.*







## APPENDICES

APPENDIX I

*MANDRIONE è prima di tutto un nome. Praticamente nessuno a Roma che non sia un archeologo o un carrozziere o un pappa o un impiegato della Banca d'Italia (vedremo poi perché) ha una percezione chiara di questo luogo, ma il nome sì, il nome produce una strana eco e uno si ricorda di esserci stato, magari una notte, in un tour avventuroso...*

*I falò delle prostitute, le grandi sagome buie degli acquedotti che si accavallano l'uno sull'altro, i treni che ti sfrecciano sotto i piedi... Pasolini, il cinema... gli zingari...*

*Io non ci andavo forse da quindici, vent'anni. Ragazzi, Roma è inesauribile. Mi ci sono ritrovato una mattina per sbaglio, cercando il commissariato di Torpignattara. E allora ho cominciato a tornarci, una, due, tre volte, e ancora: in metropolitana (fermata: Porta Furba-Quadraro), in moto, in Vespa, in automobile, da solo o a piedi con un amico architetto, Alberto Alessi, che mi spiegava l'unicità di questo luogo dove s'incrociano almeno quattro paesaggi totalmente diversi, uno per ogni punto cardinale, e una vertiginosa stratificazione di storia e antropologia.*

*Il modo migliore è sempre su due ruote, e imboccando via del Mandrione da fuori, da Porta Furba, sulla Tuscolana. Anche qui il nome, allusivo: alcuni dicono che si chiami così per la presenza di briganti o ladri (dal latino -fur). Per me era sinonimo di una porta che frega chi ci passa sotto: una specie di avvertimento sul carattere fraudolento e ironico della città che finge di accoglierti coi suoi grandiosi monumenti – quando in realtà si fa beffe di te. Ti sfilta il portafoglio, mentre hai il naso per aria a guardare gli acquedotti. Ti lascia a bocca aperta. E in effetti, oltrepassato il primo arco, si entra in un altro mondo. Innanzitutto, questa è la campagna romana. Ma sì, il mito di viaggiatori e di pittori. Siamo entrando in città, eppure subito ne siamo fuori. Espulso, sospeso nel tempo. Lo dico senza enfasi, o forse con un po' di enfasi: è un posto meraviglioso. Gli archi sono masse*

*"Mandrione is above all a name. Virtually no one in Rome who is not an archaeologist or a mechanic or a father or an employee of the Bank of Italy (we shall see later why) has a clear perception of this place, but the name, yes, the name produces a strange echo and one remembers having been there, if only for a night on an adventurous tour..."*

*The prostitutes' bonfire, big dark silhouettes of the aqueducts overlapping each other, the trains rushing under your feet... Pasolini, cinema...the Gypsies...*

*I hadn't been there for perhaps fifteen or twenty years. Ragazzi, Rome is inexhaustible. I found myself back there by mistake one morning, looking for the Commissioner of Torpignattara. And then I started to return, once, twice, three times, and again: by subway (Porta-Furba Quadraro station), by motorbike, Vespa, by car, alone or on foot with an architect friend, Alberto Alessi, who was explaining to me the uniqueness of this place where at least four completely different landscapes intersect, one for each cardinal point, in a dizzying stratification of history and anthropology.*

*The best way is always on two wheels, approaching via del Mandrione from the outside, from Porta Furba on via Tuscolana. Even here the name, allusive: some say it is called this way because of robbers or thieves (from Latin-fur). For me it is synonymous with a gate that screws over whoever passes underneath: a type of warning about the fraudulent and ironic character of the city that pretends to welcome you with its great monuments - when in reality it makes a mockery of you. It slips off your wallet while you have your nose in the air looking for the aqueducts. It leaves you with your mouth open. And in fact, having passed through the first arch, you enter another world. First of all, this is the Roman Campagna. Yes indeed, the myth of travellers and painters. We are entering the city; nevertheless we are outside of it. Transported, suspended in time. I say this without emphasis, or perhaps with a little bit of emphasis: it is a wonderful place. The*

*arches are dark masses, chasing each other and pairing off with each other. The former are entirely walled, others are walled only half way through, or enough to build in a small house, a shed, or storage area. The aqueducts are three: Aqua Claudia, Aqua Marcia (Roman) and the Felice Aqueduct, built by Pope Sixtus the Vth using the pieces of the first two, the remnants of a huge Lego (I remember a phrase by Kafka on the fact that our existence is like building a new house using the pieces of the old: living in the meanwhile in this incomplete state, in this continuous state of transition). The two ancient ones run in parallel with each other, at least virtually, because almost nothing remains of the Marcio Aqueduct, while the Felice Aqueduct pairs off with one, then the other, leaping over via del Mandrione from right to left and then right and then left again, as if it couldn't make up its mind. Further ahead, the arcades disappear behind trees, walls and gates.*

*Mandrione was famous, or rather legendary for its slums; and for the gypsies, in most part gypsies abruzzesi, who settled here between the two wars. It was the subject of several sociological investigations, including the beautiful research of Franco Pinna who came back here to take photographs in 1956 and in 1968. Thus, "...in front of their hovels, tumbling in the filthy mud, there were children from two to four or five years old..."(guess for a moment who wrote this). Even when I was myself a boy and I used to pass by on vespa, on the way to football games, I remember it as a frolicking place. Now it's almost deserted. Seems that the gypsies now live in the social houses at Spinaceto or in those they have bought further down at Anagnina. The entire strip to the left of Mandrione is owned by the Bank of Italy, whose employees I used to envy for the well sprinkled green fields, and for the grass, rare for the Roman football player who is used to pound on flattened ground as hard as concrete or sink his feet into the pozzolana. To the right however there is an array of mechanics, blacksmiths, carpenters and manufacturers of foam rubber, frames, outlines, gates, doors, metal-something, steel-something else .*

*Here's where all the craftsmen of the city have ended up! By now in Rome, people who work stay in hiding, becoming invisible. Indian Reserves, an*

*cupe che si inseguono e si accoppiano. I primi sono interamente murati, altri murati a metà o quanto bastava per costruirci sotto una casetta, una capanna, un magazzino. Gli acquedotti sono tre, l'Acqua Claudia, l'Acqua Marcia (romani) e l'Acquedotto Felice, costruito da papa Sisto V usando i pezzi dei primi due, gli avanzi di un immenso Lego (mi viene in mente una frase di Kafka sul fatto che la nostra esistenza è come costruirsi una casa nuova usando i pezzi della vecchia: e intanto abitiamo in questa incompletezza, in questo continuo trasloco). I due antichi corrono paralleli, almeno virtualmente, perché del Marcio non resta quasi nulla, e quello Felice si accoppia ora all'uno ora all'altro scavalcando il Mandrione da destra a sinistra e poi ancora a destra e poi di nuovo a sinistra, come se non sapesse decidersi. Più avanti le arcate scompaiono dietro mura alberi e cancelli.*

*Il Mandrione era famoso anzi mitico per la baraccopoli. E per gli zingari, per lo più Rom abruzzesi che vennero ad abitarci tra le due guerre. Fu materia di varie indagini sociologiche, tra cui una bellissima ricerca di Franco Pinna che ci tornò a fotografare nel 1956 e nel 1968. Allora: «... c'erano, davanti ai loro tuguri, a ruzzare sul fango lurido, dei ragazzini, dai due ai quattro o cinque anni...» (indovinate un po' chi ha scritto questo). Ancora quand'ero ragazzo io e ci passavo col vespino per le trasferte calcistiche o musicali, me lo ricordo come un posto brulicante. Ora è quasi deserto. Gli zingari pare che abitino le case popolari a Spinaceto o hanno comprato più avanti, sull'Anagnina. Tutta la striscia a sinistra del Mandrione è proprietà della Banca d'Italia, ai cui impiegati invidio i campi verdi bene innaffiati. E l'erba rara per il calciatore romano, abituato a pestare spianate di terra dura come cemento o affondare nella pozzolana. A destra invece: una sfilza di carrozzieri, fabbri, falegnami, e poi fabbricanti di gommapiuma, infissi, profilati, cancelli, porte blindate, metal-qualcosa, sider-qualcosaltro.*

*Ecco dove sono finiti tutti gli artigiani della città! Ormai a Roma la gente che lavora si nasconde, è diventata invisibile. Riserve indiane, oasi del lavoro manuale.*



*Di cani invece ce n'è tanti: ogni volta che sosto davanti a un cancello... dieci secondi e arriva una bestia o più bestie ululanti, in genere lupastri dalle orecchie troppo lunghe o flosce o strappate a morsi e dal pelo chiazzato, pastori tedeschi ibridati, improbabili...*

*Il Mandrione. si snoda lunghissimo e silenzioso. Passata la stazione Casilina, risbucano dal nulla gli archi a fianco della strada e incastonato come una fortezza d'angolo, un mulino. Di lì parte via della Marrana. Proprio a ridosso dell'acquedotto, ma sul lato che dà verso la Tuscolana, c'è un bellissimo centro sportivo, l'AS "Le Mura", quintessenza di romanità, cinquantenni che a mezzogiorno si scambiano pallonetti e battute acide. Sullo sfondo. le arcate secolari, tutte sbreccate contro il cielo azzurro, con ciuffi di rampicanti che invece di rampicare penzolano, e appendiabiti inchiodati nella malta. Di nuovo, debbo dire, che questo è meraviglioso: questa compresenza. Di tempi e funzioni. Qualcosa che sta tra un'elegia struggente e la parodia. Nel silenzio quasi campestre risuonano le grida dell'istruttrice dell'Acquagym e i bassi della musica techno.*

*Ora siamo nella zona più misteriosa del Mandrione. Il piano stradale si alza per cui le arcate si fanno basse, nane. Molte all'interno sono piastrellate, intonacate, dalle tampionature sbucano ancora gli attacchi dei cessi divelti, dei lavandini. Altre sono sbarrate da reti e ondulati metallici. Qui ci abitava un sacco di gente. Hanno strappato via le baracche, scopercchiando le stanzette ricavate nell'acquedotto. Portate violentemente allo scoperto, le maioliche brillano come sui portali di Babilonia. O come nelle case che ho visto nei dintorni di Mostar, Bosnia, fatte esplodere una per una, con metodo, squarciate dall'interno. Materassi sparsi un po' ovunque. Nel pieno sole fervono le tracce dei traffici notturni. Duecento metri più avanti, tecnicamente parlando, il Mandrione termina, ripassando sotto l'acquedotto e ramificandosi in un quartierino di villette e orti molto ben curati, un piccolo feudo giallorosso su cui campeggia, appeso con lo spago tra una palazzina*

*oasis of manual labour.*

*There are plenty of dogs however: each time I pause in front of a gate... ten seconds later arrives a beast or more than one beasts, howling, usually stray dogs with ears that are too long, or floppy, torn or bitten, with spotted coats, of mixed bred, improbable, German shepherds...*

*Mandrione unwinds endlessly in silence. Having passed the Casilina station, the arches appear as of nowhere along the side of the road, setting in a mill, like a fortress in the corner. From there leads via della Marrana. Next to the aqueduct, but on the side facing via Tuscolana, there is a beautiful, quintessentially roman sports centre, the 'AS "Le Mura", with fifty year olds exchanging games and witty passes at noon. In the background, the secular arcades, all crumbled toward the blue sky...Again, I have to say, this is marvelous: this coexistence of time and functions. Something that rests between a distressing elegy and a parody; the shouts of the Aqua gym instructor and the beats of techno music resonating in the pastoral silence.*

*We are now in the most mysterious zone of via del Mandrione. The road level rises making the arcades lower, dwarfed. Many are tiled, plastered on the inside, with sink attachments still popping out from the walls. Others are blocked with meshes and corrugated metal. A lot of people used to live around here. The shacks have been torn out, uncovering the rooms inside the aqueducts. Brought violently out into the open, the majolica shines as on the gates of the Babylon. Or similar to the houses I saw in and around Mostar, Bosnia, that were exploded, one by one, methodically, ripped open from within; mattresses spread all over the place...Two hundred meters ahead, technically speaking, Mandrione ends, passing again under the aqueducts and branching off into a small neighbourhood of villas and well cared for gardens...*

*The road that continues to run under Aqua Felice here is Casilina Vecchia, but it carries the same sonar rhythm, punctuated by the passage of grazing maxi-scooters and visual flashes of the arches: light-shadow-light-shadow-*

*light, arch-pylon-arch-pylon. And again, workshops with armed doors (a real obsession...), scrap yards with muzzles and empty shells of Fiat 500 and Giulia Super that come out half way between the arches, and bands of train tracks to tighten the area in a claw. I stop in front of a delicious house repainted in green, with a FOR SALE sign, it is a videobar locale "for members with an Arci card", and from a perfectly maintained Simca juts out a driver to inform me: "If you want, you can shag there".*

*I feel I am in the belly of a vision. At the perfect intersection. The landscape became vertical. Five or six levels overlapped and intersected. The Aqueduct, above. A Eurostar whisking toward Naples. The orange back of busses and the yellow facades of residential buildings over there on via Casilina. Turning around, to the west, well defined, the fascist clock tower of the former Coppola light bulb factory and the agglomeration of Tuscolana Station, towards which, suddenly emerging from the tunnel under my feet, laboriously heads out a freight train.*

*And the dizziness. It is precisely here, in this ideal node that peak out from between the arches the statues of plaster, even moreso, of "marbledconcrete"(!) Of the "ROMA ANTICA" factory: Ursus who bends the head of the bull, a Julius – Claudio emperor of choice, a bronze of Riace, broken columns, satyrs, Callipigia Venus, and the copy of the Mouth of Truth, where my father, copying Gregory Peck (or was it Gregory Peck that was copying my father?) had put his hand inside after he had married my mother in 1955 AD. And the triumph of Rome with its mocking true-false game. The material of illusion, the "marbledconcrete" ...*

*I return on via Tuscolana and from Quadraro I retake Mandrione to measure it with my motorcycle's odometer.*

*Incredible: it is the same as via del Corso, even a bit longer: two kilometres. And if I add the last portion of via Casilina, it becomes a route similar to one going from Piazza del Popolo to the Colosseum. An impressive piece of the city...*

*e l'altra, un paio di forbicioni simbolici, con cui i "cuginetti" (ma perché questa parentela?) hanno scucito lo scudetto dalla maglia del laziali. Lo so, tout comprendre c'est tout pardonner... anche se io sono un po' stufo sia di comprendere che di perdonare!*

*La strada che continua a correre sotto l'Acqua Felice qui è la Casilina Vecchia, ma ha il medesimo ritmo sonoro scandito dal passaggio radente del maxi-scooter e i flash visuali degli archi: luce-ombra-luce-ombra-luce, arco-pilone-arco-pilone. E ancora fabbrichette di porte blindate (una vera ossessione...), sfasciacarrozze coi musì e le occhiaia vuote di 500 e Giulia Super che sbucano a mezz'altezza tra le arcate, e fasci di binari a stringere a tenaglia l'abitato. Mi fermo di fronte a una deliziosa casetta ridipinta di verde, col cartello VENDESI, è un locale videobar "per soci con tessera Arci", e da una Simca perfettamente mantenuta si sporge il guidatore per informarmi: «Là, se vuoi, se scopa».*

*Sento di essere nell'ombelico della visione. All'incrocio perfetto. Il paesaggio si è fatto verticale. Cinque o sei livelli sovrapposti e intersecati. L'acquedotto, in alto. Un Eurostar che sfreccia verso Napoli. La schiena arancione dei bus e le facciate gialle dei palazzoni laggiù sulla Casilina. Voltandomi, a occidente, stagliata, la torretta con l'orologio fascista della ex-fabbrica di lampadine Coppola e l'agglomerato della Stazione Tuscolana, verso cui, sbucando all'improvviso dalla galleria sotto i miei piedi, striscia faticosamente un treno merci.*

*E' la vertigine. E proprio in questo punto, in questo snodo ideale, si affacciano tra gli archi le statue di gesso, anzi, di "marmocemento" (!!) della fabbrica "ROMA ANTICA": Ursus che piega la testa del toro, un imperatore Giulio-Claudio a scelta, un bronzo di Riace (quello più mollaccione) e poi colonne in fronte, satiri, veneri callipigie, e la copia della Bocca della Verità, dove mio padre, copiando Gregory Peck (o era Gregory Peck che copia mio padre?) mise la mano dopo aver sposato mia madre A.D. 1955. E' il trionfo di Roma,*

*del suo beffardo gioco vero-falso. La materia dell'illusione, il "marmocemento"...*

*Torno indietro sulla Tuscolana e dal Quadraro mi rifaccio il Mandrione per misurarlo sul contachilometri della moto. Incredibile: è come via del Corso, anzi più lungo: due chilometri. E se ci aggiungo l'ultimo pezzo di Casilina, diventa un tragitto come da Piazza del Popolo al Colosseo. Un impressionante pezzo di città...*

*Proprio al termine del percorso, mentre la Casilina s'imbocca contromano sotto un arco solitario con su scritto: MOTO PERICOLO!!, ripassando sotto l'Acqua Felice la strada prende nome di Via della Stazione Tuscolana e forma un gomito, una piccola ansa di qualche decina di metri quadrati, nascosta dall'ombra di fichi e palme. Qualcuno, là dentro, protetto dall'incannucciata, sta lavorando. Cosa fa? Zappa la terra. E' un orto di guerra, incastonato nella città.*

*Precisely at the end of the trail, while the Casilina heads in the wrong direction underneath an arch that reads "VERY DANGEROUS!", passing under Aqua Felice, the street takes the name of Via della Stazione Tuscolana and forms an elbow, a small loop of a few ten square meters, hidden by the shadow of fig and palm trees. Someone there inside, protected from the incannucciata, is working. Doing what? Scraping the earth.*

*It is a garden of war, set inside the city."*

*La Repubblica, October 31st 2001  
(personal translation from Italian)*

APPENDIX II



## THE SUBURBAN LANDSCAPE OF ROME from foundation to pre-industrial period

The contemporary condition of Rome's suburban landscape is fragmented, deteriorated, difficult to comprehend in its totality. In contrast to the richness of Rome's historical centre, the palimpsest of the areas outside the City Walls is harder to discern, appearing to have been erased and replaced by a new landscape with modern characteristics: agglomerations of residential construction, infrastructural networks of roads, railways and highways, as well as fragments of ancient ruins scattered across open fields or hidden inside backyards of suburban houses. However, upon closer observation, traces from the past can be detected even though they are not legible at first glance.

The current expanse of the urban fabric of Rome comprises a historical background of over three thousand years. Rome transformed from a mythological pastoral settlement founded 'upon seven hills' in the eighth century BC, to the world's largest urban metropolis in the first century at the height of prosperity of the Roman Empire, shrinking to a third of its size during the middle ages, followed by a gradual rebuilt and transformation up to present day. This fluctuating urban growth and decay dynamic unavoidably left its marks both on the urban core and the surrounding territory.

To better comprehend the current condition of the Roman territory one must examine the historical traces of preceding landscapes, understanding that each emerged from specific geographical, social and cultural circumstances. As noted by Denis Cosgrove, "*Landscape is a way of seeing that has its own history... that can be understood only as part of a wider history of economy and society; that has its own assumptions and consequences... whose origins and implications extend well beyond the use and perception of land.*"<sup>1</sup> A better understanding of Rome's suburban landscape requires a "*dismantling of traditional boundaries between city and country, a genuine examination of what is in between and the recognition that what is empty on the map is not, in fact empty space.*"<sup>2</sup>

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<sup>1</sup> Denis Cosgrove. *Social Formation and Symbolic Landscape*. Madison, Wis. : University of Wisconsin Press, 1998, p.2

<sup>2</sup> Eduard Bru, referenced by Chris Sawyer in *Territorial Infrastructure*, MESH BOOK.Landscape/Infrastructure. Edited by Julian Raxworthy and Jessica Blood, Melbourne: RMIT University Press, 2006, p. 271

GEOGRAPHICAL SETTING: *GENIUS LOCUS*

*“If the Alban hills had not been there, the classical gods would not have been really at home in Rome, and if the Campagna had not possessed its grand and solemn structure, the image of a general cosmic order might only have seemed a far-fetched product of the human imagination.”<sup>3</sup>*

The identity of Rome can only be discussed in the context of the territory it belongs to – a territory that precedes and justifies its existence, that provides resources for its development or imposes challenges to its inhabitants; however the territory is in turn transformed by the city, its geographical boundaries shaped and recreated over time, its grandeur and monumentality articulated through narrative and myth. Christian Norberg Schultz defines the essence of the Roman genius locus in *“the feeling of rootedness in a ‘known’ natural environment.”* He suggests that in order *“to understand Rome, we therefore have to leave the city and experience the surrounding landscape, the Roman Campagna.”<sup>4</sup>*

Rome is situated between *“two different worlds: to the west the chthonic world of the terre, and to the east the classical landscape of the gods.”<sup>5</sup>* The name *Campagna* refers to the *“gently undulating plain, forty miles long and thirty wide, enclosed by the Sabatino-Ciminian belt of craters on the north, the fore-Appennines on the east, the Alban Hills on the south, watered and drained by the Tiber, on the banks of which it sits at an equal distance from the mountains and the sea.”<sup>6</sup>* This specific geographical setting derives from the grouping of the three Etruscan, Sabine and Latin sections that preceded the city’s foundation. Livy attributes the greatness of Rome to the qualities of the land *“on which it was built and by which it was surrounded.”<sup>7</sup>*

*“Not without reason did gods and men choose this site for Rome: healthy hills, a river, equally adapted for inland and maritime trade, the sea not too distant...a site in the centre of the Peninsula, made, as it were, on purpose to allow Rome to become the greatest city in the world.”<sup>8</sup>*

This sense of grandeur resonates from the scale of the territory to that of each individual inhabitant. As noted by Ludovico Quaroni, *“there is certain monumentality at the foundation of everything that can call itself roman... of people and houses, trees and spaces”<sup>9</sup>*

<sup>3</sup> Christian Norberg-Schulz. *Genius Loci, Towards a Phenomenology of Architecture*. New York: Rizzoli, 1980

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> Rodolfo Lanciani. *Wanderings in the Roman Campagna*. Boston and New York: Houghton Mifflin Company, The Riverside Press, Cambridge, 1909, p.10

<sup>7</sup> Rodolfo Lanciani. *Wanderings in the Roman Campagna*. Boston and New York: Houghton Mifflin Company, The Riverside Press, Cambridge, 1909, p.2

<sup>8</sup> Ibid.

<sup>9</sup> Ludovico Quaroni. *Imaginare di Roma*. Roma, Bari: Editori Laterza, 1976. p.12

## CITY FOUNDING: MYTH, ENCLOSURE, BOUNDARIES

*"So Rome's instinct is to enclose, to keep nature out, to trust in the man-made environment as a total construction, and finally, to tell us about all those things rhetorically."<sup>10</sup>*

The foundation myth of Rome clearly inscribes the city within a specific geographical setting. Its origin is identified in the valley created between the 'seven hills', where Romulus marked the boundaries of the city with a curved bronze plough, giving it birth from the bounty of the earth and under the protection of the sky<sup>11</sup>. This initial gesture of demarcation was a first gesture of enclosure, a first attempt at establishing the city limits, excluding the unknown and unpredictable aspects of the surrounding environment, and creating a strong central identity of the urban core. The pomerium, etymologically linked to Etruscan origins (*post + moeris / murus – beyond the walls*) demarcated a "strip of ground making the formal, religiously constituted boundary of a Roman city."<sup>12</sup> The pomerium was not only a physical boundary it also marked the union of earthly and spiritual realms. Joseph Rykwert elaborates on the importance of the pomerium stating that "anyone crossing over the place where earth and heaven were united was an enemy of the life which that union had guaranteed."<sup>13</sup> The gates of the wall that was to be built upon the line of the pomerium were not sacred, and their location was indicated by the raising of the plough. This gesture opened the passage for the dead to be taken out of the city, as well as for carrying out other daily necessities.

Rykwert also mentions the presence of cippi along the line of the pomerium, that were not chthonian but "in the province of the sky"<sup>14</sup>. The cippi were also used as boundary stones demarcating the extents of public and private lands. Unauthorized moving of the boundary stones was severely punished. "Numa Pompilius decreed that whoever ploughed up a boundary stone would be/outlawed/cursed/, he and his oxen".<sup>15</sup> These severe measures emphasize the vulnerability of the city's boundaries and of the boundary stones, and the vital necessity to secure their endurance under the protection of the gods. It was believed that the god of Jupiter Terminus resided in any boundary stone.<sup>16</sup> Later on, in the context of the aqueducts, cippi were also used as milestones, marking both the course of the aqueduct and the boundary separating it from the public or private space beyond it.<sup>17</sup>

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<sup>10</sup> Vincent Scully. Architecture. The Natural and the Manmade .New York: St Martin's Press, 1991, p.111

<sup>11</sup> Joseph Rykwert.The Idea of Town. London: Faber and Faber, 1976. p. 132

<sup>12</sup> Oxford English Dictionary. <http://dictionary.oed.com>.

<sup>13</sup> Joseph Rykwert.The Idea of Town. London: Faber and Faber, 1976. p. 135

<sup>14</sup> Ibid. p.106

<sup>15</sup> Ibid. p. 112

<sup>16</sup> Ibid. p.107

<sup>17</sup> Aquae Urbis Romae: The Waters of the city of Rome. <http://www.iath.virginia.edu/rome/>

If the augurs were responsible for carving the pomerium and inscribing the foundation of the city, the agrimensores (agri/land + mensor/measure) “were concerned with the laws of land tenure as with surveying proper”.<sup>18</sup> They surveyed the land using instruments such as the groma and the di-optra and divided and recorded land properties on bronze maps or formae. Agrimensores were also responsible for building roads and construction of aqueducts, creating an extensive infrastructural system unparalleled by any other former civilizations.

#### REPUBLICAN AND IMPERIAL ROME: *URBS ET ORBIS TERRARIUM*

The ritual of the pomerium, of tracing of boundaries, was echoed in the construction of the defensive walls of Rome, first during the 4<sup>th</sup> century BC, during the time of Servius Tullius, the 6<sup>th</sup> King of Rome – and again during 3<sup>rd</sup> century AD, during the time of emperors Aurelian and Probus. As the city expanded, the urban boundaries had to be retraced, reinforced and protected, preserving a sense of continuity between the initial act of foundation and the new expanse of the city.

Starting with the end of the Republican era and leading into the first centuries of the Imperial era, the metropolitan district of Rome extended well into the surrounding territory of the Roman Campagna. The urban area was organized into three main zones: the inner zone, contained within the Servian Walls – *continentia aedificia* – was very dense, comprised of public and private edifices. Military action, capital punishment and burial were not permitted inside this zone. A buffer area along both sides of the walls was preserved free of buildings, in order to prevent enemies from escalating the walls and also to allow rapid deployment of military troupes in case of siege.<sup>19</sup> This boundary area, also called the pomerium (with direct reference to Romulus’ furrow) carried both administrative and spiritual significance, separating the city (*urbs*) from the surrounding territory (*suburbium*). However with time people that could not afford living inside the city started to build barracks, houses and settlements outside the pomerium. This second zone - ‘*expantiantia tecta*’ was gradually occupied by houses and edifices having their own grounds and expanded from the Servian Walls to the line of the Octroi. The third outer zone - ‘*extrema tectorum*’ – extended about three miles outside of the Servian gates including villas, gardens, orchards, small farms, and scattered habitations.

By the first century of the Imperial era, the overall population of Rome exceeded one million people and Rome presented itself as an ‘open city’ without tangible limits<sup>20</sup>. At this time, the city’s reach was “*extensible across the*

<sup>18</sup> Joseph Rykwert. *The Idea of Town*. London: Faber and Faber, 1976. p. 82

<sup>19</sup> Ludovico Quaroni. *Imagines di Roma*. Roma, Bari: Editori Laterza, 1976. p. 78

<sup>20</sup> Lorenzo Quilici, *Il suburbio di Roma tra le vie Latina e Casilina in Eta Romana*.



*oikoumene and thus bounded only by the limits imposed by nature...urbs et orbis terrarium, 'city and earthly globe,' had become commonplace in Roman imperial rhetoric.*<sup>21</sup>The challenge for Rome was similar to that of the Roman Empire, *"that of determining its geographical bounds."*<sup>22</sup>

*"To the imperial city are attributed the qualities of an axis mundi, a point where terrestrial space connects with celestial time. The city's claim to universal centrality is performed and expressed rhetorically, through architecture, landscape, ritual, collection, and display...Spaces beyond the authority of the imperial center are either active frontiers within the ecumene or wilderness beyond it, uninhabitable by fully human beings."*<sup>23</sup>

As cartographer and archaeologist Rodolfo Lanciani notes, the metropolitan district expanded *"from the Milvian bridge on the north, to the tomb of Metella on the south, from the Villa Gordianorum (Torre de Schiavi) on the east, to the gardens of Caesar towards the setting sun. The district, oval in shape, measured, therefore, seven miles on its greater diameter, six on the less."*<sup>24</sup> The inhabited area, (the *abitato*), extended into the surrounding territory along consular roads, encompassing large burial grounds, vast affluent villa properties, suburban houses, orchards and cultivated land. The Aurelian walls built after the third century barbarian invasions, were not separating the urban fabric from the open landscape as it is commonly imagined today, rather they were *"brutally inserted for defense purposes at a time of decline of the roman power, in the heart of an urban tissue still alive and full of dynamism, in order to protect the most important, central part of the city."*<sup>25</sup> The new urban center demarcated by the Aurelian Walls included the seven hills, the campus Martius and the district of Trastevere, covering a surface area of about 9km<sup>2</sup> and a population of 800,000 people.

#### ROMAN CAMPAGNA: LANDSCAPE OF OTIUM

Up until the end of Imperial era, the territory outside the Aurelian Walls was therefore prosperous and well inhabited. The suburban villa was the characteristic element of the Roman Campagna during this time – it was a place for leisure, contemplation and study for many wealthy intellectuals and men of culture - the so called *"ruris amatores"*, who owned a second residence

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p.7

<sup>21</sup>Denis Cosgrove. *Apollo's Eye. A Cartographic Genealogy of the Earth in the Western Imagination.* Baltimore and London: The John Hopkins University Press, 2001. p. 18

<sup>22</sup>Ibid, p.17.

<sup>23</sup>Ibid.

<sup>24</sup>Rodolfo Lanciani: *Wanderings in the Roman Campagna.* Boston and New York: Houghton Mifflin Company, The Riverside Press, Cambridge, 1909. p. 19

<sup>25</sup>Lorenzo Quilici, *Il suburbio di Roma tra le vie Latina e Casilina in Eta Romana.* p.7(personal translation from Italian)

in the city.<sup>26</sup> The number of villas, small and large, was quite significant, with some owners holding more than one properties. Although Lanciani acknowledges the fact that the slopes of the Campagna did offer admirable sites for the roman 'wealthy and fashionable' to situate their summer villas, he questions their choice of settling in such proximity to Rome, as this location did not give "*the careworn citizens sufficient change of air to recuperate, and gather fresh strength for future labours.*"<sup>27</sup> He asks, "*Why, then, do Roman villas and summer residences crowd in such numbers on the very boundary line of the Campagna, which the germs of malaria were always lurking, when their owners – masters of the Roman world – could choose more attractive and healthier sites*".<sup>28</sup> His own clarification comes from acknowledging the unsafe travel conditions at the time that prevented Romans from undertaking long and trying journeys unless they were constrained by an official duty. The abundance of villas in the Roman Campagna however, underlines the importance of leisure for the Roman citizen. The - idea of 'otium', freedom from business, ease, peace<sup>29</sup>, was contrasted to that of 'negotium', that involved trade and work, which happened inside the city. Both center and periphery had clearly defined activities that were associated with them.

Sustaining a prosperous lifestyle inside and outside of the city required putting in place and sustaining a complex infrastructural system, able to service both the urban center and the surrounding territory. As Lanciani states, "*The sanitation of the city and of the Campagna, on a large scale, was undertaken towards the end of the Republic, and continued by Augustus and his successors.*" He refers to the various infrastructural works carried out during this time, that produced remarkable results:

*"the draining of stagnant waters; a rational system of sewers; the substitution of spring water for that of polluted wells, the water being carried down from mountain sources by fourteen aqueducts, 339 miles in aggregate length; the paving and multiplication of roads; the sanitary equipment of human dwellings even when intended for labourers and farm hands; the invention of columbaria as places of burial, and the substitution of cremation for interment; and lastly the organization of medical help. The results were astonishing."*<sup>30</sup>

<sup>26</sup> Storia dell'AgroRomano dalle origini al 1870, p.22

<sup>27</sup> Rodolfo Lanciani. Wanderings in the Roman Campagna. Boston and New York: Houghton Mifflin Company, The Riverside Press, Cambridge, 1909, p.30

<sup>28</sup> Ibid

<sup>29</sup> Oxford English Dictionary. <http://dictionary.oed.com>

<sup>30</sup> Rodolfo Lanciani. Wanderings in the Roman Campagna. Boston and New York: Houghton Mifflin Company, The Riverside Press, Cambridge, 1909. p.20

The balance between city and territory was therefore maintained by infrastructure. Once this balance was disrupted by barbarian invasions, causing the destruction of the aqueducts and other vital infrastructural systems, the urban structure was unavoidably disrupted, leading to a gradual deterioration of the urban fabric and abandonment of the Roman territory.

#### MEDIEVAL LANDSCAPE: DECAY, RETURN TO NATURE

*"The transformation of the classic Campagna into the present waste began with the first barbarian incursions...The cutting of the aqueducts and the abandonment of the drainage and road system were among the chief factors in this change for the worse. Malaria, which had been kept at bay for five centuries by sheer determination and the ingenuity of Roman farmers and villa-builders, again took possession of the doomed land, and the few survivors, helpless in their desolation, raised their hands to heaven, as their ancestors had done in the early days of Rome, and built a chapel to "Our Lady of the Fever," which became one of the most popular in Rome."*<sup>31</sup>

If the population of Rome and surrounding Campagna surpassed one million people during the time of Constantine, from the end of the third century onwards it diminished dramatically, declining to almost a third of its size. As noted by Lanciani, this was caused by *"pillage after pillage, barbarian inroads, famine, insecurity, bad government or no government at all, earthquakes, and inundations."*<sup>32</sup>

However, some historians remark that by the 537 AD Gothic Invasions, Rome was already in decline due to administrative neglect since the split of the Roman Empire into its Eastern and Western counterparts. The decentralization of Rome as capital of the Roman Empire led to a destabilization of Rome's social and urban structure. *"Since Constantine the Great had moved the capital of the Roman Empire to Constantinople two centuries before, taking with him a crowd of patricians with their households and dependants, art corporations and their trained artisans ... the history of Rome had been that of successive waves of refugees."*<sup>33</sup> The destruction of the aqueducts by the Goths, led to a scarcity of water, forcing the remaining population living within the Aurelian Walls to descend from the inhabited hilltops and settle along the banks of the Tiber, thus consolidating the core of Medieval Rome.<sup>34</sup> Ludovico Quaroni remarks the shift in the center of

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<sup>31</sup> Ibid

<sup>32</sup> Ibid. p.93

<sup>33</sup> H.V. Morton. The Waters of Rome. London: George Rainbird Ltd, 1966. p.55

<sup>34</sup> Ibid.p.66

Rome towards the North West, leaving the rest of the territory enclosed by the Aurelian Walls uninhabited (the *disabitato*).

After the damage produced by the barbarian invasions, especially in the area of the suburbium, the Campagna continued to be cultivated and populated. The mid VIII century brought a settling period of peace and recovery. “*The Pope had replaced the Emperor, and Papacy guarded all that was left of the traditions of civilization.*”<sup>35</sup> The villas and residences located on elevated and salubrious terrain were revived and the first towers (*torri*) appeared along the shorelines of the Tyrrhenian Sea and military roads, controlling the arrival of the Arabs. In the XI century, both ecclesiastical and layman landowners started cultivating the suburban zone with orchards and vineyards. Landownership changed to a feudal system giving rise to the *castelli* (fortified houses). Also during this time, began the migration of inhabitants to adjacent towns leading to a gradual depopulation of Rome. During the XII and XIII centuries the dominating feudal system pushed the remaining *contadini* (peasants) to transfer to locations away from the danger of attacks, therefore away from the *castelli* and the consular roads, leaving behind their settlements to decay in the Campagna.<sup>36</sup>

By the time of the return of the popes to Rome from Avignon in 1377, it was estimated that “*there were only 17,000 survivors in the ruinous waste.*”<sup>37</sup> Whether or not these figures are entirely accurate, they underline the rapid decay of the urban structure and severe population decline. In the XV century, with the deterioration and decrease of agricultural practice, the abandonment of land properties and fleeing of population toward neighbouring communes brought upon the proliferation of feudal castles - *castelli romani*. Shepherding began to develop, and land ownership was shared among the Comune di Roma, papal ownership and ownership of wealthy families.

#### RENAISSANCE TO PREINDUSTRIAL ERA: LANDSCAPE OF INFRASTRUCTURE - AQUEDUCTS

During this renaissance period, the dominating presence in the territory surrounding Rome was that of the *casali* (rural houses) that were built upon the ruins of ancient villas, cisterns, mausoleums, next to towers, or *castelli*. The *casali* were connected to the *tenute* - an autonomous land property of great importance to the agrarian economy) and therefore to *latifondi* – that were medieval ecclesiastical properties. The predominant land use was dedicated to agriculture, which minimized human involvement in the

<sup>35</sup> H.V. Morton. *The Waters of Rome*. London: George Rainbird Ltd, 1966. p.57

<sup>36</sup> *Storia dell'Agro Romano dalle origini al 1870*, p. 24

<sup>37</sup> Rodolfo Lanciani. *Wanderings in the Roman Campagna*. Boston and New York: Houghton Mifflin Company, The Riverside Press, Cambridge, 1909. p.93



malaria contaminated fields to the periods of planting and cultivation. Beginning with the renaissance period an interest in searching for antiquities, mausoleums and rich villas along major roads started to increase, unavoidably leading to an acceleration of the process of disintegration of the ancient structures.

The 1453 restoration of the ancient aqueduct, *Aqua Virgo (Acqua Vergine)* by Pope Nicholas V, reinstated the use of ancient infrastructural systems in Rome, facilitating yet again the supply of running water to the city. The discovery of Frontinus' "*De Aquaeductu Urbis Romae*" manuscript in the library of the monastery of Monte Cassino prepared the people of the Renaissance "*with a handbook to the aqueducts, the fountains and the waters of Rome.*"<sup>38</sup> Several new aqueducts were built in the subsequent years by the popes - *Aqua Felice* (1586) *Aqua Paola* (1611) *Aqua Pia Antica Marcia* (1870), *Aqua Vergine Nuova* (1937) and *Aqua Peschiera* (1949). The aqueducts were supplying yet again, for the first time since Imperial era the city's fountains, gardens, public buildings and houses, as well as the vast territories of the Campagna, they traversed in their passage to Rome.

With the possibility of bringing water to the hills of Rome again, villas started to be rebuilt in the intramural zone of the city, inhabiting the undulating ridges of the Esquiline, Quirinal and Celium hills, then the Gianicolo and the areas between via Flaminia and Tiburtina.<sup>39</sup> These great suburban villas, spreading from Monteverde to Montemario, toward the sea and the Tiber, of typical expansion of the affluent bourgeoisie were called '*caseletti*'. According to the 1839 map of the Roman Suburbium, these were not only distributed along consular roads, but rather formed a connected continuous tissue.

The urban landscape of Rome at the turn of the century, before the first railway lines were built in the early 1850s, was reaching out again into the vast territory of the Roman Campagna as it did during Imperial times. This preindustrial landscape was still carrying the marks of the periods of unrest and insecurity that preceded it. A great number of towers and fortified farmhouses (*torri, castelli, castiglioni*) populated the areas along ancient consular roads like the *via Appia Antica, via Tuscolana or Prenestina*. (*Torre Fiscale, Torre Tre Teste, Torre Castellaccia* and others). The most visible traces of Rome's ancient landscapes however, remained the aqueducts - their monumentality and grandeur fascinating the imaginations of 18th century travelers and writers alike; their ghostly silhouettes becoming an iconic image for the suburban landscape of Rome for decades to come.

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<sup>38</sup> H.V. Morton. *The Waters of Rome*. London: George Rainbird Ltd, 1966. p. 61

<sup>39</sup> *Storia dell'Agro Romano dalle origini al 1870*, p. 25

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