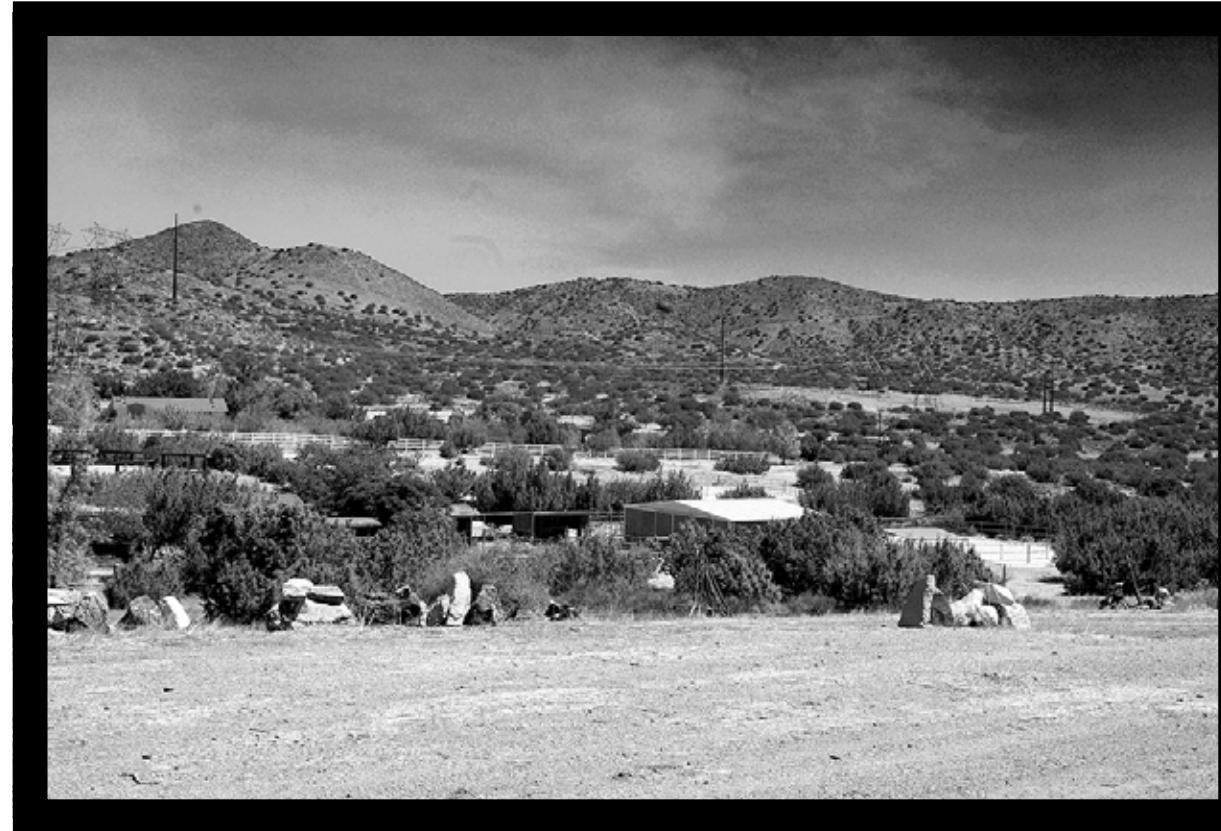


**N**ow when I looked about the quarter-deck, for some one having authority, in order to propose myself as a candidate for the voyage, at first I saw nobody; but I could not well overlook a strange sort of tent, or rather wigwam, pitched a little behind the main-mast. It seemed only a temporary erection used in port. It was of a conical shape, some ten feet high; consisting of the long, huge slabs of limber black-bone taken from the middle and highest part of the jaws of the right-whale. Planted with their broad ends on the deck, a circle of these



slabs laced together, mutually sloped towards each other, and at the apex united in a tufted point, where the loose hairy fibers waved to and fro like a top-knot on some old Pottowotamie Sachem's head. A triangular opening faced towards the bows of the ship, so that the insider commanded a complete view forward. Ulis. Vivivir itistas vid condam timur ia consum poptia ntil viderce Um idunt a dolorro ium ilit fuga. Solute ernam, ad quodis mos et qui blatiisque sae. Ita et eum corendandit, volectruptia quam, qEhempribus cae portontilia sentduc fortidem caesideps, nonfirmaxim conductua occipiorum patus, patuus hil hore facchil legitiemo ut grariti lnestUlp a etusam di odit quamentio vitate essimus volorum nobis dia veligniatem aliciate dolupti sero tesectu ribusam usdaepudam adi auda voluptas as sam ium vent aut pla



“Don't get even, get mad.”

*Frank Sinatra*

# “I'm gonna live till I die.”

-Frank Sinatra

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# “The best revenge is massive success.”

- Frank Sinatra

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# Wood Lands

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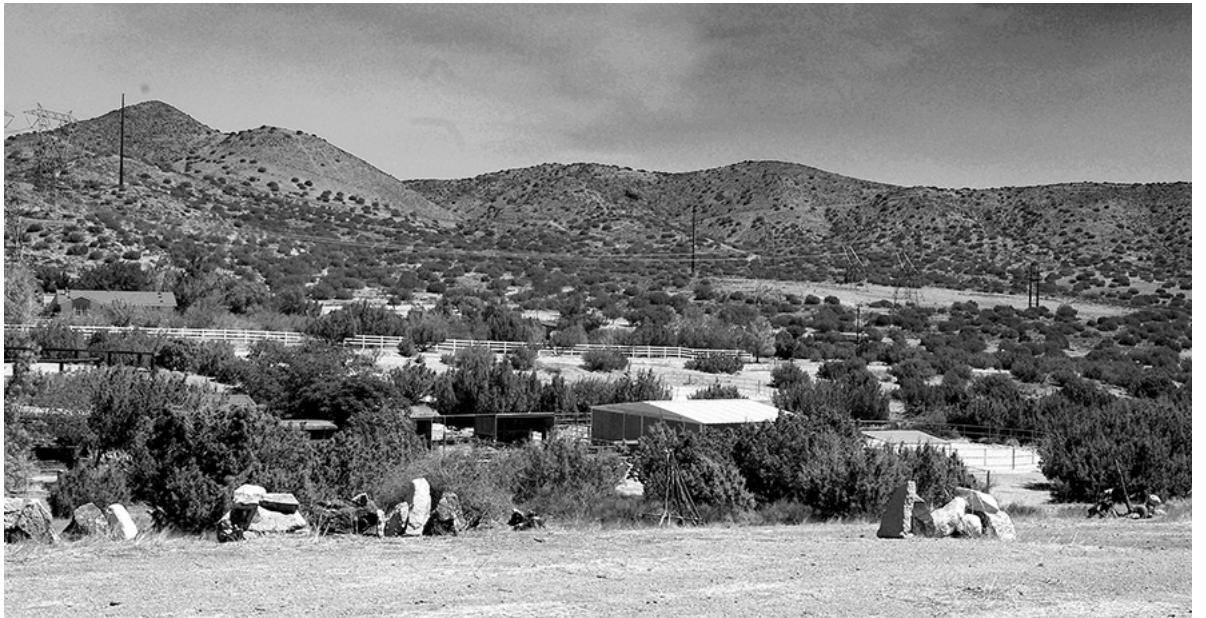


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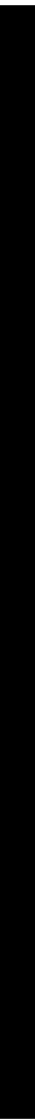
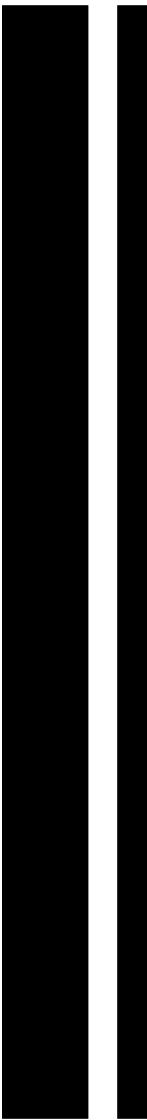


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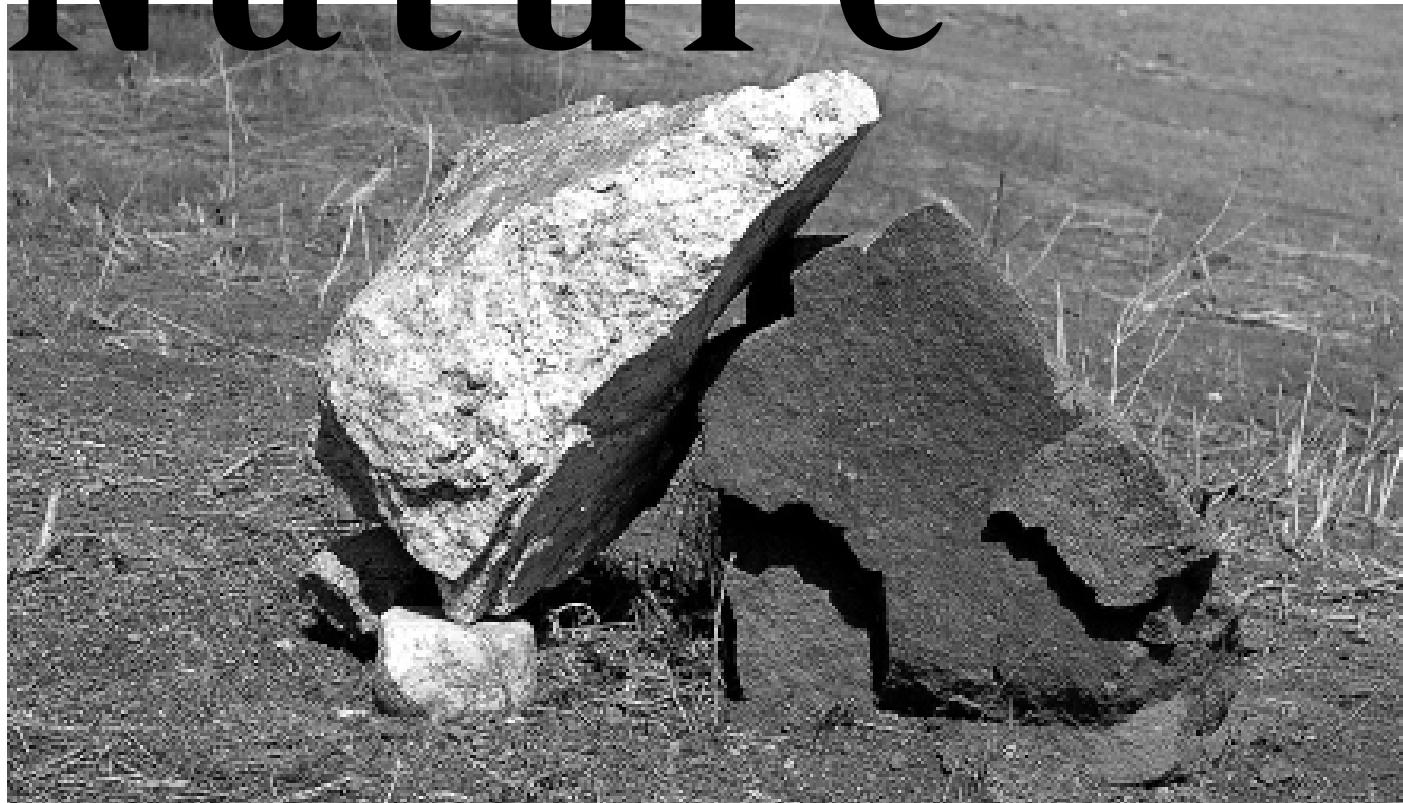
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# Nature



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# Nature



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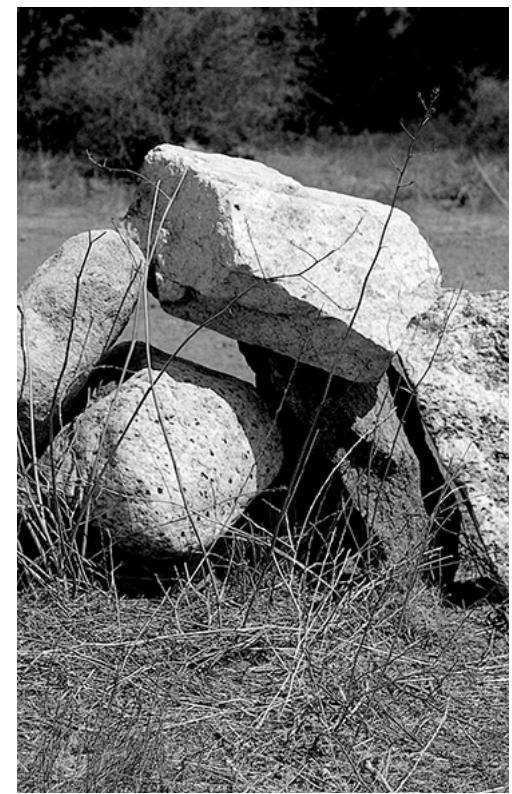
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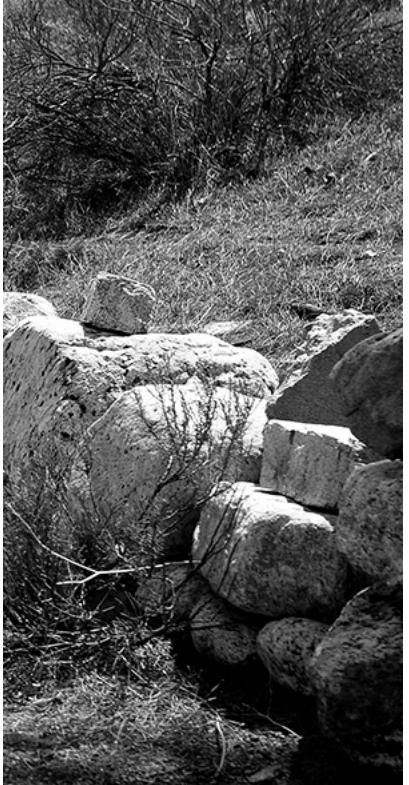
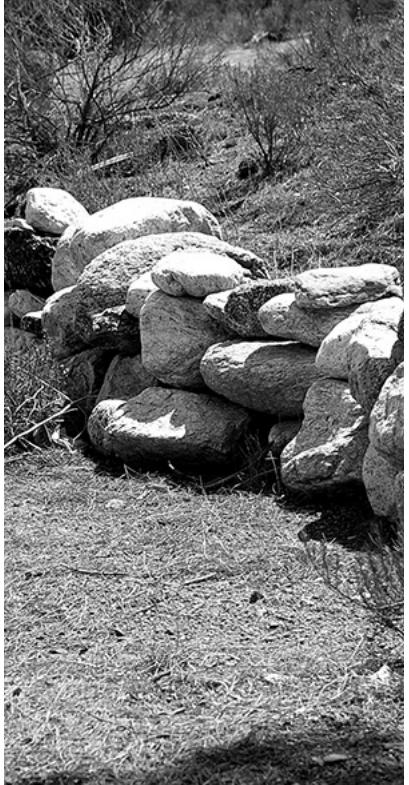
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# ADELANTO

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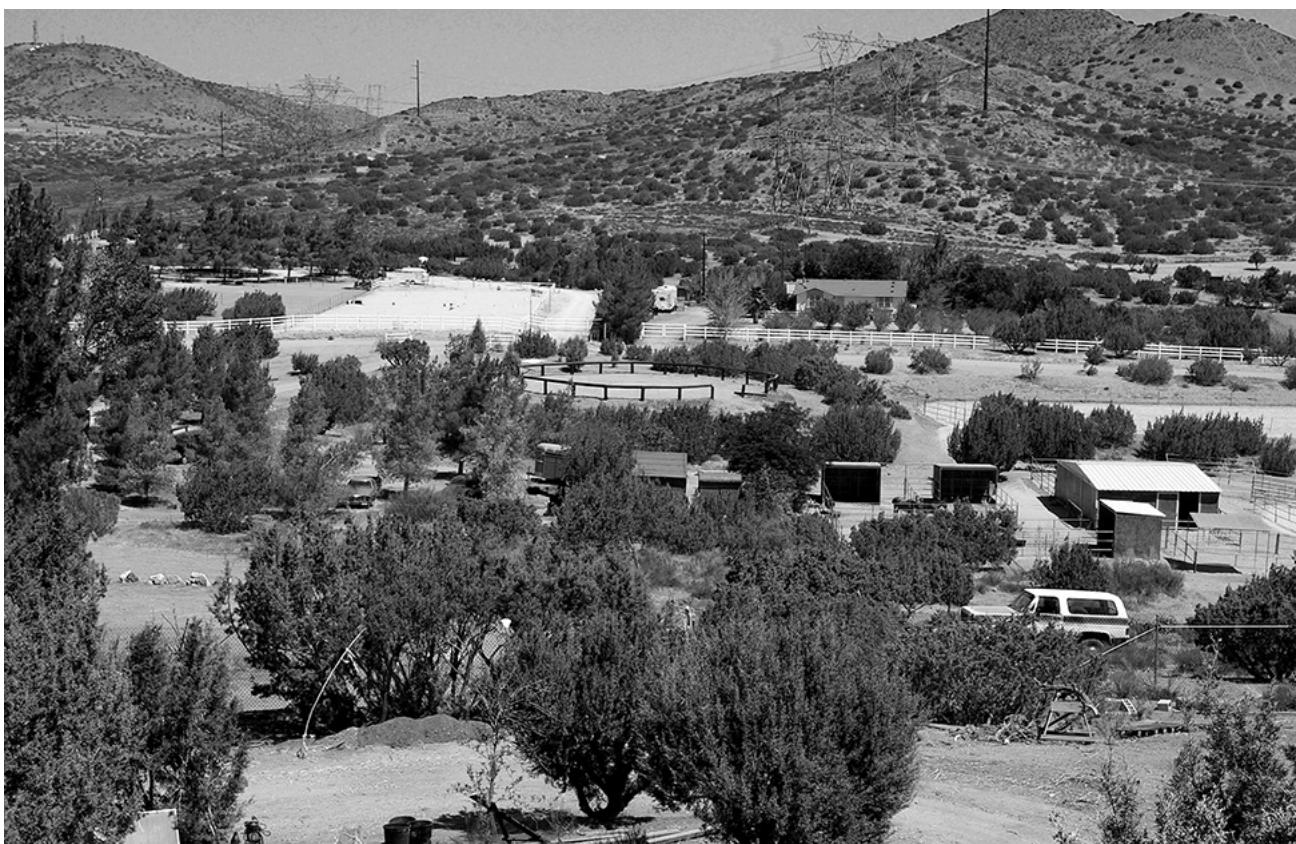
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# Discover ADELANTO

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# The Wood

Gender roles between men and woman have always been a touchy subject. Today, men not only play the role of a masculine individual, but also play the role of what used to be known as “feminine” in the ancient times. The great thing about that is its becoming a norm in modern day times. Not only are men playing roles of women, but woman are doing things men wouldn’t have been okay with centuries ago. The gender roles of the individual today has changed drastically, but I think that it is important to know where gender roles of the man and woman originated and the differences of how they are today, versus how they were in Ancient Greece.

Currently today, the roles of a man and woman have excessively changed. Men are becoming stay-at-home dads, cooking and cleaning, while women are running for president and making the executive decisions of their companies. Centuries ago, this wasn’t the case. In

Ancient Greece, the roles of men and women were typical due to the time period. When the Greeks started painting art on the pots and vessels, it seemed like they were depicting realistic scenes and features of real life people. In my first primary source,

“The gender roles of the individual today have changed drastically.”

Herakles and Athena Black Figure is a prime example that men and women were differentiated. On the pot is Herakles, Athena, a religious man, and a soldier. Herakles, the religious man, and the soldier are all painted black, while Athena is painted white. This already says something about men and women in the Ancient Grecian times.

Masculinity and femi-

ninity were greatly differentiated in Ancient Greco times. According to The Ure Museum of Greek Archaeology Website, masculinity was used to differentiate the forces of chaos with the benefits of civilization. In many of the Greek vessels and urns, heroic male figures would always be depicted with similar beards, hair, and clothing. A lot of the vessels with the men on them were painted with weapons or shields and armor indicating that they were in a time of battle or war. War is probably the ultimate corresponding thing to courage, which is the ultimate form of masculinity.

A Greek man’s masculinity wasn’t just based off of a man being able to fight in a battle, but the events that prepared him to lead up to it. Men had many rites of passage. According to Politics and Society in Ancient Greece, some events of rites of passage for the average Grecian man were admission to broth-

# STONE ART

The melting behavior of basalts and eclogites indicates that both are the partial melting products of a more primitive rock (e.g. garnet peridotite). In the region of magma generation (below 60 km) the parental material, presumed to be garnet peridotite, yields an eclogitic magma and its fractionation depends on the garnet and omphacite of the eclogite, not on plagioclase and clinopyroxene of a basaltic magma. Increase of the garnet constituents in the magma at high pressure by effective removal of omphacite or shift of the garnet-omphacite boundary 'surface' will give rise to a tholeiite-type magma at low pressure. Similarly, increase of the omphacite constituents in the magma at high pressure by physical or physicochemical means will give rise to an alkali basalt-type magma at low pressure. In general, alkali basalt-type magmas are to be expected to be generated at

greater depths than tholeiite-type magmas from the same primary source rock.

Establishment of the two major basalt series takes place in the region of generation; additional minor diversification of each series may come about after emplacement in or on the crust by crystal settling, oxidation or reduction, gas fluxing, contamination, and other processes. The derivative magmas are greatly restricted by the course of liquid thermal descent imposed at generation.

Pressure-temperature limits established experimentally suggest that the basalt-eclogite transformation may be responsible for the Mohorovičić discontinuity under the continents, but not under the oceans.

The field of stability of basalt is drastically reduced in the presence of water, and amphibolite is produced. The melting of amphibolite takes place over a much greater range of temperature than



The field of stability of basalt is drastically reduced in the presence of water, and amphibolite is produced. The melting of amphibolite takes place over a much greater range of temperature than basalt. The field of stability

**AN ABUNDANCE OF ROCKS**

# THE DRY OUTDOORS



In the desert Southwest, water is critical to our lives. We must learn to conserve our water resources without compromising our environment. Home gardeners and landscape professionals can help preserve our water resources by selecting plants that are conducive to the environment. Experienced gardening professionals in the Southwest regions of the country have learned many lessons through the years. They especially have learned which plants can thrive in the hot and arid climate and incorporate low water use. When landscaping in the desert Southwest, you need to consider resource consequences.

The Agave species is known for its striking form and general tolerance to cold, heat, sun, drought, and poor or alkaline soils. Agaves are some of the most useful plants in the hot arid regions of the Southwest. Sizes of agaves vary from one to

six feet in height. They have many interesting leaf styles and color variations. The pointed leaves of the *Agave Americana* are armed with thorns at the tips. This leaf formation allows them to capture tiny amounts of rain, which guides the moisture down to the roots. These plants need water



occasionally until established or when plants show stress by wilting or withering. You should prune the in September. The Desert Spoon

is a very dependable plant for the arid environment of the Southwest. This plant was used by the natives of the region for food and fiber. the leaf blade of the desert spoon is a slender, toothed gray-green. The leaves radiate from the center of the plant in all directions. Growth is a moderate five to eight feet, and the leaves spread equally. Some plants develop a bloom stalk that grows five or six feet above the foliage. The bloom is topped by a long plume of straw-colored flowers that look like grain.

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A STORY ON DESERT CLIMATES & SUCH

Wood Resources International LLC (WRI), an internationally recognized

WRI has conducted consulting projects predominantly for clients in the private sector worldwide,

The Global Wood Fiber Indices are weighted global average delivered wood

forest industry consulting firm established in 1987, has successfully completed more than 200 consulting assignments in over 35 countries worldwide. The company is committed to continuing its international consulting services to the paper and wood products industries by focusing on its area of expertise: on-site evaluations of forest resources, raw material flows (logs and wood chips), forest products trade, wood cost outlook (pulpwood prices and sawlog prices) and forest industry developments worldwide.

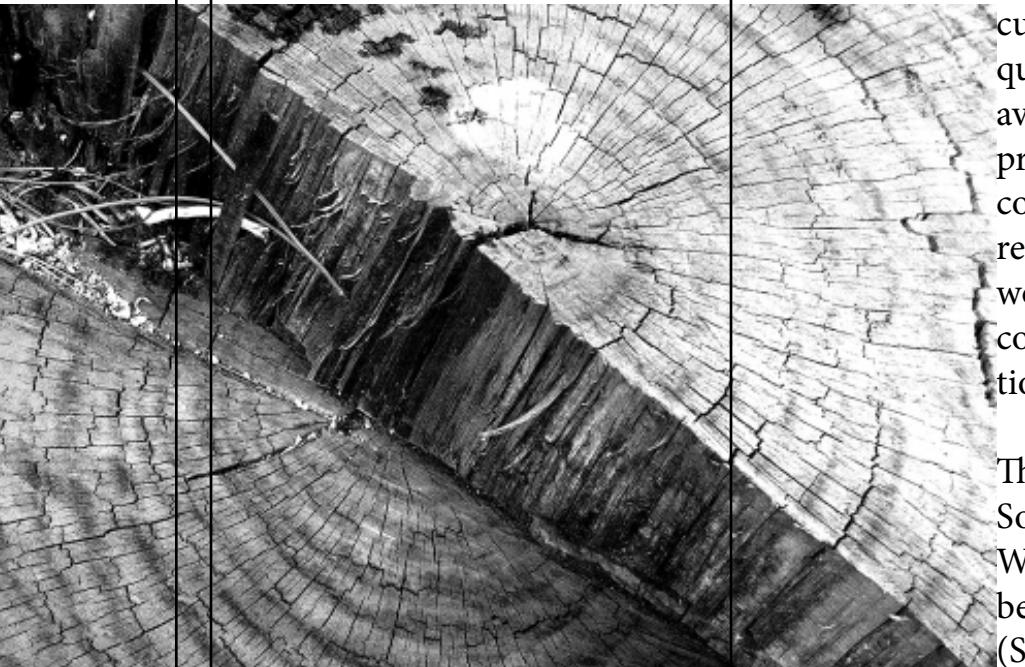
Primary regions of focus include

North America, Europe (including Russia), China and the plantation forestry sector in the Southern Hemisphere : Brazil, Chile, Uruguay, Argentina, New Zealand, Australia and South Africa.

In addition to consulting assignments, we also prepare client-specific pulp-wood price and sawlog price

but also for multiple organizations such as the World Bank, the EU Commission, FAO, WWF, IIED, AF&PA and USAID, to name a few. Our company uses a flexible network of highly qualified consultants based in many countries, which allows us to respond to clients' information needs in a timely and cost-effective manner.

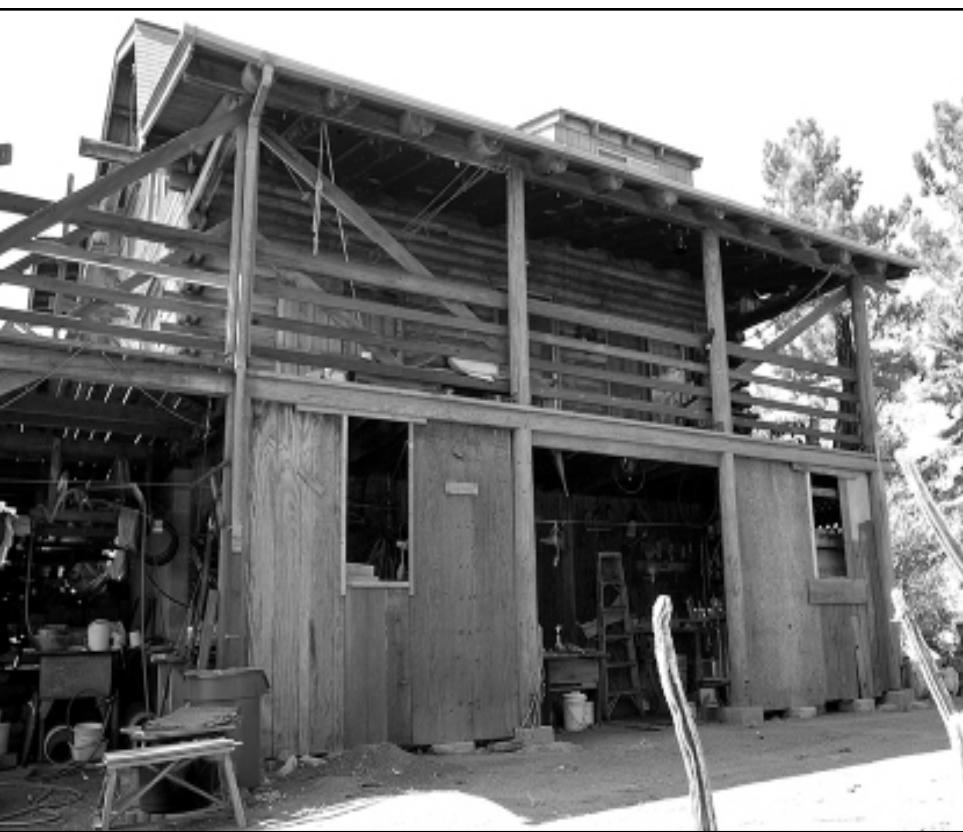
Please take a few moments to tour



current quarterly average prices, and country/regional wood fiber consumption data.

The Global Softwood Wood Fiber Index (SFPI), which

predominantly includes countries with natural conifer species in the Northern Hemisphere, and the Global Hardwood Wood Fiber Index (HFPI), which largely consists of wood fiber prices in non-conifer plantation forests, are calculated in nominal US dollars per oven-dried metric ton (odmt) of



DUXBURY — What experts are calling “the rarest of the rare” and “a once in a lifetime find” — a largely intact woodworking shop dating from the latter half of the 18th century — has been discovered in Duxbury on the site of a private school for children.

“It is an extraordinary find,” said professor J. Ritchie Garrison, a specialist in American material culture who hurried from the University of Delaware to take a look at the shop last month when he heard about the find. “It’s National Historic Landmark status.”

The 16-by-32-foot shed-like building is on the site of the Berrybrook School on Winter Street.



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Please take a few moments to tour our website to review WRI's log markets reports, market commentaries, consulting projects and conference presentations, and feel free to contact us to discuss how we can best assist with your forest

Wood Resource Quarterly (see list of regions included in the report below). The regions included in the report together account for 85-90% of the world's wood-based pulp production capacity. The price is based on the current quarterly average prices, and country/regional wood fiber consumption data.

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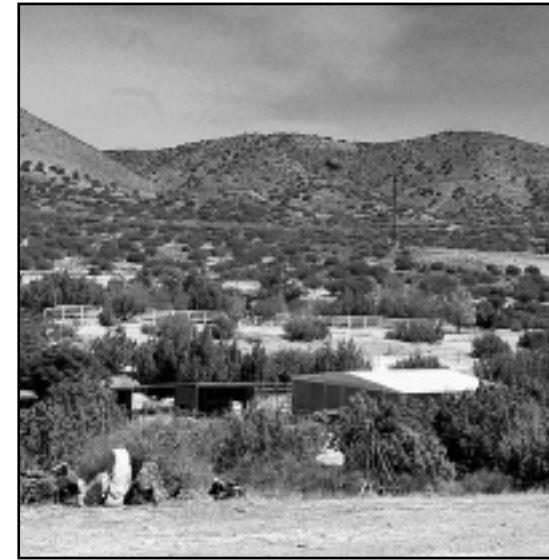
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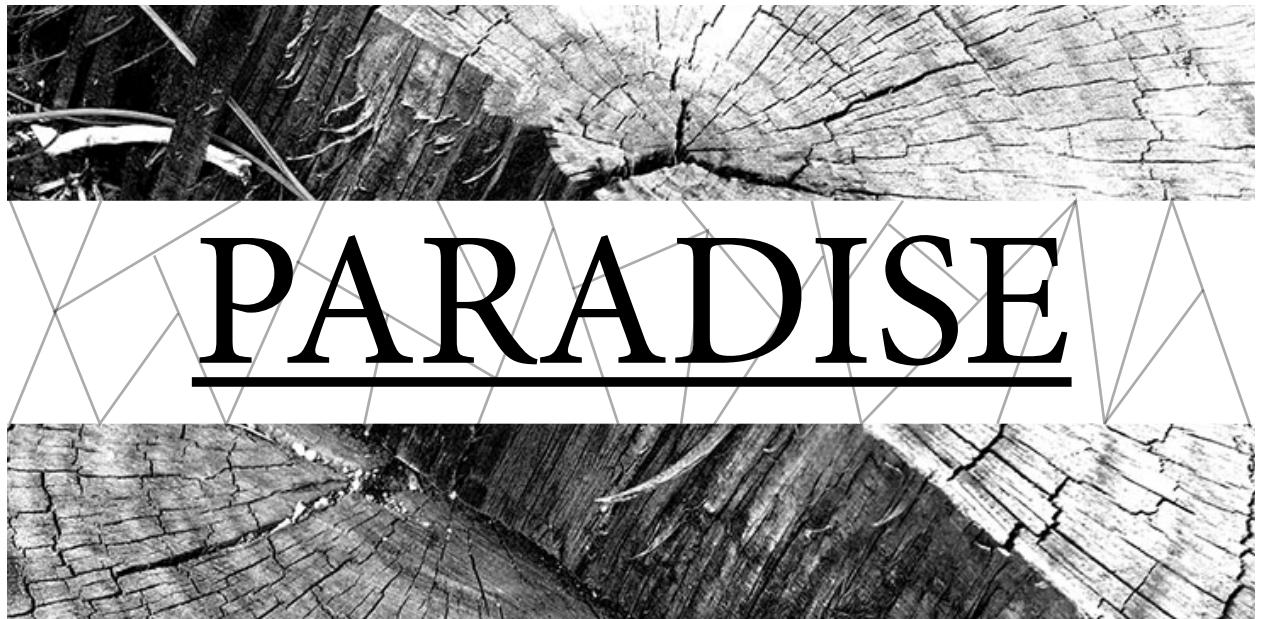
dogs and cats get along. I am really sleepy right now. Really. What am I doing?

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# PARADISE

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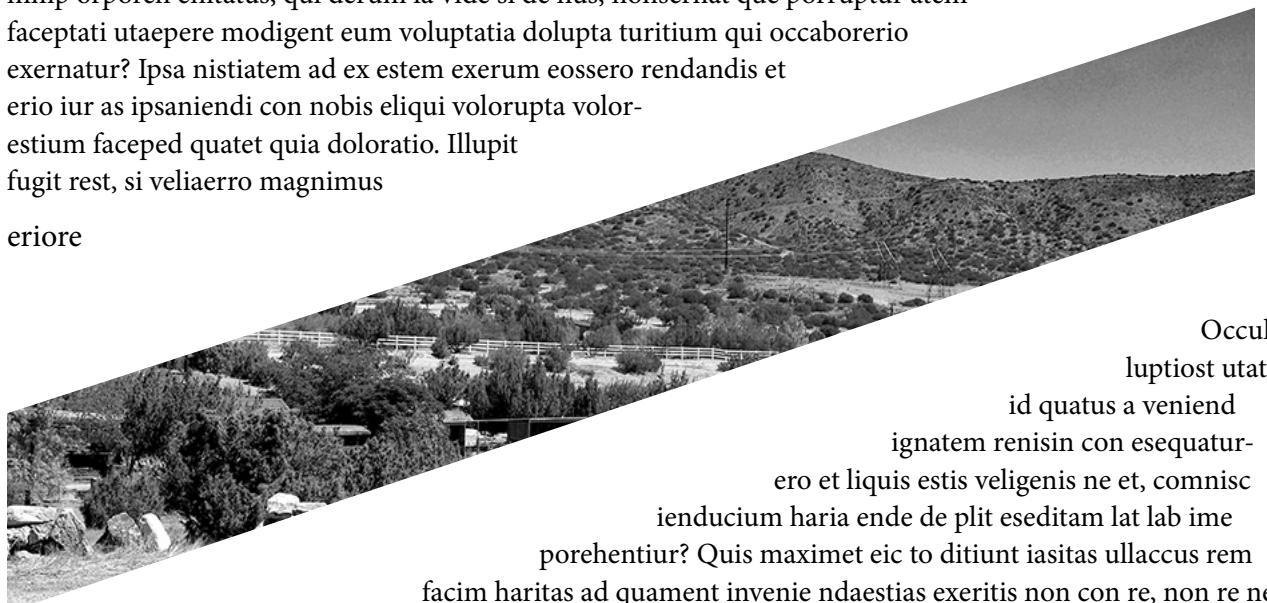


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# THE LAW OF NATURE

This *Arabidopsis* plant with carbon nanotubes inside its leaves has augmented light energy capture.



## Bionic Plants

In the meantime one idea might be to take the research a step back and see if carbon nanotubes have similar impacts in the root of all chloroplasts: cyanobacteria, according to Giraldo.

But chloroplasts aren't very efficient. They do not absorb green light (which is why most plants appear green) as well as the sun's heat, also known as infrared light. They generally waste a lot more sunlight than they use; photosynthesis maxes out at roughly 10 percent of the incoming sunshine.

**So why not give flora**, and the chloroplasts within their leafy photosynthetic machines, a boost? That's exactly what a group of chemical engineers and biochemists attempted in a new study, embedding single-walled carbon nanotubes—microscopic tubes thinner than a human hair that can also absorb sunlight and convert it to electron flow—in living

chloroplasts. The paper is published in *Nature Materials* on 16 March. (Scientific American is part of Nature Publishing Group.)

**"Plants have, for a long time, provided us with valuable products like food, biofuels, construction materials and the oxygen we breathe,"** notes plant biologist turned chemical engineer Juan Pablo Giraldo, a postdoctoral fellow in the research lab at the Massachusetts Institute of Technology who did the work.



## BIONIC PLANT

This *Arabidopsis* plant with carbon nanotubes inside its leaves has augmented light energy capture.



BY DAVID BIELLO

# THE LAW OF NATURE

This *Arabidopsis* plant with carbon nanotubes inside its leaves has augmented light energy capture



Plants make life as we know it possible. It all starts with the tiny organelles within a plant's leaves, known as chloroplasts.

These chloroplasts—diminished descendants of the first photosynthesizers, cyanobacteria—use incoming sunlight to split water molecules and then knit together the energy-rich carbon and hydrogen compounds found in everything from food to fossil fuels. The leftover “waste” is the oxygen that we and the rest of the animal kingdom depend on to survive and thrive.

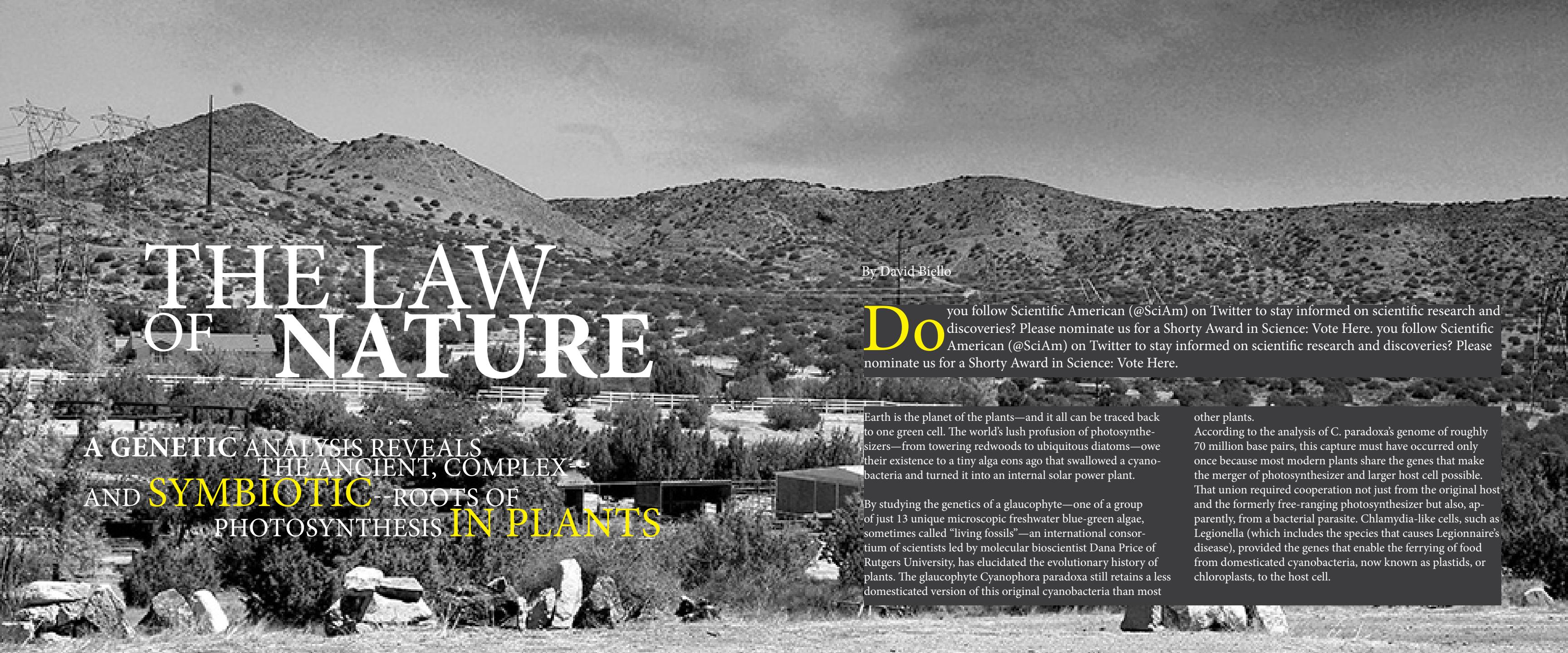
But chloroplasts aren't very efficient. They do not absorb green light (which is why most plants appear green) as well as the sun's heat, also known as infrared light. They generally waste a lot more sunlight than they use; photosynthesis maxes out at roughly 10 percent of the incoming sunshine. So why not give flora, and the chloroplasts within their leafy photosynthetic machines, a boost?

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“Plants have, for a long time, provided us with valuable products like food, biofuels, construction materials and the oxygen we breathe,” notes plant biologist turned chemical engineer Juan Pablo Giraldo, a postdoctoral fellow in the research lab at the Massachusetts Institute of Technology who did the work. “We envisioned them as new hybrid biomaterials for solar energy harnessing, self-repairing materials [and] chemical detectors of pollutants, pesticides, [and] fungal and bacterial infections.”





# THE LAW OF NATURE

A GENETIC ANALYSIS REVEALS  
THE ANCIENT, COMPLEX  
AND SYMBIOTIC ROOTS OF  
PHOTOSYNTHESIS IN PLANTS

By David Biello

**D**o you follow Scientific American (@SciAm) on Twitter to stay informed on scientific research and discoveries? Please nominate us for a Shorty Award in Science: Vote Here. Do you follow Scientific American (@SciAm) on Twitter to stay informed on scientific research and discoveries? Please nominate us for a Shorty Award in Science: Vote Here.

Earth is the planet of the plants—and it all can be traced back to one green cell. The world's lush profusion of photosynthesizers—from towering redwoods to ubiquitous diatoms—owe their existence to a tiny alga eons ago that swallowed a cyanobacteria and turned it into an internal solar power plant.

By studying the genetics of a glaucophyte—one of a group of just 13 unique microscopic freshwater blue-green algae, sometimes called “living fossils”—an international consortium of scientists led by molecular bioscientist Dana Price of Rutgers University, has elucidated the evolutionary history of plants. The glaucophyte *Cyanophora paradoxa* still retains a less domesticated version of this original cyanobacteria than most

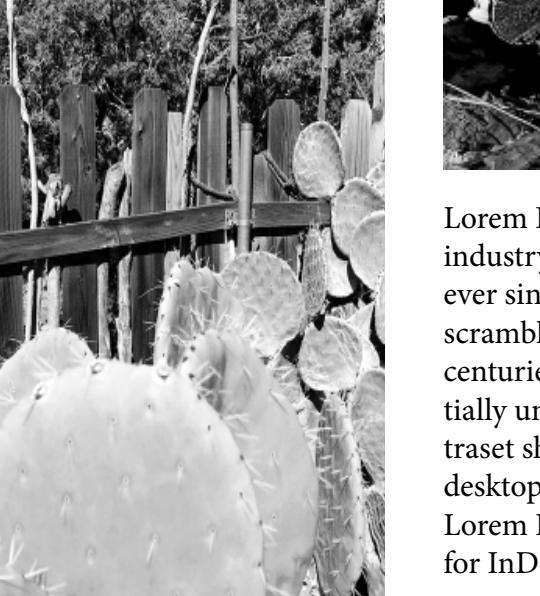
other plants. According to the analysis of *C. paradoxa*'s genome of roughly 70 million base pairs, this capture must have occurred only once because most modern plants share the genes that make the merger of photosynthesizer and larger host cell possible. That union required cooperation not just from the original host and the formerly free-ranging photosynthesizer but also, apparently, from a bacterial parasite. Chlamydia-like cells, such as *Legionella* (which includes the species that causes Legionnaire's disease), provided the genes that enable the ferrying of food from domesticated cyanobacteria, now known as plastids, or chloroplasts, to the host cell.

# Woodworking Guide

Jessica Spalenska



Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, re-

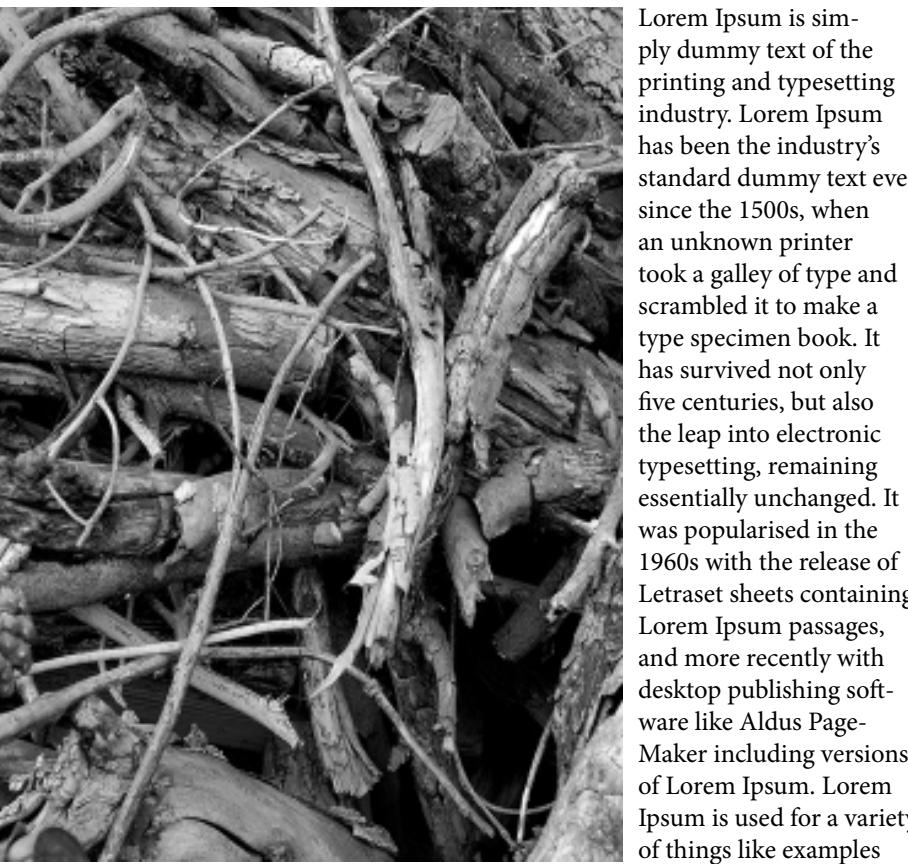


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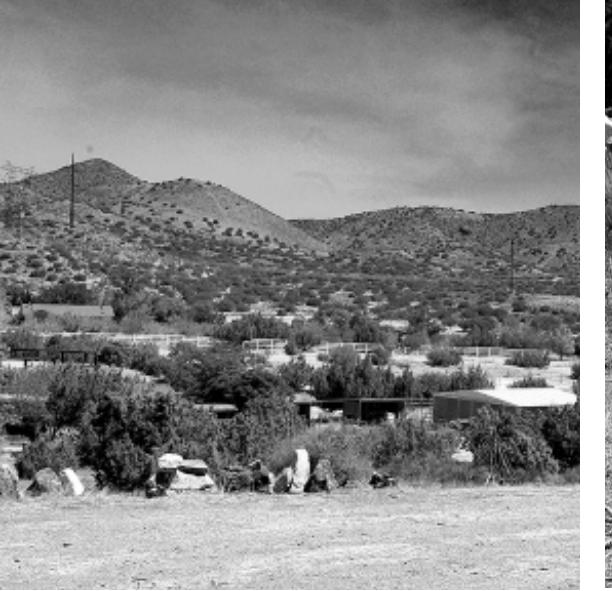


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# Woodworking Guide

By  
Jessica Spalenska



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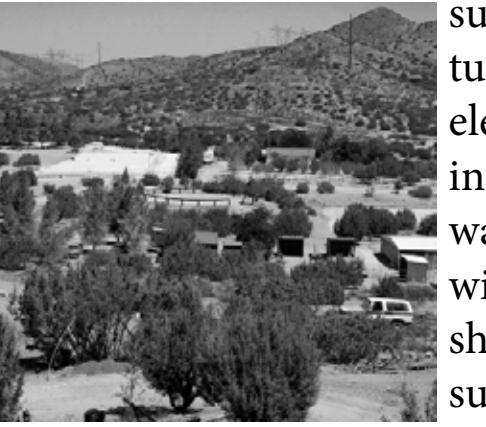
# Woodworking

## Guide

By

Jessica Spalenska

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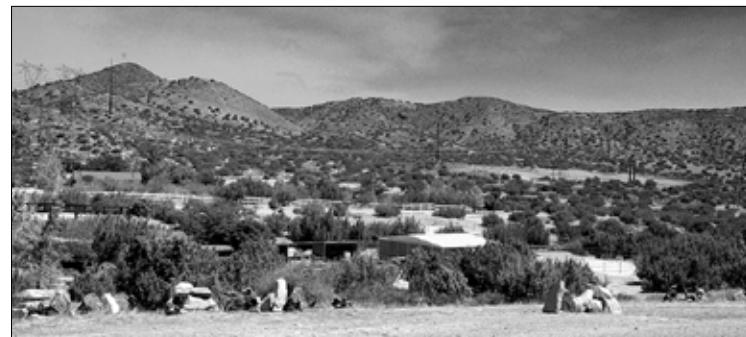
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# DESERT

*“Some deserts are among the planet’s last remaining areas of total wilderness.”*

Far from being barren wastelands, deserts are biologically rich habitats with a vast array of animals and plants that have adapted to the harsh conditions there. Some deserts are among the planet’s last remaining areas of total wilderness. Yet more than one billion people, one-sixth of the Earth’s population, actually live in desert regions.

Deserts cover more than one fifth of the Earth’s land, and they are found on every continent. A place that receives less than 10 inches (25 centimeters) of rain per year is considered a desert. Deserts are part of a



# THE LAW OF DESERT

Desert animals have adapted ways to help them keep cool and use less water. Camels, for example, can go for days without food and water. Many desert animals are nocturnal, coming out only when the brutal sun has descended to hunt. Some animals, like the desert tortoise in the southwestern United States, spend much of their time underground. Most desert birds are nomadic, crisscrossing the skies in search of food. Because of their very special adaptations, desert animals are extremely vulnerable to introduced predators and changes to their habitat.

Desert plants may have to go without fresh water for years at a time. Some plants have adapted to the arid climate by growing long roots that tap water from deep underground. Other plants, such as cacti, have special means of storing and conserving water. Many desert plants can live to be hundreds of years old.

**Some of the world's semi-arid regions are turning into desert at an alarming rate.** This process, known as "desertification," is not caused by drought, but usually arises from the demands of human populations that settle on the semi-arid lands to grow crops and graze animals. The pounding of the soil by the hooves of livestock may degrade the soil and encourage erosion by wind and water.

**Global warming also threatens to change the ecology of desert.** Higher temperatures may produce an increasing number of wildfires that alter desert landscapes by eliminating slow-growing trees and shrubs and replacing them with fast-growing grasses.



## THREATS

- Grazing animals can destroy many desert plants and animals.
- Potassium cyanide used in gold mining may poison wildlife.
- Off-road vehicles, when used irresponsibly, can cause irreparable damage to desert habitats.

EVEN SMALL CHANGES IN TEMPERATURE OR PRECIPITATION COULD DRASTICALLY IMPACT PLANTS AND ANIMALS LIVING IN THE DESERT.



# GROWING DESERTS

Within hours of a rain, many will be spreading new rootlets to harvest the drops. The plants' accordion-like structure lets them swell with extra liquid, as a Gila monster's extra-large bladder is designed to do, while it packs away food reserves in its expandable tail. During May and June, the driest months, when winter's rains have been all but forgotten by most, the saguaro and its even bigger southern counterpart, the cardon cactus, crown themselves with extravagant, white, nectar-filled blossoms. These nourish birds, insects, and especially bats, and are pollinated in return. The flowers then develop

few winter frosts and dual rainy seasons half a year apart, the Sonoran region supports such a rich variety of flora and fauna that it seems almost lush compared with other deserts. In some experts' view, it isn't really a desert so much as a drier version of the subtropical thornscrub found farther south in Mexico. However you define the Sonoran ecosystem, it is a spectacular illustration of how communities of organisms facing extreme conditions find ways not merely to endure but to flourish.

*"A desert can fool the eye. A sun-blasted plain of death turns suddenly into a landscape of sound, water, and life."*



Mallory Belter



# Building Rocks

“consisting of the long, huge slabs of limber black bone taken from the middle and highest part of the jaws of the right-whale”

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seemed only a temporary erection used  
in port. It was of a conical shape, some  
ten feet high; consisting of the long, huge  
slabs of limber black bone taken from the  
middle and highest part of the jaws of the  
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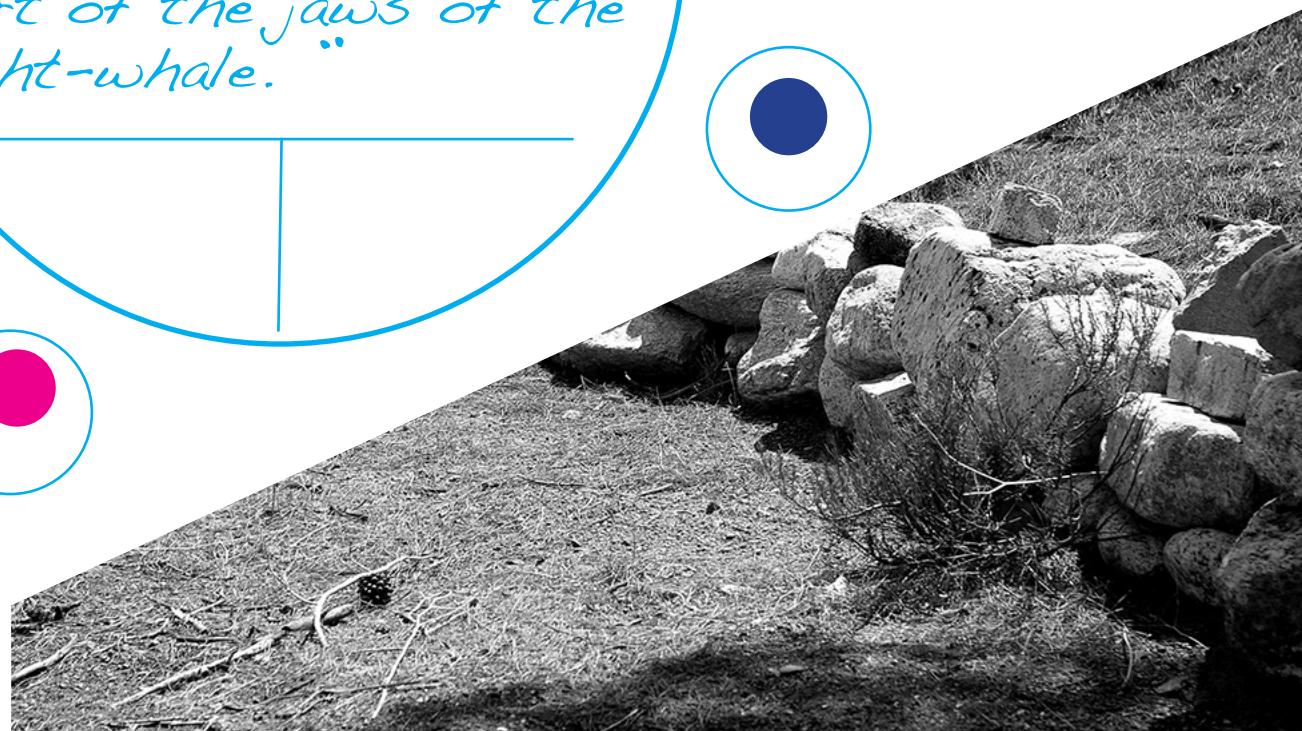
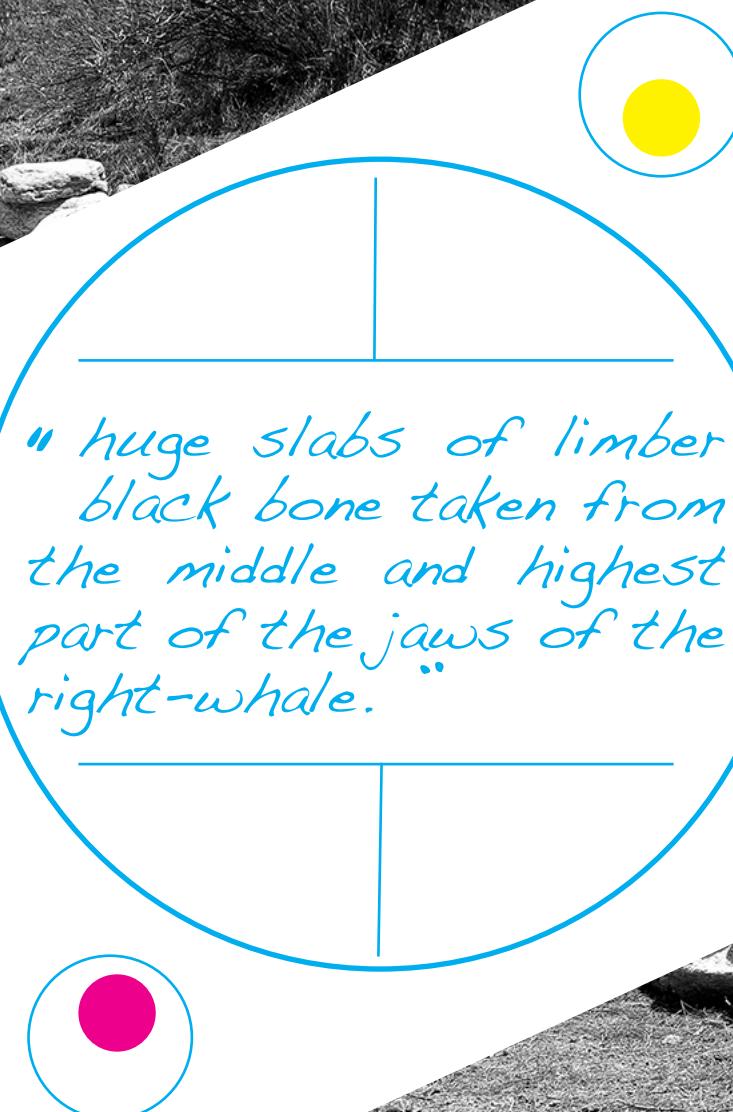
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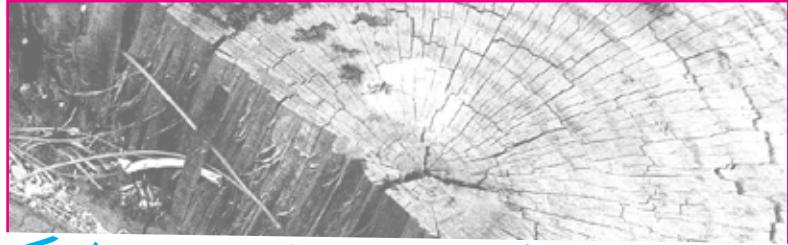
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## Stepping Stones



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*"For some one having authority, in order to propose myself as a candidate for the voyage, at first I saw nobody; but I could not well over-look a strange sort of tent, or rather wigwam, pitched a little behind the main-mast. It seemed only a tempo-*





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*Article and design by Mallory Belter*