

Editors Column

Welcome to a particularly interesting issue. We begin by exploring biodiversity; we learn what it means and how we can preserve the environment. We then review some heritage books for those interested in Zimbabwean Archaeology. We go on to focus on what Waverley Plastics are doing to help look after the environment. Equally important and exciting, we give some ideas about how you can promote a litter free Zimbabwe, raise funds for environmental protection and illustrate some exciting 'Do It Yourself' ideas that you can do with wood stakes.

We welcome your comments and environmental contributions which you may kindly send to The Editors on:

infor@blackcrystal.co.zw

Thank you and happy reading!



Environmental Consultants
Caring for the environment beyond today

Black Crystal Consulting is one of Zimbabwe's leading reputable companies offering a quality service in environmental and socioeconomic consultancy services. Black Crystal Consulting believes in ***caring for the environment beyond today*** to ensure that biodiversity is maintained and that natural resources are not depleted for the next generation to come.

Black Crystal Consulting (Pvt) Ltd
1 Fairbairn Drive
Mount Pleasant
Harare
Phone: +263 4 334361/ 307458

DID YOU KNOW!!!

That the production of a single gold ring results in 20 tons of waste materials! In addition to this mining for the precious metal around the world causes significant loss of land, contaminates groundwater supplies and leaves behind toxic waste, particularly cyanide that often ends up in the oceans.

BIODIVERSITY AND THE ENVIRONMENT

Biodiversity can be defined as the degree of variation of life. This can refer to genetic variation, species variation, or ecosystem variation within an area, biome, or planet. The period since the emergence of humans has displayed an ongoing biodiversity reduction and an accompanying loss of genetic diversity. During the last century the planet has lost 50% of its wetlands, 40% of its forests and 35% of its mangroves. Around 60% of global ecosystem services have been degraded in just 50 years. Species are estimated to be going extinct at rates 100 to 1000 times faster than in previous geological times. Moreover, there is reason to believe that these extinctions are associated with economic and social losses.



Photo: Coral Reef

For example, between 1981 and 2006, 47% of cancer drugs and 34% of all 'small molecule' new chemical entities for all disease categories were natural products or derived directly from them. In some countries in Asia and Africa 80% of the population relies on traditional medicine (including herbal medicine) for primary health care. As extinctions continue the availability of some of these medicines may be reduced and new drug developments may well be curtailed.

Humanity is using nearly 50% more natural resources than the Earth can replenish. Biodiversity decline and loss of ecosystem services is a major global threat to the future of our planet and our generations. We and future

generations to come need to make an effort to reduce the degradation and depletion of the environment and ultimately the biodiversity found in it. Nowadays 75% of the world fisheries are fully or over exploited.



Because biodiversity is threatened by combined actions of our society, this means saving it also can be done by the collective efforts of the society. These include reducing, reusing and recycling material. Composting both reduces the overall waste stream and it provides natural fertilizer for your flower and vegetable garden. Use environmentally friendly products for your household cleaning. Buy organic food as this helps to reduce input on fertilizers and pesticides. Save energy in the home and office by switching of equipment that is not in use and by using energy saving techniques. Make use of carpooling with your friends and family. High levels of biodiversity are crucial to the well-being of humans and to all living things and the ecosystems that that they in from coral reefs to forests.

Sources: en.wikipedia.org/wiki/Biodiversity

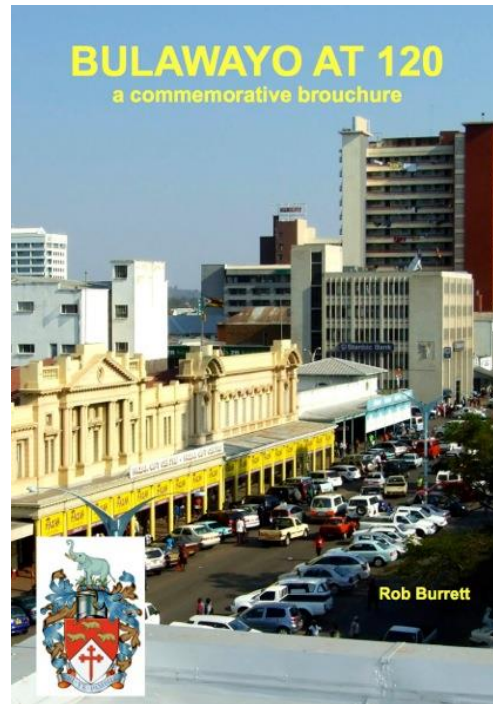
www.copenhagenconsensus.com

www.panda.org/biodiversity

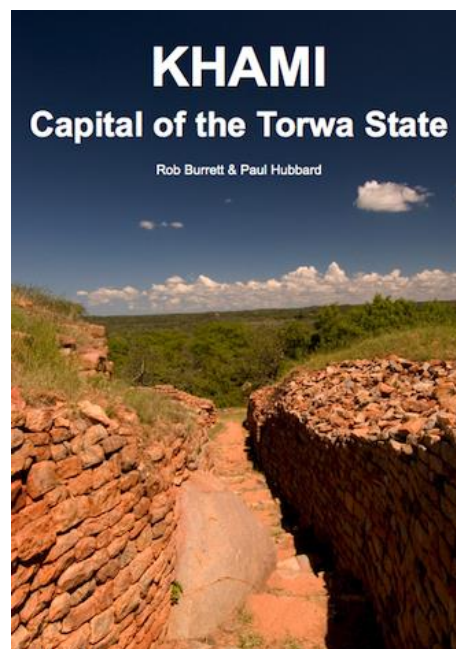
HERITAGE GUIDEBOOKS

Rob Burrett, our Heritage specialist, Associate Researcher Natural History Museum of Zimbabwe and resident of Bulawayo has recently produced, along with other specialists, three new guidebooks that cover aspects of Zimbabwe's heritage. The series will be extended over the next few years to include other parts of the country. The objective is to increase public awareness of our amazing heritage; ensuring that future

generations remember and to assist in raising funds for various heritage projects related to their content.



The latest guidebooks include: Malindidzimu (the hill where Cecil John Rhodes' remains lie in the Matobo Hills); Khami Ruins; and a brief history of the building of the railways in Zimbabwe and Zambia. The booklets are very reasonably priced at US\$5.00 each.



Later this month a fourth booklet, commemorating the 120th Anniversary of the declaration of Bulawayo as a town will also be available. Others currently in the

pipeline include Great Zimbabwe, Nyanga and the Matobo Hills. These booklets are being sold at the Natural History Museum, Bulawayo and a Harare outlet is being negotiated. Should you want to know more please contact us and we will put you in touch with Rob Burrett.

WORLD WITHOUT LITTER



Become involved – The 'World Without Litter' team are looking for people willing to go into schools in Harare and educate pupils about litter. They will be conducting a 10 day litter workshop for every school. If you wish to take part in this great schools education initiative please contact: info@worldwithoutlitter.org. A litter free Zimbabwe begins with you. Check their Facebook page <http://www.facebook.com/worlwithoutlitter> and like their page. You can also access their website www.worldwithoutlitter.org

WAVERLEY PLASTICS PET RECYCLING PLANT

Waverley Plastics is very happy to announce that their PET recycling plant is now up and running. They are offering CASH for all PET bottles (except ones that have had any type of oil i.e. cooking oil, motor oil) from all vendors and companies alike.



For a stock pile of over 1 tonne, they will come and collect for free from areas around Harare. They are prepared to pay US\$ 0.10 per Kg and would appreciate

it if the bottles could be assorted according to colours. They are located at 690 Cooleen Road, New Ardennie if anyone would like to take their collections there. Please let them know in advance if you want to drop off some bottles. For more information, contact them using the following details: Cell: +263 772 161 510, Website: www.waverleyplastics.com. For collection and setting up collection centres please contact teresa@environmentafrica.org

BIRDLIFE ZIMBABWE REPRESENTED AT THE CAPE ARGUS BICYCLE RACE

Congratulations to Brett Pissas and Julia Pierini for riding in the recent Cape Argus Bicycle race in Cape Town, South Africa on 9 March 2014. Their objective was to raise funds for the ***BirdLife Zimbabwe initiative that supports Wetland Ecosystem Conservation.***



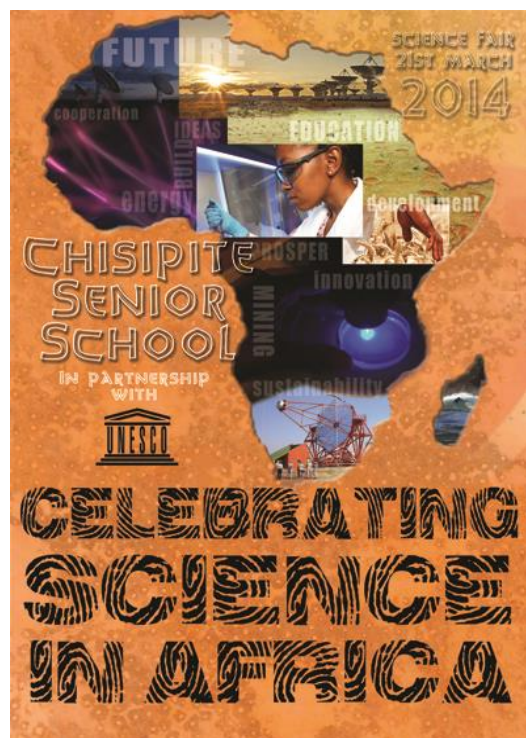
Their hard work and dedication paid off and their sponsorship money was gratefully received by BLZ.

For more on BLZ, you can visit their website: www.birdlifezimbabwe.org. For race results, please see: <http://www.cycletour.co.za>.

CELEBRATING SCIENCE IN AFRICA

Science has contributed so much to global society. It is a highly interesting and important field and it can improve the quality of life on many different levels. It is of course in action all around us all of the time and interwoven with

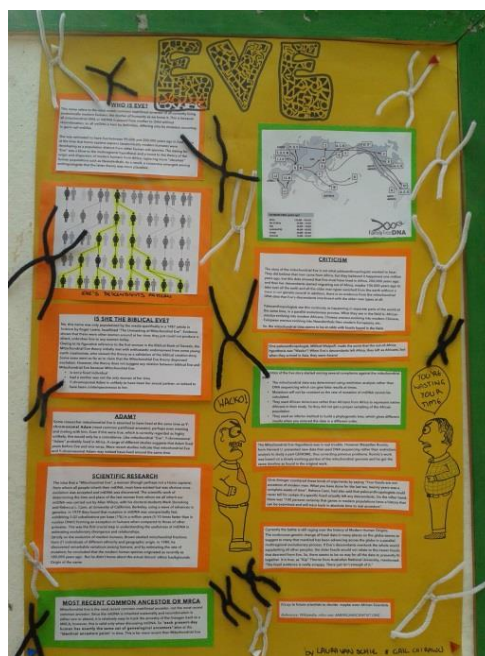
our daily lives: think about the weather, the landforms that we see, the medicine we take, the food and drink we consume. Science affects policy making, our leisure time and the way we travel. Consider all the technology we use daily and that we have come to rely on. Science is alive in all living things including ourselves. It is a wide field consisting of many different and exciting disciplines some of which are multi-disciplinary. The modern world would not be modern at all without the knowledge afforded to us by Scientists.



Despite the tremendous gains that girls and women have made globally in education and in the workforce during the past 50 years, progress has been uneven and certain scientific and engineering disciplines remain overwhelmingly male. In addition to this in Africa the percentage of women in the field of science is less than 3%. In an effort to address this problem Mrs. S Mahachi, a Teacher of Chemistry and Physics, took the initiative and established an annual Science Fair at Chisipite Girls Senior School. She also believes that fostering scientific innovation is one of the key elements to driving sustainable development in Africa and the Fair provides a platform for students to be innovative. The annual science competition is open to the lower and upper 6 Forms who have to undertake a research project and

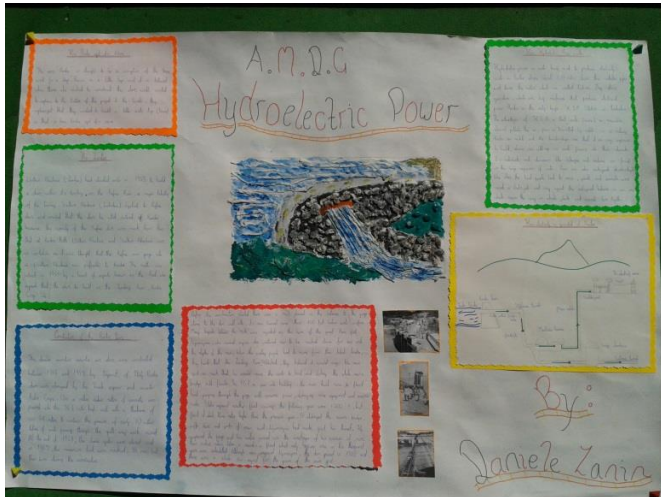
Forms 3 and 4 who have to compile an educational poster.

Mrs. Waterworth, one of our Senior Consultants at Black Crystal was invited to join the panel of judges at this year Science Fair consisting of: Professor I Grundy and Ms. R Kasembe from the University of Zimbabwe, Mr. R Powles, Head of Chemistry at Hellenic Academy, Mr. J Whittaker (ex St John's) and Mr. B Kufakuwadya, Physics Teacher, from Chisipite High School. Participating schools included: St Mary's High School, Chitungwiza, St John's College, Oriel Girls, Oriel Boys, Hellenic International Academy, Mabvuku High, St John's High School, St George's College and Chisipite Senior School. The theme this year was 'Celebrating Science in Africa' and the students had to produce projects looking at the application of science that is relevant to Africa.



1st place: Eve by Chisipite High School

The winning projects were all well researched and highly original ones. For the Poster Section, Forms 3 and 4, in 1st place was Eve by Chisipite High School, won last year by Hellenic Academy; 2nd place was 'Hydro Electric' by St John's, won last year by Chisipite High School and 3rd place was 'Bio fuel' by Chisipite High School, won last year by Zengeza 1 High School.

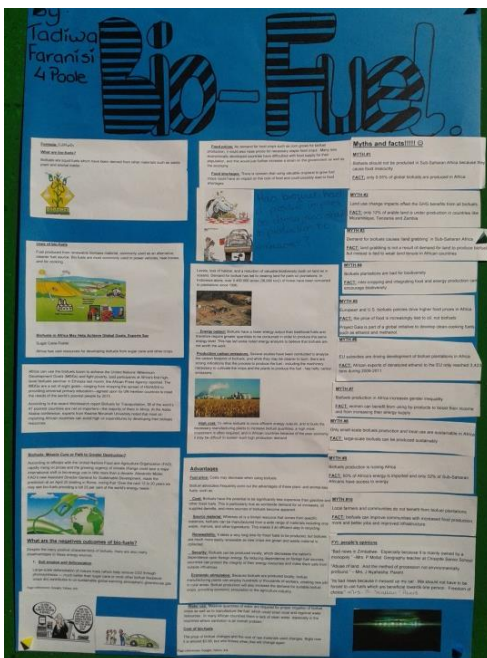


2nd place: 'Hydro Electric' by St John's

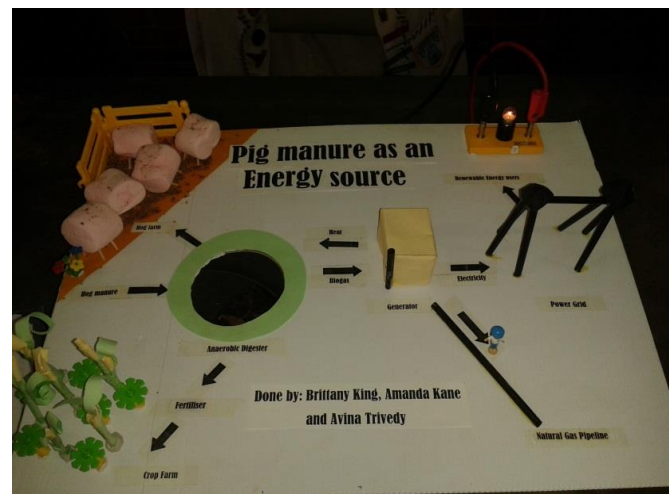
1st Place: 'Ozone Water Purification' by Chisipite High School Won last year by Hellenic Academy;



2nd place: 'Aquaponics' by Chisipite High School won last year by Chisipite High School;

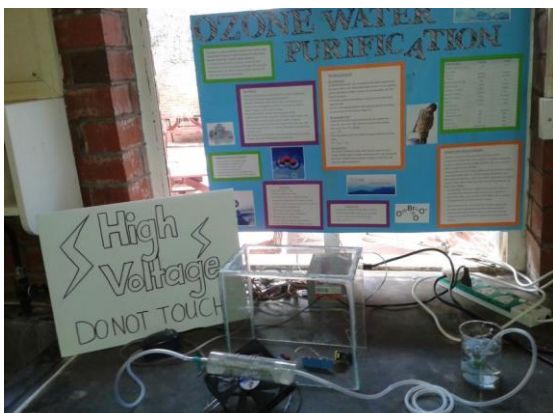


3rd place: 'Bio fuel' by Chisipite High School



3rd place: 'Pig Manure' by Chisipite High School, won last year by St John's College.

For the Laboratory Section, Lower and Upper 6, the winning teams were as follows:



If your school would like to participate in the 2015 Science Fair then please kindly contact Mrs Susan Mahachi on e-mail: wmahachi@gmail.com

WATER SAVING TIPS

In Industries, Businesses and Schools

- Turn off water supplies after hours and over weekends.

- Do not use hosepipes to wash down forecourts and paved areas. Use a bucket and a broom.
- Check your plumbing for leaks regularly.
- Do not use fire service supplies for any other purpose except for firefighting.

At Home

- A dripping tap (one drop per second) wastes up to 30 litres of water an hour wasting water and increasing your bill. It is cheaper to replace the leaking tap.
- Avoid brushing teeth using running tap water. Use a cup/glass. This can save up to 20 litres of water each time you brush your teeth.
- Close the tap when shaving. This can save up to 45 litres of water.
- Do not rinse glasses and cutlery under running water. Use closed sinks or bowls.
- Avoid washing vegetables under running water. Use bowls to do this and the water can be reused for irrigating gardens.
- Check your plumbing for leaks regularly. A leaking toilet can waste up to 30 litres of water an hour (more than 3 drums a day).
- Do not use hosepipes to wash cars. Use a bucket.
- Teach your children not to waste water and engage them in water saving activities e.g. water recycling.

In the Garden

- Use water from your kitchen and bathroom for watering the garden.
- If you have to water your garden, do it before 10am, or after 4pm in the evening to prevent loss by evaporation in the heat of the day.
- Avoid watering on windy days as water easily evaporates.
- Do not over water your lawns or plants.
- If you wash your car, wash it on the grass. This will water your lawn at the same time.
- Never use a hosepipe!

Manage your water usage by reading your meter on the 30th day of each month. Water is life every drop counts! Let us all conserve it!

DIY RECYCLING TIPS



THANK YOU!!!