

Sustainability and Land Ethic

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1. Introduction

Land ethic, as presented by Aldo Leopold in *A Sand County Almanac* (1949), constitutes an important contribution regarding the reflection about man-nature relations and a main reference in ecological and conservation issues.

This paper aims the introduction of the central concepts of land ethics as a major input to the debate about sustainability. According to Leopold, land ethic deals with questions “[...] in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic team. It is wrong when it tends otherwise” (Leopold, [1949], 1968).

The perception of complexity and permanent change of what Leopold presents as the “biotic community” and its specificity – habitats, species, its interdependence and dynamics are territorially different – integrate a perspective which can be helpful in the search of the maintenance of life in its broader sense. Besides these contributions, one should add the proposal of Leopold in terms of the development of an ecological conscience, something that derives from the internalisations of “values” and the change of “attitudes”, and not simply from the imposition of legal norms e/or financial incentives.

The presentation of ethical concerns in the processes of economic development should be a goal envisaged by the actors and institutions involved in the decisions that relate to the control (property rights), the use and transformation of land. Human actions have obvious consequences in the “health” and “beauty” of land around the world and should have moral concerns.

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This perspective is presented in this paper through the following topics: the first contextualizes land ethics within the universe of environmental ethics; the second presents land ethic as proposed by Leopold; the third refers to the perceptions of Leopold that derive from his observations and reflections about the “health of the land” (its sustainability), and which sustain his appeals to the development of knowledge, sensibility and “love”; finally, at the end, some final remarks are highlighted.

2. Environmental Ethics

Land ethic integrates the ‘environmental holism’, a vision according to which “[...] a global perspective of nature can only have place by adopting a notion of ‘biotic community’ where man have his place among other members, and which does not deny the necessity of an axiomatic order”(Beckert, 2004, p.11). For Leopold, “land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals, or collectively: the land” (Leopold, *Op cit*, p.204).

Besides animal and biocentric ethics, environmental holism or ecocentric views correspond to a non-anthropocentric ethic. Differently, the anthropocentric approaches (*vd.* Hans Jonas, 1990) underline the responsible management of natural resources in order to assure their transmission (sustainability) to future (human) generations. Among the different versions of anthropocentric views, it is possible to identify positions which do not consider the necessity of the non-anthropocentric approaches by arguing that the preservation of human interests in the long term will result in the defence of nature from human destruction (*vd.* Byron Norton, quoted *in* Varandas, *Op cit.*, 2004, p.18).

The epistemological foundations of land ethic are, among other influences, ecology, biology and physics. The adoption of the metaphor of ‘community’ as an expression of the interdependence of beings as well as their relative autonomy (*cf.* Rosa, 29-30, 2004) constitutes an important aspect of this ethic. Some authors present land ethic as the more “illustrative example” of “holism of wellbeing” (*vd.* Michael Nelson, 2004, p.147) as well as the starting point of environmental philosophers (*vd.* Sylvan, quoted in Michael Nelson, *Id.*, p. 136). Nelson introduces one of the most important messages of Leopold: the necessity of a change of values and the development of an ecological conscience:

“If Leopold has reason in his critics to the dominant conduct, what is necessary is a change in ethics, in attitudes, values and evaluations. Because, [...] men do not feel moral shame when they intervene in a wild region or when they destroy the soils, extracting all they can produce and, thus, straight ahead and this kind of conduct is not conceived as an interference, neither raise moral indignation by anyone. [...]. Occidental civilisation needs a new ethic [...] that allows the definition of the relation between individuals and natural environment”(Nelson, *Op cit.*, p.136).

To Leopold one should “quit thinking about decent land-use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise” (Leopold, [1949], 1968, pp.224-225). Therefore, land ethic corresponds also to a land esthetic.

The relation between Good and Beauty in land ethic is present in the demand of an esthetic answer, which is “[...] appropriate to nature as far as an ethical attitude. The beauty of the biotic community constitutes the measure of the moral dimension of actions, not as a duty or imposition, but as an invitation to behave well, considering the feelings of satisfaction and pleasure induced”(Varandas, *Op. cit.*, p.165).

The association of ethic and esthetic constitutes a subject that is present in philosophy since the classical antiquity. Kant corresponds to a main reference on this topic as far as the modern philosophy concerns (the ‘interior adventure’ promoted by the sublime experiences). Another reference is Hegel for whom geography and landscape provide elements to reflect about history (Soromenho-Marques, 2001, p.153).

The appeal of Leopold in the sense of a change of values present in human-nature (land) relations integrates also the idea of ecological education, the knowledge of the manifestations of life, its complexity and interrelations as essential elements in the construction of an ethic attitude. His appeal and advice is associated with his own attitude: Leopold has a deep knowledge about of fauna, flora and the processes related to the composition of soils and landscapes. *A Sand County Almanac* (1949) and *For the Health of the Land* (1999) constitute good illustrations of this attitude. In the second part of *Almanac* (“Sketches Here and There”) where the author describes, interpret and critics various American ‘lands’, he wrote:

“In the narrow thread of sod between the shaved banks and the toppling fences grow the relics of what once was Illinois: the prairie. No one in the bus sees these relics. A worried farmer, his fertilizer bill projecting from

his shirt pocket, looks blankly at the lupines, lespedezas, or Baptisias that originally pumped nitrogen out of the prairie air and into his black loamy acres. He does not distinguish them from the parvenu quack-grass in which they grow. Where I to ask him why his corn makes a hundred bushels, while that of non-prairies states does well to make thirty, he would probably answer that Illinois soil is better. Where I to ask him the name of that white spike of pea-like flowers hugging the fence, he would shake his head. A weed, likely” (Leopold, *Op cit.*, pp.118-119).

The approach of Leopold expresses a spirit that search the knowledge, through the contact, the perception of life manifestations from the more obvious to the more invisible ones and with the same importance to the health of the land, its integrity and beauty – his main demand.

3. Land Ethic

The development of ecological movements in the 1960’s allows the diffusion of *A Sand County Almanac*, a classic of ecology and conservation and which is mainly known by the essay “The Land Ethic”.

The plurality of styles constitutes one of the characteristics of Leopold’s writing. His observations of land integrate very precise descriptions about the ‘ways of living’ of animals and plants in a succession of seasons, habitats and the American history, including critical notes about policies, the management of natural resources and a certain kind of progress. This critical interpretation about land and its components is frequently combined with a poetic language and philosophical reflections about the meaning of life and the place of human beings in ‘land’. Therefore, the *Almanac* is also a guide of a spiritual travel.

The book is composed by three parts: “A Sand County Almanac”, “Sketches from Here and There” and “The Upshot” (“Conservation Esthetic”, “Wildlife in American Culture”, “Wilderness”, and “The Land Ethic”).

The definition of land ethic is summarized in the following passages of this work:

“The land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals, or collectively: the land”(*Id.*, p.204).

“[...] a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such”(Ibid.).

“A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity”(Id., p.221).

“The mechanism of operation is the same for any ethic: social approbation for right actions: social disapproval for wrong actions”(Id.,p.225).

There are five aspects which should be underlined in these quotations:

- i) The enlargement of moral universe to other living beings, besides human ones – the ‘biotic community’;
- ii) The overcoming of the dichotomy man-nature transforms man in ‘fellow member’ of the ‘community’;
- iii) The change of values and ecological education as fundamental conditions regarding the coexistence of community members;
- iv) The definition of a responsible use of land as something that should consider economic, ethic and esthetic values in a combination of utility, beauty and the good, and a rejection of a strictly economic approach;
- v) The definition of the “health of the land” as its capacity of self-renewal.

The first aspect is a revolutionary one by including all living beings in the universe of moral consideration. For Leopold, this enlargement of ethic to ‘land’, which includes soils, water, plants and animals, is a “possibility of evolution” and “an ecological necessity”. In this context, the concept of ‘community’ is central to land ethic.

The development of an ecological conscience is essential to the statement and internalization of the notion of community as well as to the related ethical values and implies a change of the “education for conservation”. Public aid that envisages conservation is not sufficient because when it is ended the “good practices” are abandoned: “the offer was widely accepted, but the practices were widely forgotten when the five-year contract period was up. The farmers continued only if those practices that yielded an immediate and visible economic gain for themselves” (Id., p.208). This behaviour expresses the absence of obligations besides self interest regarding land.

Farmers and the perspective according to which property rights have no reciprocal duties that allow the promotion of the collective good are particularly envisaged in Leopold's critical remarks. For him, the development of a true ecological conscience, that is, the enlargement of the "social conscience" of individuals which integrates land, appeals to more than 'just' law: "[N]o important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions" (*Id.*, pp. 209-210).

The predominance of economic values in decisions related with land use constitutes one of the "basic weaknesses in a conservation system" because "most members of the land community have no economic value. Wildflowers and songbirds are examples" (*Id.*, p.210). Nevertheless, "these creatures are members of the biotic community, and if (as I believe) its stability depends on its integrity, they are entitled to continuance" (*Ibid.*). The invention of subterfuges in order to attribute economic value to the members of 'community' as a mean of conservation conducted to the destruction of "species", "groups", but also of "entire biotic communities" like marshes and deserts.

The relegation of these species or communities to "reserves", "monuments" or "parks" (the 'artificialization' or 'museufication' of nature) present difficulties related to the extension and dispersion of the territory occupied by them and also to the capacity of Government to acquire and control the totality of these areas: "[...] the government cannot possibly own or control such scattered parcels. The net effect is that we have relegated some of them to ultimate extinction over large areas (*Id.*, p.212). To Leopold, the alternative consists in the "ecological enlightenment" of "private owners" which should be proud to be the "custodians" of areas that proportionate "diversity and beauty to his farms and to his community" (*Ibid.*) He is not against the governmental conservation (he worked on this area of public administration for a long period of time), but defends the responsabilization of "industrial landowners and users". The teaching of ethical obligations to the land should be provided in "government own agencies for conservation education: the land bureaus, the agricultural colleges, and the extension services" (*Id.*, pp.213-214). This perspective has its foundations in economic and functional concerns since it considers the taxes that are necessary to support this enterprise as well as problems of administrative nature: "What is the ultimate magnitude of the enterprise? Will the tax base carry its eventual ramifications? At what point will governmental conservation, like the mastodon, become handicapped by its own

dimensions? The answer, if there is any, signs more obligations to the private landowner” (*Id.*, p.213).

Leopold presents also many critics to the attribution of subsidies to farmers to supply non-profit services to the community when the only cost consists in “forethought, open-mindedness, or time” (*Id.*, p.213).

The following words of the author synthesise his vision about what he considers the conventional procedures related with the conservation of nature - “the substitutes for a land ethic” - as well as what he defends as a solution to the affirmation of a true ethic:

“To sum up: a system of conservation based solely on economic self-interest is hopelessly lopsided. It tends to ignore, and thus eventually to eliminate, many elements in the land community that lack commercial value, but that are (as far as we know) essential to its healthy functioning. It assumes, falsely, I think, that the economic parts of the biotic clock will function without the uneconomic parts. It tends to relegate to government many functions eventually too large, too complex, or too dispersed to be performed by government. An ethical obligation on the part of the private owner is the only visible remedy for these situations” (*Id.*, p.214).

The description of the working of the “Land Pyramid” (as a substitute of the idea of “balance of nature”) allows the identification of the purpose of conservation: the fertility or health of the land, considering that: “i) land is not merely soil”; ii) the native plants and animals kept the energy circuit open; others may not; iii) man-made changes are of a different order than evolutionary changes, and have effects more comprehensive than is intended or foreseen” (*Id.* p.218).

The final notes of the essay “Land Ethic” recover the necessity to proceed to a change of values, those that should prevail in man-nature relations:

“It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than the mere economic value; I mean value in the philosophical sense. Perhaps the most serious obstacle impeding the evolution of a land ethic is the fact that our educational and economic system is headed away from, rather than toward, an intense consciousness of land. Your true modern is separated from the land by many middlemen, and by innumerable physical gadgets. He has no vital relation to it; to him it is the space between the cities on which crops grow. Turn him loose for a day on the land, and if the spot does not happen to be a golf links or a ‘scenic’ area, he is bored stiff. If crops could be raised by hydroponics instead of farming, it would suit him very well. Synthetic substitutes for wood, leather, wool, and other natural land products suit him better than the originals. In short, land is something he has ‘outgrown’” (*Id.*, p.224).

These words are up-to-date. The concerns about sustainability have to deal with this kind of attitudes and the appeal to the change of values made by Leopold should be listen with attention. Nowadays we are dealing with a paradox: the debates about sustainability are many and well intentioned in both academic and political forums but the change of values (always the most difficult task) is far from accomplished.

4. The Perception of Sustainability: “The Health of the Land”

The first two texts of *Almanac* present the perceptions of Leopold from two points of observation: his travels through some American States and his farm in Wisconsin. These perceptions put into practice some of the main concepts that we found in the essay “The Land Ethic” and underline the following issues:

- i) The importance of science, the empirical observation, as well as the development of sensibility and the love of land – the ‘tools’ that allow the persecution of land ethic;
- ii) The conception of land and landscape as a “book of History”, a text which contains the laws, the technological innovations, the economic and ecological cycles;
- iii) The subject of progress and power, namely that of landowners, and their inscription in landscape.

The descriptions of the birds coming and going, and the process of growing and interaction between the fauna and flora are the result of a scientific knowledge, a ‘knowing look’. The contact with nature and the experiences described by Leopold constitute an important component of an ecological education which should not be substituted by books and classes. The division of sciences and the excess of specialization at the university are also object of criticism:

“There are men charged with the duty of examining the construction of the plants, animals, and soils which are the instruments of the great orchestra. These men are called professors. Each selects one instrument and spends his life taking it apart and describing its strings and sounding boards. This process of dismemberment is called research. The place for dismemberment is called university. A professor may pluck the strings of his own instrument, but never that of other, and if he listens for music he must never admit it to his fellow or to his students. For all are restrained by an ironbound taboo which decrees that the

construction of instruments is the domain of science, while the detection of harmony is the domain of poets” (*Id.*, p.144)

The proposal to read landscapes can be seen as an invitation to hear the “orchestra”, the “harmony” and the perception of the invisible elements of nature, which talk about the sustainability of land, i.e., its health.

The contemplation of weeds, birds and trees allow the development of senses and the respect to nature. The expression of this kind of feelings is present in many parts of Leopold’s work. The death of a “simple” weed – the Silphium (“spanged with saucer-sized yellow blooms resembling sunflowers”) - is referred in a very touching way: “[T]his year I found the Silphium in first bloom on 24 July, a week later than usual; during the last six years the average date was 15 July. When I passed the graveyard on 3 August, the fence has been removed by a road crew, and the Silphium cut. It is easy now to predict the future; for a few years my Silphium will try in vain to rise above the mowing machine and then it will die. With it will die the prairie epoch” (*Id.*, p.46).

The death of species as well as their conservation is written in landscape, but its reading and interpretation demands knowledge and sensibility. The example of Silphium constitutes an illustration of this attitude devoted to nature and allows the critic of destruction based on the ignorance about the working of the “biotic community”:

“The Highway Department says that 100,000 cars pass yearly over this route during the three summer months when the Silphium is in bloom. In them must ride at least 100, 000 hundred people who have ‘taken’ what is called history, and perhaps 25,000 who have ‘taken’ what is called botany. Yet I doubt whether a dozen have seen the Silphium, and of these hardly one will notice its demise. If I were to tell a preacher of the adjoining church that the road crew has been burning history books in his cemetery, under the guise of mowing weeds, he would be amazed and uncomprehending. How could a weed be a book? This is one episode in the funeral of the native flora, which in turn is one episode in the funeral of floras of the world. Mechanizes man, oblivious of floras, is proud of his progress in cleaning the landscape on which, willy-nilly, he must live out his days. It might be wise to prohibit at once all teaching of real botany and real history, lest some future citizen suffer qualms about the floristic price of his good life” (*Id.*, p.46).

The situation described by Leopold on “February” called the “Good Oak” constitutes also an example of this conception of nature as a book of history. Leopold and his family found an oak destroyed by a “bolt of lightning”. They decide to cut the three to

use the wood which was more than that – it transect a century, and “our saw was biting its way, stroke by stroke, decade by decade, into the chronology of a lifetime, written in concentric annual rings of good oak” (*Id.*, p.9). Every cut ‘talk’ about facts of American history:

- The dust-bowl drouths of 1936, 1934, 1933, and 1930;
- The 1920’, the “Babbittian decade when everything grew bigger and better in heedlessness and arrogance – until 1929, when the stock markets crumbled” (*Id.*, p.10);
- “A National Forest and a forest-crop law in 1927, a great refuge on the Upper Mississippi bottomlands in 1924, and a new forest policy in 1921” (*Ibid.*);
- The “Blig Sleet” in March 1922;
- The decades of the “drainage dream” (1910-20);
- The abolition of state forests in 1915 by the Supreme Court;
- The advance of game conservation (1916);
- The publication, in 1910, of a book of conservation by a “great university president”;
- 1909 (“When smelt were first planted in the Great Lakes”), 1908 (“a dry year”), 1907 (“when a wandering lynx, looking in the wrong direction for the promised land, ended his career among the farms of Dane County”), 1906 (“When the first state forest took office, and fires burned 17,000 acres in these sand counties”), 1902-3 (a winter of bitter cold”), 1901 (“which brought the most intense drouth of record”) and 1900 (“a centennial year of hope).

[...]

The cuts stop in 1865, “the pith year of our oak”. It is interesting to note that in that year, “John Muir offer to buy from his brother, who then owned the home farm thirty miles east of my oak, a sanctuary for the wildflowers that had gladdened his youth. His brother decline to part with the land, but he could not suppress the idea: 1865 still stands in Wisconsin history as the birthyear of mercy for things natural, wild, and free” (*Id.* pp.15-16).

To cut symbolises the power of man on land which, and according to Leopold, can also be exercised with a pen. The critics to the exercise of this power without limits and to a certain kind of progress are a constant in the analysis of Leopold, which

defends something apparently very simple: the coexistence between progress and the preservation of wildlife, or sustainability in its environmental, economic and social dimensions.

During ten years he recorded the “wild plant species in first bloom” on two different areas: “suburb and campus” (Wisconsin University) and “backward farm”. The balance is clearly favourable to the last one. Leopold refers this result in an ironic way:

“It is apparent that the backward farmer’s eye is nearly twice as well fed as their eye of the university student or businessman. Of course neither sees his flora as yet, so we are confronted by the two alternatives already mentioned: either ensure the continued blindness of the populace, or examine the question whether we cannot have both progress and plants. The shrinkage in the flora is due to combination of cleaning-farming, woodlot grazing, and good roads. Each of these necessary changes of course requires a larger reduction in the acreage available for wild plants., but none of them requires, or benefits by, the erasure of species from whole farms, townships, or counties” (*Id.*, pp. 47-48).

Among the “messengers of progress” there are engineers, economists besides the false conservationists, politics and law makers. The dominance of economic value of nature justifies the destruction described by Leopold and which may have paradox results like the case of marsh’s drainage and the impoverishment and death of soil. Regarding the value of wildlife, the ironic style prevails:

“A roadless marsh is seemingly as worthless to the alphabetical conservationist as an undrained one was to the empire-builders. Solitude, the one natural resource still undowered of alphabets, is so far recognized as valuable only by ornithologists and cranes. Thus always does history, whether of marsh or market place, end in paradox. The ultimate value in these marshes is wildness, and the crane is wildness incarnate. But all conservation of wildness is self-defeating, for to cherish we must see and fondled, and when enough have seen and fondled, there is no wilderness left to cherish” (*Id.*, pp. 101).

The power of landowners is expressed in the capacity of creation or destruction of land. This power and, therefore, the dilemmas that ‘landscape writers’ have to deal with in order to make decisions that promote their subsistence is something very present in Leopold’s thought. Callicot (1999) underlines this practical dimension of Leopold’s work. Leopold presents his own case as an example of the dilemmas faced by farmers: he has to choose to cut a white pine or a red birch when they are “crowding each other”. Leopold confess that he always cut the birsh to favour the pine. Why? He answered:

“The birch is an abundant tree in my township and becoming more so, whereas pine is scarce and becoming scarcer; perhaps by bias is for the underdog. But what would I do if my farm were further north, where pine is abundant and red birch is scarce? I confess I don’t know. My farm is here”(Leopold, *Op. cit.*, p.69).

The explanation of his decision includes very dimensions and facts but in the end he concludes that: “I love all trees, but I am in love with pines” (*Id.*, p.70).

One of the parts of which illustrates the affections and the beauty of the ‘useless’ is from April – “Sky Dance”. Once more Leopold describe the harmony and the orchestra that joint the farmer-spectator and the dancing bird (a male woodcock):

“The drama of the sky dance is enacted nightly on hundreds of farms, the owners of which sigh for entertainment, but harbor the illusion that it is to be sought in theaters. They live on the land, but not by the land. The woodcock is a living refutation of the theory that the utility of a game bird is to serve as a target, or to pose gracefully on a slice of toast. No one would rather hunt woodcock in October than I, but since learning of the sky dance I find myself calling one or two birds enough. I must be sure that, come April there be no dearth of dancers in the sunset sky” (*Id.*, p.34).

He published various papers and essays dedicated to farmers, an important actor of the “biotic team”. These documents, written between 1938 and 1942, were collected in the book *For the Health of the Land* (introduction and edition by his disciple – Baird Callicot, and Eric T. Freyfogel) and are the result of his activity in extension services.

The main subject of *For the Health of the Land* is the conservation of wildlife in private lands in the United States. According to Callicot some of the remarks must be contextualized but his dream continues up-to-date and inspiring as before. This dream is described by Callicot in the following terms:

“It was a dream in which conservation – the conservation of the entire land community – was fostered not just in national parks, wilderness areas, and other public domains but in every corner of every landscape. It was a dream in which conservation became a down-to-earth endeavor for all users of the land – for all farmers, as he called them; an endeavor pursued in every watershed, in every forest and field, on the back forty, even in the backyard – in every place where people lived on the land and helped guide its unfolding self-renewal” (Callicot, *Op cit.*, pp. 25-26).

Leopold developed and transmitted this dream as an interpreter, critic and philosopher of land (vd. “Afterword”, *For the Health of the Land*, pp.227-238). Like *Almanac*, *For the Health of the Land* appeals to the conservation of land, to the coexistence between utility and the preservation of the beauty without economic value, searching the sustainability (‘health’) of the biotic community. The preservation of land is a consequence of ethical values like respect, responsibility, and wisdom, which are expressed in the beauty and the health of landscapes.

In the paper “Be Your Emperor” published for the first time in *For the Health of the Land*, Leopold interprets rural landscape which combines farming and wildlife. What is the message of this landscape, according to Leopold?

“I submit that the slick and clean countryside is neither more beautiful, not – in the long run – more useful than that which retains at least some remnants of non-domesticated plant and animal life. The brushy fencerow and the wild-grown bank, the clean-boled woodlot and the undrained spot of marsh – I heartily agree that the presence of these things on the farm portray the character of the owner, but in my view they portray him not as a sloven, but as one who, despite the stampede of his neighbors, has refused to trade his birthright as a husbandman of living things for the shoddy imitation of a factory” (Leopold, 1999, pp. 78-79).

Some elements of landscape which are not obvious to some eyes are fundamental to the health of the land. As Leopold says, landscape is the portrait of its owner, of his ethic and esthetic values. We can add that the world is the portrait of our ethic and esthetic as well. Its sustainability demands a change of values that sustain our relation with nature, the other “fellow-members” of the community – our common *oikos*.

6. Final Remarks

The original concept presented in Brutland report in the final 1980’s was developed in order to integrate economic and social issues, besides environmental concerns. We are dealing with a complex and demanding concept regarding the specificities of natural elements and human societies around the world.

The recover of Leopold thought on land ethic presents potentialities to think about sustainability at the present time, considering that:

- It proposes a revolutionary vision concerning the universe of moral consideration, and which is expressed in the concept of “biotic community”. The message is that we, humans, and the other living creatures, share a

common house – the Earth. The belonging and the dependence that characterize that community changes the occidental views about man-nature relations. For Leopold there is not such dichotomy;

- It underlines the role of education and the development of an ecological conscience in the construction of a “true” land ethic. This is something which is not compatible with a distant, or inexistent, relation with land (soils, water, animals,...) and the compartment of knowledge. For Leopold, nothing (books, classes,...) can substitute the contact with nature. The perception of the working of the “land pyramid” allows a “true” knowledge and, at the same time, the development of the sense of belonging to the “community”;
- It presents the concept of land health as its capacity of self-renewal. The coexistence of exploitation of land (economic dimension) by actors which derive their subsistence from it (social dimensions) should integrate the conscience of the limitations of land and its specificities in ecological terms (environmental dimension). Leopold’s proposal integrates the notion of evolution of land as well as the perception that its renewal is also dependent from human interventions.

We are living difficult times in all dimensions of sustainability and we have to deal with problems that demand new values, attitudes and policies. The message of Leopold inspires the reflection and the answer to the philosophical answers: “how should we live? How should we behave with the other fellow-members of the “biotic community?”

What should Leopold say about the achievements of the ecological movements and by organic production already mentioned in his work? What should he say about the continued extinction of species and ecosystems around the world due to human intervention? What should he say about university teaching? What should he say about intensification of tourism of nature? Finally, what should he say about the absence of silence in our world, and the sense that there is no place to explore?

The invisibility of ethic become perceptible through the beauty of land and it is the result of the development of an ecological conscience which appeals to science but also to sentiments. According to Leopold, we love what we know. This is a holistic approach which integrates man in land through the development of cognitive, ethic and

esthetic capabilities. To keep on, to sustain, implies a deep change of values in the construction of our “Common Future”.

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