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Valasaki, M. K., Photis, Y., N., (Univ. of Thessaly, Fac. of Technology, Dept. of Planning and Regional Development, Volos)

Μεθοδολογικό Πλαίσιο Ποσοτικοποίησης της Περιφερειακής Ανομοιογένειας: Εφαρμογή στις Εκλογικές Περιφέρειες της Ελλάδας (A Methodological Framework for the Assessment of Regional Disparities: Application to the Electoral Districts of Greece)

Tech. Chron. Sci J.T.C.G., ΙΙ, Jan.-Dec. 2005, vol. 25, no 1-2, pp. 9-26, maps, tab., 10 ref.

An important parameter, which is able to influence and maybe to direct the electoral result, is the determination of boundaries and the geographical distribution of electoral districts. Taking into account the significance of the internal structure of the regions, the current work aims at the definition and the analysis of their characteristics and their distinctiveness. The utilisation of specific quantitative methods and analytical techniques allows the determination of the special patterns at the level of the state and also the electoral region. The proposed methodological approach constitutes an alternative approach to the problem, it points out important parameters which were not visible at first sight, and consequently it can contribute to more effective strategies for its solution.

(Authors)

K-W: Structure of Districts, Electoral Results, Multivariate Analysis, Regional Analysis.

Roubien, D.

Η Διασπορά των Δημόσιων Κτιρίων ως Παράγοντας Αστικής Ανάπτυξης. Το Παράδειγμα της Οθωνικής Αθήνας (The Dispersion of Public Buildings as a Factor of Urban Development. The Example of Athens under King Otto)

Tech. Chron. Sci J.T.C.G., ΙΙ, Jan.-Dec. 2005, vol. 25, no 1-2, pp. 27-36, pict., 18 ref.

The development of Athens after 1834 was directly influenced by the location of public buildings. From the moment the Royal Palace was located eccentrically in relation to the old city, it provoked a general unequal distribution of all public buildings, with negative consequences for the equilibrated development of the old city. Therefore, it was attempted, not very successfully, to disperse public buildings in order to obtain some balance. Apart from that, the urban development of Athens was also influenced by the urban tissue's bordering through public buildings. Finally, their location seems also to have defined the location where the events of Athenian social life were taking place.

(Author)

K-W: The Plan of Athens, the Palace of Athens, Public Buildings, Social Division of Space.

Economou, A.

Η Παράκτια Ζώνη του Δέλτα Πηνειού Ποταμού: Ανάπτυξη και Προ-

στασία Περιβάλλοντος (The Coastal Zone of the Pinios River Delta: Development and Protection of the Environment)

Tech. Chron. Sci J.T.C.G., ΙΙ, Jan.-Dec. 2005, vol. 25, no 1-2, pp. 37-47, graphs, tab., 28 ref.

Pinios river extends through a significant portion of central Greece. Its source is in the southern regions of the mountain range of Pindos and it crosses the Thessalian plain in order to reach the Aegean Sea near the legendary region of Lower Olympus. In its estuaries it forms the "Pinios Delta" with an opening of approximately 13 kilometers in its marine frontage.

The region of the river's estuaries (Delta) has all the natural and biological characteristics required in order to be included in the protected regions mentioned in the international conventions of Bern, Bonn, Barcelona and Washington (CITES). The region has been characterized as a biotope CORINE (1998) and as a region of special protection based on Directive 79/409/EOC, and has been included in the scientific list of evaluation of network of biotopes of Directive of 92/43 of EEC (NATURA 2000). According to its evaluation it can be included in the network of Regions of Community Interest (S.C.I.).

The purpose of the present work is:

- *The estimation of compatibility between current built-up activities and the required terms of protection of the sensitive coastal space of the region*
- *The examination of ways of confronting incompatible human activities with regard to the protection of natural resources. The region of research concerns urban areas (Messaggala, Strintzos, Omolio, Stomio, Paliopirgos) in the region of the Delta of the river Pinios that are presently included in the administrative boundaries of the two Municipalities of Lower Olympus and Evrimeron.*

(Author)

K-W: Pinios River, Coastal Zone, Protected Areas, River Basin Ecosystems, Governmental Agencies.

Grekouisis, Y., Photis, Y. N., (Univ. of Thessaly, Fac. of Technology, Dept. of Planning and Regional Development, Volos)

Χωροθέτηση Πυροσβεστικών Οχημάτων στο Δ. Αθηναίων με Χρήση Γεωγραφικών Συστημάτων Πληροφοριών και Μεθόδων Τεχνητής Νοημοσύνης (Assessing Demand in Stochastic Locational Planning Problems: a Neural Networks Approach for Emergency Service Systems)

Tech. Chron. Sci J.T.C.G., ΙΙ, Jan.-Dec. 2005, vol. 25, no 1-2, pp. 49-60, fig., graph, maps, tab., 16 ref.

The efficiency of emergency service systems is measured in terms of their ability to deploy units and personnel in a timely, and effective manner upon an event's occurrence. When dealing with public sector institutions, this reflects the significance for state or local officials to determine the optimal locations for emergency stations and vehicles. The typical methodology to deal with such a task is through the application of the appropriate location - allocation

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model. In such a case, however, the spatial distribution of demand although stochastic in nature and layout, when aggregated at the appropriate level, appears to be spatially structured or semi – structured. Aiming to exploit the above incentive, a different approach will be examined in this paper. The spatial tracing and location analysis of emergency incidents is achieved through the utilisation of an Artificial Neural Network (ANN). More specifically, the ANN provides the basis for a spatio-temporal clustering of demand, definition of the relevant centres, formulation of possible future states of the system and finally, definition of locational strategies for the improvement of the provided services. The approach is applied in Athens Metropolitan Area for the Fire Department's events of 1998.

(Authors)

K-W: Location-Allocation Models, Geographic Information Systems, Neural Networks, Fuzzy Classification, Artificial Intelligence.

Theodoraki – Patsi J.

Αρχιτεκτονικές Αντιλήψεις: Νοηματικά Συστήματα (Architectural Perceptions : Cognitive Systems)

Tech. Chron. Sci J.T.C.G., ΙΙ, Jan.-Dec. 2005, vol. 25, no 1-2, pp. 61-70, maps, tab., 16 ref.

Space is organised according to the human perceptive ability. Since ancient times there has been a dichotomy between two systems of space organisation that have been developed in parallel:

- *Organisation as a result of systematic planning*
- *Organisation as a result of natural evolution.*

The two forms of organisation (systematic / natural) are represented in the dual human cognitive perception:

- *Western analytical thought (perception) which was structured by means of educational systems based on Attic philosophers and later on the Scholastic philosophers and led to rationalism and scientific linear perception.*
- *Eastern complementary and harmonious thought - common among the peoples of the Mediterranean until the pro-Socratic philosophers- which resulted in empirical and anthropological evolution.*

The dichotomy of human perception describes a perpetual controversy between two incompatible systems is expressed via a number of definitions in architecture (urban/rural, global/local, post-global/post-traditional etc) and is epitomised here in two categories:

- *Rational architecture as a process of scientific logic. Anthropological architecture as the out-come of the evolution of individual empirical characteristics of social groups.*
- The overlap of different perceptions, particularly today with instant communication and the credibility of the internet, necessitates the “symbiosis” of different and incompatible perceptions, resulting in the production of hybrid perceptions expressed via the deconstruction of the imposed architectural elements (but not confined to them only) and ultimately in chaotic conditions.*

(Author)

K-W: architectural perception, cognitive system, heterogeneous architecture, hybridity.