



Warfare, Genocide
& Extinction

The Real Cost of Modern Conveniences

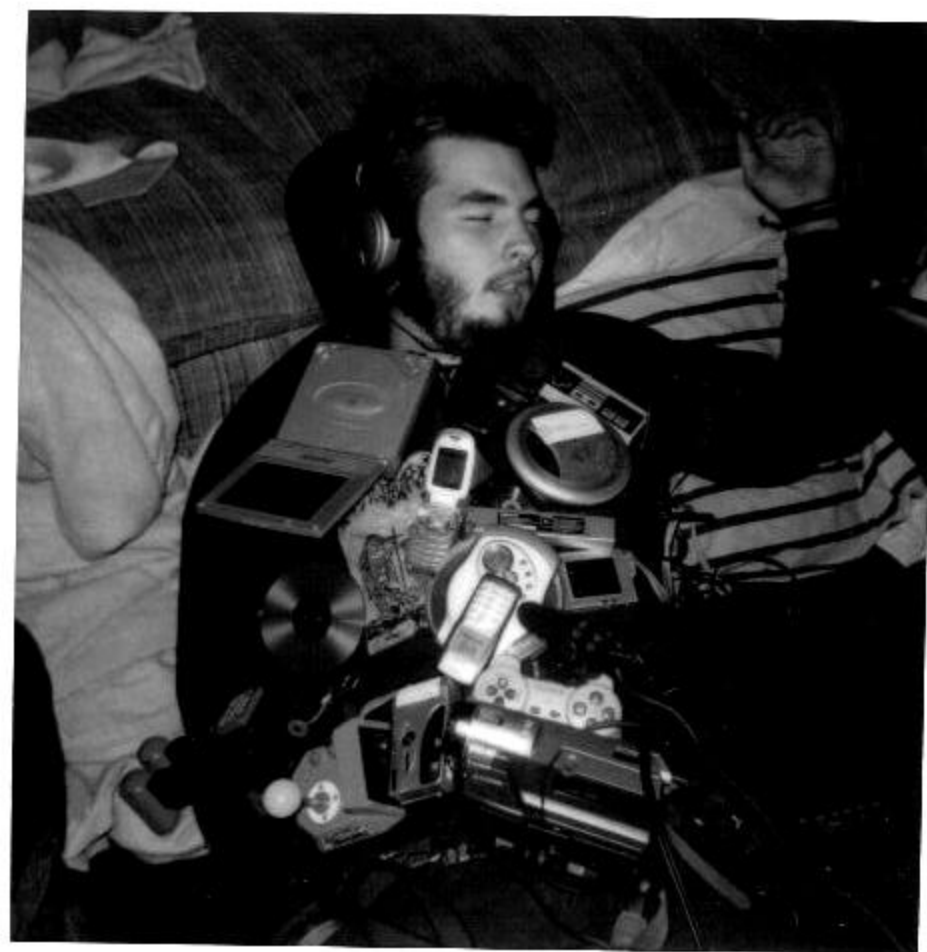
BY: Shane Schellhass
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5. How can I help?



To combat the spread of PBT's, they are conducting campaigns to recycle old cellular phones and computers to keep them out of landfills. They give these phones to the needy for emergency 911 calls and they get the unusable phones to the right recycling facilities. It is usually free to recycle your phone, so there is no excuse why most Americans are not doing so. Here in West Bend, you could take your phones to the local DMV Emissions testing and they will take it. Also, if you're in the Madison area, the Henry Vilas Zoo will take your phones guilt-free. Any major cell phone company, as well as many computer companies will take your unwanted electronics free of charge. Such companies include: Apple, Dell, IBM, Motorola and Nokia. Even Starbucks offers a computer recycling program. To find out more, visit www.earth911.org for a complete listing of facilities that will dispose of your electronics as well as more information about recycling. As for buying new, there is no clear way to determine whether your device used Coltan derived from the Congo, however, a lot of businesses sell refurbished goods (used and recycled devices repaired to act like new) and some even claim to be Congolese coltan free. We all need to step up to the plate and do something about this horrible situation.



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Frequently Asked Questions

1. What are "persistent, bioaccumulative toxins" - PBTs? PBTs are both naturally occurring and man-made substances that build up in the food chain and can affect human health and reproduction. These toxins travel long distances in the atmosphere, move readily from land to air and water, and do not break down easily.

2. What do cell phones have to do with PBTs? Cell phones (and other electronic devices) are an especially problematic component of the waste stream because they contain a large number of hazardous substances, which can pollute the air when burned in incinerators and leach into soil and drinking water when buried in landfills.

Many of these toxic substances — including antimony, arsenic, beryllium, cadmium, copper, lead, nickel, and zinc — belong to a class of chemicals known as persistent toxins, which linger in the environment for long periods without breaking down. Some of them — including the metals lead and cadmium — also tend to accumulate in the tissues of plants and animals, building up in the food chain to dangerous levels even when released in very small quantities. Most of the persistent toxins and PBTs contained in cell phones are in the printed wiring board and liquid-crystal display. They are also found in the rechargeable batteries and the flame retardant used in the plastic of the cell phones.

3. How can PBTs harm us? PBTs have been associated with cancer and a range of reproductive, neurological, and developmental disorders. They pose a particular threat to children, whose developing systems are especially vulnerable to toxic assault. PBTs also have a unique ability to affect the brain, central nervous system, eyes and other organs of developing fetuses. PBTs can also affect motor abilities. The PBT of greatest concern in cell phones is lead, a heavy metal recognized as a problem material throughout the world. Lead is a suspected carcinogen, has adverse effects on the central nervous system, immune system, and kidneys, and has been linked to developmental abnormalities. Its main application in cell phones and other electronic products is in the solder used to attach components to each other and to the printed wiring board.

4. Alarming facts about cell phones: -Cell phone subscriptions have skyrocketed over the past 20 years, from 340,000 in 1985 to 150 million in 2005. -The EPA estimated cell phones would be thrown away at a rate of 130 million a year by 2005 that equals 65,000 tons of waste containing toxic metals. -There are more than 500 million used cell phones in the U.S. sitting in people's drawers or in our landfills with as many as 100 million added each year. †With technology changing, the average lifespan of a cell phone is 14 months.

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Almost every American household today contains cell phones, computers and video game systems. These are common necessities in today's world and most can not live without them. When I conducted a survey at the University of Wisconsin-Washington County, 98 percent of students responding said they owned at least one, if not more, of those devices. When I asked the students where these machines came from, most said they did not know or that they came from "Cingular" or "The Store". One person said the parts come from "Silicon City" probably referring to Silicon Valley in California where the major computer processor companies are located. A lot of people also said "somewhere overseas" like China, Taiwan, Korea, and Mexico. People never bother to think about where the raw materials come from or how businesses obtain resources. When demand for an item increases, the supply goes down and needs to be compensated for.

During the technological revolution in the last 20 years, there has been an increase in the demand for cell phones, computers and even video games. This happened when the shortage of a valuable metal called coltan, which is used for the tiny electrolytic capacitors in cell phones and other portable electronic devices, drove the price up and people began looking towards third world countries to obtain it. The metal is derived from the ore Tantalum, which is an extremely hard and heavy metal that happens to be very plentiful in the Democratic Republic of Congo. The high demand has created militias and other guerilla groups engaged in civil wars in the DRC to mine this mineral and to sell it to desperate and greedy businesses. We need to get people educated on this issue because cell phones are killing people and animals alike, spreading AIDS and other diseases, furthering the illegal arms trade, and destroying the environment.

The foundation of small mining camps within the depths of the Congo rainforest has had a major effect on the animal population. In order to feed the miners, they collect "bush meat", in other words, any animal they can find nearby. The DRC is home to some of the endangered Great Apes, and these apes are in great danger of



Now what we have is an extremely large accumulation of toxins in a fish that humans eat and that could be lethal. As you can see, PBTS spread through the air, water and land very easily, causing many environmentalist groups to take action.



Americans are constantly whining and complaining on their web logs and in instant messaging conversations, when hundreds of thousands of people are being exploited so that we can enjoy the luxuries of cell phones, computers and Playstations. The problem is not that we have these machines, but that we aren't doing anything to obtain these items correctly. Millions of tons of Coltan are illegally exported from the DRC every year when we could just recycle our old equipment and end this huge dependency on the Coltan mining. For the sake of our electronic toys, guerillas are getting rich, gorillas are getting slaughtered, and the local people are getting paid next to nothing to ruin their country's environment. We need to do something before the apes are extinct, the land is destroyed forever, and war and disease take over the world.

Words by Shane Schellhass. Art by Tami Langowski, Lindsey Huerta & Kyle Swanson

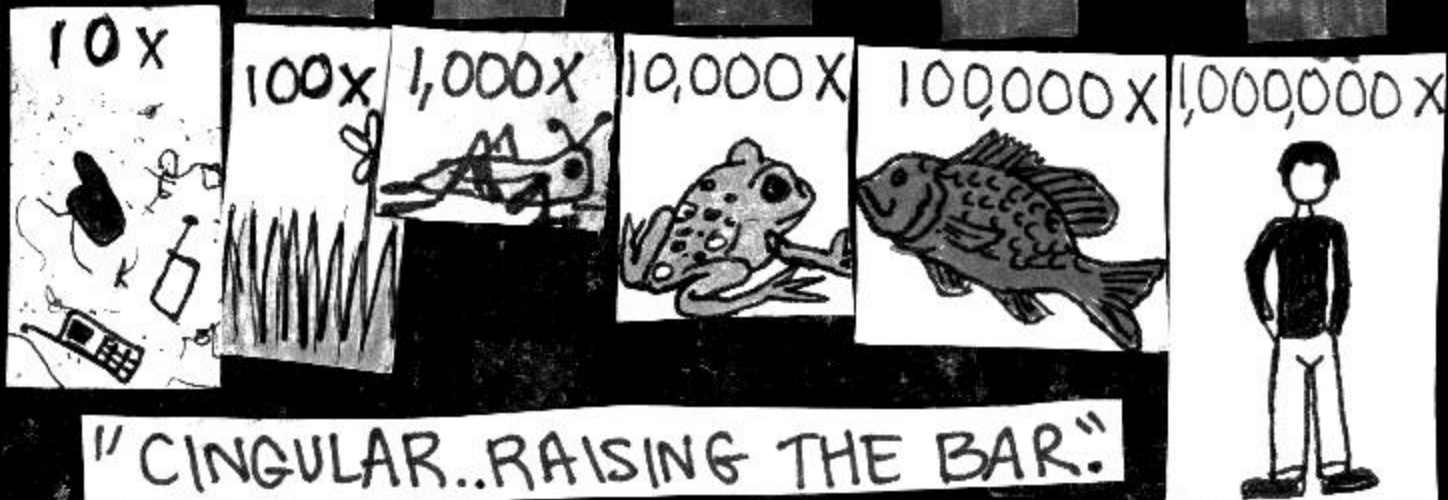


Good thing Tiffany does not have to think about that when she sends a text message to her boyfriend, right?

Hopefully, by now, you are wondering what you can do to help. With the increase in technology, we need to find other means to recycle and reuse what we already own. A lot of old cell phones become residents in desk drawers and basements. This is, in the short term, helpful, but eventually they will find their way to the trash receptacle and spread their toxins in a landfill somewhere. Cell phones contain many hazardous metals that are toxic to the human body containing what scientists refer to as PBT's or Persistent Bioaccumulative and Toxic chemicals.

The term bioaccumulation refers to the net accumulation over time of persistent toxins from metals within an organism from both biotic (other organisms) and abiotic (soil, air, and water) sources. This then leads to biomagnification when the toxins are introduced to a food chain.

Biomagnification starts out at the bottom of the food chain, where organisms such as plankton absorb the chemicals from the water system. When a small fish ingests the plankton, it becomes concentrated in its fat cells, so the more plankton it eats, the higher the concentration of chemicals. Next, a larger fish comes along and eats the smaller fish and the high concentration or accumulation of toxins is even greater. The more toxic fish the larger fish eats, the higher the accumulation of toxins.



extinction due to these mining camps. Most of the apes live on wild life reserves and protected land, however, the benefits involved in sneaking onto these reserves to mine the Tantalum and harvesting the animals outweighs the consequences. The Kahuzi-Biega National Park and Okapi Wildlife Reserve are

most affected by the Colomo-Tantalite miners who threaten the ape population. Klaus Toepfer, the Executive Director of the United Nations Environment Programme, stated that "in as little as five to ten years, they will be extinct" and that "local extinctions are happening rapidly." According to the Great Apes Survival Project, the Western Lowland Gorillas are already extinct in the DRC; the Eastern Lowland Gorillas number between 3,000 and 5,000 and the Mountain Gorillas total 700 spread out through the DRC, Rwanda and Uganda. If something is not done, the apes will become the first animal to be driven to extinction as a victim of war, human greed, and high technology. The local authorities and even the park rangers try to help fight the illegal harvesting of apes, but if the high demand makes the price of the Coltan higher than the risk involved

in obtaining it, then the militia groups will stop at pockets.



In addition to eliminating the ape population, the miners' presence in these protected lands

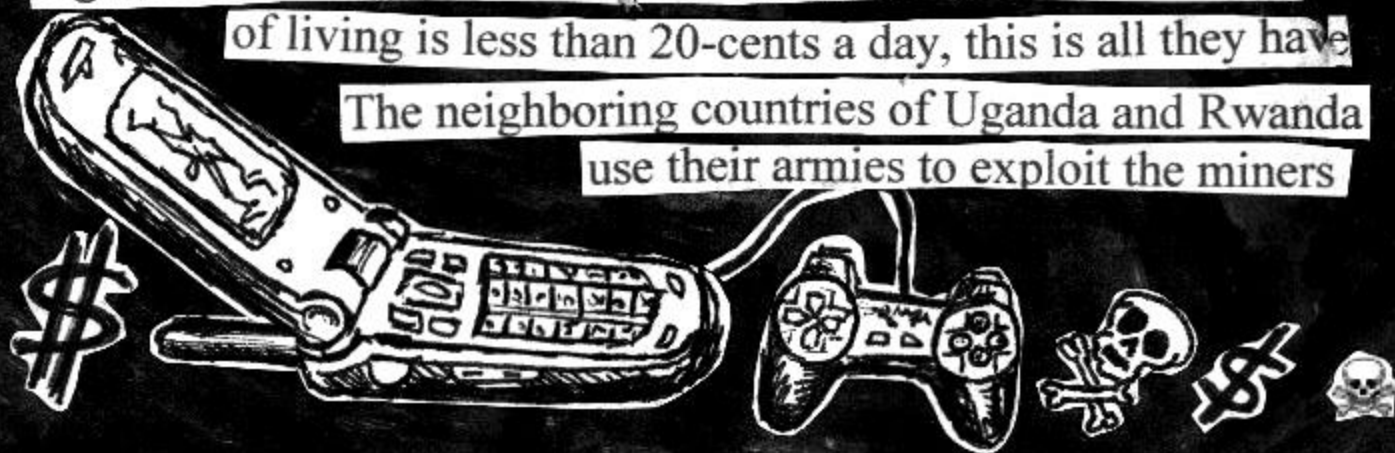
does not go unnoticed. They begin by clear cutting the area to set up camp, using the wood for houses and burning purposes. In the Virunga National Park alone, at the height of the influx of miners, 600 metric tons of wood was being harvested daily. The logging would then continue as needed with no regard for the damage it was doing. Roads then needed to be built for people exporting the minerals out of the camps. This would cause more deforestation

and destruction of habitats, displacing the native animals. It doesn't end there, heavy pollution to the water system created a lack of fresh drinking water among the miners leading to outbreaks of cholera and other diseases. S.U.V. sized craters litter the streambeds and clearings of the east Congolese rainforest, being hacked out of the earth by the many miners. Even the trees that aren't cut down get their bark stripped to make troughs to shovel the Coltan-bearing mud. So, the lands that environmentalists and conservationists have worked hard for decades trying to protect and save are being destroyed so that little Timmy can play his new PSP. Another problem the Coltan creates is a disgusting social environment in these makeshift mining camps. Prostitution runs rampant and the spread of diseases like AIDS



is enormous. Miners could pay a kilo of Coltan so that they could be paired up with one of the prostitutes as a "husband and wife". If the miner wanted a different "wife", he would just need to pay another kilo of Coltan to the Madam in charge. Also, the prostitutes could pay a kilo of coltan to the Madam if they wanted a better "husband" that produced more Coltan. In the jungle, where hygiene is problematic and condoms are all but nonexistent, the spread of disease took off. AIDS is not only sexually transmitted; a lot of people obtain AIDS and diseases such as the Ebola virus from eating the bush meat animals. A lot of the wild animals they harvest are infected and this gets transferred through digestion. In addition, the poor drinking water leads to outbreaks of cholera, dysentery and similar illnesses. Sickness from disease is only the least of their problems as the abundance of animals steadily decreases. Having a fatal disease and being malnourished. They get paid less than a dollar a day working where the mortality rate is 40% higher than the rest of Africa. In a country where the standard of living is less than 20-cents a day, this is all they have

The neighboring countries of Uganda and Rwanda use their armies to exploit the miners



for their own welfare. Troops would bring in cigarettes and beer to the miners in the morning. At the end of the day, they would come back to collect a fee of Coltan to be paid for the beer and cigarettes they loaned out. If a miner couldn't pay, he would be beaten and/or killed. The mining camps would be fought over daily and the new guerilla's taking over would become increasingly worse. Some miners would receive no income because they were coerced into slave labor, being commanded at gunpoint to do what they're told. This picture never gets painted in Mr. Businessman's head as he logs on to his new laptop.

In 1994, America stared with its mouth open as hundreds of Tutsis, a Rwandan ethnic tribe, were murdered in a mass genocide campaign by the Hutu-led militia groups. Twelve years later, the Tutsis are staging a counter-genocide and illegal mining is a perfect place to do so. Being exiled from Rwanda after the genocide attempt, many Hutus took refuge in neighboring DRC. Here they were forced to mine and were persecuted by the Rwandan

NEWSWEEK that prior to execution, such victims were placed naked in a cell whose floor had been covered in rock salt. The salt prevented them from lying down. After several days, their legs swelled grotesquely and they became delirious. The rest of the workers were then assembled to watch the finale--a blow to the head with a hoe." With the price of Coltan booming, the Tutsis made massive profits exploiting the miners, allowing them to purchase weapons. Cities like the border town of Aru in DRC on the Ugandan border have open gun markets. The illegal arms trade is very serious and puts the DRC in a constant state of war as other militia groups purchase illegal arms so they can fight over who controls the mines. Battles rage daily and people under the guerilla's control get treated increasingly worse. "The death toll in the last five years



is estimated by the International Rescue Committee to be at least 3.3 million, the greatest bloodshed anywhere on earth since the end of WWII. Many die in the gunfights and others are just murdered when the opposing groups take over. Thousands of children are left without parents and are forced into mining or prostitution.