

The Old Sussex Tortoise: Gilbert White and his tortoise Timothy at Ringmer and Selborne

June Chatfield

Anglefield, 44 Ashdell Road, Alton, Hants. GU34 2TA

Email: drjunechatfield@gmail.com

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This talk was prepared in spring 2020 as part of the planned celebrations on the occasion of the tercentenary of the birth of Gilbert White, the well-known eighteenth century Selborne clergyman/naturalist and author of the classic book *The Natural History and Antiquities of Selborne* (White 1789) that refers to his tortoise Timothy.

Gilbert White (1720-1793)

Gilbert White the naturalist (Fig.1), to distinguish him from his grandfather, the Reverend Gilbert White senior, was born in July 1720 at his grandfather's vicarage in Selborne, Hampshire. His early boyhood was spent at Field Place, Compton, Surrey at the foot of the Hog's Back chalk ridgeway, moving in 1727 to East Harting in Sussex below the South Downs and then around 1728 to "Wakes" in Selborne opposite the church where his widowed grandmother Rebecca White had moved to after the death of her husband. This was to be his lifelong home and the last home of his tortoise Timothy.

Gilbert went to Basingstoke for tutoring by the Rector in preparation for entry to Oriel College in Oxford and after his BA, MA and Fellowship he was ordained for a working life in the Church of England but he was ineligible for the living of Selborne as that was reserved for graduates of Magdalen College so he only served there as Curate, two early fill-in sessions and for the last nine years of his life. Today he is famous throughout the world for his book published in 1789 and is regarded as the father of British natural history for his 40 year studies and journals on the local flora and fauna and for breaking new ground into animal behaviour and what we today call ecology (Johnson 1931/1970; Greenoak & Mabey 1986, 1988, 1989). He was more interested in how animals lived their lives in their natural habitats than identification and collections that were the fashion at the time. His observations on Timothy the tortoise exemplify this. The early part of his career was peripatetic as he worked a number of short-term curacies and did not accept any full livings of his college which would have taken him

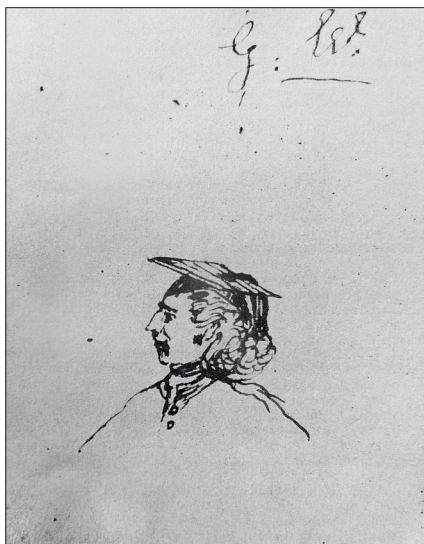


Fig. 1. One of only two authentic likenesses of Gilbert White drawn by a college friend in his copy of Pope's translation of Homer's *Iliad*, now in the British Library.



Fig. 2. A portrait of Rebecca Snooke in her younger days (Holt-White 1901, Warner 1946/1978)

away from Selborne. Some stability came to his life in 1761 with a long-term curacy at Farrington, a village just two miles north of Selborne that could be reached on horseback whilst he still lived at "Wakes", which he came to inherit in 1763 from his uncle, the Reverend Charles White. He worked as Curate at Farrington until 1784 when the curacy at Selborne became vacant.

Gilbert White, Rebecca Snooke and Ringmer, Sussex

Rebecca Snooke (Fig. 2) was a sister of his grandfather Gilbert White senior who had married the Reverend Henry Snooke, Vicar of Ringmer in Sussex. We pick up Gilbert's visits to Ringmer from his *Naturalist's Journal* that he started in 1768 (Johnson 1931/1970) although he refers to the plants seen on a journey to Ringmer in August 1776 in his *Flora Selborniensis* (Greenoak & Mabey 1986). The Reverend Henry Snooke had died in 1763 and from 1770 Gilbert White made yearly visits to his aunt in Ringmer, except in 1774. The first reference to Timothy tortoise was in 1770 (White 1789) and it seems significant that this was the year when his correspondent the Hon. Daines Barrington suggested that he wrote a book on his observations in Selborne. White's brother Benjamin was fortuitously a leading London publisher of natural history books, including Barrington's invention of *The Naturalist's Journal*, an eighteenth century spreadsheet format for natural

history notes. This format was adopted for White's journal notes from 1768. In the correspondence between White and his two correspondents Thomas Pennant and Daines Barrington there was much discussion on the question of where swallows, martins and swifts go in winter. Hibernation was the popular view at the time although there were thoughts of migration for which Gilbert White soon had the hottest evidence of the century from his brother John who served as a Chaplain to the garrison on Gibraltar and watched and counted migrations of birds in spring and autumn.

His aunt's tortoise Timothy was an animal that hibernated in her garden so became a special focus for study. Daines Barrington was as White described "no great friend to migration" so he had to juggle the two sides of the argument. He mostly visited Ringmer in autumn (September to December), in 1772 in late May and several times in August. The first journal entry was 11th November 1771: *Tortoise comes out in the sun about noon, but soon returns to his work of digging a hole to retire into*. By the time of his departure on 15th November he wrote: *Tortoise at Ringmer had not finish'd his hibernaculum, being interrupted by the sunny weather, which tempted him out* (Johnson 1931/1970).

His next visit to Ringmer was in May 1772 when he learned from his aunt that the tortoise had emerged from hibernation on 6th April. It was only observed eating on hot days but by 30th May was eating all day. The 1773 visit was in December when he heard of Timothy going underground on 21st November but emerging briefly on 30th. White also commented that Timothy was laid up in a wet border in "mud and mire" with the back of his shell still exposed. Although there was well-dug loam in parts of the garden from years of cultivation, the bedrock at Ringmer is a stiff Wealden clay that is hard and poorly drained – not an ideal place for hibernation! On 7th August 1775 Timothy is weighed for the first time at 6lbs 13oz (3.1Kg). A footnote in another hand in the original manuscript of the *Naturalist's Journal* says: *Prey let it be weighed every year*, as indeed it was. I suspect that the footnote was written in by Thomas Hoare, White's manservant and later devotee of Timothy, who filled in the weather data during White's absence. Here White gives the history of Timothy at Ringmer having been there "full 30 years" so the tortoise must have arrived somewhere between 1740 and 1745. He also commented that it had much grown since, though whether that observation was his aunt's or Gilbert White's is not clear.

Also at Ringmer we have an insight into Timothy's diet (28th August 1776) when he was described as voraciously eating kidney beans and (11th September 1777) more kidney beans and cucumber which he swallowed whole. Presumably the beans would be the pods picked for kitchen use rather than the leaves, which my tortoises enjoy equally. In October 1779 the seasonality of feeding is studied noting that the tortoise ate virtually



Fig. 3. Notice outside The White Horse giving its history.



Fig. 4. The back archway leading into the stable yard of The White Horse in Dorking.

nothing in the weeks prior to hibernation. Feeding on 28th August 1776 was described as voracious but hardly any food was taken after waking up in April, these observations presumably coming from his aunt. He saw a relationship between the rate of feeding and temperature. The last record of Timothy at Ringmer is in March 1780.

Whilst staying with his brother Thomas in Lambeth, south London, news came through of the death of Mrs Snooke so the White brothers journeyed to Ringmer for the funeral. The entries in the *Naturalist's Journal* were: *Wednesday 15. Mrs Snooke was buried.* He left Ringmer on Friday 17th March 1780 staying

overnight in Dorking, Surrey on his way back to Selborne where he wrote:

Friday 17. DORKING. Brought away Mrs Snooke's old tortoise, Timothy, which she valued much, & had treated kindly for near 40 years. When dug out of its hibernaculum, it resented the Insult by hissing.

The posting inn at Dorking is the White Horse (Figs 3 & 4) where Gilbert White and Timothy stayed overnight and changed coaches for the final lap to Selborne. You can see the archway where the coaches came through with the stables in the back yard. I wonder whether Timothy stayed overnight in the stables or whether he might have been smuggled up in his box to White's room at the inn as a new cherished possession. We are not told.

Memories of Timothy live on at Ringmer

Timothy's fame lives on in the village of Ringmer. First there is the village sign, still in good condition. A roundel depicting Timothy holds centre place and two famous Americans who married Ringmer girls, William Penn after whom the state of Pennsylvania is named and John Harvard, founder of the renowned university in Massachusetts are to one side (Fig. 5). Delves House, the home of the Snookes and Timothy tortoise, faces the village green. It has been sensitively restored as a retirement home, but looks essentially as



Fig. 5. The village sign at Ringmer with Timothy in centre place.



Fig. 6. Delves House, Ringmer, the former home of Timothy tortoise of Selborne.



Fig. 7. The sunny terrace at Delves House, Ringmer.



Fig. 8. Ringmer church where the Reverend Snooke was Vicar and where he and his wife were buried.



Fig. 9. The millennium mosaic in Ringmer church featuring Timothy tortoise.



Fig. 10. Detail of tortoise in the millennium mosaic.

it did in earlier years, an imposing property (Figs 6 & 7). In the church close by (Fig. 8) also facing the village green, Henry Snooke's name is on the list of past Vicars and a new mosaic of Ringmer done for the millennium shows Timothy clearly, so his reputation remains as a famous resident and part of the heritage of the village. (Figs 9 & 10).

Timothy the tortoise moves to Selborne, March 1780

The story continues in Letter 50 to Daines Barrington in *The Natural History of Selborne*, 21st April 1780: *The old Sussex tortoise, that I have mentioned to you so often, is become my property. I dug it out of its winter dormitory in March last, when it was enough awakened to express its resentments by hissing; and, packing it in a box with earth, carried it eighty miles in post-chaises. The rattle and hurry of the journey so perfectly roused it that, when I turned it out on a border, it walked twice down to the bottom of my garden; however, in the evening, the weather being cold, it buried itself in the loose mould, and continues still concealed.*

He then outlines ideas he now had to study the tortoise more closely and often: *As it will be under my eye, I shall now have an opportunity of enlarging my observations on its mode of life and perceive, already that, towards the time of coming forth, it opens a breathing space in the ground near its*

head, requiring, I conclude, a freer respiration as it becomes more alive. This creature not only goes under the earth from the middle of November to the middle of April, but sleeps great part of the summer; for it goes to bed in the longest days, at four in the afternoon, and often does not stir in the morning until late. Besides, it retires to rest for every shower; and does not move at all on wet days.

In the year 1780 there were regular entries in the *Naturalist's Journal* on Timothy the tortoise. Letter 50 to Barrington in *The Natural History of Selborne* dated 21st April, 1780 continues with a comparison of emergence from hibernation of common garden snails (*Cornu aspersum*) and the tortoise: *While I was writing this letter, a moist and warm afternoon, with the thermometer at 50 [F], brought forth troops of shell-snails; and, at the same juncture, the tortoise heaved up the mould and put out its head; and the next morning came forth, as it were raised from the dead; and walked about till four in the afternoon. This was a curious coincidence! A very amusing occurrence! To see such a familiarity of feelings between the two φερεοικου! for so the Greeks call both the shell-snail and the tortoise.*

Gilbert White had previously written letters to Daines Barrington (letters 7 and 13, dated 8th October 1770 and 12th April 1772), reporting on the tortoise at Ringmer, which were published in 1789 in his book *The Natural History and Antiquities of Selborne*. In letter 7 he introduces Timothy: *A land tortoise, which has been kept for thirty years in a little walled court belonging to the house where I am now visiting, retires under ground about the middle of November, and comes forth again about the middle of April. When it first appears in the spring it discovers very little inclination towards food; but in the height of the summer grows voracious: and then as the summer declines its appetite declines; so that for the last six weeks in autumn it hardly eats at all. Milky plants, such as lettuces, dandelions, sowthistles, are its favourite dish. In a neighbouring village one was kept till by tradition it was supposed to be an hundred years old. An instance of vast longevity in such a poor reptile!*

Letter 13 to Barrington dated 12th April 1772 is devoted to the tortoise. Referring back to his Ringmer visit in 1770, he describes the tortoise digging for hibernation: *On the first of November I remarked that the old tortoisebegan first to dig the ground in order to the forming its hybernaculum, which it has fixed on just beside a great tuft of hepaticas. It scrapes out the ground with its fore-feet, and throws it up over its back with its hind; but the motion of its legs is ridiculously slow, little exceeding the hour-hand of a clock; and suitable to the composure of an animal said to be a whole month in performing one feat of copulation. Nothing can be more assiduous than this creature night and day in scooping the earth, and forcing its great body into the cavity; but, as the noons of that season prove unusually warm*

and sunny, it was continually interrupted, and called forth by the heat in the middle of the day; and though I continued there till the thirteenth of November, yet the work remained unfinished. Harsher weather, and frosty mornings, would have quickened its operations. No part of its behaviour ever struck me more than the extreme timidity it always expresses with regard to rain; for though it has a shell that would secure it against the wheel of a loaded cart, yet does it discover as much solicitude about rain as a lady dressed in all her best attire, shuffling away on the first sprinklings, and running its head up in a corner. If attended to, it becomes an excellent weather-glass; for sure as it walks elate, and as it were on tiptoe, feeding with great earnestness in a morning, so sure will it rain before night. It is totally a diurnal animal, and never pretends to stir after it becomes dark. The tortoise, like other reptiles, has an arbitrary stomach as well as lungs; and can refrain from eating as well as breathing for a great part of the year. When first awakened it eats nothing; nor again in the autumn before it retires: through the height of the summer it feeds voraciously, devouring all the food that comes in its way. I was much taken with its sagacity in discerning those that do it kind offices; for, as soon as the good old lady comes in sight who has waited on it for more than thirty years, it hobbles towards its benefactress with aukward alacrity; but remains inattentive to strangers. Thus not only "the ox knoweth its owner, and the ass his master's crib" but the most abject reptile and torpid of beings distinguishes the hand that feeds it, and is touched with the feelings of gratitude!

I am, & &

P.S. In about three days after I left Sussex the tortoise retired into the ground under the hepatica.

Tortoise owners amongst the BCG will find much common ground in White's observations.

Other species of tortoise

Timothy was not the first tortoise kept by Rebecca Snooke at Delves House and this is referred to in his personal correspondence. In a letter to his brother John White in Gibraltar, dated 26th September, 1774 he was after more information on tortoises and wrote: *When you write to Linn next, pray talk to him about tortoises. There are tortoises whose shells are always open behind and before These apertures are supported, as it were, by pillars on each side and can never be closed. Of such construction is the shell of Mrs Snook's present living tortoise, Timothy. But then there are tortoises whose under shell has a cardo, an hinge, about the middle of their bellies, commanding one lid or flap forward, and one lid backward (like the double-lidded snuff-boxes) which when shut conceal the head and legs and tail of the reptile*

entirely, and keep out all annoyances. Two such (very small they were) Mrs Snooke had formerly; and the shells lie still in her room over the hall (White 1877, Bell edition). These were evidently box tortoises. What happened to those shells? It would have been appropriate if Gilbert White had taken them back to Selborne with the living Timothy, but we hear no more of them.

In 1784, Charles Etty, the son of the Reverend Etty, Vicar of Selborne, sent to the Vicarage some specimens from his travels including several turtle's eggs from the Isle of Ascension (*Naturalist's Journal* 13th June 1784) and a month later came to Selborne bringing with him two tortoises from Madagascar. White went to see them as recorded in his *Naturalist's Journal*, 17th July 1784. *Mr Charles Etty brought down with him from London in the coach his two finely-chequered tortoises, natives of the island of Madagascar, which appear to be Testudo geometrica, Linn., and the Testudo tessellata, Raii... but the small one dyed the first night that they came to Selborne; & the other, two nights after, having received as it should seem, some Injury on their Journey. When the female was cleared of the contents of her body, a bunch of eggs of about 30 in number was found in her.*

Gilbert White got a lot right and not a lot wrong

Gilbert White kept a single European tortoise at Selborne from 1780-1793, when White died, and Timothy is reputed to have died the following year. The shell was retained in the White family until given to the British Museum in 1853.

With over 23 years of observation, the last 13 years in his own garden, White had deduced many accurate facts about the tortoise. Although Timothy was given and ate kitchen vegetables such as kidney beans, cucumber and lettuce, it also browsed for itself taking wild plants like dandelions and sowthistles and helped itself to lettuces growing in the garden. Feeding rate was affected by temperature with little feeding in the first month out of hibernation, vigorous feeding in mid-summer, declining in early autumn and more or less fasting in the month prior to hibernation. Today we know more about the why, with digestion relying on enzymes that only operate in a limited warm temperature and the advantage of emptying the gut of all food prior to hibernation. He observed temperature control of this reptile by behaviour, seeking sun and placing its shell at an angle for maximum surface area to absorb heat from the sun and shade-seeking when the temperature is too high and Timothy went skulking among the cabbages. He also discovered that tortoises can be adept at escaping and explore their boundaries for escape holes.

He observed the copious urine but also the white precipitate that is similar to bird droppings – a nice observation since we now know that birds derived from ancient reptilian stock. Through Charles Etty he got to see that tortoises

laid shelled eggs. Through his brother John in Gibraltar, as well as reading, he was aware of land and freshwater chelonia. White lived a century or more before Darwin's publication of *On the Origin of Species* (Darwin 1859) and the final acceptance of evolution.

What he got wrong was sex. The tortoise came from the Snookes with a male name, Timothy, and this was not questioned. When the shell was presented to the British Museum in 1853 it was determined as female, presumably on the flat rather than concave plastron. He never had the chance to see male and female tortoises interacting and mating. When in Letter 13 to Barrington in *The Natural History of Selborne* he commented that it was so slow and reputed to be a month in the act of copulation, this was second hand information that was probably suggestive and not backed up by careful observation. As any keeper of tortoises knows they are very randy! Courtship is preceded by following, noisy shell butting, limb biting and squeaking by the male. White only had one tortoise so missed out on this side of its behavior.

Although we know the history of ownership of Timothy from the Snooke family to the White family and the Natural History Museum, it is an unprovenanced specimen. It was purchased from a sailor at Chichester. We must not be led astray, however, by the letter which Gilbert White wrote as from Timothy the tortoise to Hecky Muslo, the daughter of his college friend in which Timothy says he was kidnapped in the West Indies, written for dramatic effect not for science. His identification of it as a spur-thighed Tortoise points to a more Mediterranean postulated origin. But we do not know.

Thomas Bell, the Wakes and tortoises

In 1844 Professor Thomas Bell, a pioneer dental surgeon, author and naturalist, bought White's old home "Wakes" in Selborne. There, in retirement from his London dental practice in 1861, he devoted his time to editing a fine two volume edition of *The Natural History and Antiquities of Selborne* that also included transcriptions of White's personal correspondence as well as voluminous footnotes to White's text. He was also the first Professor of Zoology at King's College, University of London and author of several zoological books and scientific papers. Bell had a particular interest in reptiles and had written a monograph on chelonia (Bell 1832-1836). We learn from Gilbert White's records that he examined other exotic species of tortoise, brought to him from Madagascar for identification using Ray's book on quadrupeds to make the identification (Ray 1693), none of which survived. The demise of these exotic tortoises is a sad indication of the then lack of understanding of the extra care needed when transporting them to the cold and wet climate of Britain. Only Timothy of Ringmer, being a European tortoise, successfully adapted. The low survival rate of exotic tortoises in captivity severely hampered Thomas

Bell when working on his monograph of the Testudinata. By the time that Bell retired in 1861 and lived in Selborne, he had put his studies on chelonia behind him.

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