


**TO AGGRESSIONS, WE (RE)EXIST WITH THE ENVIRONMENTAL CULTURE  
OF OUR AMERICA** <https://doi.org/10.56238/sevened2024.037-189>**Fábio Fernandes Villela<sup>1</sup>.****ABSTRACT**

This text presents the results of the research entitled: "Environmental culture in rural education: landscape, history and traditional knowledge of the countryside territory", carried out between 2016 and 2019, where it was possible to research the environmental culture of the northwest of São Paulo – SP, from the point of view of its sustainable development. The general objectives of the research were to investigate the landscape, history and traditional knowledge of the countryside territory and as specific objectives, the education of young people and adults (EJA). As for the theoretical-methodological framework, work projects were used. The results were the articulation of knowledge with the different areas of knowledge, enabling the experience of new values, the triggering of collective actions, as well as the increase in schooling associated with social and professional qualification, enabling new learning.

**Keywords:** Environmental Culture. Rural Education. Traditional Knowledge. Countryside Territory.

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## INTRODUCTION

We warned that the impact of environmental problems on human health and the maintenance of life on planet Earth would reach an "Overload" (Cf. Earth Overshoot, 2020). Authors, from different perspectives, have denounced the dynamics of the contemporary system in the following way: "terricide" (Marcuse, 1973), "you will not see any country" (Brandão, 1981), "the great poor Mother Earth" (Boff, 2019 and 1993), "destructive progress" (Löwy, 2005), "socio-ecological metabolism" (Clark and Foster, 2006), "environmental culture" (Villela, 2016a), "health in the soil" (Pinheiro, 2018), etc. These authors pointed to the unlimited tendency of production for production's sake and the contradiction between the limited character of the Earth's resources and the willingness to take capitalist relations to the four corners of the planet.

The pandemic of the new Coronavirus or COVID-19 (Cf. Werneck and Carvalho, 2020), with its impacts on the various countries, is a new alert for the radical change that needs to be made in the "sociometabolic model of capital" (Mészáros, 2002). The experimentation with the "absolute limits of capital" has a gigantic impact on the environment, increasing, in the social sphere, inequality between classes, extreme poverty, lack of access to health and education services and, in the environmental sphere, pollution of air, water and land, acid rain, global warming and climate change. among other environmental problems (Cf. Mészáros, 2002).

Faced with the problem of human survival on a planetary scale, the challenge is set to rethink new relations of production, discuss issues related to ecology, agroecology, agricultural cooperation, etc., as a form of resistance and construction of a new societal reality. (Cf. Foster, 2005). In this sense, we present some results of the research entitled: "Environmental culture in rural education: landscape, history and traditional knowledge of the countryside territory", carried out between 2016 and 2019 (Cf. Villela, 2016a). The general objectives of the research were to investigate the landscape, history and traditional knowledge of the countryside territory and as specific objectives, the education of young people and adults (hereinafter, EJA). The results were the articulation of knowledge with the different areas of knowledge, enabling the experience of new values, the triggering of collective actions, as well as the increase in schooling associated with social and professional qualification, enabling new learning.

## THE ENVIRONMENTAL CULTURE OF NUESTRA AMÉRICA

From a theoretical-methodological point of view, this project is based on 4 main axes, which are: (1) Environmental Culture; (2) Work Projects; (3) Youth and Adult



Education (EJA) and (4) New Technologies Applied to Education. One of the motivations of this research is the need to understand the "environmental culture" of individuals and community groups in the northwest of São Paulo – SP, with the possibility of sustainable development. The relations between man-society-nature condition and are conditioned by the "environmental culture", from which one must start in order to understand the consciousness of individuals and community groups. Changes in attitudes can only be achieved with a careful investigation of the "environmental culture" of communities, based on an environmentalist training strategy.

The concept of "environmental culture" is taken up again from Irizarri (2010), among other authors. For the author, "environmental culture" is a "system of knowledge, experiences, motivations, values, attitudes related to the environment". In the concept of "environmental culture" are implicit beliefs and ideas that become a regular form of thought and practical action in social activity. In this concept, the forms of social consciousness are intrinsically linked: political, ethical, religious, aesthetic, legal, philosophical, and scientific. According to Irizarri (2010), in order to develop "environmental culture", one must start from the formation of a deep awareness in individuals and community groups and reach "environmental awareness".

One of the first intellectuals to develop the concept of "environmental culture" was Fernando Salinas (1930-1992). The ideas of this pedagogue were researched in our postdoctoral work (Cf. Villela, 2009-2010). The author defines "environmental culture" as the "maximum physical representation of the social and economic advances of a developing country", where popular traditions, participation and professional knowledge are related. According to the author,

*The environment is the unit of society, the individual and the environment. Life is developed in an environmental system that encompasses the past, the present and the future through the background, reality and imagination. The environmental culture is a synthesis of the conditions of the natural environment and the disdesigned landscape, the urban complexes and spaces for public use, streets, squares and parks; buildings of different uses; furniture, equipment, clothing, body culture in all its aspects; gastronomy, objects of use and contemplation -utilitarian or decorative-, sound works, painting, sculpture, graphic design, industrial or artisanal design, the chromatic set, photography and typography, which are found in the spaces of daily life and their visual or audiovisual images are distributed by television, cinema, el video o las publicaciones; in all its relations between themselves and with whom the experiment was in a moment of history and in a specific social, economic, political, ecological and cultural environment [...]element. (SALINAS, 1988, apud PÉREZ-RUBIO, 1994, p. 237-238).*

From the end of the twentieth century to the threshold of the twenty-first, the concept of "environmental culture" has been developed by several researchers, among them: Salinas (1988 and 1992), Cárdenas (2002), Pérez-Rubio (1994 and 2003), Cruz (2002),



Quesada (2002), Cruz, Romero and Hernández (2007) and Bery (2009), among others. Of the conceptions analyzed, I highlight the definition of Quesada (2002), where environmental culture encompasses the totality of the way of life of the members of a society and expresses the complex network of relationships that are established between society and its environment. Quesada (2002) defines "environmental culture" as follows:

*Dialectical process that reflects the quality of life of communities, the degree and expression of the domain of the communarians of their conditions of existence that is manifested through the symbols, the meanings inherited, experienced and created by the subjects in the iteration and relationship with other communarians in their natural and social environment. (QUESADA, 2002, p. 24).*

As Bery (2009) demonstrates, the "environmental culture" is part of the general integral culture of the population, its objective is to achieve harmony in the relations between man, society, nature and to contribute to the full development of man's potential and his enrichment as a social being, consequently to the elevation of his quality of life. The concept of "environmental culture" is of enormous importance since it contributes to the formation of a conception of the world in which the individual analyzes in a deep, real and integral way, the complex processes, events and phenomena that take place in the infinite material world and the interaction between them. Consequently, human beings are able to assess the scope and consequences of their transformative activity on the environment, not only for the present generation, but also for future generations.

Also according to Bery (2009), the idea of "environmental culture" reflects the ethical model of the relations between man and the rest of the components of the environment of which he is an indissoluble part, between the community and its surroundings, through culture. The "culture of the environment" allows the establishment of positive relationships of social coexistence with the natural landscape, indispensable for the success of ecological sustainability and which ensures the permanence and development of life on our planet.

In summary, for the authors cited, the mission of culture in the environmental area is associated with human development and aims to build a new and definitive social and individual responsibility for human sustainability. Culture must enhance an ethic of sustainability "from", "with" and "for" the community, where the relationship with the rest of the components of the environment is essential. The following is a watercolor made by Fernando Salinas, in the fifties of the last century, which illustrates the idea of "Environmental Culture" of *Nuestra América* (Cf. Velázquez, 2018).

Figure 1 - *Architecture is an impulse*. Source: Velázquez (2018).



From a methodological point of view, the possibilities of working with projects were chosen, due to the wealth of material accumulated on rural communities (Cf. MST, 2019). Among the various options for working with projects, the following stand out: "teaching projects", "work projects", "learning projects", "generating themes", "methodology of the thematic complex", among others (Cf. Hernández 1998). In this way, the methodologies of working with the project allow greater flexibility of strategies to the teacher and greater freedom to the student, enabling learning that actually corresponds to the real needs of the community.

According to Silva (1991, p. 30-32), the term "project", as we use it today, has its indisputable origin in the following Latin words: *jactare* (verb, meaning: to throw, to throw); *pro* (preposition, meaning: in front of, in favor of, instead of, etc.); *projectio*, *projectionis* (noun, meaning: action of throwing forward, stretching); *projectus* (adjective, meaning: thrown forward, prominent, prominent); *projicere* (verb, meaning: to throw forward). For the author, it is easy to verify that this is the common origin of the terms equivalent to project in practically all Western languages: "proyecto" corresponds to *proyecto* in Spanish, *progettoem* in Italian, *projet* in French, *project* in English, *projekt* in German, etc.

Still for the author, like countless other words in philosophical and scientific terminology, the word "project" assumes practically the same form and meaning in a very broad scope. It is known, however, that in the past, the Portuguese language preferentially used other denominations, such as "risco", "moth", etc., with semantic richness close to that of the Italian *risico* or *rischio*, which, in turn, derives from the classical Arabic *rizq* ("That which is faced with providence"). The term refers to the proximity of a possible danger,



damage or threat, but also of opportunity. (Cf. SILVA, 1991). Next, we will distinguish the concept of work projects, from the point of view of schooling.

At the end of the 90s, when questioning the pedagogical practices that have been guiding teaching, in the field of debate of dialectical conceptions of education, with strong affinities with historical-cultural psychology, Gasparin (2002) proposed to the educator a way of teaching and learning, interconnecting the student's social practice with theory, in order to enable teacher training and that, To the extent possible, respond to the needs of the students. The pedagogue defends a practice of research and action based on the theoretical-methodological assumptions of Saviani's Historical-Critical Pedagogy, seeking to point out the contributions of the dialectical method in the elaboration and execution of work projects. The didactic process, proposed by Gasparin (2002), was elaborated from Saviani (2012). For a practical example of this proposal, we suggest reading Villela (2018).

Allied to this methodology, the EJA experience developed within the scope of the "Unesp Project for Youth and Adult Education" (hereinafter, Peja - Unesp) was used. Peja - Unesp was created at Unesp in 2000, at the time, linked to the Unesp Program for Community Social Integration, of the Dean of University Extension - PROEX, with the objective of establishing a public policy for the education of young people and adults, seeking local community partnerships and aiming at the contribution of resources for the formation of critical and participatory citizens/readers, as well as that of teachers with the vision of "popular educators". Currently, PEJA is developed in eight Unesp campuses (Araçatuba, Araraquara, Assis, Bauru, Marília, Presidente Prudente, Rio Claro and São José do Rio Preto) with human and material resources from the Dean of University Extension – PROEX for the development of its work (Cf. Villela, 2016b and Villela et al., 2007).

In addition to these two methodological experiences (Work Projects and EJA), the one developed in Villela (2014) was used, specifically the project: Virtual Center for Studies and Cultures of the Rural World. This tool was developed as a didactic resource and tool in the teaching of sociology for students of the pedagogy course at Unesp in São José do Rio Preto (SP), hereinafter Rio Preto, and later extended to schools that expressed interest in developing topics in the area of Human Sciences and their Technologies. The project uses the blog methodology, a frequently updated website, through which the contents appear in reverse chronological order. They can contain texts, images, audios, videos and animations. This methodology enables the dissemination of the knowledge produced by the university on the internet for free. The community relates through content, enabling the



transmission of information, making the web a space for reading, writing, participation and reflection.

The class blog, for example, was used as a tool of Peja - Rio Preto in one of the works developed at the Center for the Coexistence of the Elderly, hereinafter CCI. At the CCI's Peja – Rio Preto, the central focus was the development of literacy/writing practices in the context of digital technology (Cf. Komesu; Tenani, 2010). In this sense, young people, adults and the elderly were able to acquire basic computer knowledge (*word, internet, facebook, blogs, etc.*).<sup>2</sup> In addition to the development of literacy/writing practices in the context of digital technology, the objectives of Peja - Unesp are: to prepare students to: read and write in the Mother Tongue (ML); to employ, with discernment, the decimal numeral system and the fundamental operations in the resolution of day-to-day problems; to know the rights, duties and laws that govern the world of work; to develop notions of physical health, psychological and mental; discuss issues related to the preservation of the environment. The work of Peja – Rio Preto at the CCI is configured as a partnership between Unesp and the Municipal Secretariat of Social Assistance of Rio Preto<sup>3</sup> and has as general objectives to insert the elderly population in the<sup>4</sup> process of digital inclusion, considering the needs imposed by a technological society. We move on to the results and the discussion.

## RESULTS AND DISCUSSION

Several extension courses were organized between 2016 and 2019 where the processes described above were experienced. The courses served Ibilce/Unesp students and the community in general, who wished to acquire specific training in the area of rural education, especially to develop work and/or research with the agroecology, agroforestry and soil health interface. Some topics of the course were: 1. Environmental Culture (Cf. Villela, 2016a); 2. Soil Health (Blanco, 2020, 2017 and 2013); Agroforestry (Costa et al., 2014) and 3. Sustainable Agriculture (Nagai and Kishimoto, 2008). A first elaboration of the results of this discussion can be recovered in Villela (2018). Figure 1 follows with some elements of the praxis of extension courses: phosphite, picumã, mineral mixtures, glass water, biofertilizers and Pfeiffer's chromatography (Cf. Blanco, 2017).

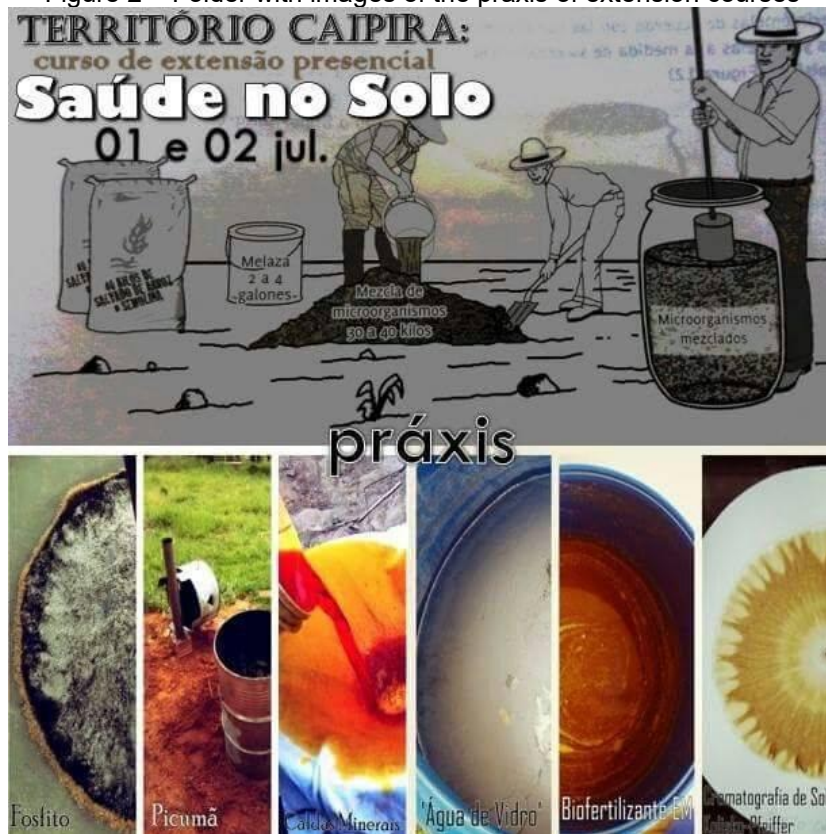
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<sup>2</sup> For the development of themes related to internetese, the project had the collaboration of professors Drs. Fabiana Komesu and Luciani Tenani, both from the Department of Linguistic and Literary Studies.

<sup>3</sup> This partnership was signed through an "addendum" to the agreement in force between Unesp and the Municipality of Rio Preto, developed through the Peja – Rio Preto team, starting in 2013.

<sup>4</sup> The population is registered at the Social Assistance Reference Center (CRASS) to be selected to attend the CCI – Rio Preto, located at Av. Philadelpho Manoel Gouveia Neto, 785, Vila Novaes, north of the city.

Figure 2 – Folder with images of the praxis of extension courses



Source: Blanco (2017).

Among the various "praxis" of this educational process, we highlight the elaboration of the "Pfeiffer Chromatography" used to diagnose the state of soil health (Cf. Blanco, 2017). Chromatography, from the Greek *chroma*, means "color" and *graphein*, "to write". It is the collective term for a set of laboratory techniques for the separation of mixtures. Chromatography was invented by the Italian biologist, son of Russian immigrants, Tswett in 1910 and has become a sophisticated segment of soil science (BLANCO, 2017). The author shows us how to elaborate chromatography:

What is a chroma? It is much more than a biochemical analysis of the soil. It is a hologram (each part contains the information of the whole) of the effects of the Sun on the biogeochemical cycles metabolized in living soil. Its circular harmony (halo) indicates the amount of carbon in the soil and the glory (optical phenomenon) of integration with biodiversity and soil life as in a kaleidoscope. The greater the harmony, the greater and constant is the transformation and fluidity of energy, without losses in this analyzed soil. In the microcosm of the chromatogram we see the struggle between fusion and gravity, where life (fusion) is the animation of minerals, a force against gravity, according to Vernadsky. The simpler and lifeless, the substances remain closer to the gravitational center of the chromatogram (as in the case of metals/minerals). The more complex and vital the substances, the closer to the surface or melting edge of the chromatogram (BLANCO, 2017).

According to Blanco (2017), the chromatogram is an integral soil analysis, which allows the diagnosis and accompanies its treatment in a self-interpretative way, made by the farmer himself/herself. The most accurate and safe analysis in living beings is genomics



(DNA). Pfeiffer's chromatography is more sophisticated, because in addition to identifying DNA, it incorporates proteomics, expression of gene proteins, according to the environment. Quickly, easily and cheaply, it allows the farmer himself to read the situation of his soil, through time-space in the same way that a father follows the growth, development, physical and mental health status of the child, with the ability to intervene, when necessary (BLANCO, 2017).

Figure 3 - Pfeiffer chromas.



Source: Blanco, 2020.

What is looked for in a chromatogram? For Branco (2017), the reading of life, of the quality of life of the soil, at a given moment is sought. This is easily visualized in a chromatogram, through the harmony of colors and design between all the different mineral, organic, energetic, and electromagnetic components of the soil. Thus, it is possible to know if a certain mineral is in harmony with organic matter, pH, biodiversity of microorganisms or degree of oxidation/reduction of enzymes, vitamins and proteins and how the situation found to achieve this goal can be positively changed (BLANCO, 2017).

It is worth remembering, according to the author, that the analysis will depend on the empirical learning of the nature of those who are carrying it out, the farmer himself and his family. The chromatogram is a tomography of the soil and plant that allows us to know: (1) what is the management of the soil water content and (2) what is the management of minerals, adventitious plants and others. In other words, it allows the perfect diagnosis of soil health and the evaluation of the quality of the food produced in it (BLANCO, 2017).

Next, in Chart 2, we present a comparison between crioulo and transgenic corn chromas. Clockwise, (1) ears of Creole and transgenic corn; (2) Creole corn, with minimal soil preparation with liming, rock flour and biofertilizers applied during its development, in addition to the use of the Milpa system (intercropping of corn, cowpeas and pumpkin); (3) the same seed as the previous Creole corn, cultivated by producer Aguinaldo (São Pedro/SP). The production system used was the conventional one.

According to Naves (2020), the producer suspects that the corn was contaminated with transgenic corn pollen. The "Chroma" reveals this possibility; (4) counter-proof, from the same previous Chroma; (5) transgenic corn, identified as 2B63PW; (6) Conventional fresh corn from Market. In these cereal chromatograms the difference between a Creole corn and a transgenic corn is evident: the DNA connections: cytosine, guanine, adenosine, seem to be "failed"; proving that the industry has changed the corn protein, according to Naves (2020). On the health hazards of transgenic corn, see Villela (2014).

Figure 4 - Creole and Transgenic Corn Chromates





Source: Blanco (2020).

The extension courses held between 2016 and 2019 were moments in the development of work projects, based on the didactics of historical-critical pedagogy, proposed by Gasparin (2002). According to this theoretical-methodological perspective, the starting point concerns the level of real development of the student, the initial social practice; the second moment constitutes the link between social practice and instrumentalization, that is, problematization; the third is related to didactic-pedagogical actions for learning, called instrumentalization; the fourth, the elaborated expression of the new way of understanding social practice, catharsis; and the fifth and last, to the current level of development of the student, that is, the final social practice.

The writing of course participants from 2016 to 2019, which is presented in Chart 3, expresses the passage from a chaotic view of reality to the scientific knowledge provided by the project, where reality is inferred through new ways of thinking (Other posts can be found at: Villela, 2014). It is the manifestation of the intellectual improvement of the participants, who, in a continuous way, dialectically challenge themselves to transform the contradiction between the old (initial social practice) and the new (final social practice), according to Gasparin (2002). The writing present in the posts represents one of the points of arrival of the project's pedagogical process, proving that the process of counter-hegemony opens spaces of struggle and displacements and enables the reversal of forms of material and immaterial domination (Cf. Moraes, 2002). The following are the posts of the course participants (transcribed exactly as in the original).

Chart 1 - Posts of the participants of the extension courses (2016-2019)

Participant F. 17/07/03 13:22  
 The Caipira Territory course promoted by Unesp is an invaluable wealth for knowledge. In module 1, the importance and practice of making fermented products was highlighted: kobashi, biofertilizer, microorganism silo, MS.



<p>These practices showed how easy it is for agroecological producers to be independent of chemical inputs, not to mention the complete health they will make available to their soil, for planting and also for their animals.</p> <p>Wonderful lectures and explanations of the fundamentals of agroecology, given by mentor Oliver, support the practices developed in a divine way.</p> <p>Not to mention the very rich explanation given by Prof. Fábio, about the socio/historical/cultural wealth of rural women.</p> <p>In short, everything beautiful and wonderful, of resounding value for our agroecological consciousness, making us plant our foot with all our strength in this attitude of preserving the health of the soil.</p>
<p>Participant F. 17/07/03 18:18</p> <p>In module 2 of the Soil Health course we learned a lot of wonderful things: hot and cold syrups, phosphite, biochar.</p> <p>As always, these are very simple and inexpensive recipes that can lead to efficient and healthy agroecological production.</p> <p>The practice of chromatography certainly raised the level of the course even more, showing, with simplicity and art, how to design the health of the soil and also of food.</p> <p>Courses like this should be a constant in our region and around the world, as it clarifies well the duty of awareness we have towards the soil, father and mother of all living beings.</p> <p>"HEALTHY SOIL, HEALTHY PEOPLE. SICK SOIL, SICK PEOPLE"</p>
<p>Participant L. 17/07/12 13:58</p> <p>In this second part of the Caipira Territory Course – Soil Health, we explore in a practical way the Pfeiffer Chromatography (or circular chromatography) that allows the farmer to have autonomy with an integral view of the soil of the property, also analyzing the evolution of the agroecological management that is being done, following the successive stages with measurement of results and progress.</p> <p>Prepared Mineral Syrups have a double function. They act to nourish and also, in emergency cases, can act on the symptoms/vectors of diseases.</p> <p>They allow self-sufficiency in relation to the industry since most of the inputs are easily accessible and others can come from the property or the region.</p> <p>The joint use of the techniques learned can give the farmer a great empowerment since the revitalized and remineralized soil will certainly reciprocate with healthy, geobiodiverse, nutritious and abundant food.</p>
<p>Participant M. 17/07/04 14:06</p> <p>In this second module of practices, we had a lot of exchange of information and knowledge about what living soil and energy are. We enter into the flow of signals and the reading of these signals, to intervene in a way that respects the transformation processes and biological cycles. Using the recipes of syrups and mineral compounds, we cook and feed the land, for the control, rebalancing and health of crops and soil.</p> <p>The handling, collection, observation of matter in transformation or stagnant, was fixed, documented in the time/space of the paper cut in a circle. Chromatography, starting point and reading for future actions and evaluations of the practices employed.</p> <p>The door was opened for the formation of a network for the exchange of knowledge and experiences. Gratitude.</p>
<p>Participant J. 12/16/19 9:10 AM</p> <p>Another inspiring meeting, where we learned much more than techniques focused on corn cultivation, but rather studies and experiences of Oliver Blanco and researchers on management in organic agriculture.</p> <p>Despite being a producer and professional in the area, I was surprised by several "novelties" such as: chromatography applied to soils, plants and composts; principles 3 M and 4M; siderophores, biochar, alternative pelleting for unconventional seeds, phosphite formulation, among others.</p> <p>Oliver's experience and humility made me dive into the historical past of corn, going through discoveries of techniques, importance of an organic food for an organism, impacts of transgenics, theory of trophobiosis and so many other fantastic things on our subject.</p> <p>We need, as we are sure, more time with Oliver to try to "suck" in every good way, more of his experiences and bring closer to our region so "needy" essential information for the maintenance and expansion of our family and organic agriculture.</p>

Source: Villela (2014).



As we can observe in the writing of the participants above, the theoretical-methodological option from the perspective of historical-critical pedagogy contributes to the valorization of scientific-cultural knowledge, the basis for the transformation of reality. As Saviani (2012) points out, the appropriation of knowledge historically produced by humanity derives from the process of mediation, as a result of people's relationships with each other and with culture. The participants' writing indicates the overcoming of common sense towards philosophical consciousness. The writing makes it clear that the student recognizes elements of his situation, pointing out the need to intervene in reality, transforming it in the sense of expanding freedom, communication and collaboration among men.

The merit of the reorganization of the initial social practices of the course participants lies in the didactic process of historical-critical pedagogy, whose method of investigation and elaboration of scientific knowledge is based on the unveiling of Marx's labor theory of value. This theoretical-methodological contribution contributes to new teaching and learning relationships and helps both in the training of students and teachers. A work project in this theoretical-methodological perspective is an excellent didactic instrument, in view of the dialectical process present in its teaching and learning methodology.

## FINAL CONSIDERATIONS

We can highlight as the main achievements of this work: (1) survey of research material through hypertexts produced, in the environment of the class blog, by the participants of the project, in order to provide qualitative data for research interested in the description and understanding of the centrality of the value of labor; (2) the development of possibilities of actions, as demonstrated by the participants' writing, for productive inclusion in the countryside territory, according to a work project from the perspective of historical-critical pedagogy; (3) the consolidation of socioeconomic networks of family farming within rural territories, especially in the northwest region of São Paulo, considering the practices of solidarity economy; (4) the strengthening of economic organizations, contributing to the productive inclusion and sustainable and solidary development of the country territory; (5) practical development of the idea of "environmental culture", proposed by Salinas (1988), among others, enabling new environmental designs for *Nuestra América*, according to Pérez-Rubio (2003).

Finally, it is worth highlighting (6) the contribution to the production and systematization of innovative EJA methodologies in rural education; (7) the improvement of pedagogical theories and educational experiences, with regard to Information and Communication Technologies (ICTs) and other technological tools in rural education. The



project was developed in an EJA space, according to Brasil (2000), where this environment encompasses the entire learning process, formal or informal, in which people considered adults by society develop their skills, enrich their knowledge and improve their technical and professional qualifications, directing them to the satisfaction of their needs and those of their society. In the EJA environment, the real situations should constitute the core of the organization of the pedagogical proposal to be developed. To this end, the challenge of EJA is to integrate work and the improvement of schooling into its curricular organization. Based on these ideas, the "occupational arc" worked on was family rural production and social and professional qualification. The result of this work is the articulation of the knowledge of the students with the different areas of knowledge, enabling the experience of new values, the triggering of collective actions, as well as the increase of schooling associated with social and professional qualification, enabling new learning for the students in the country territory.



## REFERENCES

1. Bery, M. G. (2009). La cultura ambiental y el promotor cultural: una mirada necesaria en la comunidad “El Tivoli” en Santiago de Cuba. Santiago de Cuba: Universidad de Oriente. (Master's thesis, Programa de Pós-graduação em Desenvolvimento Cultural Comunitário, Facultad de Humanidades, Universidad de Oriente, Santiago de Cuba).
2. Blanco, O. H. N. (2020). Cromatografia de solo (Kolisko-Pfeiffer): diagnóstico do estado de saúde no solo e alimentos. Flickr. Araçatuba-SP. Available at: <https://www.flickr.com/photos/raearacatuba/albums>. Accessed on: June 30, 2020.
3. Blanco, O. H. N. (2017). Práticas da agricultura orgânica: saber e fazer em mãos camponesas. Curso de extensão presencial. Território caipira: saúde no solo. SlideShare. Araçatuba-SP. Available at: <https://pt.slideshare.net/OliverBlanco01/territrio-caipira-curso-sade-no-solo-jun-jul-2017>. Accessed on: June 30, 2020.
4. Blanco, O. H. N. (2013). Milho crioulo “Cunha”. Blanco agricultura: consultoria e acompanhamento técnico para o envolvimento dialógico da agricultura orgânica no Brasil. Blogger. Araçatuba-SP. Available at: <http://oextensionista.blogspot.com.br/2013/05/milho-crioulo-cunha.html#.VI6-hr9yzQ9>. Accessed on: June 30, 2020.
5. Boff, L. (2019). Às agressões, como nos responde a Mãe Terra. Personal website. Petrópolis-RJ. Available at: <https://leonardoboff.org/2019/08/15/as-agressoes-como-nos-responde-a-mae-terra/>. Accessed on: July 2, 2020.
6. Boff, L. (1993). Ecologia, mundialização e espiritualidade: a emergência de um novo paradigma. São Paulo: Ática.
7. Brandão, I. de L. (1984). Não verás país nenhum: memorial descritivo. Rio de Janeiro: Codecri.
8. Cárdenas, E. (2002). Por una teoría para transformar el ambiente. *Arquitectura y Urbanismo*, 23(3), ISPJAE, La Habana, 8-15.
9. Costa, F. M. P. da, Oliveira, T. H., & Irineu, N. S. O. (2014). Sistemas agroflorestais: um olhar sobre o caso da Fazenda Elo Florestal. *Cadernos de Agroecologia*, 9(3). Available at: <http://revistas.aba-agroecologia.org.br/index.php/cad/article/view/15945>. Accessed on: June 29, 2020.
10. Cruz, R. (2002). Ruta crítica para el desarrollo de las percepciones como indicador de la cultura ambiental comunitaria. Santiago de Cuba: Universidad de Oriente. (Master's thesis, Programa de Pós-graduação em Desenvolvimento Cultural Comunitário, Facultad de Humanidades, Universidad de Oriente, Santiago de Cuba).
11. Cruz, R., Romero, E., & Hernández, M. (2007). Educación ambiental y cultura: su convergencia en la construcción simbólica de la naturaleza. *Revista Educación Ambiental para el Desarrollo Sostenible*. Paris: UNESCO.
12. Earth Overshoot. (2020). Earth Overshoot Day. Corporate website. Oakland-CA. Available at: <https://www.overshootday.org/>. Accessed on: June 30, 2020.



13. Foster, J. B., & Clark, B. (2006). Imperialismo ecológico: a maldição do capitalismo. In L. Panitch & C. Leys (Eds.), *O novo desafio imperial* (pp. 1-18). Buenos Aires: CLACSO.
14. Foster, J. B. (2005). *A ecologia de Marx: materialismo e natureza*. Rio de Janeiro: Civilização Brasileira.
15. Gasparin, J. L. (2002). *Uma didática para a pedagogia histórico-crítica* (1st ed.). Campinas: Autores Associados.
16. Hernández, F. (1998). *Transgressão e mudança na educação: os projetos de trabalho*. Porto Alegre: ArtMed.
17. Irizarri, L. S. (2010). *El desarrollo de una cultura ambiental en el contexto comunitario de Cuba*. Universidad de Granma, Jiguaní, Cuba. Centro de Trabalho: Sede Municipal Universitária. Available at: <[www.monografia.com](http://www.monografia.com)>. Accessed on: June 30, 2014.
18. Komesu, F. C., & Tenani, L. E. (2010). Práticas de letramento/escrita em contexto da tecnologia digital. *Eutomia* (Recife), 1, 1-15.
19. Löwy, M. (2005). *Ecologia e socialismo*. São Paulo: Cortez. (Coleção questões da nossa época; v. 125).
20. Marcuse, H., et al. (1973). *Ecologia contra poluição*. Lisboa: Dom Quixote.
21. Mézáros, I. (2002). *Para além do capital: rumo a uma teoria da transição*. São Paulo: Boitempo.
22. Moraes, D. de. (2002). *Imaginário social e hegemonia cultural. Gramsci e o Brasil* website. Rio de Janeiro-RJ. Available at: <http://www.acesa.com/gramsci/?page=visualizar&id=297>. Accessed on: January 26, 2017.
23. MST. Movimento dos Trabalhadores Rurais Sem Terra (MST). (2020). *35 coisas que você precisa saber sobre o MST*. Corporate website. Brasília-DF. Available at: <https://mst.org.br/2019/01/18/35-coisas-que-voce-precisa-saber-sobre-o-mst/>. Accessed on: June 30, 2020.
24. Nagai, K., & Kishimoto, A. (2008). *Manejo do solo e adubação: equilíbrio nutricional, melhoramento do solo e saúde da planta*. Instituto de Pesquisas Técnicas e Difusões Agropecuárias da JATAK. Guatapará-SP. Available at: <https://docplayer.com.br/22014519-Manejo-do-solo-e-adubacao-equilibrio-nutricional-melhoramento-do-solo-kunio-nagai-akira-kishimoto.html>. Accessed on: July 3, 2020.
25. Pérez-Rubio, C. V. (2003). El diseño ambiental en nuestra América: colonización o liberación. *Archipiélago. Revista Cultural de Nuestra América*, 11(41), 54-57.
26. Pérez-Rubio, C. V. (1994). *Y el perro ladra y la luna enfría*. Fernando Salinas: diseño, ambiente y esperanza. México: UNAM, UAM-A, UIA.





27. Pinheiro, S. (2018). Agroecologia 7.0: bombeiro agroecológico, farinhas de rochas, biofertilizantes, biochar, agrohomeopatia e sideróforos. Rio Grande do Sul: Editora da Universidade/UFRGS/Fundação Juquira Candiru Satyagraha/Plataforma Catarse.
28. Quesada, M. de. (2002). La cultura ambiental comunitaria: un reto de la integración escuela-comunidad. Santiago de Cuba: Universidad de Oriente. (Master's thesis, Programa de Pós-graduação em Desenvolvimento Cultural Comunitário, Facultad de Humanidades, Universidad de Oriente, Santiago de Cuba).
29. Saviani, D. (2012). Pedagogia histórico-crítica: primeiras aproximações (11th ed. rev. reimpr.). Campinas: Autores Associados. (Coleção Educação Contemporânea).
30. Salinas, F. (1992). La cultura ambiental de nuestra América. *Arquitectura y Urbanismo*, 13(2), ISPJAE, La Habana, 25-32.
31. Salinas, F. (1988). De la arquitectura y el urbanismo a la cultura ambiental. Guayaquil: Facultad de Arquitectura y Urbanismo, Universidad de Guayaquil.
32. Silva, E. (1991). Uma introdução ao projeto arquitetônico (2nd ed.). Porto Alegre: Editora da Universidade/UFRGS.
33. Velásquez, J. C. P. (2018). La naturaleza en la obra de Fernando Salinas. *Arquitectura y Urbanismo*, 39(3), Instituto Superior Politécnico José Antonio Echeverría, Cuba. Redalyc. Available at: <https://www.redalyc.org/jatsRepo/3768/376858947004/html/index.html>. Accessed on: July 25, 2020.
34. Villela, F. F. (2018). Trabalho, história e saberes tradicionais no território caipira: fundamentos e possibilidades na perspectiva da pedagogia histórico-crítica. *Rev. Fac. Educ. (Univ. do Estado de Mato Grosso)*, 29(16), 63-80, Jan./Jun. Available at: <https://periodicos.unemat.br/index.php/ppgedu/article/view/3888>. Accessed on: July 2, 2020.
35. Villela, F. F. (2016a). Cultura ambiental no território caipira: história e saberes tradicionais das mulheres do noroeste paulista. *Retratos de Assentamentos*, 19, 323-350. Available at: <http://www.uniara.com.br/nupedor/revista-retratos/>. Accessed on: July 2, 2020.
36. Villela, F. F. (2016b). A formação de professores de educação de jovens e adultos no PEJA-Rio Preto: um caleidoscópio de possibilidades. *Cadernos da Pedagogia (Ufscar. Online)*, 9, 2-15. Available at: <http://www.cadernosdapedagogia.ufscar.br/index.php/cp/article/viewFile/862/307>. Accessed on: July 3, 2020.
37. Villela, F. F. (2014). Blog de aula centro virtual de estudos e culturas do mundo rural. Projeto de Extensão Universitária. Pró-Reitoria de Extensão da Unesp – Proex/Unesp. São José do Rio Preto – SP. Available at: <http://www.cecmundorural.com.br/>. Accessed on: February 27, 2015.
38. Villela, F. F. (2009-2010). A escola da justiça global. Supervisão: Prof<sup>a</sup>. Dr<sup>a</sup>. Liliana Rolfsen Petrilli Segnini. Monografia (Pós-Doutorado). Faculdade de Educação, Universidade Estadual de Campinas.



39. Villela, F. F., et al. (2007). O Programa Unesp de Educação de Jovens e Adultos – PEJA-UNESP. Projeto de Extensão Universitária. Pró-Reitoria de Extensão da Unesp – Proex/Unesp. Available at: <https://www.youtube.com/watch?v=FiHsDxnsO7Y>. Accessed on: July 3, 2020.
40. Werneck, G. L., & Carvalho, M. S. (2020). A pandemia de COVID-19 no Brasil: crônica de uma crise sanitária anunciada. *Cad. Saúde Pública*, 36(5), e00068820. Available at: <http://cadernos.ensp.fiocruz.br/csp/artigo/1036/a-pandemia-de-covid-19-no-brasil-cronica-de-uma-cri-se-sanitaria-anunciada>. Accessed on: June 30, 2020.