

Share the Thrills of Exploring Outer Space!



All DYNASCOPES, including this superb RV-6, 6-inch available on easy terms!

Now it's easy to join the thousands of serious amateurs who have discovered the excitement of exploring our mysterious universe. Your enjoyment begins right from the start, yet the challenges and rewards go on for years! And it's a hobby that can be shared at modest cost.

Choose from a Full Range Of DYNASCOPES® 4" Starting at \$49.95

Picking a telescope to fit your needs and your pocketbook is simple when you select a DYNASCOPE — the same instruments used by more than 150 schools, colleges and observatories. Prices begin as low as \$49.95, and your satisfaction is guaranteed by a full-refund warranty.

FASCINATING GUIDE YOURS FREE!

Read these valuable facts before buying any telescope. Mail coupon or postcard for your complimentary copy of this helpful guide.



Criterion Manufacturing Co.
331 Church St., Hartford, Conn. 06101
© TM Registered U.S. Pat. Office

CRITERION MANUFACTURING CO., Dept. NL-47

331 Church St., Hartford, Conn. 06101
Please send your free Telescope Guide.

Name _____

Address _____

City _____

State _____

FREE

50

PAGE

OBSERVER'S

GUIDE

UNITRON

ASTRONOMICAL TELESCOPES

OBSERVER'S GUIDE

UNITRON

With artificial satellites already launched and space travel almost a reality, astronomy has become today's fastest growing hobby. Exploring the skies with a telescope is a relaxing diversion for father and son alike. UNITRON's handbook contains full-page illustrated articles on astronomy, observing, telescopes and accessories. It is of interest to both beginners and advanced amateurs.

CONTENTS INCLUDE:

Observing the sun, moon, planets and wonders of the sky • Constellation map • Hints for observers • Glossary of telescope terms • How to choose a telescope • Astrophotography

UNITRON

INSTRUMENT COMPANY • TELESCOPE SALES DIV.
66 NEEDHAM ST., NEWTON HIGHLANDS 61, MASS.

Please rush to me, FREE of charge,
UNITRON'S OBSERVER'S GUIDE and TELESCOPE
CATALOG #N-5

Name _____

Street _____

City _____

State _____

gested at last week's meeting of the Geological Society of America in Atlantic City, did not exist before the Atlantic Ocean was opened. Rather it was created on top of oceanic crust in a complex process triggered by the rifting that first split apart the northern supercontinent. They believe as well that the southern third of Florida and the Blake plateau off the coasts of Florida and Georgia were probably also created in the same process.

"I think our solution is the only way to go," says Dr. Dietz.

The process he proposes is complex, and so far rests on some assumptions.

Nevertheless, it is likely to take root in scientific theory, though not without some further modification or verification.

Dr. Robert E. Sheridan of the University of Delaware, for instance, credits the general idea, but is less than certain about the details. He says the ESSA group's suggestion that the crust under the Bahamas was probably formed after Africa and North America parted is undoubtedly correct and in fact supports conclusions he has recently been preparing for publication. He feels, however, that the crust is probably not purely oceanic but an intermediate type, such as is found beneath the Red Sea.

The most unusual feature of the Bahama platform is its uniformly thick cap of carbonates, generally estimated to extend downward about 5 kilometers. The total volume of carbonate rock over the entire platform is then about 1.5 million cubic kilometers—one of the largest carbonate deposits on earth.

Carbonates are deposited by certain kinds of shallow-water marine organisms. Since this deposition process occurs only at or near the surface, the bottom of the carbonate layer now capping the platform must once have been at the surface, the scientists reason. As the carbonate cap grew thicker the base of the platform must have gradually sunk. This allowed the deposition to continue in shallow water for millions of years until the cap reached its present thickness and the base of the platform its present depth.

But marine geologists had no ready explanation for how the base of the platform could have reached sea level in the first place. If they invoked the idea that it was once part of the North American continent, they had another problem—continental areas resist subsidence. This made the great sinking of the platform, necessary for the creation of the carbonate cap, difficult to understand.

But oceanic crust, in contrast to continental crust, does tend to sink when loaded. And if the Bahama platform

is underlain by oceanic crust, the sinking can be understood. But this still left unexplained the geological situation that could account for the prior rise of the platform to sea level.

Invoking a special geological history, the ESSA scientists propose:

The rift that split apart the huge supercontinental mass in the Triassic Period, a little more than 200 million years ago, began just southeast of Florida. This created a small ocean basin entirely surrounded by continents and probably isolated from the world ocean rimming the supercontinent. This new mediterranean would include the Bahama platform of today, the southern tip of Florida and the Blake plateau.

New oceanic crust would well up from the mantle. An ocean basin more than 5 kilometers deep would result.

As a central hole within an enormous supercontinental mass, this new mediterranean would be an excellent trap for sediments. New rivers would dump their vast loads into this sea. The interior edges of the continental mass would serve as a giant cookie mold, trapping and shaping all the material poured into it. The sedimentation, they say, could have been so intense the entire basin would have filled up in roughly 30 million years.

Throughout this time, they propose, sea-floor spreading was temporarily in abeyance. There is some evidence to support such halts. Then rifting began again, and the continental mold began expanding, leaving behind a 5-kilometer-high platform of solid sediments reaching to within a few meters of sea level. Ecological conditions would then be perfect for carbonate deposition. Carbonates would begin to be laid down on top of the previously deposited inorganic sediments. The upbuilding process would continue, maintaining the Bahama platform near sea level, just offsetting the slow subsidence.

HEARING AIDS

Results from NBS

Consumers Union has won its battle over the hearing aids (SN: 5/24, p. 508). The Veterans Administration, because of agreements made with the manufacturers, refused to divulge the raw data developed by the National Bureau of Standards that enabled it to evaluate various brands. The consumer organization took the VA to court to get it to release this information. So successful has the campaign been that not only has it gotten the data, but this week, the VA released to the public the names of the hearing aids that did not measure up to Government standards. Of the 88 models tested, 23 were rejected. □