Birds Building Better Homes using Manmade Objects...

The Latest Styles... In Birds' Nests

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While the human race continues its inexorable march toward technological advancement, birds are doing some advancing of their own. If you think that these bird brains blindly follow the tried and true building methods of previous generations, think again. Birds have joined the Industrial Revolution in ways that are truly amazing. Read how they build complex multi-family "apartments" on things like utility poles, use cigarette butts for insulation, reinforce their homes with barbed wire and more!

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The Huge Nest Structures on Utility Poles

cross the arid savannahs of the southern Kalahari Desert region spanning parts of South Africa, Botswana and Namibia one can find a truly strange spectacle. Near the top of the electric poles sit huge mounds of straw that look like they were deposited by a violent whirlwind.

In fact, they are not simply mounds of straw, nor were they deposited by winds or even humans. They are the work of a species of bird known as the sociable weaver (also known as social weaver). Relatively small (about 5 1/2 inches long), they are called "sociable" because live in large, organized colonies and build massive homes, which



The nests are so heavy that the trees in which they are built sometimes collapse under the weight.



The entrances to sociable weaver nests are placed below to protect them from aerial predators and to prevent flooding during rains.

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accommodate as many as 300-400 birds at a time.

Sociable weaver nests are veritable apartment houses—making them probably the only species on Earth other than humans to house so many in a single structure.

And Like a Good Neighbor...

Most birds build nests so that their hatchlings will have a place to stay until they learn to fly. The sociable weaver, however, builds its nest as a permanent home for its chicks, albeit with only a few chambers inside the nests set aside for newly-hatched chicks. The rest accommodate entire families of birds. If an "apartment" opens up, a new family will move in.

The nests of the sociable weaver birds are the largest in the world. They look like huge mounds of hay. Some measure 20 feet wide and 10 feet tall. Their walls can be seven feet thick and weigh over 2,000 pounds. The structures are so large that sometimes (in the rare rainfall when the nests are soaked with water) the trees in which they are built collapse under their weight.

Usually, though, they do not build their nests in trees but on utility poles. The reason is that sociable weavers are prone to attack from snakes that like to eat their eggs. In fact, predators steal around 70% of the sociable weavers' eggs before they can hatch. Unlike trees, the smooth, tall electric telephone poles offer more of a challenge for snakes to climb. Because of this, sociable weavers tend to nest in areas with an abundance of utility poles. (On occasion, their straw projects cause blackouts during rains or fires during hot, dry spells. This has given the birds a bad reputation with the locals.)

What did the sociable weaver do before telephone poles and power lines? Ornithologists say that they did not always build such massive structures. Their nests used to resemble the smaller single units of their cousins, the other weaver birds around the world. Their need to survive in desert conditions and to protect themselves from the large numbers of birds of prey that exist





Left: Sociable weaver delivers construction material with its beak. Right: Peeking out of their chamber inside the enormous nest. Note the sharp straw at the entrance positioned to deter intruders.

forced the sociable weaver to learn new ways to adapt. By building large structures they found protection in numbers.

The sociable weaver builds its nest from straw, hard grass and thin branches. In some cases, the bird inserts individual stalks of straw into the large mound of hay one by one, until it is transformed into a single, enormous structure.

The birds build their nests with the entrance underneath. This protects them from eagles and similar predators from above. It also prevents flooding during the occasional rain that inundates the desert. The entranceway to the sociable weaver's nest is three inches wide and ten inches long. It is often protected by sharp branches that prevent predators from forcing their way in.

The inner chambers are not connected to each other. Each is accessed through a separate entrance from outside. Sociable though they are, these weavers apparently respect one another's privacy.

Some of the chambers serve as nurseries where the eggs lie. These rooms measure four to six inches across and are specially constructed with whatever extra-soft materials the weavers can lay a beak on. This includes soft grasses and feathers. In one case, biologist Gavin Leighton from the University of Miami left behind some cotton in the field after drawing blood from weavers for research. That cotton soon found its way into one of the egg chambers.

Humans can learn a lot from sociable weavers. When it comes time to build, it's

all bird-hands on board; everyone works. Unlike most birds, which leave the nest as soon as they learn to fly, sociable weavers remain in their parents' home. When new chicks hatch, their older siblings and cousins help out. They search for soft materials to pad the "cribs" and help in finding more food for the hungry newborns.

Researchers believe that the shortage of food in the desert is the reason siblings remain at home to help their parents. The parents are incapable of providing for the young unaided. When scientists began spreading seeds daily beneath one sociable weaver nest, they noticed that far fewer birds remained behind to help.

Heating and Cooling in the Straw Structures

Sociable weavers feed primarily on insects. In addition to basic nutrients, their insect diet provides most of the water they need in the desert. When they can find some, these birds will also eat seeds and plants.



Kalahari Desert in South Africa.