

Global Forum



**For
Environmental Education
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**CEI 2016 Aalborg, Denmark | 27. June - 2. July
Conference Delegate Issue | Sustainable Societies**



Caretakers of the Environment International

A global network for teachers, educators, and students

Celebrating 30 Years of Caretakers Conferences, Collaboration, Commitment, Collective Culture and Community

Global Forum highlights new youth projects being shared, but also is a retrospective on how we got to accomplish so much, some impacts, and a little insight into our legacy. Please take the time to read the interviews of the Young Reporters, and get to know the Young Guides Team at the conference and stay connected afterwards.



The global pace continues to escalate, and it's a gigantic challenge to keep up. But this we know: Real change happens in small, measured amounts, is always bottom up, and must continue to adapt to new circumstances and events. Someone in media recently queried, "Name one institution that is more relevant today than it was ten years ago". Our institutions, our communities, even our families can't let up on pressing the pedal for relevance.

In the USA, we are on a "bottom-up" strategy to reinvigorate secondary educators and their students to infuse

Note from the Editor

I have to catch myself as I fall back in awe of 30 years of Caretakers Conferences and all the other "C's in the headline. Wayne Schimpff and Fatima Almeida, our most-conferences-attended champions, will tell you – it has been an incredible ride! We've traveled and continue on a long journey, a pilgrimage of sorts. The road ahead is telling us to continue to advocate and inspire all peoples, youth and adults, to adopt best practices, share the Caretakers message, and become a leader in your community for a sustainable environment.

This year's conference theme - Sustainable Societies - is a wonderful focus for our young people to test and practice their influence on their peers and communities. This issue of the

their science and service learning with Caretakers fundamentals, and use new technology to share this new knowledge even if everyone isn't able to attend a global conference

Therefore, expect positive changes to CEI at the international, branch and chapter levels as we strive to continue to make a difference for our young caretakers in the decades ahead – one sustainable step at a time. Whether this is your first conference or your twenty-fifth, the expectations and outcomes are the same.

Dan Hoynacki
Global Forum Editor In Chief
President, CEI/ USA

Caretakers of the Environment International - A global network of teachers, educators and students

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Theme Sustainable Societies
27. June - 2. July 2016

The conference is hosted by UngAalborg (Aalborg Youth School) and supported by several sponsors.

CEI is an international network of secondary schools that are active in Environmental Education. It is a non-governmental, non-profit organisation that organises conferences for students and teachers related to environmental issues in the context of education.

The CEI 2016 conference hopes to accommodate 200 – 400 international and many local delegates. The CEI delegates are generally secondary school students (aged 13-19) accompanied by their teachers or mentors. It is recommended that each delegation consist of 1-2 teachers and 3-5 Students. All delegations will present their projects related to the conference theme 'Sustainable Societies' through an oral presentation. In addition participants will have the opportunity to it will be possible to have a product exhibition.

The conference venues and accommodation will be at Aalborg Military Base.



DELEGATE PROJECTS:

Sustainable Urban Mobility (SUM) How to make our life easier in Thessaloniki



We decided to work on SUM because of the serious transportation problems that our city is facing nowadays. That is why we turned to CERTH/HIT.

The daily traffic asphyxiation in the city centre and the lack of parking areas, underground, bicycle routes are the major problems in our city. Therefore, a SUM Project is being applied in Thessaloniki by local institutions, focusing on: the improvement of urban transportation, the development of smart technologies and the reduction of air pollution.

We were informed about the issue by the scientists in CERTH, submitted a questionnaire to inform the local community about the issue, analyzed the data and finally proposed obtainable solutions which we highlighted in our presentation.



Moreover, we spread the message by presenting the project to our school, and handing out leaflets. We intend to continue with a STEAM project for the next two years and hope to raise students' awareness on the issue.



- 12th Senior High School of Thessaloniki, Students: Maria – Eleftheria Vlachou, Andromachi Kevezitidou, Theofilos Kevezitidis, George Kontogoulidis | Teachers: John Papoutsakis, Niovi Iliadou - Greece

Pollution of suspended particulates in Hong Kong

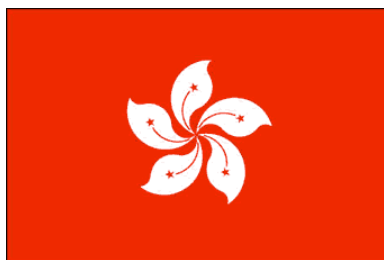
Suspended particulates refer to particles in the air with a diameter of 100 micrometers (0.1 mm) or less. It can be further classified according to their size, for example, respirable suspended particulates (RSP) are those particulates smaller than 10 μm in diameter; fine suspended particulates (FSP) are

those less than 2.5 μm .



In Hong Kong, suspended particulate is one of the major air pollutants. The annual mean RSP concentration at business center reaches 46 $\mu\text{m}/\text{m}^3$, with a maximum of 201 $\mu\text{m}/\text{m}^3$ (2014). During

winter time when wind prevails, northerlies bring particulates from the highly industrialized Pearl River Delta to



Hong Kong, worsening the problem. Studies have proved that RSP can damage breathing and circulatory systems. At worst, it may cause lung cancer.

In the present study, the relationship among various weather elements (temperature, relative humidity, wind speed and direction) and RSP/ FSP is investigated. Through this investigation, the prime source of RSP/ FSP can be identified, assisting further planning of remedial measures in alleviating the problem.



-Pakco Chow, Marco Chow, Calista Leung, Phoebe Choy, Brian Shiu Po Leung Kuk Laws Foundation College, Hong Kong, China

Pollution of nitrogen dioxide and ozone in Hong Kong

Nitrogen dioxide is one of the major air pollutants in Hong Kong. Its main sources include combustion engines in vehicles and thermal power plants. During combustion, NO₂ is released into the atmosphere.

Ozone is a pale blue gas with a very pungent smell. Naturally, it is found in the lower part of the stratosphere. It is responsible for breaking down ultraviolet light, which is harmful to lifeforms. However, chemical reactions with other air pollutants in the atmosphere create ozone in the air near the ground. Ozone has a strong irritant and harmful to health.



The trend of O₃ in Hong Kong is increasing. From 1996 to 2014, the annual average of the concentration of O₃ has increased 47%, from 28 µg/m³ to 41 µg/m³; the concentration of NO₂ in Hong Kong has also increased 9%, from 55 µg/m³ to

60 µg/m³.

In the present study, the relationship among various weather elements (temperature, relative humidity, wind speed and direction), NO₂ and ozone are investigated. The trends of these two pollutants will help raise the awareness of our classmates, and turn their concerns into actions.

-Flora Man, Anson Chan, Charlie Mok, Melody Kok Po Leung Kuk Laws Foundation College, Hong Kong, China



Festival Lights: Celebration or Pollution?

Have you ever noticed about festival lights in Hong Kong? What do you think about them? Do they cause light pollution, particularly over-illumination?

The aims of this research are to find out the extent of over-illumination caused by those celebratory lights in Hong Kong and its impact on energy consumption. More importantly, the ways of minimizing

light pollution in holiday lighting are to be formulated.



In this study, six areas in Hong Kong were chosen. Relevant data, including the types of light display and light intensities measured by lux meters were collected at different observation sites from December 2015 to February 2016.

-Hong Kong, China
School: SKH Tang Shiu Kin Secondary School
Teacher: Miss CHAU Yuk Lin
Students: CHAU Tsz Wai, TAM Yue San, CHUNG Cheuk Nam Issac, LEE Tsz Hin Edward, WONG Sai Yiu



Impact of air pollution on the visibility of Hong Kong

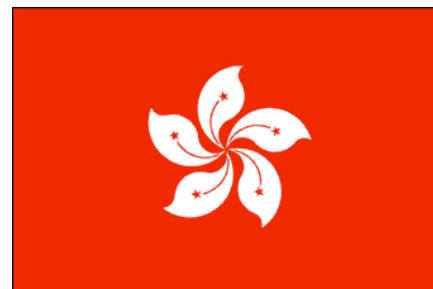
Air pollution in Hong Kong has always been very serious. According to BBC (1 Dec 2010), One in four in Hong Kong consider leaving because of its worsening air pollution. It is now rare for the Hong Kong to have a blue sky. The sources of air pollutants in Hong Kong is diverse, ranging from local to regional, from industries in Pearl River Delta, thermal power plants and vehicles in the areas. The complicated background makes tackling the problem difficult.

Visibility is measured by the longest distance visible. It indicates the level of impurities in the air, and can be

measured easily by naked eyes with reference to maps, and thus, at low cost. In this project, the influence of weather conditions on visi-

bility is studied. Weather parameters and visibility are measured in the morning. It is hoped that the recent project can draw students' attention to the urgency to keep air clean. The correlation of weather and visibility allows us to have a better picture on the sources of air pollutants in Hong Kong.

-Marco Chow, Violet Gim, Calista Law, Maisy Chow
Po Leung Kuk Laws Foundation College, Hong Kong, China



The Team of Hungary

Our school, called Petőfi Sándor és Dózsa György Magyar-Angol Két Tanítási Nyelvi Általános Iskola/ Petőfi Sándor and Dózsa György Hungarian-English Bilingual Primary School is an Eco-school, so the environmental protection is very important for us.

We collect paper, pet bottles and the rubbish selectively. We always attend the city- and school events. This has given us the idea to make our presentation. We made a presentation about the recycling competition. Our school organizes city programs for students and citizens every year.

We really believe in environmental protection. We want to save the Planet for the next generations, for our future grandchildren. They must get acquainted with the various flora and fauna on the Earth.



We got ready for the conference with researches in the topic. We met every week together and read interesting articles of old participants. We hope that the journey to Denmark and the conference will be an unforgettable experience for us. Moreover, we would like to make a lot of friends, with whom we would like to keep contact in the future.



was one of the driven factors for SBR to hold an event called SBR Walk in Bogor Botanical garden last April where all CEI delegate



members from SBR got involved in. The activity focused on fund raising activity where all the money collected from this event was used to purchase trash bins which were then donated to Bogor city government in order to provide more trash bins for Bogor citizens.



Finally, let us introduce ourselves. We are Barnabás Bóbics (13) and Dominik Szabó (14) from Zalaegerszeg, Hungary. We

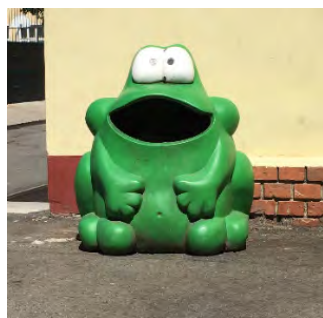
have been friends and classmates since we started primary school. We first heard from the conference from our history teacher Tamás Szlávecz. He's taken part in some other conferences before. All that he told us about the programs, the young people and the different countries were very interesting. We instantly said yes for the chance to attend this year in Aalborg. Our teacher of English Miss Lilla Bánhidi has helped us a lot during our preparation and she is going to accompany us.

After coming back we will show our photos and presentation to our classmates and other citizens with our travelogue.

-Hungary

Sustainable Societies in Indonesia

Sustainable societies has been one of the main concept developed among the community members of Sekolah Bogor Raya. This



Besides SBR Walk, the CEI delegate team from SBR will also get focused on the production of bioplastic made from a starch compound, commonly found in corn, rice, or other starchy materials. This is part of our contribution to reduce the amount of plastic use in our society as Indonesia is one of the biggest plastic



contamination contributor in the world. In order to allow us to having deeper understanding on bioplastic, we are also planning to visit the Physics Department of the Indonesian Research Institute to learn more about the production of biopolymer.

The CEI 2016 theme will also be channelled in a small campaign in our school environment to encourage the use of two sided paper for everything. We are planning to collect the one sided used paper and make it as a booklet which can be sold in a cheap price to the SBR community members.

- Indonesia, Sekolah Bogor Raya: Mario Donald Bani (Teacher) Teguh Maharddhika, Abhirama Putra Irawan, Sazka Vania, Clarissa Liefarel, Steven Yeo, Rizki Cansa, Virginia Linely Sanchez

Sustainability in Mexico: small projects that begin to grow

Sustainability projects in Mexico take a long time to become a reality, mainly due to lack of government support, since



this might seem conditioned to serving or bringing benefit to other interests than people in real need of support and subsidy; besides, there is no formal



regulation over the environmental impact of any given project in Mexico. However, in our search, we found a group of entrepreneurs who run family businesses and

who are genuinely interested in overtaking sustainable processes of production that take into consideration the wellbeing of their workers and the cultural development of their region. We visited a trout farm, a sawdust mill and a cacti or nopal-gas generating plant in Zitacuaro, Michoacan, Mexico. We realized that there is no small effort when working for a future that promotes sustainability.



-INSTITUTO ESCUELA DEL SUR, MÉXICO

NEMI: A life transforming experience

Talking about sustainability, stress is usually placed on the footprint that sustainable development projects have on both the ecosystem and its biodiversity,



as increasing concern regarding the impact on the planet that current production and distribution practices show. This tendency goes together with the hindrance of quality of life or what living with dignity conveys for the majority of people worldwide. Thus, we wanted to take a closer look to the actual footprint and impact that a sustainable production project has over the lives of those who work in it. This is Nemi, a trout farm, and a glance and how it has transformed the life of the Gonzalez family.



-INSTITUTO ESCUELA DEL SUR, MÉXICO

Autonomous house – a way to prevent smog

Poland suffers from a smog problem, as 90% of its electricity is produced from coal. Last winter it was noticed that the daily limit of smog was exceeded in six Silesian cities.

Goals: Determining the main source of air pollution in Katowice and searching for a solution to this ecological problem.



Action: Our team figured out that the main cause of smog in our agglomeration is the burning of waste and

coal to heat houses. Looking for solutions, we visited an autonomous house in Podzamcze Chęcińskie in order to get to know the new technology which was used to create the building. The next step of the project was to answer the question of what kind of energy is friendly for the environment. To this end, we participated in a workshop in Energetyczne Centrum Nauki (Energy Science Centre in Kielce). We learned what energy is, how it is used and we discovered its renewable and non-renewable sources. Since the best way to fight smog is the carbon sink, we have planted some trees and took part in the “clean the world” campaign.



- Poland, Szramek High School
Teacher – Bożena Kurzeja

Students: Agnieszka Kozłowska, Elżbieta Michalewska, Aleksander Feruś, Filip Hankus, Igor Pleśniak



From Tagus River to the Atlantic Ocean – Fish resources and sustainability

Tagus River that connects our 2 schools (of Santarém and Lisbon) empties into the Atlantic Ocean near Lisbon. As Natural Portuguese Heritage they must be preserved and cared for its biodiversity and beauty. They are key factors in the national tourism development. Over time, the ocean and river have also been a source of revenue and food for the local and national population.

Portugal is currently the EU country with the highest annual per capita consumption of fish. Therefore our country also has a major responsibility in the exploitation of marine resources.



Sardine is one of the fish species most commonly caught in the Portuguese sea. Year after year, the sardines are under the threat of extinction.

This requires that the population and especially young people like us are active in the role of prevention, through small acts and ideas that can revolutionize the world and keep fishing sustainable.



-Portugal, Escola Secundária de Viriato (Santarém); Colégio de Santa Maria (Lisboa)
- Sofia Costa Lopes,

Carolina Tchobanov, João Pedro Baptista,
António Henriques, Maria Albuquerque, Madalena
Videira

In our project we aim to address this question:
How to stop the loss of biodiversity in the wetlands?



The wetlands are used as habitats for many animals and plants, like arthropods and fishes, shelter to aquatic and migratory birds, place of aquaculture and intersection spots of contaminants and nutrients from farm fields and surrounding industries.

Our study area includes Pavia river (Viseu), “Ria de Aveiro” and Torreira Sea (Atlantic).

Pavia River has been suffering, over this decade, interventions in order to improve the water quality and increase biodiversity. Before there were fish biodiversity, but nowadays it's only a river without that diversity.

“Ria de Aveiro” is an estuary situated in the transition zone between land and sea. As every lagoon, “Ria de Aveiro” presents big productivity and diversity of species.

In this work, we identified some problems which can contribute to the loss biodiversity in the wetlands. After this we try to present different solutions for individ-



ual and group actions that can be done to stop this loss.



-Portugal, Agrupamento Escolas da Murtosa; Escola Secundária de Viriato -Joaquim Ramos Pinto (teacher) Carlos Valente, Bruno Oliveira, Márcia Gato, Beatriz Rouxinol

Information Technology Lyceum № 28 Kirov, Russia.

“Preservation and regeneration of forests as an example of sustainable development of Kirov region

Our region is the forest region and the forests give us fresh air, food, working places and bring pleasure to many people. But people don't care much about forests and every year thousands of hectares of forests are dying because of irresponsible behavior of people. We decided to find out what is done and how to save forests.



Our project is “Preservation and regeneration of forests as an example of sustainable development of Kirov region”.



Our goal is to show the importance of forests for all people and to raise the young generation's awareness

of the benefits of forests.

The territory covered by forests makes 64% of our region. We visited Ministry of forest industry of Kirov region and the Federal state institu-



tion "Rusforestinfo" where we learnt much about forest protection and reproduction system. We continue our work and you can learn more during the Project Presentation

- Russia Tatiana Khodyreva and the group of 8th grade pupils

"New life of old things"

Nowadays the person is a hostage of development of a civilization and the increasing requirements. People create a lot of various things, among them there are artificial and synthetic ones. When people stop using these things, they become environment pollutants and they don't decay in the nature. Such substances are called xenobiotics.

We decided to know if it is possible to reduce quantity of the things becoming garbage. Our goal is to find new application for old things, "prolonging their life".

Old fabric:

Now about 7 billion people live on the earth. More than 80 billion units of clothes are made every year. That's why the quantity of the thrown-out textiles is growing. Natural fibers decay on a dump lasts about ten years but artificial and synthetic fibers decay demands centuries and at the same time toxic substances are emitted to the soil and ground waters. We got acquainted with the head of Quilt-studio in our city and visited the exhibition "Quilt wonder". We saw a big variety of hand-made things from different kinds of fabrics.

Plastic:

Annually in 192 countries of the world there appeared about 275 million tons of plastic garbage, polluting flora and fauna.



All known convenient plastic bottles in the earth disintegrate hundreds of years. In general, the time of decay of polyethylene depends on its structure and can last several thousands of years.

In Russia there are not enough plants which process garbage, and sometimes people find interesting application for absolutely unnecessary things. It is possible to make very interesting and useful hand-made articles of plastic bottles for your home and dacha.

Tires:

The number of cars is steadily growing in the modern world. Utilization and processing of tires are of great ecological and economic importance for all developed countries of the world including Russia. First of all It is connected with the fact that worn-out tires are a source of long environmental pollution.

For many years old tires have been popular materials for hand-made articles in the dachas.

Conclusion:

Having found new application for old things we prolong their life. That's why harmful substances which they



contain are collected in the nature in smaller volume not causing pollution.

-Russia, Information Technology Lyceum № 28, Kirov, Teachers: Marina Konopleva, Tatiana Lagunova - Students: Ekaterina Myshkina, Mark Gozman, Natalia Sadovnikova

Building for a Sustainable Society

-Sustainable construction for the future

Our societies are today standing in front of different tasks where the modern architecture needs to be sustainable and be in the forefront. And the development incurs all parts of society construction - from walls and roofs on our buildings to bridges all over the world. Which are the new challenges and what could be done in order to reach a sustainable construction strategy?



Two thousands years ago, a new type of architecture took place in the old Italian societies and in the city of Rome. It was a new way of building which was used mostly to cross waterfronts. The new technology gave possibility for easy transportations over water.

Today, the technology has been spread far away from Rome and the river of Tigris. The bridges connect land with land, islands with land and give possibility



for easy transportation and connect the world in a new, faster way. And whole regions have become common.

The bridges are today standing in front of new tasks. What do the history of the bridges look like? And are there a possibility that bridges actually would play a significant role in the global sustainable development, where different tasks such as economical, ecological and even social aspects are daily discussed.

One of the most important part of a building is the roof. In the history of mankind, people always have had a need to, both protect themselves from the weather but also, for a number of reasons, having a



roof over their head. Earlier in history building roofs were fairly simple. The choice of materials were often limited to the materials that were in the immediate surroundings, but today it's much more complicated and more factors to consider.

It is important when choosing roofing materials, to take into account factors such as, type of building, roof structures, costs, material durability, environment and manufacturing process, in order to decide which roofing material that is best suited for a specific house. This was done by finding information on the internet about different materials, calculating and thereafter rating the materials which was most sustainable from an ecological and economical perspective.

People who today are facing a new building, repa-

ration or renovation of a house has several different building materials to choose from. Today it is important to consider how these materials affect the world we live in, in order to ensure a sustainable future. I have chosen to examine some common or rethinking building, facade and insulation materials used in Sweden today. The materials compared are wood, concrete, brick, aluminium plate, glass wool, cellulose and hemp. In order to compile the material out of the elect as the best viable option I have chosen to examine them from an economic, social and ecological sustainability perspective. This was done by gathering information in the internet then the information was put into tables for comparison.

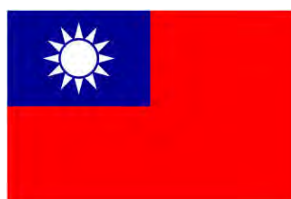
The Swedish delegation on CEI will this year present ideas about buildings and bridges and will also present innovative ideas and results from own investigations about how to build sustainably.

-Sweden Students: Fredrika Viberg, Ali Reza Rezai, Malin Wiik

Old Remedy for a New World

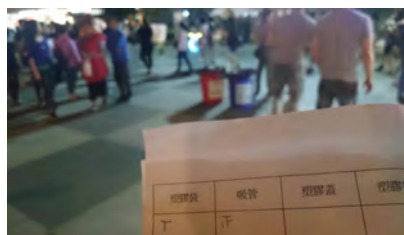
Our project is mainly about the issue of the overuse of plastics and how we try to replace plastic products with traditional tools.

After doing the research in the night market, we realize that the number of tossed plastic products was extremely higher than we had expected. Besides, the way we deal with such numerous plastic garbage has been actually possible to harm our environment badly.



Wondering if the old methods will do the trick, here's how we act:

1. We bring our own tableware to have meals without the once-used plastic.
2. We make efforts to publicize our idea about differ-



ent ways of having a meal with less plastic.

3. We want to know how difficult it will be to

reduce the use as well as the waste of plastic in night markets, and we shall overcome this hardship.

-Taiwan

Tire House

“We are tired”



In Taiwan, scrap tires are produced 100,000 tons every year, but the current conclusions aren't good to environmental.

Piling up tires takes a lot of space, and ponding will breed lots of mosquitos easily.

By incineration, the poison from the tires will release, and the poison has been recognized as air pollution.

Buried tires don't rot easily. The landfill will expose after a long time, and destroy lands. Besides, the air from the landfill will waft and make environmental pollution.

So we want to use the tires well, not only the problems will be solved, but also reduce the manufacturing cost of the new product.

Scrap tires are easy taken, cheap, small, and is favorable for construction. There have been some precedents of the tire building in foreign countries. And we want to confirm



scrap tires can be reused in Taiwan, so we started from creating small buildings, planning to build a tire play facility in the school to prove our idea and provide a pleasure for elementary



-School: Humanity Primary Junior High School
Member: Hsiao-Jou(Lisa) Lin Chia-Ying(Claire)
Pi Hui-Kai(Lamis) Shih, Teacher: Le-Sheng(Luke) Chou

Solar Electric Bike

This project is because we learned, that cars cause trouble and pollution to the environment, so we try to find new solutions. In big city traffic results in a metropolis serious burden, and for Taiwanese people (including infants) every three people have one car, everyone has a motorcycle [1], so the design of this bike is for daily traffic and wish to provide labor-saving and convenient transportation. After our research and testing, we found that the new technology can provide a good energy efficiency, in the future can gradually reduce the old motorcycle and car which is not environmentally friendly.



School: Humanity Primary Junior High School -
Member: Yue-Ching(Artie) Fan, HUANG,
Wei-Chieh(Jay) Huang,
Chun-Wei(Luson) Pan,
Teacher: Le-Sheng(Luke) Chou



Raise Rice, Raise Life

Our target is to develop a system that can both respond to the call for eco-friendliness and contribute to society. Therefore, we decide to cooperate with Qing-Liu Tribe and endeavor to promote the rice grown in the tribe.

According to our experiment, we assume that coconut peat is suitable for improving soil quality. Thus, we hope to apply this kind of natural cultivating method to fields in Qing-Liu Tribe and succeed in increasing their production. Previously, we have taken out a patent on the rice and sell the rice to teachers and students in Stella Matutina Girls' High School. We hope that the



revenue gained is used to take care of the elderly and the youth in the tribe, and that the new method can

help protect the environment at the same time, which will create a virtuous and



sustainable cycle.

-Taiwan, Stella Matutina Girls' High School - Presented by: Mei-Chi Lai, Pei-Tzu Huang, Hsuan-Chi Chen, Shao-Chieh Chang, Chi-Chia Wang, Tr. Li-Huei Hsieh

Environmental Shoes

This project is based on the observed social phenomenon, that we hope to make our own shoes. Our idea is to make one pair of shoes we want, and then later re-think how to reduce pollution or to have environmental effect. The project is not only make change from us, but also wish to extend to our relatives and friends.



We find that the Taiwanese people spend a lot energy, money and manpower in the production, packaging, selling and buying shoes.



For example, a certain brand of shoes produced in Taiwan, then shipped to foreign country to stamp, and then shipped back from

overseas traders for sale. In this process, it made a lot of unnecessary waste of fuel and carbon dioxide. And, again brought back from abroad, the shoes will become imported goods, while the price of shoes will raise.

We asked nearly 200 people of Taiwan by filling questionnaire and found that, 29.9 percent of people will buy 3-5 shoes a year. The average price is between 1500 to 2000NTD, major considerations are the appearance and comfortable, secondary is price.

Humanity Primary Junior High School - Member: En-Pei (Kally) Hsiang, Man-Ting(Gina) Lin, Tzu-Ping(Claire) Shih -Teacher: Le-Sheng(Luke) Chou

Rain Drop Catcher

Taiwan is a small island located in East Asia. The steep mountainous terrain we possess and the high population density make our water supply inadequate. However, reservoirs in Taiwan are apt to accumulate numerous sediments which lessen the longevity of reservoirs.

A rain catcher system is a way we came up with to solve the problem. If this system becomes common household equipment, we can decrease the use of tap water and be less

reliant on reservoirs. For instance, when facing emergency circumstances, water provided by this system could be a substitution for tap water.



We will promote this system at a city fair for edible garden workshop as well as on our campus during the school fair by designing

games to attract the public and share our ideas. Our goal is to make the system more widely used in the future. Not only can the system help protect the environment, but the water can be used in emergency situations.

-Taiwan, Huey Deng High School - Teacher: Pei-Jung LIN - Students: Yi-Chun CHOU, Yi-Wen LIN-HOU, Tzu-Wei LIN, Yu-Tung FU, Yueh-Che HSIEH

DON'T USE PLASTIC, DON'T MAKE THIS WORLD TRAGIC

Taking into account the amount of plastic bags a person with average shopping habits consumes, we can clearly see that we put millions, and even billions of these into the sea and the earth as waste. Our project, which started with the slogan “What Did You Do For The Environment Today?”, aims to decrease the harmful effects of these plastic bags through the promotion of the fabric totes we designed as an alternative to plastic. First of all, we have distributed these totes to people around us considering the harm that results from the use of plastic bags.



We are fully aware of ongoing similar studies therefore we encouraged people signing agreements to promise using these bags and protecting the environment. In order to draw attention to the issue we designed “Environment boards” at the schools by using wasted nylon bags. Since we assume high



coverage of social media we publish our studies at <http://yrehisar.wix.com/hisarschools>. In addition to these we also get support from some magazines from Gokturk and Turkey for ensuring our studies being spread both at national and multinational field. - Turkey

BOLU-SEBEN-ALPAGUT SUSTAINABLE LIFE PROJECT

Development and economic growth are aspects that are crucial for governments. However, in order to achieve those goals of growth, governments make choices that have undeniably negative impacts on the environment. This shift in the natural balance leads to consequences such as unemployment and poverty. Particularly, the villages are left underdeveloped. The young people living in villages are forced to immigrate to the cities where there are more opportunities. This forced immigration creates a loss of dynamism in the villages. These aforementioned problems are reflected in the village of Alpabut.



As an attempt to ameliorate the conditions in Alpabut, teachers and students of 8 high

schools visited this village many times. We met the reeve of Alpabut village to discuss several solutions to the problems they face on a daily basis.

As a solution, we build a permaculture garden and started practicing permaculture to help develop the village. We are aiming to promote sustainability in the village and thus reverse immigration.



TEAM LEADERS: SEVAL EROL, DİDEM DEMİR-

Cİ, GÖZDE GIRGIRLAR - SCHOOLS: NOTRE DAME DE SION HIGH SCHOOL, TED İSTANBUL COLLEGE FOUNDATION PRIVATE HIGH SCHOOL, EYÜBOĞLU PRIVATE HIGH SCHOOL STUDENTS: TUĞÇE ÇANAKÇI, DENİZ KAYSERİLIOĞLU, LEVENT SAĞ, ZEYNEP UNCÜ, MİNA KARAARSLAN, MERİÇ ŞENGÜN

SUSTAINABLE TOURISM AND CULTURAL SUSTAINABILITY IN THE VILLAGE OF ALPAĞUT

Dating back to ancient times, the village of Alpağut used to be a busy population center. It is located midway between Ankara and Istanbul, the cities with high population densities in Turkey. It has important historical and touristic places.

Due to the poor management of natural resources of the village and the resulting migration, the population has decreased and the values enriching the region have been lost.

Within the framework of this issue, participants from 8 high schools in Istanbul decided to put the project in action on the Sustainable Culture, Sustainable Tourism and Sustainable Agricultural activities by creating the SSP of "Sustainable Life".

We have made great progress in this project which has been ongoing for 4 years. The village has potential to be a great ecotourism destination and we would like to improve it. Each school visits the region at least twice a year. We promote this project at our school and via social media. Also, we have breathed new life into the economy of the region. Thus, we have constructed a "bridge of love" between Istanbul and Bolu.

We still continue our project by improving and expanding.

- Turkey, TEAM LEADER: EROL ŞAHİN, SEDAT TOY - SCHOOLS: MEF HIGH SCHOOL, MARMARA HIGH SCHOOL - STUDENTS: BERFİN ÖRS, YİĞİT CİCİOĞLU, ERKAN KARAMAN, BUŞE ELİF EROĞLU

PERMACULTURE GARDENING PROJECTS IN HIGH SCHOOLS

You may have heard the law "we must consider the impact of our decisions on the next seven generations." In today's world of decreasing natural resources, species extinction, and other widespread



damage to the environment, we must look for ways to lessen our impact on the Earth. One way to do this is to use permacultural design approach. Permaculture is a design methodology that can be described as a way of living in harmony with the rest of nature by designing landscapes and human habitats based on principles of ecology.

In this Project, 9 different schools from İstanbul (TED İSTANBUL COLLEGE FOUNDATION PRIVATE HIGH SCHOOL, NOTRE DAME DE SION HIGH SCHOOL, EYÜBOĞLU PRIVATE HIGH SCHOOL, MEF PRIVATE HIGH SCHOOL, MARMARA PRIVATE HIGH SCHOOL, SAINT MICHEL PRIVATE HIGH SCHOOL, SAINT JOSEPH PRIVATE HIGH SCHOOL, KOÇ PRIVATE HIGH SCHOOL, and ROBERT COL-



Caretakers of the Environment International - A global network of teachers, educators and students



LEGE PRIVATE HIGH SCHOOL) came together to build up permaculture gardens at their school campus.

We first observed our schools' environmental conditions in terms of weather, soil, sunlight and human impact. After looking at the natural conditions and selecting plants that are suited to that environment, we found original seeds, produced compost, planted our vegetables. Applying the principles of permaculture such as; "Work with nature, not against it", "Get the most gain from the least effort", "Seek energy efficiency and use natural materials", "See problems as potential solutions" we learned how to decrease our ecological footprint and act with harmony with the mother nature.

TURKEY TEAM LEADERS: İNCİ KİMYONŞEN, ŞÜKRAN TOY - SCHOOLS: SAINT MICHEL PRIVATE HIGH SCHOOL, SAINT JOSEPH PRIVATE HIGH SCHOOL - STUDENTS: AYŞE BİLGE NAYMAN, YAREN KINA, MELİS SEVERCAN, SERRA ÖZSOY



SUSTAINABLE COMMUNITY GARDENS

The "Sustainable Community Gardens" project aims to bring people together to discover and apply different sustainable lifestyles to build a community that respects and protects nature. As the result of the diligent collaborative work of two municipalities and the students from two different high schools, the project started off with building two community gardens in the two sides of Istanbul. Located in parks that are in the heart of the city, these gardens implement permaculture principles to showcase a sustainable alternative to today's monoculture based agriculture. From preparing composts from left-overs to utilizing the concept of "companion planting", permaculture recycles, reuses and reduces the burden of the artificial on nature. In these community gardens, students that have experience in permaculture will work with citizens to instruct them about arboriculture, right planting and harvesting methods and most importantly how to think in the nature's point of view. The vision of the project is to encourage citizens to improve their lifestyles so that they live in harmony with nature.

- TURKEY TEAM LEADERS: FERDAĞ SEZER, ŞÜKRAN TOY
SCHOOLS: ROBERT COLLEGE, SAINT JOSEPH PRIVATE HIGH SCHOOL
STUDENTS: EFE DİKMEN, EZGİ ÇAKIN, KEREM NAKAY, RABİA İDİL DEMİRELLİ, SELİN ÇAPAN, DEFNE AKSEL

GOING GREEN AT SCHOOL

We believe that sometimes the little things make a big difference. This is why we have an EcoTED ISTANBUL Team.

The EcoTED is a group of students who are passionate about the environment and the world around us and agree that if the team starts to cut down the waste emissions and carbon footprint of the school, we can start to make a big difference. In particular, it focuses on recycling, litter, energy, water use, care of

the environment around the school grounds and the pollution.

Regarding this, we started a school recycling program; talked to



our school's administrators about recycling paper, aluminum cans, plastic bottles, glass and even electronic equipment. We organized two campaigns

emphasizing "the use of thermos bottles instead of plastic glasses" and the "Electronic waste collecting campaign".

We used

social media efficiently to spread out our campaigns. We invited our parents to join our actions as well.

We organized peer training sessions to extend our actions to kindergarten, primary and middle schools.



started composting to get rid of some of our school's cafeteria garbage and then, we used the compost to fertilize our vegetable garden beds. Primary and



secondary school students planted some seeds. We are attracting more attention day by day, raising awareness, reducing our school's footprint on the environment and inspiring some more young people to take part in environmental actions.



We

TURKEY TEAM LEADERS: NURTEN MERSİN-
LİOĞLU, DİDEM DEMİRCİ - SCHOOL: TED
İSTANBUL COLLEGE FOUNDATION PRIVATE
HIGH SCHOOL - STUDENTS: FAZİLE ECE
ŞEKEROĞLU, İLAY SELEN DURUKAN, DEFNE
GÖRGÜLÜ, LARA ÜNAL

WASTE MANAGEMENT

We are two students at Marmara Private High School in Istanbul and have interest in waste management problem in Turkey. As there is big forest in the vicinity of our school and it should be protect-

ed for sustainable naturel life and the species lived there. Unfortunately, it is not easy to keep it clear. Based on this idea, we have searched about the city's waste management system and the awareness of the residents of the city. It is seen that the problem is beyond the city; it is across the country.



As a result of the conversation on waste reduction, recycling and substitution, we have decided that we should initiate a big campaign across the country. As we have learnt that the waste management is crucial for the sustainability. Especially the recycle of paper, glass, and some plastics saves the raw materials which are rare and helps reducing the environmental pollution. During our researches we have seen that that the recycle rates in Europe especially in Austria, Germany, the Netherlands and Switzerland are high.

It also includes individual reuse of items such as containers, bags and pots. And also we have learnt that Reduction (or "reduce") means using less energy. For example as you produce a material out of recycled material, the less energy is required. We are glad about our initiation and we are at the beginning of action but grow up fast, because people support us. We believe that we can change something and reduce the environmental pollution and save our planet.

TURKEY TEAM LEADER: SEDAT TOY
SCHOOL: MARMARA PRIVATE HIGH SCHOOL
STUDENTS: TUANA AKBULUT, İDİL TÜRK

Ecological Foodscapes

Our project goal is to start the transition, in a few locations, from a traditional community garden to a more ecological community garden using permaculture principles. We have two main locations that we are transitioning, and we are employing different methods at each place.

At one place, we are transitioning to more diverse plant communities that will help promote soil health and pollinator populations. At the other



location, we started the transition to shape the soil to slow and absorb water. We also created mounds using Hugelkultur methods and sheet mulch on the surface to protect the soil. Through these projects, we hope to increase awareness of ecological gardening practices, which help support and regenerate healthy ecosystems rather than destroying them, and influence more people to adopt these methods.



-CEI USA,
Oregon
Chapter
Nicole
Barbuch
and Ryan
Thompson

The Buzz about Bees

About bees, specifically in an urban environment and how homeowners can avoid being less impactful to bees.



Research: For this project, we decided to focus on mason bees. Mason bees are a very versatile type of bee, and can do the pollinating of over 100 honey bees. They have a very short range though, at about 300 feet. Unlike other types of bees, mason bees are solitary. They form nests in holes found in wood. Eggs are laid with the females towards the back, and the males towards the front, with the nest being sealed off with mud.

In order to find out more, we have consulted with many places, including an Oregon State University research center, where research was being conducted on the effects of neonicotinoids on bees, particularly how the neonicotinoids can get into the pollen and nectar, which the bees will bring back to the hive. This can contaminate the entire hive.

Fieldwork: In order to foster an environment in which these

bees can flourish, we have planted beneficial plants and herbs, including many colorful plants, which attract bees. We also build boxes in which mason bees can build their nests, and lay eggs. This allows for greater control over them, and allows us to protect them from pests such as mites, which can kill many of them, if given the chance.

Outreach: For this project, we worked with the Marion-Polk Food Share, at their local Youth Farm located at Chemeketa Community College. This farm is the location in which we can place all the bees, and plant what we need to.

-The Buzz About Bees
CEI USA Oregon Chapter



New life of old things

Introduction

Nowadays the person is a hostage of the development of civilization and



the increasing requirements. People create a lot of various things, artificial and synthetic. When people stop using these things, they become environment pollutants and they don't decay in the nature. Such substances are called xenobiotics. We decided to know if it is possible to reduce quantity of the things becoming garbage.

Our goal

In Russia there are not enough plants which process garbage, and sometimes people find interesting application for absolutely unnecessary things.

That's why our goal is to find new application for old things, "prolonging their life".

There are a lot of artificial and synthetic things but we would like to speak about three of them which are reused more often in our region. They are fabric, plastic and tires.

Old fabric

Now about 7 billion people live on the Earth. More than 80 billion units of clothes are made every year. That's why the quantity of the thrown-out textiles is growing. Natural fiber decay lasts about ten years on a dump but artificial and synthetic fiber decay demands centuries

and at the same time toxic substances are emitted to the soil and ground waters.

In some countries there are clothes collection points from where things come to processing. Unfortunately, such collection points are rare in our country.

In Russia there is a set of second hand shops but they sell clothes from abroad.

To get rid of unnecessary things made of textiles you can

- give them to somebody
- offer for charity
- sell
- find new application for them
- make some new things using old ones

You can choose what to do with these things. It is important that they will live longer.

Quilt-studio

We met with the head of Quilt-studio in our city and visited the exhibition "Quilt wonder". We saw a big variety of hand-made things from different kinds of old fabrics.

- Padded stools
- Rugs
- Pictures
- Blankets
- Clocks
- Bags
- Tablecloths
- Clothes

The Festival of hand-made toys

Every 2 years in our city we can visit the Festival of hand-made toys. Masters from all over Russia come to show their skills.

The technologies of making toys are quite different but almost all of them are made of old fabric.

Charm Dolls

For a long time the rag doll was a traditional toy of the Russian people. In old days people like making charm dolls. They were made without faces to keep evil away.

The skilled worker of charm dolls has taught us to make a doll of a good news.

The doll with sweets was made to calm a child. It was hidden behind the oven until a child was naughty or cried.

Kuvadka-Dolls were put in a cradle keeping a baby from evil spirits.

Workshops for children

Not only grown-ups but also children learn to make different things from old fabric. They do it with great pleasure. It calms them and makes them create, develops their imagination. We showed how to make dolls to pupils of our school's summer camp.

Plastic

Annually in 192 countries of the world about 275 million tons of plastic garbage appear polluting flora and fauna. In our city there is a plastic processing plant. It recycles plastic boxes. Unfortunately plastic bottles are thrown out. We can see them everywhere. A plastic bottle disintegrates in the earth hundreds of years. It is possible to make very interesting and useful hand-made articles of plastic bottles for your home and dacha.

We visited various masters who decorated their dachas with products from old plastic bottles. We saw beautiful, neat garden paths, trees, toys, borders for flower beds and gardening tools made of bottles. We learned to do whisks, trowels, flower pots and other things.

Brooms

We have made brooms of bottles for our school.

Tires

The number of cars is steadily growing in the modern world. Utilization and processing of tires are of great ecological and economic importance for all developed countries of the world including Russia. First of all it is connected with the fact that worn-out tires are a source of long environmental pollution.

Tires Processing Plant

In Kirov there is a tires processing plant. It recycles tires into liquid fuel, technical carbon, metal and gas. We spoke with the head of this enterprise about perspectives and problems of his plant. This plant takes tires only from state-financed organizations. Other tires get on dumps. Can we reuse them?

For many years old tires have been popular materials for hand-made articles in the dachas. It is possible to make a new design chair, a flower bed, a staircase from an old wheel.

Toys from tires are made to decorate playgrounds. When you paint tires they become less toxic. Besides they are bright, soft and not traumatic that's why children like to climb them.

Conclusion

Having found new application for old things we prolong their life. That's why harmful substances which they contain are collected in the nature in smaller volume not causing pollution.

-Russia, Information Technology Lyceum № 28, Kirov, Teachers: Marina Konopleva, Tatiana Lagunova, Students: Ekaterina Myshkina, Mark Gozman, Natalia Sadovnikova

The Young Reporters Interviews vol. 1

Introduction

As part of the 30th Caretakers of the Environment Conference, The Young Reporters have chosen to focus on former and current CEI members – their stories and perspective on CEI. This also introduces Young Guides Team, who assist at the conference.

Interview with Vice President Fátima Matos Almeida

by Diana Fayed

Fátima Matos Almeida joined CEI at the 2nd CEI Conference ever hosted - It took place in Spain in 1988, and Ms. Almeida has been an active member of CEI ever since. Currently, she is the Vice President of the CEI Board (a member of the Board since 1992) and she hosted the 29th CEI Conference in Oeiras, Portugal last year. We have asked Ms. Almeida about her first experience with CEI and why she has chosen to continue her commitment to CEI: “It was a life experience to see teachers and students from all over the world so actively involved and concerned about the environment. From that moment I wanted to join and take part in the lifelong project as our commitment to a better world should be” she continues “I am part of that group of people whom you may call utopic, by believing that each and everyone can make a difference, even though with insignificant actions in our daily life, within our family and friends, in our jobs and communities. This is my drive to continue. The sense of belonging to a community of people who care and feel the same inspires me to continue and to spread the word.”

After 28 years of commitment to CEI and a record holder of most attended conferences, we have also asked Ms. Almeida if there is anything in particular she looks back at with pride, she said: “Though formally CEI is structured with a board and other members that run the foundation, it is actually a very horizontal organization where there is always the possibility of adding a new member and people

may be invited to join in the decision making. This feature invites people from different countries and diverse settings to approach the board and to make a proposal to run the next CEI conference. Even in years of more difficulty, CEI conferences have taken place. Year after year delegations of students and teachers have participated and some of them coming back to this “family” gathering with more knowledge and greater enthusiasm. As a member of the board since 1992, this is what makes me particularly happy and proud.”

Ms. Almeida hosted the 29th CEI conference, as previous mentioned, and we asked her if she had any words of encouragement to the current host Elisabeth Jørgensen Brun, Ms. Almeida said: “You may not expect the task to be easy, but you may expect the reward to be worthwhile – you will provide young people with the unique chance to meet, share and build lasting relationships and a better understanding of the world and the challenges that are expecting them in the future; teachers will be inspired to create networks and continue their hard work of educating for a better and just world which is only possible with our joint effort and commitment. Bem-haja! (God bless you)”. This was CEI from Ms. Almeida’s perspective. We want to thank her for her time and her inspiring history as a Caretaker. Next issue will feature an interview with current host, Elisabeth Jørgensen Brun from Aalborg Youth School.

Interview with Diana Fayed by Emma Laursen

The 30th CEI conference is hosted by Aalborg Youth School, which is an institution that offers both in and out of school curriculum courses. In relation to hosting the conference a new course has been created at the Youth School, the so-called “Young Guides Team”. The Young Guides Team will be guides and social facilitators during the 30th CEI conference.

We have interviewed one of the youngsters, whom have already joined the spare time course and will be attending the conference as a Young Guide – Diana Fayed.

We have asked Ms. Fayed why she joined the team: “This conference will be my fourth and this time

around I really wanted to help during the conference in a more practical manor since it is taking place in my home town - while still being able to capture the different activities on camera as I tried to do in Portugal too. So I thought it would be the best opportunity to attend the conference with a camera in hand". Furthermore we asked her what she expect to be contributing with to this year's conference and what she is looking forward too in relation to, she replied: "Hopefully I will be able to help spread a good mood and to introduce the delegates to Aalborg and what it offers. Furthermore I will be walking around capturing every moment on camera. Also, I hope to encourage new CEI members to continue their commitment to CEI" she continued "I am especially looking forward to getting up early morning on the 26th of June and standing in the Airport and welcoming new and old friends from all over the world".

Next issue will feature an interview with Jonas Lykholt Andreasen, who will also be a Young Guide at CEI 2016.



The Young Reporters Interviews vol. 2

Interview with Elisabeth Jørgensen Brun
By Emma Laursen

Elisabeth Jørgensen Brun is the Head of Sections in Aalborg Youth School – the institution that is hosting this year's CEI conference. Mrs. Brun attended her first conference back in 2000 and she has been involved with CEI ever since. She is currently a board member as Incoming Conference Chair. She also hosted the 2008 conference in Denmark, so this will be her second time hosting. We have asked Elisabeth about her first encounter with CEI: "My

first experience with CEI was in 2000 at the conference in Lund, Sweden. By coincidence I became aware of the organisation and decided to attend the conference. It seemed foolish not to, since this was a unique chance to be part of something different, which would allow the students and teachers to be part of something bigger than themselves. The students and myself returned from Lund with great new experiences and a worldwide network – we were so excited and eager to continue our commitment with CEI, which we did. Aalborg Youth School has been participating ever since – except for the conference in Kenya, which we could not attend, unfortunately."

Being a part of CEI for this long, brings along a lot of good memories, so we have asked Mrs. Brun if there is any specific moments with CEI, that she looks back on with pride, she said:

"I only have very good memories from my involvement with CEI. Each conference has been unique in it's own way – and every time I have travelled back home to Denmark filled with new perspectives on the environmental issues we are facing – and life in general. Meeting and understanding people from different countries and cultures, is one of the greatest things about the CEI conferences. Especially in the era of globalization, I believe that this experience will be highly valuable for both students and teachers.

I specifically remember the conference in South Africa, where I ended up in a Township with my students; this really put our lives back home in Denmark into perspective.

Also, in Scotland in 2013 I remember my young students in the kitchen with a Supreme Court representative from Pakistan – all doing the dishes together. I think this is very unique for CEI, the boundaries between age, rank, countries, culture, religion are broken down for the greater good."

Elisabeth has chosen, like so many others in CEI, to commit to the organisation. This means attendance on the conferences and all the work that follows, we have asked Elisabeth what motivate her, to spend time and energy on CEI: "The environmental and climatic issues have only increased and become more intrusive, hence my involvement in CEI has only gotten more important.

Also, in regards to the educational aspect of par-

ticipating in the CEI conferences – I truly believe that this is a once in a life time experience for my students, both in regards to the general academic aspect, but also in regards to the development of identity and tolerance towards others – this is what motivates me in my work for CEI”

We are all very excited about CEI 16’, so we asked Elisabeth if she had any words of encouragement for the participants of this year’s conference: “You can all look forward to an amazing week in the company of other committed youngsters and their educators. You can look forward to interesting workshops and fieldtrips, which among other things will introduce you to Europe’s happiest city (the City of Aalborg) – where sustainability is in focus.

We are looking forward to seeing you in Aalborg, and I wish you good luck with your projects.”

We want to thank Mrs. Brun for her time and we wish her the best with the preparations for conference.

Interview with Young Guide Jonas Lykholt Andreassen

By Katrine Rose Jensen

Young Guide – Jonas Lykholt Andreassen (pictured below at his first conference in Taiwan in 2014). Jonas is 17 years old and this year’s conference will be his third. He previously attended the conferences in Taiwan (2014) and Portugal (2015). Firstly we have asked him why he made the choice to be one of the Young Guides on this year’s conference: “I chose to become a Young Guide because I’ve watched by from the sideline of other conferences how others have been so busy



and involved in the more practical parts of hosting a conference – and this year is my chance to try something different and be an active part of getting as good a conference as possible. Especially the Alumni Team has been very open and has created an amazing spirit to the conferences I have attended. I hope to pass the good spirit on to the participants of CEI 16’. So when everybody is returning home, they are tired but thrilled that they have been part of something this amazing”.

On his other conferences Jonas has been participating as a regular student, so being a Young Guide will be a whole new experience. We have asked him how he feels he can contribute to this year’s conference as a Young Guide: “One of my strongest side is that I’m not shy in any ways. Which is a big advantage, because as a Young Guide you are going to talk a lot in front of many people – we will for example be guides on the field trips and around the City of Aalborg. I’m very easy to talk to and I want to make all the participants feel that they always can come to me if there is anything they want to ask or are curious about” he adds: “I think the challenge of being a Young Guide will fit me very well, even though I am young and this is only my third conference, I think I am old enough to take responsibility”.

Since this year’s conference is taking place in Denmark we have also asked Jonas how he feels about this: “I am super stoked that it is in Denmark this year – and even in my city. It gives a completely other perspective on the conference for me, I am a bit more anxious because this is my city and my country and I just hope everyone will have a good time. It’s special for me this year, because I am not joining as a regular participant, but being part of the more practical team. It is going to be SUCH a blast – Just praying that we will have the weather with us, and not a usual rainy Danish summer”.



Young Reporters Interviews vol. 3

Interview with President of CEI: Birgitta Nordén
By Diana Fayed

Birgitta Nordén joined CEI in 1994 when she attended her first conference in Aberdeen, Scotland. We asked Ms. Nordén about her first encounter with CEI: "Together with a friend and colleague Ingrid Adolfsson, I was invited by a very action-oriented teacher colleague, namely Ruth Irvine from Northern Ireland. She had been visiting Lund with her students earlier, because my high school students by that time had exchanged lots of information with them through videoconferences and developed various environmental projects. Among other things, these projects were about how to increase biodiversity on the school ground and how to avoid air pollution and diminish the negative consequences of the climate change." Ms. Nordén continues: "The reason why I joined was that I met so many inspiring teachers and engaged students from all around the world. Also the board members of the CEI were very welcoming and presented a very strong concept that I wanted to be a part of. This was something I wanted disseminate and offer young people and colleagues – not only in Sweden, but worldwide – to join."

Following her first encounter with CEI in 1994, Birgitta Nordén has continued her involvement in the organization. In 2000 she and the Swedish branch of CEI hosted The Global Environmental Youth Convention in cooperation with the International Institute for Industrial Environmental Economics at Lund University. She recall this as an fantastic experience: "It will always remind me of what can be accomplished if you build a strong team with supportive partners and committed teachers and students."

Ms. Nordén has been an active member of CEI for 22 years and is currently President of the organization, we have asked what have made her continue her involvement in CEI: "The meetings and the exchange through the years with all energetic and positive people connected to the Caretakers of the Environment International. The great network of the CEI is as an extended family, which is so encourag-

ing when you have to deal with the urgent and hard tasks concerning environmental and sustainability issues."

As a part of the CEI family we have asked her why this "family" is important and she answered: "Towards sustainability there are lots of challenges. Gathering on the CEI conferences, as in Aalborg 2016, shows how important it is for teachers and students to work together on environmental and sustainability challenges. Also, to take responsibility for whole processes designing activities for awareness raising and learning towards sustainable development. By arranging meetings with different actors in society holding various experiences and competence, a rewarding outcome of knowledge formation, new ideas and solutions could be reached." Lastly, we have asked Ms. Nordén if she as President of CEI has any words of encouragement for current and future Caretakers: "Young people as you are important, your voices must be heard as you present your visions and when you discuss and share your arguments. Young people are to be recognized and listened to as you contribute to society in a respectful way. Communicating, learning and understanding collaboratively create a foundation for developing critical knowledge capabilities and competence to act democratically towards sustainability – locally and globally."

This was Birgitta Nordéns story and experience with CEI. We would like to thank her for her time and her inspiring commitment to CEI.

Interview with former student: Asbjørn Heby
By Katrine Rose Jensen

Asbjørn Heby (pictured below) is 26 years old and is currently studying a Master of Science in Politics





and Administration at Aalborg University.

This interview with Asbjørn will be the first of many with former students of the CEI conferences.

Asbjørn attended his first conference in Oregon, USA in 2005

(pictured below at a cultural presentation in 2005, dressed up as the Princess from one of H. C Andersen's Fairytales) - so he celebrated his 10 years anniversary with CEI last summer.

We have asked Asbjørn how he got involved with CEI: "I first became a part of CEI, back in spring 2005. It was during a normal school class when Elisabeth Brun visited my class because she wanted to find new recruits for their team attending the CEI conference. I thought it sounded too good to be true, a trip to USA. The destination itself was the main goal at first, before I learned more about what CEI represents then it became much more than a journey to an interesting place."

After his first conference Asbjørn continued his involvement with CEI. He attended Poland (2006), Hong

Kong (2007), Denmark as a Young Guide (2008) and finally Scotland (2009). We have asked Asbjørn



about some of his favourite experiences with CEI: "I've been lucky to attend the CEI conferences a few times. All the times have been amazing in each way. The best part is to see the people who also have been able to attend before – to meet old friends and family. There are so many moments from all of my times with CEI. Being a part of hosting the conference in Denmark in 2008 has to be one of the proudest. It's hard to single out specific moments, which I am really happy about without the context. From experiencing 4.th of July in USA to walking the streets of Hong Kong, they are all filled with extremely happy and joyful moments. However, what makes me truly happy when I look back, is that through CEI I found the best friend anyone could ever imagine, a friendship I know that will last till the day I die and beyond."

Asbjørn was a student at the CEI conferences for four years. We asked him how his involvement with CEI has affected his current life: "It has affected me in more ways than I can possibly comprehend! First, it has contributed to how I am as a person. Being open, respectful and friendly towards strangers, from different cultures and backgrounds. Moreover, I have acquired skills, such as being able to speak in front of large crowds, without being nervous, which is very helpful in a world, where exams are important. More than this, I have also learned how to be and act better towards the environment, by doing the simple things. Turning off the lights when I leave the room, no standby lights on computer, Playstation etc. Sorting the trash, reuse bottles, plastic bags and so on."

As earlier mentioned Asbjørn is currently studying Politics and Administration and we asked him if his involvement with CEI has influenced his educational choices: "Perhaps, perhaps not. It's not clear to me, if CEI has affected me into choosing Politics and Administration. But being a part of CEI has surely helped me in my studies – and probably guided me in a certain direction".

This was Asbjørn's experience with CEI. We would to thank him for taking time to telling his story.

**Interview with Young Guide: Julie Valentin Tolbod
By Frederikke Ulnits**

Julie Valentin Tolbod is another member of this

year's Young Guides Team. It is her first conference and she is very excited about being a part of such an amazing community. Julie is 17 years old and has formerly been involved in environmental activities. She has among other things written a project about global warming which she thought was very instructive and interesting. The first question we have asked her is where she heard about CEI and the conference: "My discovery of CEI happened through Sophie Mortensen. I was a part of a group called 'The Youth Council', which is a group of voluntary youngsters who discuss and arrange social activities for other young people in Aalborg Municipality. It was here I got to know Sophie. Then one day she contacted me and asked if I was interested in this conference. It sounded amazing and I was definitely ready to join the conference this year!"

Since it is Julie's first conference we thought it would be interesting to hear what she expects from a CEI conference: "I am excited to learn from other people – and I am curious to see the different approaches to the conference theme. I wonder if people take theoretical approaches or if they will actually be able to combine it with a more practical approach" she continues: "Then of course I look forward to meet different cultures through different activities, to get more knowledge about the environment and to be challenged communicatively – as I expect to be as a Young Guide".

One of the great parts of CEI is that we are so many people with different backgrounds: age, culture, education, religion – who all unite for the greater good. This means that we always have space for new

founded. Mr. Schimpff got involved at the 3rd idea forming meeting of CEI, which later resulted in the birth of the CEI concept as we know it today – this was in the early 70's and Mr. Schimpff has attended 21 conferences ever since, throughout which he and his wife Gail has introduced generations of Caretakers to the CEI family. We have asked Mr. Schimpff how he got involved with CEI: "... I had already hosted the first ever Global Conference for high school students back in 1973 in Chicago. Ed Radatz, was the teacher of the USA high school that participated along with student teacher delegations from 13 countries. So Ed had already experienced this international conference. In the mean time I worked with Ed in his capacity of high school teacher while I worked with him in planning his high school ecology class field trips while I was the first Naturalist in charge of teacher education for the Forest Preserves of Cook County, IL, the first Ranger Naturalist at our nations first National Urban Park, the Indian Dunes National Lakeshore, the first Chief naturalist for the State of Illinois and the first naturalist for the City of Chicago. So when Ed Radatz, Isabell Abrams, and Arjen Wals had their early idea forming meetings, they convinced me to take a day off from teaching and meet with them at Ed's school to see what I thought if the idea. I said that the idea was great and we moved forward with implementing the idea." So as Mr. Schimpff puts it: "I never joined CEI, rather I helped it evolve and develop ...".

As part of our journey to understand the background of CEI we asked Mr. Schimpff why CEI was founded at that exact time: "The above background activities in the USA were happening. Also Ed and I were involved with the planning and the conducting of first Earth Day celebrations in the Chicagoland area. Also Arjen Wals, Joke Wals son, was 26 years old and had his family's background in caring about the environment in Europe. He also saw that CEI should be a place where teachers and students would participate as equals. This 'Participation as equals' idea was revolutionary at the time, because in Europe the teacher was highly respected as was not an equal of a student. But Arjen thought that concerns about the environment were 'Equal for all'. So his mom and dad hosted the first CEEI Conference in The Hag, Netherlands. This is where the successful formula of the current mix of CEI conference

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Interview with Wayne Schimpff by Diana Fayed

This year's conference in Aalborg, Denmark will be the 30th conference in CEI's history. This is an impressive anniversary for organization that is operated and maintained with a \$0 staff budget, as Wayne Schimpff pointed out for us. We have asked Mr. Schimpff about the early days in CEI, since we are curious how a successful organization like CEI was

activities was pioneered. Arjen's father, Harry Wals, was in charge of Parks and the Environment for The Hag and he was also the first Chairman of the EU's Committee on the Environment. So he used his extensive resources to invite countries to send delegations and to host conference activities. Harry also was developing and presented the first Blue Flag for a clean beach was awarded during our first conference. Also he had pioneered the first Farm in A City program. He also supported community and school site gardens. So the CEI Conference activities gave the host country an opportunity to show case what it had been doing to empower it citizens to connect with the environmental base of which the society exists and how teens can help in the connecting process. I guess it was just a pure coincidence that Ed had the luck of having Arjen assigned to him as a foreign exchange student teacher and they shared prep and lunch periods where they talked about common interests. Ed had been operating his nationally recognized Oak Park Pollution Control Center out of Oak Park River Forest High School where he taught for many years prior to the initial meeting to form the meeting about forming a group that would be called Caretakers of the Environment International. The Pollution Control Center had it's own phone line where community residents could call it with many types of requests. Students were assigned to answer the phones and the callers' questions during the school day. They also attended many different community meetings regarding all types of pollution issues and topics in their community and elsewhere in the region. So with the above combined experiences and knowing the power of empowered teens, the global program began it successful almost 30 year program."

With a combination of skilled teachers and leaders (and a small portion of great luck, referring to the meeting of Ed Radatz and Arjen Wals) CEI was founded. Speaking as an active Caretaker I believe that many, many students and teachers across the world are thankful that this handful of people came together and created the CEI concept we know today, since it has been a source to wonderful learning experiences throughout the years. Next week we will continue our interview with Mr. Schimpff. We will ask him about the development of CEI through the years and talk about his personal experiences with

the conferences.

Interview with Wayne Schimpff part 2 by Emma Laursen

The idea was to travel back in time to understand the origin of CEI, which we mainly did in our last volume of Every Second Sunday News. We asked Mr. Schimpff about the development of CEI up until now, and about his memories of the previous three decades of CEI experiences, what makes CEI so special and how CEI has develop through the years: "The unique fact about CEI as it is the only global organization for high school students and teachers dealing with the environment that is operated and maintained with a \$0 staff budget for its entire history. There is a related organization, www.learn.org- International Education and Resource Network that is 2 years younger than we are. They serve K - 12 students. They also host an international conference which is usually at the same time as ours. That's why I have never attended one. They have a paid staff person in each country to promote local activities. They have an annual budget of between \$13 and \$15 Million a year. It all comes from the US Office of Education and the US AID program. Its world headquarters is at the Museum of Natural History in New York City. The USA affiliate is www.Youthcan.org. I have attended some of the Youthcan activities.

Because we operate from a position of caring enough to make a difference we have developed an activity that involves challenging teens to explore with partners and tell others about their discoveries and what they have learned. The activity CEI uses is well founded in education practice and is called Service Learning and the Boy Scouts of America call it the Eagle Service Project. I pioneered science based service learning for the Chicago Public Schools and represented them at several national conventions on the topic. I also empowered 33 Scouts to do the service project and earn the Rank of Eagle Scout. I am an Eagle Scout since 1957.

What has evolved and is now a strength of CEI is the transfer of leading conference activities from adults to CEI Alumni. The Alumni have been empowered to find ways to engage the participants in fun exploration activities. We have been successful to find educational leaders that have the resources and the educational experience to recognize the im-

members, we asked Julie what she believe she will contribute with to this year's conference as a new Caretakers of the Environment International - A global network of teachers, educators and students

portance of this type of global learning experience. Also we have always had fun experiences while sharing and growing together with our international friends.”

Furthermore we asked Mr. Schimpff about his own personal experiences with CEI if there is anything he looks back at which makes him particularly happy or proud: “I am most happy that Gail and I have been able to give the gifts of time, health, and \$\$, resources to self fund our CEI experiences. Many of my students that went with us to earlier conferences have stayed in touch and I have been lucky enough to share in their various life successes. My most memorable moment is having a student, Calvin Young, that went with me as a student to the 2nd and 3rd conferences and then as one of the first 2 former student participants to attend the 7th conference as Alumni. The other student was our son, Scott. For the 25th conference Calvin returned to that conference with his son. As far as I know it was the first time a CEI participant has participated as a student then as a mentor with his son and other Chicago Alumni students. I personally look forward to sharing memorable views and conversations with my global teacher and student friends over a cup of tea overlooking a nice view of nature.”

Lastly, we asked Mr. Schimpff if he had any words of encouragement to current CEI students, he said: “Make sure you have as much fun connecting with new partners in doing your project as you can. Your community partners like and appreciate you in asking them to help with sharing their knowledge and in sharing their resources with you. Don't forget to make your project presentation for them before attending the conference. Then after the conference, ask to make a report to them on how your project presentation went and to share what you learned and experienced at the conference. Also don't forget to describe and tell stories about all the neat people that are now your global friends. Your home partners will be jealous of your CEI experiences. Don't forget to thank the people that empowered you to be able to participate in the CEI conference as it is a very rewarding experience - your parents, your teachers, and their bosses.”

We want to thank Mr. Schimpff for enlightening us on the history of CEI.

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Interview with 2016 Young guide William Christensen

William is 16 years old and is for the very first time attending a conference for caretakers of the environment. We are very happy with his choice and wanted to know how he first heard about CEI: “I first heard of Caretakers of the environment at a local event called “Youth Day”. It is a day held by Aalborg Youth School and a day where you have the opportunity to hear about a large range of afterschool activities our community has to offer. It was that day I heard about The Caretakers. Elizabeth Brun told us about the great work that is done around the globe and how we had a chance to participate in that development. When she was done, I immediately asked where I could sign up! And here we are four months later and I have doubt that it was the right decision to make.”

As you can hear the spirit is high in the Danish delegation, even though there is a lot of planning and many long hours to make the conference happen and different projects succeed. Everyone is pretty excited and therefore we asked William what he is looking most forward to: “What I look most forward to is to meet all the delegates from all over the world, to discover their cultures and our differentness and similarities. I am sure we all have so much to learn from each other and by sharing our ideas we can come up with new methods in our local communities to make a sustainable difference. It is quite amazing that it's even possible to gather so many young people from all over the world with the same goal: To share ideas and take actions towards a more sustainable world. It really shows there is hope in the future and with a change of generation, we might also change the world we all live in.”

Different cultures coming together to solve one common issue is definitely a step in the right direction and every person matters, so we asked William how he could contribute: “To the conference I hope to bring joy to all the other delegates. I am a very happy and open person and I hope that feeling will be spread to others. That is also one of the reasons I signed up to become a Young Guide and also to

share my knowledge of how Aalborg is one of the most sustainable cities in Denmark.”

Interview with former delegate and 2016 Young guide Marie Fredensborg Akobe

Marie is 17 years old and is also joining the team of Young Guides for this year’s conference. We asked Marie how she heard of CEI: “I heard about CEI from a friend of mine. We share the same interest for the environment, and she told me this was a good way to make a difference and learn even more on how I could make a difference. So at that point I knew I had to join.”

Many young people want to make a difference and can see that actions are needed, but are simply just lacking the knowledge of how to make easy changes around them. By sharing that knowledge and spread the word like Marie’s friend young people have a chance to act towards changes. We also wanted to know what Marie looked forward to: “I look most forward to see what has been done in other communities and see if I perhaps can adapt some of their methods or knowledge to my everyday.”

Marie also feels that she can contribute with some good qualities at the conference: “I am certain that the delegates from around the world can use some of the initiatives I will show them during their stay in Denmark. Since I am a Young Guide I will show them many ideas that I brought to life in our community and hopefully they can be adapted to other cultures and communities as well.”

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Interview with Mr. Dan Hoynacki by Diana Fayed

This week we have interviewed Mr. Dan Hoynacki from Oregon, USA. Dan has been active in CEI for 12 years now. His first conference was in Greece in 2004, and he went on to host the conference in 2005 in Oregon, USA. He is currently a member of the international board of CEI, where he is in charge of Resources and Development. We asked Dan about how he got involved with CEI in the first place: “In

2004, Ryan Kinnett and I brought five students to the Greece conference to give our youth a global reference to the work they had been doing locally. I was looking for an international organization that was also apolitical with an education, engagement and enrichment focus”.

Since Dan has participated in many conferences throughout the past 12 years, we asked him how he thinks CEI and the conferences have developed through the years: “In our 12 years of participation, each conference has presented a unique personality and one-of-a-kind memories, but it is also a reflection of the delegates who participate. I believe that in more recent years, all participants are working harder to communicate in English and interact with each other, and first time delegates, who are naturally shy, are following the lead of veteran delegates for more engagement.” Dan continues: “I am proud and happy of the performance of my students at the conferences, and the impact that the CEI experience has had and continues to influence their lives. CEI is culture, family and all the things that we value or want to achieve in our lifetimes. After 30 years everything changes, but the important parts remain true to the core values of the organization.”

Furthermore, we asked him how these 12 years with CEI has affected his life in general: “CEI has become the litmus test for all of the service learning work we do with youth in our communities. But on a personal note, it has become an incredible network of great friends who share similar goals and aspirations, as well as hopes for our future.”

Lastly, we asked Dan if he had any words of encouragement to current and future Caretakers: “1. Leave all your apprehension and worries with the customs agent at the airport. Every other first time delegate has the same emotions as you do, and the returning delegates remember those emotions and will help you overcome obstacles, and help you realize that we are all more alike than different; 2. If English is a challenge for you, don’t worry about achieving perfection, but focus on developing a few phrases that express how you feel about taking care of the environment, and also be prepared to ask clear questions of others about their perspectives; 3) Try to sit with as many different delegates as possible throughout the mealtimes. You don’t need to sit next to a delegate from your country to be able to eat food; 4) Be

proud of your homeland, but be humble enough to honor everyone's place of origin; and 5) Relax, enjoy, ask a lot of questions, but also do a lot of listening." We want to thank Dan for his time and words of encouragement.

Interview with Young Guide Asger Rygaard Sørensen

We sat down with one of our Young Guides, Asger, and asked him a few questions concerning the conference and his expectations. The first was about where he learned of CEI?

"Sophie Mortensen, who is also one of our teachers, has been my neighbor for many years and therefore I knew her quite well before I learned about CEI. One day my dad told me that she was part of an environmental group in the Youth School of Aalborg, and he told me that at the time the upcoming conference was to take part in Lisbon, Portugal. I immediately got very interested – partly because I wanted to learn more about the environmental problems we face today and because I wanted to meet new people from all over the world".

Asger spoke about what he was looking forward to at this year's CEI conference:

"I think it must be seeing all the people I met last year on my first conference which was in Portugal. But besides that it must be to have this huge responsibility as a Young Guide. Hopefully I will be able to contribute for making the conference in Denmark even more exciting and be able to learn more about the environmental issues we face on a global scale". Furthermore we asked Asger how he thinks he will be able to contribute to this year's conference: "I will be able to bring a lot of energy, enthusiasm and hopefully be as helpful as possible if there is anything one of the delegates need. Furthermore, I have a lot of knowledge about North Jutland – and of course in particular Aalborg, where the conference will be held, which will be very helpful when we're going on the fieldtrips".

Lastly, we asked Asger about his expectations towards being a Young Guide this:

"Last year I presented our project in Lisbon. It was very insightful and I learned a lot by working on the project, but when the opportunity came to do some-

thing more for the conference, I grabbed it with both hands! It sounded so exciting to be responsible for something different than the projects. I want to be able to make everyone feel welcome and to have a good time during their stay in Denmark. I hope they enjoy the conference in Denmark as much as I enjoyed mine in Lisbon!"

Asger will be welcoming you all in Aalborg Airport at the time of your arrival, and he and the rest of the Young Guide Team will be taking care of you all week during CEI16.

Interview with 2016 young guide and former delegate: Linda Liu

Linda has been to one conference before, which was in Portugal.

We asked her some questions about her expectations and about how she got involved with CEI?

"I first heard about CEI from one of my close friends, Nadia who told us about the great work that the Caretakers do, and about the conference, where we get to meet some amazing people."

We then asked about her expectations for the conference since it isn't her first time?

"Because it isn't my first conference, I really hope it's going to be as good if not better than last year's conference, where I met some amazing people and heard about some great projects. I really hope to meet new people and to make friends with even more delegates."

Linda continued: "I hope to be able to help the delegates have a fun conference, and to bring a good mood. Of course I also hope as a Young Guide to be able to make everyone's conference memorable."

We were also interested in understanding why Linda chose to become a Young Guide?

"I wanted to become a Young Guide because it sounded like a different way of being a part of the conference, and because it seemed like the best way of contributing to making everyone enjoy their stay in Denmark."

Denmark Young Reporter Articles

Smart Cities and the future by Katrine Jensen

The theme of the 30th CEI conference in Aalborg is “Sustainable Societies” and one of the sub themes is “Smart Cities” – we have researched this sub theme. Smart cities are a worldwide market estimated to be at approximately 1.3 trillion a year and growing annually with 17%. This is because the digitalization of the cities makes them easier for the citizens to live in, and a good place to develop innovative and sustainable solutions. That makes the smart cities a very good investment that can boost a country’s sustainability as well as improve the urban areas, according to the Ministry of Foreign Affairs of Denmark. But what is the definition of a Smart City? A Smart City can be defined as following: “A city equipped with basic infrastructure to give a decent quality of life, a clean and sustainable environment through application of some smart solutions.” (Times of India, 2015 - What is a “smart city” and how will it work).

In our country, Denmark, the government is very interested in investing in Smart Cities. Many municipalities have worked with Smart City projects and some have been successful: “For example, in the Capital Region of Denmark, employment in companies that operate in the smart cities market has risen by 60 % between 2003 and 2013, an increase which amounts to 19,500 jobs” (Andersen, 2016 - Unlocking the potential of Danish Smart City solutions). However some municipalities have had some difficulties in carrying them through, perhaps due to lack of experience and capability. They do not know which smart city solutions to execute. Many businesses also have problems with accessing the needed digital skills. But if we can solve these problems Denmark and other countries around the world, has an opportunity to develop a lot of new Smart Cities – and more sustainable urban areas.

We think it would be very interesting to work with and develop the Smart City solutions – Smart City’s are spreading around the world, which should make it accessible for CEI delegates to examine.

Why should our cows eat Oregano? By Frederikke Ulmits

One of the subthemes of the 30th CEI conference is nature and conservation. In Denmark researchers have tried to find a way to make milk cows more environmentally friendly for many years - with no result. But now they have discovered a method to reduce the methane emission.

The greenhouse gas methane (CH₄) is the second most prevalent greenhouse gas just after carbon dioxide (CO₂). In 2006 a report from FAO concluded that the meat industry produces 18% more greenhouse gasses than the transport sector. In Denmark cows are responsible for 40% of those greenhouse gasses. Actually a typical milk cow produces up 500 litres of methane gas every single day.

The 1st January 2015 a new project was initiated by Aarhus University in Denmark. The goal is to reduce 25% of the methane emission caused by milk cows in Denmark. The general goal in EU is to reduce the methane emission with 24% in 2030 in proportion to 2005 in Denmark. Four years of laboratory experiments has now shown that Danish ecological oregano is able to reduce the methane emission. The new project will test if oregano in cow fodder can reduce the methane emission too.

The project is divided into three working faces. The first face’s purpose is intensive experiments in environmental chambers. Among other things it means that they are going to research the digestibility of individually nutrients and to measure the amount of gas production from the milk cows.

The second face will focus on researching the fatty acid composition and the taste of the milk from cows eating oregano as a part of their daily fodder.

In the third face the focus is on growing oregano and practical tests. The oregano will be sowed at fields with as high dry matter percentage as possible. They will do comparative tests, where they will feed a group of cows with fodder rations containing oregano and another group with fodder without oregano. It is then possible to measure the amount of methane to see if the project is working as well in practice as it were in the laboratory. The project is expected to end on the 31st of December 2018.

Instead of putting oregano on top of our pizzas, maybe we should start feeding it to our cows instead – and work towards a more sustainable agriculture.

The 2 degrees milestone By Emma Laursen

The discussion about whether climate change is real or not is surpassed – climate change is very real. Instead scientists and policymakers are discussing how much temperature rise we can tolerate.

Leaders of the world met back in December at United Nations Climate Change Conference 2015 to discussed how high a temperature rise we can tolerate. One of the outcomes of the conference was the participants' agreeing that 2 degrees will change the world (Scheller, 2015). Therefore the 195 participating countries agreed to the Paris Agreement, and thereby committing to reducing their emission as at method to reducing greenhouse gas and thereby doing their best to keep global warming at a minimum or "well below 2 degrees C" (Paris Agreement).

Just three months after the Paris Agreement the average temperatures across the Northern Hemisphere briefly crossed 2 degrees Celsius above normal (Cronin, 2016).

Rising temperatures will affect and eventually destroy plant and animal habitats. It will result in more people being exposed to flooding and drought – leading to climate refugees.

A average rise at 2 degrees Celsius would for example result in the world's coral reefs to perish and the sea level rise more than two feet (Palmer, 2016).

At the 3 of March 2016 we reached that milestone, briefly – only three months after a majority of the world's countries signed an agreement that the climate change should not exceed the 2 degrees milestone.

It seems to us that the climate change is in overdrive and it is time for all of us to act - as it has been for a long time.

Breathing Buildings by Frederikke Ulnits

Imagine living in a building that actually breathes. Instead of having to turn on the air condition when it's hot outside, the fresh air will just come through the walls. And the most amazing thing is; you won't even have to use any electricity to make it happen. The building will really be self-ventilating. How is this possible? Architect Doris Kim Sung has found

a way. She believes that we shouldn't just focus on making the mechanical systems as efficient as possible, but try instead to find new and more sustainable ways to ventilate buildings. Doris was a biologist before she became an architect, and she has found a way to make the outside of a building work similarly to the human skin.

It's called thermo-bimetal. It is a smart material, because it doesn't need electricity to function. The metal, as the name suggests, is actually made from two different metals, which then gets laminated together. The idea is that when heated, one of the metals will expand faster than the other metal, which means that the ends will curl up. That way the fresh air will be able to get inside, and the hot-trapped air can get outside without having to use any power at all, except for heat from the sun, of course. And no pieces of the thermo-bimetal are the same. That means you can adapt the form of each one of them, to fit the place it's going to be placed on the building. Doris Kim Sung has created an installation called Bloom with over 14000 pieces of thermo-bimetal, all of them different and adapted to the angle of the sun.

What is really great about this thermo-bimetal method is that it will always work. If the electricity goes it will still work the same and if it isn't hot outside, it simply won't expand. And Doris Kim Sung has also experimented with getting the metal to shade from the sun, so you won't need any blinds. We see this on Bloom, too. Some pieces of thermo-bimetal are placed in a way to make them keep the sunlight away, while other pieces have been placed so they can let fresh air inside or release the hot air that has been trapped underneath the surface of Bloom. Every single piece has been placed strategically and has its own specific function. And with the technology we have today, who knows when we will start making houses the same way? Then we would have a sustainable way to survive a hot day.

Recycle now! By Emma Laursen

When we speak about recycling it is impossible not to focus on the importance of plastic recycling. Mostly because the amount of plastic used in today's societies has reached an extremely high level, but also because with this rate the situation will only get worse, unless people start to realize the problem, and act according to these bad circumstances we

created ourselves.

Plastic is a human made synthetic product and is made of long carbon chains, crude oil, cellulose, salt and natural gas. It all gets melted together and goes through a long process before it turns to solid plastic. Since plastic is a human made product and not a natural product, it makes a severe problem for the environment. It is an unknown substance for the nature and therefore there isn't a natural decomposing. The nature is simply not capable of getting rid of the substance and thereby the amount of plastic will grow if the problem continues.

If people don't recycle, a huge consequence can be seen in the oceans. Massive wastes of plastic end up in the sea, and here winds, tides and currents move it around into what oceanographers call gyres. These gyres comprise 40 % of the planet's ocean surface – 25 % of the entire earth.

Some birds especially seabirds get entangled in the garbage patch. Animals who live in the ocean can't see the difference between food and garbage and they eat it. The plastic will make them feel full when they are not and they starve to death. It also affects humans because smaller fish will eat micro plastic and the tuna will eat the smaller fishes and we will eat the tuna.

Another problem that occurs with the plastic waste that doesn't end up in a recycling station but on the kerb side or other places around in the cities or nature is the toxics that ends up in our groundwater. All the toxic substances from the plastic will get carried away with rainwater, and led into our groundwater. Here it can spoil the ecosystem and harm the animal life.

When you are recycling your plastic, the plastic gets squeezed and pressed together. Then it gets cut into small pieces, washed and melted and then you can use the material to reproduce new products.

It is decided that in EU in 2020 all the Member States have to recycle 50% of glass, paper, plastic and metal from the ordinary housekeeping. It will be an important positive development for the environment and if all countries would do the same, we would move in the right direction and recreate the situation we live in and made ourselves.

Will we be celebrating Mars Day in the near future?
By Frederikke Ulm

On the 22nd of April Earth Day was celebrated for

the 46th time. But what if I told you that soon we will be celebrating Mars Day. That might sound crazy and impossible to you. But reading this article will probably change your mind.

Pundits are claiming that humans will be able to land on Mars in 2050 and NASA believes that it will happen in 2040 but Elon Musk says that it will be a possibility in 2025. But why believe a single man when most pundits claim that it will first happen many years later?

Elon Musk is the creator of SpaceX and Tesla Motors. SpaceX sent their first rocket to the International Space Station only 9 years after its establishment and reaching Mars has been the goal from the start in 2002.

In 2005 most people in the automobile industry claimed that it would not be possible that we would have a decent electric car for 50 years, but in 2010 Tesla Motors launched its first public electric car. So believing that the man who has defied pundits in the automobile industry and the man, who created an entire rocket company in less than 10 years, will be able to get humans to Mars by 2025, suddenly sounds believable.

But one thing is getting there another thing is to live on the planet. For humans to live on Mars there are 5 things you absolutely need to have. You need water, food, shelter, clothes and oxygen, since 96% of Mars' atmosphere is carbon dioxide.

Let's take water at first. Mars might look like a desert from the outside, but the soil on Mars is up to 60% frozen water. So if we can melt the ice on Mars's two poles, most of the planet will be covered by 30 feet of water. There are other methods to use such as a low-tech dehumidifier, like the one made by The University of Washington in 1998, cause Mars atmosphere is up to 100% humid.

The next thing is oxygen. Actually NASA has already worked that out. A scientist at MIT has developed a reverse fuel cell called the Moxie. The machine sucks in the Martian atmosphere and pumps out oxygen. This machine will be able to keep one person alive on Mars, and in 2020 NASA will be sending a big rover with this machine abroad to Mars.

The food problem can easily be solved in the beginning. Hydroponics will be used to grow food but we can only get 20% of our food from that method

until water is available. In the meantime, dried food will have to be sent from Earth.

As shelter, inflatable pressurized buildings can be used in the beginning but only in daytime because of too much radiation. For a more sustainable solution NASA again has the answer. They have found out that the soil on Mars is perfect for making bricks, and if a little polymer plastic were added, it would be possible to build buildings with really thick walls. Or perhaps we will live in underground caves or lava tubes, of which there are many.

On Earth the atmosphere creates 15 pounds of pressure on our bodies. On Mars there is basically no pressure. Another scientist at MIT has therefore created a sleek space suit. The suit keeps us together, blocks radiation and keeps us warm.

So it is possible to live on Mars and we do have the technology to do it. But if we want to live a good life on Mars we need to be terraforming the planet. To do that, we need to warm up the planet. If a solar sail is erected above the South Pole on Mars, it will in less than 20 years heat up the planet to something like the temperature on Earth. By using the solar sail more carbon dioxide will go out into the atmosphere and thicken it. That will give more protection from radiation and make enough pressure to survive without the space suit. Besides from that, ice will melt so there will be running water, then crops will be able to grow and Mars will almost feel like British Columbia.

There might go 1000 years before the breathing problem for real will be solved, but as the smart and adaptable humans we are, technology will help us reach far and beyond today's limits. Today it is possible to control genetic, perhaps we will be able to control our own evolution in the future. So maybe someday in the near future we will be celebrating Mars Day – but lets keep cheering for Earth, so Mars Day will become irrelevant.

Coral Bleaching by Diana Fayed

Nowhere on earth is the effects of climate change more visible to the naked eye, than in the Great Barrier Reef. The colourful coral reefs are highly vulnerable to climate change and the impact of significant changes in temperature, such as heated oceans, can bleach – and eventually, kill the corals.

The coral reefs structure is mainly build from calcium carbonate (limestone) skeletons laid down by

hard corals. Changes over a long amount of time can eventually affect these corals in a negative way.

When the temperatures rise too much over a long period of time, the phenomena called coral bleaching takes place. It happens at the same time every year, but when the temperature remains high, which happens during El Niño (El Niño is the phase of the complex weather patterns resulting in an unusual rising in ocean temperatures over the Pacific). The El Niño that started in 2014 has continued to impact the Great Barrier Reef and has since become the longest bleaching event recorded, with approximately 93% of the Great Barrier Reef affected. The bleaching does not seem to be ending any time soon according to Mark Eakin, a coral reef ecologist at the U.S. National Oceanic and Atmospheric Administration (NOAA) in College Park, Maryland;” Even though the El Niño is now weakening, its lingering effects could cause bleaching for another year.” With global warming raising ocean temperatures, even weak El Niño's will be enough to change the coral reefs.

A constant pressure on the coral reefs would harm the ability of the corals to recover, which then would lead to the reefs dying.

The bleaching happens when the symbiotic algae called zooxanthellae (which uses photosynthesis to produce nutrients for themselves and their hosts) is extracted due to hot temperatures.

When the coral reefs die, it affects the many marine organisms and fish that depend on the reefs for shelter and food, leading to a loss of biodiversity.

The main issue that leads to coral bleaching is global warming. The only way to stop this is to rapidly prevent the global temperature in rising even higher. Actions towards global warming are a must.

Germany broke their renewable energy records by Katrine Rose Jensen

On the 8th of May, Germany generated so much renewable energy that they actually had to pay people to use electricity. Because of very sunny and windy weather that Sunday the wind, solar, hydro and biomass plants produced 55 of the 63 GW that were being used at around 1 PM. That is approximately 87% of the entire energy consumption, thereby breaking the previous records from 2015, which was 78%. For several hours the power prices actually went negative so the country had to pay people to consume

electricity and give energy away for free.

But the fact that the country had to pay its consumers to use electricity wasn't the only problem. The nuclear and coal plants were not able to shut down immediately. Therefore they had to pay a lot to sell power into the grid for several hours.

A phenomenon very similar to this happened last year in Denmark, when a specifically windy day occurred. The turbines produced 140% of the country's total energy use, which meant that the surplus had to be exported to Germany, Norway, and Sweden.

The Energiwende policy implemented by Angela Merkel aims to phase out fossil fuels and use 100% renewable energy in Germany by 2050. And this suddenly seems much more achievable now that renewable energy supplied the country with almost 90% of its total energy use, even if it was just for a brief period of time.

Recently the International Energy Agency declared that a quarter of the world will be powered by renewable energy by 2020. And many countries all over the world are working to make that happen. Sweden has begun to make infrastructural changes to become the first nation in the world to be completely without use of fossil fuels. Morocco is working on a solar power plant that works 24 hours a day, which will be done soon. And many other countries have also agreed to cut back on their fossil fuel consumption. So let's celebrate the path we are on to secure a more sustainable world in the future.

Highlighting Oceans' Literacy

The promotion of awareness campaigns to increase the literacy



level about the oceans, one of the objectives of the Sea Programme, has been largely enhanced by the several projects developed nationally.

ASPEA - Portuguese Association of Environmental Education, CEI/ Por-

tugal, a non-profit association founded in 1990, has as main objective the development of environmental education in formal and non-formal education, promoting a set of initiatives / actions aimed at achieving this goal.

Within 2015-2016 ASPEA has been developing 5 projects placing a focus on engaging youth through the seven principles of ocean literacy.

The seven principles of ocean literacy

1. The Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of Earth.

3. The ocean is a major influence on weather and climate.
4. The ocean makes the Earth habitable.
5. The ocean supports a great diversity of life and ecosystems.
6. The ocean and humans are inextricably interconnected.
7. The ocean is largely unexplored.

Engaging through films

Among those projects is the CurtMAR project which aims to teach students in secondary and vocational school about the essential principles of the ocean in a creative audiovisual way. The project included a national competition of environmental short films where students across the country captured the impact humans have on the marine environment. Sixty-two films were received and three prizes awarded to the best submission in each age category.

Sea meetings

The Sea meetings project focused on environmental education and literacy of the oceans, involving eight schools from mainland Portugal and the Azores. Through the project, around 300 students from these schools and their teachers participated in a 'sea of meetings' to discuss, share information and experiences, and contribute to a greater and better understanding of the ocean influence on our lives and the impact of people on the oceans. ASPEA, the MARE Research Centre and Educatis Training Centre also participated in these initiatives between May and June 2015.

Connecting youth

The project Connecting minds, creating the future for the oceans aimed to improve ocean literacy among youth in Portugal and abroad. This was done through the internationalisation of the 'Sea Kit' project which was developed by the project partner, the Task Force for the Extension of the Continental Shelf (EMEPC). The 'Sea Kit' is a collection of educational resources aimed at bringing the ocean into the classroom through various tools, including both formal educational sessions and leisure activities. The final initiative was the organisation an international conference CEI2015 under the umbrella of the Caretakers of the Environment International Foundation network in which ASPEA participates as the representative for Portugal. About 300 students and secondary school teachers from 22 countries presented the projects taking into account one of the seven principles of oceans literacy. My Observatory from Rivers to Ocean (MyO_R2O) and MIA - Revealing the Water Invisible World are the other two projects of this Association, also dedicated to Ocean literacy, will be completed by November 2016.

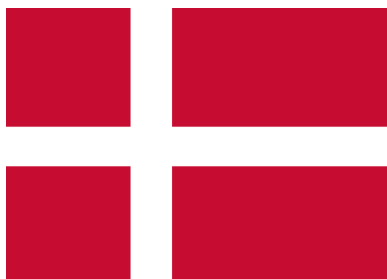
More

The 'Integrated Marine and Coastal Management' programme is the largest programme supported in Portugal with € 19.2 million in funding from Iceland, Liechtenstein and Norway. The programme aims to obtain and secure Good Environmental Status (GES) in the Portuguese marine and coastal waters, increase the capacity to predicting the future status of the marine and coastal waters by introducing better methods of modelling, and increase the general awareness on marine issues among young people through various local initiatives.

Who runs the world? COWS!

Yes, you read that one right... unfortunately.

Beef is one of the most preferred type of meat - and the one that is polluting the most - but that does not stop us from eating enormous amounts of it.



The purpose of our project is to give information to the average citizen, so there will be created an awareness of the consequences their consumption have. We will make people aware of alternative types of meat instead of beef, and look at their food habits concerning meat.

We will look into the consequences caused by the meat industry and the people's consumption. To do this we will make surveys, and study our local community in order to find out what is done towards solving the problem.



In order to solve these problems we thought of solutions such as making school teams to inform the students, make event to inform people, make posters, and have food courses to introduce a more sustainable way of cooking and eating.

CEI Has its Pay-off for Two Former Delegates

CEI Stories with happy “middles” will likely mean “happy endings”. Many of you will remember Ana Garibay-Mares and Haleigh Patten-Trujillo, who both attended the 2013 CEI Scotland and 2014 Taiwan conferences. Their efforts in our Caretakers USA – Oregon Chapter is paying off – big time – for both school mates. Both young ladies are

from families with good personal support but limited financial resources. Initially, both had no hope of even raising the \$2000 airfare to attend conferences – but they earned every penny.

Ana graduated a year early in 2015, receiving her High school diploma and College Associates Degree simultaneously. The leadership, self-discipline and confidence Ana gained through this program earned her a FULL RIDE Ford Family Foundation scholarship that will cover most all costs related to here undergrad degree, post grad work as well as foreign studies. Ana just completed a year at University of Oregon and is fully committed to obtaining an advanced degree in international relations and economic sustainability. Bravo, Ana!!

Haleigh just graduated this month as Salutatorian of her high school class, and will be starting this fall at the University of



Oregon on a pre-med track for an eventual career in medicine. And to think only 3 years ago she was sick to her stomach with anxiety on the way to her first CEI conference. Haleigh has also received an Oregon Pathways scholarship that is covering all of her expenses.

Both are the first in their families to attend college. These full scholarships are very few and not handed out lightly. Both Ana and Haleigh have demonstrated hard work, commitment, and not being afraid of reaching and stretching outside the box as demonstrated by their CEI Experience. Ryan Kinnett and I are very proud of growth of these young ladies and want to share credit with CEI. It is an example of what young people today with seemingly insurmountable odds can accomplish.

Dan Hoynacki
Oregon, USA

A Founders Retrospective of CEI: Unlikely Environmental Happenings

By Isabel S. Abrams

(Published in "Overcoming- An Anthology by the Writers of OCWW" p. 248-256)

Thirty years ago, I was very worried about our world. Why? Because I had been writing about toxic substances, nuclear energy, feeding the hungry and other global environmental threats. The problems were so big, how could anyone solve them?

I found some answers when I was invited to go out to lunch. However, I never dreamed that lunch would start an international environmental adventure.

Edward Radatz, education consultant for CURRENT ENERGY AND ECOLOGY magazine (who edited my work) was also a biology teacher at Oak Park and River Forest High School (in a Chicago, Illinois suburb). He asked me to meet Arjen Wals, a master's degree candidate from the Netherlands and an intern in his classroom.

"I think we can get something going," Ed said.

"Sure," I replied. I thought it would be fun, but I never suspected that anything important would happen.

As Ed, Arjen and I sipped hot tea and ate tacos, we chatted about a range of environment problems. By the time dessert came, we agreed that young people – no matter where they lived, what their career choice or lifestyle was – needed to understand that they were caretakers of the environment. (I said, "caretakers" because I thought that was what Dr. Noel Brown, director of the United Nations Environment program, had said during a recent interview. Later, I looked at my notes and saw that Dr. Brown had said "shareholders of the environment," so "caretakers of the environment" was a misquote. We kept the name because it described our mission.

Caretakers of the Environment International (CEI), an environmental education network, was born that day. The three of us decided we would involve high school students and teachers because we did not know of any environmental organization that had involved teenagers in environmental work. We had no funding and no network, but that didn't discourage us at all.



During spring break, Ed went to see a relative in Italy, so, he stopped in Amsterdam to meet Arjen's parents. Arjen's father, Harry Wals, was Director of Parks and Gardens in the Hague, Netherlands. Arjen's mother, Joke Wals, was linked with a European environmental network that was about to shut down.

In early summer, Ed, two students and I traveled to the Netherlands to attend the last European network conference. We asked the teachers and youth to join us as members of CEI. Joke Wals, agreed to establish CEI in the Netherlands. Harry Wals offered to host the first conference in the Hague, Netherlands.

I had never met a government official or a corporate CEO when we started CEI. I had no clue as to how we could gain their support. But Ed, the students and I returned to the United States with big plans.

"We have to make people aware of what we were doing," explained Ed. So we established a board, a mission statement with goals and objectives; and a constitution and statutes; and Caretakers of the Environment International/USA (Caretakers/USA) became a tax exempt environmental education organization in the U.S.

Our next step was to gain the support of science and environmental educators, as well as government and business leaders. How? By having students explain who we were and what we wanted to accomplish. Ed knew that these leaders listened to children because they probably had children of their own; and because being nice to children was always good for public relations. I learned that teenagers are not easily impressed by

authority, so they often ask questions that I would never dare to ask. I also learned that teenagers are very persuasive. Their idealism and energy are hard to resist.

The mission of CEI - to prepare youth with the skills and knowledge to become environmental leaders – began with fundraising for travel to overseas conferences. Ed encouraged his students to raise funds with bake sales and other activities, and by approaching businesses, family and friends. The students had to explain why being a Caretaker was valuable; what projects they were working on; and what happened during a CEI conference. That was how they gained skills for environmental leadership and educated the people around them.

In 1987, over 100 teachers and students from 15 countries arrived at a campsite on the shore of the North Sea. It was July, nights were cold in our unheated tents and caravans. Our days were busy with biking across the polders (flat barren land below sea level), traveling to an island where seals were dying because of pollution from the industries of the Rhine River valley; and visiting the town farm that Harry Wals had established in a slum. We watched parents and their children feed and pet the horses, cows, rabbits and other animals and chat with neighbors. And we found out that Harry Wals' town farm in The Hague was the first of more than 200 town farms in Europe.

Each evening, we gathered outdoors to chat. One night, a Spanish delegate led us in song, and invited all of us to next year's conference in Spain. Teachers who participated in the tours and discussions with their students often decided to host the next conference. And that was the way Caretakers found friends around the world.

At our meeting in Canada, we had an evening in which delegates from each country performed a song, or skit, or told a story. This celebration of cultures became a CEI tradition. Later, a student composed a Caretakers song. Environmental field trips and discussions plus cultural



celebrations: a powerful way to promote international friendships and solve global environmental problems.

I met youth and teachers from many countries, who told me that they were trying to protect the environment even though the headmaster ignored them, their government refused to fund them and their schoolmates often laughed at what they did.

Students from many countries worked on energy, pollution, conservation and other environmental issues. They also participated in projects related to Seeds of Biodiversity, an official CEI program.

The students also told me that they were nervous about presenting their projects. It was the first time most of them were in a foreign country; and many did not speak fluent English. They got to know one another, as they put up exhibits and gave some very impressive reports about their hometown projects.

No matter what challenges they faced, these youth were determined to protect our planet. And their teachers taught them how to do it.

In 1989, at the CEI/US conference in Oak Park, Illinois, I talked with Fatima Matos



Caretakers of the Environment International - A global network of teachers, educators and students

Almeida, a teacher of the deaf in Lisbon, Portugal. She and her fellow teachers decided to have lessons on the environment in order to develop language skills with her high school students. At first they heard lectures and went on field trips. Then, Fatima and other teachers asked these deaf students, who had never attended classes with other students, to interview schoolmates about their attitudes on the environment. When they compiled their results in an environmental pantomime, Fatima decided they should perform at an assembly. One teacher objected to having deaf students on stage. But the student body protested and the deaf students performed. The next semester, deaf students became leaders of a school project about Portugal's forests and planting trees.

In 1989, before the Berlin Wall came down, some Americans were still building bomb shelters because the Soviet Union and the US had nuclear missiles aimed at one another. But Barbara Rinnan, a friend of Ed Radatz, who started the Midwest Center for U.S. – USSR



Majid Bashir tells Hilliary all about CEI - 2010^Aibor9%16^

Relations, brought two Russian teachers and four of their students to our meeting.

In April, 1990, before the breakup of the Soviet Union, Barbara, Ed and I met brave teachers in Murmansk, a city in the Arctic region of Russia. Like all adults in the Communist regime, these teachers were employees of the Communist government. Yet, they organized a protest march with schoolchildren. Together, they protested against plans for building a nuclear power plant in Murmansk; and against the acid rain released by a nearby nickel manufacturing plant that was killing the forest. One of the teachers was fired and her daughter was not allowed to apply to college. However, because the Russians had lost so many children in World War II, the children were not punished and the government did

not build the nuclear plant in Murmansk.

In July 1995, after the breakup of the Soviet Union, these teachers hosted a Caretakers conference in Murmansk. We toured an icebreaker ship, and saw the harbor where nuclear waste was stored. We were very surprised that there was only a small patch of snow; and the sun never set in this summer Arctic environment.

At other European meetings, I met two teachers, Andrew Cox from Waterford, Ireland and Clark Houston from Northern Ireland, who had worked together, planting gardens and doing other environmental work with their students. They did this for 13 years, during “the Troubles,” a time when there was fighting between Catholics and Protestants, and unfriendly relations between North and South in Ireland.

“How did you get permission from parents when they were fighting one another?” I asked Clark.

“Because they wanted better lives for their children,” he replied.

In 1998, Andrew and Clark co-hosted the CEI conference. Caretakers spent half of the conference in Waterford, Ireland; then crossed the border into Northern Ireland. We were there on the first day of the new Parliament.

In 1991, at the United Nations Conference on Women and the Environment in Miami, Florida, I presented Caretakers of the Environment International as a success story. It was a great honor to be with women from around the world who, despite threats from industry and government had accomplished so much.

In 1992, I represented CEI as an environmental non-governmental group at the United Nations Conference on Environment and Development (“the Earth Summit”) in Rio de Janeiro Brazil. I had just left the Women’s tent (where delegates from many nations described their obstacles and successes), looked up, and was to pleased to see my fellow Caretaker, Suryo W. Prawiroatmodjo, from Indonesia.

“Why are you here?” I asked.

“I’m being honored as one of the Global 500 environmentalists,” he replied.

What an amazing accomplishment! Quietly, and steadily, he had braved the opposition of the Indonesian government and other Asian countries that wanted to harvest the teak, mahogany and other trees of the tropical forest. Suryo taught very poor people in Indonesia how to use the resources of the forest without cutting it down.

Caretakers of the Environment International - A global network of teachers, educators and students

Soon after that meeting, Suryo became gravely ill. Yet he continued his work and even managed to set up a nature center and taught teachers about sustainable development. Suryo was too ill to travel to CEI conferences but he sent Stien Matakupan, Darma Patni and other teachers and students every year.



Arjen Wals teaches sustainability to college students in the Netherlands.

There was danger in their work because government and industry did not want interference.

When I asked Suryo why he did not start a Caretakers/Indonesia network, he told me, "The politics is not right yet." Then the regime changed.

Suryo, Stien and Darma established Caretakers/Indonesia, hosted a conference on teaching for sustainability and invited delegates from Caretakers/USA and many Asian countries. I met all of them again at the CEI 2010 conference in Indonesia.

During the 2008 CEI/Denmark conference, Dan Hoynacki and Ryan Kinnett from Oregon, USA, worked with students to develop a list of Environmental Rights and Responsibilities action steps for communities, individuals, government, business and families around climate change. Danish students later, presented these ideas at the United Nations Climate Change Conference in Copenhagen in 2009.

At our 25th anniversary conference in Debrecen, Hungary two former Caretakers students- Armand Wachelder, an artist from the Netherlands, and Calvin Young, a member of the National Guard in the United States- formed an alumni group that keeps in touch via internet. They also assist at CEI conferences and participate in planning the future of CEI.

I am revising my book "The Nature of Chicago" which was inspired by travels to cities during CEI conferences.

Ed Radatz is retired from teaching but he continues to work with CEI students and teachers, and schools in Arizona, and is Emeritus on both the International and USA boards of directors.

I recently received an email from Armand who is working with students on urban gardens. And I called Nadia, Calvin's daughter, to wish her good luck as she presents her project about cleaning up Chicago's Oak Street beach, at the CEI/Scotland conference.

Yes, I constantly hear news about climate change, terrorism, and pollution that threaten our planet. But how can the world resist these idealistic and energetic youth?

And isn't it amazing what can happen when three people meet for lunch? The End.



Caretakers of the Environment International - A global network of teachers, educators and students

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