

Earth Charter Magazine

VOL. II - DECEMBER 2023



**"FOSTER A CULTURE OF RESPECT FOR ALL LIFE, EMBRACING PRINCIPLES
THAT PROMOTE HARMONY WITH NATURE AND SAFEGUARD THE
ECOLOGICAL BALANCE OF THE EARTH." THE EARTH CHARTER**



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UNESCO Chair on Education for Sustainable Development with the Earth Charter

EARTH CHARTER MAGAZINE VOL II DECEMBER 2023

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UNESCO Chair on Education for Sustainable Development with the Earth Charter

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INTRODUCTION

We are pleased to introduce to you the second edition of the Earth Charter Magazine, which brings together diverse voices of young leaders, educators, and senior professionals in higher education. The purpose of this magazine is to offer a space to share, through short articles, personal reflections, practical examples, research results or an experience implementing Earth Charter principles.

In this issue, you will find eight articles from educators, activists and change makers from China, Costa Rica, France, Germany, Ireland, Mexico and the United States. The authors have been invited by ECI to contribute to this issue as each of them is, in one way or another, involved in the work we do at Earth Charter International.

Over the past two years, Xueping Luo has been working on The Earth Stories Collection project. In her article, she recounts her experience collecting traditional stories from across China, connecting them with Earth Charter and translating them into English. Finally, these stories will be compiled into The Earth Stories Collection, which can eventually be used as an educational resource. In her article, she offers a glimpse of Chinese traditional stories and their connection to the Earth Charter.

Gerd Michelsen, who for years led the UNESCO Chair in Higher Education for Sustainable Development at Leuphana University and played a key role in making the university become an example of higher education on sustainability, gives us an inside perspective of that unique experience

In Amanda Bennett's article, you will find her reflections on the value of going through intercultural learning experiences in various contexts, including her studies at the University for Peace and her experience facilitating ECI's online youth course, as valuable opportunities to expand learners' worldviews.

In her article, Emma Feyeux shares with us the challenges residents of the French Chemical Valley faced when trying to take legal action against contamination due to industrial development. She explains how this problem is related to environmental law and the gaps of implementing it, and how civil society can use existing instruments, such as the Earth Charter, international conventions, and national policies, to act.

Cathy Fitzgerald, an Earth Charter educator who has been leading non-formal education programmes on ecoliteracy and the Earth Charter in Ireland, shares her experience and insights in bringing ecological art practice into education for sustainable development programmes.

Sam Crowell, ECI Education Center Faculty and Council member, reflects on the relationship he sees between the Earth Charter and the United Nations Sustainable Development Goals.

Michael Slaby, who led the Earth Charter Youth programme for years, shares his current experience in working on awareness raising, education and public engagement in Germany regarding the importance of bees and their relationship to biodiversity and climate change. He also reflects on how this effort contributes to the vision of sustainability articulated in the Earth Charter.

You will also find an article from Melchor Muñoz, María Guillermina Pech and Yaneri García, which will give you an overview on their intergenerational experience in engaging and empowering young leaders as agents of change for sustainability with the Earth Charter - an experience that is taking place at the University of the Caribbean in Cancun, Mexico.

We hope these articles will give you new insights and inspire you in [turning conscience into action for a thriving Earth](#)

LINDSAY LOUISE BACURIN, AMANDA BENNETT,
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EDITORIAL TEAM



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Learnings from the Road to a Sustainable University – The Case of Leuphana University



Gerd Michelsen

Professor Michelsen is retired professor for sustainability science and also as holder of the UNESCO Chair in Higher Education for Sustainable Development at Leuphana University, Lüneburg. He studied economics in Freiburg and has a doctoral degree in economics and the 'venia legendi' in adult education. He was a professor for ecology, sustainability and environmental communication and developed and directed the Institute for Sustainability and Environmental Communication at Leuphana University, where he was also Vice-President for Education, Teaching and Training. He received the B.A.U.M. Scientific Award in 1998. His fields of research and publications are in [higher] education for sustainable development, sustainability and environmental communication, sustainable consumption.



In this article, I share some of my personal reflections on how Leuphana University Lüneburg has gradually developed into a sustainable university since the early 1990s, how it has also become a role model for other universities to a certain extent and, logically, how it was actively involved in the establishment of the "Network on Education for Sustainable Development and Social Transformation" as part of the "UNITWIN Cooperation Program" and is currently coordinating it. As the University of Lüneburg, as it used to be called, it was one of the first universities in Europe, or perhaps in the world, to set out on the road to sustainability. Therefore, this experience, shared from my point of view might be of some interest to those working towards similar directions.

It is not surprising that such a university development process, in which I was involved from the very beginning, does not always run smoothly. However, such a process also has positive aspects and brings with it rewards, such as the German Sustainability Award presented to Leuphana in Düsseldorf in November 2023. I would like to divide Leuphana's development process towards sustainability into three phases, for which I have chosen the following headings: Impulses, Successes and Resistance and Consolidation.

A. Impulses

1. How did it all begin? From the master's degree in "Cultural Studies" to the diploma degree in "Environmental Sciences"

How did it all begin? It all began with an expert opinion on the question "Is a Master's degree programme in Cultural Studies with a focus on 'Ecology and Environmental Education' viable?", which was to serve as a basis for the ministry responsible for higher education to decide whether to continue this programme. I was asked to write the report in the early 1990s, when I was still working at the University of Hanover.

I can briefly summarize the results of the report: The continuation of a major in "Ecology and Environmental Education" as part of a Master's degree in Cultural Studies makes little sense; instead, an independent, preferably interdisciplinary degree programme in "Environmental Sciences" should be created, preferably in a separate department. The results were presented at a university public event and discussed controversially, especially by students who wanted to keep what they were used to. The university management and the ministry, on the other hand, were very satisfied with the results and recommendations. What happened next?

2. Interdisciplinarity in teaching and research: Foundation of the Department of Environmental Sciences

The next steps leading up to the founding of the Department of Environmental Sciences are easy to describe. The university quickly carried out the task required to initiate this process. The position of a professorship in ecology was opened with the suggestion that I could



Photo credit: Leuphana University

apply for it, combined with the expectation that I would help support the founding of a new department and the establishment of a degree programme in environmental sciences. Initially, I was appointed to take over the ecology professorship, which allowed me to drive the founding process forward very quickly together with other colleagues. I then successfully survived the professorial appointment procedure. Between 1993 and 1995, the foundations were laid for the establishment of the new Environmental Sciences department and the Environmental Sciences degree programme.

The following ideas played a role in the preparations for the founding of the department: as the social challenges of environmental problems could not be viewed and solutions were normally developed solely from the perspective of individual disciplines, the department and programme were designed to be interdisciplinary from the outset. We consistently ensured that the natural and social sciences were equally represented and that cooperation with socially relevant stakeholders was possible. In the winter semester of 1996, the first students were able to enrol on the new degree programme, Environmental Sciences.

3. First connections at national and international level: COPERNICUS and COPERNICUS Alliance

As you can probably imagine, the department and the degree program first had to juggle themselves until everything



fit together. That took some effort and also left its mark. The public, political and scientific debate moved forward and the challenge of sustainability, not least through Agenda 21, took an ever-greater place in this debate. Student interest in environmental studies grew steadily and funding for environmental research also increased, so that the new department quickly gained recognition both inside and outside the university.

At an international level, we quickly began to seek academic and personal contacts and cooperation, especially after a conference at the University of Lund in Sweden in 1998, at an event where questions were discussed as to how universities should or could meet the challenge of sustainability. In this context, at least in Europe, the COPERNICUS Charter of the European Rectors' Conference played an important role, as well as the growing COPERNICUS network with its regular conferences. The University of Lüneburg was intensively involved in this network, as well as later in the founding of the COPERNICUS Alliance, and was a cooperation in various international projects.

B. Successes and resistance

4. Bringing sustainability into the university: Agenda 21 University of Lüneburg and continuation project

At the university level, during my time as a member of the Senate, the university parliament, I was able to introduce a resolution that the University of Lüneburg

should start an agenda and sustainability process. This resolution was widely supported, but no costs were to be incurred that would have to be covered by the university. So far so good. So we had to look for funding for such a process, which we were finally able to obtain from the German Federal Environmental Foundation for a time-limited project entitled "Agenda 21 - University of Lüneburg" [1999 to 2003]. Representatives from all departments were involved at the beginning of the process. Student participation was made possible through classes and a newly developed 3-semester supplementary programme in sustainability, for which students could apply alongside their main studies.

However, the project was accompanied by heated controversy. Colleagues from the economic sciences in particular, saw the university's downfall. In their opinion, dealing with the value-based idea of sustainability did not belong at a university, as science was fundamentally value-free. Without going into detail, this had a considerable impact on the project work, but could not prevent it. As a result, Lüneburg became the first EMAS-certified university and created a position for a sustainability manager. Given this, other universities became aware of the sustainability process and a few looked for ways to begin a similar process. It was possible to continue the work because the responsible ministry agreed to continue funding for another three years (from 2004 to 2007), so that during this period, in addition to practical activities, more research-oriented projects within the



context of PhDs played a role. The fact that the process was now supported by state funding gave it a different weight and at the same time "official" recognition.

5. Understanding sustainability at the university holistically: The "whole institution approach" in concrete terms

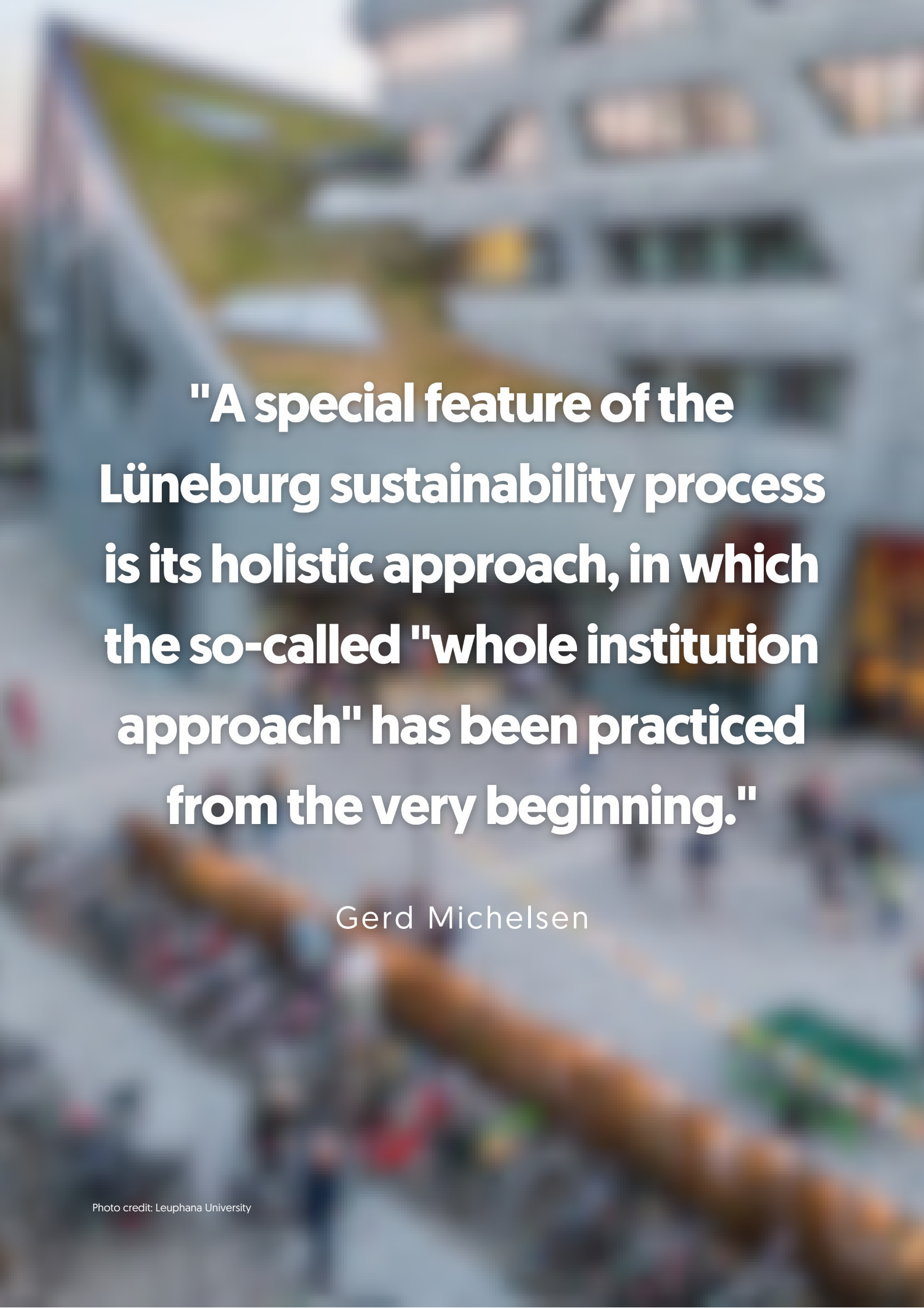
A special feature of the Lüneburg sustainability process is its holistic approach, in which the so-called "whole institution approach" has been practiced from the very beginning, even though it was not discussed as such at the time. This means that the university not only teaches and undertakes research on sustainability and sustainable development, but also orients itself towards the idea of sustainability in its living environment and business practices in order to set an example and demonstrate responsibility for the community. In concrete terms, it is about the management and administration of one's own institution in accordance with the principles of sustainability. Members of the institution use resources consciously and prefer regional and fair trade products for catering. The university's grounds are managed prudently, further training is made possible for all employees and broad participation in decision-making processes is encouraged. In this way, universities can show how transformation can take place using a concrete example.

The University of Lüneburg launched many activities and initiatives in the 2000s. In addition to the EMAS1 certification with regular re-certification, the award as a Fair

Trade University, the establishment of a position for sustainability management, the mandatory compensation of CO2-emitting air travel, the provision of a bicycle pool for students and employees, special study programs with innovative teaching / learning methods were created and an intensive examination of questions of inter- and transdisciplinarity in research was promoted. A successful implementation was achieved because all groups, from students to technical and administrative staff, were and are involved. Intensive communication about the sustainability process was part of the initial phase of the university's development into its current profile, which was supported by the two projects mentioned above. During the project period, a newspaper produced especially for the university [Campus Courier] was widely distributed, the process was made transparent, examples of "good practice" were reported on and the various activities were placed in their wider context.

6. New difficult phase: The merger with the University of Applied Sciences and the Vice President "Teaching and Studies"

We thought we were already very far along in the sustainability process when new events seemed to shake up the university: the transformation of the university into a foundation and the merger with the local university of applied sciences, which also existed in Lüneburg with several locations, ordered by the ministry. At the same time, there was another requirement: the conversion of all degree courses to



"A special feature of the Lüneburg sustainability process is its holistic approach, in which the so-called "whole institution approach" has been practiced from the very beginning."

Gerd Michelsen



bachelor's and master's degrees in less than two years in accordance with the Bologna guidelines. The time pressure associated with this, primarily allowed for discussion of the formal aspects of the conversion of degree programs, rather than the content, which meant that sustainability aspects could hardly be taken into account in this process. The different university cultures also made the communication process between the two merged universities more difficult and led to complicated decision-making processes, not to mention the integration of the various disciplines of both universities into joint departments, a process that I was "allowed" to manage.

During this time, I was asked whether I would be interested in being elected by the senate as Vice President for Studies and Teaching. During this time, I had more influence in the university management, but also more and different tasks than before, which took up time that was lacking for the coordination of the ongoing sustainability process. To ensure that this process did not suffer from my frequent absences, responsibilities were transferred to employees. We all had to get through this difficult time together in the second phase of the project, from the university professors to the academic and student staff. My responsibility as Vice President finally ended in April 2006.

7. Internal and external assurance: UNESCO Chair "Higher Education for Sustainable Development"

During the difficult phase of restructuring the university, further initiatives were taken

to safeguard the sustainability process both internally and externally. For example, a Senate Commission on Sustainability was set up, in which all groups at the university were represented and whose main task was to support the sustainability process that had begun and to involve the other departments more closely alongside the environmental sciences. This created a framework for active participation and offered the opportunity for the university's various groups to represent their interests and contribute to the sustainability process.

In the logic of securing current and future initiatives in the university sustainability process, the establishment of a UNESCO Chair was pursued during this period in order to establish a further unique selling point and to expand international cooperation and networking with universities or other UNESCO Chairs who are also facing the challenge of sustainability. The title of UNESCO Chair "Higher Education for Sustainable Development" was finally decided by UNESCO for the University of Lüneburg in 2005, which was then passed on to me within the university. Natural collaborations emerged with other UNESCO chairs dealing with education for sustainable development at different levels.

C. Consolidation

8. Change in the university management: The university turned upside down and reorganized

In 2006, the university got a new president, who initiated a scientific assessment of the



entire university, which revealed fewer areas of strengths than weaknesses. Environmental and sustainability sciences and the ongoing sustainability process were identified as a particular strength and became an important pillar in the reorientation of the university. In addition to a new name - Leuphana University of Lüneburg - the university has given itself a mission statement with a focus on sustainability and sees itself as a university for the civil society of the 21st century. New professorships were initially decided by an external commission. And the spectacular Libeskind building was planned. It is not surprising that such a radical reorientation did not take place without major disputes.

Radical changes were made to research and teaching. Departments became faculties, the structure of which was reorganized. Among other things, a Faculty of Sustainability was created, the first of its kind in the entire university landscape, in which interdisciplinarity and transdisciplinarity play a prominent role. For the first time ever, a Transdisciplinarity professorship was created. The realignment of the study programs was even more radical and, most importantly, more innovative. For the bachelor's degree, the Leuphana Bachelor still exists, with a major and minor subject, a joint first semester in liberal arts called the "Leuphana semester", and complementary studies from the second semester onwards. For lectures, but also for students, this was all completely new territory and took a lot of getting used to. But also, for me, as I had only just brought all degree programs into the new Bologna format two years before as the responsible Vice President.



Photo credit: Leuphana University

9. The flagship Leuphana semester: Teachers and students face new challenges

At this point, I would like to characterize the Leuphana Semester in a bit more detail, as it has attracted the attention of universities in Germany and abroad, and this course offering has become a trademark of Leuphana University. In the first semester, students study the basics of scientific work and its methods, scientific ways of thinking, the responsibility of science and the critical examination of scientific results, irrespective of their scientific orientation. In addition to other courses, the first semester includes the module "Science transforms: responsible acting", which focuses on the idea of sustainability and the concept of sustainable development. As part of project seminars, students work in small groups on self-developed questions on the sustainability-related topics of the respective course, the results of which they present and critically discuss at the end of the first semester as part of Leuphana's conference week. This module makes up a third of the first semester.



In the first few years after the new study program was introduced, both students and teachers found this difficult. Both were confronted with the expectation of organizing a joint work process and were encouraged to "think out of the box", ask questions and not give quick answers. Among the students, there were those who were very discipline-oriented and were just waiting to be able to concentrate on their "subject". But there were also those who were curious about the unusual way of working. And there were those who hoped to be able to deal with questions of sustainable development. In the initial phase of the new study program, students also left the university because of the new study structure; today, students come because of the study concept and the associated topics and working methods.

Lecturers were and are faced with the challenge of making a topic and question accessible, not just imparting pure knowledge on the course topic. This entails formulating a scientific literature and learn by example of how to approach socially relevant problems through scientific work and contribute to solving them. The associated change of perspective from "lecturer" to a "supporter" or "partner" in the research and learning process is a challenge for some teachers, which they find difficult to master, if at all. This change of perspective is also associated with a change in teaching culture, which, after the first few years of experience, is supported by an annual training course lasting several days for all teachers in the module.

10. Effects within the university: the Sluggishness and opposition of the faculties

I have already indicated that the opposition within the university was not a marginal factor. Once again, people saw the end of the university coming, mostly for unfounded reasons. As a member of the Senate, I was able to see the university policy battles from very close up, which was no fun for me. Individual faculties voiced considerable criticism of the new study structure, especially the first semester. It was simply considered a waste of time. And the Faculty of Education actually managed to keep teacher training out of the Leuphana semester in the first few years. For some time now, however, the Leuphana semester has also been compulsory for students who want to study teacher training [education].

In the beginning, some lecturers openly questioned the Leuphana semester in first semester courses that they, themselves, taught. Some even used class time to campaign against the "Science bears responsibility" module, as the sustainability module was initially called.

The sluggishness of the faculties can be illustrated with an example from the Faculty of Economics. Students who were studying a major in economics from the second semester onwards were surprised that there was obviously no room in their studies for dealing with issues of sustainable development. Their suggestion to have such courses offered in their degree program was categorically



Photo credit: Leuphana University

rejected with the argument that these issues had no place in economics. Fortunately, this view has now changed, and it is not only young, newly appointed professors, but also seasoned ones, who are integrating relevant aspects of sustainable development into their courses on economics.

11. Networking and consolidation

The sustainability process at Leuphana University has now been ongoing for over 20 years and changes have become a routine part of the university. The process is no longer in question, the careful use of resources is a reality, the use of renewable energies is now paying off, climate-relevant measures such as offsetting CO2 emissions from air travel are mandatory, and sustainability management has proven its worth, to name just a few examples. In research, interdisciplinary and transdisciplinary play a role not only in the context of sustainable development; colleagues from Leuphana are significantly involved in the founding and development of a 'Society for Transdisciplinary and Participatory Research'. For students, there

is a differentiated range of sustainability courses at the bachelor's and master's level and also in continuing education. Leuphana's scientific expertise is not only in demand from employers in the fields of business, administration, non-governmental organizations, and politics in the region near Leuphana but also far beyond.

A similar picture can be drawn of Leuphana's networking at regional, national, and international levels. The UNESCO Chair has certainly made its contribution in this context by actively participating in various UNESCO and German UNESCO Commission committees and initiating a network of German UNESCO Chairs. Several colleagues represented Leuphana on the advisory committees for the UN World Decade of Education for Sustainable Development and the Global Action Program on Education for Sustainable Development. The fact that these activities have resulted in new collaborations and joint projects is part of the logic of these various activities. Last but not least, Leuphana's participation in the UNITWIN Network on Education for Sustainable Development and Social



Transformation (UNiESD&ST) is another, and hopefully not the last, initiative.

12. What is next?

We are currently living in a world that we could not have imagined just a few years ago. We live in a state of war, conflict, divergent interests, and global impacts. These are all developments that do not contribute to sustainable development on earth, and indeed stand in the way of social transformation. I increasingly see the need to emphasize the political dimension of social action for sustainable development alongside the ecological, economic, social, and cultural dimensions. The following are a few key words to indicate what plays a role in this context: political interests; power structures; understanding of democracy, right of resistance, participation; and local, regional, and global action. I believe this broadening of perspective is urgently needed in order to grasp the complexity of the various destructive processes that threaten our lives.

These five dimensions must also be considered when it comes to initiating the process of sustainable development and developing concepts combined with opportunities for action that lead to changes in the direction of sustainability. We urgently need to seek transformation. This term refers once again to decisions that are linked to values and changes in behaviour and that are intended to contribute to fundamental social change. Based on scientific findings, we need to repeatedly agree on the decision-making corridor through so-called guard rails. Such

a process is to be understood as a search, learning and design process, which, can only be realized in our social system with the broadest possible participation - participation is the key word here. The needed change in values and attitudes requires that something changes in our heads. How else can this happen than through education? Even if educational processes in the sense of transformative thinking are quite arduous and disturbing.

In my opinion, any higher education institution willing to embark in a process towards sustainability and transformation, should at least take these considerations into account when discussing the vision, the mission, and the focal points of future work.

Concluding remarks

In conclusion, I would like to return to the sustainability process at Leuphana University and draw the following ten key lessons learned:

1. From the outset, there should be clarity about the goals and the long-term nature of a sustainability process to be pursued.
2. The sustainability process must start with committed and reliable colleagues who are aware of the scope of such a process.
3. To be able to start a sustainability process at all, the university management must support it.
4. The highest political body of the university should make a fundamental decision on such a process.



Photo credit Mirian Vilela

5. Formal and informal participatory opportunities must be created for all members / affiliates of the university.

6. The sustainability process should follow the "whole institution approach" from the outset.

7. Representatives from each of the faculties should be actively involved in the process and assigned specific tasks and responsibilities.

8. Great importance should be attached to the communication process about the sustainability process internally and externally, and successes as well as obstacles should be named.

9. Critics of the process should be met with composure and calm; emotional confrontation should be avoided at all costs.

10. The main actors in the process need steadfastness, perseverance, commitment, and tolerance of frustration.



The
Earth Stories
Collection

Photo credit: Earth Stories Collection

Capturing the Brilliance in Chinese Cultures through Traditional Stories



Xueping Luo

Xueping Luo was born into a Hakka family in a Cantonese village in Guangdong in southern China. She has lived in Shanghai [east central] and Beijing [northern] and has travelled extensively in China and overseas, primarily as an interpreter and translator. Xueping has master's degrees in Responsible Management and Sustainable Economic Development from University for Peace in Costa Rica, and in Applied Linguistics from Beijing Foreign Studies University. In addition to working on projects, especially technical assistance projects, promoting the UN Sustainable Development Goals internationally, she is researching, collecting, and translating the fascinating folktales from the fifty-six ethnic groups in China and is a contributor and advisor to The Earth Stories Collection.



The Earth Stories Collection is a repository of myths, legends, fables, and folktales from cultures around the planet; these stories are capable of transmitting a complex-systems worldview and of illustrating the principles and values of the Earth Charter. I am honoured to be part of the team and am responsible for collecting stories from Chinese cultures. In this article, I share how I work with the enthralling stories, how I feel along the way, and how storytellers respond to one of them.

To people outside of China, Chinese culture appears to be singular. However, in actuality, there are 56 ethnic groups across China, with Han as the majority accounting for 91% of the Chinese population. Each of these ethnic groups, though associated collectively as Chinese, has its unique culture where we can draw inspiration to live a greater life on this precious planet Earth.

My deep dive into the diverse Chinese cultures for the Earth Stories Collection began in October 2021. I was fortunate to find in a library a set of fifteen books containing traditional Chinese stories, sorted by ethnic identity. In the preface, the editor-in-chief, Yao Baoxuan, reveals that he was already 60 when the books were published in 2014, and the original idea dates back to 1982 when he was dispatched to Xinjiang upon graduation at the age of 28. He studied Xinjiang literature throughout history, fell in love with the place and its stories, and started to reflect on how the culture, literature and history of all Chinese ethnic groups in ancient times had played a part in the China and even the world. Almost four decades later, I am

continuing the research and polish these gems, so they shine brighter to illuminate more minds on Earth.

Under the guidance of Grian A. Cutanda, founder and Executive Director of The Earth Stories Collection, I, as a volunteer in the project, read the stories, screen those that best illustrate the principles and values of the Earth Charter, summarise them for Grian's review and translate the selected stories completely from Chinese to English for the team's adaptation and proofreading. For the stories to be published in a book, *The Earth Stories Collection (Vol. 2): Earth Stories in Action!* (published in January 2023), I also review the adaptation and the comments for discussion following each story and carry out further research when necessary. Within a year, I read a total of 559 stories from 31 ethnic groups and shortlisted 73 stories for Grian's selection. Among the 50 he had read, 23 were selected, and 9 were included in Volume 2 of the collection. We expect that the next volume will feature eight more stories from Chinese cultures. Overall, the collection offers a significant opportunity, not only to expose Chinese cultures to other parts of the world through traditional stories, but also to find commonalities in traditional stories among different cultures.

In this latest volume of the Earth Stories, "Meibang Meiliu, the Mother Butterfly" from the Miao People, exemplifies the truth that we are one human family and one Earth community. "Mangye Sets Off in Search of Grain" from the Bouyei People demonstrates our common responsibility to one another, and "The Fire Bird" from the



Photo credit: Earth Charter International

Gaoshan People reveals the environment as a common concern, all of which correspond to segments in the Preamble of the Earth Charter. For Section I of the Earth Charter, Respect and Care for the Community of Life, “The Legend of Ali and the Fairy Maidens” from the Gaoshan People proves faith in the dignity and spiritual potential of humanity, and “The Siblings Constellation” from the Hlai People steers a way towards a secure and meaningful livelihood. Under Section III, Social and Economic Justice, “Recovering the Sun” from the Han People prompts an ethical, social, and environmental imperative. “Payahadu the Disabled” from the Dai People reminds us to recognise the ignored, and “Red River and Tengtiao River” from the Hani People turns our attention to outstanding places of cultural significance. For Section IV, Democracy, Nonviolence, and Peace, “The Goddess of Hunting” from the Nu People encourages us to protect wild animals from extreme, prolonged, and avoidable suffering.

These stories provide a glimpse into the fascinating treasure trove of Chinese cultures. Among the small number I have been fortunate to read, I have found all

principles and values of the Earth Charter represented in them. The top three are “Recognize the ignored, protect the vulnerable, serve those who suffer, and enable them to develop their capacities and to pursue their aspirations” (Principle 9c in Section III), “Everyone shares responsibility for the present and future well-being of the human family and the larger living world” (Preamble), and “Care for the community of life with understanding, compassion, and love” (Principle 2 in Section I).

All of the stories amaze me with their thorough beauty, as well as the ingenuity of the people who created them. There is significant imagination in all of them. In one story, the big dipper is transformed into seven brothers who sacrifice themselves to save their fellow fishermen from a demon and then continue to help guide fishermen. In other, four dragon kings, one in each sea, protect the waters. Finally, in another story, two rivers flowing in the valley are actually a pretty girl and an innocent boy who try to date each other.

Grian often shares his findings in these stories with such emotion that echoes my



awe of the beauty I find in them, as well as the ingenuity of the people who created these stories. Take the last story for example, “Red River and Tengtiao River” - it impressed us with how subtle and delicate the Hani People’s storytelling gives consciousness, soul and life to the features of the landscape. Thus, it stimulates respect and love for the rivers and all the surrounding geographic elements. Grian pointed out that the soul-giving is one of the deep features of the complex-systems worldview, which leads us to panpsychism (https://iep.utm.edu/panpsych_), a theory which is being increasingly supported by scientists so important as Sir Roger Penrose. (see: <https://www.nbcnews.com/mach/science/universe-conscious-ncna772956>)

Exploring, discovering, and reflecting upon the traditional stories of Chinese cultures gave me utter pleasure throughout this research. Personally, I may have stretched the stories a bit far to relate them to the Earth Charter principles and values, and I am grateful to have Grian and the team’s review to keep my impulse in check.

When a story is genuinely too good to omit, despite a few elements on it that may contradict the Earth Charter, we consider adapting it. For instance, “The Mother and Daughter Gave Birth to Everything” from the Hani People is incredibly original and creative, and it echoes the call in the Earth Charter to “Affirm gender equality and equity as prerequisites to sustainable development and ensure universal access to education,

health care, and economic opportunity.” However, in its final paragraph the story goes, “When all beings grew up, they all wanted to be the master of the land. They had a match to decide on that, and human beings won, thus becoming the master of the land.” This statement is clearly anthropocentric; therefore, it cannot be selected to be included in this collection of stories unless modified.

The team adapted the story to current times in a way acceptable to the Hani People. Instead of “masters”, we imagined the human beings wanted to be the “caretakers” of all lives and the land. Alternatively, we thought of consulting a Hani storyteller for his or her adaptation incorporating ethnic insights. Although this story is not included in Volume 2 of The Earth Stories Collection, we may publish it in a future collection after we find a solution satisfactory for everyone without losing the connection to the Earth Charter.

Going through all the stories, I feel how connected different cultures actually are. There are so many similar stories among various ethnic groups in China, and stories from the Chinese cultures may also identify similar versions in other cultures. Upon research, we found that “Red River and Tengtiao River” told by the Hani People is shared by people in Myanmar, Laos, Thailand, and Vietnam. Another story in The Earth Stories Collection is recounted in Myanmar, Thailand, Iran, and Armenia, which is an even longer stretch of land. To me, it is heartwarming to see that these shared stories transcend national borders and also “cultural borders” within a country



Tengtiao River - Photo credit: Luo Xueping

[e.g., “borders” between/among the 56 ethnic groups or cultures within China], demonstrating that, we are after all, one human community sharing the experience on our one home, the planet Earth.

I was privileged to have the opportunity of exchange with storytellers, scholars, readers, and audience across the world in the webinar, “Turning the Story Upside Down” held on 12 October 2021. This webinar was part of The Scottish International Storytelling Festival (15th to 31st October) leading up to COP 26, the most critical Climate Change meeting ever held, in Glasgow. At this event, I shared the following story from the Jing culture in China accompanied by the traditional Jing music in the background.

Once upon a time, it was chaotic in the sea. Whales and sharks swallowed the weak at will. Those lacking resistance were going to die out. The Sea Dragon King was so worried about the situation that he decided to resume order in the Sea Kingdom.

He took his seat in the Crystal Palace. He ordered all aquatic animals to gather in the palace before sunset for a meeting. As more and more generals and soldiers arrived, the Sea Dragon King in his throne was staring at them and stroking his beard. He spoke solemnly, “In such a majestic sea kingdom, why do we have so many generals and so few soldiers?” The sharks and whales standing there, were shaking all over. They dared not to speak. Suddenly, all the weak aquatic animals including the octopuses, squids, crabs, prawns, horseshoe crabs knelt before the king. They told their stories of suffering, crying. A squid wiggling its soft and white body reported to the king, “We the weak aquatic animals are swallowed by the angry sharks and evil whales. We are dying out. We beg your majesty to grant us justice.” “Is it true?” The Sea Dragon King punched the table angrily. “It’s my order that from now on, whoever swallows up any aquatic citizens shall be executed.” The whales and sharks were scared and silent. The



Photo credit: "Joy of Fish" by Lin Zhenming

The squid continued, "Your majesty might not be aware that, they would swallow us without your knowledge. What was worse, there are killings within each species. No one dares to report to you." "Well..." The Sea Dragon King thought for the solution. He summoned the weak aquatic animal to come closer.

"Squids, you have a soft and tender body. I grant you a bag of ink. You hide it in your belly. In the event of danger, spit the ink to blind your predator, and you shall be safe."

"Crabs, you have already four pairs of legs. I grant you a pair of claws. You fix them on the front, and you can sweep your enemies with them."

"Horseshoe crabs, your eyesight is not that good. I grant you a sword. You hide it on the back. You can then deter your enemies."

"Octopuses, you have a soft and weak body. I grant you eight long legs.

You may attack your enemies with them, or simply run with these legs."

Finally, the Sea Dragon King advised all the weak aquatic animals, "All the weapons I granted you shall be your heirlooms. Keep them safe, and you must pass them on, from generation to generation."

Responding to the story as a storyteller, Donald Smith, Director of the Scottish Storytelling Centre and also Founder and Director of the Scottish International Storytelling Festival, acknowledged the principles of diversity and ecological balance as the underlying themes. As someone who lives and works in Scotland, a nation of the sea, he also articulated how the story resonated with his culture which is thousands of miles away from China and the Jing ethnic group. He explained that dragons appear elementally earthy and fiery in European traditions in contrast to Asian cultures. The next speaker, Judith Black, an American professional storyteller, remarked with wonder on how the dragon was demonised in one culture but venerated in another. Indeed, as human cultures on Earth impart knowledge through storytelling, both similar and various interpretations blaze new paths towards the future. When directed by the Earth Charter, a common set of values agreed upon by innumerable cultures and traditions, I truly believe we shall achieve a sustainable future for the community of life on Earth.



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Source of Image 1 Tengtiao River: <https://www.meipian.cn/1uuebyxt>

Source of Image 2 Joy of Fish by Lin Zhenming:
https://www.sohu.com/a/276986424_201909

Stories from China



Photo credit: Marcos Paulo Prado-Unsplash

Reflections from my Experiences in Learning Through Intercultural Exchanges



Amanda Bennett

Amanda Bennett is the Programme Manager of the Youth Programme at the Earth Charter International Secretariat and the Center for Education for Sustainable Development at University for Peace. She was born in Guanacaste, Costa Rica, and grew up in South Carolina, United States. She earned a Bachelor of Arts in Experimental Psychology at the University of South Carolina and a Master's in Public Policy at the University of Maryland. While studying in Maryland, Amanda interned at the National Center for Healthy Housing and the Funded Dollar Bill Project. After graduating, she moved back to Costa Rica and taught English in San José and briefly in Cusco, Peru. She also has a Master's in Environment, Development and Peace from the University for Peace.



As the daughter of a woman who migrated to a new country not once, but twice, I have always been fascinated by the exchange among people from different cultures. I spent the first ten years of my life in Costa Rica, raised by a Salvadoran family and then moved to the United States, where I was raised in what could be considered a traditional North American household. Even though I was a child, I could clearly see the cultural differences in these different environments, and I had to decide if I wanted to immerse myself in the new culture or find a way to harmonize these differences. This was not easy, especially as a teenager who had to worry about fitting in and not standing out in a way that would make me feel like the “other.” Also, thanks to my grandparents’ generous support, I was able to travel back to Costa Rica every year, which meant that I had to “code-switch” depending on the context and who my peers were. I am truly grateful for these experiences, because they contributed to my process of shaping my identity and still today, they help me whenever I have to challenge feelings of vulnerability, especially as a student or a young professional working in a multicultural environment.



Photo credit: Nicolas Beuret - Unsplash

As an undergraduate student in the United States, I took advantage of every opportunity for cultural exchange that I came across, including joining a conversation partner programme in college and studying abroad in Lyon, France for a semester. These experiences were some of the highlights of my college years, so as a graduate student, I also took the opportunity to take a course across Indonesia (Bali, Sulawesi, Sumatra and Jakarta), which marked another turning point in my life. During this course abroad, I began to see how similar this country, which was the furthest I had ever been from home, was to Costa Rica, yet also different. One of the main differences I noticed was how in Bali, I felt a stronger connection between people’s spirituality and the food they produced. For example, I saw offerings in the beautiful rice terraces of the Subak and even on the busy sidewalks in downtown Ubud. In contrast, I did not feel that strong connection here in Costa Rica or in the United States. I believe we used to have similar rituals in agriculture for example, but those are slowly disappearing, and that trip inspired me to nurture that connection personally and to look for it in my surroundings as well.

Therefore, when I graduated from my master’s programme in the US a few months after that course, I decided to move back to Costa Rica, after fifteen years, to see what life would be like for me here. As you might have guessed, one of the first jobs I found was in a multicultural exchange. I worked at a private institute for almost eight months where I mostly taught English and chaperoned North



Photo credit: Jan Breiting

American teenagers during most of their first experiences abroad, where they were learning about a new culture and practicing a new language. Shortly after that, I began working at Earth Charter (EC) International and the EC Center for Education for Sustainable Development at the University for Peace (UPeace). When I started working here five years ago, I had no idea I was going to learn so much about myself by interacting and collaborating with so many different types of people.

When you first step onto the UPeace campus, which is probably the smallest university campus I have ever visited when it comes to infrastructure (not nature), you immediately see the rich diversity of people as you walk down the hallways. I started my UPeace experience as a staff member, not as a student, but I still made sure to take advantage of any opportunity for intercultural exchange that was planned on campus. Each morning when I saw the students on their way to their classrooms, I was filled with

curiosity and a yearning to join their class discussions, but I waited a few years before becoming a student. In any case, being a UPeacer is not just about being part of the classroom discussions or excursions, it is also about the daily interactions that come with being part of the same small, but diverse, community. For example, a Zumba class, a dinner party, and a casual conversation when you run into a friend in the town's farmer's market can all be spaces where we can learn from each other's distinct lived experiences and worldviews.

It is important to take a moment to reflect on how these experiences of studying and working in diverse contexts, while being surrounded by like-minded people who are also not afraid to leave their comfort zone, are rare. I constantly remind myself of how fortunate I am to have been able to have these experiences. In addition to this, we also have to consider the negative carbon footprint that this type of travel leaves on the environment. So almost ten years ago I began to wonder, how can we



all have these types of experiences, connecting us to nature, to ourselves, and to each other, so that we can all contribute to the well-being of all and the planet?

I was not expecting to find an answer to my question so fast, but I did when I started working at the EC Education Center. I joined the team in 2018, and I was amazed to see how so many people around the world were contributing their time and effort to a global movement that was based on ethics and connectedness. The network meetings and courses were not about receiving a letter grade or getting a raise at work, they were about sharing and understanding our experiences as members of one Community of Life and finding solutions to the planetary crises that are becoming harder and harder to ignore each day. By the time I joined the ECI team, the world had already started working towards the Sustainable Development Goals, so it was also nice to be part of a movement that was working towards the SDGs under a unified moral compass, articulated in the Earth Charter document.



Photo credit: Till Brüggemann

Shortly after joining the team, I was entrusted with an exciting and important project for the EC Movement: coordinating the youth network. The ECI Youth Programme is made up of Young Leaders ages 18 to 30, who have taken the Leadership, Sustainability and Ethics (LSE) online course. This meant that I was going to facilitate the LSE course and continue to organize online spaces regularly for the course alumni, the Earth Charter Young Leaders (ECYLs), who wanted to remain engaged and connected to each other.

One of my favorite parts about the LSE course is that it is truly a collaborative effort. First, I would not have known where to start without the support and guidance of my ECI colleagues. I received a crash course in education from them, since I did not have formal training in this and have since continued to learn about the EC pedagogy daily. In addition, this course always counts on the support ECYLs who volunteer their time and energy to co-facilitate the courses by engaging with participants through the various discussion forums and live meetings. Co-facilitators also come from a diversity of backgrounds, including different nationalities, academic backgrounds, professions, artistic skills and hobbies. ECYLs are a big driver behind the expansion of our youth network.

So how does the LSE course help me contribute to creating transformative experiences like the ones I had as a young college student abroad or as a UPeacer? While it may not be an immersive lived



Photo credit: María Sosa Segnini

experience in another country, the LSE course is a relatively durable experience, lasting ten weeks, which allows plenty of time for participants to learn not only through the course materials, but also to reflect on how they relate to their own context and how they are connected to fellow participants' experiences across the world. Creating with this an experience that can strengthen our relating skills of appreciation connectedness, humility, empathy and compassion (Jordan, 2021).

Today, young people have access to multiple social media platforms with an unlimited supply of multicultural content on demand. For example, I am blown away by the trivia facts that my teenage cousin knows about other cultures, such as being able to identify country flags or perform a short dance that she saw on TikTok. However, if we are constantly scrolling and moving on from one influencer's video to the next in a matter of seconds, when will we take the time to reflect on this exchange? When does it become an intercultural, participatory exchange and not simply a multicultural consumption of content? Through the LSE course, by opening weekly discussion forums, in

addition to weekly opportunities to connect through Zoom and interact with someone in a different country and even a different time zone, we are creating the environment where these moments for reflection and connection can flourish.

The LSE course is a great lifelong learning experience for students who do not have access to a diverse classroom, in addition to contributing to filling the gap caused by the lack of access to education for sustainable development. According to the Global Education Monitoring Report, Education for people & planet: Creating sustainable futures for all, an analysis of 78 national curricula showed that only 55% mentioned "ecology" and 47% mentioned "environmental education" (UNESCO, 2016). The LSE course contributes to Sustainable Development Goal 4 [Quality Education] Target 4.7 by allowing participants to not only strengthen their knowledge and skills of global citizenship, but also the ones needed to promote sustainability, which are, of course, interconnected.

I believe that one of the most important skills that young people can strengthen in this course to contribute to all the Global



Goals is that of empathy, which various educators, facilitators, and researchers have sought to nurture through dialogue and perspective-taking, which can be done not only across cultures but also with our ancestors, other forms of life, and future generations. For example, Tammy Bormann and David Campt, developed the Arc of Dialogue structure, including the four phases of community building, sharing diversity of experiences, exploring perspectives beyond our own experiences, and synthesizing and bringing closure (Smithsonian National Museum of the American Indian, n.d.), which can be applied in a virtual setting, and which can be observed in the LSE course, contributing to enhancing this virtual intercultural exchange among young leaders who want to learn more about sustainability and take action.

Because of the feelings of familiarity that many participants are able to nurture, friendships and partnerships can naturally emerge from this course and the ECYL network. This is another one of my favorite parts of my work with the youth programme. The young leaders who decide to stay engaged do so because they want to see a real positive change happen in their communities, so many use their creativity, knowledge of ecoliteracy, and systems thinking skills to start their own projects during or after the course. They also stay involved because of the connection this network brings to other sustainability leaders making up a global movement. One of these examples comes

from Greshma Pious Raju, an Earth Charter Young Leader and UPeace alumna from Kerala, India, who started the EcoPeace Teen Café Project, to create a virtual space for teenagers to come together to learn about timely issues, discuss systemic solutions, ask questions, and share their opinions. Greshma is the epitome of collaboration; despite starting with very little funding, she was able to make a difference thanks to her mobilizing skills, which she used to bring young people together, including fellow ECYLs and former UPeace classmates, to share their knowledge, skills and passion with a younger generation. I am also inspired by this example because even though Greshma does not speak Spanish, she was able to connect with ECYLs from Latin America, such as Rocío Collantes from Panama, and inspire them to use the EcoPeace Teen Café model to multiply her efforts and reach Latin American teens as well!



Photo credit: Club of Rome



Greshma is not alone in taking on this type of project because many ECYLs, living in different countries and regions, also work together constantly to plan webinars, implement local workshops, and even participate in the organization of regional and international events and conferences contributing to justice, sustainability, and peace. For example, Laura Restrepo, an ECYL from Colombia, greatly contributed to the Local and Regional Conferences of Youth in Colombia, under the framework of the Climate Change Conference of the Parties, and she motivated the Colombian youth to commit to the Earth Charter during their local conference, in addition to inspiring the Latin American youth to include important sustainability principles articulated in the Earth Charter in the regional youth declaration. The ECYLs who are educators, such as Victor Mathew Ayegba from Nigeria for example, are also a great source of education because they are able to take the educational resources available from the EC network and contribute to transforming education in their classrooms and beyond.

Another source of inspiration comes from the European ECYLs. Over the years, several students from the Windesheim College of Applied Sciences in the Netherlands, specifically from the Global Project and Change Management programme, have participated in the LSE course, thanks to support from their professors and administrators, and three students have now completed their internship requirement at ECI, which emphasizes the importance of collaboration in an international environment. Two of these students have completed their internship by contributing to the youth programme: first Valerie Knöpker evaluated the transformative learning potential of the LSE as a research project, and then Ann Cathrin Natchwey brought together the European ECYLs to successfully plan and host the inaugural We Grow Together Summer Camp together, which involved a group of 45 young participants (ages 16-30) from 22 different homelands during a week in the Netherlands.



Photo credit: Till Brüggemann



The examples above of Young Leaders turning conscience into action are only a few among many, who inspire me every day and help me shape my definitions of global citizenship and Earth leadership. Through the amalgamation of these experiences and sources of inspiration, I have learned to pay more attention to my surroundings, not just to examine the complexities and problems, but also to admire the beauty around me and strengthen my sense of responsibility. As I try to regularly practice gratitude, I like to take into consideration the contribution that these experiences of multicultural exchange have on my life, especially in how they have helped me expand my worldview. Can you imagine if all young people around the world could have similar opportunities to learn through multicultural experiences and exchanges? So let us work together to be these examples of collaboration wherever we make decisions and inspire those around us to join these efforts. We can all appreciate the Community of Life around us and share our respect and care for it with the rest of the world, all while knowing we are not doing this alone.

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Photo credit: Amanda Bennett



Residents of the Chemical Valley demonstrated outside the Arkema site in Pierre-Bénite (France). Credit: LP/Cyril Michaud.

Exploring Para-legal Solutions to Protect Humans, Ecosystems, and Democracy: A Reflection in the Context of the Governance of Industrial Risks and Pollution



Emma Feyeux

Emma Feyeux is a French activist, who works on climate justice and environmental health through legal actions with the NGO Notre Affaire à Tous (“Our Common Case”), as the president of the local group in Lyon and a member of the national association’s coordination. She coordinated local campaigns about air and chemical pollution and developed expertise on industrial risks and pollution. She is currently working on a project on environmental discrimination and water access in French overseas territories. She has conducted research on the rights of nature and their links to the recognition of the international crime of ecocide [2022], on democratic solutions to transform the governance of industrial risk and pollution [2023], and is now exploring the concept of environmental discrimination in the French context [2024]. She is also an alumna of the Earth Charter Leadership, Sustainability, and Ethics course.



*Note: This essay is adapted and translated from a work for an academic symposium on “Law: A Weapon in the Service of the Living?” that will be presented in Rouen, France, on 12 December 2023.

The law organizes society by guaranteeing everyone's rights, duties, and responsibilities, in particular by ensuring the conditions for a healthy life. It is thus an important, even essential, tool for protecting populations exposed to health risks and responding to societal concerns generated by local environmental health issues. However, because of the many power relationships and issues specific to the various players involved, as well as its intrinsic weaknesses, the law is sometimes insufficient to fully ensure its protective role in the long term.

It is this incompleteness of the law that local residents and associations are confronted within the Chemical Valley (Vallée de la chimie), south of Lyon, France. This area has developed as a major industrial and economic platform since the second half of the 19th century and is home to a large number of chemical companies. These companies are subject to strict regulations concerning the major environmental risks they can generate; however, inspections show that they regularly break these regulations. In 2020, the Lyon group of Notre Affaire à Tous initiated a research project to document these violations and to ascertain the feasibility of taking legal action to shed light on the situation. The group also wanted to bring these companies into compliance with current regulations. The

focus developed on the two industries that accumulated the most infractions, against which the Notre Affaire à Tous – Lyon built a legal case.

On 12 May 2022, two weeks before the launch of the legal action, a TV report was broadcast about per- and polyfluoroalkyl substances (PFAS) discharges in the Chemical Valley (Boudot, 2022). PFAS, toxic fluorinated chemicals used in the manufacture of many everyday products, are the source of an unprecedented contamination of water, soil, and air and can be found in many foods and even in breastmilk. One of the companies targeted by the legal action, Arkema France, discharges 3.5 tonnes of PFAS per year into the Rhône River (Ayphassorho & Schmitt, 2022), a major pollution documented since 2011 (ANSES), with the first discharges dating back to 1957. Some samples taken from locally produced eggs and poultry show contamination levels over 100 times higher than the maximum recommended dose. Several PFAS act as endocrine disruptors, leading to serious pathologies of the liver, pancreas, and spleen, as well as malformations in developing fetuses (Polluants éternels, 2022). Moreover, these pollutants are characterized as “eternal” because of their very high resistance to degradation, their persistence and their mobility in the environment. In all, more than 350,000 people in the Chemical Valley could be affected by this health and environmental scandal. For Sébastien Sauv , Professor of Environmental



Chemistry at the Université de Montréal, the Chemical Valley, with its factories and extensive historical production of PFAS, is a case of extreme exposure like few others in the world. He describes it as, "A glimpse of the worst - or one of the worst - scenarios we can have in terms of contamination" [Méallier, 2023]. This situation directly breaches multiple agreements, laws, and regulations including Principles 6 and 7 of the Earth Charter, dealing with the prevention of ecological harm and sustainable lifestyles; the right to a healthy environment, recognized by the United Nations in July 2022; and the French constitutional principle [2005] and French fundamental freedom principle [2022].

The context of the PFAS scandal in the Chemical Valley is similar to other examples of major environmental health issues linked to local industries. In such cases, "concern [...] acts as the finally possible formulation of a question that

would emerge into the open: is the industrial environment in which I live dangerous for my health and that of the inhabitants of my region?" [Osadtchy, 2016]. Involving citizens is therefore essential to re-establishing a dialogue between civil society, scientists, elected representatives, and economic players, and devising long-term solutions to situations of chronic pollution [Laurent et al., 2022].

To what extent and how can citizens be involved in building such long-term parallel responses to local environmental issues, such as chronic industrial risks and pollution?

Drawing on the lessons learned from actions taken after the PFAS Chemical Valley scandal and in other polluted industrial zones, we will see how, in reaction to the ineffectiveness of existing institutionalized forums for exchange, new channels of information [I.] and tools for



The Arkema plant on the banks of the Rhône, in Pierre-Bénite (France), in May 2022. Credit: Nicolas Liponne/Hans Lucas/AFP.



citizen empowerment and participation are being devised (II.), making it possible to envisage a new, local and more democratic governance of chronic industrial risks and pollution. These reflections are set in a French context but can be used in similar contexts elsewhere in the world.

I. Citizen Solutions to the Application of the Right to Information:

When it comes to industrial risks and pollution, particularly when they are chronic, the first challenge is to ensure that affected residents and, to another extent, employees of the companies responsible, can access and understand the information concerning them. French law has enshrined this right and created various mechanisms to make it effective. However, several regulatory and legislative changes have rendered these mechanisms ineffective, particularly since the 1970s, in contradiction with the stated objectives. Nevertheless, other, more democratic solutions can be imagined and are already being created to re-establish more effective channels of communication between industry and civil society.

For decades, industrial information in France has become more guarded and opaque, and overall, less accessible to the public. First and foremost, it is important to consider the evolution of regulations governing industrial pollution and risks have in France. This can be traced back to the early 19th century, when France's

current regulations on industrial facilities were established, [and which] shaped environmental standards that were favorable to entrepreneurs. Waves of liberalization reinforced this trend that began in the 1980s. For a long time, the state ran strategic industries, but privatizations then accelerated in almost all industrial sectors. "By withdrawing from the capital of these companies, the public authorities relinquish their prerogatives of control. It also favors subcontracting and job insecurity, which contribute to the invisibility of both occupational and environmental risks in industrial production", explain researchers Renaud Bécot, Marie Ghis Malfilatre and Anne Marchand (2023).

All of this led to organizing the public debate around the industries as a tool for their social acceptability, rather than as an instrument for the democratic conduct of public policies concerning them (Osadtchy, 2016).

Thus, the waves of liberalization surrounding companies' environmental obligations, accompanied by a "cult of opacity, [a] desire to fragment information and [an] obsession with manufacturing secrecy, [have] inevitably [led] to mistrust" (Cheinet, 2020) on the part of civil society living near these facilities. Under these conditions, how can channels of trust be recreated to ensure the application of the fundamental principle of the right to information in environmental matters in contexts of chronic industrial risks and pollution?



In Europe, PFAS production plants are mainly located in Germany and in France with Arkema and Daikin in the south of Lyon, as well as Chemours and Solvay. Credit: AFP.

We must remember that information on the environment and pollution should not be merely a gesture conceded by manufacturers to concerned residents. In France, it is a right, "of any person to access information relating to the environment" ¹, established by the Environment Code. This principle acquired constitutional value when it was incorporated into the 2005 Charter of the Environment, which states that "everyone has the right, under the conditions and within the limits defined by law, to access information relating to the environment held by public authorities and to participate in the preparation of public decisions having an impact on the environment" [article 7] ². This right is also protected "at international level by the Aarhus Convention of 25 June 1998, on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, and was taken up at European level by Directive 2003/4/EC of 28 January 2003" [Droit d'accès, 2023].

Yet, despite these legal protections of the right to environmental information, it is still

extremely difficult to access information that should be public. In May 2020, the European Commission gave France formal notice to improve access to environmental information [Droit d'accès, 2023]. So, if the state and local authorities cannot compel industries to respect the law, including the right to information, and if the inspection services are limited in their ability to monitor controls due to a lack of resources [Fernandez, 2023], the only sufficient counterweight seems to lie in the integration of civil society into these processes of information and governance of industrial risks and pollution. The tension between, on the one hand, the lack of responsibility and care of the industry leaders, managers, and even government authorities to address this situation, and on the other, the citizens' sense of responsibility, fuels arguments to rethink the place and role of the citizens in environmental democracy issues like the management of industrial risks. Still, in the Chemical Valley, the PFAS scandal and the numerous offenses committed on these sites that rightly worried residents, reveals the lack of transparency,



comprehensibility, and space dedicated to informing citizens about the risks they face (Notre Affaire à Tous – Lyon, 2023).

Elsewhere in France, solutions have been developed to recreate safe, effective, and more democratic information channels. This is one of the aims of the Ecocitizen Institute for Knowledge of Pollution (IECP, by its acronym in French) in Fos-sur-Mer, another major industrial zone. IECP, founded in 2010, conducts local studies of all natural environments and their relationship to human health, as well as the risks and impacts associated with human activities, particularly industrial and logistics activities, all using its own funds. To this end, it has an independent laboratory for the preparation and measurement of samples, which are then entrusted to a network of partners. A scientific advisory board is also available to advise and validate a project or action programme from a scientific point of view, as part of a decision-making chain that ends with the Board of Directors, which then draws up the provisional budget for the project. This scientific board also guarantees the independence of the IECP.



150 participants registered for the meeting in Saint-Fons. Credit: Lucas Bessonna.

In Fos-sur-Mer, the IECP has created a channel for exchange and collective response, providing an institutionalized framework for information, communication, and awareness-raising on issues of chronic industrial risk and pollution. In the Chemical Valley, associations like Notre Affaire à Tous - Lyon and residents reflect on the creation of a similar local structure. Initial reflections suggest that a branch could be added to the IECP model, capable of monitoring and making accessible administrative documents relating to industries, to further the accessing and appropriating of information. Therefore, if the Eco-citizen Institute is a place of revived exchange, it can also be - and probably even more essentially - a place of citizen empowerment.

II. Reinventing Citizens' Ability to Act and the Right to Participate in Industrial Risks and Pollution

The IECP provides a framework for citizen participation; it aspires "to share power, to contribute to improving future decision-making and to enable citizens to become actively involved in environmental issues. [...], a principle of institutional planning which consists of involving interested parties or their representatives in the decision-making process. [...] This involvement is decisive with regard to the environment, because it arouses great interest due to the universality of the challenges to be met and the dangers associated with the irreversibility of



Residents in Oullins (France) participating in a meeting about PFAS. Credit: Rose Lamalle.

choices at international and national level" [Guillien and Vincent, cited by Hamdaoui, 2018, p. 569 - 570]. The example of the IECP in Fos-sur-Mer shows that, in addition to being a channel for exchanging information, this system can be a real lever for citizen involvement and empowerment.

Indeed, the Fos-sur-Mer IECP goes beyond the creation of information and research. It represents a co-constructed mechanism between elected representatives, residents, and scientists, in a bottom-up counter-expertise approach whose output is intended to enlighten public debate, to "mediate between science and society" [Rotillon & Chamaret, 2023]. What's more, it acts as a forum for democratic consultation, "an active form of participation in which citizens take the initiative. By [contrast], consultation is a passive form of participation, because it is initiated by the public authorities" [Prieur, cited by Hamdaoui, 2018].

Moreover, understanding the IECP's democratic role is essential if we are to

grasp its power to transform the governance of industrial risks and pollution, or, more broadly, environmental health issues. This understanding is part and parcel of an increasingly widespread loss of trust in institutions, which is made all the more acute when scandals such as the PFAS scandal in Chemical Valley come to light. Mechanisms such as the IECP make it possible, beyond the proper transmission of this information and the scientific aspect, "to move away from an exclusive attitude of denouncing a health scandal" [Rey-Debove and Rey, cited by Hamdaoui, 2018] to a framework of appropriation of information relating to these issues and emancipation from their technicality and lack of transparency.

The role of citizens within the IECP is central, from governance bodies to the identification of pollution problems and research projects. A citizen's council, made up of around a hundred people who "use" the local environment [gardeners, fishermen, hikers, etc.], is trained in certain scientific observations in the environment, and can pass on its questions and queries



to obtain scientific answers. The very purpose of the institute - the participatory management of scientific research projects, i.e., "forms of scientific knowledge production in which actors from civil society participate, individually or collectively, in an active and deliberate way" [Laurent et al., 2022] - thus itself becomes a vector of empowerment. While the motivations, roles, and levels of involvement of civil society players may vary widely, these projects open up a repertoire of action for citizens, ranging "from data acquisition to empowerment" [Laurent et al. 2022]. The citizen council is also represented on the IECF's board of directors, alongside researchers from the scientific council and other local players [associations, trade unions, local authorities, etc.], and is thus integrated into the decision-making process.

What's more, the long-term nature of this system means that it can act as a citizen and scientific sentinel in the face of chronic pollution, which is difficult to deal with through one-off studies or policies. Thus, while the IECF is not militant or political, its research and monitoring enable it to point out the responsibilities of industrialists and oblige elected representatives to take political responsibility for scientific findings [Osadtchy, 2016].

However, this example is still an exception in the French national landscape. As Olivier Laurent, an environmental health researcher at IRSN, points out, "as far as chronic risks in particular are concerned

[...], opening up to society in the co-construction of research projects remains a field that needs to be developed in France, particularly as regards their links with environmental exposures" [Laurent et al. 2018]. Participatory research models in the field of environmental health are more developed in other countries, like the United States, for example.

Still, in the Chemical Valley, as in other areas affected by industrial risks and pollution, citizens and associations inspired by the IECF model are also considering new ways of reclaiming their environment and acting on the risks to which they are exposed. The start of this mobilization work, which can be driven or accompanied by legal reflection, already appears to be a process of local democratic empowerment.

Using the examples of Fos-sur-Mer and the Vallée de la Chimie, their issues and mobilizations, we have observed how a mechanism, the IECF, can involve citizens in mobilizations on local environmental issues.

Although the right to information on environmental matters has been recognized by law, it is still very difficult to access information on these subjects, and furthermore, to even understand it. All too often, we must wait for the work of journalists or the occurrence of accidents to bring pollution or operational problems to light, and thus trigger pressure for politicians to seek answers and take action. Faced with this, another, more



democratic and long-term approach is proposed, which would enable the establishment of local citizens' watchdogs and rigorous scientific research tools based on participatory systems. On the one hand, this system would provide additional support for respecting the right to information and enable us to move beyond the reflex of denunciation and protest towards a place of multi-party exchange and co-construction of serious responses. On the other hand, it makes it possible to envisage the reappropriation of issues and territories by the citizens primarily concerned. In so doing, these movements are proposing a reinvention of the governance of industrial risks and pollution, from closed systems to more democratic ones, making it possible to envisage an industry more at the service of society and giving concrete form to a circumscribed local ecological democracy, attentive to the right to information and participation in environmental matters.

The IECP and the examples it inspires also make it possible to apply various principles of the Earth Charter, and even appear as a direct concretization of its Principle 13, which affirms the importance of “strengthen(ing) democratic institutions at all levels, and provid(ing) transparency and accountability in governance, inclusive participation in decision making, and access to justice” (Earth Charter Commission, 2000).

The words of Samih Hamdaoui, Professor at Mohammed V University in Rabat, highlights the need for more examples like IECP: "Today, more than ever, a new green democracy needs to emerge, so that all citizens can work together to develop tomorrow's solutions. The lessons of this democracy are not easy to assimilate; we are learning them in a tough fight against immobilism and bureaucracy" (Hamdaoui, 2018).



Photo credit: Eduard Müller



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Art college students visiting Irish-based ecological artist Cathy Fitzgerald's woodland, site of The Hollywood Forest Story Photo: Gwen Wilkinson

Understanding how Creativity Works for a Better World: Unifying Insights From Ecological Art Practice and Values-Based Transformative ESD Learning



Cathy Fitzgerald

Dr. Cathy Fitzgerald, originally from New Zealand and now based in Ireland, is a dedicated ecological art practitioner and researcher. Witnessing a global lack of ecoliteracy in adult art education, she, alongside philosopher Dr. Nikos Patedakis, founded the Haumea Ecovercity in 2019. Their independent online platform provides transformative ecoliteracy and Earth Charter-inspired courses, fostering ethical and compassionate creativity among cultural professionals. Cathy, an Earth Charter alumna and educator, is a prominent figure in Irish ecoliteracy. As a Research Fellow at the Burren College of Art, she recently led comprehensive Earth Charter courses for creatives under an Irish Arts Council initiative. Additionally, she played a pivotal role in shaping the Irish Green Party Arts and Heritage Policy (2023) through the lens of the Earth Charter.



Insights for Sustainability Educators and Ecological Art Practitioners

This article delves into the intersections between emerging ecological art practices and values-based transformative learning for sustainability education. During my participation in the 5-month Earth Charter International Education for Sustainable Development (ESD) course in 2021, I was pleasantly surprised to uncover substantial synergies between these two domains. These connections became more apparent as I subsequently developed and delivered a 7-week online ESD Earth Charter course tailored for creative and cultural professionals, reaching Irish and some international learners over recent years.

Within our courses, we introduce participants to the ethical principles of the people's Earth Charter, guiding them to use their creativity more wisely for inspiring positive action towards a better world. The participants engaged with the Earth Charter, including the Children's Little Earth Charter, recognising the value of its clear integrated principles and accessible, inspirational language. The course facilitated a deeper understanding of sustainability and drew from the considerable intellectual and creative contributions of those who have explored the Earth Charter over several decades, particularly drawing from the wonderful Earth Charter podcast series and the planetary Earth Story Collective. This exploration empowered participants to articulate the aims and ethos of ecological art practices, environmental art, art education and cultural policy for

sustainability for their cultural context. A special acknowledgment goes to Irish artist and mother Phoebe Cope, who translated the Earth Charters into Irish, recognising its relevance as an inclusive, timeless moral compass for her children and a means to enhance sustainability awareness across the Irish creative sector.



Cathy with artist and Gaeilgeoir Phoebe Cope, Irish Translator of the Earth Charter, Drummin Bog, County Carlow, Ireland, 2022.

While participating in the ESD course, I observed occasional reference to the value of artistic activity for sustainability education, particularly in Earth Charter, Education, and the Sustainable Development Goal 4.7 (Vilela and Jiménez, eds., 2020). These references caught my attention, given my knowledge of the emergent ecological art practice field, which has been a marginal field in the contemporary art world since the 1970s. I recognised that the two decades of values-based ESD development could contribute to the appreciation of the ecological art practice field, and correspondingly, the ecological art field could deepen awareness of the immense value of creative practice for ESD transformative learning. To me, knowledge exists in both domains that can mutually



Photo credit: Cathy Fitzgerald

reinforce and propel the 'quicken holism' toward a life-sustaining era—the invitation articulated in the Earth Charter's 'Way Forward' conclusion.

Ecological Art Practice and Ecoliteracy Teaching: A Personal Journey

To contextualise these ideas, my involvement in exploring ecological art practice traces back to the late '90s, and is notably channelled through my ecological art practice, *The Hollywood Forest Story* (ongoing since 2008). This work revolves around learning and collaborating with leading Pro Silva Irish ecological foresters to revitalise a small monoculture tree plantation in rural Ireland, reshaping it into a more resilient forest ecosystem with new-to-Ireland Close-to-Nature forestry management. Employing a creative narrative approach via photography, video, and blog writings, I convey the challenges and rewards of embracing these continuous cover forestry practices (HollywoodForest.com). This endeavour is a case study in the international online Library of Creative Sustainability (<https://www.creativecarbonscotland.com/library/the-hollywood-forest-story/>),

forming the cornerstone of my creative practice-led PhD titled *The Ecological Turn: Living Well with Forests To Articulate Eco-Social Art Practices Using a Guattari Ecosophy and Action Research Framework* (Fitzgerald, 2018).

My practice and research deepen my appreciation for how collaborative endeavours blend creativity with ecological insights. These endeavours radically challenge conventional creative practices, yet have immense social power to meaningfully inspire practitioners and their communities to engage in ecological reflection and restoration now, and for future generations.

Despite my background in research science and a doctoral qualification in ecological art practice research, I experienced firsthand the challenges posed by ecological insights for creative practice. Since 2019, I have felt a compelling need to share my knowledge and develop ecoliteracy courses for creatives and cultural professionals, particularly in light of these unprecedented times. However, concerns about my



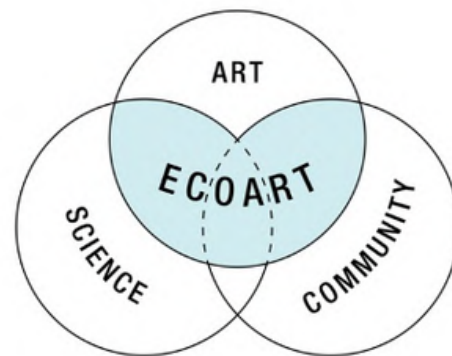
capacity to do so arose due to my limited teaching experience and because I knew that ecological insights represent a paradigm shift which would introduce inherent complexity and emotional challenges.

Developing Ecoliteracy Courses for Creatives and Cultural Practitioners

In my new role as an educator, I am indebted to the educational insights and extensive wide-ranging research of my Californian-based, eco-aesthetic-oriented, philosopher colleague, Dr Nikos Patedakis [DangerousWisdom.org]. His perspectives, summarised in 'salon culture and wisdom-based learning' [Patedakis, 2021], significantly inform my understanding of what propels ecoliteracy education for collective, cultural renewal.

By embracing ecoliteracy as a lifelong journey of unlearning and relearning, we confront deeply ingrained life-limiting perspectives with our course participants to comprehend responsibilities for personal, collective, planetary, and intergenerational well-being. This intentional and reflective process involves compassionate contemplative practices, fosters reconnection with the broader Earth community, to assist learners to develop an ecological worldview. As we navigate this path, our transformative learning process emphasises critical literacy, integrated moral reasoning [underscored by the Earth Charter's vision and clarity], and the mastery of a holistic

language, enabling reflection of diverse wisdom knowledge, ecological philosophy, and sustainability frameworks. Establishing a safe learning space is imperative to nurture collective dialogue and social connection and accelerates creative incubation in the pursuit of a more sustainable, equitable, and peaceful future.



The three interconnecting fields of ecological art practice. Image developed by the editors, 2018 for EcoArt an Action book [Geffen et al., 2022]. Image courtesy of the editors.

Developing these courses for creatives and cultural professionals rests on my work to develop and research ecological art practice. But what is ecological art [ecoart] practice? In their comprehensive yet accessible handbook, *EcoArt in Action: Activities, Case Studies, and Provocations for Classrooms and Communities* [Geffen et al., eds., 2022], the professional international EcoArt Network, established in 1998, defines ecological art practice as ethically committed to social justice in both content and form, aiming to inspire communities' care, respect, and dialogue for the long-term flourishing of environments. Such practices emphasise experiential learning from the influence of educational visionaries such as John Dewey, Paulo Freire, and others [ibid, p.3].



As creatively facilitated collaborative endeavours, these practices draw on developments in the socially engaged art practice field. One could simply describe ecological art practices as employing 'Creativity as an Act of Love' for the world, as reflected in one of our course titles. However, describing these practices is challenging due to the diverse possibilities of creatively exploring our connection to various environments. Sometimes, confusingly the term 'ecoart' is loosely applied to artworks and land art with environmental themes.

However, practitioners in the emerging field of ecological art practice set themselves apart by facilitating inclusive activities within communities, guided by creative approaches. They welcome various ways of understanding, incorporating experiential, artistic, contemplative, scientific, theoretical, and traditional knowledge, to help people comprehend and navigate the path toward living harmoniously with their environments.

Such collaborative processes facilitate dialogue for ecological awareness that evolves agency for systemic changes to envision how a community might understand ecological healing and restoration relevant to their location, and in which everyone has something to contribute. A key text reviewing these novel formations of creative practice, exemplified by the late pioneering ecological art practitioners, Helen and Newton Harrison, refers to how these multifaceted transdisciplinary practices advance important, inclusive

'conversational shifts' [Adcock, 1992], for integrated sustainability action.

Yet, despite the pressing needs of our time and the increasing demand for skilled ecological art practitioners, challenges persist in accessing integrated ecological art practice education. This is primarily due to the requirement for a radical reconceptualization of education as a whole (and why our courses align with the concept of an 'Ecoversity'). The magnitude of this necessary shift in education impedes the field's contribution to usher in an ecological era.

My doctoral work explains how I and other ecological artists operate in these new ways. I successfully argued that these new creative forms could be more simply explained as a form of action research. Furthermore, given how they operate to invite collective reflection, embrace various ways of knowing, and that the key outcome of such practices is not necessarily creative works but emergent changes in perception, they provide much-needed informed conversations to envision and promote actions for better world, an era promoted as the Symbiocene [Fitzgerald, 2018, 2019, 2021].

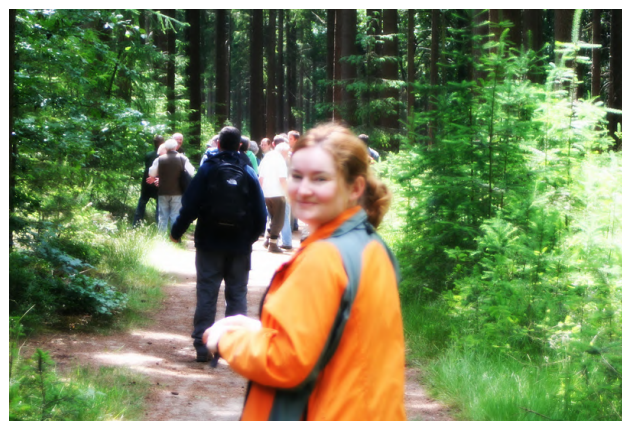


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Photo Credit: Cathy Fitzgerald

Realising Valuable Connections between Ecological Art Practice and ESD Transformative Learning for Sustainability

While researching ecological art pioneers, the Harrisons, for my doctoral research, I encountered Charles Garoian's (2012) observation that their practices extended beyond the art world, to suggest a holistic model for sustainability education, that at that time, was not appreciated. I referenced this insightful conclusion in a footnote within my doctoral thesis and found it resonating with me once again while I was attending the ESD Earth Charter course.

Through my exposure to the ESD Earth Charter course, I appreciated similarities between action research I used to clarify ecological art practice and transformative learning used to explain the transformative processes at work in sustainability education. Through the work of Hathaway (2011) and others that I encountered on the ESD Earth Charter programme, I can now articulate with clarity that a core outcome of ecological art practice lies in the transformation of peoples' worldviews. Specifically, such practices cultivate an ecological perspective, and inspire people to live well with the web of life, in perpetuity.

The elucidation of values as the cornerstone for guiding transformative learning in ESD not only assisted me in discerning the ethical underpinnings of ecological art practice but also provided a profound perspective when examined through the lens of the remarkable people's Earth Charter (Earth Charter



Commission 2000], for practitioners of ecological art and cultural professionals alike. The Earth Charter is a covenant with the broader Earth community, forged through an inspiring global civil society process spanning over a decade in the 90s and extensively scrutinised since [the Earth Charter has twice been endorsed by UNESCO], and stands as a robust framework for ecoliteracy learning and ethical considerations for integrated sustainability action. It incorporates fundamental universal principles, such as ‘respect and care for the community of life, ecological integrity, social and economic justice, democracy, nonviolence, and peace’, but also critically envisions humanity’s aspirations for a well-lived existence for people, the planet, and future generations.

Given that ecological art practices are inherently social operations, the Earth Charter’s lucid articulation of these principles, that references the Universal Declaration of Human Rights [UDHR], [UN General Assembly 1948] with contributions from individuals across diverse disciplines, cultures, and traditions, proved to be particularly valuable. It offered profound clarity concerning the ethical intentions and moral reasoning embedded in ecological art practice—intentions often only expressed intuitively within this emerging field.

The ethical insights offered by the Earth Charter significantly deepen foundational observations of art historian Matilsky [1992] and art theorist Boetzkes [2010, p. 200] about ecological and Earth Art practices.

Moreover, the Earth Charter provides a framework for contemplating how individuals within communities can understand the potential of their diverse contributions to ecological art programmes.

Sustainability Education Findings Mirror Ecological Writings in the Creative Sector

A particularly impactful moment in my ESD Earth Charter learning journey was gaining a profound appreciation for the Earth Charter’s overarching ecological vision and finding affirmation of the immense educational shift required across the world. It helped me understand more deeply that educating creatives in ecoliteracy is part of an immense cultural shift to cultivate lifelong holistic ‘transformative learning in education systems at all levels’ so all people develop an ecological worldview [...] ‘as a necessity for our survival and that of future generations’, as described in The Berlin Declaration on Education for Sustainable Development [UNESCO 2022].

For further context about integrative education needed for ecological art practitioners and educators, I highly recommend the books of Sam Crowell, Earth Charter International Council Member and sustainability educator Professor Emeritus, including *The Re-Enchantment of Learning: A Manual for Teacher Renewal and Classroom Transformation* [Crowell & Caine, 2001], *Emergent Teaching: A Path of Creativity, Significance, and Transformation* [Crowell & Reid-Marr, 2013], and *Earth Charter Pedagogy Book 1: Integrating Peace Education* [Crowell 2017], and *Earth Charter Pedagogy Book 2: Emergence, for ESD* [Crowell, 2018].



I was fascinated with Crowell's plea for 'the re-enchantment of learning' because it aligns with the foresighted writings of the late, and still under-appreciated art critic Suzi Gablik, who in the 1990s, advocated for *The Re-enchantment of Art* (1991) and engaged in dialogues with pioneering creatives exploring ecological understanding in *Conversations before the End of Time* (1995). Gablik echoes Crowell's appeals for an ecological pedagogy that propels sustainable cultural renewal, insisting on comprehensive whole-of-education changes across sectors and society. I smiled too, when I found the seminal eco-theologian Thomas Berry, who inspired Gablik's initial ecological writings, 'The Ecological Imperative' (1992), also contributed to the early efforts for the Earth Charter and his life's work continues to inspire many sustainability educators and Earth Charter advocates.

Moreover, the writings of higher education Professor Emeritus, Peter Blaze Corcoran have proven invaluable in comprehending the significance of the Earth Charter in defining sustainability for the creative sector. Corcoran's work illuminates the Earth Charter's role in providing the clearest and most accessible integrated definition of sustainable development to date [Corcoran, 2023; Clugston and Corcoran 2023] and provides creative interpretation of the Earth Charter in *A Voice for the Earth: American Writers Respond to the Earth Charter* [Corcoran and Wohlpart, 2008]. In the near future, I will be introducing Corcoran and others' 'Earth Charter meal methodology' work from 2008, to other creatives across Ireland, helping them to foster more convivial, impactful

conversations about the Earth Charter and bringing its holistic, inclusive principles for a better world alive in the very food we share.

Concluding Thoughts

In considering how sustainability education may benefit from the integrative, real world expertise of ecological art practice insights, I recommend the following resources for transformative learning educators in ESD:

- *To Life!: Eco Art in Pursuit of a Sustainable Planet* by Weintraub (2012);
- *Green Acres: Artists Farming Fields, Greenhouses and Abandoned Lots* [Spaid, Platow, Amoss (Ed.), Bjørnard and Kaminsky, 2012];
- *Ecovention Europe, Art to Transform Ecologies, 1957-2017* [Spaid, 2017];
- the aforementioned *EcoArt in Action: Activities, Case Studies, and Provocations for Classrooms and Communities* [Geffen et al., eds., 2022];
- and *The Work of Art in the Age of Planetary Destruction* [eds. Prasad and Osrin, 2023].
- Additionally, I recommend the book by the pioneering Harrisons on their nearly five-decade-long work in ecological art practices around the world, titled *The Time of the Force Majeure: After 45 years Counterforce is on the Horizon* [Helen Mayer Harrison and Newton Harrison, 2016].

Unfortunately, Helen and Newton are no longer with us. I was fortunate to be invited to meet Newton last year, and agree with environmentalist Lillian Ball who stated, "they were forces of nature whose ongoing influence will be felt throughout



generations” [Sizonenko, 2022]. Attesting to their significant contribution to this field, several exhibitions to celebrate their California work are scheduled for the San Diego area in 2024-2025 [Sizonenko, 2022].



From the late 1960s and for nearly four decades, the late pioneering ecological art practitioners Helen and Newton Harrison were clear that their collaborative and co-creative, ecological art practices were to help us all reflect and serve the web of life. Newton Harrison invited Cathy to present at his final research workshop 'Listening to the Web of Life' for ecological art practitioners, scholars, scientists and curators, San Diego 17-18 March 2022

Encountering and sharing transformative learning with the People’s Earth Charter has had a profound impact, helping me and others across Ireland guide our creativity wisely for these challenging times. Observing creatives, art educators, and culture professionals embrace elements of the Earth Charter, making it their own in innovative ways and in the Irish language, has much promise in enhancing art-in-school residencies, improving transition year sustainability learning, and initiating creative-led inclusive dialogues on sustainability across age groups, in diverse settings.

Some time ago, all this work encouraged me to contribute to the framing of a new all Ireland Green Party Arts and Culture policy within the Earth Charter’s vision [Green

Party | Comhaontas Glas, Ireland, 2023]. This new policy has appeared in Ireland this week. I will end by sharing how former course participant, facilitator Ali Warner shared the Earth Charter to an audience at the Irish Department of Rural and Community Development showcase at Dublin Castle [Warner, November, 2023]:

“I spoke about the Earth Charter as a precious seed that had perhaps in some ways been germinating over the last few decades and may now be bearing new shoots at a time in our society when we need it most. And then I read from the Earth Charter’s ‘Preamble’ and the ‘Way Forward’ to close the event. They are such powerful, beautiful, and poetic words and so much needed now. I hope we can keep deepening our connection to the Earth Charter in these times, and that it grows in its strength in Ireland as an activating force for what we would like to see flourish in our world.”

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Haumea Ecovercity courses and resources can be found at <https://HaumeaEcovercity.ie>

Photo credit: Cathy Fitzgerald



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Photo credit: Eduard Müller

Unifying Our Efforts: Using the Earth Charter to Support the SDGs



Sam Crowell

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It was a beautiful summer day in my part of the northern hemisphere. The sun was beginning to warm the air. I noticed the wind blowing gently across my face. The river in the distance moved effortlessly along its winding path, and birds flew in circles above the surface of the water. Nearby baskets of flowers - reds, yellows, purples, and whites - created joy inside me. It was a wonderful moment.

These kinds of feelings and experiences cannot always be quantified but are real, nonetheless. They align us with the deepest parts of who we are. We resonate with a sense of connection that brings the external world together with our inner experience. I believe that this deep sense of connection helps to integrate and activate our actions in the world. There is an embodied sense of alignment that integrates who we are, our core values, and our intentions with purposeful actions in the world.

When we bring the intangible and tangible together, we create a dynamic unity that has energy and power. For me, one of the real strengths of the Earth Charter is how it addresses sustainability from the inside out. It demonstrates the alignment between values, core beliefs, and actions. Whether we are educators, activists, or policy makers, part of our task is to shape a new consciousness of hope and possibility. The Earth Charter unifies multiple actions and movements under a common set of values, commitments, and responsibilities.

My purpose in this essay is to show how the Earth Charter and the SDGs are complementary aspects of a singular unity. While each is unique in its own right, they



can work together with greater effectiveness when their distinctions are understood and honored. The Sustainable Development Goals (SDGs) are part of a UN effort to create common goals to work toward within a designated time frame. The Earth Charter was created as a common vision expressed by the peoples of the world. It is a civil society document, meaning that it is open and available to all people to be brought to life in as many contexts as imagination allows. In very important ways, the Earth Charter can enhance and support meeting the SDG targets.

The chart below contrasts what I believe are important differences between the Earth Charter and the SDGs. The discussion that follows will elaborate on how these distinctions point to the significance of the Earth Charter and why it needs to be at the forefront of multiple efforts around sustainability including the SDGs. The Earth Charter is a movement that charts a course toward a re-imagined future. This is transformative work that goes to the heart of global citizenship and planetary well-being.

Earth Charter	SDGs
Toward a New Worldview	Maintains the Same Worldview
Vision	Goals
Values	Objectives
Actions	Outcomes
Being/Creating	Achieving/Producing
Holistic/Systemic	Multidimensional/Additive



Toward a New Worldview

The neurosciences show us that perception and action go together (Fuster, 2002). How we see the world matters. We act upon the world according to our perceptions. If we perceive nature as merely a resource, then our actions will be defined by that perception and everything surrounding those actions will seem logical and true based on that way of seeing the world. If we perceive the natural world as a reciprocal kinship and a sacred trust, then our decisions and actions will be quite different.

The Earth Charter creates a picture of humanity as interconnected with other communities of life. Our actions affect the whole because of this relationship. We cannot be separated from this connection, nor can we escape our inherent responsibility. Our thoughts and actions have consequences, not just for ourselves but for all of life, for other people and cultures, for future generations, and for the

well-being of the planet. Humanity as portrayed in the Earth Charter, is perceived as part of an interconnected web of life that shares a common destiny. Everything we do inside this web of relationships affects us and all of life. We are not separate. Who we are and our relationship with justice, economics, the environment, and peaceful cooperation among peoples and nations are seen from the undeniable perspective of connectedness.

This way of perceiving the world is the foundation for a new vision of the future. While the SDGs speak to important issues needing to be addressed, they tacitly accept the current worldview. Our current perception of the world has set the stage for the scripts leading to the particular crises we face. It sets up a contradiction between the current societal worldview and the regenerative future SDGs hope to secure.

By combining the Earth Charter with the SDGs, the work of alignment is put into



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motion. Awareness and intention become tools that help us move beyond where we are to new visions of possibility. This is a continuous process of authentic leadership and service.

Vision

Vision is among the most powerful and practical things we can do and should not be underestimated. Visioning isn't just a step in strategic planning, where it is often ignored or superseded by goal statements and targeted measurements. Nor is it a "one and done" event, rather it is a continuous process of bringing intention and creative energy into each step. We return to it again and again, to see anew, to re-imagine, to inquire from different perspectives. Visioning is seeing with intention from the deepest parts of our being.

Vision does not happen analytically. It occurs receptively. Close your eyes for a moment and imagine yourself waking up

to a community that embodies the Earth Charter worldview and values. You look around, go outside, walk to a public place. What do you see? How do you feel? What is going on around you? When we share these "visions," noting commonalities and differences, we have created a context for our work, our goals. There is a big picture that informs our choices and actions.

The Earth Charter represents a common vision stated in values and actions. We should celebrate what an amazing accomplishment this was! Six years of dialogue and receptive listening to the peoples, cultures, and nations of the world. Goals follow vision and lose their foundation if they are only held together by agreements. A common vision built upon a worldview of radical connectedness and the values of compassionate care, relatedness, and responsive action takes the SDGs to another level.

Values

Values are broad; objectives are narrow. Values are internal; objectives are external. Values live inside context; objectives are isolated and originate from goals. Values are existential choices; objectives are analytical reductions. Values are non-linear; objectives are linear and sequenced. Values invite dialogue; objectives are instrumental.

When values are implicitly and explicitly recognized, the greater the focus and



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direction. This kind of action is not driven solely by external circumstances, rather it becomes an inner journey and outward expression.

This contrasts with set outcomes which can remain fixed and arbitrary. Outcomes are good watermarks and indicators of our progress; they alone do not necessarily drive action. They can be useful in several ways but in and of themselves outcomes have no energy. SDG outcomes are good descriptors of ends. Earth Charter action principles give direction to where this leads and what we can do. These form a natural partnership.

Being/Creating

Being is not the same as achieving, and creating is qualitatively different than producing. Notably, these are not in opposition to each other. These areas of emphasis once again point out the inner and outer categories of attention. The SDGs tend to prioritize external areas of concern without addressing the inner world of one's humanity that makes these goals a reality. It is the creative impulse within us that builds models and alternatives, that pushes the limitations of our imaginations, that approaches the gravity of our circumstances with a kind of joy and even play.

This may seem unimaginable given the serious conditions of the world. But when one is sustained from the inside out, the relationships, collaborations, inspiring stories and even small successes that make a difference create an inner joy of deep gratitude and appreciation for all of life.

purpose are likely to be. Values indicate and point to what really matters - in terms of both process and outcome. Values help establish identity as well as ethical responses. Objectives alone, on the other hand, can act similarly to factoids that present information devoid of context or meaning.

The Earth Charter is value-oriented; its values include openness, inclusion, respect, and care. These are not imposed; they represent a way of being in the world. Earth Charter values do not negate other ways of being; on the contrary, they create a foundation for dialogue and inquiry. Earth Charter values and SDG objectives amplify each other.

Action

The Earth Charter principles are designed and written to lead to action, whether that is in terms of policy, soft law, strategic planning, project-based community organizing, sustainable business practices, social entrepreneurship, educational curriculum, or activism across multiple sectors. Advocates of the Earth Charter want to "bring it to life" within these intersectional environments. When its values and principles become part of the cultural space, the transformative possibility of the Earth Charter takes shape and form.

Taking action in alignment with one's core beliefs and values with intention and purpose builds a lasting sense of commitment within us. There is a constant source of energy because it comes from within. The action is flexible and authentic and allows for fluid responses and shifts in



Being and creating are continuous sources of energy and purpose. Achieving and producing certainly can be motivating, but once achieved, there is always something more to be done. It is never enough. This feeling of “lack” leads to stress and burnout.

Then, is it not better to enjoy the journey, even when it is serious? How much better to create a just, sustainable, and peaceful world as we go - within us. The epilogue of the Earth Charter refers to the joyful celebration of life. This is joyful work because we are constantly bringing our deepest values and intentions into the world as the future is created in every moment of the present.

Holistic/Systemic

The Earth Charter contributes to a holistic vision of sustainability. It recognizes that creating an ecological civilization needs to address every facet of society. It implies an open systems approach to the issues we face and serves as an umbrella for multiple

civil movements operating with various and specific emphases. Its pillars form a unified whole; they intersect and are part of the same tapestry. This can be seen in the last statement of the Charter before its epilogue: “Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth and the larger whole of which all are a part” [Earth Charter, 16f].

Certainly, the SDGs are multi-dimensional but not necessarily holistic. They come across more independently and additive rather than woven within the web of systems dynamics. This is characteristic of the current paradigm. Such a worldview must shift, for it can never lead us to a sustainable future. The SDGs need the Earth Charter, and the world needs both.

Importantly, the Earth Charter extends beyond the SDGs and similar attempts to work towards sustainability. The Earth Charter can be infused within the environments of institutions and



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organizations. It shapes-shifts into ways to think about sustainable cities and ways of living. It helps address the role of universities and educational curricula during this time in history. Aligning pedagogical approaches with its values and content, the Earth Charter becomes a canvas for holistic education and re-imagining what it means to learn.

Conclusion

As I look out upon the hanging flowers that bring beauty and joy to my life, I am reminded of the significance of care and its relationship to responsibility. Caring is born inside relationships. When we see ourselves as everything and see everything as ourselves, caring is a natural response to the world. Responsibility is not the same as obligation. It embraces a natural reciprocity, a sense of value, a perception of some undefined unity, and a recognition of a primal instinct for kinship, not only with others but also with the natural world. An expanded sense of self that resides in primordial love.

The seemingly intangible aspects of our humanity really matter. The challenge of showing how the Earth Charter's emphasis on values and a shift in consciousness is essential to the work of sustainability, justice, peace, and planetary well-being. I hope this essay helps in some small way support the wonderful and amazing work so many of you are doing throughout the world.



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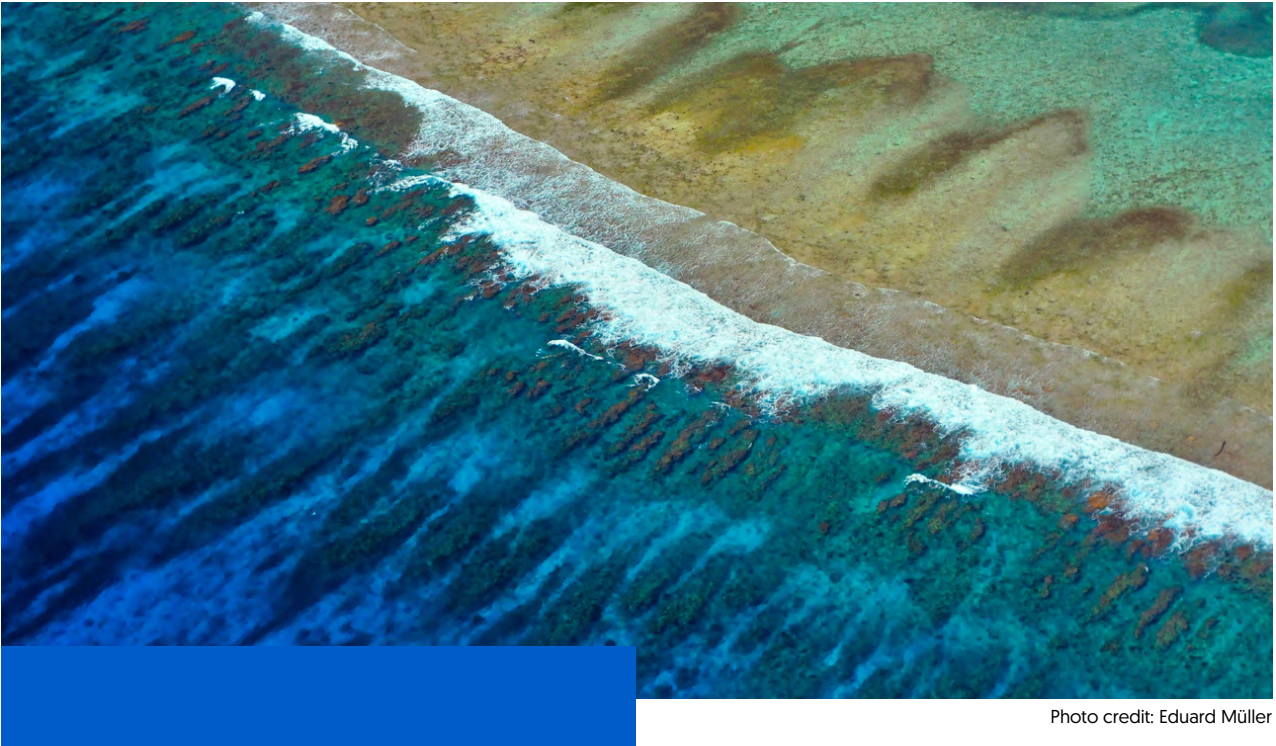


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The Earth Charter as a Tool for Strengthening the Capacities of Young People as Agents of Change



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For the last 15 years, we have joined efforts as two members of the Earth Charter International Young Leaders Network [Melchor Ernesto Muñoz Dzib and Yaneri Rosario García Pool] and a member of the Earth Charter Network in Mexico [María Guillermina Pech Pech] to promote the Earth Charter's [EC] ethical framework in Quintana Roo, Mexico. Our aim has been to engage and sensitize young people of all educational levels and generate a positive learning impact in them. In 2020, with the appearance of COVID-19 and the "new normal", new challenges arose that allowed new connections and collaboration to promote the Earth Charter. This essay shares the journey of our work in engaging youth and its generational impact, as well as our actions and achievements in the effort of promoting the EC's values and principles for the creation of a just, sustainable, and peaceful civilization.

In this journey, we have had the support of several secondary and higher education institutions such as: The University of the Caribbean [Universidad del Caribe], Polytechnic University of Quintana Roo [Universidad Politécnica de Quintana Roo], Mayan Intercultural University of Quintana [Universidad Intercultural Maya de Quintana Roo] and the Campus One High School [Colegio de Bachilleres Plantel Uno], as well as a large number of committed people, in the pursuit of "buen vivir" or "good living", as an alternative for development.

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Background

Throughout our learning process at different educational levels and within the family and social nucleus, we acquire and strengthen our knowledge, skills and abilities to enable us to face current challenges. The global youth movement is a testament to the power and impact of young people's actions and proposals to address global problems and purposefully support their communities.

In 2008 in Cancún, we developed a movement called Environmental Voices. This group, initially made up of graduates¹ from the University of the Caribbean, positioned itself within the university, inviting students to participate in pro-environmental actions. Environmental Voices was a group whose objective was to change attitudes towards the environment. At the beginning, the group comprised of young people from Cancún and professionals in Sustainable Tourism and Hotel Management. As the years passed, young people from other backgrounds were included. Environmental Voices was based out of the University of the Caribbean, an institution that has included sustainability as a guiding pillar since its founding. Since its inception, Environmental Voices has developed various non-formal environmental education projects. In 2008, we managed to download resources from the Ministry of the Environment and Natural Resources (SEMARNAT, by its acronym in Spanish) and held the first Environmental Culture Week at the University of the Caribbean. This event continues to be held

annually, now under the leadership of the Sustainability Committee. This event is a space that has allowed us to glimpse the importance of environmental issues, environmental education and sustainability in the training of young people as agents of change.

Environmental Voices managed to remain active as a group for 10 years at the University of the Caribbean due to its horizontal structure among peers. Before graduating, students shared their knowledge and created a new structure that would give continuity to the established themes and new ideas according to the context. Its essence lies in the visibility, trust, and certainty of the work of youth, and the generation of a collaborative network with local, state and regional actors. In addition to the great promotional work that the student members of Voices did, who motivated other young people to join this movement.

During its tenure at the University of the Caribbean, Environmental Voices created a space for interaction, cooperation, and reflection for young people at the University of the Caribbean. In later years, due to the presence that gave rise to grouping within public spaces and academics, students from other universities mobilized to form new work groups in their educational institutions. This allowed various universities to give importance to the participation of young people in the decisions made in their



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educational institutions. It should be noted that this youth organization was a platform that allowed youth to influence other spaces in the public sector, such as advisory councils for sustainable development and the beginning of youth meetings against climate change in the south-southeast region. The SEMARNAT Advisory Councils², young people who at the time represented their sector in each federal entity, were the ones who joined together to hold the Climate Change Meetings and from the south-southeast region they have coincided and participated from their social and business organizations, and volunteering in various strategies to date.

In 2008, a sustainability policy emerged from the Rector's Office of the University of the Caribbean, which resulted in the Environmental Committee being formalized and the commitment to adhere to the Earth Charter reaffirmed. The Earth Charter has been an instrument that has been used for training workshops and in videos that have been made in English and Spanish as a dissemination mechanism.

Additionally, its thematic content is considered in the Diploma in Environmental Education, and it is immersed in the curriculum from the subject of the training workshop in social and environmental responsibility.

With the recognition of the Earth Charter as an educational instrument, we implemented courses, workshops, and activities for the adoption of the pillars and principles of the EC and their relationship in the resolution of socio-environmental problems. For this purpose, it was supported by dynamic activities accompanied by messages of reflection and case solutions. Integration, responsibility, participation, and decision-making activities were carried out with the purpose of discussing the ideas of individual participation and responsibility, and the responsibility of young university students and how they influence society.

We also collaborated with the Cozumel Quintana Roo City Council to establish Cozumel as a sustainable destination. The "Workshop on Internalization of Principles



and Values for Sustainable Development: The Earth Charter” was held and representatives of civil society organizations that work within the island, as well as representatives of the different government institutions of the same municipality attended.

Later in 2012, with the creation of the University of the Caribbean’s Environmental Plan, a shared effort began where Environmental Voices joined the institutional strategies. It is worth highlighting the support of the then head of the Department of Sustainable Tourism and Hotel Management, Dr. Ana Pricila Sosa Ferreira, since she was the one who brought trust and certainty to the group by incorporating it in environmental actions within the campus.

In the fifth edition of the meeting, the objective was to build a space that promotes the exchange of knowledge, experiences, and practices to strengthen the capacities of young people on climate change issues, including: adaptation and mitigation actions to climate change, environmental education for the establishment of local projects, the challenges of young people in the face of climate change, as well as the construction of sustainable citizenship. The event took place from the 20 to 22 November 2015, at the University of the Caribbean in the city of Cancún, Quintana Roo. This meeting and the other projects that Environmental Voices envisaged from different perspectives, the organizational capacity, the power of coming together to solve

problems, promoting participatory structures—all elements that added up so that each of the members of Environmental Voices could be inspired and chart his or her own path.

In 2020, the Diploma in Environmental Education began, the objective of which is the impact of theoretical and methodological elements in programmes from the private social, academic and government initiative for the development of applicable educational projects. Within the curricular map of the diploma, the Earth Charter is addressed as an element that allows influencing values, knowledge and the transformation of society. It should be noted that the Mexican Earth Charter Network has also been a reference framework at the national level that encourages environmental promoters in the construction of a society committed to change towards a more just, sustainable, and peaceful world.

The work of youth and their consistency during these years is thanks to the generation of alliances, the credibility of the youth and the strengthening of civil society, guaranteeing sustainability from the local level, being aware of the environmental complexity and the importance of environmental education as a piece for transformation from a critical perspective in educational practices. The Earth Charter represents for youth a strategy that acts from the local level and will have its manifesto through generations. This is how it is possible to transcend and shape new strategic lines of



social impact. Motivating and accompanying young leaders entails acting through critical and systematic thinking so that achievements are timely in environmental solutions, as well as lines of action continue to promote youth. One of the success stories has been through the company Componentes Verdes (Green Components) that has trained young people from public and private higher education using the Earth Charter, as part of the results of the workshops following their participation in the Earth Charter International online course, “Leadership, Sustainability and Ethics.” This course reinforces the work of Earth Charter Young Leaders (ECYL) inside and outside the state of Quintana Roo to be proactive environmental promoters.

Currently, Earth Charter Young Leaders have been recognized in the state of Quintana Roo as important actors within the governance and public decision-making processes. This invites us to reflect on the role we have as a society regarding the recognition of the territory to achieve more just, sustainable, and peaceful societies from comprehensive thinking where the principles and values promoted by the Earth Charter are reflected in the strategies young people propose within social, economic, political, cultural and environmental environments.

During 2020, there was a virtual interaction with the Earth Charter International Young Leaders, actively participating in the virtual meetings scheduled for the Young Leaders Network of Latin America and the Caribbean.

The virtual meetings have made it clear that it is necessary to take action through the alliances promoted by the Earth Charter in its Pillar 4 and Principle 13, established in the subprinciple: b) Support local, regional and global civil society, and promote the meaningful participation of all interested individuals and organizations in decision making.

The ECYLs as environmental promoters of the Earth Charter build trajectories aimed at intervening in public policies focused from a local, state and national environment. It should be noted that ECYLs contribute from various angles such as companies, universities, civil and government associations, contributing to a shared responsibility where the sum and alliance can have more solid results.

During 2023, the XVII Legislature of the Free and Sovereign State of Quintana Roo and the Earth Charter formed an alliance for the adoption of the principles and values of the Earth Charter.



Photo credit: Melchor Muñoz



Photo credit: Melchor Muñoz

In conclusion, the training and participation of youth show great potential to involve others in joining to support the principles and values of the Earth Charter and to continue promoting the Earth Charter through courses, workshops, seminars, congresses, forums and environmental talks. This could be a turning point in the lives of many young people to raise awareness about the civilizational crisis that humanity faces.

Spaces led by young people for young people allow them to take ownership of their environment, where they consider mechanisms to take actions that allow them to act in society and achieve important transformations. Due to their interest and concern for the various situations that occur today, they seek to create effective actions that promote a fair society at economic levels, rational with its immediate environmental resources and peaceful where social coexistence is harmonious and free of violence.

Quintana Roo, being a multicultural state, has allowed young people to create safe and comfortable spaces to exercise their

voices and work in the community. These spaces promote respect and the creation of comprehensive strategies with the vision of everyone who participates. Young people continue to acquire knowledge, tools and skills for the future and maintain momentum for several generations. Upon reaching the stage of adulthood, they promote a shared vision with other young people to instill in them the importance of their participation in public decisions, as well as maintaining intergenerational dialogue due to the changing context of today's society and its ways of life.

Youth under an environmental eco-literacy approach reach maturity according to the experience-learning process; however, they will not reach their greatest achievement until they manage to encourage other young people to continue with the legacy of being a young leader. Young people have provided a framework of intergenerational collaboration for various social groups, making visible the importance of caring for the community and the environment in



which we find ourselves, as well as maintaining a shared vision regarding those that concern us as a social group.

Young people have shown they have the power to transform their reality, of which they are protagonists and, by being aware of environmental complexity, they can have a proactive impact. Youth are a window where it is possible to introduce and open spaces for the reflection of knowledge. Through their perspective they can motivate and create proposals that work towards sustainability. That is why encouraging youth in areas of environmental education will help solve the challenges that humanity faces in the 21st century.



Photo credit: Michael Slaby

Preserving the Buzzing and Blooming Bounty and Beauty of our Planet – A Reflection on Pollinator Protection and the Earth Charter



Michael Slaby

Michael Slaby is a changemaker with more than 25 years of experience in sustainability, biodiversity, and interfaith dialogue. Michael holds a master's degree in Comparative Religion, Political Studies, and International Law. He started volunteering for Earth Charter Germany in 2001 and served as international Earth Charter Youth Coordinator from 2002 to 2006. He then joined the Earth Charter International full-time staff and coordinated the Earth Charter Task Force on Religion and Sustainability – working remotely out of the office of Earth Charter Commissioner Rabbi Awraham Soetendorp in the Netherlands. In this role he assisted delegations of spiritual leaders to raise their moral voices at major UN Conferences such as the Rio+20 Summit in 2012. He currently works as development director of Mellifera Association in Germany. As nature enthusiast and father of four children he cares passionately about promoting smart solutions to our twin climate and biodiversity crises.



I have been active in the Earth Charter Initiative, both on a voluntary and full-time basis for more than thirteen years, and since 2014, I have been professionally involved with Mellifera e. V., Germany's leading organization for respectful beekeeping. In this new role, I strive to protect bees, pollinating insects, and biodiversity. Many of the principles of the Earth Charter come to life in the effort to maintain the rich diversity of pollinating insects. Below I outline both the marvels and endangerment of bees, what we can learn from them, and how to become involved with the Earth Charter and protecting our pollinators.

How Bees Lend Wings to People and the Planet

Bees are incredibly important to humans and the planet: every third bite of our food relies on pollination by bees and other animals, especially insects. More than 75% of our major agricultural food crops benefit from animal pollination, especially most fruits and vegetables [IPBES, 2016]. Globally, nearly 90 per cent of wild flowering plant species depend, at least in part, on the transfer of pollen by animals. Pollination



Photo credit: Michael Slaby

also enables greater variety and better quality of fruits, vegetables, nuts, and seeds [IPBES, 2016].

Bees are the most dominant species of pollinating insects. Worldwide, there are about 20,000 different bee species, but only around 50 are kept by humans [Patel, 2021]. The most kept bee is the honeybee which has developed a fascinating social behaviour in the bee colony over thousands of years.

The honeybee and certain butterflies are widely recognized for their crucial role in pollination. Nevertheless, numerous native bees, hundreds of butterfly species, and various other insects, birds and small mammals also contribute to this service, both in agricultural settings and natural ecosystems.

Honeybees are commonly kept in hives, predominantly managed by humans. On the contrary, other species, such as native bees, are generally less social, nesting in diverse locations, and are not subject to human management. The distinction in their "lifestyles" is often depicted as managed pollinators, akin to livestock, versus native, wild, or feral ones that exist in the wild.

In their paper "Why Bees are Critical for Achieving Sustainable Development," Patel et al. [2021] state that bees contribute to 15 of the 17 Sustainable Development Goals (SDGs). So, their survival and well-being are of vital importance for fostering sustainable development.



Photo credit: Michael Slaby

Bees and other pollinators are therefore not only essential for achieving SDG 2 of ending hunger and ensuring access by all people to safe, nutritious, and sufficient food, they also play an indispensable role in preserving life on land (SDG15), especially by contributing to halting and reversing land degradation and biodiversity loss.

More than 90 percent of all flowering wild plants rely on pollination to reproduce. Without pollination, these plants would be unable to produce the seeds and fruits that are important sources of food and habitat for other animal species. Therefore, entire food chains in the ecosystem rely on this important ecosystem service and are affected by declines in pollinator populations.

Throughout the centuries, bees have also played an important role as inspirations for art, music, religion, and technology. In all major religious and spiritual traditions, we find sacred passages about bees. In the holy Qur'an, for example, the 16th chapter (surah) is called Al-Nahl – the bee.

Pollinators under Threat and What is Necessary to Protect Them

Despite their crucial role, more than 40 percent of pollinator species worldwide face the threat of extinction (IPBES, 2016). The primary factors contributing to their decline include habitat loss, pesticides, intensive agriculture, pollution, and climate change.

Despite their crucial role, more than 40 percent of pollinator species worldwide face the threat of extinction (IPBES, 2016). The primary factors contributing to their decline include habitat loss, pesticides, intensive agriculture, pollution, and climate change.

According to the BugInfo platform of the Smithsonian (n.d.), insects constitute 80 percent of the world's species. The consensus among experts is that the number of undescribed insect species surpasses the count of those already named and documented by science. Conservative estimates propose a figure of 2 million, while some projections extend



this range up to 30 million. It is assumed that a particularly large number of insect species that have not yet been discovered occur in the world's tropical forests ["BugInfo Numbers," n.d.].

Due to their staggering biomass, insects constitute the basis of many food chains. Spiders, fish, reptiles, amphibians, birds, and mammals rely on insects as important sources of proteins. For halting biodiversity loss, it is therefore imperative to curb the decline of insect populations. And for doing so, a smart strategy is to start with protecting pollinating insects, especially bees as they represent keystone species that have a disproportionately large effect on their natural environment.

Recent studies emphasize the importance of pollinator diversity: the benefits of diverse pollinators for healthy ecosystems and human welfare cannot be achieved by solely increasing the abundance of managed pollinators such as honeybees [Katumo, 2022].

Addressing the pollinator crisis requires a comprehensive approach, encompassing the implementation of regenerative land-management practices, the revitalization of pollinator habitats, safeguarding and re-establishing native environments, and undertaking educational and advocacy initiatives. Participation can take various forms, from cultivating native gardens with a focus on pollinators to minimizing pesticide usage and fostering awareness and love for these essential species.

Promoting the Well-being of Bees, Pollinating Insects, and Biodiversity in Germany

In 2014, my wife became pregnant, and we learned that she would be having twins! Because we already had two children, it was clear that I would have to give up my professional commitment to working with Earth Charter Commissioner, Rabbi Soetendorp and look for a more secure and stable income to support our growing family. Fortunately, I got a position as development director at Mellifera Association in Germany and was able to immerse myself in the topic of protecting bees and other pollinators.

The 2,000-member association is active throughout Germany and coordinates around 60 voluntary regional groups. It has been committed to promoting the well-being of bees and pollinating insects for almost 40 years. For me, it was and is an incredible gift to be able to work in a committed team of more than 30 full-time employees on a large variety of bee-related projects and ecological and educational programmes.



Photo credit: Michael Slaby



Photo credit: Michael Slaby

Our association is active in various project areas to create a healthy and diverse world with bees, people, and nature living in harmony. In courses, workshops and a wide range of other educational programmes, we show how honeybees can be kept responsibly and in accordance with their nature. In the tradition of respectful beekeeping, we prioritize connecting to the bees and allowing them to live out their natural needs over fostering high honey yields.

Our educational programme “Bees in School” gets young people excited about bees and gives them the opportunity to be directly immersed in nature with bees. Another initiative that we are promoting is the Network Flowering Landscape (Netzwerk Blühende Landschaft or NBL in German), which works with numerous partner organizations from the fields of nature conservation, agriculture, and beekeeping to create a diverse, blooming landscape that offers long-term, favourable living conditions for all pollinating insects.

NBL conducts several successful projects aimed at demonstrating how the transformation for the welfare of bees and other pollinators could look like. Examples include planting flowering stripes on agricultural fields to attract beneficial insects and partnering with local communities and regional governments to install flowering “bee highways” alongside streets, hiking, and cycle paths.

Unlike generalist bee species such as honeybees and bumble bees that may visit a wide variety of flowers, around 30 percent of Germany’s wild bee species have adapted to specialize in pollinating a particular plant species or a group of closely related plants. These plants constitute their sole source for pollen. For supporting these oligolectic bee species it is therefore imperative to sow native wildflowers within their rather small flight range.

In our project “pollinators’ paradise,” we partner with farmers, local communities, businesses and interested citizens to create a “blooming belt” of flower patches



across Germany. To date, our partners have already planted more than 2.5 million square meters of perennial flowering patches according to our specifications. The patches we plant are mainly comprised of native wildflowers, beneficial to a wide range of wild pollinators, including specialized bee and butterfly species. Other measures implemented in the project also include the planting of perennial flowering meadows, hedgerows, and meadow orchards. These activities are being funded by a growing number of individuals and businesses who pledged to fund a certain amount of blooming square meters with their “blossom sponsorship.”

Relating the Promotion of Insect Diversity to the Earth Charter

The Earth Charter is an important guide and inspiration for my work. I sense that many people I encountered who are actively involved in pollinator protection are guided by the understanding that “the protection of Earth's vitality, diversity, and beauty is a sacred trust” [Earth Charter Commission, 2000].

Although preserving the ecosystem service of pollination is very important, most people working to protect bees do so out of the conviction that bees are miracles of nature and worthy of our protection, not because of the services and products they provide but because of their intrinsic value and beauty. This certainly corresponds to Earth Charter Principle 1, Respect Earth and life in all its diversity.

The more I dive into the topic of biodiversity, the more the following passage of the Earth Charter Preamble comes to life: “The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air” [Earth Charter Commission, 2000]. Biodiversity, which is commonly understood as diversity of species, diversity of genes and diversity of habitats, must be considered our planetary life insurance; it is the hidden safety net that supports, nourishes, and protects us. Unfortunately, with every species we lose, this net becomes increasingly scattered.

Earth Charter Principle 4 - “Protecting Earth's bounty and beauty for current and future generations” is a central motivational guidepost for me.

As a father, I often ask myself what kind of world we are leaving behind for our children and grandchildren. It breaks my heart that, compared to the populations of some 200 years ago, we only find a fraction of bees, insects, and birds in Germany, and even this remainder continues to dwindle rapidly.

Therefore, the role of education is of vital importance to me. As we experienced in our educational programmes, connecting to the bees provides a direct and practical way to inspire a sense of awe and beauty as we marvel at the wonders of nature the bees present to us.



A honeybee colony is greater than the individual bees it is comprised of; in a beehive, thousands of worker bees, male drones, and a queen bee work together as a superorganism. They communicate through dances and form their collective decisions in this way. In the process of finding a new nesting site for the colony, the scout bee that succeeds is the one that inspires the most other bees to follow it. By opening the hive, we may catch a glimpse of this fascinating interplay of the bees within the superorganism of the colony.

Looking deeply into the process of pollination reveals the marvellous interdependence of wild-flowers and pollinating insects that have co-evolved over millions of years: the flowering plant relies on the specialized bee for effective pollination, and in return, the bee depends on the plant for its food source.

This interdependence can result in specific characteristics such as flower

shapes, sizes, and colours that are tailored to attract and accommodate the specialized bee. At the same time, the respective pollinating insects have developed mouthparts, proboscises, and tongues that are precisely adapted to the flower shape on which they are specialized as their food source.

Red clover for example cannot be pollinated by bees as their tongues are too short – red clover relies on long-tongued bumble bees for the transfer of pollen necessary for its reproduction. Pondering this amazing interplay of plant and pollinator brings to life the interdependence of all life on Earth as outlined in the Earth Charter. Reflecting on how we as humans are rapidly and massively affecting the plant – pollinator relationship that has evolved over millennia evokes in me a deep sense of “humility regarding our place in nature” which is stated in the Earth Charter Preamble [2000].



Photo credit: Michael Slaby



The fact that we rely on the apples, the tomatoes and the strawberries that would not exist without the blooming plant and the pollinating insects shows our direct relationship to the plants and the pollinators.

It gives me hope that by choosing the right actions and adopting the appropriate strategies for systemic change, we can do our utmost to provide favourable conditions for our pollinators, which again has positive consequences for the plants they visit.

I also take hope from the fact that more and more people are waking up and looking for creative solutions. Many people are beginning to create blooming havens for bees, bumblebees, and butterflies, calling for far-reaching political and legal changes such as a ban on highly hazardous pesticides, and questioning their own consumption habits. These transformations on the individual, community, and global level need to be enhanced and scaled simultaneously.

Even when I am frustrated that the much-needed change is not progressing fast enough, it is in connecting to nature that I find solace. By allowing myself to be touched by the magic of the bees, the birds, and the beetles, I sense that we, too, are part of this marvellous community of life and that we form one Earth community with a common destiny. This is where for me, the “spirit of human solidarity and kinship with all life” and a deep sense of “reverence for the mystery of being” (Earth Charter Commission, 2000) find their meaning.

In these moments it occurs to me that it is us, human beings, who need to be saved and protected - from ourselves, our greed, and our selfishness. And for this purpose, we need the example of the bees, which exemplify new ways of living together as a human family on a shared planet. In this sense, we may need the bees more than they need us.

And this is yet another hopeful lesson that I learned from the bees: If we create the appropriate habitats, the diversity of life will return. Again and again, I was able to experience how a colourful flower meadow emerges from a dead lawn on a small patch of earth, and how caterpillars, beetles, grasshoppers, butterflies, and bees gather there. First it blooms, then it hums, buzzes, and crawls, then soon the chirping and singing insectivores arrive again. And with a bit of luck, we may soon spot birds of prey or other larger predators again.

And so, nature teaches us to always start anew, again and again, day by day, with those small steps to justice, sustainability, and peace right where we are. With mindfulness, we may learn to open into wonder, to fall into freedom, to relax into joy, and to lean into love.



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"It is us, human beings, who need to be saved and protected - from ourselves, our greed, and our selfishness. And for this purpose, we need the example of the bees, which exemplify new ways of living together as a human family on a shared planet. "

Michael Slaby



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