The duality of the road landscape

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Abstract
The article carries out a brief analysis of the *road area*, defining this term through the notion of *limit* which, seen from another perspective, can turn into a *threshold* - a very important concept in understanding the relationship between the road and the localities around it -, asserting, thus, *the dual nature of the road* and reviews the evolution of infrastructure and road facilities, from old (commercial) routes to contemporary high-speed road networks, focusing on the investigation of *service spaces*, with the aim of showing the fact that roads, through their endowments (or their absence) can act either as elements that *separate* different environments (urban - rural) and *fragment* the landscape, or as elements that *facilitate* connections, the interaction between urban - the road - and rural - the localities they cross - and local development through a fair reporting to the context. Also, the potential of the Japanese concept of *road service stations - michinoeki* - is explored, as a model for the transformation of current (non)road service spaces, from simple temporary stopping points into *multifunctional centers* - and even *development poles* - relevant at the local level, able to positively influence the perception, ambience and relationships between the infrastructure, the driver and the surrounding landscape - the depths of the territory -, supporting the *local economy* and *regional culture* - through the synthesis and integration of the local specificity - and thus emphasizing the importance of an integrated approach for the revitalization and sustainable development of predominantly rural areas. The study may be relevant to architects, urban planners and authorities, as it offers a different perspective on road infrastructure planning and development and proposes, by *redefining* road service spaces, a practical, viable and widely applicable solution to transform roads – especially the high-speed ones -, from *passive* barriers to permeable elements that participate in a real and *active* way in solving problems, development on a multitude of levels and social cohesion of the rural environment crossed.

Keywords: high speed road, service station, limit and threshold, michinoeki and local development, connectivity and perception.

Argument

Road service spaces have been an important resource for roads and localities in their immediate vicinity since ancient times. Like the landscape (context) in which they are inserted, they are in a continuous (transformation) due to the activities and anthropogenic influences exerted on them. Currently, the road landscape is desolate, without identity and is extremely heterogeneous.

This road landscape represents something more than the roadway, together with the adjacent facilities and any protection or safety zones that each road benefits from, which differ from case to case, having a latent potential for development and being able to be an efficient communication space between the road and the nearby localities, i.e. the depths of the rural territory, in most cases.

Most of the time, the limit of the road area is perceived as being strictly the line of separation between the roadway and the element that borders it, i.e. a sidewalk, the shoulder, the ditch, etc. There are, however, situations in which certain roadside spaces have developed to such an extent that they have become merged with the road and have extended and constructively used its influence. These roadside service spaces, called Michinoeki, create connections at the territorial level, between the great mass of localities

– rural, in particular – and urban centers through roads and solve the current problems that plague local communities, in general, which have reached the brink of poverty.

Objectives. Question marks

The main objective of this work is to identify a mechanism for communication and collaboration between high-speed (urban) roads and the majority rural environment (whether we refer to the metropolitan and periurban area of a city or to the purely rural area), with the aim of a balanced development of the two environments - urban and rural.

Question marks:

How can such a roadside service space collaborate with the locality and with the drivers who transit the area ?

What is the influence of roads and the road landscape in the context of spatial, territorial and social development ?

What is the influence of the road landscape and the activities carried out within it on local communities, the metropolitan area and the drivers who transit this landscape ?

Context

I chose to start from the modes of existence "having" and "being", described by Erich Fromm in his book "To Have or to Be?" [1], because they provide a conceptual framework that resonates deeply with the themes of limit, threshold and road landscape. These concepts allow for a more nuanced exploration of the relationship between road infrastructure, landscape and the way we perceive and experience roads.

The "having" mode of existence is associated with accumulation, consumption and functionality. In the road area, this mode manifests itself through the prioritization of efficiency and speed, reflected in high-speed roads and utility service spaces. These elements are conceived as purely economic tools rather than as spaces of exploration, experiential, emphasizing rapid transit and minimizing connections with the landscape and communities traversed.

In contrast, the "being" mode involves an active and relational approach, centered on the experience of the road (the journey and not the destination) and on interaction with the environment. Old roads, historical routes and michinoeki-type service spaces exemplify this mode, offering opportunities for connection with local traditions, culture and economy. They transform the road from a simple transit corridor into an authentic space of relation.

Starting from this perspective, the next section will explore the concept of the road zone, as a limit or threshold, analyzing how road infrastructure influences the relationship between the traveler and the landscape.

1. Road zone – limit or threshold?

"Space-time tells matter how to move, and matter tells space-time how to curve" [2].

The road zone is defined and perceived as a limit, conventional or anthropic (usually manifested by protection zones, fences, walls, etc.), which separates, from a morpho-typological point of view, islands, and, implicitly, plots, on which there is or is not a built-up area. The idea of a limit implies the notion of territorial framing, since at the moment of its establishment, a certain area is fixed in the topological space, which implies the establishment of separation lines at the intersection with neighboring islands and the contouring of its own identity – the initial freedom, contained in itself, within the limits of the outlined space.

Modern (high-speed) roads, oriented towards efficiency and speed, reflect the way of existence of "having". They are perceived as limits – structures that must be quickly overcome in order to reach the destination. In this context, the experience of the road becomes secondary, sacrificed in favor of objective accumulation and possession (goods, time saved, concrete results) and identification with them. The road ceases to be a living space and becomes an instrument of functionality

"Something is insofar as it has a limit. The act of decision is the supreme ontological act. […] **A thing is, absolutely, as long as it persists within its limit, and it ceases to be with the dissolution of it.** A thing is by the identity that its own limit gives it: for thanks to it it is this unmistakable thing, and not another. […] [3, p. 22]."

"**The first limit that makes the existence of freedom possible is the very fact of being**. With the fact that something is, instead of not being, the limit appears as a condition for the manifestation of gravitational freedom, of the freedom that must, in order to manifest itself, depend, hang on something. […] The road that opens to gravitational freedom thus begins with the very fact of being [3, p. 8]."

At the same time, this road area could be better understood if it were compared to a cross-border area, which, in practice, separates some larger "islands", which we call "states". This comparison is important, since it suggests that this limit (border) that is located in the territory can be crossed, a situation in which the limit becomes a threshold, that is, a surface with a transitory character, which encourages interaction with adjacent spaces, first of all, and then with the depths of the territory.

In opposition, the mode of existence of "being" transforms the road into a threshold, an intermediate space with intrinsic value. "Being" on the road means living an authentic experience, where the journey itself has meaning and contributes to personal development. Historical roads or slower secondary roads encourage connection with the landscape, local communities and, ultimately, with one's own being. Thus, the threshold becomes a metaphor for the active and profound relationship established with the environment crossed.

"[…] **decision implies the permanent creation of the boundary, its modulation at the level of freedom**, we can now speak, for the first time, of **a plasticity of the boundary**. […] But this way of being of ours presupposes the fact of being permanently beyond ourselves. We are always ahead of ourselves, we are in the planned step, in the dreamed

form, in the coveted boundary.[…] **The boundary is always to be reached and we go out of ourselves, surpassing ourselves towards a new boundary. We are this mobile identity, caught in the endless race of the "to overcome–to reach" sequences. Therefore, any crossing of the limit is an crossing of us towards ourselves, it is our successive de-definition. Because we are never at rest, because we are always in the project, we are always in another place than the one we are in.** We are the indefinite being that freely defines itself within the range of its unsettledness. We are always in front of the next boundary to be reached, always in front of us, we are ceaselessly taken up in the project. **Any decision, any establishment of a boundary is a taking up in the project. The project is the expression of the plasticity of the boundary** that successively defines us within our destiny as finite conscious beings [3, p. 25]."

Looking back through history, we can see that the ideas of limits and delimitation of space were and still are closely linked to the notion of possession, and any human settlement (located, of course, on the edge of a "road", on water or on land) started from something small and evolved into something increasingly larger and more extensive, which exceeded the initial limits. This (self)exceeding or going beyond the (self)imposed limits is a necessary condition for development.

The road, in essence, has an urban character - especially when we refer to a high-speed road, such as a motorway or even an important boulevard in a large city - and people's attitude towards such a road, in general, if we refer strictly to housing, is to stay away from it, to avoid approaching it, because of the noise and pollution. The limit, in this situation, is a hard one, and being in its presence is only temporary or unlikely. It is the kind of limit that can mutilate the context – when we refer to those who live in its immediate vicinity – but can enhance other activities (economic, social, etc.) if we change the frame of reference. The properties of the limit are relative, depending on the desires and interests of those who combat it. A limit, therefore, can be a threshold for some people, while for others it can be an end of existence or a decline in evolution. Going further with the parallel with the cross-border area, this border line i.e. the highway – or any other road – can imply at a certain level, as happens in the situation of leaving one country and entering another, certain changes and adaptations at the level of the individual's life.

Roads are not only physical structures, but reflect a fundamental tension between "having" and "being". As limits, they compress time, space and the whole of existence, like wormholes in the theory of relativity, reducing everything to an alienating efficiency that fractures the relationship we (still) have with the environment, i.e. the rural environment. As thresholds, however, roads become liminal spaces, places of transition where time and space coexist harmoniously, and the authenticity of experience is central.

"[…] Compared to the history of the life of species, where behind the apparent diversity reigns seriality as the infinite monotony of the pattern, the spectacle of humanity as a history of destinies produces infinite diversity behind the apparent identity. Each destiny is an explosion of novelty that, in itself, is equivalent to the emergence of a species in the general history of life.

As a modality of creatio continua, the space of decision becomes one of surprise and an occasion for endless amazement. Being of decision, man is defined by a boundary that cannot be serialized and that is no longer distributed in the specimens of the species.[…] [3, pp. 24-25].”

Thus, the idea of a limit seen as a border line - a transitory character - indicates that a limit is capable of becoming a threshold and, thereby, stimulating development beyond this imposed limit.

The relationship between the road and the traveler is influenced by the predominant mode of existence. In “having”, the road is a simple means, subordinate to the destination. In “being”, however, the road becomes a living place, a space of creation (of connections) and of profound interactions with the road and off-road landscape, an invitation to discovery and reflection. This duality between the limits of modern roads and the thresholds of historical ones suggests a possible direction of reconciliation between functionality and humanity.

"In the incomprehension of love, I find that my boundary is the lack of boundary, the impossibility of being fixed in a boundary. I go beyond all the elements of the intimate-foreign background, I slide over the determinations that have been given to me and, being free, I stop at the only determination that, being equally given to me, can no longer fix me: freedom. **When I fix myself in freedom, I fix myself in the lack of boundary.** [...] [3, p. 75]."

2. Roadscape

Highway roadside architecture consists of various structures that serve drivers and their vehicles. It is generally associated with road development since the early 20th century, when highways appeared in the United States.

The main resources of the roadscape, which are found on all continents, in one form or another and in monofunctional or reduced-function ensembles, are roadside service spaces (assimilated as rest areas in some countries), which are generally manifested by: parking lots and restrooms, restaurants, car showrooms, functions related to rest and entertainment (the drive-in cinema, specific to the American roadscape, a rare relic reminiscent of mid-20th century entertainment), shops, specialized buildings (car services, gas stations, car washes, logistics spaces, factories, etc.) and accommodation spaces. Along the roads - high-speed -, in addition to the (self-)generated road landscape, one can encounter both plain landscapes and mountain landscapes, cities, but also villages, developed areas, but also less developed or developing areas.

This landscape located on the border line defined above, is a dual one, as it is influenced from two completely different and orthogonal directions, namely, the environment in which it is inserted - which is usually rural and is located on either side of the road - and which it crosses and the urban environment which it largely represents - as a vector or axis of development - and connects it at a territorial level. The two influences exerted on the road landscape depend on things such as the level of local development, the needs of the cities

that are linked to the highway, natural elements, the way in which space is used and resources.

The general approach to dealing with this boundary was one of ignorance and detachment, in that these road service spaces were located in fixed areas (either in open spaces, such as fields or in the proximity of a traffic junction) and their attitude towards the surroundings was that of closure or "turning their backs", avoiding any contact with the locality, therefore, the addressability towards the road was total. Also, the spaces serving the motorway did not take into account either local resources – material, human, etc. – or had in mind a certain long-term development, at the local level. They directly served the road and those who owned and managed them, and indirectly, the global economies of the cities, regions, countries, etc., successfully neglecting the rural environment in which they were located.

Therefore, the highway turned its back on the localities and saw itself as its "road", and the locals, not having the necessary leverage to contribute at least to the creation of such a local service road space, in turn turned their back on the highway and ended up abandoning the land on its edge, using it for agriculture or industry or selling it to people with economic potential who were going to exploit it for their own interests.

If we refer to Romania, for example, to the Bucharest - Ploiești section of the A3 highway (one of the sections of the A3 highway that I am studying in my doctoral thesis), we can observe some more delicate situations in which the communes of Moara Vlăsiei and Gruiu in Ilfov County and the communes of Gherghița, Râfov and Bărcănești in Prahova County are located, where the highway passes through the interior of the communes, separating villages. The reason why the A3 motorway was built in this way is not the subject of this work, but this fact will be useful later. It is also worth mentioning that all the localities in Ilfov County crossed by the A3 motorway are included in the metropolitan area of the municipality of Bucharest.

Currently, worldwide, the treatment of this road area has taken on other forms and nuances, which denote the fact that those involved in the construction of these road service spaces have begun to realize the potential of a possible cooperation between these spaces and neighboring localities and, thus, the roadside landscape – especially of the motorways – has become more diverse and richer in qualitative elements from a spatial and functional point of view that also support a sustainable local development. Unfortunately, at the moment, this is not the case in Romania.

2.1 Road typologies, routes, road spaces (and landscapes): a brief evolution of roadside mobility and services

A particular example of roadside architecture is the gas station, which for decades was a fundamental element of (hypo)rural and (hyper)urban landscapes. As the 20th century saw the democratization of the automobile, the gas station became perhaps one of the most generic universal architectural typologies, which, at the moment, due to people migrating to condensed urban areas, with public transport systems in continuous development and the internal combustion engine evolving towards electric alternatives, is on the verge of crisis,

on the edge between being the subject of interesting conversions or becoming another "ruin of modernity" and an omnipresent relic in the uneasy relationship between urbanism and the automobile [4].

In general, in other parts of the world, approaches to this space on the edge of high-speed roads are similar, with certain differences related to local culture or certain natural elements, such as, for example, the fact that in the Middle East, in countries with a majority Muslim population, this space also benefits from spaces for prayer [5], or the fact that in Australia these spaces are very rare and very often manifest themselves only in the form of a covered space, without toilets or other related functions.

Three areas of the world stand out in terms of the approach to this type of space, namely, the United States of America, northern Europe and the area of Japan. If we refer strictly to the United States, we will be able to observe that in the early stages, this road architecture was found in a vernacular form, but with the development of technologies and business franchising (their global expansion), buildings became standardized and easily recognizable – in certain situations, the point was reached where the function was literally manifested in the image of the architectural object, this being also a form of self-advertising (an incipient manifestation of "advertising" [6] [7] .

In the northern part of Europe we will find a concern for the natural environment [8], since high-speed roads are inserted into the territory in a way that does not attack the landscape, and even from the design phase of these roads the importance of the areas crossed is taken into account, because northern Europeans are concerned with the tourist component by the fact that the highways cross certain places of special quality. This concern also derives from the concern for drivers who travel very long distances, since this diversification of the image along the road in which different landscapes follow each other aims to keep the driver always connected to the road and not let him feel overwhelmed by a visual monotony, to the point where he could fall asleep and, thus, put his life in danger.

The area of Japan is a special one, since the service spaces that serve the roads - from rural roads to high-speed roads -, called Michinoeki, aim not to neglect the place where they are created and contribute to the harmonious local development of the communities affected by them.

If we look a little into history, we can easily find spaces similar to michinoeki. In the past, as it was not possible to travel very long distances without stopping, rest and rest areas combined with a variety of other related services appeared along the roads, designed to create opportunities to interact with the environment and culture of the place.

Human mobility and road infrastructure represent a fundamental dimension of social and economic development, but an exhaustive analysis of roads, routes and service spaces throughout history would require an exploration of the entire history of humanity, which is beyond the scope of this article. However, a brief review of a few illustrative examples from different eras can help to paint a meaningful picture for understanding their evolution, especially in relation to modern road spaces and the concept of michinoeki, explored below.

Roads and staging areas have emerged in response to the needs of transport, trade and communication, reflecting the adaptability and creativity of diverse civilisations. In **prehistory**, roads such as:

- **The Ridgeway in Britain** (c. 3000 BC) - considered the oldest road in Britain, it dates back over 5,000 years and crosses numerous sites from the Neolithic, Bronze Age and Iron Age periods. [9] It was designated a National Trail in 1973 [9] and is part of the National Trails network, covering approximately 140 km and stretching from Overton Hill (near Avebury) to Ivinghoe Beacon (in Buckinghamshire) in southern England. [10] The road follows the ridges of hills, is unpaved and requires minimal maintenance, making it difficult in places due to steep slopes and narrow width. In the past, traders preferred The Ridgeway for the safety of its elevated position, avoiding the more exposed valley roads. [11] In the Iron Age, forts were built along the road to protect the trade route during the decline of the Western Roman Empire, and Saxon and Viking raiders used the route for military movements, and in the Middle Ages, shepherds crossed The Ridgeway with their flocks to reach various fairs [11]. Today, The Ridgeway is frequented by walkers, with some sections allowed to motor vehicles, but these are restricted in the summer months to protect the route, [12] and offers an insight into the ancient history of England, as well as spectacular natural scenery.;

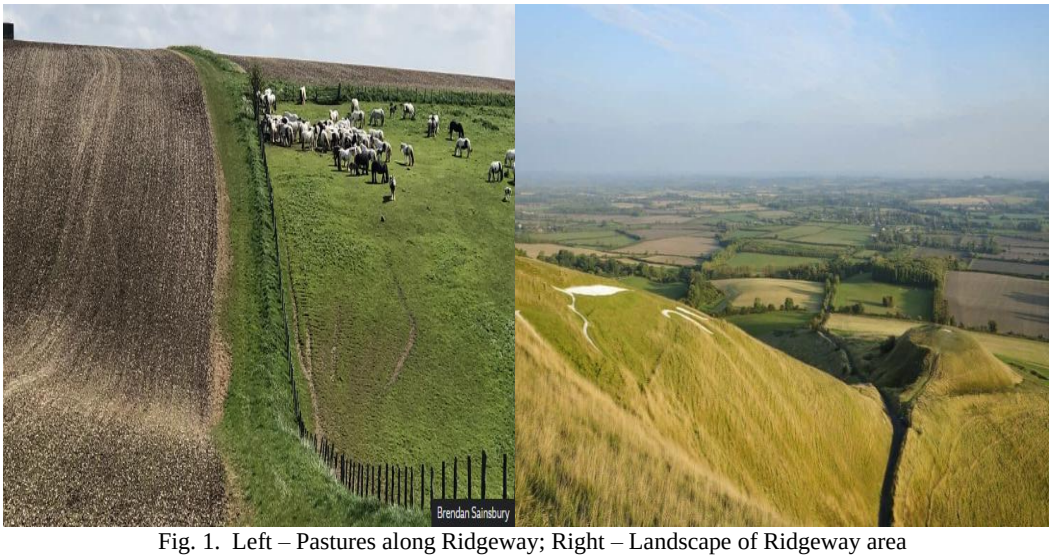

Fig. 1. Left – Pastures along Ridgeway; Right – Landscape of Ridgeway area
Sources: Top left:https://www.bbc.com/travel/article/20240723-the-ridgway-hike-the-5000-year-old-pathway-thats-britains-oldest-road; Top right:https://www.historic-uk.com/HistoryMagazine/DestinationsUK/The-Ridgeway/

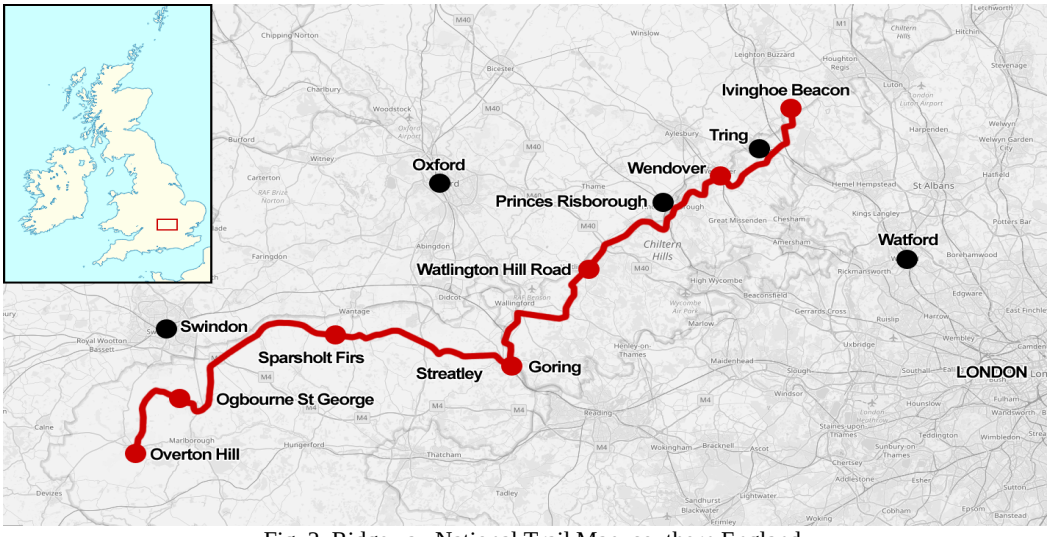

Fig. 2. Ridgeway National Trail Map, southern England
Source: https://en.wikipedia.org/wiki/The_Ridgeway#/media/File:Ridgeway_map.png

- **Widan el-Faras in Egypt** (c. 2600 BCE) - also known as the "road to Giza", is the oldest paved road in the world (approximately 4,500 years old) [13], being built of basalt and sandstone (near the quarry) and of limestone, sandstone and wood slabs (in the other more distant parts) during the Old Kingdom (2700–2200 BCE), when the demand for stone for pyramids and temples was very high [14]. It stretched for about 12 km, was 2 meters wide and connected the basalt quarries at Widan el-Faras ("Mare's Ears") in the northern Faiyum Desert with the shore (in the area of the port of Qasr el-Sagha) of the ancient Lake Moeris (today Lake Qarun, a remnant of it) which provided access to the Nile via the Bahr Youssef Canal, thus facilitating the transport by water of basalt blocks to sites such as the pyramids of Giza, Saqqara and Abu Sir for the construction of sarcophagi and the paving of mortuary temples [14]. Today, along the road, remains of the industrial landscape of ancient Egypt can be observed (basalt quarries, road fragments and vestiges of workers' settlements), a landscape that offers us a remarkable example of Egyptian engineering technologies of that time. -, **the first known paved road** [13].;

Fig. 3. Left – Road to Giza, Egypt, Right – The Pyramids of Giza, Egypt
Left source:https://www.dangerousroads.org/africa/egypt/3765-road-to-giza.html, Right source:https://en.wikipedia.org/wiki/Old_Kingdom_of_Egypt#/media/File:All_Gizah_Pyramids.jpg

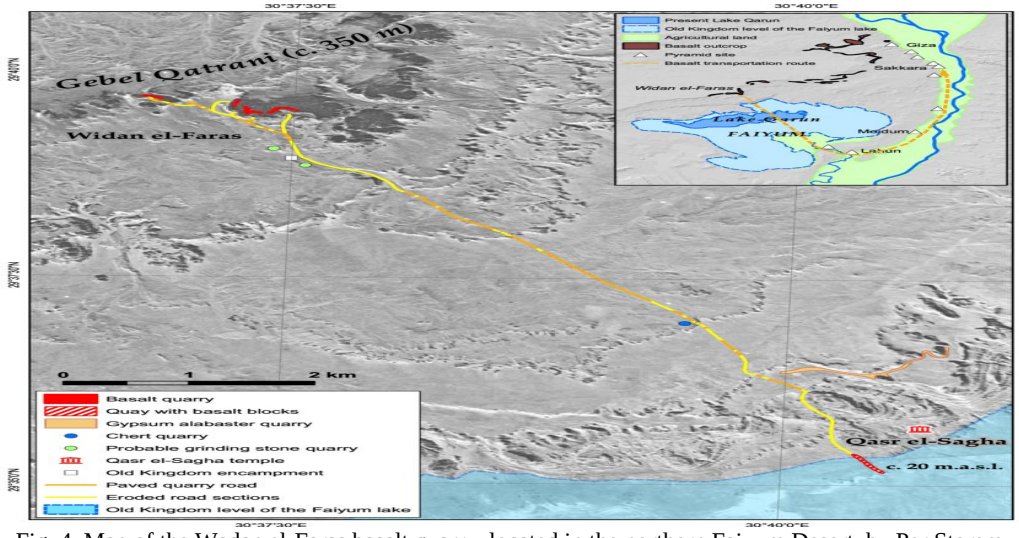

Fig. 4. Map of the Wadan el-Faras basalt quarry, located in the northern Faiyum Desert, by Per Storemyr
Sorce:https://www.researchgate.net/figure/Map-of-the-Widan-el-Faras-basalt-quarry-H2-Old-Kingdom-in-the-northern-Faiyum-showing_fig7_281397894 (Harrell, James & Storemyr, P.. (2009). Ancient Egyptian quarries - an illustrated overview. QuarryScapes: Ancient Stone Quarry Landscapes in the Eastern Mediterranean. 12. 7-50.)

- or **Amber Road** (c. 1900 BCE – c. 300 BCE [15]) - This road was a defining feature of many prehistoric routes connecting northern and southern Europe and was a very important trade route, transporting amber from the area of Sicily to what are now Greece, Spain, Portugal and northern Africa [16]. The trade in Sicilian amber declined at the beginning of the Bronze Age, around 1600 BCE, when amber from the Baltic Sea began to exert its

influence, which by around 1000 BCE had managed to spread to the Iberian Peninsula and then to the Mediterranean and Asia, via the Black Sea and then the Silk Road [17].

During the Roman Empire, this route (the eastern route) exclusively connected the Baltic Sea with the Mediterranean Sea – the Romans, in exchange for amber, animal furs and skins, and honey, offered the Baltic Sea region glass, brass, gold, or non-ferrous metals such as copper or tin. Because it was a busy trade route, Roman fortifications were built along it to protect traders from raids by Germanic tribes. Two other amber routes existed in Europe – the western route and the central route, both considered older than the eastern route – and the place of extraction was on the Jutland peninsula [17]. Currently, along the Baltic coast, from Kaliningrad to Lithuania, there is a route dedicated to tourism, which crosses various points of interest related to the route that appeared in prehistoric times, such as museums or amber processing workshops [18]. There is also a cycle route between Poland (Gdansk) and Croatia (Pula), "EuroVelo9 The Amber Road", which follows the original course of the Amber Road [19].

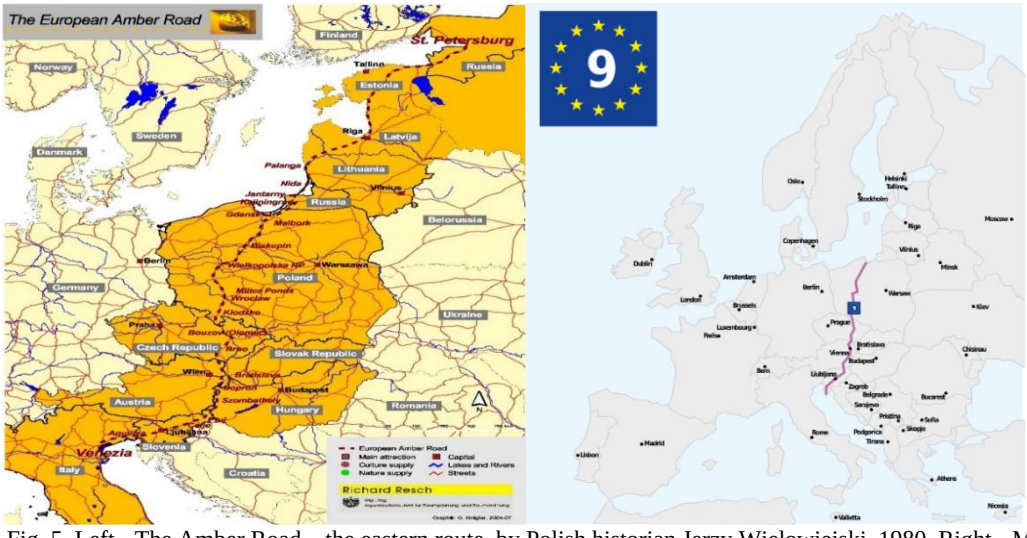

Fig. 5. Left - The Amber Road – the eastern route, by Polish historian Jerzy Wielowiejski, 1980, Right - Map of the EuroVelo9 cycle route
Left source:https://en.wikipedia.org/wiki/Amber_Road#/media/File:Amber_Road.jpg,
Right source:https://en.wikipedia.org/wiki/EV9_The_Amber_Route#/media/File:EuroVelo_Route_9.svg

linked natural resources to emerging centers.

In **England**, the Somerset Levels roads, such as the **Post Track** (3838 BC) - This was located in the Brue valley in the Somerset Levels. It was made of ash planks [20] and was an extension of the Sweet Track, for which it is thought to have served as a building platform [21]. The Post Track was constantly being repaired, suggesting that it was a well-used road [22, p. 236]. - and the **Sweet Track** (3807 BC) - It was built 31 years after the Post Track [23] and is considered the second oldest wooden road discovered in the British Isles, the first being the Post Track [24]. It crossed a former marshland separating an island at Westhay and an area of high ground at Shapwick, extending for about 2000 metres [25]. The builders of this road, which extended from the Post Track, were Neolithic farmers who

had colonized the area around 3900 BCE. [25] They constructed the Sweet Track from X-shaped ash and oak poles partially submerged in water and fixed in the muddy soil [26], over which they laid oak planks 40 cm wide, 3 m long and 5 cm thick [27], suggesting that the road was intended for human use only, not livestock [25]. The planks, which came from trees nearly 400 years old and 1 m in diameter, were cut using only stone axes, wooden wedges and hammers, indicating that the farmers also had good woodworking skills. [25, pp. 4-5] -, demonstrates early attempts to organize mobility, connecting islands and crossing difficult terrain.

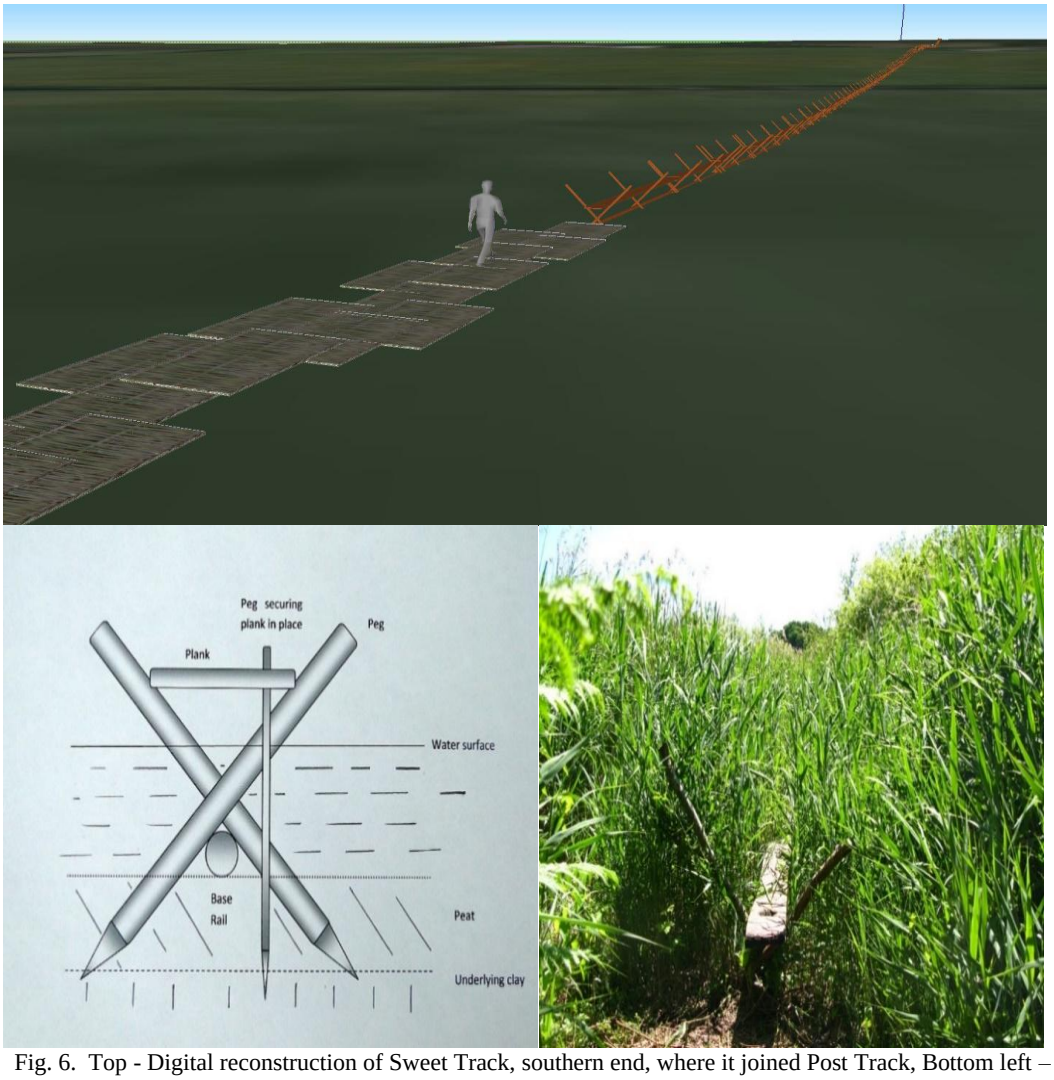

Fig. 6. Top - Digital reconstruction of Sweet Track, southern end, where it joined Post Track, Bottom left – Cross section, Sweet Track, Bottom right - Replica of Sweet Track Above Source:https://en.wikipedia.org/wiki/Sweet_Track#/media/File:Reconstruction_of_the_Sweet_Track.jpg, Bottom left sourcehttps://en.wikipedia.org/wiki/Sweet_Track#/media/File:Sweet_track_cross_section2.jpg, Bottom right sourceshttps://en.wikipedia.org/wiki/Sweet_Track#/media/File:Sweet_Track_replica.jpg

In **ancient times**, the Achaemenid Empire (550–330 BCE – the first Persian Empire founded by Cyrus II the Great) rebuilt and expanded the **Royal Road**. This old road was rebuilt and reorganized by Darius I in the 5th century BCE [28] to facilitate travel within the empire, connecting the cities of Susa (in Iran) and Sardis (in present-day Turkey) [29, p. 96]. This route, Susa – Sardis, was frequently made by messengers (angaros) in the king's service, within the royal institution of messengers called Angarium [30, p. 127]. The king's postal system was very efficient, since the distance of approximately 2700 km was covered on horseback in 9 days, and this was due to the fact that at well-established intervals there were stopping points from which a new, rested messenger always left. [30, p. 127] The approximately 2,700 km (1,700 mi) Royal Road was much more difficult for many ordinary travelers and traders to travel, typically taking months [31]. To facilitate the journey for those setting out on the road, Darius I built a large number of caravanserais during his reign – these later led to the birth of caravan cities such as Palmyra, Dura, and Hatra – and established royal outposts along the road [31].

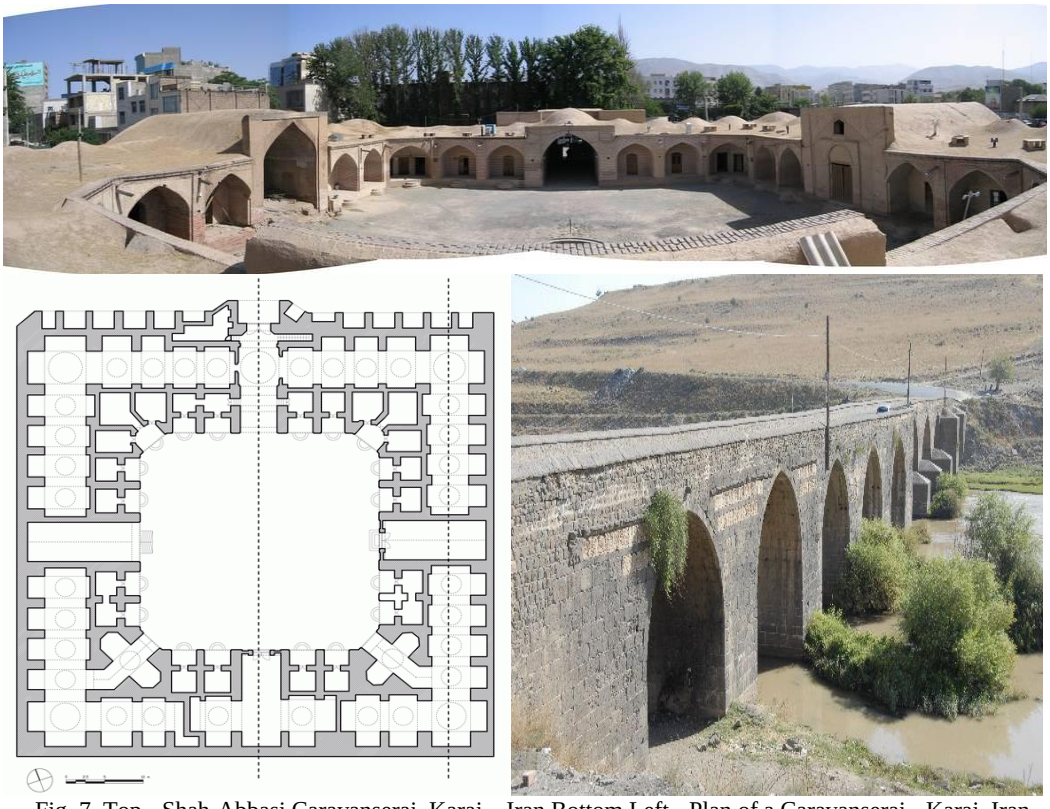

Fig. 7. Top - Shah-Abbasi Caravanserai, Karaj – Iran Bottom Left - Plan of a Caravanserai - Karaj, Iran Bottom Right - Diyarbakir Bridge over the Tigris River
Top source:https://en.wikipedia.org/wiki/Caravanserai#/media/File:Caravansaray_Shah-Abbasi_Karaj_Panorama.jpg, Bottom left source:https://en.wikipedia.org/wiki/Caravanserai#/media/File:Carvansara_plan.png, Bottom right source: https://www.livius.org/pictures/turkey/diyarbakir-amida/the-bridge-of-amida/

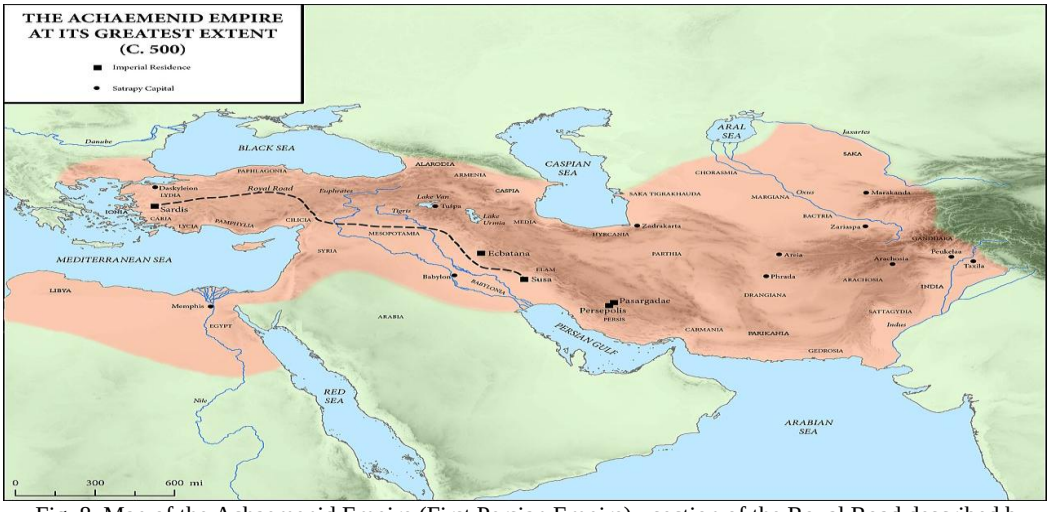

Fig. 8. Map of the Achaemenid Empire (First Persian Empire) - section of the Royal Road described by Herodotus
Source:https://en.wikipedia.org/wiki/Royal_Road#/media/File:Achaemenid_Empire_at_its_greatest_extent_according_to_Oxford_Atlas_of_World_History_2002.jpg

The route of the road has been reconstructed based on the writings of Herodotus and archaeological research. [32] It is assumed that somewhere near Babylon, the Royal Road split into two sections: one that ran east to the cities of Susa, Persepolis and the Zagros Mountains, and one that ran northeast to the city of Ecbatana and then connected with the Silk Road - many parts of this section overlapped with the Silk Road - and, implicitly, with Central Asia. This section was called the Great Khurasan Road [32]. The Khurasan Road was a Bronze Age road that initially operated between 2300 and 1700 BC and connected Mesopotamia with Iran and, later, with Central Asia (China) [33]; it was later relevant between the 8th and 16th centuries for the Abbasid Caliphate, which had its capital in Baghdad [34, p. 9]. It is important to note that, at least on the Khurasan Road section, there were actually two roads, one for caravans and one for mail, so that royal messengers would not be delayed [34, p. 430]. The quality of the Persian road was very high, as it was used even in the times of the Roman Empire, and traces of this important road from Antiquity can still be seen today in Turkey – the Diyarbakir Bridge[35].

The Roman civilization was the first to conceive the systematic construction of roads from its very beginning, creating an extensive network that has survived to the present day. This achievement was possible due to the well-structured administrative organization in the provinces of the empire. Roman roads facilitated trade, the development of cities and the consolidation of the Roman state, connecting vast regions, from the Sahara to Asia Minor, Greece, the Balkans, Germany, Gaul, Italy and Hispania [36]. Many roads were built and maintained by private initiative, and the Roman Legions were frequently involved in their construction, both for military access and for the transport of supplies and equipment (forts being among the first stopping and resting places on the side of Roman roads) [36]. Some notable examples of roads include:

- Via Appia (312 BC), nicknamed the "Queen of Roads", connected Rome to Brindisi;
- Via Domitia (118 BC), the first Roman road in Gaul, connecting Italy to Spain;

- Via Egnatia (146 BC), connected the Adriatic coast to Byzantium, integrating east-west trade routes;
- Via Augusta (13–12 BC), the longest Roman road in Spain, used for trade and military control.

The Roman road network was supported by various **road spaces**:

- **Taverns** (tabernae) and **thermopolia** – **commercial and food spaces**. Within the cities, on the ground floor of the houses of the wealthiest (domus) [37] and on the ground floor of the islands (insulae) – the equivalent of today's collective housing, which appeared in the imperial period, when the population grew greatly - islands where the lower class (plebeians) and the middle class [38] lived (equites – they were part of the Roman equestrian order and later became representatives of the administrative and political classes) [39], there were usually commercial spaces and craft workshops where blacksmiths, carpenters, potters, barbers, tailors, butchers, fishermen, etc. worked. A separate space, which also dealt with the food part, is the tavern (tabernae).

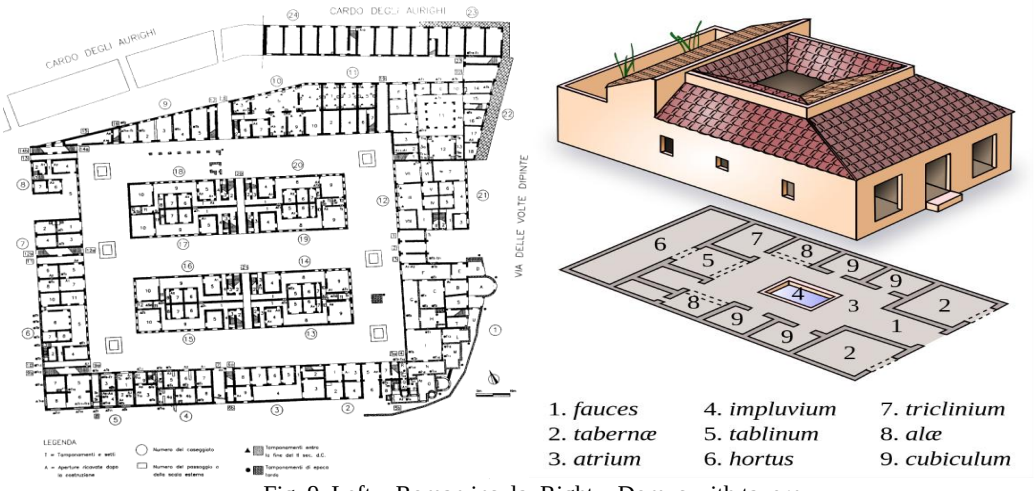

Fig. 9. Left – Roman insula, Right – Domus with tavern
Left source:http://www.ostia-antica.org/regio3/9/9.gif, Right source:https://en.wikipedia.org/wiki/Taberna

Taverns are a clear and enduring manifestation of ancient commerce.

Archaeologists, examining sites such as Pompeii, Ostia, and Herculaneum, have noted that they could accommodate a wide variety of activities [40]. Literary and legal evidence also highlights an important characteristic of tabernae: their flexibility. This has made the translation of the word "tabernae" difficult – for example, the English word "shop" fails to be as comprehensive as the Latin term, which is capable of encompassing so many activities, such as hosting retail stores, craft workshops, offices, banks, barbershops, medical offices, premises supplying food and drink to bakeries, butchers, fishmongers, bars, and inns [40]. Some of those involved in the supply of luxury goods, such as jewelers and booksellers, were also based in tabernae [40]. Furthermore, although their function was primarily commercial, many of these establishments also had a residential function [40].

As a precursor to public catering establishments, the most widespread activity in a tavern was that of a bar, restaurant or even fast food and was supported by the existence of a **popinae**, which was a counter, usually L-shaped, with a stone top [41, p. 374]. On this top were circular cavities, called "**dolia**", covered with various lids and in which were placed containers of food or drinks - these could be heated, if necessary, thanks to small ovens located just below them [41, p. 374].

Fig. 10. Left - Tavern with popinae, Right – Thermopolium of Vetutius Placidus, Pompeii
Left source:https://www.youtube.com/watch?v=v5Qz00eUF5Q&t=250s&ab_channel=Invicta,
Right source:https://penelope.uchicago.edu/~grout/encyclopaedia_romana/wine/thermopolium.html

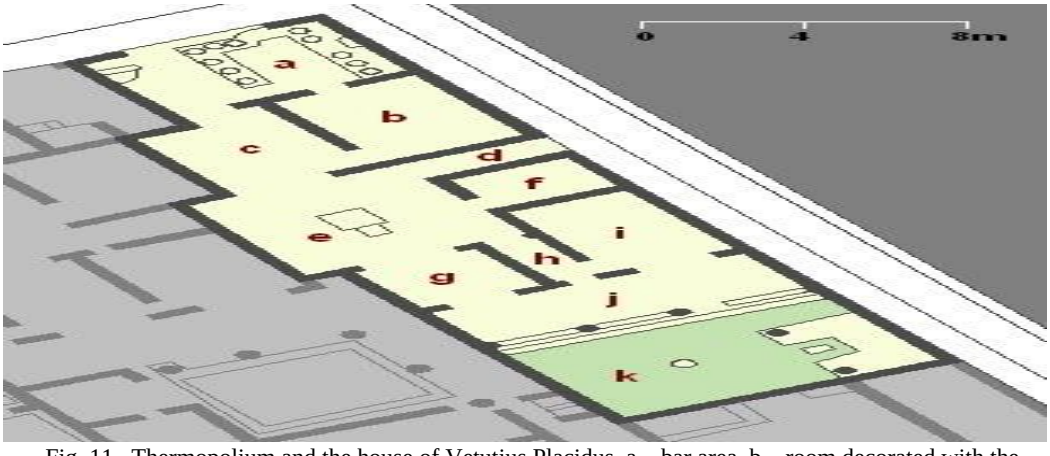

Fig. 11. Thermopolium and the house of Vetutius Placidus, a – bar area, b – room decorated with the lararium, c – oecus (the main living room of a Greek house, introduced into Roman architecture together with the peristyle; often also serving as a dining area), d – fauces (entrance passage or vestibule generally leading to the atrium), e – atrium with an impluvium (pool of water) in its center and a compluvium (hollow) at roof level, f – cubiculum (bedroom), g – tablinum (the central room at the end of the atrium of a Roman house; originally used as a master bedroom and later as a storage space), h- andron (access corridor; usually the corridor connecting the atrium to the peristyle in a Roman house), i – triclinum (the dining room of a Roman house, so named because of the three "klinai" banqueting couches arranged around the walls), j – portico, k – garden
Source:https://sites.google.com/site/ad79eruption/pompeii/regio-i/reg-i-ins-8/thermopolium-of-vetutius-placidus

In some texts in Latin literature, the word **popinae** is **synonymous with the terms cauponae, hospitia or stabula**, but **archaeologists** usually use **the term thermopolium** (plural thermopolia; Greek thermopōlion) [42] which designated "a place where something hot was sold" - customers could also take food to go [43]. These places were frequented by those who could not afford their own kitchen, more precisely, by the poorest, who lived in insulae [38]. It was also a place much sought after by thieves or people with various vices (alcohol, gambling, prostitution) [41], as the Roman playwright Plautus writes in his works Curculio and Trinummus [44].

Janet DeLaine, a Roman archaeologist and professor of Roman Archaeology at Oxford University, distinguishes **four types of taverns** at Ostia, referring to their location: **1)** taverns located along the main roads, **2)** taverns attached to public buildings, **3)** taverns located along secondary roads, **4)** taverns created in squares or bazaars [45] .

Tabernae were usually found in cities, but also on the roads between them (as an alternative to cauponae and mansio, for the Roman plebeians) and represented the fundamental component of the Roman commercial system. The key to the popularity of this structure was its flexibility. Taverns could be adapted and used for almost any function desired by the owner or tenant [40, p. 158];

Fig. 12. Left - Row of taverns, Via della Fortuna, Pompeii, Right - Plan of Ostia - end of the Republic, taverns along the castrum wall and predecessors of Hortensius' Horreum
Left source: Claire Holleran, Shopping in Ancient Rome - The Retail Trade in the Late Republic and the Principate, p.100, Right source:https://www.romanports.org/en/articles/human-interest/687-tabernae-at-ostia.html

- **Cauponae – the Roman inn**. Roman inns were located along major roads, as we can learn from the description of the road between Rome and Brundisium by the Roman poet Horace [46] in his sermons [47]. These were also known as taberna diversoria, diversorium or deversorium [46] and also benefited from the existence of a popina (thermopolium) – the difference between the cauponae and a regular tavern was that the former also had

accommodation rooms; it is true that there were also taverns with sleeping rooms, but these were not so common – the accommodation spaces were generally rooms of the house (domus, villa, villa rustica) that housed the tavern [46]. More information on this subject can be found in this source [48].;

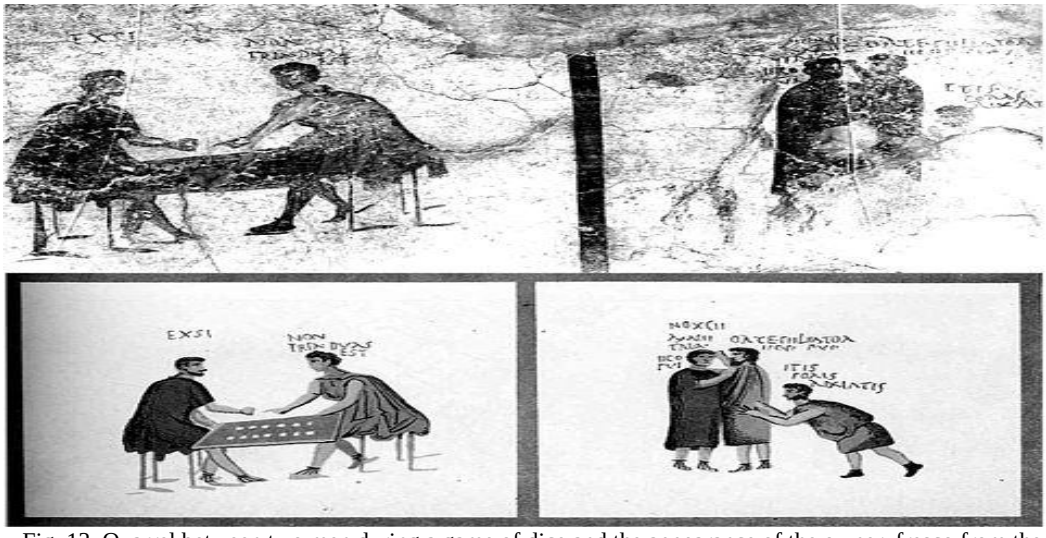

Fig. 13. Quarrel between two men during a game of dice and the appearance of the owner, fresco from the Caupona of Salvius, Pompeii
Source:https://historyandarchaeologyonline.com/ancient-roman-inns-and-hotels-history-and-archaeology-online/

• **Hospitium** (pl. Hospitium / Hospitia) **– Roman hotel**; The hospitium originally appeared in private homes, and over time it became exclusively commercial, with houses being converted to provide food, drink and accommodation for guests [49]. Consequently, many of these hospitia began to offer private dining rooms, triclinium (the dining room of a Roman house, so named because of the three banqueting couches "klinai" arranged around the walls) and atriums [49]. The smallest and simplest, with a central bar area (popinae) and resembling inns (cauponae) and often offering sleeping quarters elsewhere. An important hospitium was the house of Sallust, an old Samnite-style house converted from a private residence into a hotel during the reign of Augustus. [49];

Fig. 14. The House of Sallust by Josef Theodor Hansen, 1886
Source:https://historyandarchaeologyonline.com/ancient-roman-inns-and-hotels-history-and-archaeology-online/

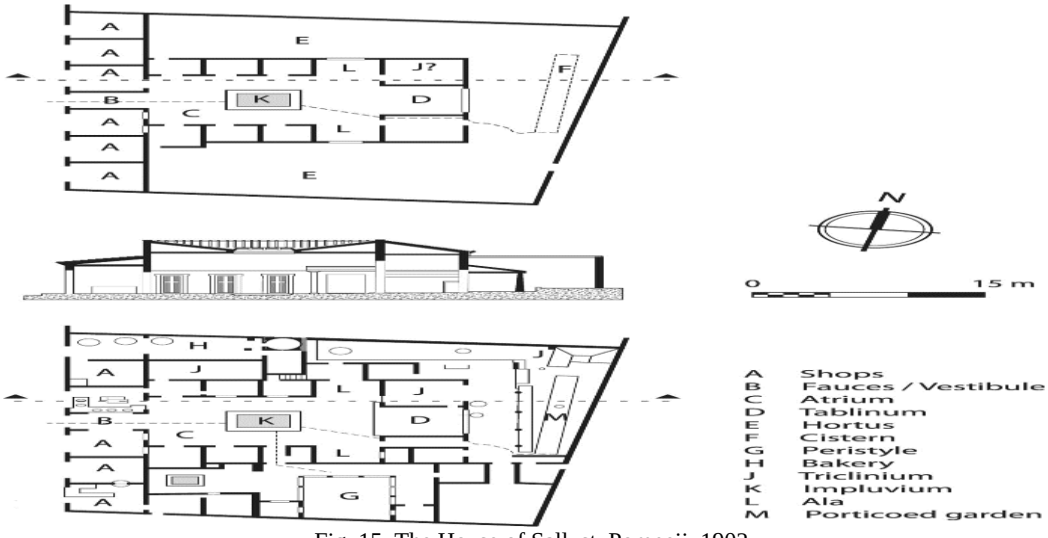

Fig. 15. The House of Sallust, Pompeii, 1902
Source:https://static.cambridge.org/binary/version/id/urn:cambridge.org:id:binary:20190806050935696-0565:9780511979743:47071fig5_3.png?pub-status=live

• **Mansio** (pl. Mansiones) – **accommodation spaces controlled by the Roman administration**, with guaranteed comfort for those with special permission [36]; the term comes from the Latin mansus and means "to remain" or "to stay", and the buildings resembled a villa and often represented an important stopover for diplomats [50, pp. 272-273]. They were usually located at intervals of 25-30 km [50, pp. 272-273].;
• **Stabula** (pl. Stabulae) – **the Roman motel** that was located at the entrance to cities and towns. In addition to the hospitium, it offered the possibility of sheltering the animals with which the Romans traveled, with a ramp towards the street to allow access for animals and

chariots [49]. The animals were kept in stables located behind the motel, generally in a courtyard to which the kitchens and bathrooms opened, and the guests were accommodated in the rooms in front or in rooms located above the stables [49];
• **Mutatio** (pl. Mutationes) – a stopping point that offered passers-by the opportunity to exchange their tired horses for more rested ones, used within the postal system (cursus publicus) [51, p. 234] established by the emperor Octavian Augustus [52, pp. 661-663]. Most of the time, these stopping points were also accompanied by a tavern [53].

Fig. 16. Roman horse changing station – Mutatio
Source:https://commons.wikimedia.org/wiki/File:Roman_horse_changing_stations_(mutationes)_at_Lithohori,_Kavala_2.jpg

In **Asia**, road networks were equally complex. In **China, the Shudao** (4th century BCE) connected Sichuan with the central regions, using suspension bridges and tunnels [54]. The Han Dynasty (202 BCE–220 CE) developed the **Imperial Road**, supported by **post stations** (yizhan) [55].

In **Japan**, the **Gokishichido** network (7th century CE) organized national roads. This **governmental system** - borrowed from the Chinese - consisted of **five provinces** in the Kinai region - the region where the capital, Nara and Heian-kyo, part of modern Kyoto, was located at the time - **and seven do** i.e. circuits which in turn contained other provinces, as well as the roads that crossed them and connected the imperial capital with the provincial capitals [56, p. 255]. An important example of an administrative unit - from the Asuka period (c. 538–710 AD) - in this system was the Tosando Circuit [57, p. 83], - also known as the "Eastern Mountain Circuit" - which developed along the central mountains of northern Honshu [58, p. 57], mainly in the Tohoku region. Although these units did not survive beyond the Muromachi period (14th–16th centuries), they continued to exist as geographical entities until the 19th century [58, p. 57].

Also in Japan, but somewhat later, during **the Edo period** (17th-19th centuries), five important arteries were created – the most important being the Tokaido and Nakasendo -,

called **Gokaido**, along which rest and service stations for travelers were built, called **shukuba**, where they could stay, obtain local and regional information, sell or buy local goods – food, tea, etc. - and take care of their horses [59].

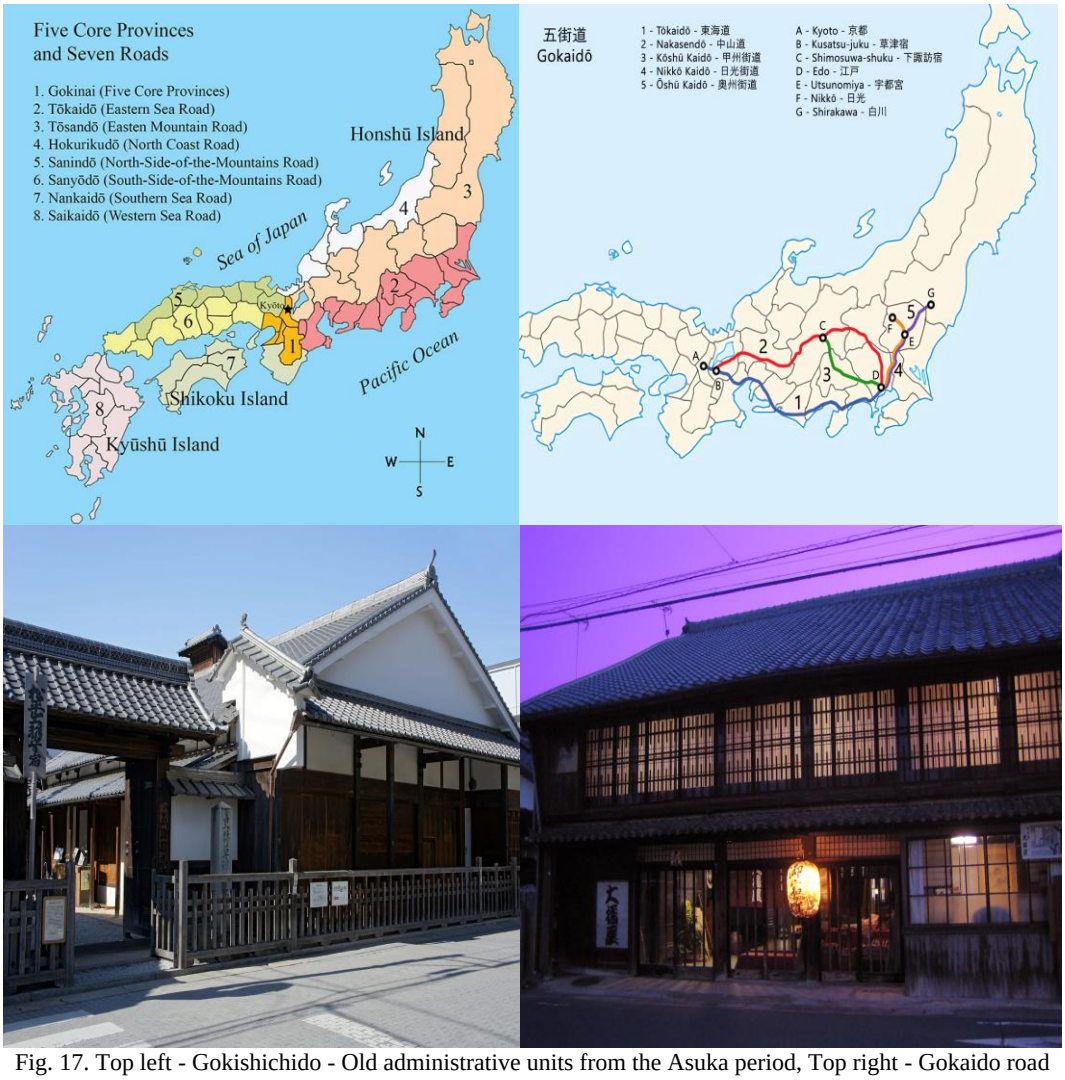

Fig. 17. Top left - Gokishichido - Old administrative units from the Asuka period, Top right - Gokaido road network, Bottom left - Kusatsu-juku (honjin), Bottom right - Akasaka-juku (hatago)
Top left sourcehttps://denniskawaharada.wordpress.com/hiroshige-famous-places-1/,
Top right source:https://en.wikipedia.org/wiki/Edo_Five_Routes,
Bottom left source?https://en.wikipedia.org/wiki/Kusatsu-juku,
Bottom right source:https://en.wikipedia.org/wiki/Akasaka-juku_(T%C5%8Dkaid%C5%8D)

In **the Middle Ages**, **the Hanseatic League roads** (13th–17th centuries) supported maritime and land trade **in Northern Europe**. [60] Around the same time, **the Camino de Santiago** (9th century–present) became **a network of important pilgrimage routes** – with **accommodation facilities** called **albergues** along it in the Iberian Peninsula [61] –, with

the destination being the tomb of the Apostle James the Greater in the cathedral of Santiago de Compostela in Spain.

The Silk Road was also a very important route for **Europe and East Asia**, as were the **trans-Saharan routes in Africa**, as important stopovers appeared along them, such as **caravanserais**, fondouks - a type of caravanserai that existed in North Africa and the Middle East, which had accommodation and storage spaces [62] - **or ribats - small fortifications built along the Arab borders during the Muslim conquest of the Maghreb and which later also became caravanserai, also contributing to the protection of trade routes** [63] - which combined commercial and defensive functions and were usually located around natural elements. These, over time, evolved into human settlements - for example, **caravan cities**, such as Palmyra or Hatra - which connected with the existing ones and contributed to the economic and cultural development of the regions influenced by them.

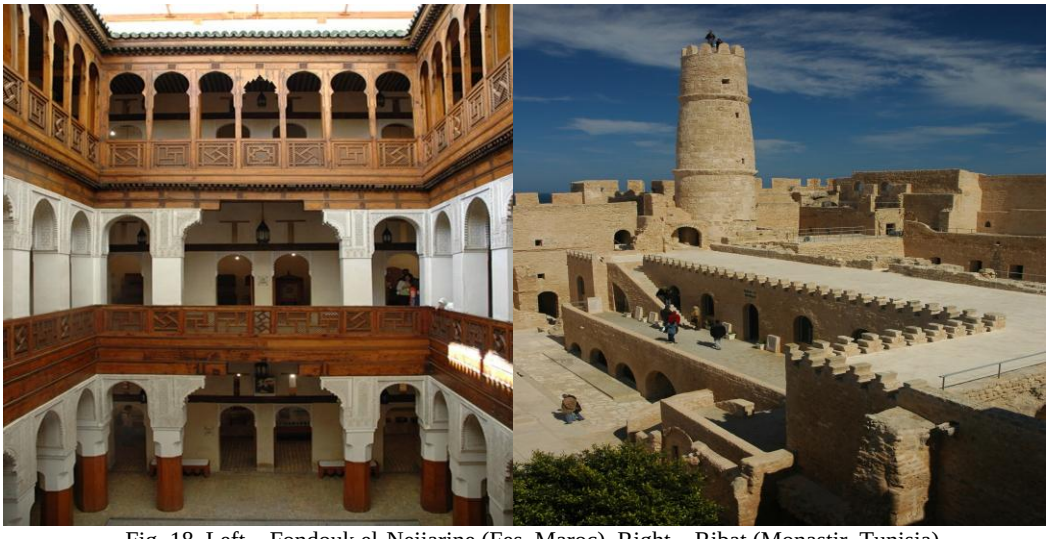

Fig. 18. Left – Fondouk el-Nejjarine (Fes, Maroc), Right – Ribat (Monastir, Tunisia)
Left source:https://en.wikipedia.org/wiki/Funduq_al-Najjarin,
Right source:https://en.wikipedia.org/wiki/Ribat

In **Central America, the Mayan roads (sacbeob)** of the pre-Columbian period – mainly, they were roads with quite large variable widths, reaching even 10m [64], elevated pedestrian paths (white, due to the use of limestone and sascab i.e. limestone dust [65]), because the Mayans did not have vehicles or draft animals, but they could also be transformed into various public spaces with different religious, social, political or economic [66] meanings [67] – **connected the cities of the Mirador basin** [67].

Fig. 19. A sacbe - View from the north of Chichén Itzá, Tatiana Proskouriakoff, 1946
Source:https://arqueologiamexicana.mx/mexico-antiguo/chichen-itza-yucatan

The Inca Qhapaq Ñan road network (15th–16th centuries) in **South America** – the "Royal Road" in Quechua [68] – was the largest and most advanced transport system in pre-Columbian South America, stretching some 40,000 km [69, p. 242]. These roads carried information, goods, soldiers and people throughout the empire, which covered 2 million km² [70] and was home to around 12 million people [71]. The entire network had several types of stopping points along its length: exchange stations for couriers (**chasquis**), stopping stations (**tambos**) at distances of a day's journey for travelers and llama herds to rest, administrative centres (**qullqas**) for the redistribution of goods, and fortresses (**pukaras**) at the borders and in newly conquered areas [68], all of which facilitated the transport and administration of the empire.

Fig. 20. Left – Andean Road System - Monumental Archaeological Zone of Aypate, Right - Andean Road System - Section of the Inca Trail in the Huanuco Pampa - Huamachuco area. Cobblestone road near Ushnu in Soledad de Tambo, Ancash.
Source:https://whc.unesco.org/include/tool_image_bootstrap.cfm?id=209592&gallery=site&id_site=1459

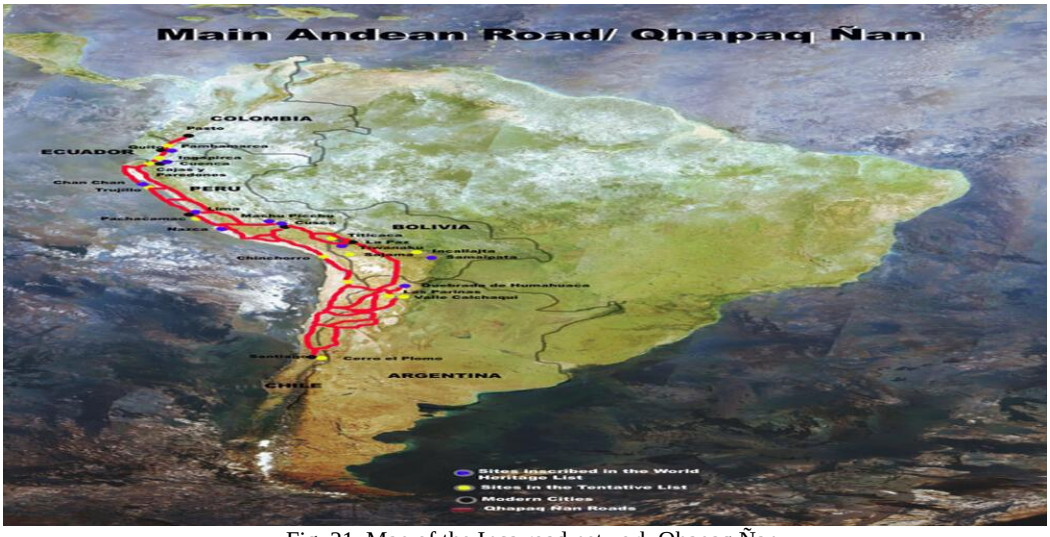

Fig. 21. Map of the Inca road network Qhapaq Ñan
Source:https://whc.unesco.org/en/qhapaqnan/

The modern era brought a diversification of service spaces. During **the colonial period, the Camino Real de Tierra Adentro** (16th–19th centuries) – also known as the Royal Road of the Interior or the Silver Route, was an active trade route for 300 years (16th–19th centuries), stretching 2,600 km (from Mexico City to Texas and New Mexico, USA) and used mainly to transport silver from the mines of Zacatecas, Guanajuato and San Luis Potosí and mercury imported from Europe [72]. Although it had important commercial significance, it also promoted cultural, social and religious ties between Spanish and Amerindian cultures [72]. **- linked Mexico to the southwestern United States**, supporting mainly trade and administration.

Fig. 22. El Camino Real de Tierra Adentro Map – National Park Service USA
Source: https://www.nps.gov/elca/planyourvisit/upload/ELCA_map.jpg

In **North America, the expansion of the frontier into the "Wild West"**—and its constant mobility—was supported by **waystations** and **trading posts**, which provided supplies and safety for travelers and played a major role in supporting the regional economy. [73] Later, with the popularization of the automobile—with its own separate problematic—**Route 66** (1926–1985) became a **symbol of modern mobility and American (road) culture**. [74] The stopping places along this route included gas stations, restaurants, and various souvenir shops, anticipating, to a small extent, certain cultural and economic elements found in the Michinoeki model.

In **Australia**, **the Cobb and Co stagecoach routes** (19th century) – an Australian stagecoach company founded in 1853 by the American Freeman Cobb and his partners, became famous in the 19th century for transporting passengers and mail to the goldfields and various remote areas of Australia [75]. There were stagecoach stops along the routes – often located within inns or hotels – where Cobb and Co would change horses every 10–15 miles, and as the railways began to expand, Cobb & Co stagecoach routes began to operate on secondary routes, synchronised with the train timetables [76, pp. 61-63]. - had organised stopping points, similar to those on **The Old Great North Road** – built by people who had been convicted in the 18th–19th centuries by the British penal system and sent to various colonies in Australia – which connected the early colonies [77].

Fig. 23. Road versus Rail, Cooper-Henderson, c1843 – Passengers of a stagecoach look into the distance at a railway accident
Source:https://greatnorthroad.co.uk/stage-coach-history

In **Europe**, **coaching inns** (15th–18th centuries) in **Britain** – which served, among other things, **The Great North Road**, which **linked England to Scotland** [78] – and similar **inns supported stagecoach transport** [78], while the **Thurn und Taxis family** developed an extensive network of **post stations** (16th–18th centuries) **in the Holy Roman Empire** [79].

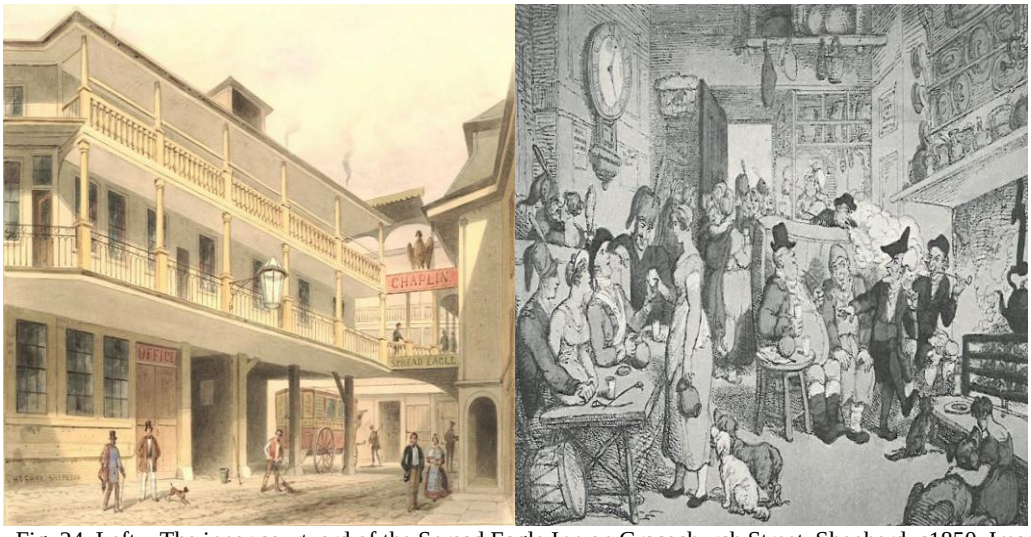

Fig. 24. Left – The inner courtyard of the Spread Eagle Inn on Gracechurch Street, Shepherd, c1850. Image credit: British Museum, CC BY-NC-SA 4.0, Right – The kitchen of an inn in the late 18th century – Thomas Rowlandson
Left source: https://greatnorthroad.co.uk/stage-coach-history,
Right source: https://greatnorthroad.co.uk/coaching-inns

Currently – high-speed roads

In the case of Romania - at least -, the facilities on the side of the highways are missing (depending on the highway we are referring to - for example, the section of the A3 highway, Bucharest - Ploiești is in such a situation) or they manifest themselves in the form of gas stations, logistics spaces, shopping centers and rest areas (parking lots and restrooms).

Fig. 25. Part of the Bucharest metropolitan area - A3 highway, Pipera area
Source: personal archive

Fig. 26. Left - A43 Highway, Germany, Right - A22 Highway, Italy
Left source:https://structurae.net/de/medien/394947-autobahn-a-43-deutschland,
Right source:https://structurae.net/de/medien/366087-autobahn-a-22-italien

The construction of highways is a consequence of urban expansion and the growing needs of cities. This continuous growth also affects suburban (metropolitan) areas, which also tend to become increasingly dense.

The automobile is a corrosive agent that acts on the entire society and its effects are reflected, especially, in the field of urban planning and architecture, introducing the notion of mobility in the rural environment [80, p. 9] and generating traffic (and, implicitly, congestion) and pollution (through the huge number of cars that almost stand still in the city, moving at extremely low speeds. Several of the solutions are already being implemented, designed to bring pedestrians and public transport back to the forefront.

The motorway makes distances closer. This reduction in distances – which represents a geographical and temporal contraction – has important economic consequences, because it is a denial of space [81, p. 149], and the rural territory between cities risks losing all significance in favor of the idea of gaining time or not wasting it. The desire for movement (mobility for territorial connection) and ever-increasing speed has generated high-speed roads (motorways), non-spaces that seem to have become more important than the space (landscape) itself. The motorway, in itself, has no value, but the (aggressive) speed it can reach the automobile.

At the same time, the (geographical) contraction of the rural environment – not only in the sense of depopulation, but also of proximity through the apparent reduction of distance through increasing travel speed (temporal contraction) – makes it seem closer than ever, although it is at a reasonable distance from the city, it is easily accessible and all its wounds can be seen.

Also, Paul Virilio's observation in his work, Speed and Politics, that, with increasing speed, freedom decreases, is still very relevant [81, p. 158]. Practically, this inversely proportional relationship is valid for anyone – the faster the speed of daily activities increases, the more we risk short-circuiting moments that detached us from them, such as the journey from home to the office, for example. In other words, we become tributaries to an agonizing repetitive cycle that even affects our health.

This brief overview of roads and service spaces highlights their diversity and adaptability over time. They reflect the transition from basic necessities to structures that integrate social, economic, and cultural functions, paving the way for modern concepts such as Michinoeki, discussed in the next section.

2.2 The Concept of "Michinoeki"

A more advanced form of roadside service station is found in Japan. According to the official website [82], Michi-no-Eki means "road station" in Japanese. This system of roadside service stations was started about 30 years ago - as part of a government initiative to promote local tourism - and aims to create a safe and comfortable road environment, with spaces that aim to reveal the particularities of the place in which they are inserted (locality, region). [82] They are located along national roads and highways and offer parking, toilets, regional and tourist information for drivers. There are currently over 1,000 locations in Japan. [82]

The entire Japanese Michi-no-Eki network is organized into 9 regional blocks to facilitate information exchange, mutual cooperation, and improved services to users and local communities. [82]

Fig. 27. Minimal spaces for a road station (michinoeki); the space for community promotion will be provided by the municipality, and the other spaces will be provided by the road administrator or municipality - image by Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan
Source:https://www.gov-online.go.jp/pdf/hlj/20230801/highlighting_japan_august_2023.pdf, p.7

Each Michi-no-Eki has three distinct characteristics [82]:
• "**Rest**" - rest facilities that include free 24-hour parking and restrooms;
• "**Community**" - regional cooperation in which cultural centers, tourist and leisure attractions, and other local development facilities promote interaction with the region;
• "**Information**" - information regarding roads, tourists, and emergencies is readily available.

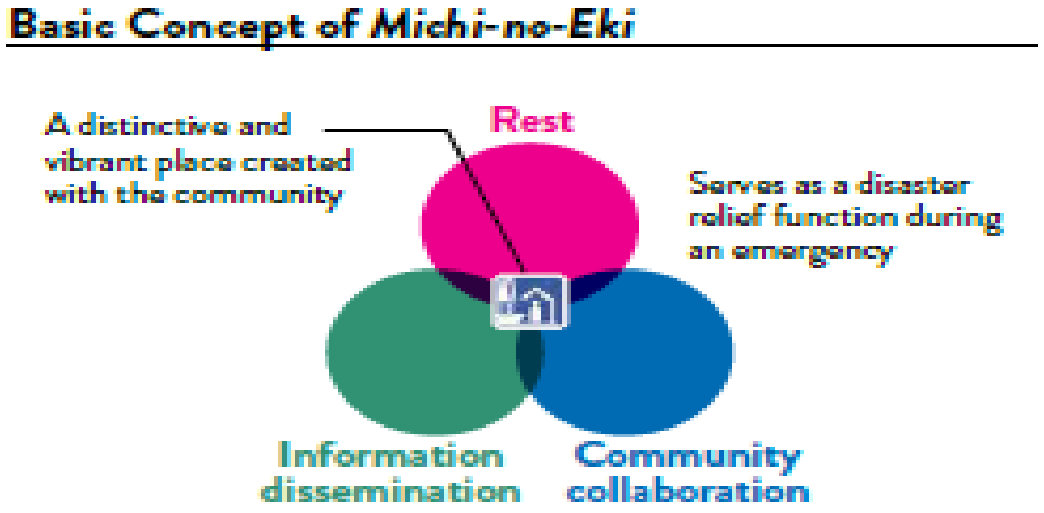

Fig. 28. Explanation of the Michi-no-eki concept (image by Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan)
Source:https://www.gov-online.go.jp/pdf/hlj/20230801/highlighting_japan_august_2023.pdf, p.7

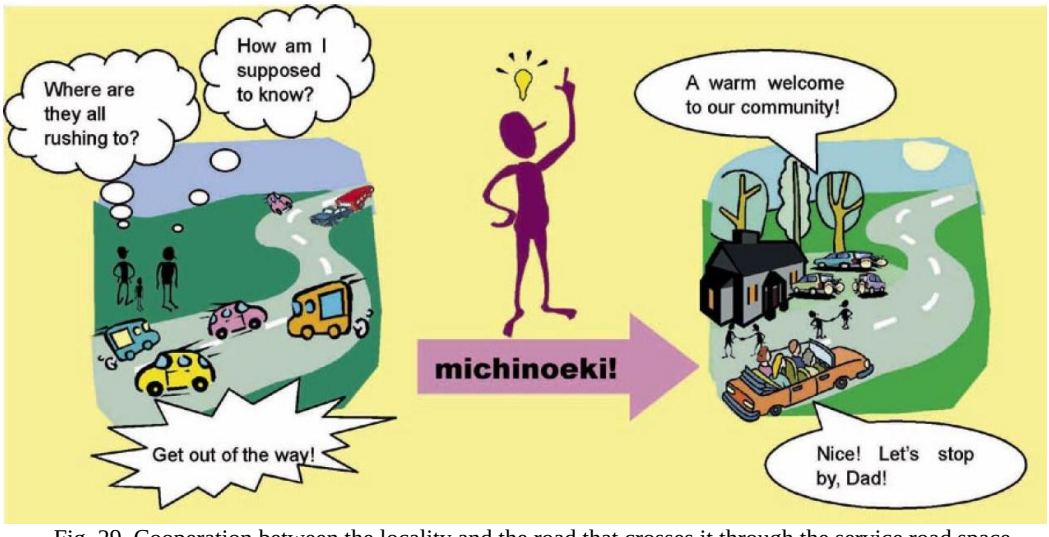

Fig. 29. Cooperation between the locality and the road that crosses it through the service road space (michinoeki)
Source:http://documents.worldbank.org/curated/en/753051468137999706/pdf/356830Guidelin1de0stations01PUBLIC1.pdf

In what follows, I will develop the idea of Michinoeki a little, starting from a document prepared by the World Bank [83], which analyzed, in the Japanese context, the way in which these roadside service stations are created and then used and extracted certain principles, which it later used to build roadside service stations similar to michinoeki in other parts of the world, such as China or Kenya, with the main aim of improving the effects of poverty, by directly confronting the social and economic problems existing in the community.

The World Bank, together with Japan, which is experienced with this type of project, identified five stages for the creation of a roadside service station of the michinoeki type, namely, the concept phase, the identification phase, the preparation/preparation phase, the evaluation phase and the operation/functioning phase [83], which I will not detail, but will briefly describe the process.

It is very important that at all stages, there is cooperation between all parties involved – such as the local public administration, the private sector through locals, etc. – so that the project is, in the end, a successful one.

Therefore, at the beginning, a project initiator selects from a list of potential sites that he has previously drawn up, the site where the road station will be built and which will take into account the local development objectives and the community's demands, after having previously discussed it with the interested parties, i.e. in general, representatives of the city hall and the locals willing to get involved. Further, the discussions with those involved are in-depth, in order to establish the interests of the parties and the services that will be offered; these consultations should culminate in the establishment of a joint-stock company based on a public-private partnership, which will operate the station, manage the activities carried out and take steps to motivate the locals involved to provide constant, quality services. At this point, it is also possible to consider launching the project with a limited number of services, with the intention of expanding this service station in the future. Before implementing the project, an economic and social impact analysis is carried out to determine whether there are any conflicting situations, such as possible competition between a service offered by michinoeki and an existing business in the locality. If such a situation exists, the service in question is reanalyzed and eliminated or replaced with another one, so as not to negatively influence the local economy. [83]

As we have seen before, this concept of "Michinoeki" is also addressed to underdeveloped or developing countries. In such countries, poverty is a pressing problem for a large part of society, and the people affected by it usually do not have jobs, decent housing, cannot benefit from adequate education and very often their health is precarious. Finding themselves in such a sensitive context, they are directly and aggressively exposed to vicissitudes of all kinds and often end up unable to influence even the decisions that can affect their own lives, by being treated unfairly or even ignored by the rest of society.

These road service spaces take into account precisely these people and aim to promote sustainable development based on the vulnerable local community, exploiting the roads, which, beyond their initial positive impact on the economic level – rapid transport of goods

– and on the social level – an improvement in mobility, also have many negative effects, since these benefits are felt more at the urban level, in the cities. This neglect of the localities crossed by roads – including high-speed ones – has produced a relatively worrying effect, namely an accelerated densification at the urban level, which, over time, has further accentuated the economic gap between rural and urban areas. Unfortunately, this image can be found in most countries – it is true, with certain nuances -, regardless of the level of development reached.

Michinoeki are spaces intended for rest and exchanges - commercial, cultural, touristic or other -, strategically located along roads, where various problems (mainly local) are addressed in a coherent and organized way, and their functions relate to both rural roads (lower speed) and highways - which, although facilitating high-volume transport, can have a negative impact on the localities crossed -, establishing connections between the road network (main or secondary) and local communities. [83, p. 11]

However, Michinoeki are significantly different from the usual, private service spaces - such as gas stations, restaurants, etc. - and from roadside rest areas, in three essential aspects [83, p. 12]:

• The opportunities to provide services in Michinoeki are much more accessible than in conventional service areas, being open to a wide range of participants, including local businesses and community members. Through Michinoeki, locals have the opportunity to start their own businesses - and thus increase or diversify their income -, to acquire new knowledge and to interact with both the private and public sectors (taxes, etc.). This process stimulates financial independence and contributes to local revitalization and development. [83, p. 12];

• In addition to commercial functions, Michinoeki offer the local community a wide range of public and social services. These include sanitation services, medical care – focused on the treatment and prevention of infectious diseases, such as HIV/AIDS –, childcare services, educational and vocational training programs, as well as cultural activities that support community development. [83, p. 12];

• Unlike regular roadside service areas, which focus exclusively on the needs of drivers and only provide rest facilities, Michinoeki also takes into account the local community, transforming residents into active users of the space. At the same time, the services offered by Michinoeki are not limited to those mentioned above, but are also accessible to pedestrians or cyclists, thus satisfying a multitude of needs - both of locals and travelers - and facilitating constant exchanges of information, knowledge and goods. [83, p. 13]

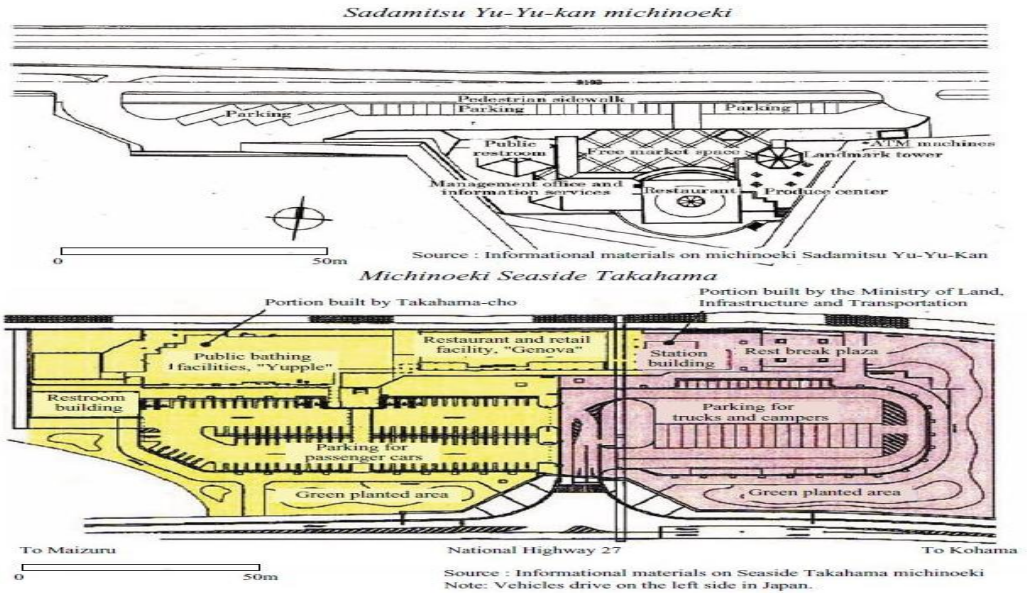

Fig. 30. Examples of relationships with the road of some michinoeki, Japan
Source:http://documents.worldbank.org/curated/en/753051468137999706/pdf/356830Guidelin1de0stations01PUBLIC1.pdf

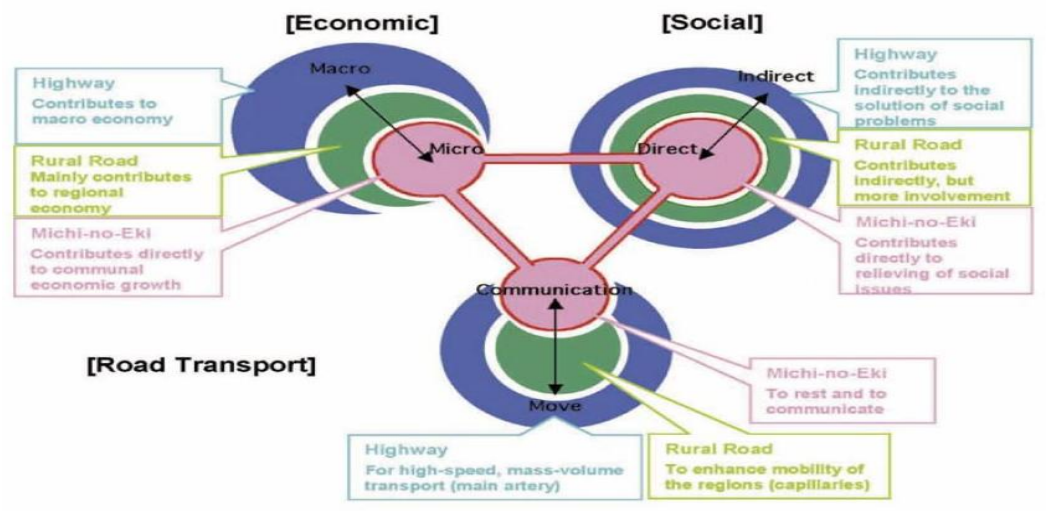

Fig. 31. Roads and their benefits - The complementarity between these and Michinoeki
Source:http://documents.worldbank.org/curated/en/753051468137999706/pdf/356830Guidelin1de0stations01PUBLIC1.pdf

Due to the impact that the automobile had on the world in the last century and the evolution in the field of road infrastructure - the emergence of high-speed roads -, today, the stopover is no longer something to be taken into account, in the context where you can reach your destination in a short time. This has clear negative effects, namely, the migration of the population from rural areas to urban areas and, therefore, the decline of localities, which are left behind with a largely aging population.

Michinoeki can contribute to the creation of a road infrastructure that is capable of supporting cultural and tourist components, giving value to the elements of the country's uniqueness.

As we learn from the World Bank study, **michinoeki** could also be effective if they were **located at the level of state borders** [83, p. 21], having an important potential in economic growth and in managing the social and environmental impact in border areas, in the context of globalization. Cross-border traffic areas are often associated with illegal activities, such as illicit trade or prostitution. The location of Michinoeki-type roadside stations near national borders could help to manage these issues, provided that they are not directly integrated into the border infrastructure, in order to avoid risks such as tax evasion or non-payment of taxes, which could compromise border transparency. By offering a variety of services – such as banking facilities, traffic information, cultural activities, recommendations for visiting local and national tourist attractions, rest areas and accommodation – Michinoeki stations can help communities meet both commercial demands and manage the social and environmental risks specific to these areas. [83, p. 21]

Therefore, michinoeki is a useful tool in poverty alleviation, demonstrating total permeability towards users – both those who transit the locality and the locals – and contributing to initiating and improving local development. By increasing the sphere of influence of its functions and services beyond the roadside, in the depths of the rural territory, these stations also respond to specific social needs.

Examples and case studies exist – some of them being presented in detail in my doctoral thesis -, but these will be the subject of separate future articles.

In this context, the perspectives offered by the article "Smart Tourism and Poverty Reduction" [84] complement the michinoeki concept by highlighting how smart technologies can contribute to poverty reduction and the sustainable development of local communities. By integrating digital infrastructure and innovation, these stations can promote authentic tourism experiences that generate economic and social benefits. Furthermore, the use of AI [85] in the management of roadside service stations (michinoeki) can optimize operations, facilitate collaboration between authorities, communities and users, and support a more connected and sustainable road network.

Thus, michinoeki not only respond to the immediate needs of communities, but by implementing modern technologies, they can become hubs of innovation and even regional development.

3. Duality at the level of the road landscape

The road landscape, permanently located on the border between urban and rural, reflects a permanent duality with interferences, mainly, between the historical and cultural nature of the space and recent developments, mostly economic and infrastructural.

3.1 Relationships.Connections

In order to live authentically, it is necessary to develop connections with our environment (with everything that it includes, whether it is a community, natural elements or anthropogenic elements). Within the modern landscape, relationships between people (drivers and locals whom the former pass by) are extremely reduced and punctual, the emphasis being, in fact, on encouraging speed, efficiency and, implicitly, constant productivity. Changing this pale and sad landscape can occur if we think about the design of high-speed roads – in particular – from the perspective of "being" i.e. to encourage awareness and knowledge of the context (of the environment) crossed by creating connections with the depths of the territory – and, implicitly, of the landscape. These connections – or interruptions in the urban monotony of the road and the road landscape – can be shaped by modifying the silhouette of the road landscape i.e. by developing roadside service spaces of the michinoeki type and integrating them into the surrounding communities, because these, unlike the classic (modern) roadside spaces, are not only spaces of (external) supply and consumption, but can also be places of cultural-historical connection – reporting to the place occurs, through the integration of local culture and history, as well as other related components, such as tourism, agriculture, crafts, etc. – and social. This different way of seeing roadside stations is much closer to the inclusive way of existence of "being" – which starts from micro (spatial, community, cultural, touristic and even symbolic) to macro (strategic), from local to zonal, regional, national and, possibly, global -, and the stations no longer represent just a simple need for drivers – to take a break, to eat, to use the toilets, etc. – and purely utilitarian and sterile spaces (for local communities), but become an opportunity to interact with the locality and to understand it – through the landscape -, and for locals they can represent, first and foremost, places of exposure, where they can be seen. The man-machine relationship would thus be relegated to a secondary level, and the man-environment or man-community relationship would be (re)brought to the forefront, to the benefit of both parties.

It is easy to notice, when simply driving along a highway in Romania – for example, the Bucharest – Borș A3 highway, which is the subject of my doctoral thesis – that, at the road level, there are relatively clear connections between smaller and larger localities, but these do not relate at a deeper level to the local territory, to the potential relationships that the surrounding landscape, material or immaterial (elements of the natural setting, the past of the locality, historical monuments, etc.), and are limited only to pragmatic issues related to spontaneous trade and transport, although there are many other latent potentials (cultural, tourist and leisure, research, economic, social, etc.), depending on the place studied. The partnership between the commune (through the local public administration and locals) and what the road represents, as well as the integration of common decisions into the road area, constitute basic principles within the Michinoeki idea and are also necessary in the Romanian landscape.

3.2 Silhouette and landscape

Historical roads were often (better) integrated into the landscape and adapted to local contours and rhythms – in this matter it is important to remember the attitude towards the local and the existence of a minimum relationship to the environment; of course, in the current, modern context, these things can take other forms, without remaining tributary to

obsolete elements that are no longer compatible with the current way of life - and travel, in itself, became an important (and valuable) part of everyday life. These roads were the precursors of the current (high-speed) roads which, today, are characterized more by functionality and less by a deep and equitable connection with the territory, i.e. by the neglect of many real and immediate aspects of people's lives, to the detriment of purely economic elements and values that are relevant, largely, at a global level and less at a local level. The essence or original rationale of the road is to connect – a road can connect a student to his school, a man to his family, a very sick patient to the hospital that can save him, a consumer to a certain hypermarket, an adult in various needs to a casino, a soldier to a place of conflict, a man to his loved one, and so on. Perhaps, today, the original rationale remains valid, but it serves far fewer people than it could. The michinoeki type road station does not obviously aim to solve any kind of problem and be considered a unique solution, but it could constitute a (re)return to the reason or initial vision of the road environment, through an attempt to combine utility (for urban, but especially for rural, or metropolitan or periurban) - which we cannot deny and which is very necessary - with a better understanding of that genius loci and a philosophy of authentic experience of the place, offering journeys along the roads - especially the high-speed ones - also cultural values (starting from these road stations, drivers could study and better understand the history and context of the place, they can get in touch with different traditions and crafts characteristic of that area, etc.), aesthetic and, why not, spiritual. The road landscape generated by the A3 motorway along it is a young one and is largely influenced by (macro)economic interests.

Currently, the area of the road junctions on the Bucharest – Ploiești section is not very developed. What is found in these areas, in most cases, are residential buildings or disused industrial areas that appeared before the motorway.

The landscape along the motorway is not very diverse, with agricultural lands and natural elements (water, forests) on both sides, which are occasionally interrupted by an existing housing fabric, in the case of the communes mentioned above (Moara Vlăsiei, Gruiu, Gherghița, Râfov and Bărcănești), where the motorway clearly separates villages. In isolated cases, in this rural landscape, several commercial areas can be identified on the edge of the highway (at the intersection of the Bucharest Ring Road with the A3 highway and in the vicinity of the Snagov junction where a hotel operates on the edge of the forest), industrial areas (in the vicinity of the junction formed by the highway and the West Ring Road of Ploiești - the Petrobrazi refinery -, the Moara Vlăsiei junction - disused industrial halls - and the Snagov junction - the former Vlăsiei farm, in an advanced state of degradation) or logistics spaces (in the Bucharest Ring Road area).

The silhouette of the metropolitan area of Bucharest is almost flat, the ratio between full (built) and empty (free, green space) being in favor of the empty, and it increases suddenly in the northern area of the city - located south of the first ring road -, culminating with the vertical accents located in the area of the Pipera business district and dramatically reversing the ratio. This unbalanced distribution of the built stock within the metropolitan area, especially in the area of highway junctions and the lack of coherent spatial and landscape sequencing, although problematic, creates fertile ground with potential for development

and planning thanks to the natural landscape segments that allow for the diversification of the front (road, architectural, landscape), with the aim of creating attractive accents or landmarks in the area, which would provide added value to the surrounding localities and the existing landscape.

3.3 Perspectives. Perception. Ambience

In the past – due to the historical routes, traditions and road spaces of that time – the road was seen as a complex, multisensory experience (in addition to sight, people ate local products, spent the night, exchanged ideas, etc. at the old road stations). The perception of the landscape, the ambience and the changes of perspective on the routes that generate visual transformations are very important elements for the experience of the road.

Currently, within the road landscape shaped around "having", the perception is poor, because the driver is encouraged - especially on high-speed roads - not to leave the environment controlled by and from the car, to cultivate speed and, implicitly, to ignore the environment crossed - most often rural - due to the limited number of significant stopping places, the existing ones being incapable of facilitating any kind of communication between the urban (the binomial high-speed road - drivers) and the rural (the local community, with its problems, most of which are caused by the urban environment and the one-way relationship between the two environments that amplifies the dependence of the rural on the urban) - the whole experience is reduced to a simple mechanical process of moving in space, from point A to point B.

In the context of "being", the perception of the road and the road landscape becomes richer, because the driver is encouraged - through well-thought-out roadside service stations located in places with different potentials for the localities crossed by the high-speed roads - to (more) stop, interact with the rural environment, support it (economically, touristically, socially, culturally, etc.) and, why not, understand it and gradually come to appreciate it more, because it is the one that supports the urban environment to a very high extent (through the food provided by agriculture, the workforce manifested by the people who migrate every day for at least 8 hours to the cities, to their services).

From this balancing of the two modes of existence emerges the importance of the landscape (road) and, implicitly, of the silhouette – urban (buildings) and rural (relief and natural framework elements: waters, forests, agricultural lands, etc.) -, which must be treated with respect for the rural environment and with attention and coherence (at least spatial and functional) at the level of the built (de)inserted background, because this can become a (symbolic) representative of a richer and more authentic experience of the road (and, implicitly, of the localities crossed by it).

Michinoeki-type road stations – as I mentioned before -, by combining utility with the local dimension (cultural, social, etc.), are capable of solving or stimulating more suitable solutions for the rural environment overwhelmed by the countless problems that we all know. This type of road station goes beyond the purely pragmatic purpose (form) - economic and physiological - and reaches the essence of the problems (fundamental), creating a pleasant ambiance, associated with the way of existence of "being" - oriented, in

this context, on living a genuine, aesthetic and community experience - and demonstrating the fact that they are, in fact, liminal spaces where the limit between the functional and the contemplative - between "having" and "being" - blurs.

The A3 motorway is an important element at the national level, but also at the level of the rural areas north of Bucharest. It is a type of element that generates a landscape, generally not at all interesting, at the cost of disturbing the existing landscape. It is worth mentioning that the developments of the localities in the area also have an important role in creating perspectives and the local atmosphere that influence the travel of the road space determined by the highway, depending on where you are on the road or the connection you have previously established with that local space – such as, for example, the possibility of stopping at the roadside, at the water's edge, near the forest, within the locality.

The perception of the space at the edge of the highway – and of many other roads – is uninteresting, due to the fact that, as we saw above, there is no sequentiality, and the surrounding landscape requires various interventions and arrangements at the territorial level to make it more attractive, both for locals and for drivers who might stop and enjoy it. The ambiance, at the road level, is created, largely by the elements of the natural setting.

All these things – the perspectives, the level of perception of drivers and locals on the space and the atmosphere of the places – push towards a clear analysis of the context, with the identification of the strengths and weaknesses of the landscape, which can be managed so that the tourist and leisure components, in particular, are developed by creating welcoming spaces, in accordance with nature and with the desires of people, especially on this section of the A3 motorway, which is included in the metropolitan area of Bucharest.

4. Conclusion

The road landscape represents an opportunity to reconnect between urban and rural areas, through a planning that balances pragmatic needs with cultural and natural ones. This involves well-thought-out interventions to capitalize on existing elements and develop a coherent, functional and attractive landscape.

Mention: It is important to mention that fragments of this article are taken from the author's doctoral thesis - which continues and develops his dissertation work - entitled "Roadside Architecture. Walking on high-speed roads". This cross-disciplinary work aims to disseminate part of the research results to the academic area and to contribute to a better understanding of the relationship between road infrastructure, landscape (rural and urban environments) and local development.

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