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Volume 9

THE MERCURIAL CHEMIST
THE MERCURIAL CHEMIST
A Life of Sir Humphry Davy

ANNE TRENEER
The Mercurial Chemist
by the same author

CHARLES M. DOUGHTY

SCHOOLHOUSE IN THE WIND
CORNISH YEARS

A STRANGER IN THE MIDLANDS
The Mercurial Chemist

A LIFE OF SIR HUMPHRY DAVY

by

ANNE TRENEER

M.A., B.Litt.

LONDON

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36 ESSEX STREET WC2
TO
MY FRIENDS
IN THE HUNDRED
OF PENWITH
Wisemen all wayes of knowledge past
To th' shepheard's wonder come at last:

SIDNEY GODOLPHIN
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Acknowledgements are due to the following for permission to reproduce the illustrations:
- Plate 1, the Royal Geological Society of Cornwall;
- Plate 2, the City Art Gallery, Bristol;
- Plates 3-6, the Royal Institution;
- Plate 7, the Penzance Borough Museum;
- Plate 8, Mrs M. E. Rolleston
This book had its origin in a paper, *Sir Humphry Davy and the Poets*, read before a small Cornish Society, and broadcast, in part, in the West Region. Davy’s early life was as intensely and vividly local as his later life was cosmopolitan.

I came to have an abiding interest. From reading Davy as my taste directed in the successive volumes of his collected *Works*, which his brother edited, and which a friend gave me, I came to the early biographies, to later studies, and to pursuing Davy and Lady Davy through the memoirs and letters of their time. Davy was living in what he called the dawn of modern chemistry. His expositions are always lucid and often elegant. He sought unweariedly for unequivocal terms. He used no formulae. Towards the close of his life he sometimes contemplated writing the Memoirs of H. D., to which he would have given a title used by his favourite, Smollett, *The Adventures of an Atom*.

Many rhymes were made up about Davy in his lifetime. As late as 1905, E. C. Bentley wrote the well-remembered clerihew in *Biography for Beginners*:

Sir Humphry Davy  
Abominated gravy.  
He lived in the odium  
Of having discovered sodium.

I have relied mainly on printed sources, as indicated in the Select Bibliography appended to this volume. In addition, I have been kindly permitted to examine manuscript material in the library of the Royal Institution in Albemarle Street. To the Managers acknowledgement is due for permission to print the draft of a poem by Davy on p. 4; drafts of letters on pp. 37 and 70; the letter from Davy to Coleridge on p. 60; Davy’s parody of Wordsworth on p. 63, and other extracts from the notebooks as indicated in the text. The autograph letters from Coleridge to Davy, which I was allowed to read and copy from the
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originals in possession of the Royal Institution, are now included in the first four volumes of Professor Earl Leslie Grigg’s great edition of Coleridge’s Letters. From this edition, by courtesy of the Oxford University Press, I have quoted.

To Sir John Murray I am indebted for showing me letters in his possession, addressed to the John Murray of Davy’s day, from Sir Humphry Davy, from Dr John Davy, and from Lady Davy. Acknowledgement is here made for permission to quote from Lady Davy’s letter on p. 229.

Acknowledgements are due to Dr E. Weiland and Messrs Taylor and Francis Ltd for permission to reproduce an extract from Dr Weil’s paper published in Annals of Science, vol. 6, no. 3; to the Literary Trustees of Walter de la Mare, and to the Society of Authors as their representative, for permission to include the poem ‘Napoleon’ on p. 161; and to the Trustees of the Hardy Estate, and to Messrs Macmillan & Company Ltd, for permission to use as a tailpiece Thomas Hardy’s poem, The Youth Who Carried a Light, taken from The Collected Poems of Thomas Hardy. The poem has no direct reference to Davy. It embodies what I should like to have been able to express.

I am very grateful to the many people who have answered my letters of inquiry; who have helped me with their special knowledge, or guided me to fresh material. I wish to thank the librarians of the County Library at Truro, and of the Penzance Library in the Morrab Garden at Penzance. To Mr K. D. Leach I am grateful for the information he was able to give me concerning Andrew Crosse, and for taking me to see the ruin of Fyne Court. I am obliged to the curator of the Royal Institution of Cornwall at Truro for showing me two interesting autograph letters from Davy to Davies Gilbert, other autograph letters of less interest, and Dr John Bingham Borlase’s copy of the indenture which bound him ‘to teach and instruct his apprentice [Humphry Davy] in all that appertained to the Art, Profession and Practice of a Surgeon and Apothecary, and not to use him in any kind of servile employment’. This legal and detailed covenant – Davy’s copy is in the Penlee Museum at Penzance – is a reminder of the responsibilities undertaken by teacher, apprentice, and the guardian of the apprentice. Of Davy’s mother it is written: ‘the said Grace Davy doth hereby promise and agree to and with the said John Bingham Borlase that she, her Executors and Administrators, shall and will provide and find for the said Humphry Davy, during the term of five
Preface

years, sufficient Meat, Drink, washing and lodging and Apparrel of all sorts fit and convenient for such an Apprentice'. Among other things, Humphry bound himself to the injunction, 'that he shall not play at any unlawful games whereby his said master may have any loss, nor haunt Taverns and Playhouses, but in all things as a good and faithful apprentice ought to do, shall and will demean and behave himself towards his said Master, and all his during the said term'.

I should also like to express my warm thanks to Professor Herbert Dingle for his friendly and helpful interest while this book was in progress; and to Mr K. D. C. Vernon, librarian of the Royal Institution, for his help and advice. The parody of Wordsworth, of which he sent me the transcript, was disembrangled, as Coleridge would have said, from one of Davy's Clifton notebooks of 1800.

Too late to make use of the wider range of material indicated, I read two essays. The first, which concerns John Davy, is entitled 'John Davy, Physician, Scientist, Author, Brother of Sir Humphry', by Richard S. Ross (Bulletin of the History of Medicine, vol. XXVII, no. 2, March–April, 1953). For lending me his reprint of this essay I am indebted to Mr J. L. Rolleston, John Davy’s great grandson, to whom I am also grateful for information about his great grandfather’s portrait reproduced in the present volume.

Through Mr Rolleston I heard of manuscript and printed matter relating chiefly to John Davy, but of interest also to students of his brother, now in the Library of the University of Keele. It has not yet been fully examined. I wish to thank the librarian for sending me an outline of the collection, and for a photocopy of a copy of a letter by John Davy to Eliza Fletcher describing his experience in Brussels as a newly qualified doctor before and immediately after Waterloo. This letter, with its emphasis on the agonizing scene of the arrival of the wounded and the horrors in the hospital as the numbers continued to increase, helps to explain why Mrs Davy’s second son did not accept his brother’s invitation to join him in his later researches, but continued to practise as an army doctor while making his own contribution to knowledge of the behaviour of human and animal bodies.

The second essay, 'Lady Davy in her Letters', by W. M. Parker, M.B.E. (The Quarterly Review, January 1962), gives, through copious quotation from her letters, a fairer impression of Lady Davy than I have been able to set down. Among other good things is her account, in a letter to Scott dated March 31st, 1825, of three days
Preface

spent with Goethe at Weimar. Her tour of Germany was made while Davy was in Scandinavia and North Germany. He must have been enjoying the 'social gaiety' of Gauss at about the time Lady Davy was talking with Goethe who, at 76, was 'full of vigour, of conversation, and courtesy of manner'. It seems a pity that Davy, who met so many poets, did not meet the Northern Apollo, as Lady Davy called him; for Goethe was not only aware and argumentative in the sciences but imaginatively quickened. Goethe's bearing towards Lady Davy confirms the impression one has from general reading, that Sir Humphry in his lifetime, and particularly on the Continent, was considered almost equal in renown with Scott and Byron, singled out by Goethe as his two most favourite authors.

Anne Treeneer
'It is surely a pure delight...' Delight was one of Humphry Davy’s favourite words, including for him elation of spirit, and a kind of hilarity in the use of his swift mind. His discoveries, lucid expositions, and discourses have their place in the history of science; his passion was to know. But we have sight of him, too, as he was in the circumstances of his time—a man of mercurial temperament and enthusiastic energy of character, whose flashes of insight, and zest for field sports, made him a friend of anglers and poets. Coleridge read *Christabel* aloud to him, and Wordsworth a part of *The Recluse* as he first planned it. When Dorothy Wordsworth wrote to Lady Beaumont that there was too much company at Dove Cottage for William to begin in earnest on his important Task, she added that it must not be supposed but that they had great joy at the sight of some who came. Such a man as Mr Davy, who had just paid them a brief visit, was, she said, a treasure anywhere. That was in 1805.

By 1826 poet and scientist, or chemical philosopher as Davy expressed it, had diverged, and there were fewer points of contact between them than might have been expected. Wordsworth had followed that way of insight into truth of which Coleridge said the previous condition was that a man should dare commune with his very and permanent self. Davy had been intent on the unfathomable working of things; on the method by which man might pass from received knowledge to tested knowledge previously hidden and, by ingeniously applying it, ease, as he hoped, labour and pain. Because wonder essentially underlay the two modes, Coleridge’s imagination comprehended both. There was a time when he thought Wordsworth and Davy the two great men he knew, though he admitted he was given to romanticizing men’s characters. For Davy’s other favourite word was glory, glory in its liturgical use, *Heaven and earth are full of Thy glory*; but also meaning desire of fame and joy in success.

Davy was roughly eight years younger than Wordsworth and six
years younger than Coleridge. He was born in Penzance on December 17th, 1778, and died at Geneva on the 29th May, 1829. These conditions of time and place made a difference to his view of the world, and in particular to his feeling about and judgment of the French Revolution; he missed the lyrical hope in it. Wordsworth first went to France in July 1790; Davy in October 1813. In his youth Wordsworth’s theme had been not only what passed in himself but how, by virtue of poetry, to relate his love of nature to the love of man, and to the vision by which he had been enraptured in France before ‘the sorrowful reverse for all mankind’. With Davy that dream was replaced by hope in what we have come to call the scientific and technological revolutions which he heralded. His life was not simple. Perhaps what he hoped contradicted what he was. He sought power through curiosity of wit, that sharpness of our understanding with which, mediaeval mystics warned, is mingled always some manner of fantasy; but he came, through his mother, from one who knew more of the power of love, not as a contemplative, but through the exertion called out by the hopes, wants, and wishes of a rising family and needy neighbours. He lived during the first onslaught of industrial ugliness; but he was nurtured on the beauty of the world as it was when Wordsworth was making it felt in poetry and Constable was painting it. Like them, he was brought up in a remote place and knew much solitude when he was young. There was a difference. I cannot find that there was either a miner or a deep-sea fisherman in Davy’s ancestry; but he knew by closest proximity, in the intimate way of a curious child, these intense and dangerous toils and saw, almost before he could walk, how an engine could help.

Davy was a Cornishman. It would be easy to emphasize his ‘Celtic’ affinities. He was born and bred in west Cornwall, not leaving it until he was nearly twenty; Dr Beddoes, with whom he was associated at Clifton, was of Welsh extraction; he was a friend of the Anglo-Irish Edgeworths; he married a Scot who was the widow of a Welsh squire. By the time he was growing up Dr William Borlase had completed his learned work on Cornish Antiquities. Dolly Pentreath, one of several somewhat younger speakers of the ancient Cornish language, had died only the year before Humphry was born. His poems show that his imagination was kindled by Cornish stories. But to say that he thought of himself as Celtic, or differing radically from his fellow-Englishmen, would be to give a false impression. The whole bent of his mind was
towards an international exchange of ideas, and away from all forms of sectarianism.

With this proviso we may notice how Cornish Davy was, both in his original gifts and his weaknesses, these inherent qualities being only the stronger in him because not explored by his own consciousness. His was an active nature. Once, when asked if he would not like to go on a whaling expedition, he said only if he could wield the harpoon himself, else it would be a spectacle, not an enterprise.

In his ancestry there is no name so resoundingly Cornish as Sophia Trevanion of St Michael Carhayes, Byron’s grandmother, though his paternal grandmother lived for a time in Tregony, a parish adjoining Carhayes in south Cornwall. She lived in a haunted house about which she used to tell her small grandson. She was very composed with ghosts, thinking it more extraordinary that human beings should not see ghosts than that they should. Originally she was of the wild, religious, mining parish of St Just in Penwith, where the sound of the sea is everywhere heard, where in clear weather the air is so insubstantial that one feels as light as a mote, while on grey, misty, strange days the past crowds the present, so full the region seems of all that has passed away.

How the first Davys came to west Cornwall is not certain; we cannot claim them as intelligent mushrooms sprung out of the Cornish soil. But by the time Humphry was born they had, by continuous occupation of upwards of two hundred years, and by marriage with wives from the parishes in the neighbourhood of Mounts Bay, become settled inhabitants of the Hundred of Penwith. The name, in the varied spelling of a spell-by-ear age, appears in most of the early parish registers of West Penwith: in Madron and Paul; in St Hilary with Marazion; in Ludgvan, Gulval, Zennor, and St Just.

Humphry Davy’s branch of the Davy family was of Ludgvan Parish. The name appears in the earliest parish registers. Tablets in the church commemorate Davy wives in the seventeenth and eighteenth centuries, both pious women, and one of ‘sweet conversation’, discreet, charitable, and loved by the poor who wept for her when she died. The men tended to be yeoman farmers of steady intelligence with substantial stones at their heads when they came to die. Seven of these may be seen in a row – they were placed against the church wall after an alteration to Ludgvan church and churchyard. Some stones carry initials only, in deep-cut lasting letters. The names of
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Davy's grandparents are carved in full, Edmund Davy and Grace Davy.

That Davy looked at these tablets and stones, and wondered about his ancestors, is clear from a notebook in which is the draft of a poem on which he worked subsequently. The finish of the later poem removes us from the young Davy, groping towards a thought which never left him. The early poem is almost unpunctuated:

My eye is wet with tears
For I see the white stones
That are covered with names
The stones of my forefathers graves

No grass grows upon them
For deep in the earth
In darkness and silence the organs of life
To their primitive atoms return

Through ages the air
Has been moist with their blood
Through ages the seeds of
the thistle has fed
On what was once motion and form

The white land that floats
Through the heavens
Is pregnant with
that which was life
And the moonbeams
that whiten it came
From the breath and the spirit of man.

[4]
Childhood and Schooldays

Thoughts roll not beneath the dust
No feeling is in the cold grave.
Neither thought nor feeling can die
They have leaped to other worlds
They are far above the skies

They kindle in the stars
They dance in the light of suns
Or they live in the comet's white haze

These poor remains of frame
Were the source of the organs of flesh
That feel the control of my will
That are active and mighty in me.

They gave to my body form
Is nought in your dying limbs
That gave to my spirit life
The blood that rolled through their veins
Was the germ of my bodily power.

Their spirit gave me no germ
of kindling energy . . .

The poem breaks off. In ordered print it loses something of the power it has on the written page to make us share Davy’s feeling.

Humphry’s father, Robert Davy, the eldest son of Edmund and Grace, was brought up in the house of an uncle, another Robert Davy, who had considerable property in Ludgvan, and was the friend of Dr William Borlase, Rector of Ludgvan, antiquary, historian, and a friend of Pope’s. Just as one can feel the kind of man Borlase was in every sentence he wrote, and become attached to his druidical theories against all later evidence, so one can almost feel what kind of a man his good friend and neighbour Humphry’s great-uncle, Robert Davy, must have been. It is clear that the Davys were not unlettered or boorish people, but neither is it on record that any one of them achieved
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intellectual eminence of any kind. There is a hint that, like their descendant Humphry, they enjoyed good living. Writing to his wife after the onslaught of his own illness Humphry Davy said, 'My grandfather, and... of my great uncles died of Apoplexy'. In the space which I have left John Davy inserted the figures six or seven; but it looks more like one in the original letter preserved among other material in the Royal Institution in Albemarle Street. Davy adds, in the letter, that there was a case of the same kind in his mother's family. For eight or nine to have died of apoplexy would seem excessive even in that apoplectic age.

Although Humphry's father lived in his uncle's house, and was expected to be his heir, he was also a craftsman. He is best remembered as a woodcarver and gilder; but as his own father was a builder, it seems likely that he had also some skill in constructive carpentry, or at least in the furniture-making of the time which fitted the character of the woodwork in houses. He went to London to perfect his wood-carving. In the possession of the Victoria and Albert Museum is a chimney-piece front attributed to Robert Davy, with a carving of the fable of the fox and the stork in the centre compartment and scroll work at the sides. When Robert Davy returned to Penzance he carved chimney-pieces with skill and pleasure until carved chimney-pieces went out of fashion as moulding came in. An example of his art may be seen in Ludgvan Rectory. It is a chimney-piece elegant in design, with a spirited carving of the Ludgvan tin-stamp — two griffins with medallions. At Nancealverne, the home of the late Judge Scobel Armstrong, hangs a picture said to have been framed by Robert Davy. It is an oval of twined leaves, not florid, but free and bold — a scherzo. Although Robert Davy turned later to farming, Humphry was known locally as little carver Davy's boy because of his father's original occupation and small stature. He was shorter than either of his sons and they were not tall.

On his mother's side Davy came from the interesting family of Millett of St Just. His two grandmothers, both named Adams, though of different families, came from the same neighbourhood. His great-grandmother was a Usticke of Botallack, a family of ancient standing in Cornwall with a funeral hatchment in Madron Church. Both Davy's mother and his paternal grandmother must have been remarkable women, opposites, but combining in their two persons the qualities which have distinguished many Cornishwomen who have brought up
Childhood and Schooldays

able sons. Grace Millett, Humphry’s mother, was a woman of fine fibre, possessing the virtues of deep piety, steadfastness, and courage; Grace Adams, his paternal grandmother, was of a more exalted temperament, imaginative, imbued with a feeling for the place in which she lived, treasuring old stories, practising old traditions, believing in ghosts and marvels, while acting always with great common-sense. It was she who told Humphry stories. From her he had, in part, his sense of the beauty of the world and the feeling, which never left him, of neighbouring the invisible. From his father, I think, he had his sanguine temperament, his rapidity and dexterity in manipulation, his love of sport, and his recklessness. The sense of decorum, respectability, and politeness imposed on his dancing faculty of mind came perhaps from the family of Tonkin. John Tonkin, a famous Penzance worthy, had a special place in the history of Humphry Davy. Although he was not a relation he brought up Humphry’s mother, and in part Humphry himself.

As a young man John Tonkin, surgeon and apothecary, son of Uriah Tonkin and brother of the Reverend William Tonkin, lodged with the Milletts, Humphry Davy’s maternal grandparents, who at that time kept a mercer’s shop in Penzance. On the third of June 1757, Humphry Millett died; on the ninth his wife died of the same fever leaving three little girls. John Tonkin continued to live in the house. He invited the children’s cousin, Peggy Adams, to come and look after them, and he acted as guardian to the three girls until they grew up and married. Jane married Henry Sampson, a watchmaker of Penzance; Elizabeth married her cousin, Leonard Millett, a gentleman of Marazion; Grace, in 1776, married Robert Davy.

Two years later, at five o’clock in the morning on the 17th December, their first child was born. The house was No. 4 The Terrace, in what is now called Market Jew Street. Then, the terrace was wider, and sloped gradually to a narrow cart-track—the coach road ended at Marazion. There were trees, including a handsome oriental plane. In later life Humphry imagined that his sense of the intimate association of life, light, and motion might have been due to very early recollection of wind playing in these trees which have long since gone. The house itself has been pulled down. The site, occupied by Messrs Oliver’s shoe-shop, and marked by a plaque, is not far from where Davy’s statue stands, and is on the right as one goes up Market Jew towards Land’s End. The baby was christened in old St Mary’s,
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then a chapel-of-ease to Madron Parish Church, the mother-church of Penzance. The entry in Madron Parish Register is: 'Humphry son of Robert Davy – baptized in Penzance Chapel 22 Jan. 1779.' He was given the Millett Christian name of Humphry. In the course of time four other children were born, Katherine (Kitty), Grace, Elizabeth (Betsy), and John, John being twelve years younger than Humphry.

In his youth Davy had a natural gladness. He was brought up amidst relatives of varied ages; loved, fostered, cheered, and clapped. When John Davy came to write his brother's biography it was still remembered in the family how forward Humphry had been, how he had walked off when he was only nine months old, was full of talk when he was two, could recite little prayers and stories before he could read, and managed to draw in great letters the names of the characters in Aesop's Fables and The Pilgrim's Progress – his favourite book when he was young, and one which he knew almost by heart – before he had learned to write. He made up verses at five, and recited them at the Christmas gambols. When he had learned to read, it was remarked that he could read nearly as fast as the pages would turn, an accomplishment common in quick children if they are not taught to read by methods too elaborate. Grown people who have never had the faculty, or who have lost it, always wonder at this natural speed of childhood. Davy retained it as a valuable asset all his life. He was beloved by aunts. In fact, like most other first babies in Cornwall which takes special notice of its spirited children, Humphry was the centre of affection and returned it. The desire to please was to remain with him, making him likable and vulnerable all his life. Much of his education was through talk. Fishermen were everywhere, and fishermen, who work strenuously at odd times and seasons, often seem to have more leisure than other folk. One has only to go to Mousehole now to see men pacing 'The Cliff' as though pacing a deck, and talking all day. If there are three together one will walk backwards facing his interlocutors, so as not to miss a word and be sure of driving his own word home.

Humphry talked, listened, looked and imitated the grown-ups who were engaged on all sorts of processes in or near Market Jew Street. At the foot of it towards Chyandour were tan-pits. He could watch people curing hides, making boots, and selling them on the open 'standings' by the Market House. He could see his uncle Sampson making clocks. He could follow the mules laden with copper coming from St Just and going down Chapel Street towards the Quay.
Childhood and Schooldays

The Terrace was raised above the level of steep Market Jew Street, down which the water ran in rainy weather. Humphry, imitating his father and his uncle Leonard, great anglers both, would stand and make casts with a piece of string and a bent pin. And then there were the quays at the Mount, at Penzance, at Newlyn and Mousehole. Today one may see a father or a grandfather on any of these quays, hand in hand with a child not much more than a baby, pausing by each interesting sight as long as the child chooses, and answering his questions, not in a bored or educational way. In shared companionable communion, talking they go. After the usual play with turnip-lanterns and fireworks Humphry came to love, above all things, angling. From fishing in the gutter of Market Jew he came to fishing from the rocks, and angling, after Izaak Walton’s fashion, in the streams.

He was to care almost equally for sport with a gun; this taste, too, planted in him as a boy, grew as he grew. He lived where both sports were part of life. The Borough of Penzance, between Marazion and its elder neighbour, Mousehole, was compact and rural, although it was a coinage town, one of the towns of the Duchy to which tin was brought after its reduction, to be stamped before being exported. A case showing specimens of ‘hot-marks’ or smelter’s trade marks from the local smelting-houses may be seen in the museum at Penlee House, Penzance. One stamp is of the Agnus Dei, a device which carries the mind back, like the inn sign, ‘The Lamb and Flag’, to the far-off days when the Knights Hospitallers had an establishment at Landithy, in Madron parish. Humphry, and later his brother John, would see, in well-arranged piles, the massive glittering blocks of stamped tin which encumbered the Market Place.

Davy’s babyhood was in Penzance; but, while he was still very young, the family moved from the house in Market Jew to a copyhold property of seventy-nine acres in Ludgvan Parish, about two and a half miles from Penzance. Robert Davy had not become his uncle’s heir, though John Davy says that a will unsigned was found in his favour. He had, however, this smaller place and there, at Varfell, he built a house with a glorious view of St Michael’s Mount across the Marazion marshes.

It would be impossible to over-estimate the influence of his early environment on Davy. The Marazion marshes even now, in spite of the railway, have an extraordinary wild beauty. It is felt especially in winter, towards a still January sunset, when the pale gold rushes are
reflected in the water, and the timeless notes of the wild fowl which haunt the pools are heard, together with the sound of their wings. Because of lucky folds in the earth it still seems from Varfell as though only flat fields, and the marsh, and a strange dark wood separate it from the sea and the Mount. The Mount was to Davy a visible symbol of romance; it is from nowhere more royally viewed than from the heights above Ludgvan. On a winter morning when the sun is low you may see it in a wash of silver light. Davy cared for it most by moonlight – it was under the full moon that he was most strongly to feel visitations, feelings of kinship with nature which he tried to express with all the resources of his youthful art. He saw into common things with the penetration and lucidity of childhood, and with a picturing faculty which he never lost. A generation before, William Oliver of Trevarnoe, the celebrated Bath physician, the friend of Pope and of William Borlase, had written of his own boyhood in Ludgvan parish: ' 'Tis not only with our own species that we contract the most lasting friendships in the beginning of life; I remember the name and character of every dog I used to miss school to hunt with; I could go to every little thicket which was most likely to afford game; I love the memory of a tall sycamore out of which I used to cut whistles. I have the situation of the hazel from which I obtained the best cob nuts full in my eye; and I remember with gratitude a rare (apple) tree, which afforded the first regale of the summer, and the Borlase's Pippin which, like its namesake, was a high entertainment in a winter’s evening, in a warm room, with a good fire.' Humphry planted an apple-tree in his own garden at Varfell, and was to await impatiently the arrival of apples from it when at one time he lay ill in London. He had a pony, Derby, and a water spaniel, Chloe, one of a litter he had begged when it had been doomed to drowning in puppyhood – but this was later. On his pony he rode to and fro between Varfell and Penzance by a track which allows the Mount to be constantly in view.

Schooling did not interfere too much with his natural tendencies. He went first to the Writing School at Penzance, and then to the Latin School kept by the Rev. J. C. Coryton, who seems to have used a mixture of ferocity and playfulness. Davies Gilbert had been a pupil at the school under a former master. No strict records were kept of Master Davy’s progress and misdemeanours. He seems to have lived as careless as a trout, and if Mr Coryton pulled his ears, he retaliated by appearing with his ears in plaster and replying, when asked the reason,
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that it was to prevent a mortification. The part of Harlequin which he
took in a pantomime with the other boys is in character for him. No
doubt Mr Coryton often had the best of the game, for the first rhyme
on Davy’s name was made by him:

Now, Master Davy,
Now, Sir, I have ’e;
No one shall save ’e,
Good master Davy.

Davy wrote casually in after-years, in a letter to his mother in which
he was discussing a school for his young brother, John, that for himself
he considered it fortunate that he was left much to himself as a child,
put upon no particular plan of study, and enjoyed much idleness in Mr
Coryton’s school. ‘I perhaps owe to these circumstances’, he wrote,
‘the little talents that I have and their peculiar application. What I am
I have made myself.’ He left in his will, to his old school at Penzance,
a school to which the present Grammar School is heir, and which has
recently taken his name, the annual interest on the sum of one hundred
pounds. In a letter to his wife preserved in the Royal Institution he
wrote that he wished such a sum to be divided every year amongst the
boys of the Grammar School, on his birthday, which he hoped might
be made a perpetual holiday for them. It was a good way of keeping his
memory green. The boys of the Grammar School still enjoy their
holiday. But while the pound has decreased in value, the number of
boys in the school has enormously multiplied. Davy certainly intended
a free day to each boy, and a gift of a little free private cash to each that
each might enjoy himself after his own fashion. Lady Davy wrote that
the gift was meant as an indulgence to the children. Perhaps he
imagined a boy choosing to wander as he had wandered, with eyes and
ears unconsciously active, and spirit open to the skye influences of
West Penwith. He had had in his own early days a favourite haunt,
known by the name of Gulval Carn, a pile of rocks from which he had
been able to see on one side the lines of the carns, and on the other the
hedged fields, the Bay, and the Mount, ever changing with the chang­
ing light. It is a pity that the proposal made soon after Davy’s death
was not carried out – a proposal to perpetuate his associations with the
Carn by making his memorial there. Valentine Le Grice, the same
Le Grice who, with his brother Sam, had been school-fellow to
Coleridge and Lamb at Christ’s Hospital, composed in November
1831 verses to be inscribed on the rocks, but the work of setting the letters was never carried out. Now the rock is wound with ivy; violets and early potatoes tame the wildness of the approach.

For the last year of his school life – his school education ended when he was fifteen – Humphry was sent to the famous Grammar School at Truro, a sixteenth-century foundation, kept by the Reverend Cornelius Cardew. The present Cathedral School sprang from it. In the same letter quoted above, in which Davy speaks of the advantages of not having had too orderly a schooling under Mr Coryton, he recalls the joy with which he set out for Truro school, and the greater joy with which he left it. He excelled in Latin verse, and wrote sententious English essays after the manner of the time. He had, when he left school, enough knowledge of Greek for his imagination to be kindled, and a grounding in Latin. His mind would never be bumptious and provincial in relation to the past. But although he was not torpid at Truro, the essential processes of his mind were left untouched, he said, by the manner of his schooling. ‘Learning’, he wrote to his mother, ‘is a true pleasure; how unfortunate then it is that in most schools it is made a pain. Yet Dr Cardew comparatively was a most excellent master. I wish John may have half as good a one. After all, the way we are taught Latin and Greek does not much influence the important structure of our minds.’

Dr Cardew is made vivid to us through such ardent old boys of the school as the Reverend Richard Polwhele, whose Biographical Sketches in Cornwall contains a biographical sketch of Davy, and is otherwise well worth reading, if only for its author’s prejudices, which are on a heroic scale. He voices an early protest against the proposed widening of the curriculum in Grammar Schools, a widening which was being undertaken in the Truro school by Dr Cardew’s successor. A more judicial estimate than Polwhele’s of the Reverend Doctor may be read in Cornelius Cardew, A Memoir, by Sir Alexander Cardew (1926). Using his ancestor’s diaries – ‘May 23rd 1792. Threw off my wig’ – and printing his detailed and curious Quinquennial Reviews of his state and affairs, Sir Alexander gives not only a portrait, pleasant and unpleasant, of a fighting character, at once pietistic and worldly, but also provides insights into the political and civic life of Truro during Davy’s schooldays. In general he lights up the times. While still master of the Grammar School, and Rector of St Erme, Cardew acquired the living of Uny Lelant, putting in a Curate and taking a stipend that
would have made any Jane Austenish young lady cast a speculative eye on him had he not been twice married already. He was a Whig who bitterly opposed the French war, and piously thanked God for an English victory at the close of it. He was twice Mayor of Truro, cared not a fig for unpopularity, was indefatigable in making interest for his family, and ruled his school with such severity that eleven boys ran away between 1773 and 1802. No boy ran away in Humphry’s year. He was one of the twenty-five or so boarders in the Doctor’s house at a time when the total strength of the school was about seventy. After Cardew’s second term as Mayor of Truro the numbers began to fall off.

Humphry was remembered as a popular, good-tempered boy, ready to do other people’s Latin exercises for them to save them from the Doctor’s wrath. But he never ventured on drollery with Cardew as he had done with Coryton, nor could he have enjoyed much idleness under a man who, though he conscientiously produced scholars, confided to his diary his distaste for ‘this irksome and laborious occupation in which, besides the anxiety arising from my wish to discharge my duty faithfully, I am exposed to the caprice and censure of many illiberal persons’. Mothers arrived to reproach him when he strove to discharge his duty faithfully by their sons—‘7th July, 1781, Mrs Osborne called about her son having been whipt’. It is said that Henry Martyn, later to become Senior Wrangler and famous missionary, was the only pupil of Cardew’s who escaped being punished, when idle, with stripes on the back of his hand, and that was because Henry Martyn’s hands were so thickly covered with warts that it was impossible to cane him. When Cardew was an old man he was still disputing; a year before Davy’s death he was quarrelling with Mr Simmons of Lelant because Mr Simmons refused to let him take a tithe of the rakings of his barley. He seems to have been a just schoolmaster, for his boys bore him no ill-will in after life; but when he encouraged Humphry, on discovering that the boy wrote poetry, it must have seemed like being encouraged by a grampus. Whenever Davy grows piously sententious one feels that the Doctor is at his elbow.

Of people other than immediate relatives and schoolmasters who influenced Humphry, the most important was John Tonkin, who had been the adopted father of Grace Millett, and who became as it were the adopted grandfather of her eldest son. He was a Cornish moralist, with all that implies of the good and the tedious. While Humphry went to Mr Coryton’s school he lived with Tonkin, and
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Tonkin received in return vegetables and other fresh produce from Varfell, an arrangement made between close friends. In a memorandum book he jotted down expenses which he incurred for Humphry, and details of fruit, vegetables, and provisions he received from Varfell. Of this detailed account he wrote, 'This is not meant or intended as a charge against Mr Davy, only for my own satisfaction to know what Humphry has from me from time to time, and what I have from them.' It was he who paid for Humphry's schooling at Truro, the amount being £27. 12s. 10d.

The most vivid picture we have of Tonkin, who remained a bachelor, but who enjoyed the society of the ladies, is given by John Davy in Fragmentary Remains of Sir Humphry Davy, published in 1858, after the death of Lady Davy in 1855. John Davy thus describes his own earliest recollection of Tonkin - it must be remembered that when John was four, Humphry was sixteen:

My earliest recollections carry me back to this respected friend, and he was a friend to us indeed. The memory of him is fixed in my mind not only because of his kindness to me as a child - he was fond of children and liked to have them about him - but also by his benign and venerable aspect, and his peculiar dress, that of the professional gentleman (by profession he was a surgeon), then passing away - the full wig, the sleeve and breast-ruffled shirt, the three-cornered hat, buckled shoe, etc. Well, too, do I remember the social meetings at his house, exclusively of the gentler sex, a certain number of whom regularly visited him, always drinking tea with him on a Sunday, all of whom he had known as children, and to whom and their children he was attached. Of these, two were sisters (Mrs Cornish and Miss Allen) both remarkable for their lady-like and pleasing manners, and one of them, unmarried, not less so for her perennial beauty. Such a little society could hardly fail to have an influence on a young mind . . .

Miss Allen was John Davy's godmother. The house in which these Sunday parties took place was the house in which Humphry Davy spent a good half of his time. A Mr Nicholls, a friend of the Davy family, wrote later, 'I have a vague recollection of Mr Tonkin in whose house Humphry seemed to be absolute, and who appeared very much attached to him.'

The house was a conspicuous one in Market Jew, and stood by the
Old Market House, nearly opposite the Star Inn. It was not bequeathed to Humphry. John Tonkin left it to his great-nephew, Uriah Moore, who took the name of Tonkin in compliance with his uncle’s will. Humphry Davy tried to buy it from Uriah Tonkin in later years; but J. A. Paris says that the interest which the Penzance Corporation possessed in the estate was an insurmountable obstacle. The ‘Star’ remains in Market Jew, although the portico on pillars, with the chamber overhead, a structure very like that at Little Keigwin, Mousehole, under which a man on horseback might find shelter, has been cut off. It was under this balcony at the ‘Star’ that Humphry Davy as a boy told stories to his friends, just as Scott told stories to his friends at the top of Arthur’s Seat. Humphry’s marvellous inventions were often founded on The Arabian Nights, but sometimes, too, no doubt, on the tales of mystery and horror then so much the fashion, and which John Tonkin’s ladies could borrow from the Ladies’ Book Club, established in 1770. There is more than a hint of Ann Radcliffe’s style in Davy’s descriptive prose. Of wonders and marvels there was also a mysterious and fearful local store. Some of Cornwall’s best stories are told of the countryside Davy knew best - the story of Wild Harris of Gulval, for example. But Davy, like most people who tell stories aloud, was egged on to invent. He wrote later:

After reading a few books, I was seized by the desire to narrate to gratify the passion of my youthful auditors. I gradually began to invent and form stories of my own. Perhaps this has produced all my originality. I never had a memory. I never loved to imitate but always to invent. This has been the case in all the sciences that I have studied. Hence many of my errors.

As he told his stories by the ‘Star’ he was very near a house supposed to be haunted. Running down towards St Mary’s Chapel, to the left from Market Jew, was Chapel Street, once Our Lady Street. In this street a house was left uninhabited because of the dread of ghosts, and in this same street or near it little Maria Branwell, later to be the mother of the Brontës, was growing up. She was five years younger than Humphry Davy and was married in the same year; but there is no evidence that the two knew each other. John Davy says that when young people came to the haunted house in Chapel Street towards dusk they felt strange fears, and with beating hearts they quickened their footsteps.
Preaching quickened terror. I cannot find that either Davy’s family or John Tonkin’s was imbued with enthusiasm in the eighteenth-century religious sense of the word. The Branwells are named as members of the Methodist community, but not the Davys. In the person of the Unknown, in Consolations in Travel, Humphry seems to speak of himself as having ‘been brought up in the ritual of the Church of England’. Mrs Davy and John Tonkin attended the old St Mary’s Chapel with its spire whitewashed as a landmark. This chapel was on the site now occupied by the St Mary’s dedicated in 1835, and which became the Parish Church of Penzance. As a very little boy Davy was taken to a meeting held between the regular church services by John Wesley when he came to the West to renew the tremendous influence he had gained among the Cornish, especially among the Cornish fishermen and miners. John Davy says it was handed down in the family that on this occasion Wesley, then a very old man, was attracted by the child and blessed him, placing his hands on his head and saying, ‘God bless you, my dear boy’.

Another influence on Davy’s early life was the coming of French refugees to Penzance. Rousseau and Voltaire died in the same year as Davy was born. He was nearly eleven at the time of the storming of the Bastille. His final year at school saw the execution of Louis XVI and Marie Antoinette; he was sixteen when, in 1794, Lavoisier was sent by the Revolutionary Tribunal to the guillotine. At that time Davy was being taught French by M. Dugast, an emigrant priest from La Vendée. Wordsworth reached early manhood when revolutionary hopes were bright; Davy when horror had replaced hope. His own eloquence was never to be denunciatory; he was to preach a faith insensibly forming in him during a childhood spent in a part of the country which, in a rural setting, was an advanced post of industrialism; a faith in the advancement of knowledge, and in the amelioration of hard labour by the use of machines.

Dr John Rowe, in his Cornwall in the Age of the Industrial Revolution, has emphasized the inventiveness of the Cornish practical engineers. In the intuitive nature of his genius Davy had something in common with the older and younger Trevithick; but it was the Scottish scientist and instrument-maker, James Watt — the associate of Dr Black, the visitor to Lavoisier’s laboratory, the improver of the steam-engine by the invention of the separate condenser — who, through his son Gregory, helped to shape the direction of Davy’s life. By the end of
the year in which Davy was born, five of Watt’s engines with separate condensers were working in Cornwall, and eight more were ordered. Watt himself came to Cornwall to supervise the erection of his engines and lived for a time at Plain-an-Guarry; William Murdoch was working at Redruth. When Davy took one of his many walks abroad, he might see not only the Mount but also the superstructure of the Wherry mine which had a shaft sunk below high-tide level. When he visited his relatives at St Just he was in the vicinity of the great Botallack mine, with already some submarine workings. Hayle Copperhouse was only about six miles from Davy’s home. Speculation in tin and copper raised all kinds of hopes in families; a turn of Fortune’s wheel might have made the Davys as wealthy as the Lemons, and Robert Davy to have had a street named after him. He ‘ventured’; he was by nature a venturer, trying new ways of farming, and risking his money in tin. When he died in 1794 of a painful disease of the wind-pipe, he owed about £1,300.

Humphry at this time was nearly sixteen; there were four younger children. As was natural, Kitty was her elder brother’s closest companion; Betsy was especially good to John, who was only four at the time of his father’s death; Grace who was delicate, and who came in the middle of the family, might have felt a little isolated; but she did not. She said her mother’s affection was equal for them all. Humphry thought all the children had ability.

Grace Davy was forty-four. She showed the courage and faith which helped to make it that both her sons regarded her always with peculiar tenderness. She left Varfell, set up a millinery business with a young refugee French lady in Penzance, took a lodger, and proceeded to bring up her family and pay off the debt.

Humphry, with the aid of John Tonkin, who paid the necessary sixty guineas ‘consideration money’, was apprenticed on February 10th, 1795, to John Bingham Borlase, surgeon, apothecary, and later physician of Penzance.
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