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Modeling complex trans disciplinary social systems.

An essay of science on art & humanity

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Modeling Complex Transdisciplinary Social Systems

An essay of science on art & humanity

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To my Sons Santiago Andres & Maria Lujan

To my family for their support

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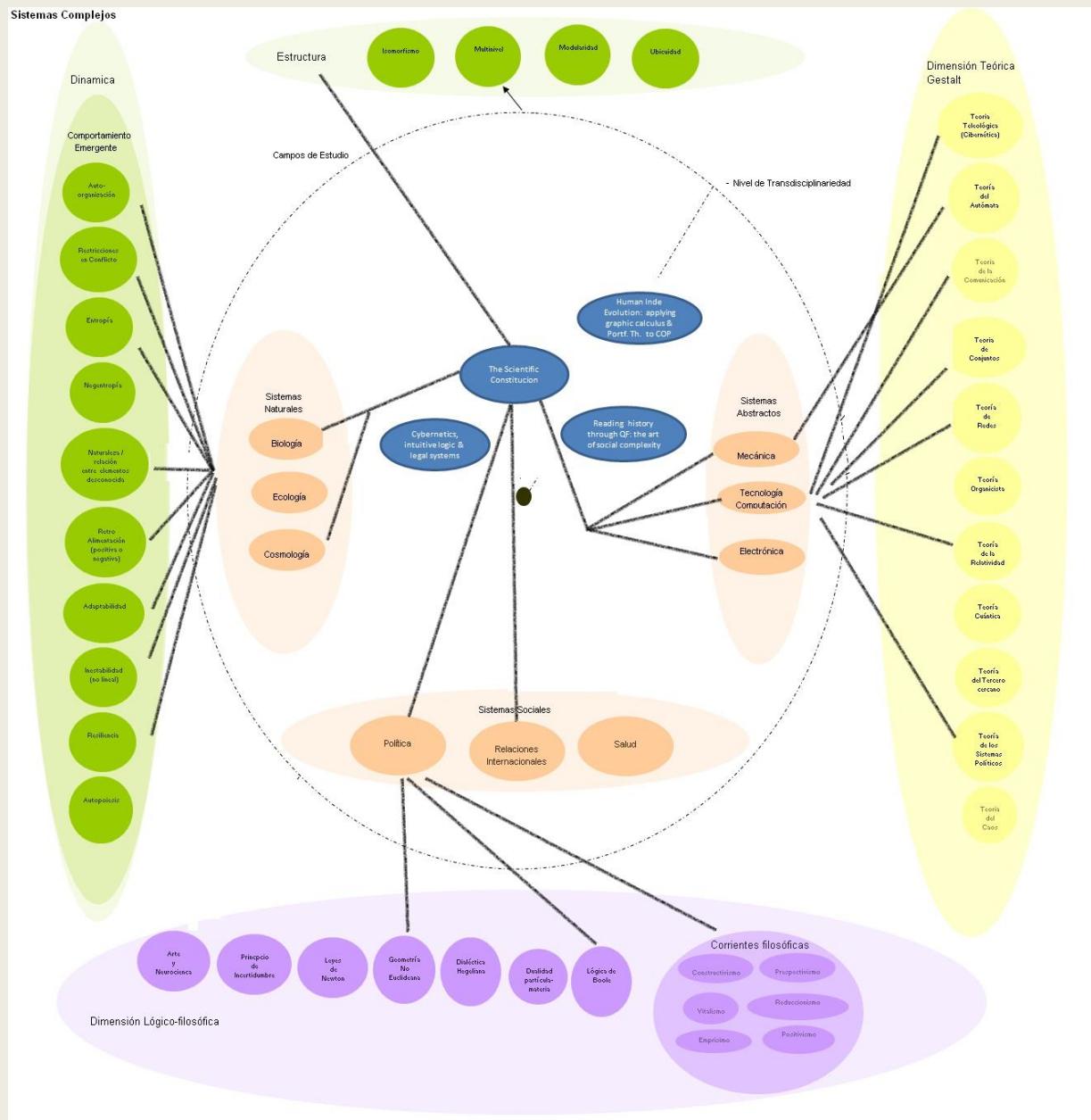
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I – Introduction:

Tran disciplinary degree and social systems challenges

Trans disciplinary is the *caveat* of modern science. It encourage scientists, philosophers, artists, politicians and business entrepreneurs to seek for a freshly new knowledge acquisition & innovation process paradigm serving itself as vehicle for upgrading collective intelligence solutions. Far away from neglecting traditional on-field principles and methodology, it works pretty much as Einstein relativity theory by recognizing partial and limited truths on the same phenomenon, while simultaneously encouraging a constant review of ‘the big picture’ for which inter disciplinary work teams usually focus on the ‘system function’. A history on Complex Systems Centers development shows there’s currently an academic gap in terms of rigorous methodology between natural and abstract science on the one hand, and social science on the other one, namely, objectively quantifying and measuring those variables that allows for prediction. This work simply intends to somehow contribute to the task of shortening this gap.

The following chart (written in Spanish) exhibits a one possible way to assess Trans disciplinary degree on any possible complex system under scrutiny, for instance, those studied hereinafter:



II – The Scientific Constitution

Neologism of Complex Political Science

1. The National Constitution as an organizational paradigm

The human species evolution, its harmonic and sustainable coexistence with the environment, progress and achievable plenitude, is closely linked to the expression of learning capacity in terms of intelligence and collective conscience. The Constitution or fundamental agreement-letter in each country, that formulates the organizational paradigm under a sort of vitality identified to the notion of sovereign State or simply sovereign, is getting more and more weak against technological development and the idea of a global civilization. Constitutional purpose and function have classically been approach almost

- 'Für einen Fetzen Papier!' claim Sir Chancellor Bethmann-Hollweg
- 'What is essential is invisible to the eye' answer Antoine de Saint-Exupéry based on social prediction.

exclusively from a disciplinary perspective, feedback to the exercise of a pro market kind of constructivism that proved not to adjust to necessity, forcing up to the upper level the tolerable limits of methodological consistency and rigorousness for each discipline, thus incrementing

intellectual and financial entropy. Classical study encompass political science, philosophy of law, constitutional law, public international law, not properly achieving enough contribution for improving resolution capacity and gaining a sense of positive evolution of institutional order and intelligence whether global, regional or national. Therefore, the Constitutional field exhibits a sound academic ground under which socio economic character systems may be exercise. In doing so, a good starting point takes into account: a. the political system announced by the Canadian David Easton – who basically applies Ludwig Von Bertalanffy general system theory to the policy –; b. the new economic constitution proposed by Buchanan and, c. the methodological principles posted by the trans disciplinary school as leaded by Basarab Nicolescu (CIRET), supporting the distinction between Engineering Systems and System Engineering, the former exploring complex systems using traditional engineering, management and social sciences. Current working paper intends to bring support on this confluence, entering into the risky-heterodox studying methodology that calls for parallel thinking in which scientific thought can be applied.

2. A brief review on latest disciplinary progress

The economy, thanks to the notion of "Economic Constitution" brought to us by Buchanan, can partially explain the proven positive correlation between the rule of law and per capita GDP evolution. Although lacking from quantitative rigorousness, his work smartly introduce the economic agent innovative capacity phenomena, by the means of the exchanging between restrictions and liberty/benefit as a key feature of collective decision, offering a better solution to loop dualism Cosmo vision implicitly postulate by constitutional principle stage. A one political science that finds right in the notion of 'living constitution' a pro cyclically generic omnibus-concept to promptly be adapted according to political and economic context, arguing any redirection of constitutions practices and customs, gratefully expressed by commonly known linguistics expressions such as 'liberal', 'neo-liberal', 'socio-democratic', 'Keynesian' and more recently 'financial or fiscal' Constitution. A more sophisticated version may be found in the 'strategic constitution' term.

3. The history constitutional dimension: Phenomenological-systemic testimony

For all National Constitutional letter signing event, there's a previous and coexistence history of declaration and content accomplishment. An evolutionary approach requires a retrospective view when comparing the constitutional process characteristics pertaining to the complexity of the correspondent socio economic subsystem known as Nation. History shows an intense connectivity between international intellectual nodes – liberal society that rapidly extrapolates the French revolution declaration of principles –, as a transferring path for law universalism, following a deliberative-process engineer that was locally-timely exercised, allowing for a relatively homogeneous regulatory body between nations, only at the expense of a differentiated culture and idiosyncrasy that remarks singular emergent properties of significant incidence in each later socio-economic body development. By this means, for example, behind US Constitutional fathers debating around the prevail of a south-agrarian or north capitalism economy, lies a hidden conflict of postwar distributional debt effects, with hot-charging-imputations surrounding an apparent conflict of interest with non-official lists of those northern legislators that apparently benefit from having portable-bonds. Notwithstanding, the incipient US society assert in simultaneously blessing the noble declarative democratic principles of Jefferson while accepting the realism of a fiscal policy by all means as violent as efficient, only achievable by the brightness sagacity of a figure like Hamilton, building the pillars of international capital market competitiveness by sovereign debt credibility. Far away from this rhetoric evolution, equally constitutions principles were followed by argentine legislators but do not "broke the chains" required for independence, for a disruptive cultural change was required first so as to get rid of the 'colony-citizen' perception. In Alberdi Word: "El moderno régimen esta en nuestros corazones, pero el colonial en nuestros hábitos". Quite evidence of a systemic weight in the behavior and chosen direction of all historical constitutional society process, well perceived by Ludwig Von Bertalanffy who points out: "los acontecimientos parecen envolver algo mas que las decisiones y acciones individuales, y estar determinados mas por 'sistemas' socioculturales, trátese de prejuicios, ideologías, grupos de presión, tendencias sociales, el crecimiento y la decadencia de civilizaciones y quien sabe cuanto mas". It entails

a holism permeable to trans disciplinary vision, re dimensioning the idea of a ‘living constitution’ onto the achievement of different discipline-understanding knowledge unity, adding scientific critic thought and predictable constitutional exercises, finally seen as Constitutional Complex Adaptive Systems (CCAS). An axiom to reformulate the constitutional phenomena as one scientifically observable, namely ‘Scientific Constitution’, offering an alternative type of study to approach all possible better collective intelligence and consciousness through improving institutional order formulation.

4. Reinterpreting the ‘Living Constitution’ as a Constitutional Complex Adaptive System (CCAS)

The Living Constitution now seen as a bio political system as formulated by David Easton, represents a socio-economic complex collective decision system. This constitutional system (CCAS) shows the following patterns:

1. Supporting Complexity:

1.1 A mereological universalism given its auto-productive capacity

1.2. Multi Agents presence with continuous phenotype

1.3. A social contract running over a dynamic domain

1.4. A self-supply pattern in between the number, specie and relation function of agents.

1.5. Enable to differentiate among causes derived from hierarchy structure (symmetry grades) and functional process (electromagnetic shocks of nodal ramifications-, along with gravitational forces)

1.6. Difficult to identify and predict emergence behavior

1.7. While the Constitution letter follows a bivalent logic principle, Euclidean normative body and correlative thinking kind; constitutional system is functionally relativist or according to time-space perspective (local-global), with metric tensors in the conflict-cooperative agent relationship, structure-process unity and analogous thought.

1.8. It shows one or more exit points, usually unpredictable

1.9. It is multi dimensional (social, cultural, economic, politic, etc.)

1.10. Has normative principles of partial symbols

1.11. Socially and legally adaptive

2. Either open or closed, depending upon model design CCAS recognize the possibility of a topologic morphology to describe de complex constitutional map. Model axioms follow dimensional pre selection, magnitude and relational functions, and variables that quantify regulatory changes or macroeconomic shocks with second order effect. Multi agents in constant change make much more difficult the abstract

process of identifying the elements and conjunctions to be included in a mathematical set. Hard is to find recurrence behavioral patterns during human kind history, partially explained by the limits of propositional logic to define pre-defined conjunctions within highly sensible and changing environments such as social organizations, making evident the task in formulating axioms of interaction. Any study must require an analytical knowledge (reductionism) and systemic (experimental for composition) approach, enriched by Trans disciplinary. Exhibit a geo-dynamical multi level structure, an endogenous negentropy of a social contract supra system, a constitutional phenomenon system and state juridical-economic organization subsystem. The mere existence of feedback (positive or negative), does not imply evolutionary determinism, for dealing with an emergent property system that is constantly adapting and defining itself (in dynamic geometry terms a Fibonacci spiral figure). The organic entropy is in perspective diluted by a multidirectional energetic channel regarding political power and economic action capacity, again reinforcing the transformation character (Einstein) by excellence. CCAS as a method allows the illustration of a dynamic equilibrium pattern with stability, evolutionary path, and linkage between political, legal, cultural, and economic dimensions. For instance, it may quietly shows a stable political regime to legitimate an inefficient economic restrictions collective decision, or simply non convenient to ecosystem. Stated differently, a formal political Constitution applies for a non-efficient economic allocation, thus justifying the Buchanan phenomenology argument for substituting the economic optimization model (not adaptable to social behaviors).

5. CCAS characteristics (a special case of CAS)

The mentioned characteristic of multidimensional complexity (introspectively a kind of socio Constitutional psychology), is similar to quantum theory of curve space-time fields. Then, it is impossible to elaborate a comprehensive CCAS predictable model. But require the selection of a ‘conceptual-Kernel’ to grant scientific rigorousness of a partial view of reality. Human in nature, it turns relevant data collection, the logic of interaction (i.e. difference between order sequence when dealing with numbers or decisions), and the way to manage it. It allows the use of dependant stochastic process with functions that assume individual and social decisions theories, the effect of the learning curve, and each node relative position regarding emergent effect. It's also feasible for building Classifier Systems that works under the Boolean algebra logic. The system openness degree must be seen through the same complex prism. There are channels of constitutional reforms – whether normative, by precedent, custom or tradition – that enter into existence without a direct application of constitutional clauses. It is rather possible to diagram a hall decision tree – similar to neuralgic network – with central nods much closer to normative, execution, and constitutionals clauses interpretation capacity. Constitutional content may be codified onto a Gauss distributional graphic according to the level of applying random criteria for each category norm (Bill of rights, Power of the State, Suffrage and elections, the executive, the judiciary, public finance, local government, public education, civil service, intergovernmental relations, constitutional revision, schedule), while constitutional principles – such as representative, republican and federal government system – as unanimity supported as individually

interpreted (macro and micro scope). Value at risk (VAR) is quantified by using the alternative rate of return produced by the economic impact of norm violation plus probability of occurrence. In this way, the rule of law / Per capita GDP positive correlation prove how social contract stands for "Rousseau invisible hand", social basis under which Buchanan market exchange takes place informally, then shaping institutional functioning and collective intelligence, rule of law quality degree, all necessarily to upgrade market development, competitiveness and cooperation efficient frontier. It is a Mehta theory, and as such, its purpose isn't to predict if a specific bill of law will be promulgated or what would be a final judicial verdict over constitutional rights in dispute, but to infer conclusions regarding matters such as: a. density and direction of those underpinning social forces that guide participative change and its impact to the economy and politics; b. the probability of loop behave that stimulate government rent practices or vias toward Corporative Constitution; c. the identification of inter institutional-legal decision mechanisms that forces the creation of an exit variable such as economic informality o international protectionism, d. Or the stimulus for new algorithm decision process that might positive change the emergent behave, e. Or the results of mixing institutional architecture and dynamic behave. The empiric research, although an exquisite standard of historical testimony, enhance academic community in their best efforts to find key algorithm alchemy able to positively interfere onto the constitutional system evolution. For economic constitution discipline, it is convenient to define (typicality) the object of legal protection as "people economic sovereignty", not in an ideological distributive sense but the holistic Cosmo view that shapes and justify the State and government role. According Rousseau: "De suerte que, en el instante en que el gobierno usurpa la soberanía, el pacto social queda roto, y los ciudadanos, recuperando el derecho de su libertad natural, continúan obligados por la fuerza, pero ya no por deber, a obedecer".

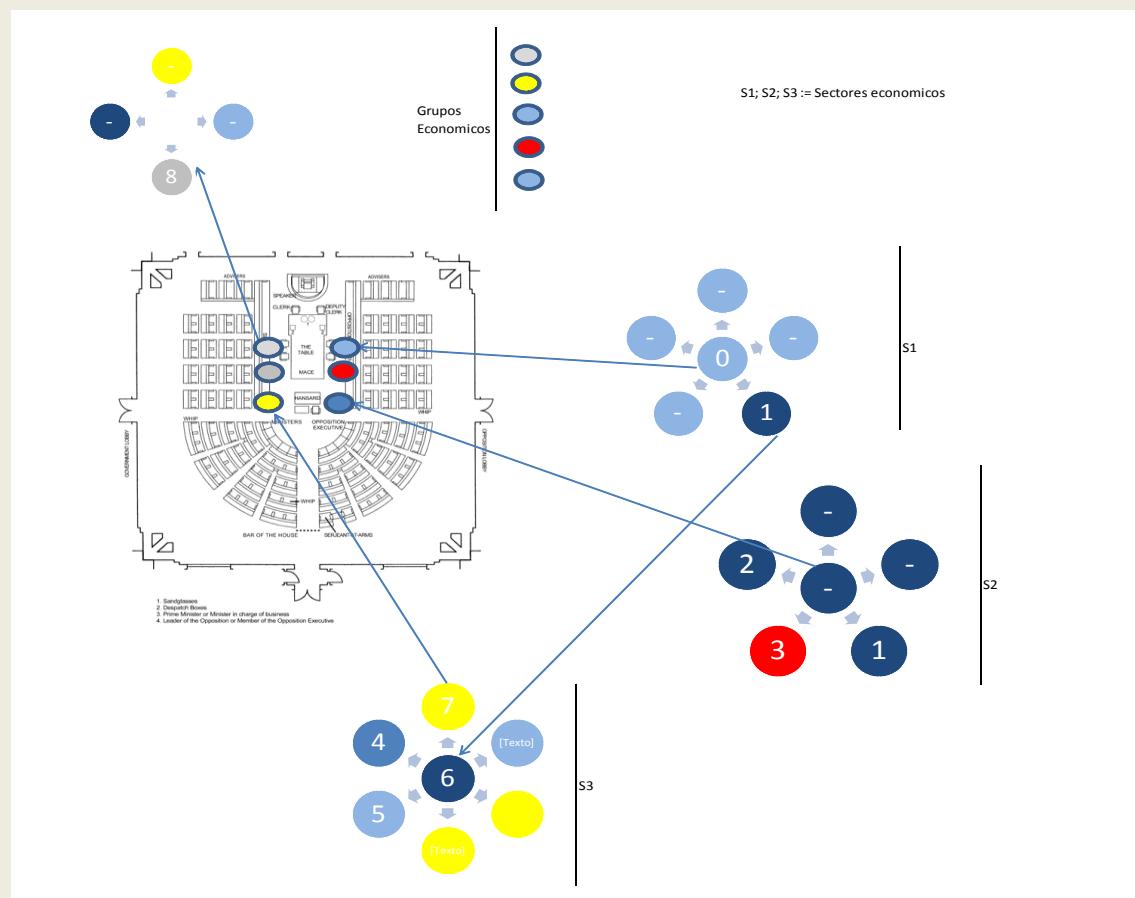
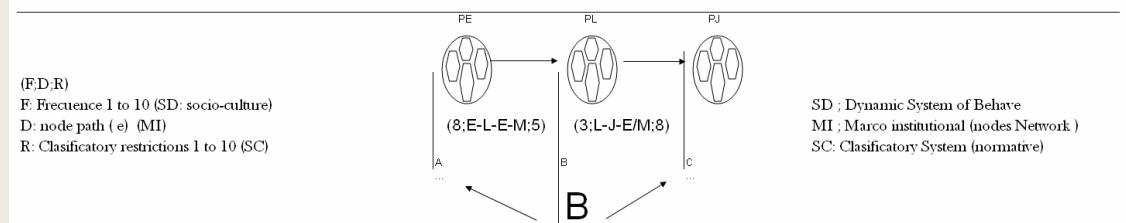
6. The Scientific Constitution

Let Start saying that the difference between a strategic constitution and a scientific one is that in this late case there is a bio policy scenario that requires an observable and predictive work of CCAS phenomena, applying scientific rigorousness, for only afterwards further actions can be suggested. A complex network instructed by each National Constitution reflects a socio-economic dynamicity, possible seen as the autopoiesis neologism in its auto-production sense. In State action sphere, an operative closed circuit, only dependent to external stimulus according to internal structure. Mechanisms built over principles like impartiality that systemic view simplifies in terms of behavioral efficiency (part to all relation). Also applicable when dealing with changing governance mechanism where the system allows for a political party or faction to constantly adapt discursive and representative agent in order to perpetuate in power. This autopiesis principle reformulates the known capacity of change and Schumpeterian innovation (as individual-liberal) for a systemic capacity of innovation through dynamism, structure and elements properties (pretty much like a "Leviathan entrepreneur") Social decision theory shows an inherent resilience to change clearly figured in the legislative arena by Nicolas Maquiavelo, who in line with the equilibrium principle of John Forbes Nash express. "Notese

bien que no hay cosa más ardua de manejar, ni que se lleve a cabo con más peligro, ni cuyo acierto sea más dudoso que el obrar como jefe, para dictar estatutos nuevos, pues tiene como enemigos activísimos a cuantos sacaron provecho de los estatutos antiguos, y aun de los que puedan sacarlo de los recién establecidos, suelen defenderlos con tibieza suma, tibieza que dimana en gran parte de la escasa confianza que los hombres ponen en las innovaciones, por buenas que parezcan, hasta que no haya pasado por el tamiz de una experiencia sólida.” The system on its legal dimension simultaneously illustrates an objective (mathematician by extension) and subjective law (philosophic by intention). Constitutional principles, as incomplete symbols, need a intention reference in order to be applied to concrete cases. In this sense, Theory of Justice as suggested by John Rawls conquer a systemic approach only at the expense the ambiguity of idealistic benchmarks, a safeguard rule to legitimacy of public political authority, differing legal functionality of CCAS to judicial capacity case resolution. Constitutional normative universalism irradiates the logic of occidental constructivism built over the static philosophy and physics of dualism when applied to human kind nature and social order. The footprint of the Aristotelian “zoon politikon”, feed by rationality and power of abstraction, inject a strange component to evolution mechanism of natural development system, liquid of arrogance that intends to reduce space-time dimension in all system behave. These principles are view by the Economic Constitution field as mere argumentative elements to selection of restrictions, justifying a legal precedence order using a correlation thought and time discrete unity with peremptorily due periods. Contrario Sensu, extracting properties from complex constitutional behave recognize analogous thought attributes and non-normative arrhythmic collective decision practices that reinforce the proposition of a dual local and global time, implicitly align to Albert Einstein relativity theory. The need for a written rule fulfilled with procedures in any organizational plan – ultimately linked to the Constitution –, historically justified by the spirit of immortal recognition of a social-evolution stage in which human inalienable rights are recognized, interpreted by sociology as the psycho political civitas need of sustaining the macro-architectonic functional idea in essence deterministic. Sanctuary of stabilizing order (if such exist) whose intelligence oscillate between being a wall to Trotsky-Lenin chaos and the inefficient bureaucracy of a public body that repels all innovative proposal. Actual CCAS underline a common denominator for each Nation, an emergent property that raise socio institutional decision making algorithms encompassing Schumpeterian innovation (destructive creation process) gestated within dichotomist collective conscience parameters and confronted to the ‘multiform resistance’ of social stability. A restriction substituted by trichotomy decision making algorithms by adding global sustainability factor. Liberal political school of thought philosophically originated in individualism should realign the exercise of liberty and individual capacity to a collective intelligence conscience, a born Cosmo vision that put in check of extinction the constitutional phenomena as it’s understood today. The remaining question is: what must be changed from the constitutional system in order to improve global behave from the constitutional system in order to improve global behave from the human evolutionary perspective of progress?

7. An essay to the CCAS Argentine model case. classificatory system with gravitational axis in the House of Senate. The following Graphic exhibit a CCAS static topological map.

Constitutional Complex Adaptive System (CCAS): gravitational axis in the House of Senate



The Needles reality is reduce onto a constitutional socio-economic dynamic model (including learning curve, memory, time sharing expectations) The purpose is to show as evidence the impact of Scientific Constitution in the adaptation capacity by economic groups, sectors and public institutions (House of Senate) interaction according to macroeconomic restrictions and political climate. Simulation seeks to observe collective decision behave at each stage, relocating multi agent relative positions. Individual nodes are selected by following a political, economic and sector power concentration Criteria (colors and lines) – One node is at list one person --. The Hypothesis is the existence of a relation behaves equation that identifies and weight for each momentum the Net Present Value (NPV) when comparing economic opportunity cost versus political power positioning movement. Topology shows a modular

structure (subsystems) replying multi agents attributes. Initial assembly chooses high-transportation connectivity in those central nodes closer to legislative power and specific economic/sector weight. A Boolean classificatory logic (1; 0) is substituted by a 1 to 10 scalar. The "bit pace" is shown as a frequency of messages, i.e. official presentations of Bill of Law; judicial claim born within legislative power (the dynamic property (8; E-L-E-M;5) would mean a high turning over degree reception (political culture), the requirement of a sequence of approved for promulgation by the Executive Power prior to 'market launching', while content has 50/50 probability to be approved (by law mandatory node entering) Descriptive subsystem B picture (Legislative power) shall be extended to the other two republican powers (Judicial and Executive), making the analysis much more complex. Graphic static intends to somehow scope complexity scenario, and further dynamic studies (in/out) shall be propose. In theory, CCAS as observable phenomena takes us to the following two Axioms formulation.

1. $Df(U) = F(\Phi) = \Sigma \{D\}$
2. $\exists i \dots | i \in F(\Phi) [T0 \neq T1] \rightarrow i(\Phi)$

The first one point out that in every CCAS domain function is constantly changing with a curve multidimensional tensor (politics, economic, social, cultural, etc.) The second one is partially explained by the first, and states that individualization elements are in permanent change, a chemical kind of disequilibrium that resembles Russell paradox. By this means a variant domain in nano-metamorphosis rapidly change nodes centrality characteristics that define function relation with other K nodes. Therefore, all behavioral axioms postulate become hardly-task to prevail (history conductible thread) CCAS practicality calls for reductionism, pre defining structure, density and functions, under trial and error methodology. The graph points out several different unique node positions that interact in specific context, from which a few observations follows (regarding that vague path from individual maximization model to conflict-cooperative systemic ones – see nodes number).

0:= normally the eigenvector of a sector assume connection to Congress and internal support (stability)

2:= Connection to Congress is privilege position usually left only to eigenvectors. When this does not occur, this central node might feel substitutive risks and/or the advantage of not treating directly.

3:= There are economic nodes that although isolated from all economic/sector Cluster benefit from great political influence.

4 / 5: = Intra sector association is an emergent spontaneous event (initially Nro. 3) that increases probability of a new sector reference node.

1 / 6:= there are nodes that pertain to an economic Group, not sharing with the other members the economic sector. The May (nro. 6) or may not (nr. 2) be a sector reference.

7: = a node may have the sector over control without formal charge, and even so serves as connection path to Congress agenda.

8: = Congressman can also conform one economic Group, even if they act as members of different parties, and as such grants institutional deliberative control (own territory), while conquering the market as players.

Observed behavioral qualities in Classifier systems allow inferring, deducting and analog application for a better understanding of the Scientific

Constitution:

A. Assigning Boolean function to a vacuum node or mixed with a previous one similar to cultural and idiosyncratic evolution pattern

B. The distinction among external nodes lacking a Boolean function and internal ones, graphic the resistance to change by central nodes in every social organization

C. Recognize that selection parameters have deep effects in the behavioral system, y analogous to understanding that the perception of changing the economic-political achievable frontier by any node means new constitutional norms and institutions.

A. The fact that the architecture of classification in the system highly depends on legal rules reinforce the significance of precedent and the pyramid of legal priority in shaping interaction.

B. The presence of self sustainable activity even without stimulus is perfectly compatible with closed type of public institutions working, or the minimum possible activity for every firm running at loss.

C. Internal over activity harms effectiveness loosing receptivity to environment, certainly a bad public culture.

D. When Boolean functions shows too much "1" they tend to frees the message, compatible with political campaigns supporting extreme positions or disruptive market innovation success probabilities.

E. The possibility of a classifier system to send a message that affect the all environment in a predictable way so as to led to another expected new message (stimulus<effect< stimulus<effect) is by all means compatible with economic policy practices in which measures are taken according such sequence.

8. Modeling the social legal system

With regard to the State Judicial Power, the legal system static structure and dynamic motion can be well represented through *network theory* while by using *constructive logic* (alternatively called ‘intuitively logic’) as an appropriate tool in order to propose an entire set of formulas (for a more

comprehensive view on this topic you can read an article of this author “cibernetica, logical intuitiva y sistemas juridicos”, published on elDial.com on 12. 2013). So while through CASS Senate House model we understand the public-private complex forces behind the process of new law promulgation, by this means, an already existing and prevailing law falls in cascade through the legal system to become a case-

Chief among these advantages would seem to be the ability of the brain to handle vague ideas, as yet imperfectly defined”

Norbert Weiner, God y Golem SA (1964)

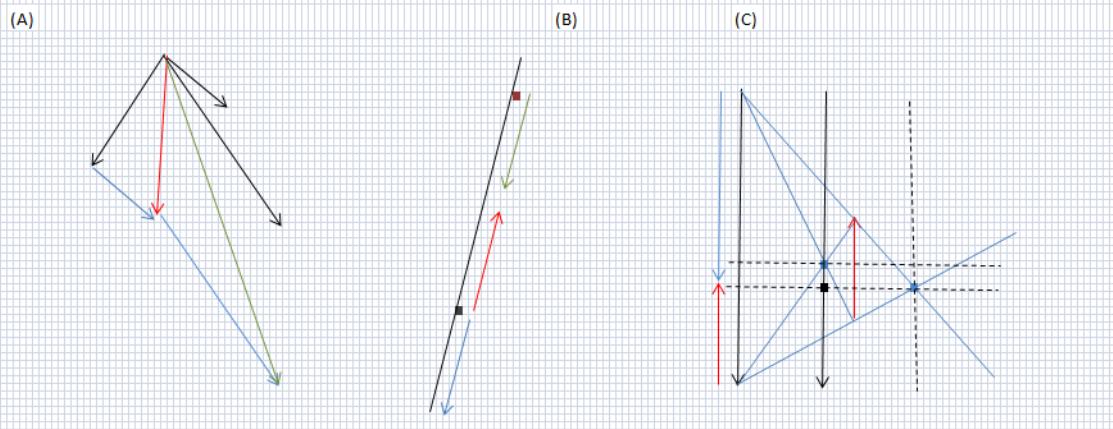
state-resolution. The sociological dimension of the norm once proposed by Werner Goldschmidt may be now quantified in terms of each legal sentence degree impact on the entire map of Communities of Practice – this term (COP) was first introduced by Professor Etienne Wegner (Humanity School, Aalborg University, Denmark; for a COP to exist three elements must coexist: domain, community and specific type of practice – that belongs to a certain society. But what impact exactly can be measure and how?

For the what, let's use the ‘political mass’ concept and formula as presented by Prof. Giovanni Schioppo in the article “Il sogno di Asimov, lineamenti di fisica storica e politica ovvero fisica sociale” (Questo concetto si rappresenta attraverso la formula $m - n$ dove la variabile “m” configura la propria massa, “n” sono gli individui che formano parte di una comunità di pratica specifica ed “l” il indice di sviluppo umano (ISU), il quale si compone delle “condizione economiche...PIL pro capite)...sanitarie ed in particolare l’ aspettativa di vita alla nascita di ciascun individuo... culturali, ossia livello di alfabetizzazione della popolazione adulta, tenuto conto anche del numero di anni trascorsi a scuola da ciascun individuo.” Then, each COP recognize a political mass value in terms of ISU scale (scala dal 1 al 30) and population “n” (come quantità d’ individui nel gruppo).

For the how, it might be using ‘Nozione di Calcolo Grafico’, and more specifically ‘Transformazione delle figure piane’. I propose to draw a COPs map and use the notion of ‘composizione delle forze - momenti statici’, una forza che possa essere rappresentata graficamente (elementi: 1. la linea d’ azione; 2. La grandezza; 3. Il senso; 4. Il punto di applicazione) ed attraverso il ‘vettore della forza’... anche il concetto di risultante. According to this:

- A) Due COP possono essere separatamente valorizzata, e sua risultante successivamente valorizzata con altra COP, fino di arrivare alla linea d’ azione unica (del congiunto)
- B) Sia una COP qualunque operando nella linea d’ azione coi vari forze dentro del suo gruppo... quindi.. esiste come possibilità il suo punto d’ azione può essere trasportato
- C) Sia due linea d’ azioni (2 COP) operando nella stessa direzione parallelamente, quindi, si puoi fare una terza linea d’ applicazione nel stesso piano con suo proprio punto d’ applicazione e magnitudo di forza.

Composizione delle forze nel piano



A) Elementi: 1. la linea d' azione ; 2. la grandezza ; 3. Il senso (**tangente; risultante1; risultante2**)

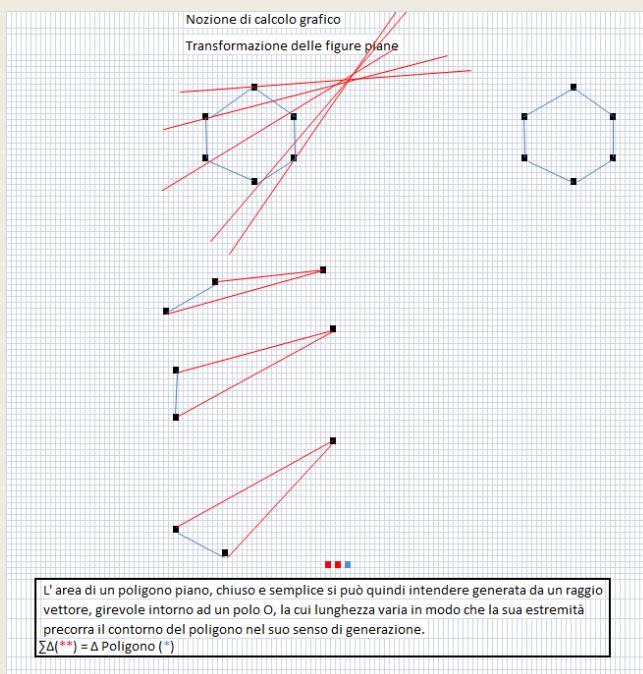
B) Il punto d' applicazione di una forza può essere trasportato lungo la sua linea d' azione senza che se ne alteri l' effetto: da * a *

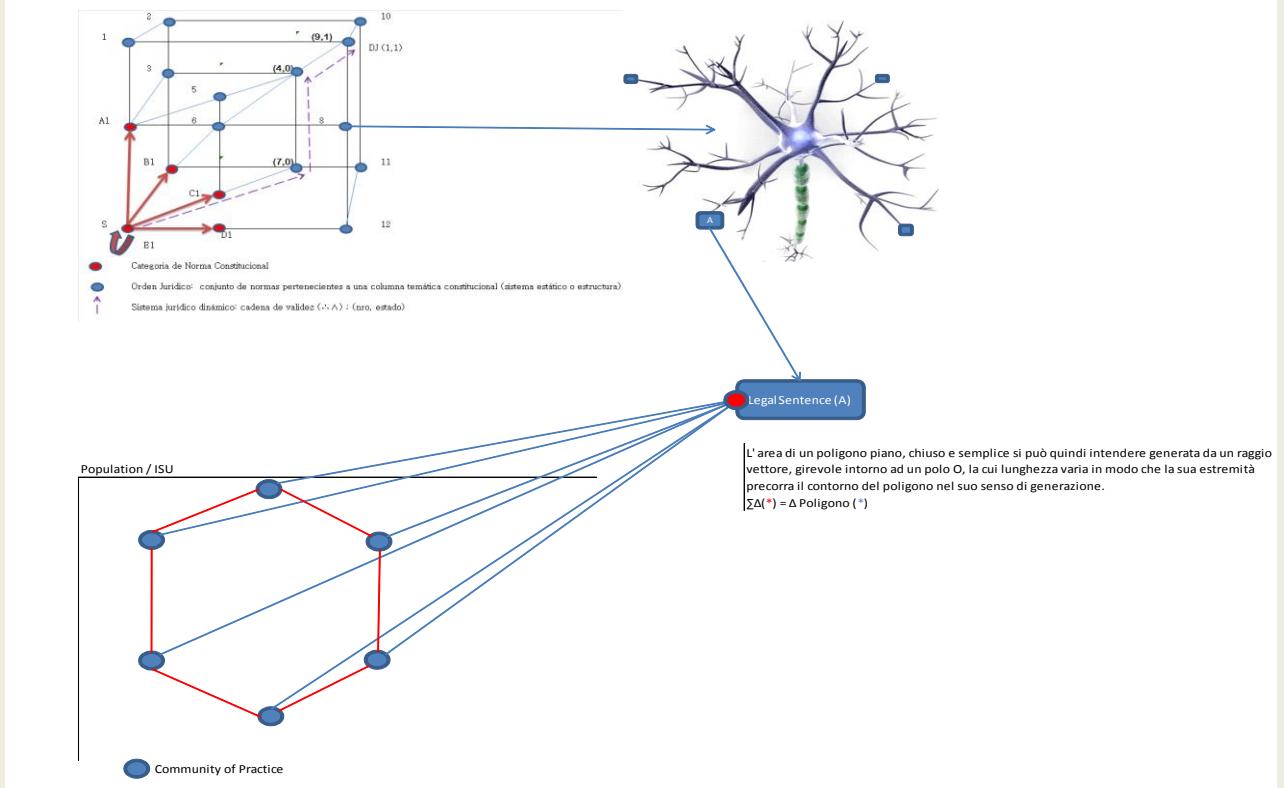
B) Nuovo punto d' applicazione : * ($F_1 = F_2$) → ... Forza della linea d' azione = F_3

Si chiama **risultante** di un dato sistema di forze una forza unica il cui effetto, sul sistema rigido a cui quelle sono applicate, sia equivalente all'effetto complessivo delle forze date: queste, in relazione alla risultante, diconsi **forze componenti**

L' operazione della ricerca della forza ris., date le forze componenti, chiamasi **composizione delle forze** e l' operazione inversa data cioè la risultante cercare le componenti, dicesi **decomposizione delle forze**

Troppò importante è la rappresentazione di qualsiasi entità (fatto, evento, misura, comunicazioni, influenza istituzionali ed altri) nel congiunto di questo sistema complesso graficamente rappresentato nel piano (Cops). Partendo dal punto iniziale ed esterno (entità), la sua applicazione ed influenza potrebbero essere studiate grazie alla nozione di transformazione delle figure nel piano, come si grafica di seguito.





Therefore, a legal sentence becomes simply ‘an entity’ that belongs to the ‘legal nervous system’ and can be considered as one pole from which to force each COP population/ISU delta change. Note that the same Legal Sentence might simultaneously produce different or contradictory effects on each COP population/ISU level, and induce a general trend on the entire map.

Here's an example of COPs political mass Map in Argentina and their initial situation (each COP valuation isn't real since there were no ‘field study’ being presented just as an example record):

Nro.	Comunidad de Práctica	ISU			1 a 10		0/5000		0/50		redondeo	2013 Población	2012 Población
		Económica	Educativa	Salud	ISU	Población	Población	Población	Población	Población			
1	COP. Fundación Endeavor	1	5	5	11	1333	13,53	14	14883	17361			
2	COP. Centro de Entrepreneurship IAE	2	6	10	18	3105	31,05	31	55890	83753			
3	COP. CARI - Consejo Argentino para las relaciones Internacionales	9	3	8	20	1000	10	10	20000	20024			
4	COP. UBA - Posgrado en Seguridad Informática	1	8	1	10	306	3,06	3	3060	3755			
5	COP. UBA - Bandera de la Paz, Fundación Hölters Simon	4	3	2	9	3635	36,35	36	32715	44678			
6	COP. LA NACION - UTDT - Maestría en Periodismo	6	6	6	18	3963	39,63	40	71334	75214			
7	COP. CIPIPEC - Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento	4	6	2	12	3000	30	30	36000	33147			
8	COP. RACI - Red Argentina para la cooperación Internacional	7	6	8	21	462	4,62	5	9702	12424			
9	COP. AAE - Asociación Argentina de Energía Eólica	7	1	7	15	1703	17,03	17	25545	35703			
10	COP. AEA - Asociación Empresaria Argentina (Políticas Públicas: empresa)	6	4	1	11	2503	25,03	25	27533	31658			
11	COP. Agencia Nacional de Desarrollo de Inversiones (PROSPERAR)	4	5	8	17	3425	34,25	34	58225	70865			
12	COP. CECyD - Centro de Empresa, Competitividad y Desarrollo	5	8	9	22	2615	26,15	26	57530	46936			
13	COP. CFI - Certificaciones Financieras Internacionales	10	8	9	27	4752	47,52	48	128304	141912			
14	COP. ISIAE-CARI Instituto de Seguridad Internacional y Asuntos Estratégicos	2	9	9	20	721	7,21	7	14420	12684			
15	COP. CAFCI - Cámara Argentina de Fondos Comunes de Inversión	4	6	1	11	2966	29,66	30	32626	30120			
16	COP. FORES - Foro de Estudio sobre la Administración de Justicia	7	10	6	23	3225	32,25	32	74175	76453			
17	COP. CAME - Confederación Argentina de la Mediana Empresa	2	3	5	10	3268	32,68	33	32680	44609			
18	COP. CADAL - Centro de Apertura & Desarrollo para América Latina	4	2	10	16	3681	36,81	37	58896	44722			
19	COP. CAEI - Centro Argentino de Estudios Internacionales	10	3	7	20	2065	20,65	21	41300	36547			
20	COP. AAEF - Asociación de Profesionales de las Industrias del Petróleo & de la Minería de Argentina	6	1	6	13	1891	18,91	19	24583	30341			
21	COP. CEGLA - Fundación Enlaces	3	4	3	10	2374	23,74	24	23740	30652			
22	COP. Brigada Especial Operativa Halcón	8	7	9	24	794	7,94	8	19056	12834			
23	COP. Tencubaires	3	9	1	13	52	0,52	1	676	617			
24	COP. Cámara Argentina de Fideicomisos y FDI	7	7	4	18	4450	44,5	45	80100	117622			
25	COP. CPACF - Colegio Público de Abogados de la Capital Federal	7	10	6	23	4076	40,76	41	93748	128574			
26	COP. SEPYME	7	7	2	16	2663	26,63	27	42608	32781			
27	COP. ACDE - Asociación Cristiana de Dirigentes de Empresa	5	4	2	11	881	8,81	9	9691	9393			
28	COP. UIA - Unión Industrial Argentina	3	8	7	18	2936	29,56	30	53208	58249			
29	COP. FADIT - Federación Argentina de Industria Textil	2	5	8	15	4985	49,85	50	74775	103418			
30	COP. Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)	6	8	10	24	4212	42,12	42	101088	109529			
31	COP. Comisión PRO BONO	7	8	5	20	2924	29,24	29	58480	86672			
32	COP. Asociación Argentina de Golf	6	5	5	16	3558	35,58	36	56928	54912			
33	COP. IARAF - Instituto Argentino de Análisis Fiscal	1	2	8	11	1402	14,02	14	15422	20490			
34	COP. Gobierno de la Ciudad de Buenos Aires (no provincial)	10	10	3	23	976	9,76	10	22448	17424			
35	COP. CEPP - Centro de Estudios en Políticas Públicas (Políticas Públicas: educación)	9	10	9	28	2185	21,85	22	61180	70039			
36	COP. CAC - Cámara Argentina de la Construcción	8	4	1	13	3123	31,23	31	40599	39223			
37	COP. CERA - Cámara de Exportadores de la Rep. Argentina	10	5	9	24	961	9,61	10	23064	16059			
38	COP. Fundación Nueva Mayoría	6	4	4	14	498	4,98	5	6972	8501			
39	COP. ADEPA - Asociación de Entidades Periodísticas Argentinas	1	10	5	16	4268	42,68	43	68288	53605			
40	COP. AAEC - Asociación Argentina de Ética & Compliance	4	10	2	16	3439	34,39	34	55024	42466			
41	COP. Clú Europa	6	4	6	16	4305	43,05	43	68880	103041			
42	COP. Carta Política (Políticas Públicas: educación)	8	8	4	20	2723	27,23	27	54460	47818			
43	COP. Fundacion Konex	5	5	2	12	3070	30,7	31	36840	46112			
44	COP. MALBA - Museo de Arte Latinoamericano de Buenos Aires	1	10	9	20	3213	32,13	32	64260	91403			
45	COP. ABA - Asociación de Bancos de la República Argentina	5	10	6	21	3167	31,67	32	66507	52990			
46	COP. Sociedad Rural Argentina	9	3	10	22	2653	26,53	27	58366	87124			
47	COP. MAE - Mercado Abierto Electrónico	4	3	3	10	760	7,6	8	7600	6553			
48	COP. CAPYME - Cámara de Pequeña & Mediana Empresa	6	5	9	20	420	4,2	4	8400	8292			
49	COP. IRSE - Instituto Argentino de Responsabilidad Social Empresaria	10	8	10	28	3227	32,27	32	90356	105333			
50	COP. AAEF - Asociación Argentina de Estudios Fiscales	5	9	5	19	1363	13,63	14	23897	35039			
51	COP. IDEA - Instituto para el Desarrollo Empresarial Argentino	6	1	5	12	4214	42,14	42	50568	71337			
52	COP. CEI - Centro de Economía Internacional	10	8	6	24	3280	32,8	33	78720	67171			
53	COP. Municipio de Tigre	10	1	9	20	3991	39,91	40	79820	53533			
54	COP. APLA - Asociación de Pilotos de Líneas Aéreas	1	10	1	12	4799	47,99	48	57588	83372			
55	COP. UOCRA - Unión Obrera de la Construcción de la República Argentina	9	1	8	18	4119	41,19	41	74142	98008			
56	COP. CIRA - Fundación Exportar	2	2	8	12	4747	47,47	47	56964	80144			
57	COP. CPCE - Consejo Profesional de Cs. Económicas	2	9	2	13	3838	38,38	38	49894	51029			
58	COP. Agencia Nacional de Promoción Científica & de Innovación	1	2	5	8	1201	12,01	12	9608	8409			
59	COP. IAMC - Instituto Argentino de Mercado de Capitales	10	3	1	14	795	7,95	8	11130	15141			
60	COP. Cámara de los Agentes y SBA de la Cdad de Rosario	4	8	5	17	499	4,99	5	8483	9732			
61	COP. Instituto Argentino de Actividades Subacuáticas	5	10	5	20	4256	42,56	43	85120	121450			
62	COP. CIA - Cámara Inmobiliaria Argentina	9	2	3	14	2013	20,13	20	28182	23126			
63	COP. CIRA - Cámara de Importadores de la Rep. Argentina	5	3	8	16	1941	19,41	19	31056	21694			
64	COP. Academia Argentina de Artes & Cs. De la Comunicación	3	8	6	17	4253	42,53	43	72301	95133			
65	COP. ADERA - Asociación de Bancos Argentinos	6	6	10	22	4650	46,5	47	102900	89395			
66	COP. ABAPRA - Asociación de Bancos Públicos y Privados de la República Argentina	6	5	7	18	1619	16,19	16	29142	23728			
67	COP. IEFE - Instituto de Estudios Fiscales y Económicos	2	9	6	17	3990	39,9	40	67830	49427			
68	COP. CAC - Cámara Argentina de Comercio	8	4	9	21	947	9,47	9	19887	27870			
69	COP. AAPAS Asociación Argentina de Productores Asesores de Seguros	1	10	5	16	4026	40,26	40	64416	48412			
70	COP. FIEL - Fundación de Investigaciones Económicas Latinoamericanas	9	1	5	15	4956	49,56	50	74340	93680			
71	COP. Federación Agraria Argentina	3	9	2	14	977	9,77	10	13678	20245			
72	COP. Asociación Argentina de Productores Porcinos	1	4	3	8	3403	34,03	34	27224	27115			
73	COP. IAEF - Instituto Argentino de Ejecutivos de Finanzas	9	6	6	21	2825	28,25	28	59325	41430			
74	COP. Gobierno de la Provincia de San Luis	3	3	3	9	1795	17,95	18	16155	17218			
75	COP. Cámara Argentina de Agencias de Medios	3	1	8	12	3973	39,73	40	47676	40788			
76	COP. Vistage Argentina	10	6	3	19	2036	20,36	21	39064	29354			
77	COP. Unidad de Información/Inteligencia Financiera (UFI)	7	6	2	15	3666	36,66	37	54990	49130			
78	COP. CAFCI - Consejo Federal de Inversiones	5	8	2	15	686	6,86	7	10290	7305			
79	COP. CAC - Cámara de Sociedades Anónimas	9	5	5	19	3719	37,19	37	70661	79271			
80	COP. CEF - Centro para la Estabilidad Financiera	7	10	4	21	1808	18,08	18	37968	56925			
81	COP. Nueva Bolsa de Comercio de Salta	7	3	7	17	4683	46,83	47	79611	115393			
82	COP. Cámara de Agencias Oficiales de Lotería Nacional	10	4	1	15	4974	49,74	50	74610	82724			
		9	1	8	18	193	1,93	2	3474	3016			

The Cartesian map may be automatically built by using the following Macro programming in XLS:

' sheets 2 := il grafico e quanto detto sopra

'sheet 3:= il piano (sist. Cartesiano)

Sub Botón1_Haga_clic_en()

Dim i, j, k As Variant

Sheets("3").Range("plano").ClearContents

i = 0

j = 0

' 82 sono gli gruppi (COP)

For k = 1 To 82

i = Sheets("2").Range("b4").Offset(k, 8).Value

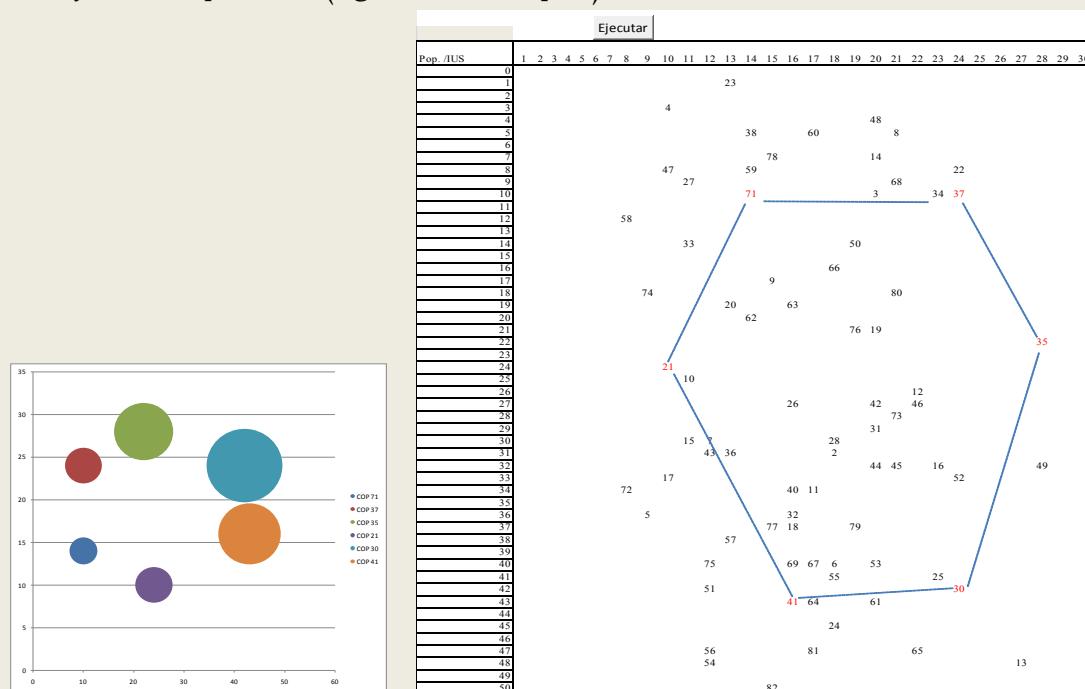
j = Sheets("2").Range("b4").Offset(k, 5).Value

Sheets("3").Range("b4").Offset(i, j).Value = Sheets("2").Range("b4").Offset(k, 0).Value

Next k

End Sub

From all COPs map, a few COPs that together show a polygonal form are chosen so as to clarify the example above (legal sentence impact).



- COPs Map. On Rows population (hundreds) and on columns ISU scale (1 to 30).
- Bubble chart. On X: = ISU Level / On Y:= Population (hundreds) Each bubble's are represents the political mass divided by 100.

9. CCAS: sociology, culture and religion.

Every Constitution whether explicitly or implicitly assumes a position toward beliefs regarding the existence of a creator, superior existence or force, namely ‘God’. As a formal contractual agreement signed by society in a specific point in time, it is as much naturally linked to sociology, history and culture as the origin of the proper Nation or even the life of Buda or Jesus itself. In fact, for those who consider the concept of Libido as some sort of vital energy, the irrefutable, significant and timeless resonance in human kind history of this last two illuminated can be argued by the existence of an extraordinary density of pure energy under human form: “... non c’è organizzazione di libido che possa assorbire una quantità eccessiva di energia psichica senza turbare l’equilibrio..” The concept of sovereignty that supports constitutional legitimacy is also an expression associated with a collective energy: “Ciascuna di tali organizzazioni è aspetto di un ente, il governo, manifestazione di un’energia, la sovranità.” Previous CCAS model choose the House of Senate as the gravitational axis, while ontological unity node follows the socio-economic concentration criteria. A more friendly alternative CCAS approach for a religious and cultural propositional explanation should preferably start with a concept with which to express human kind nature, both individual and collective, thus offering a sociological monitoring panel from where to predict collective organizational evolution. The notion of Communities of Practice (COP) may be suggested. In this way, social contract may be seen as a non discrete function of one unique systemic and dynamic Cop’s Portfolio where formal and non formal groups interact, and by doing so, shapes or define what may be call “the Trans disciplinary agenda” (political, economical, cultural, etc.). From a psychological view the organic collective decision (“the agenda”) summarizes the way in which individuals express their Libido and propose a meaning of cohesion and manna. Nodes of COP that interact resembles the similarity of natural energy behave. “ma non si può fare a meno di chiedersi se effettivamente non esista alcuna connessione tra il mana e l’elettricità statica.” Within this type of CAS, the node creation, its interconnectivity and gravitate capacity, is probably more caused by the cultural weight of tradition/innovation than political or economic density. Accordingly, cultural protectionism precede economic one, as exemplified by the primitive society located at the Island of Yap (Pacific Ocean) with the “Fei” that “consist of large stones in the shape of a wheel with a hole in the center” used as money: “First Spanish money no good, then German money no good, now Japanese money no good. Yap money always good.” There’s no doubt that those societies that improve their collective intelligence allows for a higher degree of individualism to express and new COP to freely emerge: a testimony that partially explaining why COP notion was firstly observed in its non formal category regarding innovation and knowledge economy. Changing social paradigms through new ideas was certainly not an easy task within primitive societies. “il temore del pensiero sorge nel primitivo dal fatto che egli riconosce “che la più potente di tutte le influenze è quella delle idee...”, for the need to ensure social cohesion and peacefulness through rules increase as mysticism does. Reinforcing Nicolas Maquiavelo sentence regarding the preference of fear toward love, rule maker must focus in avoiding any uncertain or unexpected individualism form of action or proposition that might possibly become dangerous to all: “Quando si ha paura di compiere un atto, non c’è merito morale ad astenersene”. It is worth to mention that in today society’s there’s a difference

between ‘knowledge economy’ and ‘wisdom economy’, since in this last one the knowledge is shared and used aligning sustainability to efficient frontier principle. We expect to find a more density network within well developed societies with COP domains of higher interdisciplinary scope as a medium to protect against social fractures while allowing for a higher degree of individualism. It should be noticed that COP notion overcomes any economic or social categorization, offering a methodology of study that approach sociological monitoring in a more pure sense. CCAS evolves in COP cells in which we find a wide range of nodes (public entities, third sector, International bodies, etc., non formal nets) connected to each other. Prevailing domains behave as a vector force to induce society agenda selection process and simultaneously limit collective capacity creativeness for new out of the box responses. Once again, the Ying/Yang principle of dualism applied to social stability/innovation system. Any COP’s Cluster should force some bias of social acceptance in the use of its logical perception of reality and line of reasoning, a sort of hidden propositional set of subsequent concepts that leaks in cascade (more powerful in media industry). During history groups’ identity, domains and practice, all evolve, while human ego stress the availability of peaceful understanding. Four elements were always present so: primitive tribes use magic against each other, feudal states reinforce castle techniques, both XX centuries World War adapt tactic to new technology, and business success is highly dependable on strategy. “Todo el arte militar se basa en la simulacion. De ahí que cuando se es capaz de atacar, hay que mostrarse incapaz; cuando se usan las fuerzas propias hay que parecer inactivo; cuando se está cerca hay que hacer creer al enemigo que se está lejos; cuando lejos, que se está cerca. Mostremos suenos para atraer al enemigo. Simulemos desorden, y destrozcemoslo” Collective intelligence evolution deals with the relationship between members of a unique species, and in the case of the human being, the process hadn’t been an easy task, but is certainly a pre requisite to protect the environment. “the term co evolution originated in Biology. It refers to the way two or more ecologically interdependent species become intertwined over time. As these adapt to the environment, they also adapt to one another” For analytical purpose Cultural differences makes groups be treated as “interdependent species” although being all humans. The brutality of hegemony based on superiority to adapt (as proposed by Darwin) may be technically applied to an ecosystem in which different species coexist, but when strictly dealing with human kind relationship socio biological co evolution works as a CAS with non linear effects. Thus, the ‘risultanti’ is far away from the symmetry and geometrical perfection that govern the ‘Momenti Statici’ (composizione e decomposizione delle forze), finding instead that society behavior has its roots in the spontaneous unpredictable spark that appear in between collective unconscious, externalities, political measures, rules and tradition. To Biblical expressions: “That which hath been is that which shall be, and that which hath been done is that which shall be done; and there is nothing new under the sun” (Ecclesiastes 1:9) and Jesus phrase “Very truly I tell you, no one can see the kingdom of God unless they are born again” (John 3:3); seems to explain consciousness upgrade degree through the power of creation (not creativity), and may be biologically replicated in the notions of genetic heredity intuition (stability for safety) on one side, and the idea that “Poiche si suppone che la memoria dipenda dalla concatenazione delle cellule nel sistema nervoso, cio significa che alcune cellule sono

concatenate come parti del processo di sviluppo individuale, senza richiedere un' esperienza individuale" on the other one. There's no room for a genetic heredity intuition for Jesus since "... the Word became flesh and dwelt among us" (John 1:14). The mere existence of new cells creation in any one single person, grants per se collective intelligence evolution through the existentialism of grace-creation. In some sense, COP flow of inception/ending may be seen as a trial and error human phenomenon of interaction whose purpose is to search for the manna that fully expresses individualism in unity. If the more evolutionary COP shall prevail or not (expanding to society all) is a Darwinian question in nature. Inference from religion is not so clear, since while redemption is the significance of success, God's kingdom pertains to another world. What is certainly clear is that the shadow of determinism only appears within constructivism guidance, never seen in the language of nature. History does not follow an absolute Hegelian cyclical form nor will Fukuyama ultimately human kind arise: for in the evolution kitchen, millennial collective unconscious ingredient is mixed with creation as a present continuous package, to cook evolution as we know it.

10. The 'living CCAS-Legal social System': reading history evolution through quantum physics principles: the art of social complexity

Poli-contexturality and **Quantum Physics non-locality**, both features simultaneously adopted, calls for an attempt to understand the classical notion of History in a quite different way. While **contexturality** is 'The act of weaving or assembling parts into a whole' or "an arrangement of interconnected parts; a structure", Poly-contexturality, the term poly should be understood both in disciplines (cultural, political, technological, social, economic & institutional) and dimensions, entities or concepts (space, time, being/vacuum, etc.). **Quantum Physics non-locality** was formally proposed by Bell's theorem and test the possibility of an entanglement system in contradiction with the principle of locality that states an 'object is influenced directly only by its immediate surroundings', thus, represents a supra luminal proposition based on correlation of behavior. With regard to History, **Poly-contexturality** calls for a

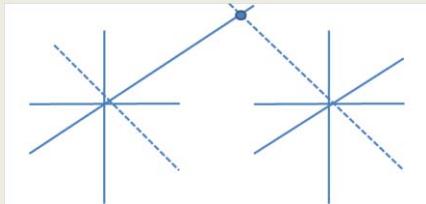
The universe is asymmetric and I am persuaded that life, as it is known to us, is a direct result of the asymmetry of the universe or if it's indirect consequences.

— Louis Pasteur, Comptes Rendus de l' Academie des Sciences, 1 June 1874.

transdisciplinary approach with a non Euclidean time-space Geometry approach. **Quantum Physics non-locality** reinforces this last feature and changes the logic of historical causality now to be tested by visible behavioral correlation after running an iterative process of huge amount of historical data, rather than

linear (mechanical) stimulus-reaction or historical propositional arguments methods commonly seen in 'classical history analysis'. By simultaneously implementing both, a new artistic artificial Ecosystem may be built to understand History, by using the notion of "Field" in order to express a sort of "conceptual isomorphic evolution" (holo movement not necessarily related to a unique length-time sharing process measure). Thus, welcome to the "Geometry of Innovation". For instance, let's start by a simple "point in space" with infinite number of possible lines that pass through it, each one representing some sort of N

Subsystems of conceptual entities that co evolve and supports historical events as we know them. This



"point in space" encompasses all this subsystems being a one "Field" on itself. But, will a map of m-n dimensional points change "a bit" the "point" under issue? The answer would intuitively be "NO", and it would be wrong. This is because of a new system configuration and functionality. The first issue because iteration/accretion process redefines hierarchy

process. The second issue because in every 'bitmomentum T' a singular set of lines passes through each point (Subsystem of entities). This broaden arrow of m-n dimensional points in Geometry exhibit the ecosystems co evolution behave according to our relational bits patterns. Here, entities within a Subsystem that share and allow passing through one line to another one (points) serves as connectors, pretty much as ancient Egyptians DNA-Texts (Lambda virus) communicate our universe to another transcendental one. Dimensional state equilibrium between concepts is a Motion defined task in which what we see is a changing state on entity's line portfolio for each point in space, avoiding directional movement or force (points remain static), that is matter. Meanwhile, the changing state rationale turns out to be count simply as data and is correlation what defines causality. Non locality therefore allows for two different types of historical events - taken place at different geographical scenarios and with no evidences of connection whatsoever - to exhibit a high degree of correlation in terms of presence. Recall that there is "no historical matter" involved, therefore the speed of light is no longer an upper side limit nor informational transfer is required, avoiding any "spooky at a distance" trouble-doubt (Einstein). Also, vacuum is no longer an area of space with the lowest possible energy (QF) but rather the concept of it. Accordingly, we introduce the term 'co evolving entities', while it can be prove that in evolution autonomous concepts or even subsystems may cooperative without any communication whatsoever and, nevertheless, the depicted geometry shape reflects some sort of social collective 're contextualization of consciousness experience'. The notion of 'state of a Subsystem line' (all entities involved) explicitly introduces TIME as a variable, but as we are dealing with abstract concepts (entities), we do not need, again, for any Quanta or matter. Furthermore, what we actually do is to COMPARE different "artificially declare singular length-time states of entities" (an historical Bracket), which is quite different from linear configuration of conventional time, thus reinforcing the characteristic of one ubiquitous generator of configuration (constructual law of design and evolution), implicitly accepting not only historical parallelism of events, but artificially generating a Motion which magnifies time asymmetry and relativity effect, allowing for testing multi-reversal causation. An infinite set of possible combinations regarding "all-entities co evolution behavior in terms of "bits length, past-present-future relational vector direction", a self-organizing behavioral mechanism of autopoiesis for all subsystems with changing emergent properties. Let our creativity flows and intuitively depict the 'Geometry of life' behind multi disciplines historical data. Just as Modern Arts do, through away all classical History Cosmo vision and search for peculiar positive or Negative system Feedback, sensitive dependence, and behavioral connectivity testimonials. What a tremendous opportunity for an IT Data Mining Specialist and a Prof. of History to work together. **A truly experimental History Lab from where prediction and innovation may be born.**

10. Conclusion, remarks about CAS, network theory & Political science.

CAS analysis for political science has been mostly approached from a special case of systems: Network theory. The classical difference between a socialism and capitalist society ultimately leads to the systemic notion of social contract, thus far away from ideology. The challenge of social evolution seems to be in-between ensuring system growth and nodes homogeneity in terms of political and economic capacity. Buchanan criticism toward predefined set of parameters used by classical economy to explain rational selection process is also applicable to collective decision theories when studying political institutions dilemmas. Whether a doctrinal or Condorcet's paradox, they all rely on board members of a unique institution (set of parameters), missing the big picture of inter organizational networks architecture. When dealing with social contract as a democratic expression a complete formal and informal portfolio of networks actually converge. Culture and religion greatly influence collective behaviors and COP notion may help to include them. If we think about any social contract as a Bernoulli random graph values above $p = 1/n$ will probably correspond to clusters with similar "pro market" domain subjects, which may be more simple for flow-control purpose, but not necessarily efficient for social cohesion or innovation. For example, unions may be seen as clusters of small-world network with a few nodes connected with the environment. Democratic stability in terms of network architecture has various implications. For instance, Robustness to economic, social or nature shocks requires a decentralized network to avoid high dependence on a few nodes, which ultimately if gone can lead to problems of internal social cohesion or worsen international relations atmosphere. On the other hand, a shorten geodesic path will be preferred every time the international political system needs to handle sensitive information or pass through delicate contexts, for both accuracy of data and time-sharing effectiveness. The notion of basic reproductive number (R_0) may apply not only to a one time information event, but to a comprehensive generational wealth effect regarding education, green economy, health, basic human rights, and other hot points in global policy. Although network theory provides a powerful tool for political and economic systemic analysis, one must always bear in mind its mereological limitation. In terms of Odell's type of part of relations, nodes represent a 'component material in place object' working on a Ground Mereology basis, while the proposed two CCAS axioms calls for a non discrete ontology type of logic to be applied to.

Appendix I

Complex Art: understanding Ortega y Gasset through Dante

"I am I and my circumstance" / "Yo soy yo y mi circunstancia"

Ortega y Gasset

Di come uno, Dante, transita nell' inferno...

(Tuo) (Suo) primo Canto da Florencia

Si ascolta e doppo Canta qui

Vicino al 'Dolce Mare'

Sobre cómo uno, Dante, transita en el Infierno...[1]

(Tu) (Su) primer Canto desde Florencia

Se atiende y luego Canta aquí

A orillas del 'Mar Dulce'[2]

Canto (I)

*Nel mezzo del cammin di nostra vita
mi ritrovai per una selva oscura,
ché la diritta via era smarrita.*

*La sabia de la vida es el perderse[3]
Solo para después encontrarse
Camino nuestro y de cada uno[4]*

*Ahi quanto a dir qual era è cosa dura
esta selva selvaggia e aspra e forte
che nel pensier rínova la paura!*

*Uno intenso[5]
Que solo en el recorriendo
Puede uno (con Uno)[6] sobreponerse[7]*

*Tant' è amara che poco è più morte;
ma per trattar del ben ch'i' vi trovai,
dirò de l'altre cose ch'i' v'ho scorte*

*A cada paso abrigo frío,[8]
Aprehende 'bien'[9] (la) oscuridad
Así Luz se revela[10]*

*Io non so ben ridir com' i' v'intrai,
tant' era pien di sonno a quel punto
che la verace via abandonai.*

*Infinitud, ¡(H) Ay detalle![11]
Que Adormecida [12] inadvierto,
Y entre uno y otra,[13]
Olvidamos del árbol que tomar,[14]*

*Ma poi ch'i' fui al piè d'un colle giunto,
là dove terminava quella valle
che m'avea di paura il cor compunto,*

*Mas (Más) en el azar hay de lo bueno[15]
Lugar naciente desde donde se observa[16]
El camino recorrido*

*guardai in alto e vidi le sue spalle
vestite già de' raggi del pianeta
che mena dritto altrui per ogne calle.*

*Clarifiquemos mente, el camino espinoso [17]
Voluntad voluntariosa conozca propósito[18]
Que a todos llegue y en singular[19]*

*Allor fu la paura un poco queta,
che nel lago del cor m'era durata
la notte ch'i' passai con tanta pieta.*

*¡Jamás![20] La calma cavalga a trote lento
¡Que por eso (es) calma y no otra cosa![21]*

*E come quei che con lena affannata,
uscito fuor del pelago a la riva,
si volge a l'acqua perigiosa e guata,*

*Como quien presente y fatiga lo escribe igual
O en reacción quien obra no (se) sabe[22]
¡Ojo!, solo así se sale[23]*

*così l'animo mio, ch'ancor fuggiva,
si volse a retro a rimirar lo passo
che non lasciò già mai persona viva.*

*Peligro y valentía en Vals [24]
Mientras dure la melodía
Que después se llame recuerdo[25]
Agraciado éste, quien lo ostente[26]*

*Poi ch'èi posato un poco il corpo lasso,
ripresi via per la piaggia diserta,
sì che 'l piè fermo sempre era 'l più basso.*

*Sea descanso sentido,[27]
Solo Así[28], solo recomienzo,[29]
Desnudando al paso (la) (mi) esencia [30]*

*Ed ecco, quasi al cominciar de l'erta,
una lonza leggera e presta molto,
che di pel macolato era coverta;*

*Ahora[31] sí acecha y con destreza esa[32], la sorpresa,[33]
Sigilosa su firmeza,[34]*

*e non mi si partia dinanzi al volto,
anzi 'mpediva tanto il mio cammino,
ch'i' fui per ritornar più volte volto.*

*¡'Tentácula' tentación todo tenebrosamente tienta!,[35]
Tanto tira que a mi... alma[36], logra cercar,[37]*

*Temp' era dal principio del mattino,
e 'l sol montava 'n sù con quelle stelle
ch'eran con lui quando l'amor divino*

*¡Ah respirar pues sin forma,[38] Orden primigenio!
Así se nace, hace y es nuevo,[39]*

*mosse di prima quelle cose belle;
sì ch'a bene sperar m'era cagione
di quella fiera a la gaetta pelle*

*En origen, armonía que apacienta,[40]
¡Dejadme atención ese fugaz dispendio!.[41]
El de admirar donde tentar,[42]*

*l'ora del tempo e la dolce stagione;
ma non sì che paura non mi desse
la vista che m'apparve d'un leone.*

*Suave brisa que vino y se fue,[43]
Como ensueño de lo que no fue,[44]
Librado con flacula a suerte y temor,[45]*

*Questi parea che contra me venisse
con la test' alta e con rabbiosa fame,
sì che parea che l'aere ne tremesse.*

*Al huelo del desnudo se (a) cerca,[46]
Altanera confabula,
Y segura dice de saber,[47]
¡Hasta los huesos estremece ver![48]*

*Ed una lupa, che di tutte brame
sembiava carca ne la sua magrezza,
e molte genti fè già viver grame,*

*A poco de anidar ya no hubo de esperar,[49]
Que de “lo mío hecho”,
Hizo un derecho,[50]
Y de lo ajeno confusión,[51]
Del que mucha gente reconoce.[52]*

*questa mi porse tanto di gravezza
con la paura ch'uscia di sua vista,
ch'io perdei la speranza de l'altezza.*

*Cimiento del Babel,[53]
¡Ya Sufre Abel![54]
Maquiavélica reverencia[55]
Olvido la referencia,[56]*

*E qual è quei che volontieri acquista,
e giugne 'l tempo che perder lo face,
che 'n tutti suoi pensier piange e s'attrista;*

*Felicidad comprada,[57]
De la que vuelto nunca olvida,[58]
En rechinar de dientes[59]*

*tal mi fece la bestia sanza pace,
che, venendomi 'ncontro, a poco a poco
mi ripigneva là dove 'l sol tace.*

*Insaciable enredadera,[60]
De fría ladera,
Que a todos nos une por lo bajo[61]
Y nos reduce (en) (al) silencio cabizbajo [62]*

*Mentre ch'i' rovinava in basso loco,
dinanzi a li occhi mi si fu offerto
chi per lungo silenzio parea fioco.*

*Así, mientras se apagaba el candelabro,[63]
Miguel Ángel se apiadó,[64]
Y la Oscuridad se tocó,[65]
Que ni Pontelli, ni Fontana, ni trío[66]
uno solo, el sombrío [67]*

*Quando vidi costui nel gran diserto,
«Miserere di me», gridai a lui,
«qual che tu sii, od ombra od omo certo!».*

*Perdido en (“mi”) (su) vacío,[68]
Mi cabeza recliné,[69]
Y con eso me quedé.[70]*

*Rispusemi: «Non omo, omo già fui,
e li parenti miei furon lombardi,
mantoani per patria ambedui.*

*Que conoce al neófito y su Norte,[71]
¡Como si no tuviera porte!,[72]*

*Nacqui sub Julio, ancor che fosse tardi,
e vissi a Roma sotto 'l buono Augusto
nel tempo de li dèi falsi e bugiardi.*

*Soplo al opresor,[73]
Escudo de algarabía,[74]
¡Y no es palabrería![75]*

*Poeta fui, e cantai di quel giusto
figliuol d'Anchise che venne di Troia,
poi che 'l superbo Ilión fu combusto.*

*El verso de pequeño me encontró,[76]
Descansado en verdes praderas,[77]
O ensayando en seca ladera,[78]
¡Si supiera la enredadera![79]*

*Ma tu perché ritorni a tanta noia?
perché non sali il diletoso monte
ch'è principio e cagion di tutta gioia?».*

*Si aún marca resuena,[80]
Que tampoco truena,[81]
Entonces porqué azaroso,[82]
Y no camino espinoso[83]*

*«Or se' tu quel Virgilio e quella fonte
che spandi di parlar sì largo fiume?»,
rispuos' io lui con vergognosa fronte.*

*¿O escucho voz de un mandamás?,[84]
Que pluma en mano va por más,[85]*

*«O de li altri poeti onore e lume,
vagliami 'l lungo studio e 'l grande amore
che m'ha fatto cercar lo tuo volume*

*Sabed que toda tinta,
A mano guiada,[86]
Que nunca alzada,[87]
Es como un hada,[88]
Cuya estela de grandeza,[89]
A todos (deja) (reza)[90]*

*Tu se' lo mio maestro e 'l mio autore,
tu se' solo colui da cu' io tolsi
lo bello stilo che m'ha fatto onore.*

*Voz que dice de lo nuevo,[91]
De quien bebo,[92]
Y a quien debo,[93]
Su cantar, Mi cebo,[94]*

*Vedi la bestia per cu' io mi volsi;
aiutami da lei, famoso saggio,
ch'ella mi fa tremar le vene e i polsi».*

*Mirad sabia voz lo tocado,[95]
¡Que no es adornado!,[96]*

*«A te convien tenere altro viaggio»,
rispuose, poi che lagrimar mi vide,
«se vuo' campar d'esto loco selvaggio;*

*Que tu impulso es el seguir,[97]
¿Porque no has de venir?[98]
¡Si has visto mi sentir![99]*

*ché questa bestia, per la qual tu gride,
non lascia altrui passar per la sua via,
ma tanto lo 'mpedisce che l'uccide;*

*Que es tormento,
El que ostento,
Extravío de navío,[100]
Del cual previenes,
(;) (i) Cuando vienes (!) (?),[101]*

*e ha natura sì malvagia e ria,
che mai non empie la bramosa voglia,
e dopo 'l pasto ha più fame che pria.*

*Punzante insistencia,[102]
Repugnante existencia,[103]
¡No hay clemencia![104]*

*Molti son li animali a cui s'ammoglia,
e più saranno ancora, infin che 'l veltro
verrà, che la farà morir con doglia.*

*Cual forma de vida... ¡pida!
Que a todos, dolor y veneno,
Tal, que si escuchan ladridos,
Ya son idos,[105]*

*Questi non ciberà terra né peltro,
ma sapienza, amore e virtute,
e sua nazion sarà tra feltro e feltro.*

*Y si lo hacen pasen,[106]
De banales a cardinales,[107]
Pues entre dedo y dedo,
Me quedo.[108]*

*Di quella umile Italia fia salute
per cui morì la vergine Camilla,
Eurialo e Turno e Niso di ferute.*

A ellos[109], sal[110], saludo,[111]

*Questi la cacerà per ogne villa,
fin che l'avrà rimessa ne lo 'nferno,
là onde 'nvidia prima dipartilla.*

*No hay orificio sin maleficio,[112]
A quien primero tienta le sienta,[113]
Que aquí (aparece) desaparece,
Y allí (desaparece) aparece,[114]
Ond' io per lo tuo me' penso e discerno
che tu mi segui, e io sarò tua guida,
e trarrotti di qui per loco eterno;*

*En camino de Emmaüs igual me veo[115],
Que el Paraíso Él hizo,
Y de su mano piso.[116]
ove udirai le desperate strida,
vedrai li antichi spiriti dolenti,
ch'a la seconda morte ciascun grida;
Allí donde dolor,
Hay sin color,[117]
Repitiendo duelo,
Bajo suelo,
e vederai color che son contenti
nel foco, perché speran di venire
quando che sia a le beate genti.
Y veréis tiempo de espera del que llega,[118]
¡Pasa la aguja al 'ciruja'![119]
¡Inmenso lo divino, que por eso v(V)ino![120]*

*A le quai poi se tu vorrai salire,
anima fia a ciò più di me degna:
con lei ti lascerò nel mio partire;*

*En lo alto ese fuego,[121]
Ya no juego,[122]
No soy digno de llegar,[123]
Sin antes ayudar,[124]*

*ché quello imperador che là sù regna,
perch' i' fu' ribellante a la sua legge,
non vuol che 'n sua città per me si vegna.*

*La bruma a su Pluma,[125]
Temeroso el moroso,[126]
Que cuando despeja,[127]
Queja,[128]*

*In tutte parti impera e quivi regge;
quivi è la sua città e l'alto seggio:
oh felice colui cu' ivi elegge!»*

*A su mano nadie le evita,
¡Que sí Levita![129]
Dichosos quienes (le) veamos,
Y así seamos,*

*E io a lui: «Poeta, io ti richeggio
per quello Dio che tu non conoscesti,
acciò ch'io fugga questo male e peggio,*

*¡Que fue que escribiste!,[130]
¡Ay... no viste!,[131]
Dime que carezco... ¡a lo que me parezco![132]*

*che tu mi meni là dov' or dickest,
sì ch'io veggia la porta di san Pietro
e color cui tu fai cotanto mesti.»*

*¡A mi obelisco egipcio ahora![133]
¡Que es la hora![134]
Siento tu soplo,[135]
Imploro como oveja,[136]
Ya sin queja,[137]*

Allor si mosse, e io li tenni dietro.

*Ahora aletea[138],
Y yo con ÉL[139]*

-
- [1] Que Dante es el uno, y uno también es Dante... ¡Maravilloso!
 - [2] Llámese Río de la Plata
 - [3] Que no hay Selva más obscura y solitaria que la del interior, a la cual Sábato confunde con un Túnel
 - [4] Raro es no saber si acaso es camino en Selva o al revés
 - [5] Refiérase al camino y a la divinidad del Uno del cual uno participa
 - [6] Con uno mismo y con Uno
 - [7] Se sobrepone con Uno porque es intenso, y del intenso (camino) porque es Uno.
 - [8] Pesada carga, adiciono sin sumar, ¡qué muerte!
 - [9] Del bien que se refiere como forma mas también como sujeto, que es hombre hijo de Dios. Si como sujeto “(la)”, “si-no da igual”
 - [10] (Mateo 10:26), de cómo forma y sustancia ahora son.
 - [11] ¡Que con “(H)” adormezco y sin ella inadvierto!
 - [12] La conciencia
 - [13] Refiérase tanto a detalle y conciencia, cuanto al hombre en sociedad (Adán y Eva)
 - [14] ¡Qué numero de cita para salirse del camino!
 - [15] Que por suerte, y en mayor cuantía... ¿o da igual?
 - [16] De lo bueno se observa solo en luz azarosa, que por eso se revela
 - [17] Que es “el” y no “un” en divina dirección del alma, perfecto uso del albedrío. Espinoso lado a lado y profundo pronunciado en medio (Mateo 7:13)
 - [18] ¡A doblegar la Selva Salvaje!
 - [19] “el coronado espinoso” (Juan 14:6)
 - [20] Pretensiosa ansiedad
 - [21] El obrar es ritmo y así define la palabra
 - [22] Con “se” si es la mano del hombre o la de Dios, así el hombre consigo mismo. Otros pensaron “sin”, de quien escribe, que se refiriiese a la imprudencia en el aventurar, pues a fin de cuentas de lo mismo se trata al no ser hombre forma pura.
 - [23] ¡A ver!... Refiérase a la fatiga y a la mano de quien se trate
 - [24] De cual corteja a cual aún se duda
 - [25] Define así mejor la persona que la palabra, quien o de quien se recuerda, a según termine la melodía
 - [26] Coma atrevida..., si (,) las hay
 - [27] En significado e intensidad por igual
 - [28] Con sentido
 - [29] Así, solo de a poco y sin otro (peso)
 - [30] Al paso... ¡“hay”.... de-notas (y) esencias!
 - [31] Ahora... ¡que han sentido MI sentir!
 - [32] La ligereza, ahora que solo es MI peso. “Esa”, la destreza y/es sorpresa, “al no haber sentido” Además, de “Esa” ya nos han advertido las Escrituras.
 - [33] Al paso del desprevenido
 - [34] Temeroso silencio de quien ya yerra
 - [35] ¡Qué asfixia, libre albedrío!
 - [36] Que desnudé al paso, por no cobijarla bien y sin frío
-

- [37] Cerca la inmóvil a quien “se acerca”
 [38] Ahora, sin forma acerco, sin cerco, y participo a quien de Verdad respira
 [39] Apoc, 21;5 “Ecce ego facio nova”, Así?, del cómo sin forma solo Dios “sabe”
 [40] Juan 21; 15 “... Apacienta mis corderos ...”
 [41] Fugaz regalo del Cielo que clamo prolongar, que luego me adormezco.
 [42] Que “donde” hace al sustituto de uno por otro. También al tentar como acto o de aquello que es digno de admiración.
 [43] El regalo
 [44] Que cosecho lo que sembré. Ensueño de lo real, que se va pero siempre esta.
 [45] Flacula del alma. Es suerte y no gracia porque la brisa se fue (Mateo 10; 16)
 [46] Ida la brisa de la gracia, desprotegido, se acerca la sombra bajo forma
 [47] La maldad, confusión de la mente que se toma atributo de brillantez
 [48] El alma
 [49] Inquieta clamaba por que esto o porqué aquello, de si no mejor, o de quien se cree.
 [50] Esencia y apetencia uno, mi camino, que ahora no es uno sino mío (avaricia)
 [51] Codicia
 [52] Refiérase al hecho, Que vamos! cada quien tiene “su” camino y por eso mortal
 [53] Génesis (11:9), que con “mío” o de nadie se hizo pesado el macizo, creciendo el engaño
 [54] Hijo de Adán, hermano de Caín
 [55] Que prefiere el temor al amor, para dejar en pie solo uno. Quien lo dice al Príncipe, lo ejecuta Caín.
 [56] Que ya no hijo de Dios, y entonces qué, vagando como Caín.
 [57] Que y quien se acepta en el uso
 [58] ¡Quien compró y quien vendió! Felicidad trunca, sin perdón como olvido.
 [59] (Mateo 13:42)
 [60] No descansa en artilugio
 [61] Delicada es la arquitectura del obrar sin sembrar
 [62] Adormecidos respondemos al látigo del Babel, olvidamos de donde el poder.
 [63] (Mateo 5;15), ya sin sal es que transita, aquí o en Florencia
 [64] Que de cerca y sin tocarse, fugazmente aclaró en Adán
 [65] Digo, se reconoció
 [66] Refiérase a los arquitectos que anticiparon a quien se apiada. El trío digo, la trinidad ausente.
 [67] Arquitecto del Babel regala soledad, y quien solo se deja cercar
 [68] En sus dominios, ¡otra vez al compás de la cita!
 [69] (Lucas 9; 57), ¿Porqué reclinar la cabeza sino por debilidad?
 [70] Sin indagar en su forma
 [71] Que se ataca al creyente por serlo, y desde arriba es que se arriba cuando se cae.
 [72] Pues conoce de tierras lejanas, y de aquel a conquistar.
 [73] Semilla mala que fuerza a crecer
 [74] De bufones se alimenta
 [75] Que la historia lo afirma y confirma
 [76] Espíritu alegre que la escritura agradeció
 [77] (Salmo 23(22);2)
 [78] Iniciando en vicisitudes de la vida
 [79] ¡Qué presa fácil!
 [80] El origen, de madera noble
 [81] Bajo dominio sombrío es tenue
 [82] A suerte y verdad
 [83] El que conduce a la Luz: “Hacer el bien y evitar el mal”
 [84] Voz en el desierto que allana el camino, y sólo allana quien más sabe de entre los que saben, hasta que El llegue.
 [85] Portador de lo divino
 [86] Iluminada por quien Sabe
 [87] Rebelde, intemperante
 [88] El encantamiento de lo espinoso
 [89] Deja un aroma de inasequible dimensión divina
 [90] Porque proclama, pide por el prójimo, y siembra.
 [91] Que por eso allana
 [92] Me alimento en espíritu y osadía
 [93] Porque lo hace en lo secreto
 [94] El aroma de mi pluma alegre que ensancha el alma según me sugiere
 [95] Reconocido digo, aclaro de nuevo, que ya la distancia a pulso Miguel Ángel fijó y si-no “voz”
 [96] Refiérase a la falta de nobles premios, y a su cruda existencia, por igual.
 [97] El caminar... ¡aún sin camino! ¡Que ya lo dijo el Quijote!
 [98] A despertar en mi
 [99] Mi sufrir
 [100] Donde Latitud y Longitud no se entienden, ni se cruzan
 [101] ¡Si es tu propósito!
 [102] Merodea la presa sin día ni noche
 [103] No hay apetito a saciar sólo regocijo en el obrar, secando todo a su paso
 [104] Se regocija en el grito y el dolor ajeno
 [105] Los ladridos, quien los hace y quién los escucha.
 [106] A lo nuevo después de ido
 [107] Refiérase a las virtudes: justicia, fortaleza, prudencia y templanza
 [108] Mundo alegórico, que yace entre el humano y divino.
 [109] Dirigiéndome a quienes virtuosos ya pasan, y forman Patria

- [110] Digo del verbo para con quien me cerca, y del mineral de la vida en tanto ellos.
[111] ¡Salve!
[112] Una nube gris que todo lo cubre
[113] Lo opprime y devora
[114] Refiérase a la sorpresa; y devorado; a lo que lleva y deja, y es según qué y dónde si primero uno u el otro.
[115] (Lucas 13:35) A tu imagen y semejanza
[116] A él me guía
[117] Pálidos a quienes alcanzó la muerte
[118] Solo hay una eternidad , lo demás agonía
[119] (Mateo 19:24), Que el rico fue de bienes, y ahora sin color, ciruja en busca de calor
[120] Apocalíptico en ardor de fuego. Vino y también Vino, como sello de alianza.
[121] ¡El Paraíso me espera!
[122] ¡YMe asusta!
[123] En ascenso las almas
[124] Que aprendo lo que no en tierra y sólo así asiendo.
[125] La mano de su Ley quebranto, opaco.
[126] Que no hay secreto que no deba ser revelado.
[127] A su retorno
[128] “Quod scripsi, scripsi”
[129] Por eso su trono esta en lo alto, y desde allí llega a todos los rincones de la tierra
[130] ¡Por donde caminaste!
[131] Del Verbo y del vestir, al desnudo como Adán después de la manzana
[132] Si me reconozco, me conozco, ¡y al de Emmaus!
[133] Refiérase al lugar del martirio de San Pedro
[134] Del juicio
[135] Presencia
[136] (Mateo 31:46)
[137] (Lucas 23:46), la Entrega
[138] (Génesis 1), origen de la Luz
[139] A su Derecha, le sigo

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