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## **International legal and protection of the landscape and biodiversity: the architecture of the limit between natural cultivation and culture**

### **Abstract**

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The growth and spreading of environmental law for scientific and health protection, - together with the landscape that responds to more historical, aesthetic and cultural principles, represent an evolution of living law directly proportional to the ability of right operators to share with the scientific community the multiple problems and reflections of development risks. The right balance between scientific and technological evolution and the management of its voluntary or involuntary, regulated or regulated introduction into nature are the main challenges of scale application of what has become one of the fundamental principles of international law and single Nations: the precautionary principle.

Sicily and the park of Selinunte tell us through the variety of its plants a part of history: the anthropological and zootechnical passage of the human and animal migratory flows that have characterized the testimony of the past. The environmental changes have been voluntary, responding to aesthetic decisions and in other cases occasional and voluntary.

The environmental and biodiversity protection, expressed in national and international law, are today the main tools to manage risks with prudence and potential forecasts.

The natural landscape, emblem of what is historically presumed to have been ab origine in comparison with the cultural landscape, i.e. the intertwining of the many human passages that have intervened over the centuries, offers an important starting point for study and reflection to refine the scientific and regulatory techniques of nature protection.

*Key words:* environmental law, Selinunte, cultural landscape, natural landscape.

Biodiversity is a scientific concept that has occupied, in recent decades, many branches of national, European and international law, favouring the promotion of an ever closer collaboration between science and law, between research and regulatory production, in an attempt to achieve a greater adherence of the right to the sociological and anthropological dynamics of the international community.

When jurists, botanists, agronomists, doctors, biologists, industrialists, anthropologists, philosophers, historians, archaeologists, geologists, architects, engineers and politicians participate in the same study table, the first bases of an approach aware of the necessity of

a vision have already been created. overall, replacing a now anachronistic purely specialized and sectorial approach.

The responsibility of the scientific community and of the responses it is able to give, not only to its financiers and economic supporters but above all to the final consumers and to those who are called upon to keep watch over them, have been gradually standardized starting however from the assumption that science has all the attributes to be able - in a generalized time frame - to foresee a corolla of possible chains causes and effects, in order to avoid a dangerous irreversibility of the actions carried out by man.

In short, science is asked to evaluate a priori what is actually predictable, with the tools available at the same time, therefore at least in power, the effect generated by a new scientific phenomenon or a mere innovation or geographical incursion of animal or vegetable species, in places other than that in which they evolved and are presumed to have originated.

But because this dynamic is not a purely conceptual matrix of work that is detached from reality but is actually aimed at finding conditions to reach, at least, a state of primordial knowledge, we must never lose sight of the interests and aims of those who today finances research.

In fact, scientific research has justly high economic costs and, paradoxically, even though it is one of the interests and duties of the nations, to monitor the common interest, namely the health, protection and protection of the ecosystem, of the micro and macrosystem, as well as of biodiversity, today it is increasingly relegated to the margins or, in turn, not too veiled by those who carry out scientific research into economic productions.

Uniting the two great worlds of science and law, in the field of biodiversity protection means, first of all, abandoning self-referential positions, perched in the specificity of the peculiar language and used in each of the doctrines and individual scientific communities.

Looking at a landscape with the eyes of a geologist, an archaeologist, a jurist, an architect, a botanist or an industrial entrepreneur means crossing, converging and bringing together different perspectives on the same object. This convergence of looks gives rise to a much sharper and more concrete vision of the status quo ante analysis and of the imaginary status in a temporal perspective with respect to the possible consequences, cause and effect.

The result can always be surprising and never univocal, but above all the neglect by the scientific community, with the analysis of the legal one, one of the possible consequences is an act of responsibility or irresponsibility: it integrates a choice.

But at best, every perspective, while preserving its own cognitive dynamics and the main aims of its own science, when faced with an experimental crossroads, in choosing, risks putting a sort of contact lenses that reveal a vision before one's eyes. not always compatible. Very similar to cultural relativism, there is the risk of developing a sectorial relativism, that is, a sort of involuntary reference to the matrices and to the call for the classical procedure of its own scientific methodology, leaving aside the integrated and intuitionistic one of an equal dialogue between different sciences, such as the agronomy, botany, law, anthropology, archaeology, geology, biology, medicine, zoology.

It is known that technological development and science cannot but be financed by the private and public economy, and when it responds to ever wider dynamics, daughters of globalization and the concept of a common heritage of humanity, they are indissolubly sealed. necessary relationships of sustainability of political choices, regardless of their absolute scrutiny and scholar attentive to every risk factor.

Managing government power how to manage the economic power of safeguarding and growing one's own business also means choosing between the different benefits and evils, minor and worst, which in the relationship between research, experimentation, protection, protection and development do not always follow the same dictates .

In the last fifty years the word specialization seemed to be synonymous with perfect analysis, par excellence, of guaranteeing risk assessment and every factor. Specialization meant precision in the meticulous analysis of the case.

Yet, looking only at the human body, we learn that a skin problem can find its root cause in a deeper pathology that can nest in the pancreas, in the liver, in the psyche. The cause must be investigated and is often far from the visible effect with the naked eye.

And so the plants of land and sea that, nourishing themselves from the same subsoil, can be the main spies of a phenomenon invisible to our sight, in the horizon of our gaze, which lurks its causes deep within the bowels as well as in the historical chain in which it developed.

Insects and animals, with their behaviour, alert us well in advance of the unstoppable mutation of nature and the acceleration or deceleration (positivism or negative, harmful or healthy that it is) that human action can trigger.

But the events and the search for the triggering causes, the etiologic of a relevant phenomenon, what the ancient Greeks called *αἰτιον*, the cause of events and pathologies, is a long and laborious path that knows neither shortcuts, nor lightness whatsoever, but above all self-sufficient presumptions.

With the help of the etiological myth, the ancients explained the origin of many phenomena, from the cataclysm to the supernatural phenomenon, an object or an animal, thus leaving aside the logical analysis of the natural phenomenon.

Paradoxically, today, despite literacy, globalization, the internet age and access to all information in real time, we are witnessing a sort of modern neo mythology, where the mass acceptance of an assumption through a slogan , an image, an advertisement, a Facebook page suffocates reflection, destroys the human inquiring instinct and makes the acceptance of an assumption particularly digestible without having investigated its evolutionary path.

Consider the case of milk powder, in African countries, which was served and presented to the international community as a salvation for humanity, neglecting the fact that the production of mothers' milk, even in a total state of poverty and malnutrition, was the only reliable source of sustenance, safe up to the fifth year of age, and that the interruption, even if only for a day of feeding the mother's milk, would have caused its cessation. To these women there remained only to wait, as well as a difficult destiny of dry mouth and all that surrounded them, the charity of the same international community that would have had to give him, without any pause, the magic milk in powder.

Moving a tradition, a habit - be it food, agriculture or farming, how to uproot a plant from one place to another, export it to another ecosystem - is a phenomenon frequently experienced in human history, from one continent to another. , but it has not always had an improvement effect on the eco-hosting system.

Through plants and their relationship with the earth and human tissue, we can proceed and reconstruct an accurate historical geolocation of all these steps, ideally reconstructing the virginity of that space and the incursions gradually suffered over the centuries.

The study of the phenomenology of the sub-ecosystem and the sub-ecosystem is part of the great history of humanity, that is, of that space in which, over the centuries, human intervention has diverted and modified the normal evolution of nature. This study of history, from the scientific and historical point of view, can provide and provide solutions that are unthinkable and essential for the treatment of possible or already present diseases. But above all, according to the application of the precautionary principle, it can become a preventive factor, almost prescient, based on real risk factors, certainly not on the questioning of the stars or lines of the hand.

In the past, some imprudent choices and certainly not aware of the commercialization of palm trees from North Africa, have led to the release of new bacteria in a new environment and harmful foreign insects that - more proliferative and free from the game of a greedy bird not adaptable to that place - they multiplied and broke the balance of their normal birth and death, destroying millions of palms in Sicily and elsewhere. Also in this case it is not the plant that was transported but the ecosystem that had to be studied and evaluated around the plant. This ecosystem is composed first of all of the climatic factors of the place where the palm grew, the animals that lived it and cured, with their intervention, insects or birds, their life and their death, in the continuous and mobile flow of nature .

The plants, in the case of the red weevil, have been unaware vectors, of a killer insect that slowly and others, different, already present in the territory.

This is the case of the red weevil, *Rhynchophorus ferrugineus*, which through Spain and the imports of palm trees that contained it in southern Italy has gradually adapted to the palms, the new ecosystem offered to feed its larvae, decimating more from year to year fifteen years the *Phoenix canariensis*, massively disfiguring the historical landscape of Sicily, now denuded by the long streets of Palme that over the centuries have characterized it. But above all, today, the killer beetle has begun to attack types of palms that up to now were not exempt from its voracity.

From the point of view of safeguarding the ecosystem and biodiversity we are therefore witnessing a break of a very delicate balance between the plant and the reception ecosystem, devoid of those minimum factors that would have preserved the natural life cycle, in this case the periodic death of beetle food in turn favorite of the

If we look at the history of the curculionid beetle native to southern Asia and Melanesia, already in the 1990s it was very harmful to palm trees, already signaling serious damage in the Egyptian date palms and the Arabian peninsula, we realize how nature alerted the scientific and legal community of government that they could - working in synergy - avoid the destruction of palm trees and the landscape that since 1994 has devastated Europe and, starting from Spain.

It was discovered, in the aftermath, that the Indian reddish *dendrogazza Vagabunda parvula* and the common kestrel *Falco tinnunculus*, a species originally originating from Asia (exactly like the beetle), commonly feed on this invasive parasite. The *Rufous Treepie Dendrocitta vagabunda* is a Treepie, native to the Indian subcontinent and adjacent parts of Southeast Asia and is a member of the Corvidae, or crows. But these birds did not easily adapt to the sud European ecosystem and above all follow their migratory routes, therefore they were not able to stop the proliferation of these beetles and its larvae inside the palm trunks. The man has therefore remained only the support of chemistry with the help of strong pesticides throughout the palms.

However, the remarkable biotic potential of the beetle and the incessant trophic activity of its larvae actually make the chemical action almost as irrelevant as that of native predators such as the black rat *Rattus rattus*, lizards, magpies or pigeons. Therefore, at present, the fight against the red Awl must be conducted with the systematic and rational use of insecticides authorized for the purpose. Dead palms must be promptly eliminated, and the infested parts must be ground to prevent adults from colonizing other palms. In Sicily, the common wild mouse *Apodemus sylvaticus* is often present in the summit of Canary palm trees infested with the red weevil. Larger than the domestic mouse *Mus domesticus*. The weevil-infested palms provide abundant food for the rodent, as evidenced by the presence of erupted pupal chambers and adult females with gnawed abdomen. Certainly the predatory activity of the wild mouse eliminates numerous punches and we can imagine, in turn, a proliferation of such rodents ?!

In the slight survey of a sectoral and non-shared and confluent progress of the various scientific disciplines, including the right, the place of honour, in the last twenty years, OGM, genetically modified organs, have certainly had that before still being perfectly certified as to their non-dangerousness if placed in the environment and therefore in a virgin ecosystem, they were proclaimed, in the late 90s, as biologically predisposed plant beings to treat their bacterium and antibody in the same space of an atom it is possible to declare that the dangerous pesticides, dispersed in the air in the fields in previous years, would no longer have been necessary.

Too bad, not having heard the great philosophers of the past who had alerted us more than once of the circumstance that everything flows, that everything changes, and nothing abides unchanged, in nature in the matter and in the immaterial, from form to thought. Returning to the dynamics of the killer beetle, we can say today that the red weevil having exhausted the *Phoenix canariensis* today has attacked other species of Palms once indigestible. With its import into southern Europe we accelerated its natural mutation and increased the use of pesticide chemistry.

And so, little by little, between one label and another, between a slogan and another, the bacteria have become stronger, stronger and have become super bacteria, little Superman able to defeat the barrier of any possible pesticide or injectable antibody in the same space as an atom. From the cultivation of the traditional ordinary field, we have moved on to the biological, then apparently biological, then ogm and now, supported by a pesticide chemistry now necessary both to the traditional field, and to the field now no longer biological if not in the label and from that from glorious sensationalist OGM past.

How to tell a gullible community, a victim of *modern neo-mythology* that now those same plants need an avalanche of pesticides far more powerful, almost unimaginable, than they needed before the super atoms were injected with the alleged magic potion that would genetically due to make them stronger, compared to an entire ecosystem, to infinity.

Thus it was that the crops and the land became increasingly inert, to the point of becoming, in certain cases, extreme, even infertile. But the undernourished earth of its natural balance, fortunately, always finds the way to react by calling on animals of all species, including humans.

Beyond each case and story, what is relevant is that the reason and the cause of a phenomenon, to be known must first of all be investigated with a valid path that is able to rework the passages that preceded it, the facts.

The activity of the scientific researcher, as well as of the juridical one, in the moment in which the phenomenon has already been established, takes the form of a probabilistic investigation that aims to stage, backwards, every possible and probable passage that could have preceded it.

The legal investigation, differently from what many people believe, in the study of environmental law and the search for a legal responsibility, is far from a mnemonic and utilitarian application of normative data is pure creativity, it is a far-sighted vision of the application of law and the representation of future concrete cases. In a word, it is pure prevention that never means blind prejudice or obstructionism, but an attempt to systemize the least myopic view of what can happen in nature.

Even if in the modern era, as for all civilizations, ours too is subjugated by myths, with a fantastic and unreal approach. The etiological term derives from the Greek word *Etios*, which means for the note cause / origin.

The etiological myths therefore belong to the past but they are not so far from the often coincidental result, with the absence of a thorough and collateral search for a valid explanation for a phenomenon that actually happened or is in the process of evolution.

The protection of biodiversity, if I had to represent it figuratively, I would borrow the image of an upturned oak where the intertwined branches are the different branches of knowledge that flow towards a single central body, the trunk, from year to year gradually. bigger.

In the last thirty years there has been a great activity and the growth of an ever greater interest in international environmental law. Through normative and programmatic tools the international community has set rules to slow down the phenomenon of biodiversity loss in nature.

Unfortunately, the interventions carried out and the instruments adopted did not lead to the desired results and the objectives set have not yet been perfectly achieved. But a stronger and more meaningful conscience has been created in every discipline of confluence, research also towards this purpose.

The international community continues to question itself on the tools to be adopted, to set new goals for an increasingly concrete protection of biodiversity and its being a world heritage. The protection of biodiversity is still today a central and delicate issue in the international debate on the environment. Despite the fact that 2010 has not in fact reported the expected results, the initiatives implemented for the “international year of biodiversity” have, however, produced a greater sensitivity and attention of public opinion on the subject and have fuelled the spirit of national governments for the determination of new goals. Before going on to examine some of the main interventions of international significance in the field of biological diversity, it may still be useful to clarify the origins of this concept and the way in which it was established. The term biodiversity, or biological diversity, expresses a concept with a complex and multifaceted character.

There have been several juxtapositions of knowledge in growth and the spreading of environmental law - for the scientific and health protection together with the landscape that responds to more historical, aesthetic and cultural principles - represent an evolution of living law directly proportional to the capacity of the operators of the right to share with the representatives of the scientific world the many problems and reflections of development risk. The right balance between scientific and technological evolution and the management

of its release into nature, whether voluntary or involuntary, regulated or adjustable, are the main challenges of the application on a scale of what has become one of the fundamental principles of international law and individual nations: the precautionary principle.

In its general aspects, the semantics of the precaution we have explored as an introduction identifies one of the essential elements of the ideal tension that feeds the contemporary debate on the relationship between law and technology, and it is to some reflections that emerged in the context of this debate that we need briefly look to begin to decline and develop this semantics in a completely juridical sense.

The myth of Prometheus and the figure of the sorcerer's apprentice identify two metaphors abused in the discourse on the relationship between law and science, between law and technology.

Moreover, the precautionary principle appears in the middle of the last century in Germany with the *vorsorgeprinzip*, authorization of the public power to take all necessary and reasonable measures to face any scientific and environmental risks even in the absence of proven scientific or necessary knowledge establish its actual existence. But in reality this principle had already taken the first steps in the philosophies of the German Hans Jonas who, taking up the themes treated by his master Heidegger, outlined an ethical theory impregnated with general ecological principles and destined for the future technological civilization in contrast with the roots of the humanism. The first request formulated to the law is in fact linked to the assimilation of the idea of technological retaliation, of the associated harmful consequence and arising from the (purely beneficial) use of scientific discovery.

Therefore, the myth combined with the destiny of man the key with which society is called to come to terms, developing and refining the juridical concept, makes it possible to formulate the answer of responsibility.

The responsibility and the fear of unleashing uncontrollable and irreversible forces using technology are the revealing feeling that must necessarily be listened to before the action and that therefore sets the task of formulating and applying rules capable of capturing the increasing intensity of this fear, to try to guide the development and application of technological knowledge with a sure hand to the antechamber of antecedence.

By combining the inexhaustible ability to infinitely redefine the needs of its users, the technology ends up by avoiding any limit imposed by the respect of purposes other than its own, that is, precisely, that of making the capacity to achieve goals infinitely: the technology that one would expect to regulate thus becomes itself legislation or legislator, coming out of the control and purpose of true sustainable growth that was driving it.

This concern reflects an awareness that contemporary thought has developed since the first half of the last century and that today identifies a cornerstone of philosophical reflection on technology: the relationship between law and science, between law and technology.

The jurist has the possibility to reply by repositioning the axis of the problem within the discourse that best masters it, or rather the one that allows him to claim the autonomous normativity of the law, even admitting the occurrence weakening of politics, increasingly in difficulty in the attempt to chase and manage the power of technology

The value of the norm in its mere procedural adequacy, the idea that the juridical is axiologically neutral and is in a dusty shelf of a secular library, ready to receive any content is very far from reality.

The jurist, claiming his neutrality with respect to a contest destined to take place within the procedural rules that in a democracy, can determine the supremacy of a value or a will to power.

Then there is a second path that the jurist travels in parallel, setting aside the ambition to describe law in terms such as to erect it into a self-referential system, overcoming the simple allusion to the *giusrazionalista* rational law root or to the post-positivist nature of contemporary law by assigning to constitutional principles and to fundamental rights a space no longer revocable by the right in place, but in the opening of the juridical to the sentiment.

Feelings, rather than reflective intellect, are in fact the main component of public opinion. The feeling of threat felt by society that - in stressing the need for the right, even before identifying its requirements or applying its rules, is prepared to listen in advance to information on the risk and danger associated with technology - approaches the investigation of the relationship between law and technology to legal implications in terms of precaution.

A thought and intellectual matrixes of the precautionary principle were elaborated within a cultural tradition by a German philosopher and sociologist, to the conclusion of a reflection that meets a social feeling that matures and consolidates in Germany over the years Seventy, also in the wake of the ecological catastrophe of the acid rains that devastate the Black Forest the *Waldsterben*.

Reflecting on the juridical dynamics of the genesis of this principle, the work of the German philosopher makes explicit the programmatic will to proceed to construct an idea of responsibility that knows how to place itself on a further plane than the one traditionally presupposed by the legal perspective. The intent is to overcome what, in relation to one's ethical need, constitutes the insurmountable limit that this responsibility reveals both in its civil and criminal connotation, since both compensation and punishment share a common destiny: the reality of the human condition.

The underlying themes arising from this reality stand at the limits of tolerance of nature and are those, urgent and decisive, of nutrition, the finiteness of raw materials and energy resources.

To manage all these forces and needs, a new great mother science is required to deal with the enormous complexity of the interdependencies of the different branches of science.

Projections can never be secure, but caution, especially in the case of irreversibility of some processes started, is the best side of courage and in any case an imperative of responsibility.

On this point, insecurity can be our permanent but indispensable destiny.

The temporal perspective of legal responsibility has intrinsic constitutive limits that fall within the predictability, denouncing the inability to adequately compute the future effects of the decision and of the scientific and legislative choices.

The need for a superordinate principle thus becomes clear, forcing political, scientific, economic, entrepreneurial and legislative action to come to terms with the ability to reveal the feeling of fear, thus moving towards an ideal behaviour towards which to direct collective action.

But fear must not distract us from acting but lead to a feeling of anticipatory responsibility, before the final uncertainty of hope, or a condition of responsibility for action.

The global dimension of risk and the way in which the powers and competences that society uses to govern it must be reorganized in the light of this awareness.



The first step is therefore the recognition that scientific rationality, with its claim to rise to a single instrument capable of objectively measuring risk, must be combined with social rationality and with the latter's ability to summarize the values to be based on risk analysis, to admit and value the interdependence that links it to the regulatory management of risks and responsibilities.

Because not even economic and international inequalities allow the full delocalization of the risk. The risk can go back to where it is generated, just like pesticides, which, conveyed by agricultural products, return to the nations of origin of the producing companies that sell them to the developing countries.

The end of the antithesis between nature and society is aimed at claiming the importance of developing the social capacity to anticipate dangers, demonstrating how environmental problems and ecosystem threats take on the appearance of social problems even before they are completely discharged and sworn by scientific assessment.

The belief that scientific rationality holds the only word to identify and describe the risk, setting maximum permitted values or insisting on the need for rigorous causal explanations, is now definitively overcome.

The blindness of technical-scientific rationality therefore finds a first explanation in the economic unidirectionality that distinguishes it, and that pushes it to seek the possibilities of economic exploitation as a primary mission, to relegate the risk (and its evaluation) to the category of induced side effects from the pursuit of this goal.

The rigor of the causal demonstration, pursued by elevating the scientific parameters of this assessment to the extreme, even if it omits the representation of the single causal factor of a given damage, cannot prevent the proliferation of this damage and the accumulation and interaction of etiological factors.

Also, the preventive determination of the maximum values of harmful factors takes on the features of a trial to which man is permanently subjected, with the paradox governing the burden of proof of the alleged perpetrator, the failed failure of the experiment.

Sicily and the park of Selinunte tell us, through the variety of its plants, a part of history: the anthropological and zootechnic passage of human and animal migratory flows that have characterized it from the past. The environmental changes were wrapped up voluntarily, responding to aesthetic decisions and in other cases completely occasional and or voluntary. The biodiversity of this park is an embryo of the largest biodiversity present throughout the territory of Sicily, a reversible treasure as to its original consistency and constantly subjected to potential natural or human induced changes.

The protection and protection of biodiversity, expressed in the rules of national and international law, are today the main tools to manage risks with prudence and potential forecast.

The natural landscape, emblem of what is historically presumed to have been *ab origine* compared with the cultural landscape, ie the intertwining of the numerous human passages that have taken place over the centuries, offer an important starting point for study and reflection to refine the scientific and normative techniques of nature protection. Art that knows no linguistic or national boundaries, filled with the pollen of a flower interprets that

universal language that can best explain the risks and the instruments of protection and enhancement of the environment and nature.

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