

Hello and welcome back. I'm Jim Tedder in Washington. Today we travel to South Africa to see how the other guy lives. We will introduce you to a man who has some new ideas about living in the big city. Our second item is for the birds. Actually it is about the birds, and how they have known something for thousands of years that we are just learning.

**As It Is** ...a radio and Internet program to help you learn and improve your American English...is coming your way ...from VOA.

Ten year ago, the central downtown business area of Johannesburg, South Africa, looked as if it had seen much better days. Many buildings stood empty. Normal city services had stopped operating. But these days in the area known as CDB, things are different.

Anderson Street is a main connector in downtown Johannesburg. Very near that street, Dirk Bahmann walks through a building's entrance area. He steps into the elevator and rides up to the fourth level.

He opens a door at the end of the hall and enters a space planned for both work and home living. The area has become his personal design and building project since he bought the apartment six years ago.

Mr. Bahmann is an architect and artist who grew up in the suburbs north of Johannesburg. But he says urban living connects him better to the community than living in towns on the edges of cities.

“For me, living in the city was a means to kind of connect with people in an everyday, ordinary way without it having to be pretentious, and that you feel part and belong to something.”

Over the last few years, developers have retaken ownership of many buildings. Crime has decreased. Middle and upper-class home buyers have started to take an interest in the area.

Mr. Bahmann designed and built his own modern apartment. It is both home and office. It uses movable furniture to make the space seem as large as possible. But he says there is one problem with living in the city.

"The only thing I miss is getting a full night's sleep. I'm very sensitive to noise, so I always wake up when someone is walking down the road and shouting, or people who hoot when they want to get into the building."

He says except for lack of sleep, the area provides easy living. He can buy food, eat at restaurants, and get all his art materials within minutes from home.

Just outside the downtown area is Johannesburg's Brixton neighborhood. Small houses there are built close to the ground. Homeless people often sleep on steps and porches and under building extensions that protect them the rain and the hot sun.

Some people see danger in Brixton. But architect Thomas Chapman sees something else. He says he sees the possibility of apartment living, or what is called loft living. Mr. Chapman says the area has great promise to develop and increase its population.

"That's why we're choosing to act here, because I don't think it's been fully realized, the potential here for what we call loft living or apartment living."

Mr. Chapman is with a group called Local Studio. He and his partners are working on a building with eight apartment units, a coffee shop and a new office space for their own business.

Mr. Chapman says developers are leading the efforts to redevelop CDB. But he says the city attracted their interest. He said, for example, that the city invested in such community basics as pavement – hard roads and sidewalks.

"The truth is that management has gotten better and crime has gotten less. I strongly think it's an urban management issue, and the city has made strides."

Still, developers are taking private responsibility for some issues. Mr. Chapman pointed to the successful development of Maboneng. Developers there have hired full-time security guards. They also have invested in street lighting and waste management.

Mr. Chapman says his development will likely need some of those same investments. And he says they usually provide a return. The architect says there is a great chance for Johannesburg's city neighborhoods to grow and compete with traditional living in suburbs.

He says that as a designer of cities, he believes that is where the future lies.

## **“V” Is For Energy Efficiency**

No matter where people are making new homes and offices, saving energy is important. For us humans, the goal can be difficult. But for some of our feathered friends, being energy efficient comes naturally. Just take a look up there.

Scientists at Britain’s Royal Veterinary College in London may have solved a mystery that has puzzled us for years. Why do flocks of birds often fly in a formation that looks similar to the letter “V”? The answer is, they say, because it saves energy.

This is how it works. Many drivers know that being behind a large truck can save you gasoline. That is because the truck is pushing a lot of air around it. The car faces less resistance because a partial vacuum – an empty space – is created behind it.

Steven Portugal, a researcher at the Royal Veterinary College, says birds knew that long ago. The scientific team studied Northern Bald Ibises.

They placed small devices on the back of each bird. One of the devices, a kind of GPS, recorded the flight plan it followed.

The other device documented the birds' wing movements. The readings showed that the birds could use the rising stream of air created by the tip – the edge of the wing—of the bird flying in front of it.

Mr. Portugal said it was already known from earlier research that birds could be helped to save their energy by flying in V-formation. But he said his team showed the way the upward stream of air could be put to work.

“Scientists had predicted that birds could take advantage of this by flying in a V-formation shape. But actually what no one had been able to do previously was to understand the mechanism by which that upwash could be captured.”

The Austrian conservation group Waldarappteam and its special aircraft helped the British scientists. With that help they were able to follow the birds on their migration to Italy.

The GPS navigation devices recorded in real time the position and speed of each bird within the flock. The other devices, the accelerometers, recorded how fast and hard each bird flapped its wings back and forth. The scientists recreated the birds' movements in a computer.

Jim Usherwood is a Royal Veterinary College professor. He says each bird was very effective in reacting and responding to the movement of the bird just in front of it.

"If you can position yourself in the right bit of upwards air, then you can get some kind of benefit."

Scientists now plan to study how the birds decide which bird will lead the flock on yearly migrations across Europe.

My, how time flies when you are having fun! Get it? Flies? Birds? Oh, well. Thank you for spending some time with us. Remember, more Learning English Programs are just seconds away. And world news follows at the beginning of the hour. I'm Jim Tedder in Washington. We'll see you later!







