

Aspects Regarding Modeling and Simulation of Evolution Organic Aspects of Human Communities

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Abstract: The defining landmarks of the paper have in view the identification of scientific premises that would allow, in a systemic perspective, the modeling and simulation of the organic evolution of human communities. The proposed approach aims at establishing some elements (constants, variables, parameters and relationships) characteristic of politically and politically significant components from a politico-strategic point of view, to be used in building a model for their evolution in the context of building the world system. In an effort to organize such a scientific fund, we have tried to achieve as clear and concise boundaries as possible through research methods - induction and deduction, analysis and synthesis of factors relevant to the dynamics of nations and, implicitly, states and subsystems formed during globalization, both from the perspective of political geography and geopolitics, using the following general procedures: description, explanation and forecast / prevision. The scientific approach also aimed at clarifying the differences and existing relationships between political and geopolitical geography, which contribute to the understanding and structuring of the forms of manifestation of socio-political entities. The identified aspects are intended to be premises for building a model of organic evolution of human society, an approach that also involves making the connection with the global strategic system and with the national strategic ones (integrative, extended and sectoral strategies).

Keywords: political geography; geopolitics; world system; globalization; strategic system; prospective security

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1. Conceptual Delimitations

1.1. Modeling a System

Science is a reality metamorphosed into knowledge.

Scientific research of the spheres of reality enriches and projects the elements of knowledge in the components of science. Thus, the data, information, knowledge, expertise and maximum rationality (wisdom) about the object of study of a science are translated into:

- factual material (accumulated knowledge);
- methodology (the set of principles, methods, procedures, tools used in a science);
- scientific theories (set of models that describe and explain areas of physical reality, resulting from the generalization and abstraction of factual material) (Armaş, 2006, pp. 81-86).

Through research, a hypothesis is demonstrated or refuted, this representing a hypothetical model of reality (a theory in the process of formation) issued based on the generalization and abstraction of existing knowledge. For this, we proceed to the extraction, processing and analysis of the factual material through a specific methodology, and depending on the result of comparing the conclusions with the hypothetical model initially formulated, it will be decided to abandon or transform it into a scientific theory (the hypothesis being experimentally verified).

Specifically, it is established initially the methodology to be used during the research (work strategy and related set of methods). The subsequent steps consist in following the research method (s) (general directions set out in the work strategy) in compliance with the related procedures (as a way of working) and using the necessary tools, in accordance with the principles of that science.

At the base of any science are the axioms - unprovable truths representing the foundation of the principles that guide research in order to know the studied field (structure, relationships, legality) (Armaş, 2006, p. 17).

The evolution of science lies in the continuous development of scientific theories by improving or combating the previous ones.

By comparing the predicted effects with the recorded ones, the models of scientific theory are verified - coherent systems made up of hypotheses (a presumed explanation of a phenomenon), conception (a set of ideas that partially or fully

explains an aspect of reality) and laws (expresses the relations between components of an object or phenomenon, between objects or between the stages of a phenomenon) (Armaş, 2006, pp. 163–172).

The system is the set of interconnected elements that constitute an organized ensemble within which processes take place that can belong to any applied theoretical field.

The model¹ of a system is a conceptual representation that reproduces and describes the organized ensemble considered.

The purposes of building the model (modeling) of a system are:

⇒description of the organized assembly, respectively of the subsystems and of the component elements;

⇒revealing the processes that take place at the system level;

⇒anticipating the consequences or usefulness of changes in the organized ensemble.

Models can be classified into two main categories:

⇒physical models - physical reproductions (copies) (on a smaller or larger scale);

⇒mathematical models² - abstract representations (mathematical, logical and symbolic relations).

The components of MM are:

⇒system constants - invariable quantities, characteristic of the studied ensemble;

⇒system parameters - quantities that have a given specific value, for a particular formulation of the model;

⇒system variables - quantities that characterize different states of the organized ensemble (belong to a range of possible technical values), the state of the system being that group of variables necessary to describe the system at any time;

⇒mathematical relations - describe the connections between the variables, parameters and constants of the system.

¹https://ro.wikipedia.org/wiki/Modelul_unui_sistem#Elemente_ale_modelelor_matematice.webdex.ro

² Abbreviation used further as MM.

The following typologies of MM can be identified, depending on the criterion considered:

a) the random feature of the system variables:

a1. Deterministic MM (analytical) - each set of variables that characterizes a state of the system is uniquely determined by the parameters of the model and the previous sets of these variables;

a2. Probabilistic MM (stochastic) - the values of the variables are described by probability distributions (they are random);

b) the way of representing the components of the model of the considered system:

b1. Functional MM reflects the physical or informational processes or the functioning of the organized ensemble (by highlighting the existing interdependencies between the variables, parameters and constants of the system, respectively between the values of the outputs and those of the inputs in the system);

b2. The structural MM describes the structure of the organized whole - construction and mechanism of operation (by decomposing it into functionally finite elements, by identifying the relationships between them, between the system and its exterior, respectively by determining the existing processes in the organized ensemble and establishing the way they are achieved).

The simulation is presented in the form of a set of hypotheses regarding the functioning of the system (expressed through mathematical, logical and symbolic relations) based on which potential changes are simulated - organizational and environmental (through changes in variables), and evaluated their consequences and usefulness on processes, at the level of the system (by establishing the states of the organized ensemble, at certain moments of time), thus making a forecast of the functioning of the organized whole for various variants (from which the optimal one can be selected).

We meet the following types of simulation:

- static - represents systems at a particular point in time (simulation by Monte Carlo method);
- dynamic - describe systems that change over time;

- deterministic - represents systems that do not contain random input and output variables (they have a known set of input variables that will lead to a unique set of output variables);
- stochastic - represents systems that contain random input and output variables (they have random input variables that will lead to a set of random output variables).

The phases of building the model of a system are the following:

- problem formulation - the elements that make up the system and their characteristics are established, respectively the variables, parameters and constants that will be considered (components of the model);
- model construction - it is elaborated according to the specificities of the targeted type, functional, structural, and the problem is transposed in mathematical language - logical and symbolic relations, simultaneously with the establishment of the performance criteria of the modeled system;
- problem solving - the algorithm for solving the mathematical model is established;
- establishing the solution - a solution is obtained when the response of the model (repeatedly improved during its use in the design of the system), together with the solving method respects the established performance criteria;
- model approval - involves exposing the model to certain input variables and comparing the output variables (obtained based on the model) with those of the real system, being necessary for both to have comparable values (with a minimum allowed difference) for the model to be accepted as a valid representation of the system;
- the achievement of the system - includes a preliminary phase of experimentation (prototype), followed by the integral realization (construction of the modeled system).

1.2. Geography. Political Geography. Geopolitics

To model the system of human communities we will use the components of political and geopolitical geography sciences (planetary politics).

The emergence and evolution of geography is based on satisfying the fundamental need for location in terrestrial space, this science playing a defining role in the development of human society.

Geography is “the science that studies and describes the earth's crust, with all its elements, physically, economically, ethnographically, etc.”¹

The object of study is the geographical environment, the result of the combination and interaction of all the components of the Earth (lithosphere, hydrosphere, atmosphere, biosphere, including man and his activities)².

Geography investigates the static aspects and dynamic phenomena characteristic of planetary shells, as well as the interdependencies and interactions between their components.

This science is divided into two components (Armaş, 2006, pp. 37-38), the first represented by physical geography - it studies the specific phenomena of the geographical environment from the perspective of the components that make up its structure, legitimacy, interactions and dynamics, and the relationship with the anthropic factor. The second one, human geography, investigates the sociosphere (the human factor and the interactions between it and the environment).

Nowadays the reconsideration of the role of geography and the importance of this science is due to the need to reintegrate the sociosphere into the whole geographical environment by diminishing and eliminating its effects. Implicitly, retroactive environmental causality will be counteracted with repercussions on the progress of human society, thus ensuring the necessary conditions for the preservation and harmonious development of the sociosphere, as part of the whole.

Against this background, the complexity of the relationship between man and the geographical environment orients the research directions, both of human geography and those of physical geography.

¹ www.webdex.ro.

² www.webdex.ro.

Political geography is “a component discipline of human geography that studies the complex relations of inter-conditioning, between man, territory and the political phenomenon, relations that constitute the determining ensemble in the evolution of human society” (Costachie, 2009, p. 15)

The object of study is represented by man, territory and the political phenomenon, between which feedback relations are established. Through government, the political phenomenon orients the dynamics of human society; at the same time, the foundations of the latter - the population, in relation to the territory - determine, maintain and direct the political phenomenon.

The investigation of the interdependence relations between political processes and the geographical environment is performed on the components of political geography: state geography, nation geography, ethnic geography - ethnogeography, geography of borders and borders, political geography of seas and oceans, electoral geography and conflict geography.

Geopolitics is the political expression of geographical realities, defined as natural and socio-political components to which political-strategic meanings are attributed, later connected into a unitary whole.

As science of the planetary political environment (Conea, 1994, p. 57), geopolitics “studies the relationships between the conduct of a world power policy and the geographical framework in which it is exercised”, on the basis of which it describes and predicts the development of inter-state relations.

Geopolitics examines international relations in general (the global political *game*), and diplomatic relations in particular (Daudei, 1994, pp. 290-311) (pressure between states (Conea, 1994, pp. 49-65) – at regional level)

Subject to the object of study, geopolitical research includes: foreign policy as a whole and its determinants (geographical, demographic, economic, ecological and politico-military), the strategic value of geographical positions - including from the perspective of power projection capacity (geographical distribution of power centers, contribution of power factors: size of state entities, technology, population and military potential held), global policies of the major powers (focused on controlling regions considered important for the security of these state entities through held mineral resources and strategic position).

Through this science of “the relations between the ethnic organization of space and the economic, political, cultural, religious organizations in a certain area” (Bădescu,

2011, p. 15), the potential of state entities (Golopenția, 1994, pp. 69-71) is evaluated and the areas of divergence / convergence of their existing interests (Conea, 1994, p. 58) on the political map are analyzed.

Identifying the place and role that control over certain geographical areas has in establishing regional or global power balances depends on the degree of knowledge of the layers that make up the investigated regions: environmental (geophysical and ecological processes), technological (human activities), economic demo (record of products and population); socio-politico-military (institutional systems, societal processes and military structures) and individual mental (biological and psychological processes).

2. Modeling and Simulation of the Organic Evolution of Human Communities

2.1. General Considerations

Formulation of the problem: - identification of scientific premises that allow, in a systemic perspective, modeling and simulation of the organic evolution of human communities;

The research will cover the methods of analysis and synthesis, induction and deduction, modeling and simulation, using the following general procedures: description (qualitative - defining concepts; quantitative - assigning values), explanation (formulating legalities) and forecasting (forecasting phenomena).

Elements of the system: natural and socio-political components, significant from a political and strategic point of view.

The instantiation of the evolution of the defining and irreducible landmarks of human existence reveals the morphological unity of humanity - the community, whose relevant element for the current stage of development is the nation - "spiritualized, self-conscious organic community with a recognized identity and a defined homeland, which preserved and conserved the ethno-spiritual foundation (the founding ethnicity) as a symbol of identity" (David, 2005, p. 38), having as state form of management.

Nations managed to impose their right to exist when they built and maintained the state as a social needs management organization. The people, "the totality of the

inhabitants of a country” (the social “corpus”), ensure the individuality and maintenance of the nation (Prună, 2012, p. 12).

The state represents the society formed by rulers and ruled, in the sense of human collectivity (people) subject to a common authority, constituted on its own territory and having specific characteristics.

Through organic evolution, human society becomes a social structure whose essence is the Synectic and egalitarian cooperation between human communities.

We will consider the nation and the state as the generic elements that make up the hypothetical model.

The subsystems of the model, the regional complexes, will be those groups of nations / states characterized by a certain degree of geographical proximity, strategic interaction or interdependence.

The constants of the system have as correspondent natural components - relief forms (hydrographic, geological units, etc.), invariable quantities with potential to influence the dynamics registered at the level of the ensemble.

The parameters, defining elements that characterize the components of socio-political organizations, expose specificities of nations, state entities and regional complexes.

Initially, from the perspective of political geography and geopolitics, the characteristics of the components of the considered system are evaluated and their corresponding quantities are set.

Subsequently, through a reasoning that consists in connecting the two perspectives, the parameters are established. The conclusions are summarized in a set of values - numerical indicators (meaning / state of the parameter), correlated to a particular formulation of the model.

Depending on the time interval to which the model that is intended to be created refers, it will be considered that some parameters will migrate in the category of variables.

Apparently, the variables refer only to the unit component of the organized ensemble - the nation, as their set also allows the description of the state built later by the nation (through which it manages itself). However, the linear causality between the generic elements (from the nation to the state), subsequently generalized for the whole

considered, cannot ensure the completeness of the systemic approach, which will lead to a deficient modeling.

In order to identify and establish the set of variables, it is necessary to evaluate:

- linear, retroactive and multiple causalities from the set of generic elements and their ensembles (regional complexes);
- the dynamics of the considered set.

The contiguity between the components has a leading role for the evolution of the system, and for its description we will use the potential nation-state (Prună, 2012, pp. 17-21), whose order of magnitude depends on the balance and integration of the generic elements:

a) the balance of the nation state:

- state balance - in solidarity with the degree of power of the state entity, defined by:
 - (a) legitimacy and independence in the face of any external pressure;
 - (b) control of power resources (information, capital and force);
 - (c) governance efficiency (effective, inefficient, violent);
- nation balance - in solidarity with the degree of congruence between national identifications and political borders (internal incongruity, external incongruity).

b) nation state integration:

- state integration - its involvement in forms of international collaboration necessary for the joint achievement of some of the government's objectives;
- nation integration - the conjugation and merger of national interest management.

The effects of equilibrium and integration translations will be evaluated, respectively the external adhesion (concave) and the internal cohesion (convex), which act simultaneously on the generic elements and their ensembles. From here we establish possible inflection points (discontinuities) in the organic evolution, which have as reflection the ratio between the potential for organic development and the reached degree.

From the perspective of political geography and geopolitics, we will establish and evaluate intrinsic characteristics of the elements that define the natural and social

political components (nations, state entities and regional complexes) of the considered system.

2.2. The Perspective of Political Geography

a) the geography of the state (Costachie, 2009, pp. 85-148):

- generic element: state entity ← defining elements: territory, population, form of government;

- *territory*, intrinsic characteristics / evaluation criteria:

(a) absolute position - geographical position (continental, continental-maritime or maritime state);

(b) area - the size of the territory (very large, large, medium, micro-state or small state entity);

(c) population - the total number of inhabitants;

(d) shape - compactness (length of borders relative to the surface of the state, its area to the size of the longest axis, size of the enclave relative to that of the perforated state, proportion of axes - compact, extended, elongated, perforated or fragmented entity);

(e) politico-territorial anomalies - divided states, quasi-states, condominiums, neutral zones, enclaves and exclaves, respectively territories with uncertain status, non-autonomous or occupied;

(f) natural formations that enhance and direct the development of human society - mountain ranges, rivers, etc.;

(g) natural resources - categories, the degree to which they are exploited for the benefit of the nation in that territory;

(h) zones - overlapping zonal locations; areas delimited by natural, historical elements, areas benefiting from resources, central areas (economic and ethnic);

(i) the balance between territory and population - average population density, as a whole and in each area;

(j) economic dimension - indicators such as GDP, per capita income, infrastructure, etc., as a whole and in each area;

- population:

(a) homogeneity - overall demographic size (gigantic state, very large, large, medium, small and very small; national state, national unitary, binational, multinational) and by reference to each area from an ethnic, cultural, religious perspective, including from that of territorial mobility; evolutions of demographic indicators;

(b) ethnic cohesion - types of relations between ethnic, cultural, religious communities (including from neighboring states), respectively between indigenous and non-indigenous (collaboration, assimilation, isolation, elimination); centrifugal / centripetal forces exerted at the community level;

(c) political decision-making - the degree to which the population is the motivation and driving force of political action; centrifugal / centripetal trends in terms of territorial stability; form of government (effective, inefficient, violent);

- *form of government:*

(a) state structure - the overall organization of power in relation to the territory (unitary, federal states, associations of states);

(b) ways of organization and leadership - monarchy (symbolic or authentic; absolute or constitutional) and republic (presidential - proper or semi-presidential, parliamentary);

(c) determining factors for the mode of government - religion, ideology, form of state organization;

(d) external existence - the state of independence of the state in relations with other state entities: the stage of gaining independence (politically affirmed; supported by military action / national liberation struggle or diplomacy; recognized by the international political community); territorial integrity (drawn, recognized borders or occupied territory); freedom of decision and action in international relations (ensured or diminished by inclusion in various political, economic, military, social organizations, etc. or by the manifestation of the duplicate state);

(e) internal existence - self-determination:

- the bipolar relationship between state power and population / territory (functional, in relation to the recognition, control and implementation of the political / state decision at the level of the whole territory and of the population as a whole; partially

functional; non-functional, burdened by external interferences limited by the substitution of state power for new, gradually built forms of multinational / supranational political organization);

- state power (unitary or dissociated ensemble, following the transfer of some prerogatives of the national authority to a multi / supranational one);

- components of state power (pre-eminence, separation or balance between legislative, executive and jurisdictional powers; exclusive prerogatives, ceded or exercised jointly such as military, political / legislative, economic, cultural, etc.);

- efficiency of governance instruments (creation, control and use of power resources - information, capital and force; identification, prevention and control of sources of insecurity; ability to prevent cultural invasion of centers of domination and proliferation of subcultures, penetration of productive capacities - income capitalization to the detriment of production, the division of management capacities and their subordination, the creation of negative spaces within the national territory, those parts of the territory extracted from national sovereignty by the exercise of internal disorder forces - ethnic or territorial autonomy, compliance with international norms and regulations, recognized as such the entire community of independent states, the achievement of government objectives, such as: security / peace, the rule of law, national identity and social welfare);

- the overall functionality of productive organizations, management (political, legislative and public administration structures, including military organizations) and integrative ones;

b) geography of the nation (Costachie, 2009, pp. 149-185):

- generic element: nation ← defining elements: ethno-genesis, nationalism;

- ethno-genesis, intrinsic characteristics / evaluation criteria:

(a) the nation - vertical (ethnic) based on the ethnic and cultural factor; horizontal (elective / political) in the situation where the territory of the state entity is delimited by free choice exercised at individual level;

(b) the process of ethno-genesis - completed or in the process of completion;

(c) ethnicity - ethnic background and minority components; numerical dimensions;

(d) the establishment of the nation - the creation of a state entity functionally subordinate to the nation; the existence of a national economy and an educational system that meets the needs of the state;

(e) the territory currently used - identical, partially common or different in relation to the genesis space or the areas delimited by the frontiers; the autochthonous character of the nation and minorities, related to the territory as a whole and to each occupied area; complementary or antagonistic regions with a centripetal or centrifugal role in the becoming and existence of the nation;

(f) national consciousness - an indicator of national homogeneity: common ethnic features, such as language, religion, values and aspirations that are aware, in relation to the space of genesis, by members of the nation (as a whole, at group and individual level);

(g) national identity - an indicator of internal motivation: the takeover and reflection of symbols and representations characteristic of the nation by the state entity through which it manages itself;

(h) relations with other nations and minorities (occupying adjacent territories or located in the same regional complex) - relations of collaboration or rejection; enhancing elements (similarities in lifestyle, language, religion, tradition and culture; sense of belonging; racial community; willingness to live together; rational thinking; geographical conveniences; common political, economic interests, etc.);

- nationalism

(a) the stage of materialization of nationalism - built nation-state (political-geographical expression of nationalism, as a link between individual and nation) or under construction; the relationship between majority and minorities;

(b) manifestations - cultural nationalism (promotes the protection and development of cultural identity) and political (advocates for independence and national, including territorial, sovereignty);

(c) nationalist movements - state nationalism, unification, history of separation of nation states from empires, pre-state, liberation / colonial nationalism, of European colonists, post-colonial separation and unification, contemporary separatist, renaissance and pan-nationalism;

(d) national aspirations - degree of manifestation: the amplitude of the phenomenon of individual identification with the nation; participation in the economic and socio-

political life of the nation-built state (involvement, disinterest or rejection); the existence of excessive forms - irredentism, chauvinism, xenophobia; correlation with patriotism (the connection between the individual and the homeland as a territory and territorial economic-administrative organization);

c) ethnic geography (Costachie, 2009, pp. 186-231) (ethnogeography):

- generic element: nation ← defining element: ethnicity;

- *ethnicity*, intrinsic characteristics / evaluation criteria:

(a) ethno-genesis – ongoing or finalized (ethnicity, nation); ethnic - specific territorial unity (central space, borders, minorities, neighboring ethnic groups); the state built by the nation (territory, borders, neighboring state entities); similarities and differences between the two areas (translated / untranslated areas);

(b) ethnic matrix - minorities and majority ethnicity / nation: physical anatomical component (race), socio-cultural (spoken mother tongue, religion, common history, tradition, own culture, demographic specific, specific living environment, type of family organization, economic specificity) and psycho-behavioral (psychic attitude and typology, specific way of life, ethnic consciousness);

(c) ethnic minorities - specificities: emergence (change of borders and borders; distant emigration, in the vicinity or in the immediate vicinity; colonization; population exchanges; military seizure of territories and / or displacement of human communities to other areas within the taken area); location and position within the state entity; representativeness in the host state; ethnic, linguistic, religious or national aspirations; behaviors aimed at achieving autonomy, independence or reunification with the nations that generated them; geographical location (towards the center of the receiving state or at its border - isolation of the minority, conflict situations, respectively centrifugal tendencies); the distance between the area occupied by the minority and the generating state entity (inversely proportional to the power of manifestation and action as an ethnic entity); distribution and dispersion on the area of the state adoption entity (facilitates or hinders the policies between the minority and the state);

(d) ethnic majority (by this, in the study, we will understand the nation) - characteristics: the index of ethnic differentiation; indicator of ethnic unity, depending on ethnic homogeneity (the situation in which the three components of the ethnic matrix are unitary throughout its space of existence, the situation in which

the stability and permanence of the ethnic majority is ensured) or ethnic differentiation (caused by discontinuities in the level of matrix components for each ethnic group in the nation); unifying and differentiating factors (the time elapsed since the completion of the process of ethnic genesis; the type of evolutionary space - maritime or continental settlement, mountain or plain area; degree of accessibility; religion, ethnic symbolism);

(e) ethnic matrices of neighboring states - minorities and majority ethnic groups / nations;

(f) ethnic minorities in adjacent state entities - specificities;

(g) neighboring ethnic majorities - characteristics;

(h) inter-ethnic relations: between minority and majority (collaborative or with some degree of conflict), minority and host state (functional, territorial segregation; ethnic isolation; behavioral, structural, social assimilation; integration), minority and state generator, between the receiving state and the generating state, respectively between the majority / nation and the nation of origin of the minority ethnic group;

d) geography of borders and frontiers (Costachie, 2009, pp. 232-260):

- generic elements: nation and state entity ← defining element: *the border*

- *the border*, intrinsic characteristics / evaluation criteria:

(a) presentation - types: genetic (physical, historical, ethnic, geometric), functional (antecedent, subsequent), superimposed, ethnic (anthropic) or physical (natural), de facto (real) or fictitious, terrestrial, fluvial and maritime, ethno-political and geopolitical borders;

(b) the pressure exerted on the area on which the generic elements exist - the nation and the related state: indices of contiguity between the ethnic border (central space) and the one that delimits the nation, between the border of the state entity and the ethnic ones (minorities living in that state; from neighboring ethnic groups); potentiating / antagonistic factors - similarities between physical, ethnic, historical and geometric boundaries; the character of borders (superimposed / relics; real or fictitious); inter-ethnic, inter-nation, inter-state, ethnic-nation-state relations;

e) geography of seas and oceans (Costachie, 2009, pp. 261-267)

- generic elements: nation and state entity ← defining element: river maritime access

- *river maritime access*, intrinsic characteristics / evaluation criteria:
 - (a) presentation of areas - territorial waters (maritime extension of the territory), continental shelf and exclusive economic zone (resources and activities), open sea (main transport routes, activities), existing and accessed resources;
 - (b) special status areas - strategic points from a military and economic point of view;
 - f) electoral geography

At this moment, we consider irrelevant any approach to electoral analysis from the perspective of modeling the organic evolution of human communities.

g) geography of conflicts (Costachie, 2009, pp. 281-300)

- generic elements: state entity ← defining element: dispute
- *dispute*, intrinsic characteristics / evaluation criteria:
 - (a) conflicts - typology: depending on their nature (territorial, border, ethnic, religious, economic, social, political-ideological, cultural, conceptual), degree of violence (non-violent, social, cultural, educational, economic, etc. and violent basis), by the area of manifestation (state or supra-state).
 - (b) generating factors, such as insufficient resources, political influences, control of strategic areas, political and social imbalances, ethnic and religious antagonisms, etc.;
 - (c) stakeholders (ethnicity, nation / state, mechanical engineering socio-political organizations);

2.2. The Perspective of Geopolitics

- generic element: world system ← defining elements: *stratification of human society, globalization, integration, pan ideas¹, international.*
- *stratification of human society* (Bădescu, 2011, pp. 131-176), intrinsic characteristics (*in relation to socio-political components*) / evaluation criteria:

¹ A concept first mentioned and explained in Haushofer, Karl (2006). *Geopolitica delle Pan-idee/ Geopolitics of Pan-ideas*. Roma: Nuove Idee.

(a) positioning - belonging to the tellurocracy or thalassocracy (consistent with the dualistic conception of space); predispositions and functional-cultural antagonisms of the nation (towards the heartland or the thalassocracy bloc or geopolitically neutral); their transposition in the attitudes of the state entity / regional complex, in relation to the maritime space, to the land or to a neutral position (potential, assumed or realized); component part of the heartland, marginal increasing / rimland or increasing insular (from a regional and global perspective);

(b) location - regional complexes, generated by geographical proximity, strategic interaction, interdependence; central area (advanced economy that also involves the acquisition of military power, respectively the preservation and development of culture), colonial / peripheral (previously external to the considered space, underdeveloped economy) or semi-peripheral (developing economy); economic system (development or redistributive - above or below the average level of national or world productivity, ensures national accumulation or mediates it on a global scale); hierarchical relationships and stratifications; subsystems in line with world system theory (in terms of the hierarchy and, implicitly, the stratification of human society);

(c) position occupied in the subsystem - central, semi-peripheral or peripheral;

(d) calculation of the subsystem - positive or negative; advantages, semi-disadvantages or disadvantages brought to the center / (semi) periphery;

(e) role - beneficiary, supplier; leader, executor, dominant, dominated - related to the advantages or to the eventual disadvantages brought to the parties;

(f) subsystem - component layers (nations, state entities, regional complexes); political system (socialism, capitalism); specificity and form of manifestation (colonial - dominant elites, underdevelopment policies designed to ensure the development of the hierarchical upper area, and not their own progress; modern - rational organization of labor, regulated markets, internal organic growth, including by eliminating the possibility of unlimited gain with non-compliance regeneration); borders (political, military, economic, cultural, religious areas; situations of similarity and differentiation between them, including in relation to borders; civilizational boundaries - Western, Confucianism, Japanese, Islamic, Hindu, Slavic Orthodox, Latin American, African; confluence); border quality (central, peripheral, semi-peripheral); cross-border, inter-state interactions, between own layers and with other subsystems (harmonizing, competitive, conflicting); relations of domination

(direct or indirect) and their specificity (internationalist, nationalist imperialism; colonialism - exclusive and antagonistic expansion of a metropolitan nation, formal, informal empire - stable state expansion and inclusive and non-antagonistic form of nation expansion); balanced development as a whole or unequal (productive division; income distribution);

(g) premises transfer of a territory - causality (intrinsic or external); stage (potential, detachment, takeover and integration); the efficiency of the measures for carrying out / counteracting the transfer; their character - singular or part of a concerted set (anaconda geopolitical strategy) - applied in cultural, political, military, economic or (para) religious plan; entities involved (ethnic minorities and majorities, state entities);

(h) expansion of a state entity - premises (impulse towards expansion, potential for domination); modality (double regionalization, derived from the creation of borders for a unique space that includes the territories of the two entities, respectively from the investment of the initiating entity as *magister militiae*, by an already established imperial center; imitation of metropolitan policies or adoption of own policies).

(i) the security system (for an organic evolution of globalization) - the nation (dominant elites - is guided by the universalist principles of abstract rationality, thus eliminating spiritual content from aspects of life; creative elites - trigger and sustain spiritual renewal, achieve the supreme good in - a spirit-shaped space); the state entity (the degree of spiritualization, the efficiency of the nation's management), religion (whether or not it uses, for its own expansion, the springs of domination existing in human society);

(j) potential - existing at the level of the subsystem and its components (refers to the calculated value of the subsystem - the positive / negative amount, the potential for organic development recorded by the components and the degree achieved at that time);

(k) enhancing factors of the negative amount - limitation / cancellation of productive capacities (limited market access, advanced technologies, export of skilled human resources, predominantly export of primary products, import of highly processed goods, decapitalization, barriers to development local entrepreneurship, the orientation of foreign investments towards the creation of enclave economies, the outsourcing of profits or their reinvestment only in the enclave); promoting and imposing an inadequate lifestyle with real economic and social needs

(marginalization of the masses, transformed into a mechanism from the periphery of the central area, enslaved and imitative, corroborated with their proletarianization, lead to the disintegration of cultural unity);

(l) determinants of the evolution of human society - the spiritualization of borders (including those that cannot be canceled - natural) and borders (proportional to the area, relevance and frequency of cross-border cooperating activities); type of minorities, identity strategies adopted by them and border effects (inclusive / democratic minorities - extroverts, ethno-spiritualist strategy - integration effect and spirituality; exclusive / ethnocentric and ethnocentric minorities - introverts, ethnocentric strategy - isolation effect, exclusion, aggression, party deculturation ethnocentric and the transformation of the inclusive ethnic minority exclusively, generates internal borders and closed systems to external contacts);

(m) projected evolution - the probability of translation of state entities between central areas (which include highly integrated, progressive states) and semi-peripheries (with semi-integrated states) and peripheries (with weak states, at which underdevelopment is possible) - depending on the gap between the potential for organic development and that currently registered, the existence of conditions for changing the hierarchy (such as those consistent with the social selection of the best, negative social selection or the theory of unequal relationship between equal values);

• *globalization* (Bădescu, 2011, pp. 41-130), intrinsic characteristics / evaluation criteria:

(a) transformation (towards adaptation to the universality of the world system) - the index of synchronization (globalist deconstructivism, with reference to the stages of spiritual, social, political and religious deconstructions; integration into globalism, in the sense of acceptance and internal construction of world system, such as market, technology, commercial, banking and monetary systems, control and labor exploitation systems);

(b) the revival of nationalism - expression (latent or manifest); manifestation (positive or negative, depending on the impact on national unity generated by a series of situations such as: maintaining membership in ethnic groups of origin or ordering its abandonment, preserving or marginalizing the ethnic culture of minorities, challenges to the legitimacy of national culture, dissent, protests identity, group antagonisms, protesting social movements that lead to a decrease in trust in

institutions); degree of involvement in the realization of the world system (disavowal, rejection, acceptance or active participation);

(c) national unity - cohesive (at ethno-spiritual, ethno-social, ethnopolitical and ethno-religious level), fragmented (by translating from social stratification to ethnic stratification, effect of ethnic policies resulting in segregation, enclaves, ethno-cratism, etc.);

(d) effects of globalization - spiritually, socially, politically, religiously and at the level of the subsystem (increase or decrease in value - positive or negative developments);

• *integration* (Bădescu, 2011, p. 17), intrinsic characteristics / evaluation criteria:

(a) connection to the structures of the world system - the coupling index, calculated according to the place and role in a subsystem; its type; the level of depoliticization of the nation (the existence or annulment of its political dimension and, implicitly, of the connection with its own state entity, related to a series of aspects, among which the takeover of national markets by other entities, the annulment of mass public culture, hybridization of identity national institutions and the establishment of global culture - universal, technical, timeless, but also the demilitarization of the state in the sense of lack of its own policy in foreign and defense, following the completion of agreements with other entities, namely the normalization and ritualization of nationalism);

(b) the effect of integration - evolution or involution, depending on the type of processes initiated and developed (metropolitan - provides access to global stock exchanges, mineral resources, information flows, large industry, etc. or peripheral - result in impoverishment);

• *pan-ideas* (Bădescu, 2011, pp. 177-190), intrinsic characteristics / evaluation criteria:

(a) aggregation framework - the projected cognitive map (national, ethnopolitical and mental map; panideological maps, generally cognitive, referring to territorial processes - state construction, military expansions, respectively to the manifestation of pan-ideas; mental map - real, resides in the popular psyche and refers to the becoming and manifestation of the nation, projective - based on the evocation of unreal glorious events, is based on the desire for growth and expansion aspirations of some dominant elites); method of imposition (the action of a pan-ideas to reshape

the real mental map or through the authority of the legitimate elite); the type of pan-ideas (pan-Slavic, pan-Germanic, pan-Pacific, pan-European or pan-Asian); support (network center and points; dominant coordinating entity);

(b) stage - potential (the possibility of aggregating relations between communities and a space or territory of legitimate expansion), intermediate (geopolitical breakthrough, following the conquest of the mentality of some segments of the population), finalized (geopolitical undermining, by imposing the projected cognitive map);

• *international* (Bădescu, 2011, p. 183), intrinsic characteristics / evaluation criteria:

(a) international - support (headquarters and points of the network; dominant coordinating entity); role - support in the materialization of a pan-idea;

(b) stage - potential, intermediate, final;

3. Model. Hypothesis, Conception and Laws of Evolution

With reference to the evolution of human society, we take into account the hypothesis that it consists, on the one hand, in the becoming and existence of nations, including the establishment and interaction of forms of organization through which they self-manage (state entities), and on the other, in structuring humanity as a world system (vertically layered - subsystems, and horizontally - centers and semi / peripheries), globalization facilitated by globalization, integration and the manifestation of pan-ideas and internationals.

The centers of domination do not allow the Synectic and egalitarian cooperation between the human communities, implicitly their organic evolution, which has as a consequence the establishment of subsystems of negative sum, at the level of which domination relations are manifested and metropolitan and peripheral processes take place.

In the situation of organic evolution, the subsystems are positive, and the stratification specific to the world system (center, semi / periphery) does not show dominance, but only different levels of progress of human civilization generated by the functioning of world structures. These gaps are diminished as the peaks of progress radiate in the other layers and in other subsystems, a context that ensures the development of nations and, implicitly, the organic evolution of human society as a whole.

This perspective leads us to the *idea of humanity as a symbiosis of two layers* formed by socio-political components. *The first, with a fundamental role*, is made up of nations, state entities and subsystems (formed during globalization), *and the second, with a progressive role*, consists of globalized structures (which have a supranational character).

The evolution of humanity thus becomes the symbiosis of the evolutions of the two layers. The organic evolution of the fundamental layer is the necessary and sufficient condition for the evolution of human society. The organic feature of the evolution of humanity is ensured by the organic evolution of the progressive layer (space of confluence and amplification of human energies characteristic of universality).

Consistent with the perspectives of political geography and geopolitics on the evolution of human communities, the application of strategic management (Prună, 2012, p. 59) (in terms of formulation and implementation of integrative, broad and sectoral strategies, functioning of the global strategic system and national strategic systems, achievement of prospective security (Onișor, Bălan, & Prună, 2012, pp. 28-37), etc.) socio-political (sequential).

We mention a hypothetical model of reality - *The theory of honeycomb humanity* (under formation) - according to which the building of human society on a honeycomb structure (fundamental layer - honeycomb cells; progressive layer - upper protective facet) intrinsically ensures the organic evolution of humanity. We can consider the set of natural components (relief forms) as the lower facet of protection.

Based on the generalization and abstraction of the accumulated knowledge, we highlight the following stages in honeycomb building: identification of potential confluence areas, coupling of the fundamental layers, development of the progressive layer, in symbiosis with the fundamental ones.

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