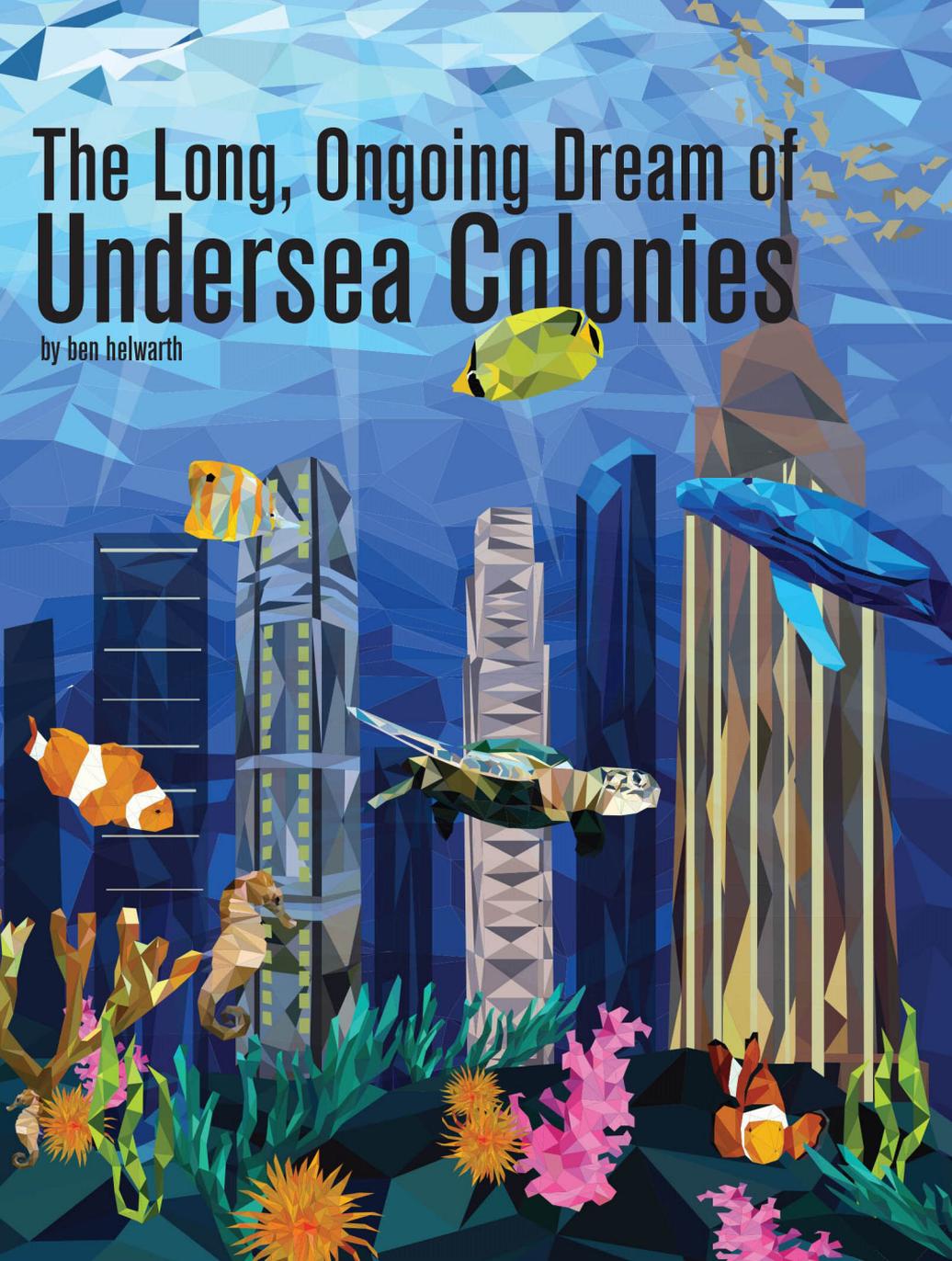


The Long, Ongoing Dream of Undersea Colonies

by ben helwarth



Garre Christensen

Graphic Design

Note: Artist Statement & Index Not Provided

<u>Title</u>	<u>Media</u>
Figure 1: Book Cover: 1984	Digital Illustration
Figure 2: Ben Franklin: Exercise Your Right To Vote, vote kite & key	Digital Illustration
Figure 3: Ben Franklin: kite & key	Digital Illustration
Figure 4: Holiday Beer Bash	Digital Illustration
Figure 5: Jabba the Heart: Cardiovascular Research at CSU, Molecules, Models, and Mankind	Digital Illustration
Figure 6: Mad Robot Creative	Digital Illustration
Figure 7: Revolution: Game by kite & key, 1 (front)	Digital Illustration
Figure 8: Revolution: Game by kite & key, 2 (back)	Digital Illustration
Figure 9: 3 Rolling Stone Covers: Biggie, Robert Johnson, & Buddy Holly	Digital Illustration
Figure 10: Undersea Colonies (magazine layout)	Digital Illustration
Figure 11: The Voice In The Machine (magazine layout)	Digital Illustration

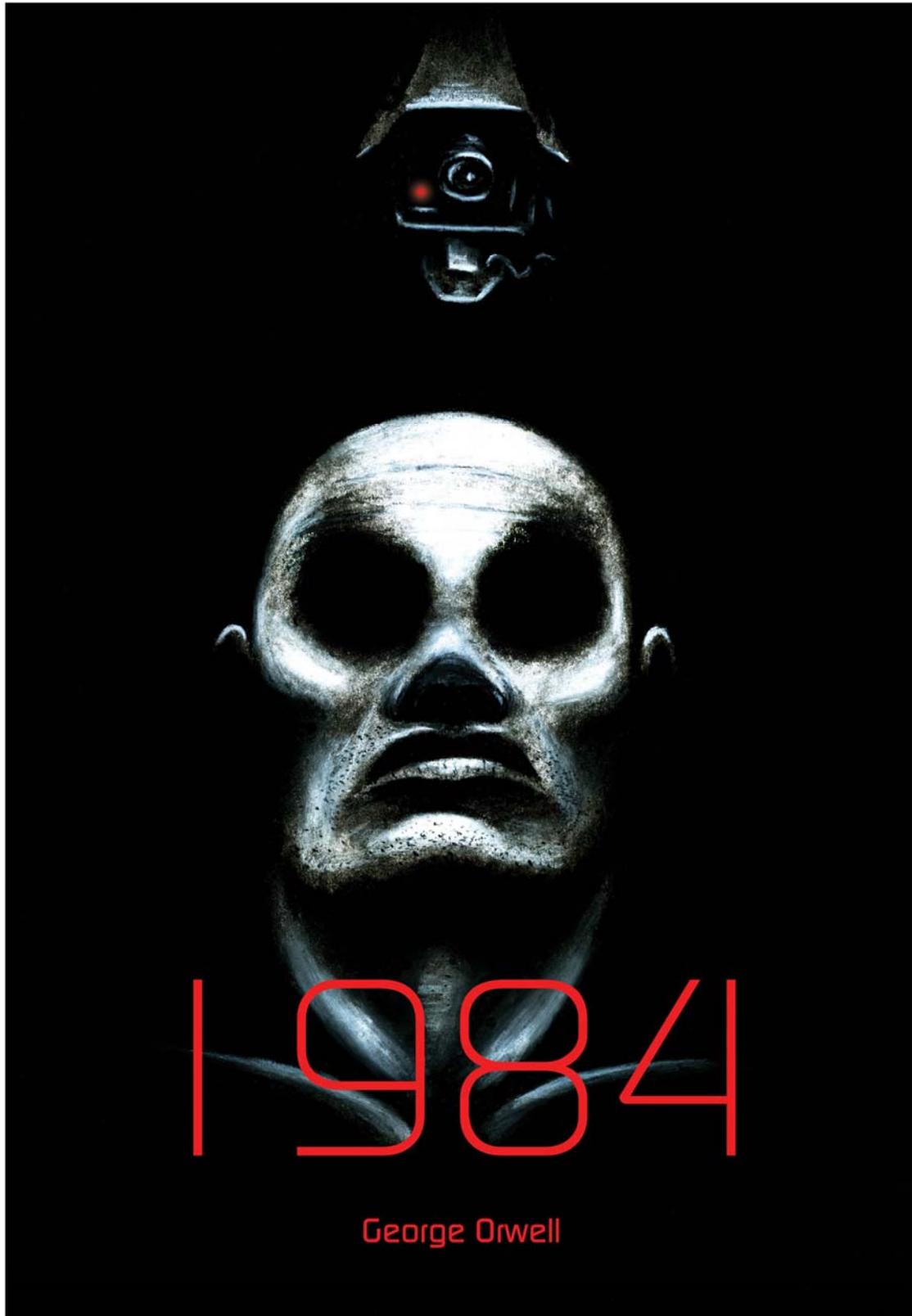


Figure 1: Book Cover: 1984.



**Exercise
Your Right
To Vote**

vote

kite & key

Figure 2: Ben Franklin: Exercise Your Right To Vote, vote kite & key.



Figure 3: Ben Franklin: kite & key.

the
**HOLIDAY
BEER BASH**



join us



SATURDAY

DECEMBER TWENTY-SECOND

Five 'o' Clock to Midnight, Jackson Park, La Crosse, WI

Figure 4: Holiday Beer Bash.

CARDIOVASCULAR RESEARCH AT CSU

Molecules, Models, and Mankind



The average human heart must pump nearly 2000 gallons of blood each day. Keep it in shape.

CSU RESEARCH COLLOQUIUM

April 4 – 5, 2013

HILTON, 425 W PROSPECT ROAD, FORT COLLINS

WWW.VPR.COLOSTATE.EDU/URC



CO-CHAIRS: DR. SCOTT EARLEY, DEPARTMENT OF BIOMEDICAL SCIENCES; DR. FRANK DINENNO, HUMAN CARDIOVASCULAR PHYSIOLOGY LAB
DESIGN BY GARRETT CHRISTENSEN

Figure 5: Jabba the Heart: Cardiovascular Research at CSU, Molecules, Models, and Mankind.



Figure 6: Mad Robot Creative.



Figure 7: Revolution: Game by kite & key, 1 (front).

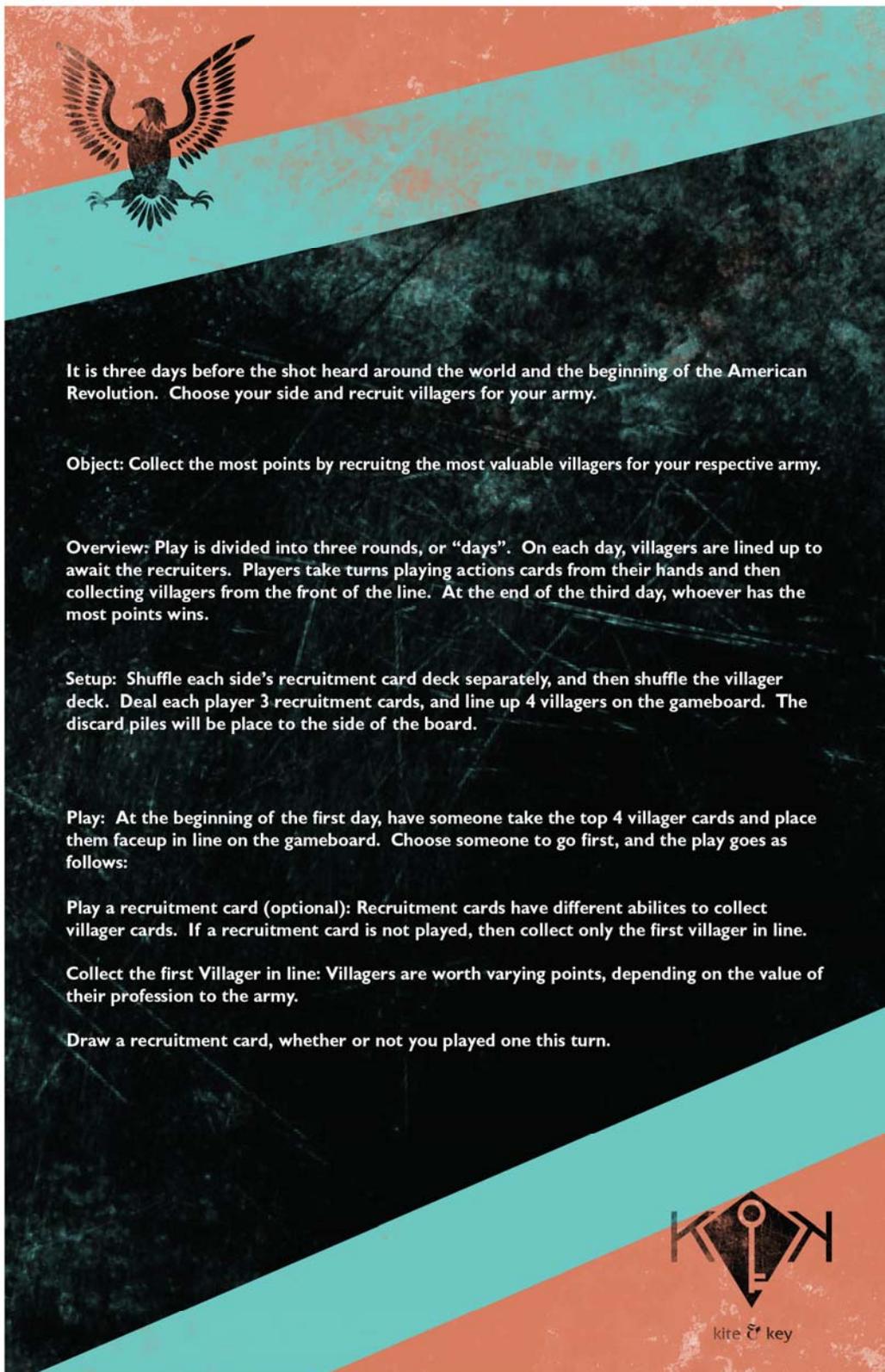


Figure 8: Revolution: Game by kite & key, 2 (back).

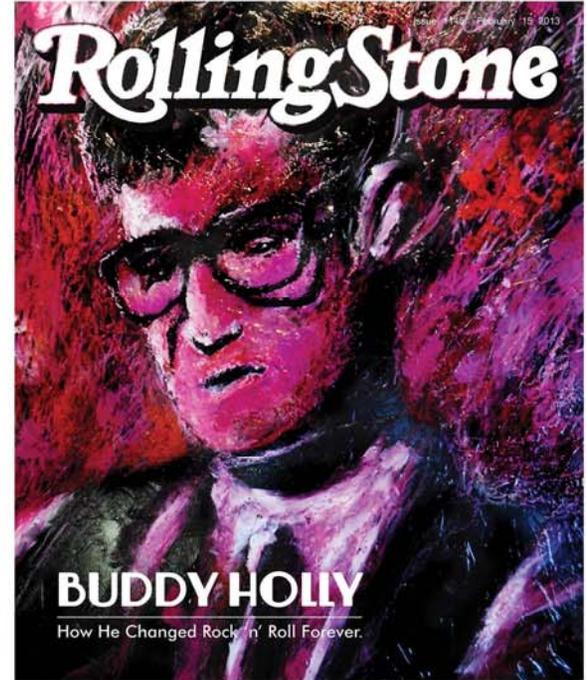
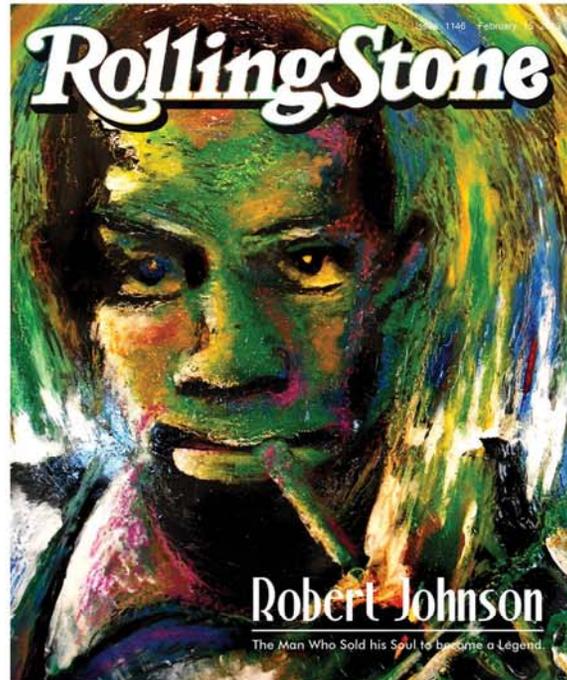
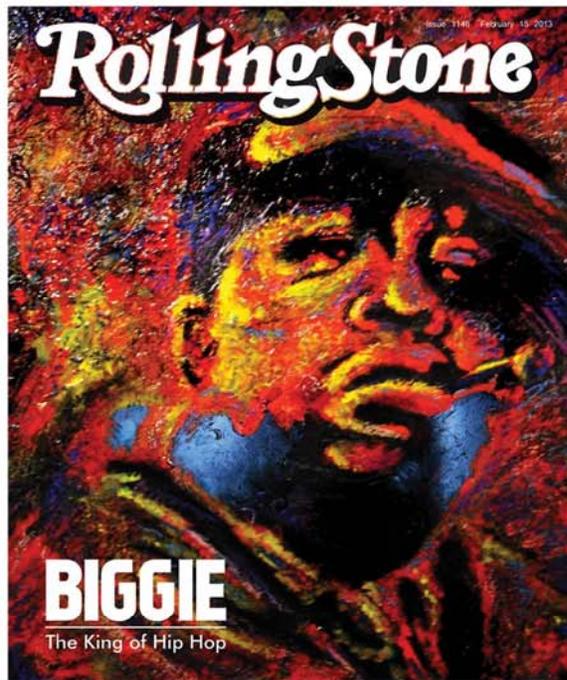


Figure 9: 3 Rolling Stone Covers: Biggie, Robert Johnson, & Buddy Holly.



The Long, Ongoing Dream of Undersea Colonies

by ben helwarth

In Key Largo, aquanauts roam the reefs and a cadre of true believers design new outposts for life in the deep.

If there is any place on earth you might expect to find them—the true believers in the imminent coming of manned undersea outposts or amazing domed colonies on the ocean floor—it would be here, in Key Largo. This first major stop along the 100-mile Overseas Highway to Key West is home to the world's only underwater hotel, the only continuously operating underwater lab and classroom, and the only undersea research base. And it is in Key Largo that you find divers like Ian Koblick, whose even tan hints at his lifetime of outdoor ventures. His hair and trademark goatee are graying, although for a septuagenarian he looks as if he takes regular dips in the Fountain of Youth. Like so many others along this steamy island chain, he's wearing shorts and a billowing Hawaiian shirt. No matter that he is seated behind a large desk in the kind of high-backed executive chair more often associated with Brooks Brothers.

The wood-paneled walls around Koblick's office are filled with memorabilia that attest to his years as an undersea pioneer and a genuine player in a decades-long quest to turn ordinary divers into "aquanauts," the name applied to those equipped to live on the seabed, much as crews launched into space get to be called astronauts.

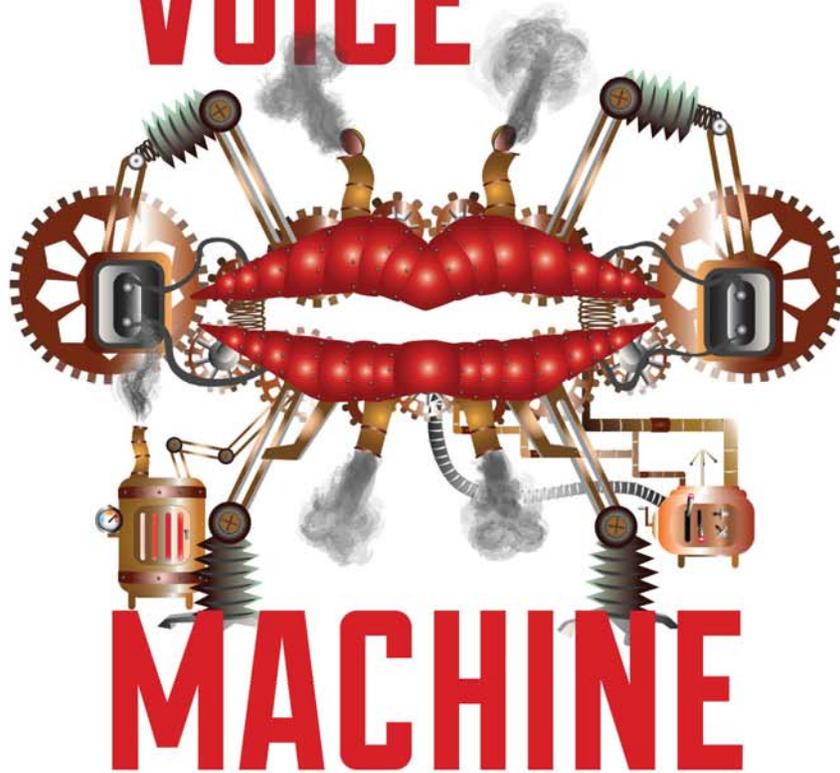
Koblick's early brush with official indifference convinced him that the government would never support an undersea corollary to the space program. So he went looking for entrepreneurial solutions to creating underwater habitats: school bus-size seafloor shelters that give aquanauts a pressurized, climate-controlled base, just as the International Space Station gives astronauts a hospitable home in orbit.

A prominent example of such a habitat, called Jules' Undersea Lodge, lies a stone's throw from his office, submerged in a lagoon that juts like a cul-de-sac into Key Largo Undersea Park. Part tourist destination and part science center, the park has a homegrown feel and a touch of that easygoing kitsch that seems to permeate the Florida Keys. How Jules' Lodge—once a state-of-the-art, research-oriented seafloor habitat of Koblick's design—came to be a novelty underwater hotel in a lagoon says a lot about the struggle to keep the concept of manned sea dwellings alive.

Koblick may sound like a romantic dreamer for his enduring belief in the value of seabed habitats and his persistent efforts, over many years, to create new ones.

Figure 10: Undersea Colonies (magazine layout).

THE VOICE IN THE



MACHINE



IS LIFELIKE SYNTHETIC SPEECH FINALLY WITHIN REACH?

BY ARNIE COOPER

Ever since the Voder, Bell Labs' artificial-voice machine, blurted out a barely intelligible "Good evening, radio audience ..." at the 1939 New York World's Fair, voice engineers have been striving to generate lifelike synthetic speech. Unlike today's automated systems, the Voder needed an operator who knew which keys to press to elicit "speech" that, for all its marvels, sounded like it was coming from a tuba rather than a human being.

Scientists continued refining their synthetic voices through the 1960s. In the 1970s, advances in computers ironically brought human voices back into the mix, with digital recorded speech providing canned audio responses. Researchers began chopping up dialogue into the smallest units of speech, phonemes, and using software programs to re-form those bits into words, phrases, and sentences. Unfortunately, such utterances sounded pretty much the way "re-formed" chicken nuggets taste. Since the mid-1990s, expanding "digital libraries" have allowed for storage of more phonemes that could be split into even smaller units, adding authenticity to the "voice." But even today's state-of-the-art systems, like AT&T's Natural Voices, still don't capture the range of human emotion.

That's exactly what Gershon Silbert, a 61-year-old former concert pianist and the CEO of VivoText, an Israeli start-up he founded in 2008, hopes to achieve. VivoText's text-to-speech engine draws on two pieces of technology: a proprietary voice-sample

database that enables the portrayal of "emotion"; and software that Silbert devised to generate virtual-music performances that capture the expressiveness of professional musicians.

Silbert began dabbling in the field during the mid-1990s, ultimately creating his Music Objects Recognition technology for making computer-generated music performances that sounded human. But making money from that technology proved difficult.

"Venture capitalists saw this as a very small niche market, not really worth funding," he told me. "But what came out in conversations was the idea of applying it to text-to-speech. I figured, If that's what people want, why not do it?" His company targets electronic publishing, specifically the audio-book market, which currently comprises a meager percentage of the hundreds of thousands of new titles published in the U.S. each year.

While Silbert acknowledges that VivoText is not about to compete with Derek Jacobi reading Shakespeare, he says that for informational or technical books, his relatively mellifluous text-to-speech engine will do just fine. The same goes for other voice-supported platforms like toys and games, GPS navigation, and SMS and e-mail reading. Though Silbert won't say which of those platforms will first use VivoText, the company plans to launch its first product roughly in time for you to not just read this, but hear it—and, he hopes, with F-E-E-L-I-N-G.

DESIGN AND ILLUSTRATION
BY GARRETT CHRISTENSEN

— the Atlantic —



Figure 11: The Voice In The Machine (magazine layout).