

A Vision on a Network for Transylvanian Saxon Villages

Opincariu S. Dana^{*1}, Voinea E. Alina²

^{1,2} Technical University of Cluj-Napoca, Faculty of Architecture and Urban Planning. 72-76 Observatorului Str., 400489, Cluj-Napoca, Romania

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Abstract

We are living both in real and physical environment, but we activate in the virtual world more than ever. Network theory underlines that systems we belong to are complex topology networks consisting in points and links between them [1]. Everything is interconnected at different levels: mental, virtual and real. The connections are dependent in time and space. Events and objects are linked having time and space coordinated communication channels. Systems are alive because of the dynamic links, that can emerge or disappear, and points, that take shape or disconnect. The human being is at the center of the living world, the human organism is the pattern in understanding the living world. Therefore, the parts of the whole relations universal laws are associated with the living organism. Applying the network theory in urban, architecture, interior space systems, on mental and physical levels, network aspects can be generated and applied. We propose studying Transylvania Rural Saxon Villages through network theory as a system of points and connections. Following the network theory, the Saxon rural organisms' state of health can be identified. Moreover, as in the diagnosis and treatment process, resources of recovery and development can be identified in order to revitalize the Saxon network.

Rezumat

Trăim în mediul fizic, real palpabil, însă suntem activi în mediul virtual mai mult ca niciodată. Teoria rețelelor subliniază faptul că sistemele de care aparținem sunt rețele cu topologie complexă formate din noduri și legături. [1] La nivel mental, virtual sau real totul este interconectat, iar aceste conexiuni sunt dependente de timp și spațiu. Evenimente, obiecte sunt legate având canale de comunicare coordonate spațial și temporal. Sistemele sunt vii datorită dinamicii legăturilor care se pot forma sau pot dispărea și nodurilor care apar sau sunt deconectate. Extrapolând, omul este centrul lumii vii. Organismul uman este etalonul/ modelul pe care îl aplicăm în înțelegerea lumii vii. Legile universale prin care funcționează părțile întregului sunt asociate organismului viu. Aplicând teoria rețelelor în domeniul arhitecturii la nivelul localităților, arhitecturii, spațiilor interioare pe cele două planuri, mental și fizic, se pot intui și genera aspecte de rețea. Propunem studiul rețelei de localități rurale săsești din Transilvania din prisma teoriei rețelelor ca un sistem de noduri și conexiuni. Aplicând teoria rețelelor sunt investigate starea organismului rural săsesc. Utilizând această metodă de diagnoză și tratament sunt identificate resursele de regenerare și dezvoltare/expansiune a rețelei rurale săsești din Transilvania.

Keywords: network, organism, rural, Saxon, Transylvania

^{1*} Corresponding author: Tel./ Fax.:

E-mail address: danaso67@yahoo.com; alina.evoinea@yahoo.com

1. Introduction

Everything is connected. Our thoughts are connected in space and time. Things and events are linked in networks. We are all connected in networks we consciously belong to or not. Today more than ever interconnectivity is fundamental in systems we belong. [2]

Network theory of complex systems unravels their interior way of operating by decomposing their structure into nodes and connections between the nodes. It can be thought of as simplified analysis, but it translates the complexity of a systems way of working. It marks out impulses transmitted, live and latent nodes. More importantly, determines what these nodes to come live or deactivate.

Network theory is of interest in an array of disciplines. *“Interconnectivity is so fundamental to the behavior of complex systems that networks are here to stay.”* [2]

“[...] many real networks, independent of their age, function, and scope, converge to similar architectures, a universality that allowed researchers from different disciplines to embrace network theory as a common paradigm.” [2]

Transposed in architecture domain, referring to cities, settlements, architecture, interior architecture, the network theory is applied on two levels: mental and physical. Mentally, impressions, thoughts and energy are transmitted in a butterfly effect. Physically the network consists in connections transmitted through space. If we understand the network, identifying the points and connections, we are a step forward in generating network aspects – new nodes and establishing new connections.

Settlements of the Saxon Colonists of Transylvania are ethnological and architecturally relevant. The villages are well known for the fortified churches. Over two centuries have adapted and merged into architectural masterpieces representing *“all the important type of this phenomenon of European Architecture”*. [3]

Saxon villages are part of the national rural decay, but also Saxon heritage is in decay. The Romanian village is depopulated due to mass rural –urban movement. Hence, Saxon Village from Transylvania is continuously changing its identity in the context of population migration and shifts in ethnicity. Village population is decimated or irreversible modified. In any case, Saxon villages are irreversibly altered.

Although the fortified churches of the villages maintained their original functions, typical rural Saxon Landscape has changed. Ethnical shifts of the population has made a mark on the residential Saxon architecture. New inhabitants have marked their identity not only on the social life, but also on the visible built fabric altering the architectural heritage. [4] If not the inhabitants, in their absence, time is taking its turn, marking its passing on the abandoned houses.

The working principle of a complex apparatus is that even with certain pieces not working, the whole is operational. Saxon villages in Transylvania have an underlining system and quiescent potential of development. Identifying the nodes and the links between them in the Saxon system, revealing its potential of development it is a way of long term revitalizing the Saxon mechanism. [5]

2. Theoretical framework

The term network used in relation to systems comes from the word "réseau" used by Diderot in order to describe matter and bodies in the detriment of the Cartesian matter-spirit division. [6]

Systems are codependent elements ensembles forming an organized hole. It is a working method, a

process organization, a norm or a custom. A system is a model, a type, a template. [1] The complexity of the systems is disentangled by assimilating them with complex networks.

2.1 Network Theory

Diverse systems are networks with complex topology, consisting in the relationships between its parts. Networks are continuously expanding with the ability to add new vertices, and the new vertices connect mainly to already well connect nodes.

Systems with a high diversity or the World Wide Web are networks with complex topology. Their main characteristic is the scale-free distribution peak connectivities. We are part of and we live in systems with complex topology formed by nodes and connections between them. The systems are effervescent – continuously expanding with new nodes, while certain nodes are disconnected.

“This feature is found to be a consequence of the two generic mechanisms that networks expand continuously by the addition of new vertices, and new vertices attach preferentially to already well connect sites.” [1]

In attempting to understand complex systems mechanism that surround us, Barabási states complex systems have components with individual characteristics, and their nonlinear interactions have a certain organization, the chaotic behavior being an exception. *“[I]n complex systems, the interactions form exquisite networks, where each node interacts only with a small number of selected partners, but whose presence and effects may be felt by nodes far away.”* [7]

Networks are governed by strict organizing principles. The main two properties of the real networks are clustering and scale free. High clustering and the scale free topology coexist for a large number of real networks, generating a hierarchical network. [8]

Networks evolution is shaped by mechanism beyond randomness. No nature or technology networks are completely random. All systems, seen or unseen (the cell, internet, social, economic) consist of a large number of components that *“interact via intricate networks”* [2] (Barabasi, 2009)

Scale-free networks are taking birth through a simple process: having three connected nodes, when a new node is added to the network, it preferably attaches to the more connected nodes. Through this kind of preferential attachment, the highly connected nodes acquire more links which lead to highly connected hubs emergence. The scale free networks follow the power law distribution: $P(k) \sim k^{-\alpha}$, α defining the number of links a node is connected with. In other words, an element is characterized by the number of connections he is linked with other ones. [2]

Bruno Latour, philosopher, anthropologist and sociologist, develops the concept of Actor-Network Theory (ANT). He underlines the main mistakes in understanding the theory because of overlapping with the word network. The mistakes are related to the technical and social understandings of the concept.

The first mistake is the association with the technical networks (infrastructure). Even if the technologic systems often have the character of a network, linking distant elements associated as nodes with circulation or paths. Latour underlines the fact that actor-network theory is not a technical network in an engineer’s sense.

The second association of ANT with the social network and the relation between individual human actors. The association is diverted from concepts like institutions, organizations, states or nations. Latour points out ANT distrusts this type of vague social terms, while aiming at describing the nature of societies. [6]

“ANT (Actor-Network-Theory) is a change of metaphors to describe essences: instead of surfaces one gets filaments [...] Instead of thinking in terms of surfaces – two dimensions- or spheres – three dimensions, one is asked to think in terms of nodes that have as many dimensions as they have connections.” [6] The theory adds an actor acting as an actant, a source of an action granted by others. Hence, *“the notion of network is of use whenever an action is redistributed.”* [9]

Latour underlines three main actor-network properties:

FAR/CLOSE Space is not defined by distance or proximity, but by associations. Therefore, close elements in terms of distance could be disconnected, while distant elements could be very well connected. Therefore, two elements situated at a big distance between each other, apparently distant may be intensely connected.

SMALL SCALE/LARGE SCALE: The network is evaluated, not by size - bigger or longer than another one, but in terms connection intensity. The micro-macro distinction and the top/bottom relation of small/large scale model specific to groups, institutions and others are replaced by the metaphor or connections. Therefore “*A network is never bigger than another one, it is simply longer or more intensely connected.*”

INSIDE/OUTSIDE A surface has an inside and an outside separated by a boundary. A network has no boundary, nor inside or outside. We are no longer obliged to fill in the space in between the connections. The network is compared with Deleuze’s lighting rode. “*A network is a positive notion which does not need negativity to be understood. It has no shadow.*” [6]

Bruno Latour choses Tomas Saraceno Venice Biennale 2009 art installation in order to illustrate the network. [9] The artists installations are metaphor – networks, spheres and tensors that fit together, having the same network characteristics described by Latour: “*fibrous, thread like, wiry, stringy, ropy, capillary*”. [6]

Saraceno’s materializations of networks are also defined as “*extremely poor metaphors, since they remain entirely made of nodes and edges to which are often added some conveniently drawn potato-like circles.*” [9]

2.2 Network Theory in Architecture

Network theory has been approached, in many ways, in architecture and urban planning domains. Approaching space as an interior entity, the urban web or the street network or even urban agglomerations by the network theory has put matters in a broader perspective.

Bill Hillier, without using the term network, underlines what architecture adds to building. He defines existing spatial relations as any type of link between the two spaces – adjacency and permeability. The space configuration of two spaces is changed based on the relation between the two, but also to at least one other space. Hillier identifies relation between space and social existence rule which “[...] *lies in the relations between configurations of people and configurations of space*”. [10] In order to understand this codependence, he drew up scheme of spaces. The simplified scheme of the space configuration uses network characteristics transforming spaces into nodes, and the relations between them into connections. The connections take place between two spaces based on their adjacency and permeability to each other. The resulting graphics interprets the depth of the space by the number of connections acquired. The author concludes “*Configuration is a set of interdependent relations in which each is determined by its relation to all the others.*” [10] Actually expounding the network theory.

Nikos Salingaros develops a study about the urban organism based on the network theory in order to sustain the processes behind the urban design.

He underlines the connections of the urban web, stating: “*A central component of the human intellect is the ability to establish connections.*” Considering “*each building encloses and shelters one or more human activity nodes, while connective elements such as pedestrian and green areas, free-standing walls, footpaths, and roads of increasing capacity from a bicycle path up to an expressway.*” [11]

The need for different type of connections is underlined, as well as a minimum number of connections necessary for the existence of the urban web. Placing four nodes regularly disables

anything more than minimal connections, while same four nodes places irregular allow multiple connectivity.

Salingaros states there are three principles followed in generating the urban web: *nodes, connections and hierarchy*. The *nodes* of human activity: home, work, park, store, restaurant, church, etc. have natural and architectural elements accommodating them. *Connections* differentiate in pairwise connections between complementary nodes and different nodes, which shouldn't exceed a certain maximum length. *Hierarchy* is a result of the urban web's self-organization of connections at several levels of scale. The organizational process starts small scale (footpaths) progressing to high scale (roads of higher capacity). [11]

There are defined several connections in architecture and urban design. "*Architectural elements include everything that humans build to connect natural elements and reinforce their activity nodes.*" [11] *Connecting nodes of human activity* visual or physical, consists in the interdependence of orientation and physical movement.

Connections between contrasting and complementary nodes form naturally. *Connective paths are multiple and irregular* in their role of enabling the easiest way of getting from one point to another, even if by multiple paths. While overcrowding nodes generate singularity, the paths overlap. The channels between the formed clusters are exceeding their connective capacity. On the other hand, connections between distributed nodes are balance charged.

Stability against loss of connections suggests that even if a link between two nodes stops working, the city still works. Is the same process as the brain – if there are some connections lost, the brain is still working.

Avoiding channel overload reinforces the idea of multiple connectivity. When the connections between nodes coincide, there is a channel capacity excess. Connections crisscrossing on different levels are more efficient than overlapping ones, which can be dysfunctional.

The "toy model" from evolutionary biology illustrates N elements linked together two by two, systematically. By the N/2 steps, elements will be linked in pairs independent from each other. Further on, when the number of pairwise connections exceed N/2 small chains connect into larger chains, at some point all the elements being linked together into a giant chain. The process applied to the urban web by connecting nodes incrementally generates urban chains of paths, streets or roads.

Porta, Sergio, Crucitti, Paolo, Latora and Vito in their study "*The network analysis of the urban streets*" underline the fact that the new science of networks is relevant to the urban studies: "*because the recognition of the hidden order of self-organizing cities is a contribution to the modernist heritage in the city planning and design.*" [12]

They identify characteristics of the urban streets, which they quantify through mathematic formula. The power law for the network is $P(k) \sim N(k) \sim k^{-\gamma}$, $N(K)$ is the number of nodes having k links and $P(k)$ is $N(k)$ divided by the number of nodes in the network. Further, the research group identifies centrality indices of the space syntax and defines them mathematically.

The characteristic of the "*important nodes [to] have the largest number of ties to other nodes in the graph*" is called *Being near the others: Degree and Closeness centrality*.

"*[I]nteractions between two non-adjacent points might depend on the other actors, especially on those on the paths between the two.*" This concept is defined as *being between the others: betweenness centrality*.

The concept of "*efficiency in the communication between two nodes i and j is equal to the inverse of the shortest path length d_{ij}* " is identified as *being straight to the others: efficiency and Straightness centrality*.

"*[T]he importance of a node is related to the ability of the network to respond to the deactivation of that node from the network.*" is the quality of *being critical for all the others: information centrality*.

The analysis of complex systems networks has been applied in urban studies. The network approach

to cities, neighborhoods, and even single buildings correlates street accessibility and their “popularity (*pedestrian and vehicular flows*), *human way-finding, safety against micro-criminality, retail commerce vitality, activity separation and pollution*”. [12]

Batten David interprets urban agglomerations as network cities introducing the global economy factor. “*A network city evolves when two or more previously independent cities, potentially complementary in function, strive to cooperate and achieve significant scope economies aided by fast and reliable corridors of transport and communication infrastructure.*” Batten highlights the transnational processes influencing the city transformation into global ‘key node’ and above to ‘*transfrontier metropolis*’. There are emphasized three urban configurations: the monocentric city, the corridor city and the network city. **Central** place system characterized by centrality, size dependent, have a tendency towards primacy and subservience, have homogenous goods and services, vertical accessibility, one-way flows, transport costs and perfect competition over space. **Network** systems are based on nodality, size neutrality, have a tendency towards flexibility and complementarity, have heterogeneous goods and services, horizontal accessibility, two-way flows, information costs and imperfection competition with price discrimination. Japan and Holland example of network cities. **Randstad** horseshoe shaped agglomeration in Holland is a group of conurbation and smaller centers that started with industrial connection in 19th century. **Kansai** region of Japan is a creative network with strong transport links is based on creative environment, cultural diversity, commercial and industrial traits of the centers. [13]

Jane Jacobs underlines that topological and topographical theoretical approaches rethink anew the city. The nature of the city is not determined. It is omnipresent and omnipotent. The city is part of a global network, is deterritorialized instead of an autonomous entity. The cities are perceived as networks, as a “*virtuality, as something emergent and eventful*”. Jacobs refers to the concept of the city as assemblage coming from Latour actor-network theory, assemblage referring to “*immanent effect of the association of heterogeneous elements (humans, organizations, tools, objects, technologies, texts, organisms, other cities)*”. Assemblages have a dynamic state, being in a continuous process of making and unmaking. [14]

3. Transylvanian Saxon Network

The word "Sassen" Saxon dialect "Sessen" means in addition to their name "resident" or "naturalized". Saxons colonization in Transylvania meant evolution of a specific culture involving shaping their own habitat.

In Romania there are over 200 villages founded by German settlers. In the twelfth century, Germanic people from northwestern part of Europe started a colonization movement in Eastern Europe. Colonization was triggered by military reasons, at the invitation of King Geza. The King Invited Saxons in order to populate and protect the Hungarian borders, “*sparsely inhabited at the time by Hungarian people*” [4]. The Saxon migration to Transylvania was “*part of a wider German eastward demographic expansion (Ostsiedlung) which lasted for several centuries and created a scattered ‘colonization diaspora’ stretching from the Balkans to the Baltic Sea and into Russia*”. [4]

Along military, there were also economic reasons. Immigrant social layers were generally represented by poor peasants who were no longer able to compete in the transition process towards large agrarian territories economy system; low and middle nobility, ruined after the development of exchange economy and urban population that did not obtain earlier rights and freedom, mainly episcopal towns. [15]

The fortified churches should be considered a group because such a large number of churches in limited areas are not to be found elsewhere. Because of the architecture fortification repertory specific in Europe during Late Middle Ages, the churches are considered an extraordinary

achievement. This type of church defense systems are typical in west and east Europe in few regions and countries. (France, Northern Countries, Germany, Austria). [3]

“The constructive and defensive achievements of the Transylvanian Saxons have influenced the neighboring cultural regions”, enslaved Saxon Villages imitate free communities organizational structures, as well as Szecklers and Romanians. Romanian districts of Saxon villages as well as Romanian Villages situated in Saxon colonization area have adapted their appearance to the Saxon way of building. [3]

3.1 Origins - New connections

In the 12th middle century German Empire inhabitants migrate, not only to Arpadian Kingdom, but also to east Elba or choose to follow Konrad to orient in the second crusade. In their way to or back from Palestine for the second time, west European crusaders negotiate a colonization with Germans. [16]

First colonists groups, called *‘teutonici, flandres or latini’* came from Ryne and Mosel area, from Flanders and north of France. In Pesta Chancery, they are identified as *“sași”*. In 1206 Germanic colonists settling in Cricău, Ighiu și Romos will be called *“sași”* for the first time. In 12th century most colonists come left side Ryne, and 13th century colonists origin from Franconia, center and south Germany. Also Bavaria, Thuringia, Saxony are possible Saxon origins.

German colonists from Transylvania have their origin in different regions and chronological moments. Ethnic and linguistic elements of new ethnic-Saxon entity characterize not only links with the place of origin, but also specific historic conditions in Transylvania. Saxon dialect is a francophone dialect specific to the middle area of River Ryne. There are also elements from central-east and south Germany. Although, Saxon dialect is divided in south and north Transylvania. In the north, there are two dialectal groups - Bistrița and Reghin, and in the south there are seven groups: 1. Orăștie – Sebeș – Miercurea Sibiului (Secașelor Region), 2. Sibiu – Nocrich, 3. Cincu, 4. Sighișoara -Capitulurile Băgaciu și Laslea, 5. The Two Chairs (Mediaș și Șeica) - Capitulul Bălcaci, 6. Rupea, 7. Brașov - Țara Bârsei. [16] These dialectal groups exhibit strong connections established between local nodes.

Developing new connections with nodes represents transitional stages. Initially weak or non-existing links develop triggered by a certain factor. There are new nodes formed, that initially are linked with their origin, but they develop strong connections with new nodes, based on the connectedness on the specific node. All origin nodes are linked by a common cause.

3.2 Destinations - New nodes

Saxon colonization on ancient royal lands (fundus regius) of Transylvania is on the narrow area along the Carpathian arch, south-west and south Transylvania. Geographical regions bordered by main rivers are appointed their names – Altland named after Olt river – Olt Country, Kogelheit – Târnave Depression, Burzenland – region crossed by Bârsa stream. The scheme and the Saxon colonization role is emphasized by the geographical position and the historical road network with direct linking. [3]

In Transylvania, Saxon settlement happens in stages, in different regions, but also in time. Saxon settlement takes place region by region, systematically starting from 1100 until start of 14th century. Southern part region the colonization develops west to east. First wave of colonizers settles around Alba-Iulia city and its south territory. Northern Transylvania is colonized systematically by French and Bavarian inhabitants. Sibiu region is the largest area of Saxon colonization [16]

First colonists settled around Alba-Iulia. The central point of the colonization in 12th century was Sibiu. The colonization process evolved west to Sebeș, east along river Olt reaching Rupea and Drăușeni. Important moments in Transylvanian colonization are Cârța Monastery, Germanic

settlement to Cluj happening around 1200, granting Țara Bîrsei to Teutonic Cavaliers in 1211. 12th century second half colonization starts on Târnava Mare și Târnava Mică Valleys and in 1283 there are mentioned eight settlements in Scaunul Mediașului. Even if between Orăștie and Sibiu there is no territorial continuity, the language resemblance suggests the areas were colonized concomitant. [16] After middle 13th century, Saxon colonizers settled southern part and east Carpathian Mountains, in Moldova and Țara Românească. Places of German colonization are Curtea de Argeș, Târgoviște.

Network expansion was sustained by new nodes adding based on specific conditions. Even if colonization implies strong connections with the place of origins, new connections develop with destination places. Saxon settlements in Transylvania evolved in a network based on their common colonizers. Thus, a complex network with nodes represented by Saxon origins and destinations.

Historic Friedrich Teusch classifies settlements as “*primary*” and “*secondary*” or “*daughter settlements*”. Șura Mare, Slimnic și Vurpăr are primary settlements, while Hamba, Roșia, Noul și Daia are secondary that develop from the primary ones. Therefore Gușterița („Villa Humperti”), Turnișor („Villa Eponis”), Șelimbăr are primary because, as the historian states, they take the main colonizer name (Greav). Later Cristian („Insula Christiani”) și Cisnădie-Heltau („Heldwin”) take birth as primary, while Bradu, Tâlmăciu, Cașolț, Avrig și Cisnădioara are daughter-settlements. In Nochrich, Nocrich Alțâna și Chirpăr are primary, and Noiștat, Nocrich, Seliștat, Bărcuț, Șoarș, Rodbav, Toarcla, Felmer, Șomartin, Gherdeal, Cincșor, Boholț, Calbor, Bruiu, Veseud, Vărd and Agnita are secondary. [16]

Saxon settlements are linked also with mendicant orders pilgrimage routes. Irina Băldescu introduces the idea that first ‘*hospites*’, founders of Cricău, Ighiu și Rumeș villages, followed the Roman Road. In Dacia village, situated south-west Rupea pavement of the Roman Road was discovered, proof of the settlement founding position near the Roman Road. The settlements founded in Roman Road ruins vicinity because they represented an accessible source of building material. Rumeș settlement, situated on Orăștie’s (Broos) territory resided in the proximity of a densely populated living area from preroman and roman period. On the other hand, the colonization was organized and coordinated politically and reuse of material extracted from roman ruins is testified even before the colonization. [17]

3.3 Leaving Transylvania - Breaking connections

During the 20th century, its estimated that 12-14 million ethnic Germans from central and eastern Europe fled, were expelled or emigrated in post-war period. It is possible “*the largest population movement ever recorded in modern human history*”. [4]

After 1944, when Romania signed a peace treaty with the Soviet Union, as it happened in other German-speaking areas of Central and Eastern Europe, German army began evacuating the Saxons from Transylvania. Around 100.000 Germans fled the country before the Soviet Red army arrival; even if they were not expelled as it was the case for the neighboring countries at the end of the war. More than 70.000 Saxons were deported to forced labour in camps in Soviet Union. Transylvanian Saxon Population decreased significantly last emigration wave happening before and after the fall of communist regime. They relocated mainly Federal Republic of Germany, Austria, United States, Canada and other countries. [4]

Breaking connections with Transylvania happened before leaving it. People connection with the place altered in time.

“*This mass exodus was caused by the constant degradation of Saxons and Swabians economic and social status after World War II and by the danger of losing their well-preserved identity.*” [4]

3.4 Roots – Unbreakable connections

Cultural heritage represents unbreakable connections. Saxons are still connected with Transylvania several ways. They maintain connections by visiting, even repeatedly or engage in social connections, retaining house properties. Family and friends are the main reason for visiting, but there is also the *“reinforcement of the attachment to the ancestral homeland”*. Another case for first generation is the re-appreciation of the original roots due to failed integration in Germany. Second or subsequent generations are visiting in attempt to locate the land of ancestors. Transylvania is a landscape of roots. Visitors are reconnecting with places and landscapes.

“Houses were visited in order to see, smell and touch the places where they, or their grandparents, were born or grew up, together with other places linked with family identities [...] Ancestors graves and houses, or their remnants became powerful material objects that elicited deep feelings of historicity and identity.”

There are also Saxons not visiting. The main reason for not visiting is fear of painful and traumatic memories that could be bought up by visiting their homeland. [4]

3.5 Rupture - Disconnections

Transylvanian Landscape alterations has produced a disparity between the reality and landscape that they identify with.

Typical rural and urban Saxon Landscape irreversibly changed. The urban landscape was modified in 1980's when historic buildings were demolished in order to build standardized blocks of flats. Former Saxon population was replaced by other ethnicities. New inhabitants of the Saxon villages marked their own identity, which meant also alterations to the houses. The Saxon traditions were replaced, but they survive within the diaspora. *“[T]he landscape remembered by the Saxons of the diaspora, or narrated by their parents or older ancestors, does not correspond to its actual state.”* There is a distinction of material and immaterial side of the term home. Home for Saxon diaspora is Germany, material home where they have real life material experience. Homeland is Transylvania, the way it is remembered and to which they have the feeling of belonging and consists of immaterial *“emotional attachment, memories, identification, culture and spirit”*. [4]

3.6 Heritage – Maintaining connections

Repeated visits, social connections and maintaining house properties are ways of maintain the Saxon Network. They *“strengthen the transnational linkages and forge new ones”*. Social connections within associations. Membership stimulated visiting homeland, which strengthened the sense of belonging to the Saxon culture. [4]

Before 1989, Saxon houses of those emigrating were confiscated by the state. In 1990, the properties were kept or sold, but at very low prices. Later in the 90's many properties were kept or untrusted with their family or friends. Selling properties at low prices was an indication of the desire to cut any connections with Transylvania, but by keeping them, Saxons maintained a material link with their homeland. Years later, Saxons started to reclaim their confiscated properties and buy houses and land. This is a way of reconnecting to Transylvania. [4]

4. A Vision on Rural Saxon Network Revitalization

“It is not the city that determines the region, but the region is the conditioning factor and sustains the city.” “The city can be considered only in a regional frame to which it belongs.” [18]

Settlements evolution happens in successive stages. Development process is spontaneous: polarization and steadiness, dispersions and swarming, cooperation and specialization, concentrations and centralization, expansion and coalescence. Centripetal forces generating

overcrowding cities are blending with centrifugal forces, which disaggregate rural settlements. Expanding, the city engulfs adjacent rural or urban settlements. [19]

“Cities exist in an era of increasing geographically extended spatial flows. Rural to urban and transnational migration is transforming the demography of cities in unprecedented ways, such that there is more internal multiplicity and the spatiality of city dwellers is stretched between here and there. Where cities end and rurality begins is unclear, and city effects pulse outwards drawing in rural-based lives and spaces, creating hybrid urbanisms and new types of con-joined city regions. Cities are nowadays intensely embedded in global networks of connectivity, be they economic, cultural or political.” [14]

In regional network, Saxon villages could be defined as isolated, standalone and in proximity of an urban pole. Isolated villages have few connections with other nodes, surrounding or far away. As a node, the isolated villages are most likely to perish. Standalone villages are well connected, self-developing based on a strong asset. The villages positioned next to an urban pole have greatest potential to develop in the village-city relation. However, because of their strong connection and influence of the city, both develop as one entity. [5] Studies show rural areas situated under the influence of a strong urban pole are most likely to develop economically. Saxon regions, Braşov and Sibiu are secondary cities, pan-county poles. Rural settlements in this area, mainly Saxon settlements, show a higher development compared to other areas. [20]

Saschiz (Keizd) village, in Mureş County, founded in 1300 is situated on the national Road between Braşov and Târgu-Mureş. It is rich in historic heritage, often there are cultural manifestation and developing small businesses. Visible from the main road there are the fortified church with the adjacent clock tower and on the hill the rural citadel. Every summer Saxon abroad come back in order to celebrate their culture maintaining their identity. These events engage not only Saxon community, but invite everybody to celebrate Saxon culture. Since 2006 there is also a small factory producing traditional local products. The village is promoted also international, through Saxon traditions, tangible or intangible.

Viscri village (Gisriu), situated in Braşov County, withdrawn from the national road linking Braşov and Sighişoara, and apparently isolated is famous for its fortified Romanic church dated 13th century and known for being part of UNESCO patrimony. The village is promoted by Mihai Eminescu Trust, an organization under Prince Charles patronage. The village flourished thanks to the organization's activity. Besides touristic activities, the multiethnic community is locally manufacturing products in order to support local economy.

Gherdeal (Gürteln), a village in Sibiu County is known for being an inaccessible, deserted village with only a few inhabitants. Even if situated in a rich landscape, silent Gherdeal seems to be lifeless. There is no activity in the village, and the ruined houses show that the village is only a place of memory. The solitude and the memory richness of the people remaining in Gherdeal, the beauty of the scenery, or the story told by the ruins are values of the village. The story of Gherdeal has been told many times by people charmed by its uniqueness. Therefore, through the small number of tourists bold enough to travel to Gherdeal on an inaccessible country road, or the few summer vacation visits Gherdeal is resuscitated and relinked to the network. [21]

Şarlota (Charlottenburg), in Timiş County, is famous for its particular circular plan. Founded during the second immigration wave by no more than 32 families, the village was mix ethnic. The village is named after Charlotte, wife of count Aldringen, Banat governor. Colonists origin from Trento province (today Trentino from South Tirol). Its unique plan regular shape was designed by engineer Carl Samuel Neumann Edler von Bucholt, working for the salt mine in Lipova. In the city center there was a mulberry plantation surrounding the central fountain, which later were replaced by the church and the school. After the Second World War, then after 1989 and 1990 colonists left Charlottenburg, only one remaining. [22]

Villages in Saxon network have their own position as nodes with connections. Saschiz and Viscri are two examples of standalone Saxon Villages, while Gherdeal and Charlottenburg are isolated from the network. Although because their poor situation particularity are becoming more and more known, therefore establish many connections. Their situation could shift based on their notoriety as dying villages.

Romanian village is not dying, but transforming. The rural way of living is more and more attractive for citizens. For people wanting to change their life, searching for a new beginning, the village is a sustainable alternative to the urban life because of the quietness, closeness to nature, authenticity, life simplicity and resources for a healthier life. Therefore, the village offers what the city failed to. The village is being revitalized by paradigm shift in Transylvania. Thinking, acting and assuming responsibility for the community and for the future are basic in rural environment. [21]

The study *“The Saxon Villages of Transylvania, Romania. A Future for Medieval Landscape”* developed by Kim Wilkie Associates transmit the *“hope that Transylvania could hold the key to a more sustainable and integrated agricultural and social economy by leap-frogging the mistakes of the nineteenth and twentieth centuries and showing the way to a saner twenty-first century”*.

Living and working in Saxon Villages are eroded by basic issues. Kim Wilkie Associates make a series of recommendations regarding community, agricultural, craft and industries and touristic situation. They recommend recognition of the exiting communities as custodians of the Saxon heritage, which should have to preserve the village qualities, and *“unlocking the great potential that the villages have for sustaining communities”*. Moreover, there are mentioned basic measures necessary for a normal village life as: medical care, education facilities. [23]

5. Conclusion

The brain, the human organism are working in network systems. Neurons are connected, and even if a certain number is damaged, the whole brain still functions. The organs are synergic, but even if some function is not achieved, the organism is still alive.

The Saxon Village is a neuron in a brain, or an organ of the organism. Thinking at the Saxon Village as an entity, which needs to be relinked to the network in order for it to be activated and be brought to life. Linked to the network in order to receive the needed impulses for its living, but also fulfill its functions in the organism.

Network theory approach in Saxon Village matter may be a theoretical well, but it also represent a tool in approaching Saxon Rural revitalization. The Network theory is a different approach on than holistic. It is a dissemination of the Saxon Village complexity in order to identify each piece state, ensemble diagnose and system reassembling and connection.

Saxon areas have great development potential, as nodes part complex networks. Saxon villages are a

housing resource, as they represent an alternative to the urban living. The way of living is a sustainable livelihood preserved since the middle ages. The village is a self-supporting mechanism. The household is a unit for sustainable living. Heritage, Saxon, as well as new inhabitant's heritage, tangible or intangible is a resource of inestimable value. Moreover, the heritage consists not only in the history and culture within it, but also in the value that it can create on an indefinite time and also space. One great value in any settlement is human life that can give life to any place. Hence, for the Saxon villages to develop and flourish at their potential, they need to be lived in, not only touristic attractions. Saxon villages need to develop as alive places, not only as museums.

Cultural, educational, social, agricultural, economic reasoning play vital roles in connecting Saxon villages to local, regional, international and global networks. On one hand interconnectivity between Saxon Villages in a network, on the other hand linking the Saxon network in broader networks is important for its development.

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