

A New Leaf in Time

Artwork by Billie Rebecca Walker, and Richard Walker
Text by David Alan Walker

A book about photosynthesis and how green creatures have shaped the world. For readers between nine and one hundred and nine



Artists at work by the tree-house

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Artwork by Billie and Richard Walker



Self Portraits by Billie Rebecca* and her father Richard

*When she is not drawing, Billie also plays a key role in this story

Text by David Alan Walker



When he is not busy writing, he also plays a part in this story as Billie's Grandfather; 'the Prof'

General Introduction. July 2006

Back in 1978, in the days when you could still buy a derelict cottage in a remote part of Northumberland for a song, my father-in-law did just that. His intention was that it might occasionally lure my wife and our two children (his only grandchildren) back to our northern roots. It did. Making it habitable became a labour of love. All us have come to regard it as a place of escape. Like the lighthouse keeper's horse (which wasn't ridden much, of course) we didn't get there very often in the early days but, in retirement, we spend about half our days there. Our kids get there when they can. We have only one grandchild, my son's daughter, Billie.. She will be twelve in December (2006) and, for the moment, enjoys fooling about in the burn just as our two did at the same age and, like me, still do. This book, if it can be called that, was largely

intended for her entertainment when the weather was unkind. It has also allowed me two indulgences. Ever since I read some of the books of Fabre as a child I have warmed to scientific writing that is simple, entertaining and irreverent. The advent of the Internet overwhelmed me with the treasures that it can bring at the click of a mouse. So, like Billie on rainy days, I have (with her active involvement) attempted an explanation of one or two (sometimes quite difficult) concepts in the hope that it might be possible to do this at several levels.

At the moment there are 7 chapters in various stages of completion. Where these are heading may be more apparent to you, the reader, than it is to me. I follow my nose. I have always been fascinated by energy transduction and most recently in current thinking about the way in which

photosynthetic organisms have shaped our planet. The cyanobacteria beckon in chapter five. Much checking and tidying needs to be done. I have no thoughts about eventual publication but writing is like painting in the sense that it demands to be looked at if it is not to be more than a purely personal indulgence.

What's it all about?

It's a wildly ambitious attempt to describe a fundamental bit of science in a way that will be both interesting and readily understood by both children and grown-ups.

When (and if) finished, it will be possible to print it on to paper or read it on a computer screen. However, if you are 'on-line' (especially since broadband is becoming more accessible, cheaper and faster by the day) and connected to the internet, a mouse click should take you to all manner of interesting places. These 'hyperlinks' are marked by dashed boxes. Those outlined in blue are intended to be of most general interest, those in green seriously scientific (though the difference between these two has often been difficult to determine.

Then there are hyperlinks in orange. If you have sound enabled on your computer, these may reward you with a snatch of music. Not, perhaps, the best thing to click on if you happen to be in a library or regard such frivolity as inappropriate.

But what's it all about? Simply a story about the way in which green creatures changed the world.