**How old is Bingara?**

The passage of time means that most things can be given an age. We use minutes, hours, days and years to note the passing of events and experiences in our lives. We can sometimes place them onto a timeline like, Christmas Day, New Year’s Day, mid-winter, family birthdays, the start of a holiday, even the time and day when a favourite TV show is on. So how old is a place, like Bingara?

History tells us that in 1827 the first English explorer Allan Cunningham crossed the river there. He mistakenly thought it was the Peel River, but that’s another story. Cunningham crossed the river at the same place that the Kamilaroi had crossed for thousands of years.

In 1832, George Hall took up the first colonial selection just south of the present town. On one of the early maps, attributed to his family, the Kamilaroi words *Kooma* and *Bingera*, are mentioned, the former to the river, the latter to the shallow crossing.

That crossing pre-dates human occupation. The Big River, as Hall’s family preferred to call it, had cut its way through the rocks to the east of Bingara hundreds of millions of years ago. A Bingara resident today would probably recognise the hills and valleys around the district if they were able to go back a million years.

Going back tens of millions of years though, the landscape would have been unfamiliar. In the range of tens or hundreds of millions of years we are talking Geological Time, the time that it took rocks to form, for landforms to build up and wear away. The evidence of the past is now locked into those rocks and it is the role of the Geologist to unlock the past and for someone like me to put it into a story form.

This is the first of a series of “stories”, stories about rocks and about how this part of the world was shaped and formed. I’d like to tell it in layman’s terms, partly to interest more people, and partly because I am not a Geologist. It forms part of the concept of Geo-Tourism and I believe that visitors enjoy an area more, when they know a little bit about why it is there, and why it looks like it does.

I thank Geologist Bob Brown for providing much of the inspiration and the geological information told in these stories. To get started let’s look WAY BACK, four and a half BILLION YEARS ago just after the Earth was formed. The new planet Earth was very hot and active. The Earth formed into layers, a Crust on the surface, a Mantle in the middle, and a Core in the centre. Back then, there was no atmosphere like today, no surface water as lakes, seas and oceans, no plants and no animals. Not a very nice place to live at all.

For the next four billion years the Earth cooled and the Crust and Mantle became mostly solid rock, but there were still great pockets of heat under the Crust and it cracked and formed giant Plates that moved, very slowly across the Earth’s surface. These are called Tectonic Plates and they are still moving today. Bingara, along with most of the continental plate of Australia is moving northward and eastward at about 1 centimetre each year. It is ramming into New Guinea and sliding through New Zealand. At the point of contact between the tectonic plates there are subductions, volcanoes and earthquakes, and at some times in the past, these even occurred near Bingara.

The story of Bingara’s Volcanoes will come later, but the oldest rocks near Bingara today are from the Devonian era, 400 million years ago, as Serpentinite, found along the Peel Fault which runs north to south just east of Bingara. Serpentines are the remains of ancient ocean sediments dating back to the first water on the surface of the planet. Today’s Bingara, if positioned on the diagram below, would be just to the west (left) of the Island arc.

EAST

So a trip back in time to the site of Bingara as it was 400 million years ago would see shallow seas in the Horton Valley, with coral reefs, and beaches with sand-dunes near Caroda, and a chain of volcanic islands north and south of Keera to the east. The evidence to prove all of this, is still there to be found by the keen eye with a geologist’s pick.

