SMARTER CITY THROUGT GREEN AND CULTURAL NETWORKING. INNOVATIVE URBAN INTERVENTIONS FOR CULTURAL SMARTER TRIPOLIS

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Abstract
The research model of the "Smarter City through Green and Cultural Networking" was developed by investigating emergence of the physiognomy of the city of Tripolis and the surrounding Arcadian region from the interdisciplinary team Desarch[1] consultants in the frames of institution of the European Capital of Culture for the candidacy commissioned by the Municipality of Tripoli in 2015.
The city of Tripoli and the surrounding area of Arcadia region, having abundance of natural, archaeological, historical and cultural resources and incredible alternating landscape, presents geographical, economic, and social continuity, cohesion and unity, which makes the place suitable for applying an holistic development strategy.

*With a filter for direct, in real time and economic approach – and on the basis of theoretical approaches of των Urban Innovation Ecosystems[2] - established the management plan and infrastructure development through three dominant cultural promotional strategies parallel to innovative intelligent systems **for the development of a future smart city as a cultural production process***:
*- Creation and development of sustainable mobility networks and **green corridors**.*
*- Creating and developing **cultural networks** and **new culture hubs**.*
*- Development of **innovative systems** of **production** and **business activities**.*
*As a major enhancement and strengthening axis of cultural infrastructures organized activation of the rail network, not only as a transport and transit network but as "**Culture Rail Network**" through the reuse of Tripolis Railway station's buildings and also of smaller stations in the wider Arcadia region which contain listed buildings characterized as "**art monuments**".*

*Finally the "**Culture Rail Network**" defined as a dynamic model that aims to create and develop a transportable "cultural" sites network in temporarily inactive hubs, turns them to cultural hubs, along the railway transport network of the wider region of Peloponnese.*
***Keywords:** Smart city, productive, creative city, cultural rail network, green & cultural corridors, cultural hub, innovation hub, smart mobility.*

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[1] TRIPOLIS 2021 IN ARCADIA 2014 – 2015 Interdisciplinary research for physiognomy of Tripolis by European Capital of Culture terms. Mavrommati S., Gkoumopoulou G., Mavrommati C., Moraitou A.
  [2] UIE 2012 – 2015 Research NTUA: "Urban Innovation Ecosystems" research model developed smart and smarter city. Papalexopoulos D., Mavrommati S., Chani A., Antonopoulou E., Papalexopoulos V., Adamopoulous A.

Introduction

The Arcadian Ideal in the contemporary urban landscape.
"The visitor to Arcadia today, stranger he or she may be to the land, will no doubt expect to hear the sounds of Pan's song, but the goat-god is not likely to show himself playing his pipe. Yet, his presence still lingers behind every hook, nook and fur tree. Yet the world today is not quite the way pan's world. It deos not have the ancient harmony, nor does it recognize the melodies of the ancient Syrinx, the nymph for whom pan fashioned the first musical instrument with the right sizes of kalamia and then handed it down to the Arcadian shepherds." [3] (John P. Anton)

The contemporary urban landscape of Tripoli different and opposed in the formulations of the Arcadian landscape that we compose through the spiritual, emotional and mythological content that carries the place under the name Arcadia. On the one hand, the modern town with quite complex problems relating to both structure and function and its relationship to the environment - whether natural, cultural, social and economic - and on the other hypothetical performances of Arcadia and the concept of Arcadian Ideal.

The poetic image "in Arcadia" simple life harmonized with nature is the main and obvious feature in the starting point for interpretation and understanding of the Arcadian Ideal.

Accordingly and the term Arcadia to indicate a landscape as a high quality matches the ancient origins of western history and description of the Arcadian landscape as "*natural treatment of landscape configurations and supplementing with classicist buildings, often inactive, arising themselves as "natural" supplements of the landscape features* "[4] But what are those similar and / or distinctive elements and specific characteristics that could identify an investigation for the correlation of natural and urban landscape of Tripoli with the Arcadian landscape? Even more generally how can reconstruct the city's identity and to redefine Tripolis physiognomy?
«*The Physiognomy refers to the uniqueness, identity and even the personality of a place, as expressed and displayed through the landscape features* […] *… through its perceptual image* […]*…It refers to the entity of this city* […] *not in abstract space, the area occupied, but the very concept of "country", the landscape with a characteristic identity and myth …*» [5]
The approach of the landscape, the reason and the myth of a city is not a simple process and any attempt to locate the character and highlight the physiognomy of a city requires a systematic analysis and interpretation of a landscape and its correlation with all those ideologically and emotionally (mythological) elements that accompany it.[6] Elements both natural and technical which function together and coexist within the abstract condition of time creating a grid historical chronicler narratives and images of the city and the wider region - completing the physiognomy of Arcadia myths and Virgil to Tripolitsa of Ottoman era and the Arcadia of tourists to the modern Mainalo hiking trails.
For Tripoli and the wider Arcadia region, the planning and management processes with innovative intelligent systems for developing a **smart city of the future** create the network of actions and choices that will contribute to the development and improvement of existing cultural and other

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[3] John P. Anton (2009), Arkadica. Speeches and Studies. Troia Publications SA, Koropi
[4] Moraitis K., (2012), LANDSCAPE – ALLOCATING PLACE THROUGH CIVILISATION. Exposition and theoretical correlation of the most significant modern approaches concerning landscape, Doctoral Thesis, NTUA, Athens.
[5] Στεφάνου, Ι. (2000), Η φυσιογνωμία της ελληνικής πόλης, Εργαστήριο Πολεοδομικής Σύνθεσης ΕΜΠ & ΥΠΕΧΩΔΕ, Αθήνα, σελ.9
[6] Τερκενλή, Θ. (1996), Το πολιτισμικό τοπίο. Γεωγραφικές προσεγγίσεις, Εκδ. Παπαζήση, Αθήνα

infrastructures in terms of sustainability and emergence of the historical and cultural physiognomy as an important pole of European Cultural projection.

1. Innovative urban interventions. The idea of networking.

The improvement of urban environment concerns the synthesis and design of urban and peri-urban interventions network for natural and structural residential shell the city - which will both strengthen existing infrastructure of the city and the region and other develop new innovative infrastructure with new technology applications, capable constitute actions receptors for evolving contemporary and future everyday living. The elevation of the physiognomy of the city relates to the identification, reconstruction, strengthening and promotion of those elements and qualities that characterize elements of historical and cultural qualities related to the ideological and mythological dimensions of the city and the region.

Facing a historical city with a complicated traffic network, interesting dense building shell by mixing various historical prints, a city placed in the center of the Arcadian landscape, with strong historical and archaeological trace, we suggest strategies for the transition of the complicated contemporary natural and urban space to the **development of the city in terms of the European Capital of Culture**.

This framework is primarily determined through the triangle:

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Environment / Urban space
Social structure
Production / Entrepreneurship

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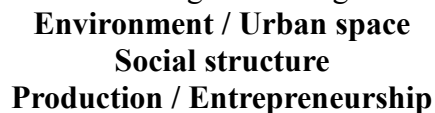
via networking capabilities for various elements and qualities, and aims at cultural promotion and enhancement of both the urban center of Tripoli and the wider region of Arcadia.

The city of Tripolis and the surrounding area of Arcadia region has a wealth of natural, archaeological, historical and cultural resources with an incredible variety and alternating natural landscapes. At the same time, it has a geographic, economic, and social continuity, coherence and unity, which allow for the application of a unified framework of actions and projects enhanced by intelligent management for an holistic development strategy. The city of Tripolis is the hub of a network of smaller towns, settlements and areas which function as minor self-contained networks within it.

With a filter for direct, in real time and economic approach established the management plan and infrastructure development through three dominant cultural promotional strategies parallel to innovative intelligent systems **for the development of a future smart city as a cultural production process**:

I. **Creation and development of sustainable mobility networks and green corridors.**
   - Stitching natural an urban landscape.
   - Networks of pedestrian flows, cars, public transportation, bicycle, enhancing innovative smart mobility applications
   - Management of parking spaces. Gates / city entrances, connection and accessibility.

II. **Creating and developing cultural networks and new culture hubs.**
   - Promotion and Utilization of important buildings, listed buildings, urban voids and public spaces with cultural activities, development of innovations.
   - Leisure activities, focusing on the promotion of the historical depth / continuity of the city's memory.

- Creating new culture hubs with contemporary emergence sites of different amounts and new perception of the urban landscape.

III. **Development of innovative systems of production and business activities.**
- Producing Networking, promotion and management of production systems and entrepreneurship.
- Tourist promotion and enhancement.
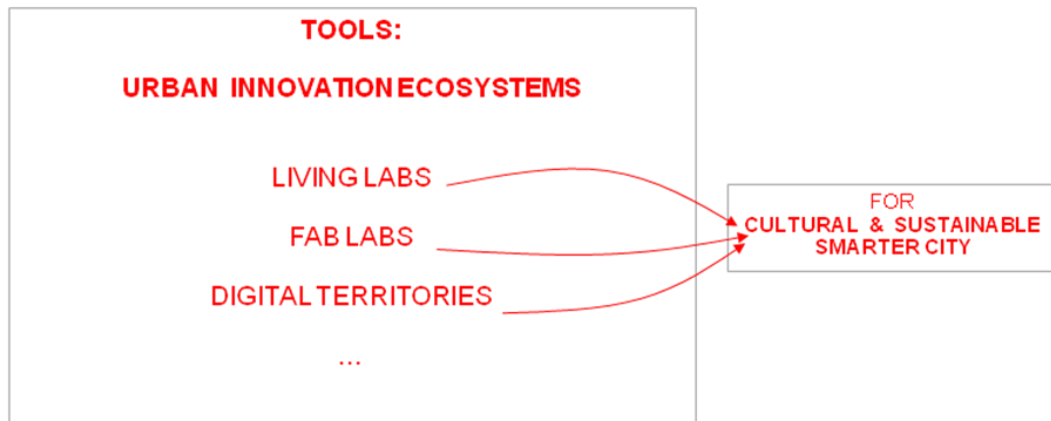
The main proposal on urban space is expressed in the development of networks and the promotion of important hubs creating axes of culture and entrepreneurship, and routes of natural and historic interest which will reconstruct the administrative center regions, residence and work and will redefine the **interaction** between the **city and the region** but also between the **city and the Arcadian landscape**:

1. Networking public spaces and important urban hubs,
   - Museums, archaeological sites, cultural centers
   - University, research / education centers (Living Labs, Fab Labs)
   - Sports centers
   - City gates, landmarks, historic trace
   - Public spaces, squares, urban voids, natural elements
2. Mobility - Networking corridors – traffic flows
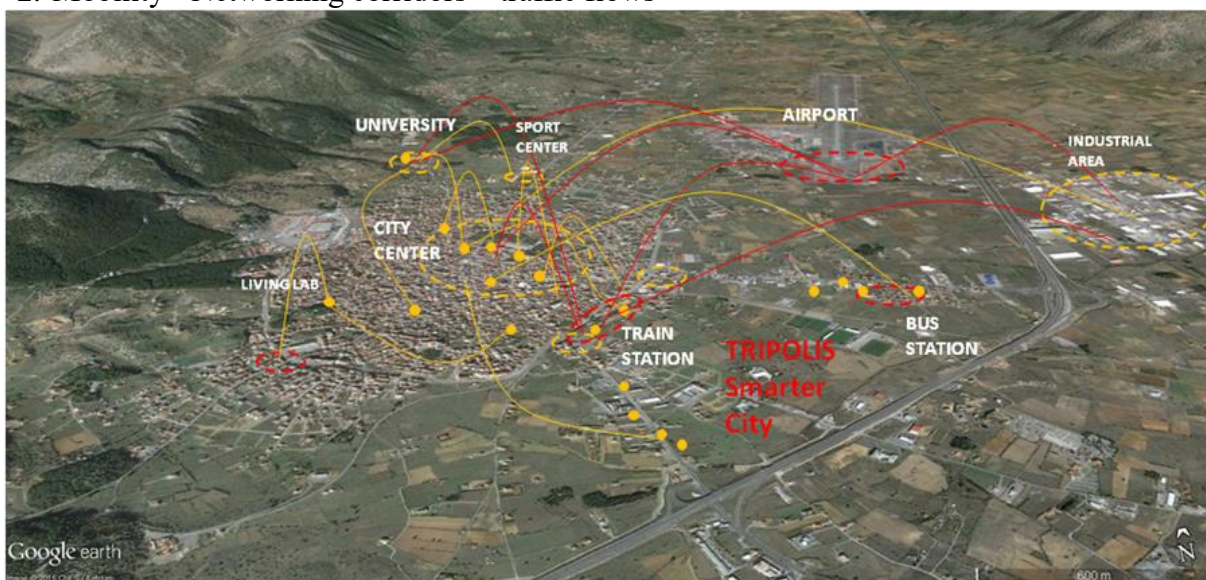
Networking innovations development in the urban environment of Tripoli.

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The articulation of the proposed network is organized on the design and promotion of cultural and green corridors:

- The **Cultural Corridors** network aims to highlight the timelessness of the most important sites and monuments, to join the main archaeological / historical / religious / cultural sites with important monuments and landscapes of the Arcadian landscape, which all constitute the international promotion of the *Arcadian Ideal* in Arcadia itself.

  It organizes the existing areas and infrastructure of cultural and educational large scale activities in two Cultural Corridors crossing the historic centre by connecting it with the gates of the city and the peripheral avenue, while enhances them by creating and developing new cultural hubs in the transitional limit between urban and natural landscape, but also within the urban area by improving and promoting important buildings, landmarks and open spaces.

Living Lab for Culture. Areos Central Square. Culture Hub.

▪ **Green Network – Stitching natural and urban landscape – Transition filter**

The establishment of a **Green Corridors** network connects the urban and suburban green of the mountains, as well as the institutionalized suburban groves, with big and smaller urban voids inside the city passing through important places of historical interest. Dominant component is the changing of the peripheral traffic ring into a green corridor, with total length of 4 km approximately, enhancing the bidding between urban and natural space creating new urban qualities.

These corridors are "identified" with larger or smaller parks, they cross or abut to hills, suburban groves and parks, river beds and other shared facilities of the city such as sports centres, school complexes or even cemeteries. They use inactive urban infrastructure such as the railway lines of OSE and military camps. They constitute the axes upon which selected the areas for upgrading which are seeking to join in funding programs in the next period of 2015-2021.

The Greens Corridors function as "backbones" for better networking of existing communal green areas, but also those who then claimed for the benefit of the city and local needs.

Maps with functional diagrams of polymorphous networkings for the city and the wider extraurban

A dynamic field of actions and interactions - in several cultural, environmental, social, economic, productive and wider interconnection scales - is pursued by this **polymorphic networking** that expands through the region of Tripoli and wider region of Arcadia and enhances the correlation between the city and the surrounding satellite settlements, over Greece and Europe. The development of networks, through the use of modern digital media, as well as the reinforcement of production networks, encourages the **local communities' participation**, strengthens the social cohesion and creates conditions for the improvement and enhancement of cultural resources, museums (museum networks) and regular local traditional events that express the so-called intangible cultural heritage.

Through **cultural networks** that can be developed in a geographical unit created conditions for improvement and enhancement both of its own cultural resources (in the form of cultural corridors), its museums (museum networks) and regular local traditional events expressing the intangible heritage (customs, tradition, linguistic idioms, etc.). Equally important is the contribution of networking to the preservation and promotion of the identity of a place through the interconnecting different quality sites and landscapes ensures their diversification and preservation of their individuality.

In conclusion, to redefine the relationship between:

nature and city,

Arcadian and urban landscape,

and promotion of the Arcadian Ideal in contemporary urban everyday life,

emerge the predominant elements of a holistic cultural management plan transforming the city of Tripoli and its region in a **Cultural Smarter City**:

- **Arcadia** and the concept of **Arcadian Ideal** as city and region brand name.
- The **green** and **cultural corridors** as a network of transmission, promotion and connection of historical and landscaping traces with the sustainable changing contemporary city, the satellite settlements and the Arcadian landscape.
- The development of destination management strategies and **creation of destination identity** for city of Tripolis and also for selected traditional suburban settlements and spatial entities in Arcadia region.
- The strengthening of gentle forms of alternative tourism, agrotourism and creation of clusters, highlighting the exceptional quality agricultural products and their derivatives (dominated by wine), as a strong advantage in the region.
- The empowerment of contemporary cultural creativity in local and regional level by creating **culture and innovation hubs**.
- The utilization, promotion and networking of cultural and natural resources through **new contemporary digital technology and innovative ideas**, respecting the uniqueness and special identity of the region.
- Networking sectors and activities (accommodation, food, natural and cultural resources, arts and crafts) in order to enhance and achieve the added value of **local identity**.

2. Culture Rail Network and Cultural Hub in Tripolis Station

The rail network in the Peloponnese region is inactive but maintenance in lines and generally in the station facilities continue leading the network is temporarily inactive but kept in good condition so that it can easily be reopened.

In particular for the region of Arcadia, the entire building infrastructures in Tripoli Station and the network of smaller stations in Arcadia found a special architectural value since most stations are listed buildings labeled as "**monuments of art**."

As a major enhancement and strengthening axis of cultural infrastructures organized activation of the rail network, not only as a transport and transit network but as "**Culture Rail Network**" through the reuse of Tripolis Railway station's buildings and also of smaller stations in the wider Arcadia region which contain listed buildings characterized as "**art monuments**" and as an active contribution to enhancing the cultural city network, the wider contiguous area and thus the entire county and region.

Among the advantages is that the railway tracks in Arcadian landscape is unique since it cannot be achieved by other transport (car or bike) and images taken by the visitor (with stone and metal bridges, dug tunnels in hand and unparalleled natural beauty) are unique experience.

Finally the "**Culture Rail Network**" defined as a dynamic model that aims to create and develop a *transportable "cultural" sites network* in temporarily inactive hubs, turns them to cultural hubs, along the railway transport network of the wider region of Peloponnese.

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CULTURE RAIL NETWORK
listed buildings characterized as "art monuments"
Desarch consulting team

Activation axes of Culture Rail Network:

- **Tripolis Central Station**: transformation into a **Cultural Hub** and **Action Center** (cultural center, museum, exhibitions, offices, landscaping for outdoor activities, view the cluster as a microcosm of the wider network, etc.)
- The functional activation of stations and rail network as a means of transport and **culture flow-transport** (specially adapted wagons receptors for theater and other artistic actions) but also as a flow ride / leisure with railbikes.
- Selection from a variety of stations buildings already are marked as "**art monuments**" (eg Partheni Tripoli Makri, Mannar, Anemodoura, Assea, Ruci, etc.). Proposal for rehabilitation studies and research for their networking connection. Possible activation and involvement of local community and groups on the railroad.
- Each station at the same time becomes a museum and an exhibit also and creates actions in correlation with the surrounding landscape which are usually of excellent quality due to the natural environment.
- These stations remain as **potential receptor sites for artistic and cultural actions** Even some of them could accommodate guests as special accommodation and combined with hiking trails and visits to historical sites and monasteries enhancing forms of alternative tourism.
- Investigation of simultaneous function of culture activities and transport. **Levels transport flows** (eg passengers, goods, etc.) and network management guidance (tourism promotion).
- Investigation potential activation **alternative production of original products** with contribution of the rail network.

Living Lab for Culture. Cultural Hub Tripolis Central Station.

References

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