

## ***“Tracing the Ancient Landscapes of the Grand Canyon”***

by Wayne Ranney

There you are – up near the granaries at Nankoweap with some folks on a river trip. Everyone has made the climb and the iconic view of Marble Canyon is revealed in all its glory downstream. There could not be a more perfect “classroom” with better “illustrations” than this sheer wall of rock, aglow and alive in the late afternoon sun. As you point out the rock layers one by one: (*Kissing Takes Concentration* *However Some Require More Breath And Tongue*), you find that you have wandered into very dangerous territory – you are talking about things that people cannot see. It’s hard for them to imagine what you’re saying - the Coconino Sandstone was deposited in a vast, Sahara-like desert or the Redwall Limestone represents deposits from a tropical sea. And what about that ancient beach from the Tapeats Sandstone just downstream around the corner? That doesn’t sound like Arizona? Uh oh. Is that someone drifting away from your talk as they look down towards the river and their drag-bag full of cold Tecate?

Quietly, you reach into your pack and pull out a book with many brightly colored maps and say to your group, “Here’s what that Coconino desert looked like 275 million years ago.” The folks close by look over your shoulder and have a look. The present-day state and county lines allow you to precisely pinpoint your position in that ancient desert. A couple of subdued “wows” are uttered and the guy who was drifting off towards his beer comes over for a look too. You turn the page and show the map of the Redwall Sea. “Those nautiloids that we climbed up to downstream from Redwall Cavern lived in this sea”. Someone pipes up from behind, “What about that beach?” You turn the page to show a realistic depiction of the Tapeats Sea, lapping into everyone’s view across 525 million years of time. Magic!

After a few moments reflection, everyone looks up from the book. They can easily see the present-day landscape, deeply incised, electric, and very much alive as sunlight streams onto that massive wall of colorful strata. It is entirely satisfying in itself because it is here, now, where everyone can see it and sense it *tangibly*. Your talk about an ancient Sahara Desert and “imaginary “tropical seas was going nowhere fast, simply because it’s *intangible*, an idea hatched inside the brain of some nerdy geologist. However, the maps rescued your talk and resurrected those ancient landscapes in a tangible way. And once abstract ideas are now available to anyone who can read a map and are as real as that wall of strata framing the Nankoweap granaries. Let’s face it, very few of us will ever take a formal geology class, let alone obtain a college degree in the subject. Very few of us will ever be good at explaining something that happened hundreds of millions of years ago and cannot actually be seen. But there are a few tools that one can have at their disposal to help you become better in this aspect of guiding – a better storyteller.

That’s where these maps are useful. Grand Canyon’s strata have always held tantalizing secrets regarding earth history but geologists were the only ones who could visualize them. Many others tried to follow their tangled mumblings and crude sketches of those ancient seas or Sahara-like deserts but too often we “crashed and burned” against a humongous wall of professional jargon that was tied in the knotted complexities of science. A bright light now shines on the ghostly terrains of Grand Canyon’s past in a new book called, ***“Ancient Landscapes of the Colorado Plateau”***.

It is through the geologic fieldwork and artistic skills of Dr. Ron Blakey at Northern Arizona University that these long-lost landscapes jump out to us. He has created some of the most realistic and sophisticated maps that show the Colorado Plateau and the Grand Canyon in the past. The maps are informed by countless scientific studies that have been synthesized into a coherent whole. And they are rendered visually appealing by advanced computer programs (and an artful touch) that allow for realistic depictions. ***“Ancient Landscapes of the Colorado Plateau”*** is a new book published by the Grand Canyon Association (GCA) and available for yours and your company’s ammo can library in 2009.

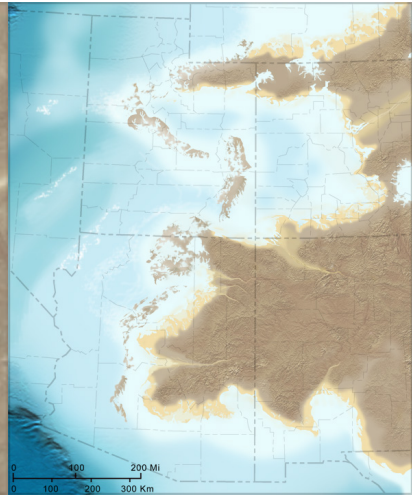
I am the co-author of ***Ancient Landscapes*** and wrote the text that accompanies these beautiful maps. But I just happened to step in at the right time to facilitate the publication of Ron’s gem of a book. I am a part-time geology professor and have wanted to use Ron’s paleogeographic maps for use in my geology classes. On the other side of this page is a collection of just nine of these maps, representing the nine major deposits in the Grand Canyon. If you don’t have the dough right now, use these on your trips to explain the past. But don’t settle for these chump-like reproductions – the GCA is here today at the Guides Training Seminar and they are offering a great discount on this otherwise \$35 book. Get a copy – I’ll sign it for you. I am here today. And Happy Time Travel to you this season on the river!



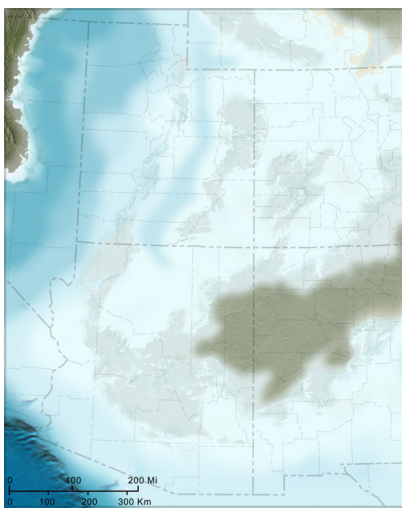
**TAPEATS SANDSTONE**  
525 Ma



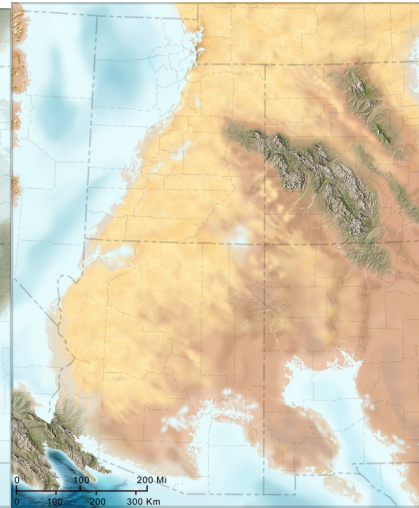
**BRIGHT ANGEL SHALE**  
515 Ma



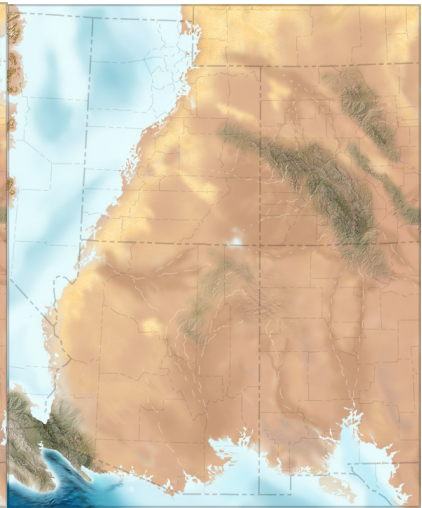
**MUAV LIMESTONE**  
505 Ma



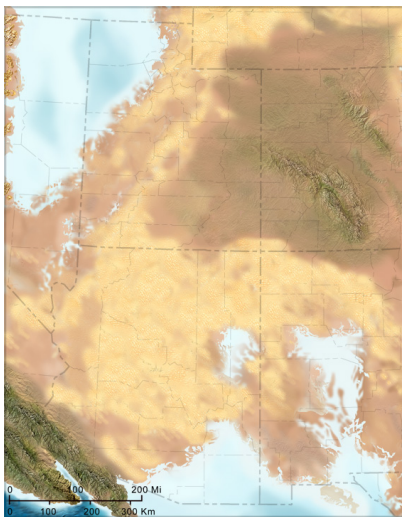
**REDWALL LIMESTONE**  
340 Ma



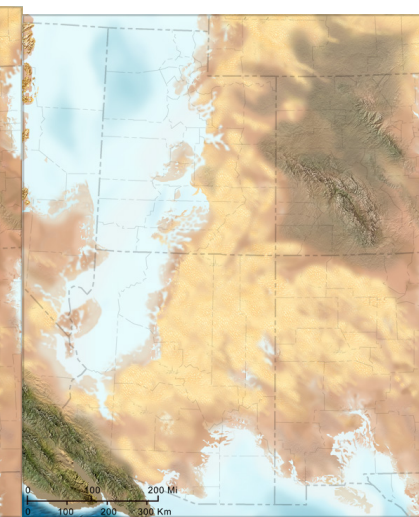
**ESPLANADE SANDSTONE**  
287 Ma



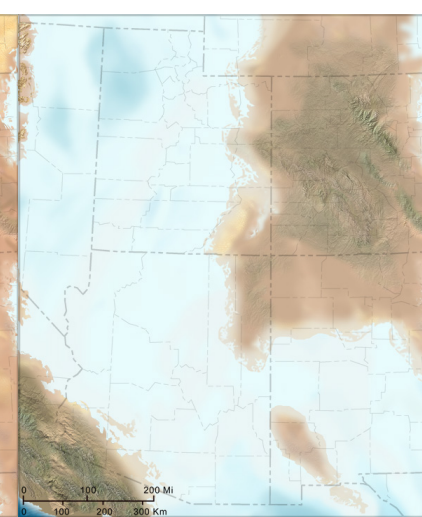
**HERMIT FORMATION**  
285 Ma



**COCONINO SANDSTONE**  
275 Ma



**TOROWEAP FORMATION**  
272 Ma



**KAIBAB FORMATION**  
270 Ma