

The approach of Human Ecology in digital Society

Prof. Rita Micarelli
IIAS International Institute
for Advanced Studies in
System Research and
Cybernetics
Firenze, Italy via Mattioli, 43,
50139
+39 335 8352647
rita.mica@gmail.com

Prof. Giorgio Pizziolo
IIAS International Institute
for Advanced Studies in
System Research and
Cybernetics
Firenze, Italy via Mattioli, 43,
50139
+39 333 4743514
pizziologigiorgio@gmail.com

ABSTRACT

In this paper we present an epistemological framework on a case of Democracy of Learning developed through the promotion of cognitive processes addressed through Human Ecology's criteria.

Here we want to develop the theme of Cognitive Democracy and social Learning in contemporary society. This article deals with the themes of Human Ecology and Action Research as fundamental elements of new possible lifestyles practicable in harmony with the Evolution of Mind and Nature.

In this Conference we present a case of possible Action Research to be developed within an ecosystem Man / Society / Environment of the Apuan / Apennine Mountain in northern Tuscany

- *Participatory learning process in the context of the Mediterranean mountain called Civic Mountain University.*

Key words

Human Ecology, Learning processes, Research-Action Human Societies, Digital Technologies, Informational/real world

1. INTRODUCTION

In the contemporary condition all the human societies of the evolving world are experiencing a paradoxical condition in which the *societies of the rich world*, having plundered their own living environments, *impoverished themselves* creating at the same time deep crises in all other human, social and environmental conditions. Really all the ternary systems M/S/E (Man/Society/Environment) have been equally impoverished and deprived of their original autonomies while all the people, societies and living environments of our Planet, live in the illusion of independence, autonomy and civil rights, *as citizens of the world* actually dominated by the *technocratic digital powers* of the globalized world.

At the same time the natural living environments are transformed into technologized and controllable contexts, while human persons and societies live in illusion of conquering independence, autonomy and civil rights, as citizens of the world in reality dominated by the globalized technocratic digital powers.

The coexistence of different human societies and the coexistence of each of them with their own living environments are both

compromised, in the absence of *appropriate approaches and adequate environmental and social practices to cope with this new contemporary condition*.

The complex problems encountered in this unprecedented situation cannot be solved in the traditional terms of disciplinary separation (scientific, economic, political, cultural, etc.). They must be assumed in the wider dimension of Human Ecology that includes the living world in its entirety and in its dynamic evolution natural, cultural, technological and digital. In it all the people, the societies to which they belong and the living environments to which human societies refer, interact with each other, each in full autonomy, and all together as a ternary ecosystem M / S / E.

On this basis a *multiplicity of learning processes* can be stimulated and developed for the creation of a series of dynamic evolutionary Equilibria, achieved through learning processes and progressive experiences, which can lead people and societies to a consequent political maturity towards a *cognitive democracy*.

The *ambits* in which people, societies and living environments interact become *fields of events* and of relational dynamics in which knowledge is *produced, experienced and experimentally verified in its becoming*.

2. HUMAN KNOWLEDGE IN THE COMPLEXITY OF THE LIVING PLANET

From the crises that pervaded western culture in the last century a new epistemology was born, and changed our approach to the world. Science, art and philosophy have progressively overcome the crises of the classical sciences to interpret the phenomena of nature in their entirety and in their mutual relations, towards a renewed style of knowledge of the world.

Many scientists, artists and philosophers have been involved in this epistemological revolution, producing their scientific / philosophical thinking and their artistic masterpieces working in mutual resonance.¹

¹ As pioneers of these innovative approaches, H. Poincaré, P. Klee, W. Benjamin, L. Wittgenstein, A. Schoenberg, A. Webern, A. Einstein and many others explored the complexity of the evolving world, developing and propagating the epistemology of the contemporary age

The world is all that happens [and] ... All the things that happen [... are ...] Events!

The first proposition of *Tractatus Logico Philosophicus* (L. Wittgenstein, 1922) has been verified by contemporary scientists (in particular astrophysicists) who explored the secrets of the Universe recognizing in it a stormy ocean, where waves, resonances and particles play chaotically, giving rise to stationary States of Matter / Energy or to unexpected Events in which the macro realities of Space and the micro realities of the Biological World are equally and continuously involved.

The recent acquisitions of contemporary science suggest a new vision of the living world that can now be recognized as an indissoluble interweaving of fields in which networks of relationships, resonant waves and living entities meet and relate to each other in the circularity of evolutionary dynamics that bring it towards ever increasing complexity.

In this epistemological context the ecological approach developed, initially addressed to Nature, later extended to humans and their societies overcoming the reductionist separation between Humanity and Nature. All this encouraged a broader ecological vision recognising all living entities as *equal* components of hyper-complex Ecosystems Man / Society / Environment.²

In this condition all the evolutionary phenomena of the planet could be understood as intrinsic to the ternary system (M / S / E), in which natural and human dynamics interact enriching each other, exchanging Matter, Energy and Information through their ambits of contact (ecotones). These interactions are joined by new "artificial" components progressively produced by men (such as art, science, classic and digital technologies, artificial intelligence, etc.) that could stimulate, accelerate many spontaneous processes of nature, transforming and creating unexpected conditions and new life environments.

2.1 The UNESCO Project Man and Biosphere (MAB)

A relational approach to ternary ecosystems has been officially promoted by UNESCO as M.A.B. Project (60 s, XX Century) which has been propagated and strongly emphasised as innovative approach, but has been scarcely practice at the concrete levels of reality.

2.2 The approach of Human Ecology

Despite all this Human Ecology can still be considered in all respects as an innovative *suitable approach* to our contemporary jeopardised situations and planetary crises.

In these dynamics are directly involved also the technological and digital components that, on their turn, can evolve as coherent parts of evolutionary processes.

Then we can conceive the ternary ecosystems as hyper complex structures endowed with their own ecotones (ambits where the natural exchanges matter/ energy/information among the different ecosystems are encouraged and intensified) and further made more complex by new kind of Ecotones

These new dynamics established among the original ecosystem (human and environmental) and among the new ecotones in mutual interaction, give rise to unexpected configurations of

natural/artificial components mutually combined as Human/Social/Environmental *Ecotones of Ecotones*.

In this view we can assume the Human Ecology as a Field on which the *Evolutionary Play of Knowledge and Experience* can be practiced.

*This is a Play*³ that we can all experience together, in our *Life Environments* the same environments that we have co-created and that we are continuously transforming.

A *Play* which does not obey preconceived external rules since it is continually unexpectedly renewed through the interactions Man/Society/Environment. The mental abstractions, intrinsic to Individuals and Societies as Art, Science, Communication, Desire and Participation take part in this *Play*, that could more properly understood the *Play of Mind and Nature*⁴

2.3 The Contemporary Crises hit the complexity of Living Systems

The crises of the western world have renewed the epistemology but have also stimulated technological, economic and digital growth in contradiction to the epistemological principles on which contemporary ecology is founded. The contemporary world, its evolution and its ecological re-composition are now risking the destruction of their complexity. . The relationships, their circularity and their interaction between all the components of ecosystems are impeded, dominated and provoked by the alterations of the components of ternary ecosystems and of Human Ecology itself.

Nature is altered by the feed-backs of Climate crises, Humanity is deformed by digital/technological changes, and Learning has lost its peculiar evolutionary character in favour of a linear trend.

Despite these crises Nature and Humanity have not been annihilated and still live. Among the fragments and interstices of this contemporary world new vital manifestations are constantly emerging and Human Ecology can still encourage their development.

In coherence with the contemporary science, now we can recognize ourselves as active parts of the world, as responsible members of the human societies to which we belong and as *citizens of nature in evolution* of our planet.

2.4 The Ecological Reconstruction for a new Citizenship of contemporary world

In such a perspective we can reconstruct ourselves, the societies to which we belong and our living environments as a wholeness by following the approach of Human Ecology and developing learning and relational structures, that *we* can create *ex novo*, building unexpected *Ecotones of Ecotones*

Like the Ecotones in nature, that work as relational ambits where different ecosystems meet, exchange and learn in mutual interactive relationships, these new *Ecotones of Ecotones* created among human, natural and social systems, can develop again as very experiential *Ambits of Learning*, as the name of this *Cognitonics* Conference suggests.

On these conceptual criteria a *multiplicity of learning processes* can be stimulated and developed for the creation of a series of dynamic evolutionary Stationary Equilibria, achieved throughout

² These hyper complex systems are homologous to the ones prophesied by G. Bateson in *Mind and Nature*. (80s, 20th century)

³ G. Bateson, 60's

⁴ As G. Bateson suggested in his homonymous book

progressive involving experiences, which can lead People and Societies to a consequent political maturity towards multiple opportunities of *Cognitive Democracy*.

All the *ambits* in which people, societies and living environments interact can become *fields of events* and *relational dynamics*, in which a lot of 'adequate knowledge's processes are *produced, experienced and experimentally verified in their becoming*.

2.5 New Ecosystems, new Ecotones

On the bases above described a number of new Ecotones (*Eco-Cognitones*) can be created and developed, in coherence with the principles and prerogatives of Human Ecology.

The *Eco-Cognitones* can be structured and addressed as participatory learning processes towards Environmental Transformation, Territorial Crises, self-manageable Life Environments, Micro economies, Solidarity Action-Researches, etc.

The configuration of such kinds of *Eco-Cognitones* needs adequate instruments for a suitable and *interactive elaboration, description and self-verification* that can be *only* experientially and chorally developed as mutual friendly learning, spontaneous representations, social perception, which remains intrinsic to all learning processes.

Among our recent experiences and proposals we illustrate the Civic University of Mountain now in course of realization in Tuscany –North Apennine- Apuan Alps.



Fig.1 The Pania Forata Mountain in Apuan Alps, Tuscany, photographer A.Lunardi

3 THE CIVIC UNIVERSITY OF MOUNTAIN (CUM)

This Civic University has been conceived as a Structure of experiential of Action/Research as a very **Eco-tone of Learning**, able to interact with the ternary Human Ecology Systems, supplying multiple interactive harbours to exchange, renewing and producing unexpected mutual Relationships.

In this concrete case the University is a structure of research dedicated to experimentation and dissemination of the contemporary problems, and of the general and local conditions of the North Apennine, Apuan Alps' Mountain, Valleys and Rivers in Tuscany.

3.1 The role of Human Ecology

It is conducted in terms of participatory, active and civic knowledge, by the interested populations, researchers and promoters of the *meaning and value* of each Individual, of the Places and in general of the Mountain Common Good. All these Common Values are promoted in terms of Relational Ecological procedure, close to the contemporary issues of the world, and the climate and environmental crisis, and the socio-economic problems of mountain populations, youth in particular.

In the specific case we intend to deal with that particular complex of Mountain consisting of the northern Apennine / Apuan Alps node, and of the valleys and rivers that are involved, up to the Tyrrhenian and Mediterranean seas.

It is a very varied complex, with phenomena differentiated within it, but also highly homogeneous in terms of geographical location, and the complex of environmental, historical and human relations that characterize it.

3.1 On which contexts the CUM operates

They range from areas that are still highly natural, to industrial areas that require a profound ecological re-conversion with respect to their improper uses in progress, involving both abandoned areas and intensely inhabited areas, with piedmont Cities, and abandoned industrialized areas, and the wider Alpine subsystems.

Precisely their extraordinary naturalistic richness and complexity, and at the same time their problematic and contradictory uses, seem to require the attention of a structure such as the CUM capable of deepening both the great values and the great local problems but also of providing a relational Ecosystemic interpretation to overcome closures and limitations, nowadays widespread, and look for more organic and systemic ESITI outcomes, precisely by referring to the Research / Action practices of Human Ecology (ternary ecosystem Man / Society / Environment, - Unesco MAB project)

3.2 How the CUM works

With reference to this approach, the following Research and Action guidelines could be STRUCTURED

3.3.1- The research on the Relational Ecosystem "The Mountains of the Sea".

This Ecosystem is *evaluated* in the different Apennine and Apuan Subsystems and in their Ecosystemic complexity, *considered* in their relationship between Man / Society / Environment- going to find, nature, history and complementary economies, starting from the positive cases in progress, in particular the Community Cooperatives, and the residual Civic Aggregations, up to the unexpressed and latent potentialities of the Nature and the Communities

3.4 -The deepening of the specific MAB issues of the great ecosystem.

"Mountains of the Sea", in its essence as an Relational Environment between Europe and the Mediterranean Sea, between continental Italy and Mediterranean peninsular Italy, as a land and hinge between Flows and Relationships, in history and in the contemporary condition, almost an Eco-tonal System, between wider Continental Systems and Mediterranean Sea. These elements that underlie the MAB Recognition of Succiso's Community experience and that were the basis of the formation of the Apuan Alps Park must become also the basis for the future

developments of the area for an ecological evolution of those territories and of those populations, also through Research-Actions hypothesised for this context as avant-garde experiences⁵ Thus a general territorial and ecological strategy could be developed to move from a phase of Resilience to that of Protagonism, beyond the marginal role of current economies and official Policies.

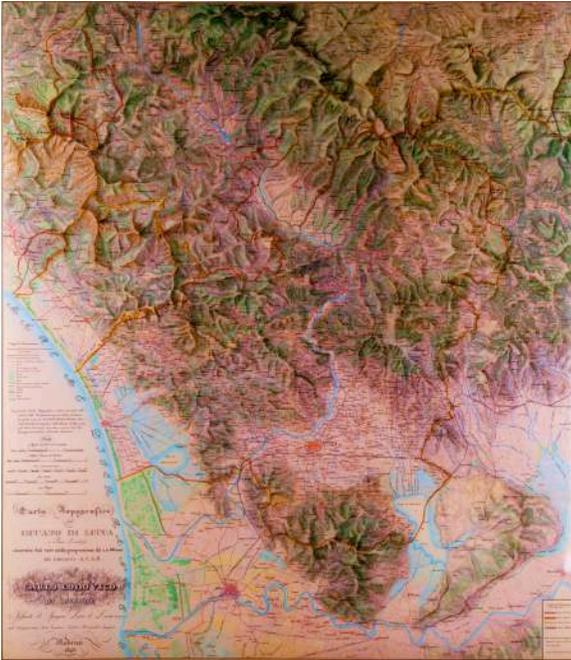


Fig.2 The ecosystem of Apuan Alps, Coastal Area on Tyrrhenian Sea, North Tuscany, represented by a Map in the year 1846

..3.5 The contribution of CUM to Civil Society.

It is to play a key role of self-promoted Observatory of the great climatic, environmental transformations developed at the level of Natural/ Environmental/ Human Relationships and its mutations, observed throughout the great flows of change, and also from the Core of one of the vortexes of transformations that could unexpectedly appear. This theme - apparently more abstract and distant is instead incumbent and of great actuality and – could instead be directly observed from the Observatory, the chosen Place “at the margins of chaos”.

3.6- The working method

The *Laboratory Projects*.

On the basis of the results of the three research / action themes described above, the CUM will be able to promote the following Action Research Steps

-*Ecological Projects* in the form of a *Participatory Laboratory* to activate, according to the current Italian Laws,

-*Acknowledgment of the existent and potential Ecosystems*

-*New economic and environmental Relations* between widest Landscape Ecosystems, giving rise to Eco-Services whose profits must be managed and enjoyed by the Mountain Communities..

Formation of new *Eco Cognitonics (Learning Structures)*

⁵ See the Presentations of *City/Landscape/Versilian.River* and various *Landscape Contracts* on [12] www.graspthefuture.eu



Fig.3 New Communities at work Photo by R.Micarelli

New Communities will be Guarantors of the Eco Services above mentioned, of their ecological relevance and evolutionary maintenance.

The Communities will be recognized as Managers of such Eco-Services in terms of *Common Civic Goods*. All this could be concretised through open Procedures shared and ratified by all the involved subjects.

In this way it could be organized self-produced and self-funded Programs and Projects for the renaissance and promotion of the Mountain and its Populations, in all their Relational Values in terms of Human Ecology.

The Research Actions carried out on the themes highlighted are proposed by Giorgio Pizziolo and Rita Micarelli with the European Association **GRASP** the future (**G**roups of **R**esearch and **A**ction for **S**olidarity and **P**articipation) [12]

4 .CONCLUSIONS

The **Civic Mountain University** is open to the participation of all those who share its guidelines and operating procedures and are committed to developing its activities in the areas of the Apuan Mountain / Northern Apennines.



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