

**ROBERT DICK OF TULLIBODY:  
BAKER, AMATEUR NATURALIST AND VICTORIAN ICON  
People of the Forth (15)**

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**Samuel Smiles and Robert Dick**

Samuel Smiles was born in Haddington in 1812, one of eleven children. In spite of his humble origins he obtained a medical degree eventually becoming the village doctor. After a career as a political reformer he was propelled to international fame by the publication of *Self Help* in 1859. This book which preached industry, thrift and self-improvement became an instant success selling more than 250,000 copies including translations into many languages (Wintle, 1982). Although *Self Help* was a practical guide the key to Smiles' success was to turn the biographies of celebrated men into an inspirational medium that awakened in readers their own potential and instilled in them the desire to succeed. One such icon was Robert Dick of Tullibody.

In *Self Help* Smiles only refers to him briefly:

*Not long ago, Sir Roderick Murchison (President of the British Association and the Royal Geographical Society) discovered at Thurso, in the far north of Scotland, a profound geologist, in the person of a baker there, named Robert Dick. When Sir Roderick called upon him at the bakehouse in which he baked and earned his bread, Robert Dick delineated to him, by means of flour upon a board, the geographical features and geological phenomena of his native county, pointing out the imperfections in the existing maps, which he had ascertained by travelling over the country in his leisure hours. On further inquiry, Sir Roderick ascertained that the humble individual before him was not only a capital baker and geologist, but a first-rate botanist. "I found," said the Director-General of the Geographical Society, "to my great humiliation, that this baker knew infinitely more of botanical science, ay, ten times more, than I did and that there were only some twenty or thirty specimens of flowers (from the British flora) which he had not collected." Smiles continued "It is the glory of our country that men such as these so abound .... And even in the lowliest calling the true worker may win the very loftiest rewards".*

The entry is short because Sir Roderick Murchison's address to the British Association in 1858 which drew attention "To the man I am proud to call a distinguished friend" was only made just before the publication of *Self Help*. Smiles subsequently selected a few examples from *Self Help* for more detailed biographies; amongst these were George Stevenson (1875), Josiah Wedgwood (1894), James Nasmyth (1885), Boulton and Watt (1865) and Robert Dick (1878).

Dick was an unassuming man with an aversion to recognition. He was happy for others to use his plant and fossil finds without attribution. It was only at the insistence of Professor Balfour of Edinburgh University that he wrote up his discovery of Holy Grass (*Hierochloe odorata* L.). As a consequence

we are almost entirely indebted to the industry of Samuel Smiles who in the 12 years after Dick's death recovered hundreds of letters from his sisters and scientific associates. Without him there would be little trace of Dick's accomplishments.

### **Robert Dick's Formative Years in Tullibody**

Robert Dick is said to have been born in January 1811 the second of four children born to Thomas and Margaret Dick (nee Gilchrist) an excise officer at Knox's Cambus brewery. The couple were married in 1807 at Cupar in Fife and their first child Nancy (Agnes) was born and christened in Tullibody later that year. However neither Robert nor his younger sister Jane's births are recorded in Alloa Parish records though the last born James b 1815 is included. The family lived at 24, Main Street, Tullibody (Figure 2) which was demolished in 1958 during the village's redevelopment. According to the Rev Thom (1907) it was a plain two storey building which originally had a pantiled roof but was not embellished with ornamentation as illustrated in Smiles' book. Robert attended the Tullibody Barony school which was partly maintained by the Abercromby family. The two storey building had a lower school room with the teacher's quarters above and an unenclosed play area on the roadside. Robert was picked out by his tutor Mr Macintyre as a very able student and according to the Rev. Crouther Gordon his father like all good Scots of his day aspired to see his laddie "college bred". In later life Robert wrote fondly of his "auld dominie" recalling that "every morning before the business of the day began he used to pray that teachers and scholars might all be taught and that discipline might be followed with obedience".

Sadly Robert's life was to change dramatically when at the age of seven his mother died and two years later in 1820 his father remarried Margaret Knox the Brewery owner's daughter. Excise regulations did not allow the inspection of a relative's business and so his father was transferred to Mr Dall's Distillery (later Glenochil distillery) at Menstrie. The family moved into a house just north of the works, on the east bank of the Damsburn and on the south side of the old Hillfoots road (Morris, 1908). Robert attended the subscription school at Menstrie which comprised a school room and master's house in two cottages which were taken down in 1875 to make way for a new school's playground. According to Smiles' account Robert made little progress under his new teacher Mr Morrison who had only one arm and was disparagingly described as "not having the limbs to fit him for anything else". This contrasts with an ex-pupil's description of Morrison as "a strict disciplinarian who was much respected" (Morris, 1908).

Robert and his siblings did not get on well with their new mother who soon had a family of her own. She was very hard on her step-children and Robert never forgot how she beat his younger brother until he could not stand. To keep away from the house he roamed the hills developing an interest in the natural world making collections of minerals and plants. Even then he was persecuted for wearing out his boots and was forced to walk bare foot. Later he

was to confide in Charles Peach about this unhappy period. "...All my naturally youthful spirits were broken ... to this day I feel the effects ... it is this that makes me shrink from the world".

At the age of thirteen instead of being sent to college he was apprenticed to Mr Aikman a prosperous baker in Tullibody. The shop with chimney and ovens behind occupied the corner site where the Post Office now stands and there was a grain store across the road. When the shop was renovated in 1950-2 the sandstone blocks from the coal fired ovens were used to help build the foundation for the garage at 2, Ochil Street.

Mr Aikman was a kindly man who was to remain in contact with his apprentice throughout his life. He provided the flour for Robert to set up business in Thurso and later hinted that he might like to return to Tullibody to take over the bakery when he retired. Apprentices lived over the bakehouse and worked for their keep. Robert was charged with getting up at 3 am to light the three ovens and once he was strong enough to carry the basket of loaves, he was sent on deliveries to Blairlogie, Bridge of Allan and Lipney. Using borrowed books he developed an interest in the natural history of the surrounding area. One biographer (Morris 1918) suggested that while making his deliveries to Drumbrae and Bridge of Allan "his quick eyes would spy out ... the chickweed wintergreen *Trientalis europaea* and petty whin *Genista anglica*". A century later these plants can still be found along the path near the Cocksburn reservoir. Later in life when attempting to collect all the flora of the British Isles he asked his sister to send him water crowfoot *Ranunculus aquatilis* which he recalled grew in the Devon river.

Thomas Dick and family left Cambus in 1926 when appointed Supervisor of Excise in Thurso. Robert remained and upon the completion of his apprenticeship took a boat from Alloa to Leith finding work as a journeyman baker before transferring to similar positions in Glasgow and Greenock. At his father's suggestion he travelled north in 1830 to start a business in Thurso which only had one baker at the time. After the construction of an oven he set up shop in Wilson's Lane opposite his father's house. Bread was very much a luxury in these parts and initially Robert specialised in biscuit making aided by Annie MacKay his lifelong housekeeper. His sister Jane helped in the shop and after the family moved away to Haddington he corresponded with her for the rest of her life. Fortunately she kept all these letters which form the basis of much of Smiles' account. Robert was never to return to Tullibody though he kept in touch through correspondence both with Agnes who returned to the village and his father who eventually died at "Dovecot" in Cambus. In Peach's obituary in the John O'Groat Journal he states that Robert helped rear the families of his sisters who became widowed. He was also elected a "corresponding member" of the Alloa Archeological Society in 1863.

### **Botany and the Discovery of Holy Grass**

Robert bought his flour from a merchant in Leith who was persuaded to send him books and a microscope packed in the centre of the bags. These

included the *Gardener's Dictionary* and the *British Flora*. He had plenty of leisure time and after his bread was ready he left the sales to his housekeeper spending the rest of the day reading and wandering. He took up botany in a most resolute way spending the spring and summer in excursions finding and documenting the local flora, particularly the ferns and mosses. Robert mapped out the county into districts and resolved to examine them all. This required great dedication and involved walking massive distances. In a letter to his sister he described one such excursion to Morven Hill on which he was to find alpine ladies mantle (*Alchemilla alpina*). He set off at 2 am to cover the 32 miles from Thurso (of which only 18 were by road) crossing many bogs and moors until he eventually reached the top of Morven by 11 am. The return journey was started at 2 pm and was not completed until 3 am the next morning.

Dick's chief botanical contribution was the re-discovery of *Hierochloa odorata* (*H. borealis*) the Northern Holy Grass. This plant had originally been included in the *British Flora* on the authority of George Don (1764-1814) who added more new species to the list of Scottish plants than anybody since. Don too has a local connection having botanized during his apprenticeship as a clock maker in Dunblane (Morris, 1908). Eventually he took up gardening and became head gardener at the Royal Botanic Gardens Edinburgh (RBGE) writing *Herbarium Britannicum* in 1804. He kept a large collection of wild plants in a "Systematic Garden" associated with his house in Forfar. Unfortunately he had a disconcerting habit of mixing up garden (alien) and indigenous wild plants. After his death a number of Don's claims could not be substantiated and in Sir Joseph Hooker's popular *Students Flora*, 43 of his "reputed discoveries" were relegated to the appendix (Morris, 1908; Butler, 1981). Dick's discovery of holy grass growing on the banks of the Thurso river helped rescue Don from calumny. Although surprised by the discovery Robert was too bashful to rush to print. It was about 20 years later that a young botany student noticed it in Dick's herbarium and reported the discovery to Professor Balfour at Edinburgh. Although initially sceptical Balfour was convinced as soon as he received a specimen and the record was published in the *Annals of Natural History, Edinburgh* 1854.

Holy grass has since been found in a number of wetland sites in both Scotland and Northern Ireland. There is a local colony on Vane Farm SSSI on Loch Leven in Kinross. The name is thought to have been derived from the practice of strewing it on the floors of Nordic churches where it perfused the atmosphere with its attractive scent. It is interesting that according to the *Atlas of the British Flora* all the recently discovered sites in Orkney are near old Norse churches.

According to Morris' (1908) account of *Noteworthy Local (Stirling) Botanists*, Dick set out to collect all the wild plants of Caithness. In achieving this he found a number of rarities including pyramidal bugle, (*Ajuga pyramidalis*), Scottish primrose (*Primula scotica*), Baltic rush (*Juncus balticus*) and shady horsetail (*Equisetum pratense*). Not content he tried to extend his herbarium further to all the British native plants. English species were obtained by

exchanging Caithness plants for southern species collected by many of the famous botanists of the period. The RBGE has many herbarium sheets of *Hierochloe odorata* attributed to Dick which had been supplied under this exchange scheme. Dick wrote he had 3000 different specimens altogether and Morris reported in 1904 that they were still well preserved and kept in a case provided by public subscription. The herbarium has survived and will form part of a commemorative display in the new Caithness Horizons visitor centre.

### Fossil Fish and Hugh Miller

Dick first became interested in fossils in the old red sandstone rocks around Thurso in 1835. Apparently he had attended three lectures given by a Mr Keir in Thurso (Williamson, 1967) and then read Mantell's *Wonders of Geology*. However his enthusiasm was really fired by the purchase of Hugh Miller's *Old Red Sandstone* (1841) with its descriptions of the Scottish fossil fish which abound in the Thurso area.

Hugh Miller was the son of a sea captain born in Cromarty in 1802. Although very successful at school his master boxed him about the ears once too often and he left to become a journeyman stone mason. As a result he developed an interest in the winged fossil fish he found in the rocks and what at the time were thought to be turtles but were later shown to be heavily armoured fish. In his famous book *Old Red Sandstone* he wrote of his finds "*creatures whose very type is lost, fantastic and uncouth, and which puzzle the naturalist to assign them even their class; boat-like animals, furnished with oars and a rudder; fish plated over, like the tortoise, above and below, with a strong armour of bone, and furnished with but one solitary rudder-like fin; other fish less equivocal in their form, but with the membranes of their fins thickly covered with scales; creatures bristling over with thorns; others glistening in an enamelled coat, as if beautifully japanned. All the forms testify of a remote antiquity – of a period whose fashions have passed away.*"

Ill health caused by 10 years inhaling silica dust led Miller to change career to banking. His book *Scenes and Legends of the North of Scotland*, was a big success. Sir Roderick Murchison founder of the Geological Society read the geology chapter and soon the two were correspondents. Miller moved to Edinburgh where he had a prominent role in the founding of the Free Church during "The Disruption". He became the editor of *The Witness* newspaper which did much to swing political opinion against the current rights of patronage. Miller started to write articles about fossil fish in *The Witness* and these formed the basis of *Old Red Sandstone*. He became the leading populariser of geology during a period in which there was intense public interest and geology books outsold novels 5:1. In 1834 Louis Agassiz the leading Swiss authority on fish fossils addressed the British Association meeting in Edinburgh. Sir Roderick Murchison introduced Miller's fossils to the great man, some of which were quite new to Agassiz and he later named them for either himself or for Miller.

Robert Dick was one of the many inspired by Miller's book and once again he started walking the length and breadth of Caithness in pursuit of fossils.

This time he was encumbered with “a 3 lb of iron chisels in his pockets, a 4 lb hammer in one hand and a 14 lb smiddy hammer in the other”. He sent the first of hundreds of letters and specimens to Miller on the Union Steamer from Thurso to Leith in March 1845. Some of these first discoveries were valued by Miller who began to modify his accounts and reconstructions as more complete fossils were found. Robert could be quite critical and wrote “Your Edinburgh Professors can put on their spectacles next time they travel North. If they wish to be respected they must be more particular”. In the third edition of *Old Red Sandstone* (1846) the evidence for the “development theory” that there was a gradual progression in fish size and complexity from the Silurian through the ORS to the Carboniferous had to be amended because Dick found a massive *Homosteus* (then called *Asterolepis*, Saxon, 1967) in the oldest ORS beds. Agassiz calculated it was 12 feet 5 inches long.

The two were to eventually meet in Caithness in 1845 and their excursions together with other information provided by Dick were documented in Miller’s articles and *The Cruise of the Betsy*. One such account is preceded by the following introduction: “Let us accompany Mr Dick in one of his exploratory rambles. The various organisms which he disinterred I shall describe from specimens before me, which I owe to his kindness,—the localities in which he found them, from a minute and interesting description, for which I am indebted to his pen”.

Robert shunned publicity and in a note with a dozen more specimens wrote “Be a good man and do not speak about me by name. I am a quiet creature and do not like to see myself in print at all”. Most of his best specimens were sent to Miller who later wrote “he robbed himself to do me service”.

*Coccosteus* was amongst the fossils sent to Miller. It belonged to the group of fishes known as Placoderms whose head and thorax were covered by articulated armoured plates. *Homosteus milleri* (called *Asterolepis* by Dick and Miller) had a massive skull the size of a horse and bones up to one inch in thickness (Saxon, 1967). Placoderms were the first jawed fish and became extinct by the end of the Devonian. *Osteolepis* and *Holoptychius* were fossil lobed finned fish or Sarcopterygians which are thought to be ancestral to the first land tetrapods and modern amphibians. They had primitive lungs that allowed them to survive in stagnant water. Their paired lobed fins contained rod shaped bones surrounded by muscle allowing them to walk underwater. Dick also found fossil *Dipterus*, an extinct genus of lungfish.

While “the young men of Thurso who are interested in the improvement of their minds” were encouraged by the John O’ Groat Journal to visit Holburn Head to observe Mr Dick’s fossil beds, the uneducated seem to have thought Dick very odd and rather simple. A newspaper article in March 1851 ridiculed them. It had been reported that a fire burned in the centre of Loch of Calder (probably a Will o’ the Wisp) for several minutes which according to Brawlbin superstitions predicted an unusual calamity. Apparently Robert Dick who had been collecting in the vicinity was warned by the locals who “thought this individual is *no vera wise*”. This was “because he is seen hammering at stones

and rocks, and because he sometimes tells ... that he is taking out of the stones what was thousands of years ago alive and swimming about in water, in the shape of fish”.

### Glaciation and boulder clay

Agassiz revisited Scotland in 1840 this time to address the Glasgow meeting of the British Association. With him he brought the revolutionary proposal of Venetz and de Charpentier that the glaciers of the Alps had once been more extensive and their movement accounted for the spread of the crystalline rocks from the Central Alps across the great Swiss plain to the flanks of the Jura mountains (Geikie, 1905). It was suggested that landforms in northern latitudes were shaped by the actions of ice rather than cataclysmic floods. During his visit Agassiz recognized features in the Scottish landscape which were also consistent with glaciations and proposed that “not only glaciers existed in the British islands but that large sheets of ice covered the entire surface”. At first his conclusions were regarded as rank heresy by the older conservative geologists who could hardly contain their contempt for this youthful observer (Geikie, 1905). The theory proposed that the erratic rocks perched on mountain sides, often far from their original strata and the large boulder clay deposits which covered much of Scotland were carried there by glaciers. Lyell had earlier proposed an alternative “drift” theory that envisaged that the land had been inundated during long periods of subsidence and the clay sediments and sea shells were deposited from it. The large erratic boulders (like Samson’s Button in Tullibody) were carried by icebergs that floated over the land dropping rocks picked up from the icebound edges of frozen continents.

Miller had seen sea shells in the boulder clays at Wick while travelling to Orkney but lacked time to collect them. He realized their significance and mobilized Dick to cast light on the controversy (Williamson, 1967). Once again Robert undertook long treks (two of over 50 miles) constantly driven by his compelling curiosity. Details of the marine shells, scored rocks and polished stones were described in a series of letters to Miller which he in turn wrote up in *The Witness*. Robert had previously collected shells from the Caithness coast and realized that those he found in the boulder clay were living species from deeper water. The proximity of the deposits to the current shore line raised the prospect that sea birds had carried them there and he continually sought new sites that were higher and further inland. His observations proved to be ambiguous. For instance at Freswick besides abundant broken shells he found “a considerable variety of stones in the clay section that were all rubbed, grooved or scratched”... “they included pieces of flint, and chalk, granite, quartz, greenstone, together with a belemnite fossil”. While the shells were consistent with a marine origin both they and the small stones were worn and scored which Dick believed was evidence of a glacial origin. Miller provided the following explanation: “*The agent which produced such effects could not have been simply water whether impelled by currents or waves. No force of water could have scarred such distinct well marked lines on such small stones. The blacksmith, let him use what strength of arm he may, can not bring his file to bear on a minute pin or nail,*

*until he has locked it fast in his vice ... the smaller stones must have been fastened (in ice) ere they could have been scratched".*

In 1880 Dick's observations on the Caithness shelly boulder clay together with those of his friend Charles Peach (see below) were reinvestigated by the Scottish Geological Survey. They discovered that the score lines or striae on the basal rocks of eastern Caithness and the direction of transport of local erratics were both in a SE to NW direction. As a consequence they proposed that the shells, chalk, flints and fossils were scoured from the bed of the North Sea by an ice sheet which moved onto land from the Moray Firth and deposited the material across the plain of Caithness. They suggested that glaciers which originated on land to the south of Caithness initially moved east into the Moray Firth but were then deflected northwestwards by the greater force of the ice sheets they met radiating from Scandinavia. The lack of banding in the clay itself also suggested it was derived from land based glacial action and not deposition from some past sea which covered the landscape (Peach and Horne, 1881).

### Miller's suicide

The discovery of fossils of extinct fish as well as failure to find living species fossilized in the sandstone beds raised questions about accuracy of the biblical account of the creation. Miller as a prominent member of the Free Church found himself in a difficult position and had to concede that the account in Genesis was symbolic. He believed, as did many scientists of the time, that the fossil record represented a series of separate special creations and subsequent mass extinctions. He interpreted the six days of creation as being synonymous with geological periods which had been sublimed into representative visions of the progress of creation. Miller famously shot himself after correcting the proofs of *The Testimony of the Rocks* on Christmas Eve 1856, leaving a scribbled note for his wife and children. Robert was devastated and wrote to his sister "I thought it was the end of all things. I am more shocked than I can tell. I can not look on a stone without thinking of him". He believed that his friend's insanity resulted from the conflict between meeting the exigencies created by his position as both a scientist and religious journalist. However several of Miller's biographers believe that he was comfortable with the borderline he trod between the biblical literalists and those geologists who saw no role for God (Knell and Taylor, 2006). Dick's own views were remarkable for their time. In a letter to his sister commenting on *The Testimony of the Rocks* he wrote "Of one thing you may be sure, the earth as we have it was not made in six ordinary days. The earth is making yet. It is still in the course of creation". Unlike Miller, Dick lived long enough to be confronted by Darwin's theory of evolution. He appears unimpressed "I have no wish to meddle with Mr Darwin's notions". Later he confessed he "might have spoken rashly for in truth I have never read one of his books and the reviewers of them may have twisted his meaning to suit their purposes".

The question of the importance of Dick's contribution to Miller's reputation as a geologist has never been authoritatively researched. It is particularly



difficult because of Dick's requests for anonymity. Some of Miller's biographers do not mention him though there is plenty of evidence from Miller's own hand that this is a serious oversight. Perhaps the best placed to make the judgment are the palaeontologists who can evaluate the importance of Dick's fossil finds. In 1963 a genus of fossil fish was named *Dickosteus* "after the Thurso baker whose early geological explorations of Caithness greatly promoted the study of Devonian fishes" (Miles and Westoll, 1963).

### Charles Peach

During the latter stages of his life Robert struck up a friendship with a kindred spirit Charles Peach. The two had much in common. Peach had humble origins as a revenue coastguard whose job was to stop smuggling. This occupation resulted in him being moved periodically round the coast from Norfolk to Dorset to Cornwall and finally to Wick. Peach's obsession was rock pool invertebrate zoology and his expertise soon came to the attention of men of learning. In contrast to Dick, Peach was not a retiring character and whilst working in Cornwall he went to a British Association meeting at Plymouth to present a paper. This was astonishing not only because of his position but because he had only attended one formal lecture in his life. In the presentation he showed that the rocks of Cornwall contained fossils, contrary to the opinion of experts like Murchison and Pryce. Subsequently he presented his studies at a series of BA meetings building scientific respect and acquaintances.

Peach relates that Dick "was a household name to him in Cornwall" and in 1853 upon taking up a position in Wick he sought him out in his bakehouse at Thurso "as he felt assured he was a man after his own heart". The two clearly enjoyed one another's company and had long discussions "in front of the fiery furnace" and many outings together sharing their common interests and broadening one another's range of knowledge.

Peach made some remarkable fossil discoveries in the Durness limestone and Sir Roderick Murchison Director General of the Geological Survey journeyed north to investigate. While in Thurso he sought information about the location of fossil beds from Dick but unfortunately Robert was unable to leave his ovens to see him. Murchison was more successful on his next trip to Caithness and accompanied by Peach spent a fascinating day discussing the local geology with Dick. It was during this meeting that Robert made the model of Caithness in flour to explain its geology which so impressed Murchison. At the 1858 BA meeting in Leeds Sir Roderick spoke about "The results of researches among the older rocks of the Scottish Highlands" referring to both Peach's and Dick's finds. He subsequently addressed a public meeting in Leeds Town Hall which really turned into a eulogy of Dick and led Samuel Smiles to include him as an example in *Self Help*. Peach sent Dick the newspaper reports of the lecture and in reply he received a few scribbled stanzas which have become known as the *Song of a Geologist*. It was widely sung at geological meetings and has recently been republished (Edinburgh Geologist, 2004). The following verses are an extract:

Hammers an' chisels an' a'  
 Chisels an' fossils an' a'  
 Resurrection's our trade; by raising the dead  
 We've grandeur an' honour an' a'

Hammers an' chisels an' a'  
 Chisels an' fossils an' a'  
 The deeper we go, the more we shall know  
 Of the past an' the recent and a'

This publicity was not welcomed by Dick and he was bothered by increasing numbers of callers at his bakery. The merely curious were turned away while the scientists like Wyville Thompson were granted access to the inner sanctum ... the bakehouse. His attitude clearly upset the townsfolk and the following is an extract of his obituary in the *Northern Ensign* newspaper .... "For it was not everybody that Mr Dick would honour with the sight (of his collection) or even with conversations. Retiring to a degree and even at times repulsive in manners, Mr Dick was considered extremely antisocial ... and not a few who visited Thurso solely to see his collections left without their object, including a member of the reigning dynasty of France".

The next year Peach attempted by letter to get Dick to present some of his findings at the Aberdeen meeting of the BA his reply was "when you go to Aberdeen I hope you will not speak of me at all. People bothered me so much last year after Sir Roderick made his speech that I have no desire for a repetition".

Throughout this period Robert suffered both a decline in health and in trade. When he went to Thurso there was only one other baker but by 1862 there were six and there was not the trade to support them. His position was not helped by the impression in the general populace that this reclusive man who walked the moors collecting mosses and stones at night was mad. Others avoided his shop because he desecrated the Sabbath, collecting his fossils rather than attending the Kirk. Ironically he was too moral for business. He declined the offer of supplying the wealthier houses whose occupants were becoming acquainted with his fame because he knew it would cause hardship to other bakers. He confided in a letter to his sister Jane in May "I have lost much and am still loosing and what is worse I am loosing my health. I have not had a days health since last February and goodness knows that if I had to take to my bed all would be over". He regretted not giving up his shop and taking up some other occupation. His sister had suggested he might return to Bannockburn to set up business there but he declared he had a dread of weaving places ... "Weavers often suffer great misery and the stoppage of trade is clear ruin". Besides the situation of bakers in the Stirling area appeared no better and in one letter he refers to a newspaper sent by his sister describing the suicide of a baker's wife from Alva.

## Debts, Death and Memorials

In the last three years of his life Robert increasingly suffered from crippling rheumatism, failing eyesight and a bad chest. For significant periods these prevented him from pursuing his passion. When the rheumatism abated he was still able to walk 30 miles in search of herbarium specimens and fossils for the collections of Wyville Thompson and Sir Roderick Murchison. His letters to his sister reveal periods of intense depression when his failing business and poor health got the better of him.

On March 9th 1863 a steamer the Prince Consort with £45 worth of Robert's flour in her hold struck the quay in Aberdeen harbour. After the passengers were removed she broke her back as the tide receded and the flour was soaked. Because the negligence of the crew could not be proved the cargo was uninsured and Robert was responsible for the payment. He attempted to sift the sand out of the flour but this resulted in further loss of trade. He wrote to his sister "I am injured for ever. I'll never make an extra farthing from my trade here. The bakers are in swarms now. I am old and my strength and sight fail me. Before I had hardships quite enough but this crowns everything. I am stupid with grief". As a result of this plea Jane lent him £20. Initially he seems to have successfully concealed his plight from his friends but eventually he approached John Miller a native of Thurso who spent most of his time in London asking him to offer Sir Roderick Murchison "in quiet way" his fossil collection so he could pay off the debt. He wrote "those drunken blackguards of the steamer have ruined me, I am a beggar, not in word but in fact". Miller offered to give him the money but Dick did not want charity so his friend bought the fossils himself. These were later kept at Burgo House, Bridge of Allan but eventually on John Miller's death they joined the fossils Dick had given to Hugh Miller in the National Museum of Scotland.

For a brief period "the vengeance" abated and Robert set out with renewed vigor to replace his fossils. Unfortunately in February 1864 fate was to deal another savage blow. His sister Jane who had been his lifelong confidant died unexpectedly and left him devastated. He later wrote to his brother-in-law that he had not lifted a hammer in three months.

On the 29th August 1866 Robert made what was to be his last fossil collecting expedition. Overcome by nausea and giddiness he managed to stagger back to the bakehouse, the local residents thinking he was drunk. In a pathetic last note to Peach, who was now in Edinburgh, he wrote "I fear I can not write to you at all. I have been for four months unable to do anything for swollen limbs. Water on the chest in fact and lest I should die I only notice you. I am very poorly so excuse me. No rest night or day believe me". After he had been seriously ill for two months John Miller called on his old friend. He was horrified at his condition and immediately summonsed a doctor and sent his housekeeper to nurse him. The doctor's advice was to give up work and engage a journeyman to run the business. Robert's condition deteriorated and he became delirious imagining he had bread in the ovens and insisting on being carried down to view them. Eventually his suffering ended on December

24th 1866, exactly ten years after the death of Hugh Miller.

On 27th December there followed a rather bizarre obituary in Wick's *Northern Ensign* under the heading "Death of a remarkable man". Having explained his scientific fame it goes on: "among the people of Thurso and neighbourhood Mr Dick was long looked upon as partially insane. By and by it began to be whispered that men of great influence were visiting the mad Thurso baker.... Among the peoples of Thurso Mr Dick was personally unknown. We believe he was seldom in the street during the day for many years and in these exceptional circumstances he recognized no one. His closing days were dark indeed, suffering from dropsy Mr Dick had little in his comparatively humble abode either of a social or physical character to cheer him and he passed away after much painful agony".

Stung by the implied criticism that they did not appreciate their local genius and let him die a pauper, the people of Thurso hit back with a rebuke in the *John O'Groat Journal*. The long article details Dick's accomplishments including an account by his friend Charles Peach and goes on to state "We regret to find it insinuated that the people of Thurso did not appreciate Mr Dick ... that he died for want of common comforts and necessities of life and that during his life he was treated by his town with contempt. All this is reckless libel full of stupid blunders written in the most wretched taste ... It was utterly untrue that he was uncared for in his last illness Mr John Miller was most assiduous in his attention to his comfort".

The outcome of this publicity was a funeral attended by virtually all the town and the biggest band Thurso ever mustered. To make amends the people of Thurso set up a memorial fund which was used to erect a massive granite obelisk in the cemetery.

The *Alloa Journal and Clackmannanshire Advertiser* carried a long obituary in the Dec 29th 1866 issue including extracts from the *Northern Ensign*. Tullibody was slow to acknowledge its famous son. Although articles appreciative of Dick's work were contributed to *Transactions of the Stirling Natural History Society* (Morris, 1908) there was nothing to commemorate him in his home village. In December 1917 a note appeared in the *Stirling Journal* under the nom-de-plume "onlooker" (apparently a Caithness man) suggesting a commemorative tablet should be placed in front of the house where he was born. David Morris the town clerk of Stirling and the Rev Thomas Miller of Alloa parish inserted a joint letter in the local papers asking for subscriptions which were duly received. A pink granite stone was purchased and inscribed

*In this house was born January 1811*

*Robert Dick*

*Baker of Thurso; Botanist and Geologist : whose life spent in pursuit of Science amid many difficulties is an inspiration and example.*

It was unveiled on Sept 21st 1918 in the presence of many dignitaries. Rather appropriately the main address was given by Benjamin Peach FRS

whose classic work with the Geological Survey had provided the framework for the geological structure of Scotland. He was the son of Dick's great friend Charles Peach and probably the last man left who had the privilege of visiting Dick in the bake-house at Thurso.

Smiles' biography, the naming of the genus *Dickosteus*, the obelisk and a museum in Thurso and a radio play transmitted in 1949 were all worthy tributes. However perhaps the most appropriate memorial to Robert Dick is an isolated, detached, natural pillar of rock in the Grand Canyon next to the Darwin Plateau and Huxley Terraces, which according to Wharton (1912) bears the name *Dick Pillar*, from Robert Dick, the baker-geologist of Thurso, Scotland, who gave such material assistance to Hugh Miller in his studies of the Old Red Sandstone.

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Figure 1 Portrait of Robert Dick from the biography by Samuel Smiles published by John Murray 1878.

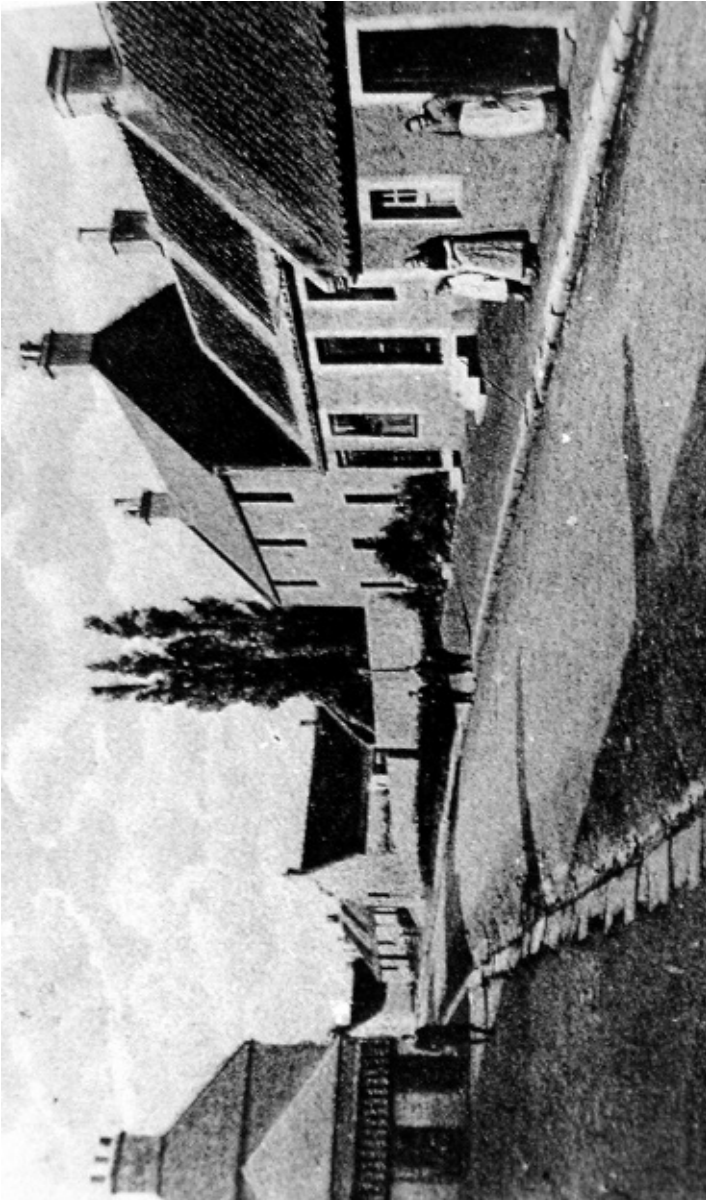


Figure 2 Robert Dick's childhood home is the two-storey house on the right hand side of the old Main Street, Tullibody. The photograph is taken from where the Coronation tree now stands, all these houses have been demolished (reproduced with the kind permission of Clackmannanshire Libraries).

