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### The Re-Greening of Anguilla Part II

by Lee H. Skolnick, FAIA

In my first article in last Winter's edition of Anguilla Life Magazine, I tried to make the case for why we all need to care about Anguilla and its environment, the dangers associated with ignoring the problem both here and around the world and the positive potential that planning, designing and living sustainably offer. In this second installment, I would like to concentrate on the things that we can do in our homes and daily lives to help this island, the earth and ourselves. My third and last article will focus on larger scale planning and infrastructure initiatives that can positively impact the future of Anguilla and its inhabitants for generations to come.

Our Everyday Lives

You don't have to be an engineer, architect, planner or politician to help the planet when it comes to conservation of energy and other resources, or the reduction of waste and pollution. Each day, we are confronted with ample opportunities to do better by the environment. A few frightening facts: The average household uses 9,400 kilowatt hours of electricity per year. The average household produces 150 pounds of carbon dioxide in a single day. The average household may use up to 400 gallons of water each day.

These are startling statistics. Clearly, our use of energy and water need to be radically reduced. And our overall production of toxic and climate-changing pollutants must be cut drastically. So, what can simple individuals do in the face of such dire challenges? Well, actually, plenty!

Energy

•Turn down your water heater to 120 degrees F/ 48.89 degrees C.

• Ensure that your house is well insulated.

•Set the thermostat on your air conditioner to no lower than 78 degrees F/ 25.56 degrees C.



Set air conditioners a few degrees higher to use a lot less energy and save money, too.

• Use compact fluorescent light bulbs. They use up to 75% less energy than incandescent bulbs and last up to 10 times longer.

Unplug appliances not in use.
 Shutoff but plugged-in appliances
 together consume the same amount of energy as a 100 watt bulb always left on.

· Turn off lights in unused rooms.

· Walk or bike instead of driving.

 Consider theuse of solar and wind technologies in yout home.

Water

Use low-flow shower heads and faucet aerators.

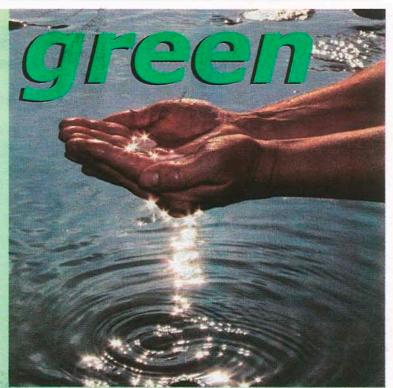
· Use a water-saver toilet or a toilet dam to displace and save water.

·Install a grey water recycling system

for irrigating gardens and watering plants.
• Fix plumbing leaks. A leaking toilet

can waste 100 gallons of water in a single day.

Grow plants that don't need a lot of water.
 Water plants during the coolest part of the day not on windy days.



On a dry island, water is a precious resource. There are many things you can do to conserve it.

Reuse and Recycling

· Bring reusable bags to the grocery store.

·Use reusable containers to store food.

\*Compost fruit and vegetable waste to use on your plants.

 Set up a bin system to separate your recycling at home based on the materials locally accepted for recycling.

**Designing Our Homes** 

Living an earth friendly life is easier to do if we take the environment into careful consideration when we plan and build the places we live, even without resorting to exotic or expensive systems and technologies. For instance, aligning your house to take advantage of prevailing breezes, and placing windows and doors to promote natural ventilation and convection will greatly reduce dependence on air conditioning. This passive solution can be enhanced dramatically by the design of deep roof overhangs that block the sun's rays from introducing heat into the building, as well as by installing supplemental ceiling fans to create air movement which produces cooling through evaporation. And, of course, these fans use much less energy than air conditioners. At the same time, the strategic placement of windows to allow indirect natural light into our homes can practically eliminate the need for energy-draining electric lighting during the daytime hours. Roofs should be light colored so as to reflect the heat of the sun and prevent it from heating up building interiors, and the installation of roof insulation can help even more.

Of course, roofs play another critical conservation role on a dry island like Anguilla. Increased roof area, combined with roof shapes that promote positive drainage, and efficient and tightly installed leaders, gutters and drains will ensure that every last drop of rain water that we are able to collect winds up in our cisterns, where it can contribute to lessening our dependence on costly and wasteful imported water.

Another often overlooked green design strategy is the use of locally-sourced building materials and those that are recycled or recyclable. A tremendous amount of energy is used in the transport of building materials from far-away places. The more we can utilize what we have close at hand, the more we protect the environment, not to mention promoting the

health of local businesses and economies. In addition, the building industry market is full of responsibly grown and harvested wood products and other items either composed of recycled materials or those easily recycled at the end of their useful life, or both. In most cases, making a product from recycled materials uses up less energy than making it from new materials. Aluminum cans using recycled aluminum use 95% less energy than ones made from new materials. Making new paper from recycled paper saves about 17 trees and uses 50% less water than making the same paper from scratch.

Of course, those of us who are interested in and able to go even further in our quest for sustainable homes can make use of alternative energy sources. As has been stated many times, Anguilla's natural and abundant resources of sun and wind offer tremendous opportunities for us to live "off the grid". Solar collector systems (hot water and photo-voltaic) and small, residential wind turbines can help us to generate our own electricity and produce our own hot water. As home energy storage systems continue to improve and as the price of solar and wind systems get lower all the time, we should all be considering the feasibility of these clean and eternally renewable energy technologies for our homes.

#### **Our Precious Land**

I sought the advice of my good friend James Craig to address the role that our landscape and garden designs can play in helping us to live in greater harmony with nature. James is the Principal of Craig Collins International, a Landscape Architecture and Planning firm with offices in Nevis and in Florida. Craig Collins has decades of experience in designing projects throughout the Caribbean, including many resorts and residences right here on Anguilla. Here are some points of advice that James offered.

We are part of nature. Our strategy should be to work with nature and help preserve the natural character of the place we live in. The natural environment of Anguilla is unique. The physical beauty of the coastline is moderated by drought and seasonally low rainfall, ocean spray and heat all which extend inland. Land form varies from sandy beaches and dunes to low cliffs dropping to pounding surf to high cliffs overlooking coral reefs as well as brackish water to season-

ally fresh water wetlands to a dry scrub interior. Each zone exhibits its own character and deserves respect as the plant and animal life has adapted to harsh conditions over the centuries.

Use native plants, which are salt and drought tolerant. Many plants such as Argusia, the seaside Lavender which are rare or endangered in other regional areas, occur abundantly on beaches and low cliffs. The palm Thrinax Morissi occurs abundantly on Anguilla yet is scarce elsewhere. There are native orchids and bromeliads often overlooked due to their small flower display yet they are very special as they flourish in these harsh conditions.

#### Preservation

Preserving native vegetation provides the Anguilla setting: a wild life habitat, low to little irrigation requirements, screening, habitat for rare or interesting plants and sometimes shade. Often times one can turn "the bush", into a beautiful natural setting by simple selective pruning and clearing out debris, deadwood and trash.

This strategy also preserves the land form including natural features such as boulders, rocks, karst (the weatheredjagged limestone), and ledges. Use these for garden walls and edging, as pavers and tiles and as sculptural aesthetic features. It also prevents erosion, saving the valuable thin topsoil and microbes which are part of the natural cycles. Preservation also helps the pocket book as there is a value for existing and adapted plants, rocks and soil.

#### Conclusion

I hope you will find some of this information useful as you go through your daily lives and as you plan and design your homes, gardens and workplaces. We need only to keep the value of a healthy environment in our minds in order to motivate ourselves to make well considered decisions in many areas of our existence. It is not people in relation to nature that is the question. We are all part of an integrated natural ecosystem - we are nature. My culminating article will cast the net more broadly to explore the larger issues of what Anguilla can do to protect its extraordinary natural gifts, and to preserve them for the health and enjoyment of our children and the generations to come.

Lee H. Skolnick, FAIA, Founder and Principal of Lee H. H. Skolnick Architecture+Design, has focused on inter-national award winning sustainable, environmentally conscious design for over 2 decades. The New York firm has created LEED Gold Certified projects and several local properties including Kamique Villas and Shoal Bay Resort. Anguilla visitors since 1991, the Skolnicks look forward to the completion of their new Rendezvous Bay home



Using native, draught-resistant plants combines natural beauty with tremendous savings on water and chemical fertilizer. It also supports the ecology of local ecosystems.