

Re-visiting representations of 'nature' and city through the Long Walls zone

Παλίμψηστο Υποδομών
πόλις ως φύση
ζώνη Μακρών Τειχών, αστικός
μεταβολισμός
infrastructural palimpsest
polity as nature
long walls zone
urban metabolism

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Τα Μακρά Τείχη της κλασικής αρχαιότητας, συνδέοντας την Αθήνα με τον Πειραιά, επέδειξαν μια σημαντική αλλαγή όσον αφορά την αναπαράσταση του μέσα και του έξω. Η υπονοούμενη αντίθεση “μέσα / έξω” διερευνάται σε σχέση με τις έννοιες “φύση” και “πόλη». Μπορούμε να διαβάσουμε τη ζώνη των Μακρών Τειχών σε συσχετισμό με την Αριστοτελική θεώρηση της “πόλης ως φύσης”; Το “παλίμψηστο υποδομών” είναι αναμφισβήτητο η δομή που αντιπροσωπεύει την ιδιομορφία της ζώνης των Μακρών Τειχών σήμερα. Η ζώνη των Μακρών Τειχών κατά τη διάρκεια της κλασικής αρχαιότητας και από τους νεωτερικούς χρόνους έως σήμερα, υπήρξε ένας επιμήκης χώρος που αντιπροσωπεύει την κινητικότητα, μεταξύ Αθήνας και Πειραιά. Ιστορικά, ο χαρακτήρας της περιοχής έχει υποστεί αξιοσημείωτες αλλαγές: από τύποις αστική περιοχή στην αρχαιότητα, μετατράπηκε σε αγροτική και κατά τον 19ο και 20ό αιώνα σε ιστορική βιομηχανική ραχοκοκαλιά μεταξύ Αθηνών και Πειραιά. Σήμερα θα μπορούσε να χαρακτηριστεί αντίστοιχα ως ζώνη αποβιομηχάνισης. Η κατανόηση της περιοχής ως παλίμψηστο θέτει υπό αίρεση την τάση για μαζική ομοιογενή αστική εξάπλωση. Το παλίμψηστο αποκαλύπτεται ως εγγενής αξία του εδάφους της ζώνης των Μακρών Τειχών, που δομεί την παρουσία ιστορικών ιχνών. Μαρτυρά την άρθρωση μεταξύ αστικού και αγροτικού τοπίου, σε μια εκτεταμένη χρονική κλίμακα. Ο κατακερματισμός του τοπίου από τις υποδομές αναδεικνύεται ως μια άλλη πτυχή του παλίμψηστου των υποδομών, σχετική με το δίπολο “αγροτικό” έναντι “αστικού”. Η συζήτηση επικεντρώνεται τελικά στην αναπαράσταση των χωροχρονικών ιχνών σε μια συγκεκριμένη περιοχή της ζώνης των Μακρών Τειχών: η μέσω χαρτογράφησης διερεύνηση στο πλαίσιο ενός ακαδημαϊκού εργαστηρίου αναδεικνύει το εξαιρετικά πλούσιο παλίμψηστο των διαστρωματώσεων υποδομών στο τοπίο. Επομένως η ζώνη των Μακρών Τειχών δεν μπορεί να χαρακτηριστεί ως “αστική περιφέρεια” αλλά ως ζώνη ιστορικής πολυπλοκότητας, συγκρίσιμη με εκείνη ενός ιστορικού αστικού ιστού.

The Long Walls of Classical Antiquity, linking Athens and Piraeus, illustrate a significant shift in the representation of inside and outside. The implied antithesis ‘inside vs outside’ is investigated in relation to concepts of ‘nature’ and their relation to ‘city’. Can we read the Long Walls zone in relation to the Aristotelian view of ‘polity as a natural construct’? The ‘infrastructural palimpsest’ is arguably the structure which represents the idiosyncrasy of the Long Walls zone today. The Long Walls zone during classical antiquity and since neoteric times to present times, has been an elongated space representing mobility. Historically, the area’s character has been under noticeable changes: from quasi-urban in antiquity, it changed to rural, and then became Athens-Piraeus’ historical industrial backbone during the 19th and 20th century. Today it could be characterized as part of the Athens-Piraeus’ rust belt. Understanding the area as a palimpsest could challenge the actual tendency to massive homogenous urban sprawl. Palimpsest is revealed as an intrinsic value of the Long Walls zone’s ground/soil, structuring the presence of historical traces. These testify to the articulation between urban and rural landscape, along an extended timescale. The segmentation of landscape by infrastructure emerges as another facet of the infrastructural palimpsest, relevant to the di-pole ‘rural’ vs ‘urban’. The discussion ultimately focuses on the representation of spatiotemporal traces in a specific area among the Long Walls zone: investigated through mapping within an academic project, the exquisitely rich palimpsest of infrastructural layers and their embedded landscape traces emerges. Thus, the Long Walls zone cannot be characterized as ‘urban periphery’ but as a zone of historic complexity, comparable to that of a historic urban matrix.

INTRODUCTION- ARCHAEOLOGICAL BACKGROUND: A SCHEME IMPOSED ON THE LANDSCAPE

The Northern Long Wall, built during the first half of the 5th c. BCE linked Athens with the Piraeus peninsula. It was 'cloned' during the 2nd half of the same century, and thus the 'Middle' or 'Southern' Long Wall was built. I'm using the word 'clone' as the two elongated structures were parallel along most of their course and of almost equal length. Before the formation of the Middle Long Wall, another Long Wall, namely the Phaleric Long Wall, formed an oblique pair with the Northern Long Wall; the Phaleric Wall linked Athens to the port of Phaleron, the importance of which gradually faded. (Conwell, 2008). Still, the adjective 'Middle' Long Wall reflects the original spatial distribution, as it was built between the initial oblique pair (Fig. 1A). What emerges from the enigmatic emergence of the Middle Long Wall, as a parallel structure to the Northern Long Wall, is a 'device': is it extreme anthropogenic transformation, or a *'cunning counsel'*, of goddess Athena? This *'device'* -aka *'metis-μήτις'* - attributed to a deep-rooted and fortified place, locus of the mythical Cecrops' city or "*whatever within his border Cecrops contains*" (Herodotus via Dougherty, 2014) the property of a naval node. The aspiration to expand Athens' topological importance without displacing it, was pursued through the Long Walls. Athenians aimed to render Athens a coastal city while keeping its diachronic position in the topography. The rich palimpsest of mythological, architectural, and political traces deployed in the landscape around the Athenian Acropolis was thus bound to Piraeus peninsula, which comprised 3 fortified new ports located in 3 gulfs.

What has been attributed

repeatedly to the pair of Long Walls connecting Athens and Piraeus during classical antiquity (5cBCE), is that they formed an elongated defensive corridor¹. Indeed, whilst the surface of the protected area was about 1.5km², its length was beyond 30 times its width², and this analogy could partially justify the use of the term 'corridor'. However, for architects a corridor is usually considered as an in-between space, a connective space, the materialization of a link; therefore, I was surprised to discover that the double Long Walls fortifications protected a bond: more than the specific area which lied between them, they were meant to render the link between two significant urban poles 'unbreakable'. What attracted my interest to the parallel Long Walls is that today, the course of this corridor can still be discerned in aerial views and satellite photos, even whilst the Long Walls remnants are still mostly buried under the urban surface. This article investigates the persistence of this *'device's'* traces in time, since its traces are still structuring the city's surface today.

SPATIAL REPRESENTATIONS IN THE LONG WALLS ZONE: MOBILITY AND ACCESSIBILITY, OPEN VS CLOSED, INFRASTRUCTURAL PALIMPSEST (STATE OF THE ART)

Linking the Long Walls to Mobility

Can a gigantic, elongated and static structure such as the Long Walls represent fluid and immaterial qualities such as 'autonomy' or mobility? If yes, what is the "tare" that the massive fortification leaves behind as a connotation? According to Dougherty, the decision to connect

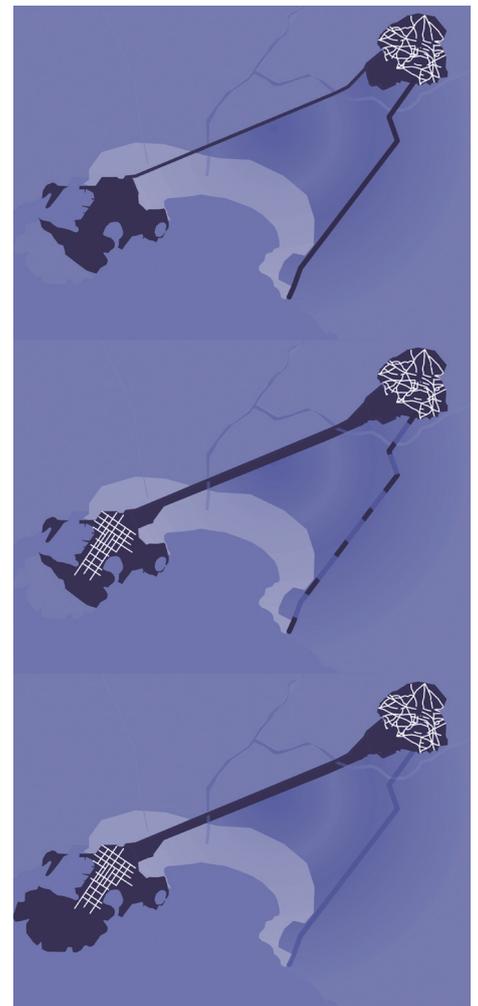


Fig. 1A - A corridor as a new way of representing 'Inside VS Outside' / 1A: map sequence based on the paleogeological maps by [Goiran et al , 2011] and historic data and maps, showing the Phaleric Wall and the Long Walls.

Athens with Piraeus through the Long Walls "*radically transformed the Athenian civic experience on many levels from the material to the imaginary*" (Dougherty, 2014). More than the defensive function usually attributed to the Long Walls, I shall argue that they represented an ideal urban dipole, which combined and juxtaposed a historic nucleus with a new naval node. By protecting the bond between these two discrete facets of urbanity, the values protected by the Long Walls were both material and immaterial.

'Autonomy' during war and during peace, understood as the possibility of a city-state to forge its own decisions, was a fundamental democratic value. The protection of this 'autonomy' was directly relevant to the

further evolution of classical Athens' nautical supremacy in the Mediterranean: for the flourishing of trade and commerce, for deploying economic and strategic alliances, for strengthening its war fleet. Was 'autonomy' protected by the Long Walls fortifications? The theoretical and imaginary dimension of 'autonomy' is also to be considered, in relation to the perpetually evolving discourse and quest for the ideal polity that flourished during that time in Athens. However, an investigation of the Mediterranean landscape's micro-ecology³, reveals that instead of 'autonomy', the Athens-Piraeus dipole bound by the Long Walls, represented a complicated network. This network consisted of transporting raw materials, their 'consumption' and processing, the making and export of artifacts; it made possible the mobility linked to central markets and markets overseas, and the mobility of taxes. These networks of interdependencies flourished while protected by the Long Walls, as we may find in a contemporaneous speech of Pericles; *"while the magnitude of our city draws the produce of the world into our harbor, so that to the Athenian the fruits of other countries are as familiar a luxury as those of his own."*⁴ (Thucydides, trans. Crawley, 1950). The fruits and goods of other countries travelled across the Mediterranean to Athens's port. The artifacts handcrafted in Athens would reach via Piraeus various Mediterranean loci. The Long Walls supported the resilience of this flux.

The study of the urban ecology of classical Athens, has brought us today to a different reading: did the Long Walls exhibit Athens's non-autonomy, in terms of material resources? The non-autonomy of Athens during the 5th c BCE is obvious: the total population of Athens (c.a. 250.000 including slaves and non-citizens) exceeded what the plain of Attica could support; as proven by the

diaspora of Athenian silver coins around the Mediterranean, an indication of how much grain needed to be imported from the island of Euboea, North Africa, and the Black Sea (Tainer, 2019, 88-89). The flow of goods to and from Piraeus and Athens, for sure left imprints in the landscapes of the places which were at the other end of the network, closer or further away; these should have been further studied if the aim was to grasp fully the role of the Long Walls in the urban metabolism of the Athens-Piraeus dipole during the classical period.

Linking the Long Walls to Accessibility

Before the 5c BCE a vast marshland, Halipedon, set apart the Piraeus peninsula from the rest of the Attic plain, hindering access from inland (Goiran et al., 2011)⁵; the peninsula was scarcely inhabited, with only scattered settlements linked to fishing activities. To reach the Piraeus peninsula, the Northern Long Wall forced its way into that marshland. Within the marshes, its foundation was reinforced laterally with the construction of artificial embankments made using blocks of stone and massive quantities of broken stones [Plutarch via Conwell, 2008:6]. This lateral reinforcement of the Northern Long Wall could be also understood as some sort of land-forming structure, a robust link between the peninsula and firm land. In this way, the Northern Long Wall's construction may have contributed to the institution of accessibility towards the peninsula and thus contributed to Piraeus's further urbanization after 460BCE⁶. Reaching the gate of the circuit wall of Piraeus at the Northern foot of the Northern Long Wall, the major transport artery joining Athens to Piraeus was referred to as the '*Hamaxitos*' road (Xenophon via Conwell, 2018) It was the main '*Extra Muris*' road between the urban dipole, and remained in regular use when the

Middle Long Wall was completed; furthermore its function persisted diachronically.

Representations of Open and Closed Schemes, Imposed by the Long Walls

Another question which arises in terms of what is being represented, is whether the scheme that the parallel Long Walls imposed on the Attic plain's rural landscape, was an open scheme or an enclosed scheme. Arguably it was both.

To begin with, the construction of the Long Walls was an imposed scheme which had interrupted the rhythm of life on the plain, "for the straight sections of the structures obviously ignored the borders of individual farm plots, and they probably turned some roads into dead ends" (Conwell, 2008). As Frazer reported, the sayings of Aristides: *"By the completion of the Middle Long Wall from Athens to Munychia the capital and its port were converted into one vast fortress, a day's journey in circumference (Aristides Or. Xiii), without a single break in the circuit wall except at the gates and the mouths of the harbours."* (Aristides via Frazer⁷, 1898). These descriptions form the impression of a closed scheme, which could be represented as a single-circumference fort which included two 'urban poles': Piraeus and Athens (Fig. 1B). Indeed, this scheme functioned as an enclosure and shelter for refugees from all over the Attic plain, during multiple invasions against Athenians in the periods 435-425 and 403-404. (Conwell, 2008)

Much more interesting - in architectural and political terms - is the representation of another essential facet of the Athens-Piraeus di-pole relationship. We refer to the representation of democratic ideals and the theoretical/philosophical quest for an ideal polity, discussed in classical Athens; such ideals were

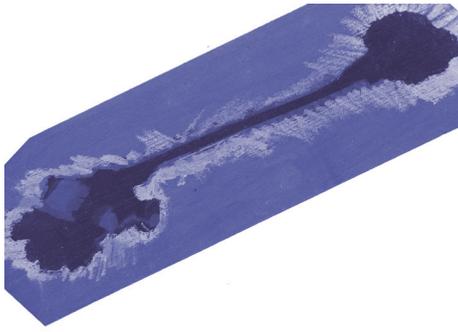


Fig. 1B - 2d-model of the Long Walls zone as enclosed scheme, collage model by author.

reflected by a political philosopher and planner, Hippodamus in the first urban plan of Piraeus⁸. If we consider the classical urban fabric of Piraeus as a materialised reflection of a democratic social structure, could that reflection be understood as a representation of the mobility of the democratic ideals between classical Athens and Piraeus? It is unlikely that ideals needed any fortified corridor to flow unhindered between the two urban poles, notwithstanding that Piraeus was urbanised after it was walled. The Long Walls zone in this respect connected an old organic urban nucleus with a newly designed rectilinear urban fabric.

Based on the way Aristotle describes Hippodamus' innovation as 'the division of cities' and 'distribution of urban ground', it becomes clear that an ideological concept for society was implicated in planning Piraeus (Mazza, 2009). The innovation lies in the representation of a democratic social concept through urban planning, and the aim to materialize that plan. Therefore, Piraeus was not a replica of Athens. Piraeus was planned to represent the new urban concept. The new city was addressed to 3 classes of society whose activities expanded beyond the fort-walls: craftsmen-artisans, farmers, warriors. The craftsmen were producing exportable goods, the fleet warriors' practice was directed towards the sea, whilst the farmers cultivated the rural soils of Attica. This



Fig. 1C - Opening Athens to the Mediterranean, or "The Auto-referent City": diagram by Yannis Orlis, student at the Department of Architecture, University of Thessaly, in the framework of the course 'Landscape Theory' 2020-21, taught by A. Kouzoupi.

last feature could be considered as a characteristic of an open system. The Long Walls could be represented thus as the opening of an old, fortified nucleus towards the Mediterranean (Fig. 1C).

Neoteric⁸ Facets of Mobility: The Long Walls zone's Infrastructural Palimpsest

The dipole-fort was challenged many times in antiquity and the demolition of the Long Walls occurred repeatedly, followed by their reconstruction. However, the 'enclosed-and-open' scheme introduced by the Long Walls' begun to deteriorate in the 3rd c BCE, when '*no sea-power exercised the sort of control in the Aegean that would have justified their restoration*'⁹. Ultimately, only their foundations remained after Sulla's total demolition of the

Long Walls superstructure, and the reuse of that material for the siege of Piraeus. (Conwell, 2008). Its glorious gigantic mass had completely deteriorated since the 1st c BCE. In the 19th century, the scheme once imposed on the rural landscape of the Attic plain by the classic Long Walls, was no longer prominent. Yet, what survived as a partially erased scheme, became in the 19th century an organic part of the daily life: shaping the mobility and property limits around it.

Since the 19thc the parallel Long Walls foundations have been buried below the two major transport axes linking Athens, the modern Greek capital, to its major port, Piraeus. Thus, a *substantial infrastructural palimpsest* was constituted. The Athens-Piraeus Avenue, and the first trainline of the Greek republic, were respectively built above the Northern and Southern Long Walls (Fig. 2). The term 'infrastructural palimpsest', coined by Bernardo Secchi¹⁰ (Secchi, 2012) is, according to my argumentation, the prominent conceptual representation of the Long Walls zone today. Duplicating, on the contemporary city surface, the fortification axes of classical antiquity, the functional transport infrastructure of the modern Greek capital gave again substance to the dipole Athens-Piraeus, in a peculiar neoteric way. Within and along the Long Walls zone, industrial complexes flourished during the 19th- 20th century. Yet the paradox about this admirable spatial distribution, is that it has not been the result of a symbolic act, which aimed to represent a revival of the Athens-Piraeus classical urban dipole.

The enigma of the Long Walls' infrastructural palimpsest formation, has not yet attracted enough attention. The story begins with the urban plans of Athens and Piraeus; commissioned by the early Greek state, both were designed as

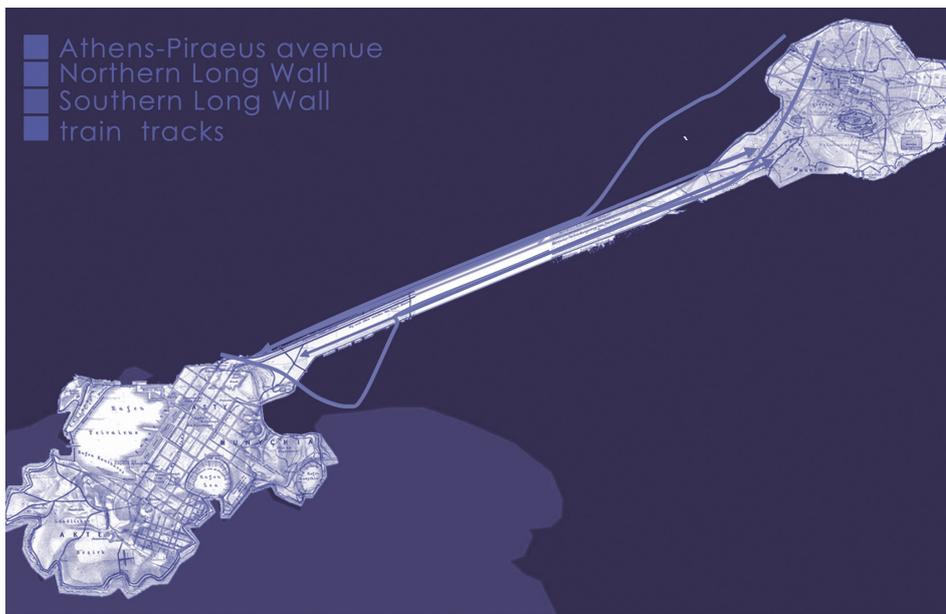


Fig. 2 - This synthesized map is based on a collage of the author based on maps by Curtius E. Kaupert J.A.

two distinct urban centers, by a prominent duo of architects/urban planners: Kleanthes and Schaubert. Commissioned in 1832, the first urban plan of Athens was meant to create a symbolic representation: "a new plan, of equal value to the ancient glory and majesty of that city, and worthy of their contemporary era." (Bastea, 2008). According to the urban plan the duo devised for Athens, the capital's new centre was placed 'Extra Muris', yet was bound by a node of three central axes to the 'ancient city's glory'. These three axes formed the symbolic, geometrical centre of the neoteric city. (Biris, 2005/ Sariyiannis, 2000, Bastea 2008). Two of them emanated from significant monumental loci of the classical city: the ancient city stadium and the foot of Acropolis hill. While the third, Western axis, extended from their intersection, heading towards the urban periphery, and Piraeus. Did this axis represent the Athens-Piraeus diachronic relationship? In 1834 the duo completed the urban plan of Piraeus and introduced, as the major avenue giving access to the port, the very extension of that same straight axis (Belavilas, 2007). Thus the proposed form initially attributed to the neoteric Athens-Piraeus link, has been

a single gesture joining the two neoteric urban centres. (Biris, 2005:58) This new avenue did not coincide in space with any of the axes of the classical Long Walls, nor with any functional road of the 19th century: most of its length needed to be traced anew through the fields. Kleanthes suggested to complement the function of this grandiose new straight avenue by a secondary road network, comprising the still functional ancient paths which were associated with the Long Walls. Another urban planner, Klenze, thought of the practical complications a new single axis would generate, by crossing private land and fields. Klenze suggested to create the linking avenue between Athens and Piraeus by the mere widening of the diachronically existing path/road (Fig.2, Fig.3), instead of tracing the new single-gesture road proposed by Kleanthes and Schaubert. Indeed, in 1835¹¹ the existing functional path, most likely duplicating the ancient *Hamaxitos* road¹², (Fig.2) was eventually widened (Biris, 2005, Adelhoven 1837). As Bastea has shown, the juxtaposition of the neoclassical urban plan proposed by Kleanthes and Schaubert, and Klenze's amendment of that plan, can be argued to

have gone beyond the practical, theoretical facets; the latter was commissioned to make the initial plan of Athens more rational, more grounded to the existing reality of the area during that epoch, more consistent in respect to the historic and practical dimension of the landscape. (Batsea pp 1669); according to Batsea, the colonial dimension of the urban plan of Neoclassical Athens was emanating mainly from the initial Kleanthes and Schaubert plan: represented by the clear geometric design, which was imposed on the topography. Whilst Klenze, in theoretical terms, could be perceived as an advocate of a more organic geometry, of a 'southern' city, with smaller public squares and main axes that followed the topography (Batsea, 2008).

The Northern Long Wall and *Hamaxitos* road *infrastructural palimpsest*, therefore, was not achieved by an act which had aimed at a neoteric 'revival' of the ancient Long Walls axes. A similar incidence occurred 35 years later, as the first trainline linking Athens and Piraeus overlapped along most of its course with the Southern Long Wall's axis (Fig.2, Fig.3). A second, parallel infrastructural palimpsest was then created; simultaneously the Long Walls zone was re-created. Evidently, the tracing of the modern transport infrastructure based on the ancient foundations, can be understood as a geometry imposed by the enduring practical dimension of the landscape. Almost 'accidentally' landscape imposed its diachronic function. The double infrastructural palimpsest coincidence is not a mere product of neoclassical design: rather a product of 'common sense', or a 'common device', acknowledging the power of a deeply rooted habit. It must be highlighted that both transport axes - Piraeus Avenue and the train line- are still functional today, based above the parallel Long Walls foundations.

MATERIALS AND METHODS: EXPERIENTIAL MAPPING AT THE LONG WALLS ZONE

The approach followed in the present research has been based on a methodology which considers experiential mapping as a tool for triggering a mutual relationship between an entangled observer and landscape (Kouzoupi, 2018). It is based on a concept of mapping that follows the *orchid-and-wasp* analogy (Deleuze & Guattari, 1987), where the map is an interface or a representation of the relationship between intruder [wasp and observer] and intruded [orchid and landscape]. Mapping is approached therefore as a representation of the way we get entangled with urban spatiotemporal manifolds. In situ spatiotemporal experiences are considered as multifaceted, intrinsic to the appreciation of the site. The maps-representations of the Long Walls zone presented in chapters (3 and 4) have been the result of an oscillation between in situ experience, and its diachronic and contemporary representations, such as philosophical and scientific views, historic maps and plans of archaeological findings, historic and present aerial views, archive material.

Disjuncture VS Bonding: infrastructure representations within the Long Walls zone

The Long Walls used to cut through the Attic plain during classical times, to unite the two cities into a dipole. They imposed new tracks of mobility and interrupted many pre-existing ones belonging to the rural network. Thus, they created a quasi-urban corridor, interrupting the agricultural fields and the fertile riverbanks of the Kephessos and Ilissos rivers. They were

defining an innovative - for that era - articulation between natural landscape elements and urbanity. Their straight linear shape was not curved or interrupted by any landscape feature, such as the two rivers, or the Halipedon marsh. Their urban-planned form ran straight through any kind of ground, unaffected by the landscape. This complex legacy, of imposing infrastructures which segment the landscape and leave no space for interaction between 'natural' and 'artificial', consists of a practice we still have to deal with, both architects and landscape architects.

Of course, the 'Extra Muris' Attic plain continued to encompass predominantly fields, from

antiquity till the first half of the 20th century C.E. However, the Long Wall strip's accessibility, attracted a great deal of the industrial complexes settled between Athens and Piraeus in the 19th and 20th century CE. So, the Athens-Piraeus industrial 'strip', accessible thanks to the urban transport lines, ran among the fields of the surrounding rural landscape for many decades. It functioned as an attractor for industrial complexes and developed a distinct architectural identity which is still visible¹³ (Vatavali, Belavilas, 2007): This industrial strip somehow interrupted the rural properties of the plain that surrounded it.

The infrastructural transport

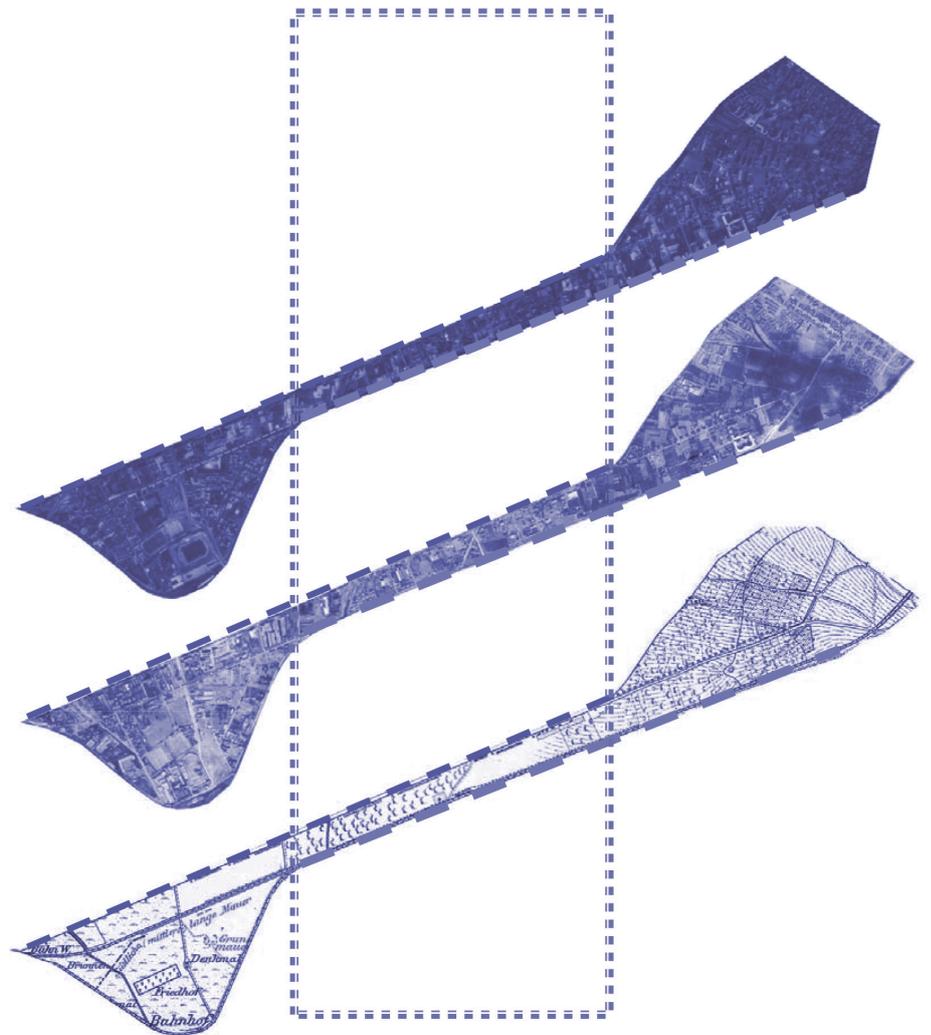


Fig. 3 - The Long Wall's zone infrastructural palimpsest, 19th-20th century CE, 3 cutouts by author. The upper cut along the Athens-Piraeus avenue. The lower cut is along the Athens-Piraeus train line. The area where the two major transport axes both follow the Long Walls, is underlined. The area where these 2 neoteric infrastructure tracks are parallel is framed. / 1. Cutout from Aerial View 1972, / 2. Cutout from Aerial View 1945 / 3. Cutout from 1882 map of Curtius E. Kaupert J.A.

The palimpsest ground of the Long Walls zone

It is evident that during recent years, most of the fields around Athens and Piraeus have been thoroughly affected, by the pressure of urban sprawl. The Long Walls zone, at present part of Athens-Piraeus' rust belt, is not an exception. Yet, the urban sprawl loses its chaotic geometry when confined into a rectilinear planned zone, like the Long Walls zone. Precisely, the parallel axes of the Long Walls infrastructural palimpsest are still amazingly present in the aerial and satellite views of the area. The perpendicularity of the urban matrix along most of the zone accentuates its influence within the urban tissue (5). This perpendicularity can be understood as the articulation of this urban matrix to the Long Walls parallel axes. Referring to another article by Bernardo Secchi, which investigates the construction of the urban ground, it becomes clear that the Long Walls zone presents an idiosyncratic complexity regarding articulation of spaces: private and public, archaeological-historical and contemporary, infrastructural and collective. Therefore, the Long Walls zone could not be considered as urban periphery, since *"What connotes the historical city, and in an opposite sense also the periphery, is the great articulation of the spaces."* (Secchi, 1986). To focus on the historicity of the ground's materiality, which bears the palimpsest traces, is a way of deciphering the zone's history, as an oscillation between urban and rural.

The proposed reading here of the Long Walls zone does not seek to highlight the ruins of classic antiquity as a static, dominant monument. Since we read the industrial monuments as part of the area's ground complexity, their re-integration to the contemporary urban tissue is also of extreme importance.

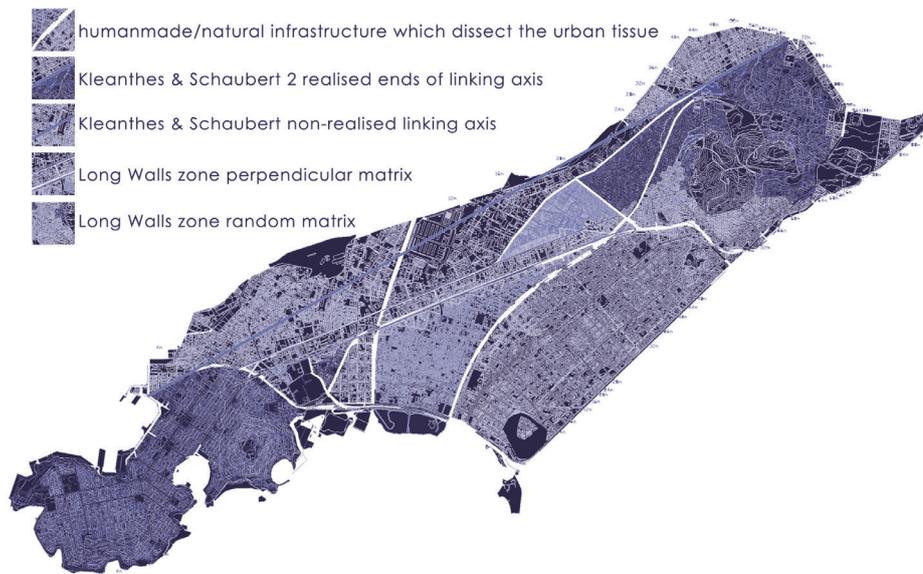


Fig. 4 - Segmentations of the urban fabric by modified riverbeds, heavy traffic avenues, and trainlines; the Long Walls zone has affected the shapes of urban blocks. In the map features the parallel/perpendicular matrix order, and diverse/random matrixes across the Long Walls zone.



Fig. 5 -The representation of the Southern Long wall below the surface metro train line, today (fictional representation by author).

axes which were superimposed on the classic Long Walls foundations in the 19th century, continue to divide the urban landscape today; the Athens-Piraeus avenue, and the surface metro line, consists of a fracture in the urban tissue. (Fig.3). However, under the light of the infrastructural palimpsest, these modern transport axes reveal the parallel tracks that the Long Walls followed. It is

admirable to observe how the shape and geometry of the parallel Long Walls, affected the geometry of the industrial spatial distribution; a large part of the industrial complexes was confined in plots between the two antique parallel axes, reproducing a rectilinear modular matrix (Fig.4).

Whilst hiding the Long Walls's foundations (Fig.5), the neoteric infrastructure tracks create valuable viewing corridors throughout the contemporary urban landscape. The view towards the Acropolis of Athens is amazing along the part of Piraeus Avenue which follows the Northern Long Wall (Belavilas 2007). The view towards the Nymphs' hill is splendid from any pedestrian bridge along the extent of the surface metro train line which follows the Southern Long Wall. These tracks divide the urban ground, but they unify the contemporary's city's perspectives with its archaeological landscape features. Moreover, the courses of the Ilissos and Kephissos rivers, also dissect the urban landscape today, as they have been heavily modified by infrastructure; especially in those areas where they have been covered by major avenues.

Following Secchi's description, this zone should be read in relation to society and its general movement: "*In palimpsests of infrastructure we can recognize a long history of general movement of the society, its economy and culture*" (Secchi, 2012). Along their c.a. 6 km of length, both Long Walls tracks are being excavated in rescue excavations, by archaeologists¹⁴; the excavated sites have enabled the approximate delineation of the course of the Long Walls (Petritaki], 2003) The Long Walls foundations are visible in the city's surface only at a few sites today; often, after the excavations there follows a survey of the findings and re-covering of the unearthed site: especially when the Long Walls are located below transport infrastructure. Even when the archaeological traces are covered and safeguarded beneath the ground, a dystopic, isotropic repetition, reminding 'no-stop-city' as anticipated by Archizoom¹⁵, threatens the zone's surface. Contemporary urban sprawl, by propagating surface homogeneity, risks to cover and conceal the Long Wall zone's meaningful ground.

REPRESENTATION AS SYNTHESIS: CONTINUITY AND DISCONTINUITY WITHIN THE LONG WALLS ZONE (RESULTS)

Entangling Representations with time: Resetting 'Inside' & 'Outside'

Among the places which I identified - by in situ and archive/ bibliographic research - as being extremely rich in palimpsest traces, within the Long Walls zone, is an area in Tavros district. It is an area where the Northern Long Wall intrudes upon a neighbourhood, inhabited mainly by refugees since the 1920's (Myofa, 2020). There, the infrastructural palimpsest's

social dimension is pronounced, as the archaeological traces lay below public spaces and social housing blocks. I realised that a specific social housing complex was probably built above the intersection of the Northern Long Wall with the historic traces of Sygrou prison. (Fig. 6,A,B). The Southern Long Wall almost intersects with the underground derived riverbed of Ilissos in the vicinity (Fig. 6A). In this area manifold landscape qualities intersect, setting and resetting the notions of 'inside' and 'outside'.

The notion of *outside* can bear a double meaning: *exclusion* or *confinement*. By investigating the notion of outside in that area's palimpsest, we follow a time-respective approach. At the lower level of the palimpsest (c.a. -3 to -4 m, below urban surface) we should find the parallel Long Walls traces. In classical antiquity, when functional, they contributed to a concept of outside synonymous with a vast, open, rural landscape. Furthermore, *outside* of the Long Walls could mean off the structured urban space, and apart from the system of relations the polity and its connections intertwined across the Mediterranean. *Outside* during siege could mean beyond the city's protected limits, and an exposure to lethal danger. When invading armies attacked Athens, the inhabitants of the rural Attic plain would seek refuge within the Long Walls zone. This refuge represented a shelter, thus inside, but in terms of everyday life, for sure enclosed - especially farmers - away from their usual activity, outside their quotidian life (*Aristophanous, Aharnai*). Closer to the surface, yet still underground (c.a. -1m below urban surface) lies a part of the Sygrou prison's foundations traces; it was constructed in the late 1880's, placed on the far-side [rural side] of the old Ilissos riverbed, and close to the river's intersection with the train line linking Athens to Piraeus (1869).

The Ilissos river was diverted in early 1900's, and its constructed riverbed almost intersected with the Southern Long Wall, in the prison's vicinity. When the prison operated, in the 19th-20th c., the prison circumference wall created an enclosed space which is considered as outside, since it is exclusion from society. Up to the mid' 1940's, both criminal and political inmates were occasionally confined in Sygrou prison, for sure during the period leading up to the civil war. Multiple linear infrastructural elements, used to segment space around the prison: '*natural landscape infrastructure*' (Stockman, 2013) like the initial riverbed, and anthropogenic infrastructure like the neoteric trainline - still operating as a surface metro line - and the train bridges the diverted riverbed.

The concept of inside can be interpreted in relation to the long Walls zone, as synonym with the notions of shelter, enclosure, and inclusion. The parallel Long Walls forged in classical times the notion of *inside* bearing geo-political connotations: *inside* the urban dipole, *inside* the fortified and protected zone, *inside* the network of relations of the urban dipole. Of course, the Long Walls zone during classic antiquity was also used as a linear receptacle for refugees, during attacks and states of siege. When in siege, inhabitants dispersed into small rural settlements of the Attic plain ephemerally settled among the parallel Long Wall structures. (Conwell, 2008) Due to the fact the Athenians were under siege for many months during numerous years, and remained enclosed within the urban dipole and the Long Walls, an infectious disease decimated the city's population, which brought about a negative aspect of the notion of *inside*. During neoteric and modern times, as the industrial belt between Athens and Piraeus was associated to the Long Walls zone, the character of the zone was modified into a place

of labour and production. The notion of *inside* thus acquires in this respect, both a new spatial and a social meaning. The train line and Piraeus Avenue made the zone accessible, for workers, for engineers and manufacturers, for transporters of raw materials and products. The decision to convert the district of Tavros to a receptacle for refugees in the 1920's, created synergy with the proximity to the industrial production sites. Moreover, a rare piece of history can be retrieved in the area of Tavros, where the prison Sygrou buildings were located. After the prison ceased to operate, the



Fig. 6A - As shown a part of the Northern Long Wall was covered by the curvilinear building of Sygrou prison [1887-1950's] and since 1960 by the social housing complex.

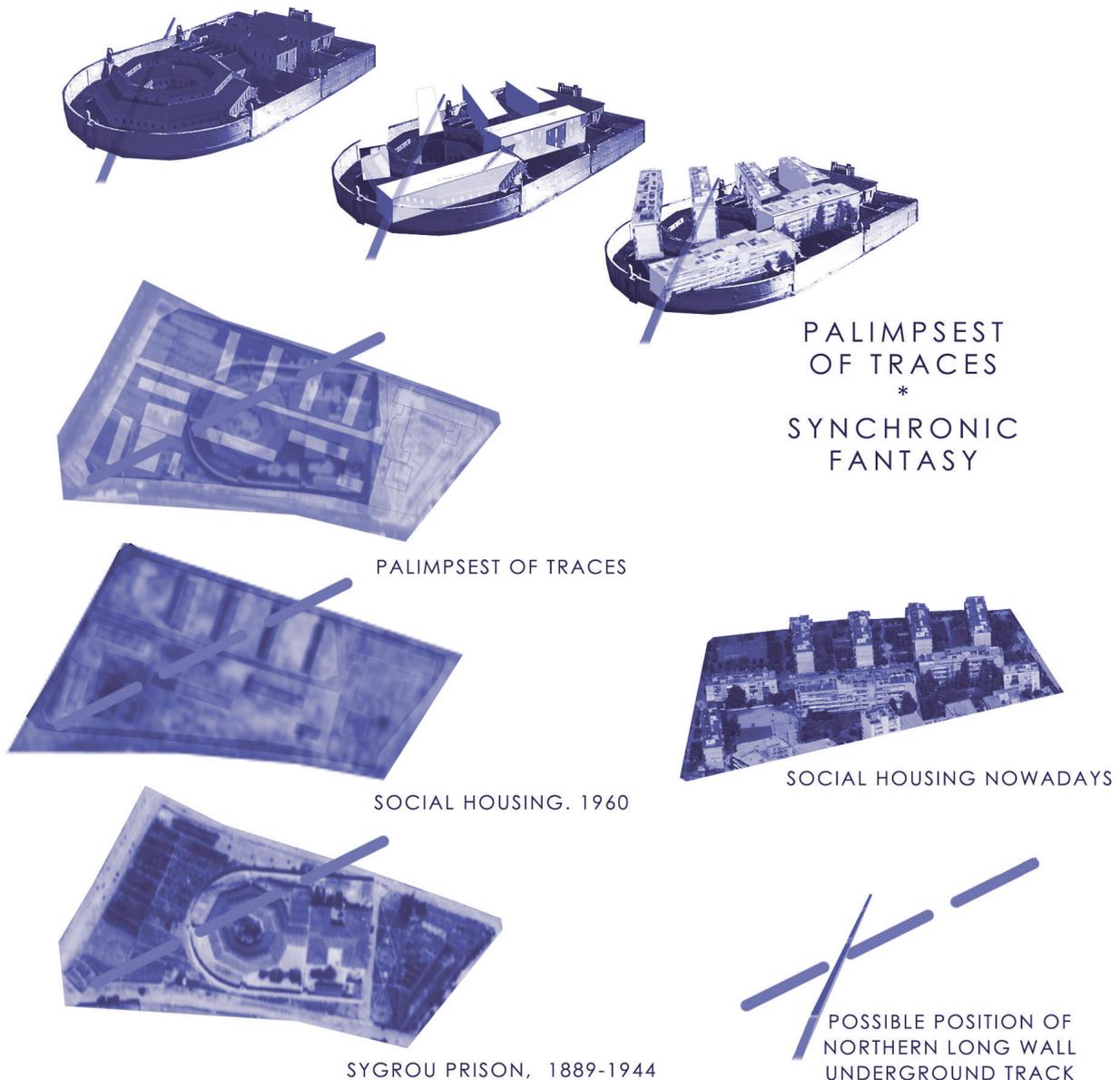


Fig. 6B - Synchronic representation of the palimpsest involving the Northern Long Wall, the former position of the Sygrou prison, and a social housing complex, . / (6A&6B) Collage of historic and contemporary photos & aerial views, by the author.

buildings were transformed by political refugees and economic immigrants spontaneously into shelters, for a period of a few years. They collectively stated their claims and achieved their relocation into apartments of the new social housing complex (Fig. 6B) which was built in the place of the demolished prison building, in 1960 (Myofa, 2020). That social housing complex today, is a material trace of this amazing social history and the immaterial palimpsest of this area, the social importance of which is exquisite. Among the inhabitants today, there are still people who have lived part of this remarkable history. *Inside* in that case takes the complex meaning of a twofold metamorphosis: a hostile enclosure (prison) was transformed into a set of provisional shelters, and then into a house complex, essentially homes.

I realised that within this area the palimpsest traces could play a role of connectivity, repairing the urban tissue, now fragmented by linear infrastructures. The majority of the significant historic traces are latent in the area's substratum: both Ilissos riverbeds are at present covered, the Long Walls reach the surface only at a few areas, and Sygrou prison's material traces are also underground. Of course, the layers of significant social history should not be disregarded: they survive within the area's oral history, as embodied and immaterial traces.

Mapping to Represent continuity within the Long Walls Zone

The workshop "Designing Coexistence with the Long Walls on the surface of the city" (13-25 / 9/2021), was realised in the framework of my Postdoctoral Research; I coordinated it under the auspices of the Department of Architecture UTH, and was hosted by the School of Architecture

of NTUA. This workshop was triggered by the realization of the disconnect between contemporary urban functions (city life) and the Long Walls, and my findings on the exceptionally rich archaeological, historical and social palimpsest of the focus area, Tavros (Fig.7).

The learning objectives of this workshop were the following:

- To raise the awareness of young participants about the rich palimpsest of the Long Wall zone and in particular the focus area.
- To cultivate the importance of inclusiveness in reading and in highlighting the palimpsest of the place, the different historical



Fig. 7 - Workshop leaflet, under the auspices of the University of Thessaly, and NTUA./ Image credits: graphic design by Eleni Charcharidou, architect UTH, based on a map by the author.

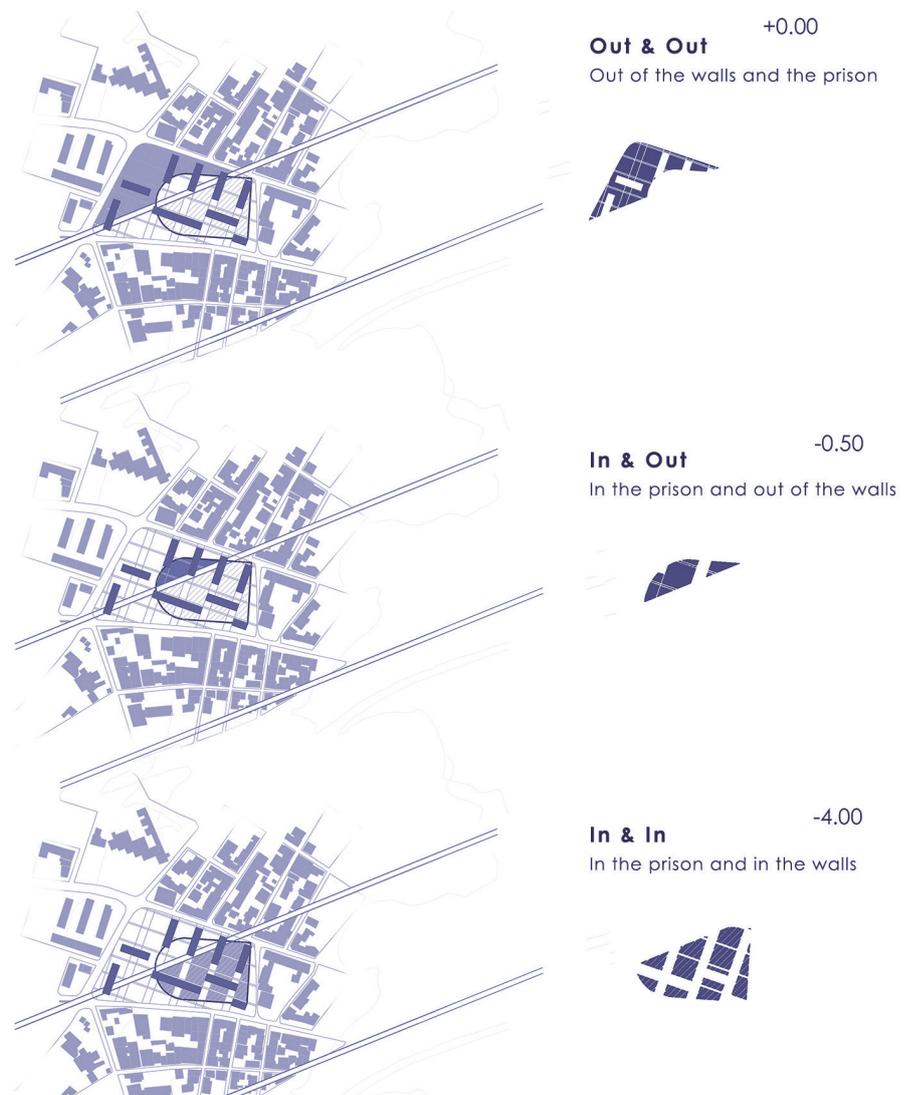


Fig. 8 - Representing outside / inside: Out&Out, Out&In, In&In, structural mapping of the relation between 'inside' and 'outside' in the area of the Northern Long Wall, the Sygrou prison, and the social housing palimpsest. In the context of the workshop "Designing co-existence with the Long Walls on the city surface", organized in collaboration with UTH and NTUA, Students Team: Bagana Sophia, Charbi Argyro, Fotiadou Katerina, Orlis Yannis.

periods, the ancient and the modern history of the place.

- To integrate the experience of space, in reading and highlighting the palimpsest through empirical mapping, and the search for reinterpretations of public space from the traces left or narrated by the inhabitants of the area.

The four teams of students and young architects which took part in the design workshop, were primarily asked to focus on their own subjective mapping of the investigated area. Among the theoretical concepts represented, two are presented here:

- The antithesis of 'inside<>outside' (Fig.8) as it appears among the traces of the Long Walls and the trace of Sygrou prison's circumference, can stand as a base for the further development of a proposal that seeks to unearth and exhibit simultaneously different phases of the area's palimpsest by the tool of digging at different depths.

- Selected layers of the area's palimpsest (Fig. 9) were presented one on the top of the other from the oldest [bottom] to the contemporary (top): Ilissos' historically alternating riverbed, the Long Walls construction - 5thc. BCE, the trainline and Sygrou prison construction - second half of 19th c. CE, the diverting of the Ilissos' riverbed and building of social housing complexes - 20thc. CE, the area at present. It becomes clear that the Long Walls zone initially had been an insert into a rural landscape, while today it is a strip of the urban landscape.

DISCUSSION AND CONCLUSIONS: REPRESENTATIONS OF 'CITY' AND 'NATURE' AND THE LONG WALLS ZONE

It is appealing to suppose that the landscape-image of an open-

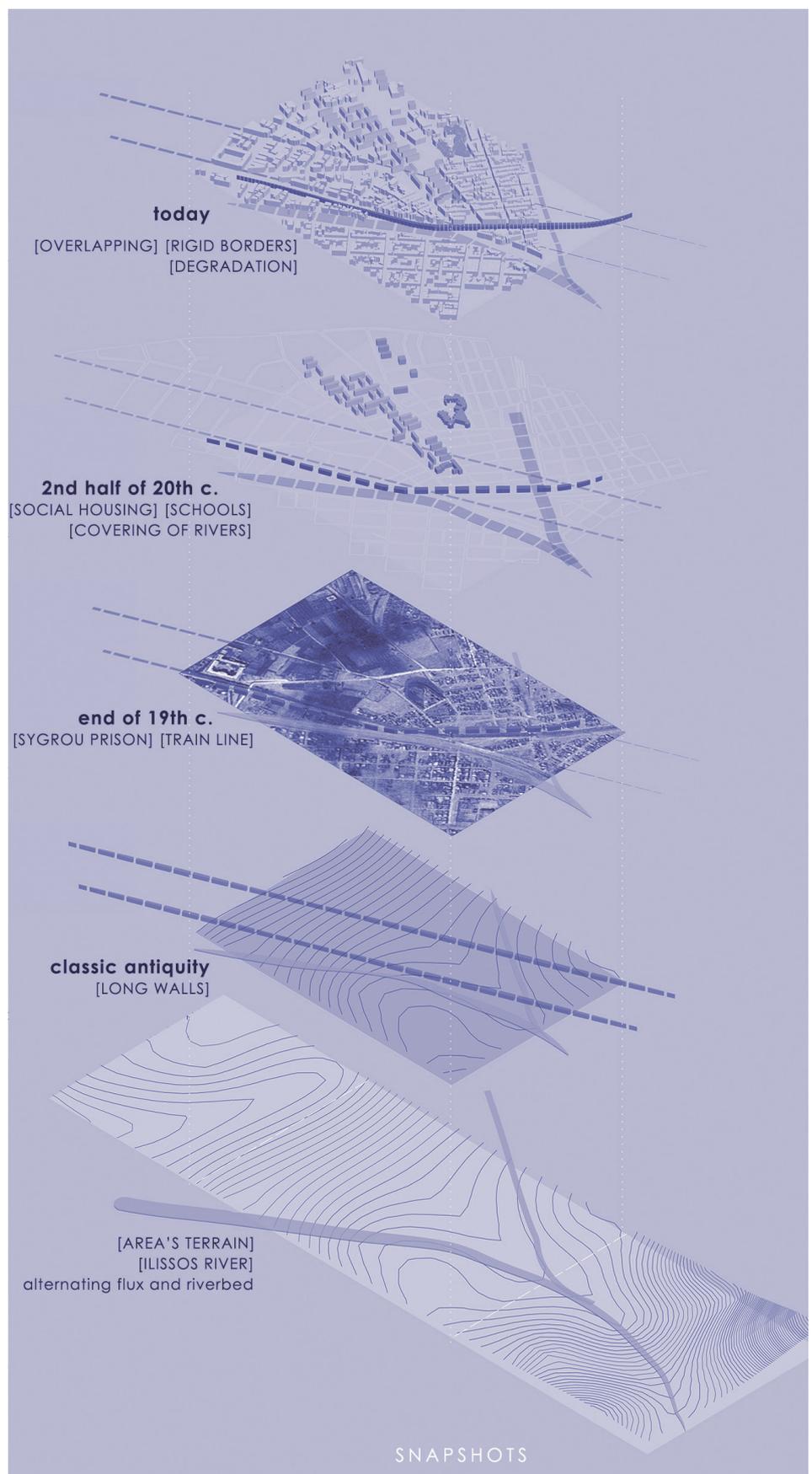


Fig. 9 - Mapping continuity and dis-continuity between 'natural' and 'civic' infrastructures: structural mapping of the relation between the different layers of the landscape's palimpsest, ' in the area of the Northern & Southern Long Walls, the Sygrou prison, the social housing and the riverbed of Ilissos. In the context of the workshop "Designing co-existence with the Long Walls on the city surface", organized in collaboration with UTH and NTUA, Students Team: Kanaraki Eva, Kiouisis Panos, Servetas Adrianos.

yet-secluded city-node, separated from its agricultural and 'natural' environment, and inclusive to a vast network of overseas relations, was a way to represent 'autonomy' in classical antiquity. In our contemporary view, the emphatically pronounced bond between Athens and Piraeus exhibits rather dependence on the network of over-seas trade. Now outdated, yet once possibly exemplary, this concept of 'autonomous Athens' could have functioned as a pre-representation of the Aristotelian understanding of the 'autonomous polis' or polity or city-state¹⁶: "*Hence every city-state exists by nature, inasmuch as the first partnerships so exist; for the city-state (πόλις) is the end [τέλος] of other partnerships, and nature is an end (τέλος), since that which each thing is when its growth is completed (τελεσθείσης) we speak of as being the nature of each thing, [...] Again, the object for which a thing exists, its end, is its chief good. From these things therefore, it is clear that the city-state is a natural growth (των φύσει η πόλις εστί), and that man is by nature a political animal, [...]*" (Aristotle, 1959:9). Aristotle argues that the polity 'is a natural growth', dismantling completely the 'modern' yet now obsolete reading of the antithesis 'city vs nature' which has been dominant in the 20th century. Aristotle presents the urban-and-political context and environment of the polity as the natural environment for political animals, namely citizens, in this case, men; If urbanity is the 'nature' 'of Anthropos, according to Aristotle, what would be a representation of the 'urban nature' in those terms if not an anthropocentric situation? Any strictly anthropogenic ecosystem is dystopic, especially if looked at under the lens of the Anthropocene.

The western theoretical approaches that fuelled an inconsistent antithesis between 'nature' and 'civilisation' or 'culture' for centuries, stand in the opposite way to how Aristotle

defined polity as 'nature'. In the context of modernity, the signifier/term 'nature' was contrasted with 'urbanity' which was again treated as the epitome of civilisation, perceived this time as distinct from nature (Ritter, 2004:np). The dystopic environments potentially produced by the prevalence of this antithesis have been effectively represented in the 20th c. by art/architecture (i.e. "*The Continuous Monument*", 1969, by Superstudio¹⁷) and literature masterpieces such as the novel 'We' by Sergei Zamiatin. Zamiatin immaterially constructs a dystopic totalitarian urban environment, enclosed, and separated from 'nature' a Wall made of green glass. (Zamiatin, 1917/20169) This Green Glass Wall represents the bi-pole urban<>natural, and materializes it as a practically unbreakable, uncrossable boundary. It creates an analogy using material of immaterial massive Walls that segment our perception and the continuity of our inhabited space, like the walls of fortifications.

The projection of Zamiatin's understanding of segmentation to the ancient polis/city, its reading as a distinct, secluded anthropocentric structure and aimed solely for humans - disregarding the conviviality with other forms of life - fauna, flora -, could be argued to represent a structure anticipating the Anthropocene; yet we should not forget that this is an anachronistic perspective which we cast on the classical Long Walls from our present standpoint. The segregation between natural dynamics and urbanity could ideally collapse from within, in the Long Walls zone. Thriving derelict industrial complexes, and also areas where one can see their ancient, excavated foundations among weeds are such manifestations. It seems 'Nature' today has invited itself as an evolving process within the Long Walls zone, inverting the meaning of seclusion¹⁸.

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BIBLIOGRAPHY

- ADELHOVEN Ferdinand. Plan Topographique d' Athenes et de ses environs. [1:20.000]. Athens: Royal Lithographic Inspector, 1837. [accessed from the Historic Archive of Piraeus municipality]
- ARISTOPHANOUS, Acharnes [trans. Elmsley P.] Lipsiae: Sumptibus G. Nauckii, 1830, reached via <https://onlinebooks.library.upenn.edu>
- ARISTOTLE. Politics [trans. Rackham, H.]. Cambridge MA: Harvard University Press, 1959
- BARTOLI Sandra., LINDEN Silvan., WURST Florian. Licht-Luft-Scheisse. Archaeologies of Sustainability, Perspectives on Ecology and Modernity. Hamburg: adocs, 2019.
- BELAVILAS Nikos/ ΜΠΕΛΑΒΙΛΙΑΣ Νίκος, Οδός Πειραιώς [Piraeus Street]. in: Το Τέλος των Γιγάντων. Βιομηχανική Κληρονομιά και Μετασχηματισμοί των Πόλεων, 5η Πανελλήνια Επιστημονική Συνάντηση ΤΙΣΣΗ. Volos 22-25 November 2007
- BIRIS Kostas./ ΜΠΙΡΗΣ Κώστας. Αι Αθήναι, από του 19ου εις τον 20ον Αιώνα. [Athens from the 19th to the 20th Century] Athens: Melissa 2005 [1966]
- CONWELL David H. Connecting a City to the Sea. The History of the Athenian Long Walls. Leiden-Boston: Brill Mnemosyne Supplements, 2008.
- DELEUZE Gilles, GUATTARI Felix. A Thousand Plateaus Capitalism and Schizophrenia. [trans. MASSUMI B.] Minneapolis: University of Minnesota Press, 1987

DOUGHERTY Carol. Ships, walls, men: Classical Athens and the Poetics of Infrastructure. In: *Space, Place and Landscape in Ancient Greek Literature and Culture*. Cambridge University Press, 2014, Pp 130-170.

FRAZER James George. [ed] Pausanias' Description of Greece / Vol 2. Cambridge: Cambridge University Press, 1898/2012.

GOIRAN, Jean-Philippe, and others. Piraeus, the ancient island of Athens: Evidence from Holocene sediments and historical archives. In: *Geology*, 39(6), 2011, 531-534. doi:10.1130/g31818.1

GOLDSTONE Jack A. The Problem of the 'Early Modern' World. In: *Journal of the Economic and Social History of the Orient*. Vol. 41, No3, 1998, pp249-284.

HORDEN Peregrine, PURCELL Nicholas. The Corrupting Sea. A Study of the Mediterranean History. Blackwell Publishing. 2000.

CURTIUS Ernst, KAUPERT Johannes A. Karten Von Attica [commentary by Korres M.] [Berlin 1904] Athens: Melissa Publishing. 2008.

KOUZOUPI Aspasia, Investigating Biodiversity along the Long Walls Zone, Between Athens and Piraeus. Conference Proceedings, 8th Mediterranean Congress of Aesthetics Interim Conference of the International Association for Aesthetics, Athens 2021. (in press)

KOUZOUPI Aspasia, The Concept of Map in the Homeric Odyssey. In: Boundas K., Tentokali V., Architectural and Urban Reflections after Deleuze and Guattri. London, New York: Rowman and Littlefield, 2019. [n.p.]

LIDDELL H., SCOTT R., Μέγα Λεξικόν της Ελληνικής Γλώσσας, [Great Lexicon of the Greek Language] Athens: εκδ. Ιωάννης Σιδέρης, 2007, VOL III pp.228.

MYOFA Nikolina. Neighbourhood of social housing estates in Tavros. In: www.Athenssocialatlas.gr/en/article/social-housing-in-tavros, 2020, [n.p.]

PERTITAKI Maria/ ΠΕΤΡΙΤΑΚΗ Μαρία. Προσπάθεια ανασύνθεσης του αρχαιολογικού τοπίου στην ευρύτερη περιοχή Πειραιά βάσει των νέων ανασκαφικών δεδομένων. [Effort to re-constitute the archaeological landscape in the wider area of Piraeus, based on the new archaeological excavation data] in: ΒΑΣΙΛΟΠΟΥΛΟΥ Β., ΚΑΤΣΑΡΟΥ ΤΖΕΒΕΛΕΚΗ Σ. Από τα Μεσόγεια στον Αργοσαρωνικό/ Β' Εφορεία Κλασικών Αρχαιοτήτων. Το έργο μιας Δεκαετίας 1994-2003 Conference Proceedings, Athens 18-20/12 2003, ΥΠΠΟΑ και Δήμος Μαρκόπουλου Μεσογαίας, 2009. [n.p]

RITTER Joachim. Landscape and the aesthetic appreciation in Modern society. In: KAVVATHAS Dionisis [ed]: Το Τοπίο [The Landscape], Simmel, G., Ritter, J., Gombrich, E.H., Athens.; Potamos publ., 2004, pp. 33-97.

SARIYIANNIS Yiorgos/ ΣΑΡΗΓΙΑΝΝΗΣ Γιώργος. Αθήνα 1830-2000, Εξέλιξη-Πολοδομία-Μεταφορές. [Athens 1830-2000, Evolution, Urbanism, Transportations] Athens: Συμμετρία, 2000

SECCHI Bernardo. Palinsesti Infrastrutturali, [Infrastructural Palimpsests] in: FERLENGE Alberto et al [eds] : L' Architettura del Mondo. Infrastrutture, Mobilità, Nuovi Paesaggi. Minalo: La Triennale Di Milano, Editrice Compositori, 2012, pp. 176-181

SECCHI Bernardo, Progetto di Suolo, [Project of the Ground] in: Casabella, n.520-521, 1986, pp.19-2

STOKMAN Antje "On Designing Infrastructure Systems as Landscape." in: Girot C. et al. [eds] " Topology" / Landscript 3, Berlin: jovis, 2013, pp. 285-311,

TAINTER Joseph. Scale and Metabolism in Ancient Cities. In: HALL Myrna H.P., BALOGH Stephen B. [eds] Understanding Urban Ecology, Cham: Springer, 2019, Pp. 85-99

THUCYDIDES. History of the Peloponnesian War. [trans CRAWLEY R.] New York & London: Dutton & Dent, 1950.

VATAVALI Fereniki, BELAVILAS Nikos, / ΒΑΤΑΒΑΛΗ Φερενίκη, ΜΠΕΛΑΒΙΛΑΣ Νίκος. Ο Μετασχηματισμός της Οδού Πειραιώς. [The Transformation of Piraeus Street]. in: Το Τέλος των Γιγάντων. Βιομηχανική Κληρονομιά και Μετασχηματισμοί των Πόλεων, 5η Πανελλήνια Επισημοτική Συνάντηση ΤΙC C I H. Volos 22-25 November 2007

ZAMIATIN Yevgeny I. We. / Εμεϊς [Κουσκουεράκη Ε./ translation] Athens: Exarcheia, 2016

NOTES

¹CONWELL D. H. (2008): CONNECTING A CITY TO THE SEA. The History of the Athenian Long Walls. Leiden; Boston: Brill Mnemosyne Supplements, pp.203.

²Sterling B, 2009, Do Good Fences Make Good Neighbors? What History Teaches Us about Strategic Barriers and International Security. Georgetown University Press, Washington D.C., pp. 36-37 The Northern Long Wall was ca. 5.94 km long -and built between 462-458 BCE-, the Southern Long Wall 5.98 km long -and built between 446-431-, they were parallel along most of their course, and the in between distance was ca. 183m [Conwell, 2008: 4].

³Microecologies as approached by Horden p., Purcell N. (2000): The Corrupting Sea. A Study of the Mediterranean History. Blackwell Publishing.

⁴Thucydides presents Pericles' Funeral Oration / THUCYDIDES. The History of the Peloponnesian War. [trans. Crawley R.] London: Dent J. M.; New York: E. P. Dutton. 1950.

⁵Goiran, J.-P., Pavlopoulos, K. P., Fouache, E., Triantaphyllou, M., & Etienne, R. (2011). Piraeus, the ancient island of Athens: Evidence from Holocene sediments and historical archives. *Geology*, 39(6), 531-534.

doi:10.1130/g31818.1.

⁶James George Frazer is referring to the "Middle Long Wall" in his commentary on Pausanias.

⁷Mazza L. (2009): Plan and Constitution: Aristotle's Hippodamus: Towards an 'Ostensive' Definition of Spatial Planning, in : *The Town Planning Review* [Liverpool University Press], Vol. 80, No. 2 (2009), pp. 113-141 <https://www.jstor.org/stable/27715094>

⁸The term 'neoteric' is used instead of the terms 'modern' or 'early modern', taking under account that, anticipating the 'modern', the 'early modern' period is attributed ambivalently; the term 'early modern' is usually known as a period between 1400-1800 CE, either refers to the period 1800-1914 CE [Goldstone, 1998]. The term 'neoteric' stems from the ancient Greek verb 'νεωτερίζω', and is interpreted as "to attempt changes, innovation"[Liddell-Scott, 2007] and is used in this article to refer to the period of drastic changes in the new Greek state which followed the Ottoman occupation, that is after 1832.

⁹Cowell, 2008: 191

¹⁰Secchi B. (2012) : "Palinsesti Infrastrutturali", in: Ferlenga A. et al [ed] : L' Architettura del Mondo. Infrastrutture, Mobilità, Nuovi Paesaggi. Minalo: La Triennale Di Milano, Editrice Compositori, pp. 176-181

¹¹Also testified by the map by F. Adlehoven, [1837]

¹²Spon in his 17th century map had noted two paths/roads, under the name "Chemine du Port Lion" and "rue du Piree ou Makri Teichi"; his testimony could be an indication of the diachronic function, in the plain, of the Hamaxitos ancient road Von Attica., first published in Berlin 1904. Athens: Melissa 2008.

¹³A long list of industrial buildings along the Athens-Piraeus Avenue [88 buildings] are considered as monuments, and are protected by law since 1995.

¹⁴At present the Ephorate of Antiquities of Piraeus and Islands is responsible for the 'Long Walls monument' along most of its course.

¹⁵Archizoom Associati , No-Stop City, 1971, project d'Andrea Branzi, video 9min, FRAC -centra Val De Loire.

¹⁶Aristotle, Politics

¹⁷<https://www.moma.org/collection/works/934>

¹⁸Sandra Bartoli [lecture, 13.1.2022] highlighted the quest for the outbursts of 'urban nature' as a tendency within cities which were practically secluded, like West Berlin during the cold war; referring to Wolfram Kunick's mapping of flora societies, which had invaded an enclosed derelict space within the no man's land., [Bartoli et al. 2019]