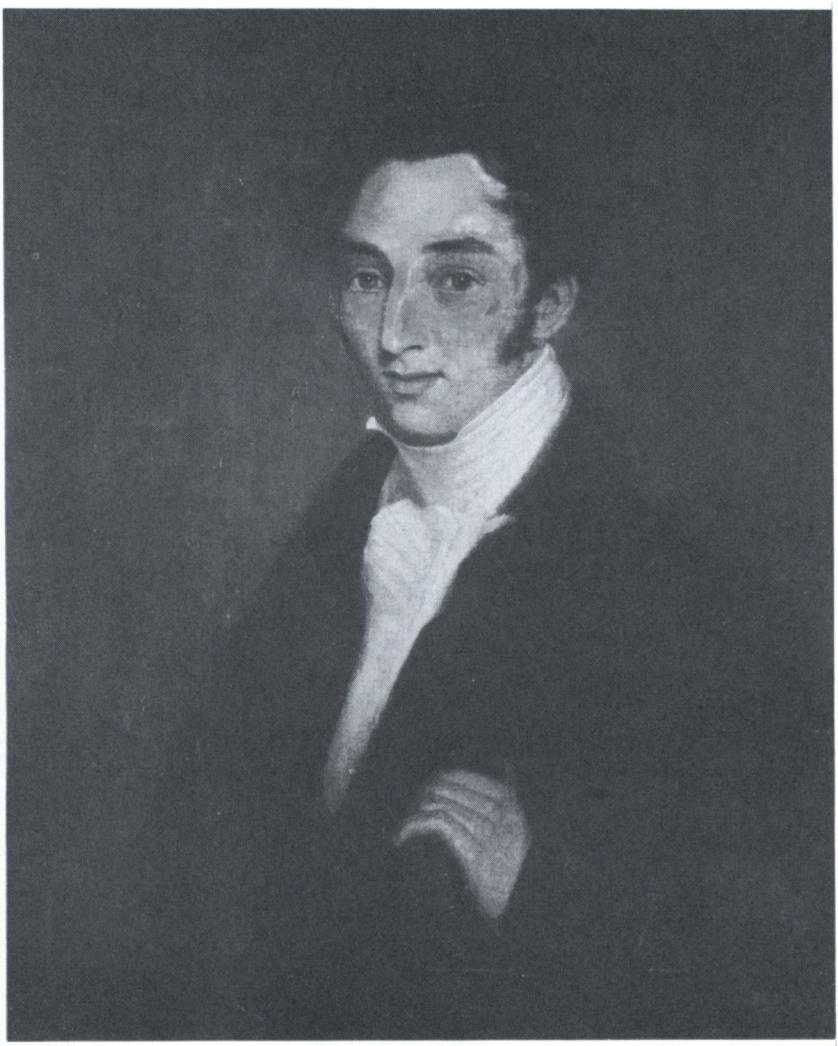

Fig.1 Dr. Thomas Coulter: the portrait in oils painted by an unknown artist before c. 1823, presented to Trinity College, Dublin, by Mrs. Barbara Hannah and Dr. Michael Coulter in April 1963. (Photograph by courtesy of The Provost, Trinity College; reproduced by kind permission.)

Trinity's Miner-Botanist Dr Thomas Coulter (1793-1843)

by E. Charles Nelson

A number of portraits of Thomas Coulter have survived; only one is a painted likeness, executed in 1820 just after he left this university, and just before his adventures began outside Ireland.[1] It now hangs in the Provost's office, although for some years it resided in the College picture store, rejected as inferior 'art' and therefore not worthy to be displayed. In 1823 it hung in Carnbeg, the Coulter family home, near Dundalk. Thomas Coulter's sister, Mrs Jane Davidson, was then the custodian of the picture which seems to have intimidated her infant son. When Jane told her brother about his nephew's dislike of his portrait, Dr Coulter responded that it '. . . is one of the many foolish things you've made me do — what a blockhead I was to stick my face against a wall to frighten children.'[2] (Fig. 1)

Another portrait takes the form of a face mask, perhaps a death mask although one of Dr Coulter's collateral descendants affirmed that it was done during Thomas's life. The mask now hangs in my house. It is a benign face, with a gentle smile, a placid countenance and a young one. Yet it too has frightened and disturbed people.

There are other portraits, word-pictures scattered through the archives, both printed and manuscript, of Irish natural history. The most incisive of these were penned by William Henry Harvey, Professor of Botany in the Royal Dublin Society from 1848, and from 1856 in this university, but first and foremost Thomas Coulter's successor as curator of the Trinity College herbarium. I will quote some of Harvey's word-portraits later. Following his appointment in Coulter's stead on 1 May 1844, Harvey told one of his botanical colleagues that '. . . Thomas Coulter . . . it is said, had a means of frightening the Board into compliance with his wishes.'[3] Who was this terrifying man, whose portraits frighten young and old, and whose presence in Trinity College during the early 1840s reduced the Board to kittenish acquiescence?

Thomas Coulter, the eldest son of Samuel and Anne Coulter, was born at precisely half past nine on the evening of 28 September 1793 at Carnbeg, a long, thick-walled, single-storey farm-house, situated a few miles to the north-west of Dundalk town. The Dundalk Coulters were of Scottish origin, and Presbyterian. They

apparently came in the wake of Cromwell and settled in County Louth, living as tenant farmers. They husbanded their resources carefully and by the 1790s their lands included rich meadows in which cattle grazed, and good and profitable potato fields. The house is still occupied, but not by the Coulters nor any of their descendants; it has been little altered in the two centuries that have elapsed since Tom's childhood. In 1793 Carnbeg farm and its stone-built farmhouse belonged to Samuel Coulter, clearly a man of considerable erudition but about whom little can now be discovered. He had a remarkable library in his farmhouse, with books on exploration, agriculture and bee-keeping, history and religion. There were several editions of *The Bible* in Irish, and an Irish psalter. Samuel Coulter must have been a fluent Irish-speaker and he possessed some significant manuscripts in Irish, in particular a series of four bound volumes, all now in the British Library, containing transcriptions of poetry and heroic tales. The colophon of one of these tells that Samuel Coulter commissioned Patrick Lynch to write down the great saga *Tain bo Cuailnge,* and another colophon records, in Irish, that '. . . Patrick Lynch wrote this very book for the use of Samuel Coulter of Carnbeg one mile on the north side of Dundalk, in the year 1800. . .' Lynch's transcript of the work of Patrick Prunty Mac Neill concludes with the statement, again in Irish, that '. . . in the year 1800 was written this copy in Dundalk by Patrick Lynch for three pennies a page or two shilling a quarto for the use of and at the charge of Master Samuel Coulter.' All these books and manuscripts were inherited by Thomas Coulter.[4]

Samuel Coulter died in 1801 before Thomas was eight, and the farm and other property were held in trust for him and his brothers. Provision was made in Samuel Coulter's will for his sons' education and Thomas attended the local school founded and run by the renowned Irish scholar, the Revd William Neilson. Undoubtedly Tom's facility to learn languages was fostered by Neilson, who surely also encouraged the boy to pursue his interests in natural history. Tom was a skilful bee-keeper, handling the insects with impunity, an art he probably learned from his father whose books included several on the craft of the apiarist such as John Key's *Ancient Bee-master's Farewell.* Thomas was also interested in local history. On the land he inherited stood an enigmatic, ruined building known as 'The Stump'; like all similar tumbledown, stone-built structures it was 'quarried' by the local people and was in danger of disappearing. It is recorded that Thomas Coulter was angered

by this and took the destroyers to court, succeeding in his action to stop them removing stones from 'The Stump'.

In 1812, aged 19, Thomas Coulter finished his schooling at Dundalk and entered Trinity College under the tutorship of Dr Bartholomew Lloyd — chemistry, practical mechanics, physiology, entomology and botany were among the subjects he studied and in these he is said to have far outstripped his college contemporaries. He became friendly with Dr Thomas Romney Robinson during this time, and also with Dr Whitley Stokes and James Townsend Mackay who was curator of the College Botanic Gardens at Ballsbridge. Tom took five years to get his first degree, bachelor of arts, probably because he attained the age of majority during this period and afterwards he must have had to return to Dundalk frequently to oversee the management of the family farm. Following his graduation he remained in the university for a further three years to study medicine, and he was granted the degrees of master of arts and bachelor of medicine in 1820. In 1819 Thomas Coulter was elected a member of the Royal Irish Academy.

According to Dr Romney Robinson, success made his friend '. . . only the more conscious of his deficiencies and determined him to seek abroad the means of supplying them.' Thus in June 1821 Dr Coulter travelled to Paris and for some months worked at the Jardin des Plantes, improving his botanical knowledge. He visited nurseries in the Paris region including that of Francois Cels where the exotic collections contained such wonders as the 'Queen of the Night', a cactus (*Selenicereus grandiflorus*) from the West Indies whose flowers, opening only after darkness fell, lasted but a few hours. Of this period, Louis Agassiz wrote that '. . . in Paris any young traveller bringing intellectual and material treasures, even to me who had grown old in research, was welcomed by all.' Coulter was not the only young Irish scholar studying at the Jardin during the summer of 1821 — Joseph Barclay Pentland, born in County Donegal at Ballybofey, was an assistant in Georges Cuvier's laboratory.

By Christmas 1821, Thomas was back at Carnbeg and during January 1822 he collected mosses in the Dublin Mountains. In April he travelled to London where he called on Robert Brown, *Jupiter Botanicus,* and from this great botanist obtained a letter of introduction to Augustin-Pyramus de Candolle of Geneva. Coulter lost no time in getting to Geneva so that he could further improve his botanical knowledge by working in de Candolle's herbarium. In some ways, Geneva was disappointing for Tom: it was full of

English and Irish travellers, whom he preferred not to meet, and his lodgings at 20 Place Maurice comprised ground floor rooms that were more expensive and of a poorer standard than those he had had in Paris. Moreover, the Genevese boys had the habit of banging on the window-shutters with drum-sticks: these rascals, Coulter wrote, were 'cruelly musical'. But there were compensations! Augustin-Pyramus de Candolle's son, Alphonse, was then 16 years old, and after a day's study for Thomas (in the herbarium) and for Alphonse (at the Lycée), the two would head for the de Carro billiard saloon. For Tom the other compensation was the fishing.

During his stay in Geneva, Thomas participated in a botanical field trip in the local alps, organized by Augustin-Pyramus de Candolle. There were a dozen botanists in the company; they travelled on foot, necessarily, but had a light cart on four wheel for their baggage and collections. Tom described this exuberant excursion in a letter to his sister. Of one village, the inhabitants of which had not seen strangers for a year, he wrote:

'. . . Judge then of the effect of our apparition, escorted as we were by a waggon load of trumpery, half a dozen mules and as many guides. Our company was very musical and determined to give the village a specimen. We took possession of fiddle and big drum and made a tour of the market place very much to the astonishment of the beholders.'[5]

Which instrument Tom himself played is not recorded, but Louis Berlandier played 'first fiddle'. Perhaps Tom just whistled, for he was long-remembered by the de Candolles for his eccentric habit of keeping snakes and lizards in his coat pockets and he would let them bask on the palm of his hand while he whistled tunes to them! This passion for reptiles went so far, according to Augustin-Pyramus de Candolle, that Coulter devised a plan to ship snakes to Ireland.[6]

During the months he spent in Geneva, Thomas Coulter prepared the first taxonomic monograph on the family Dipsacaceae, which includes teasel and scabious. That work concluded, Tom left Switzerland in September 1823 after presenting his monograph before the Société de Physique de Genève, and travelled home by way of Paris where he called on Alexander von Humboldt.

Like all young men, Thomas Coulter had a dream — he wanted to visit South America, crossing from the Atlantic coast by way of Lake Titicaca and the Andes to the Pacific Ocean — and he consulted Humboldt about this daring adventure. Coulter also talked to Joseph Sabine, secretary of the Horticultural Society about

such an expedition and the possibility of collecting plants for the society and wealthy patrons. He was still negotiating with Sabine when an offer was made that was irresistible.

In the summer of 1824, Coulter was approached by a speculative English mining company, which had acquired leases on rich silver mines in Mexico, and asked if he would go to Mexico as doctor to the Cornish miners who were being sent out to work the old, inefficient mines. John Taylor, the company's home manager, was a prominent Unitarian, honorary secretary of the Geological Society of London, and had edited Humboldt's writings on Mexico; he was later prominent in the British Association for the Advancement of Science. His colleagues on the company's board included Colonel Thomas Colby F.R.S., Superintendent of the Ordnance Survey, who in 1824 came to Ireland to initiate triangulation work. They had already appointed Captain James Vetch, formerly in the Royal Engineers, as manager of Mexican operations. With little hesitation, Coulter agreed to join the company; noone, not even Tom himself, seems to have been disturbed by the fact that he had never practised as a doctor. On 4 August 1824 he wrote to de Candolle:

> I am going to Mexico for three years as doctor to the Real del Monte Mining company. There! You are astonished? — I would answer that I am a bit astonished myself — the thing happened so quickly that I would like to be assured I am not dreaming![7]

On 6 August, *The West Briton and Cornwall Advertiser* announced that '. . . Dr Coulter is appointed Physician to the Real del Monte Company, and will, we understand, leave England within a few days. His attainments in natural history as well as medical skill, eminently qualify him for this situation.' Obviously the possibilities for making collections of plants and animals in Mexico assuaged any qualms Thomas Coulter had about such a post, and his contract stated that he would be allowed time to carry out research.

Dr Coulter hastily assembled the scientific equipment he would need in Mexico including chronometers, barometers and thermometers. He began keeping a diary,[8] and in this recorded the events of the next few months. On 21 September 1824, he sailed from Gravesend, and eventually landed at Vera Cruz, whence he travelled on horse-back to Real del Monte reaching the town on Sunday 20 February 1825. It is situated about sixty miles north-west of Mexico City, at an altitude of about 9000 feet and one of

the first things Coulter did was to determine accurately the latitude and longitude of Real del Monte.

Settled at Real del Monte, Dr Coulter did undertake medical duties, at least during the first months of his stay. He had to make a hasty excursion to San Juan del Rio to care for Mr Oddy, an English clerk, and he also treated the local peasants. A party of miners from Cornwall was delayed at Vera Cruz, and many of the men contracted fever: the local company official requested that Dr Coulter should be sent to treat them but on this occasion Captain Vetch refused, saying that Coulter was required at Real del Monte '. . . in the twofold capacity of Physican and engineer. I could not spare him without the greatest inconvenience.'[9]

As that letter indicated, Thomas Coulter was more than just a doctor. He was sent by Vetch to the capital on company business on two occasions, and also to Jalapa to buy mules. He assisted Vetch with mapping work, and also with engineering projects. Meanwhile the Real del Monte Company was expanding, and had just signed a lease on the Veta Grande mine at Zacatecas. There was no one in the company's employ in Mexico to take over the management of this mine, and thus Captain Vetch was compelled to appoint Thomas Coulter. Instructions were issued on 27 October 1825, and Tom set off on another long journey by horse. He used it to good purpose, however, taking sights on prominent landmarks and chronometer readings so that he could tie in these features on the new map of Mexico that Captain Vetch was preparing. Coulter also spent at least one day bird-watching, and diverted from the direct route to visit the famous Valenciana mine with its extraordinary, deep shaft. About noon on 21 November 1825, he reached Veta Grande. 'Caramba!' was the entry in his diary.

Various difficulties between the company and the mine's former owners combined to frustrate Coulter after his arrival at Zacatecas. He could not assume responsibility for the workings, but busied himself preparing new, accurate plans of the mine and its complex of shafts and addits. In London, meanwhile, the speculative bubble in Mexican mine shares burst, and the Real del Monte Company no longer had adequate resources to finance the mines. Oblivious of this, Coulter approved substantial expenditure at Veta Grande, thus adding to the company's difficulties.

Scientific matters diverted Coulter occasionally. On 9 December 1825 an eclipse of the sun was observed; Tom sent his observations to Dr Romney Robinson at Armagh Observatory. Tom also found

some time to collect plants, although he also employed local people to collect for him.

Dr Coulter's financial inexperience, if not his ineptitude, eventually forced Captain Vetch to replace him at Veta Grande. Explaining his decision to the Board in London, Vetch wrote:

'Dr Coulter seem to have commited the mistake of placing too much confidence in the Mexicans. Although I consider Dr Coulter to have taken a wrong view of the system, I must say his abilities are of the first class.'[10]

Instead of being dismissed, Thomas Coulter was transferred to Zimapán to take charge of Lomo del Toro lead mine. Clearly Tom was not a financial genius, but he was a superb draughtsman and a more than competent engineer, and the company rewarded him by renewing his contract and stipulating a remarkably high salary. At Zimapán Coulter was a success, transforming an antiquated, inefficient mine into a profitable one.

Tom still dreamt of making a great natural history collection, and while living at Zimapán he made a real start. Cacti were among his prizes — he shipped living cacti to de Candolle in Geneva and to Mackay in Ballsbridge. His native collectors brought him hundreds of wood samples and made voucher specimens of leaves, flowers and fruits to accompany each one. Snakes, lizards and insects were trapped: the reptiles were pickled in alcohol and the insects pinned into boxes.

Meanwhile Captain Vetch, who had become Tom's friend, left Mexico and returned to England. Coulter did not like his successor, and when his contract was worked out he decided not to renew it, and thus in 1829 Thomas Coulter left the employ of the Real del Monte Company and began a new series of speculative businesses and arduous adventures. For some time he had cherished the idea of travelling to California: as early as December 1826 he had raised the idea with the British Ambassador, and the President of Mexico, General Victoria, had indicated that Coulter would be facilitated by the regime.

After leaving Zimapán in July 1829, Thomas Coulter went first to Mexico City and there obtained a letter of safe-conduct from the President. He was also informally offered the post of British vice-consul in California. Tom proposed travelling north through California into Alaska and thence across the Bering Sea to Kamtchatka and overland through Siberia to Europe, but the Foreign Office in London quickly squashed this idea. Sometime later Coulter moved

to the Sonoran town of Petic, about one thousand miles north of Mexico city, where he hoped to establish a mint under a contract from the Mexican government. He did sign the contract but soon resigned it, relieved to have got out without loss.

By August 1831 Thomas Coulter had removed to the town of Guaymas on the Gulf of California and on 21 August he sailed for Monterey, the principal Spanish garrison-town in Alta California. He planned to spend one or two years in California, collecting plants and animals, and then return home to Ireland. In late September he landed at Monterey and almost immediately left on a quick reconnaisance trip to the southern part of the state. He travelled in a party, one of whom, E. H. B. Thomson, wrote from Santa Barbara to a friend stating that 'Dr Coulter has commenced catching butterflies'. They soon rode on to San Buenaventura and thence to San Gabriel, which Coulter observed was a prosperous mission with 25,000 head of cattle, four vineyards containing 160,000 vines and over two thousand fruit trees. From San Gabriel Tom wrote to his sister on 3 November 1832:

'I have been a month in this country and tho' there is absolutely nothing to be done in botanizing here at this time, I have taken a race over the country from Monterey to this place to see it, and fear I shall be greatly disappointed in it when the season does come. I am accordingly in as bad a humour with myself and all about me as you can well imagine.'[11]

Back at Monterey in late November, Coulter met David Douglas, the famous Scottish plant-collector who was employed by Professor William Hooker of the University of Glasgow to gather plant specimens and seeds. Douglas and Coulter greatly enjoyed each other's company, and they must have had fun, fishing, shooting and botanizing in the hills and valleys around Monterey. After their parting, Douglas sent this word-portrait of his new Irish friend to Hooker:

'He is a man eminently calculated to work, full of zeal, amiable, and I hope may do, for the benefit of the world, great good. As a salmon fisher he is superior to W. J. Campbell of Islay who is the Isaak Walton of Scotland, beside being a beautiful shot with the rifle. Nearly as good as me, and I do assure you from my heart it is a terrible pleasure to me to find a good man and a man who can speak of plants. . .'[12]

On 20 March 1832 Tom left Monterey on his great journey through southern California — Douglas remained behind in the

hope of getting a passage on a ship going to the Sandwich Islands (Hawaii). Coulter and his companions reached San Gabriel on 23 April, and then travelled on to San Antonio de Pala at the foot of Mount Palomar before turning eastwards into the Colorado Desert. They reached the ford on the Rio Colorado near the present city of Yuma on 8 May, and there rested. Tom wrote to Alphonse de Candolle:

'To reach this place I have travelled fast and not examined any thing but the neighbourhood of my route, and consequently collected but little, and here is nothing, nothing. This is truly the kingdom of desolation.'[13]

On 17 May he set out retracing the trail through the desert to San Antonio de Pala. By 15 June Coulter had reached San Gabriel again, and diverted to visit the small Pueblo de Nuestra Senora Reina de los Angeles de Porciuncula. He was impressed by its fertility under irrigation and made this prediction: 'it will rise rapidly to the rank of a considerable town.'

Douglas had left Monterey when Coulter returned. Tom was not enchanted with Alta California, nor with his collections, and he decided to return to Mexico. He survived a revolt in Guanajato during the summer of 1833, and this may have convinced him that he should go back to Ireland. He had hoped to make his fortune in Mexico, but had failed — 'I am not avaricious,' he wrote, 'but really I don't want to be always poor.'

Thomas Coulter returned home, bringing his Mexican and Californian collections with him, but the years of hardship and toil in America had taken a toll. Many years later his neice wrote:

'I remember him well, though I was but a child when he came home, and I well remember my mother telling me later how shocked she was when she saw him, stooped instead of the magnificent young man who had left her, yellow, in broken health and energy.'[14]

During January 1835 Coulter was in London, much in demand at soirées and eager to regale everyone with tales of his adventures. In a letter to Professor William Hooker, William Harvey remarked that Coulter '. . . is one of old Lambert's lions just now.' His collections were opened and eagerly inspected: some of the specimens were examined by fellow botanists, especially the great cone (Fig. 2) from one of the pines native to California which was soon described by A. B. Lambert's amanuensis, David Don, and the species named *Pinus coulteri*. Coulter displayed the same cone at the

first Irish meeting of the British Association for the Advancement of Science held in Dublin during August 1835. At the meeting Thomas Coulter was feted as a hero: at one of the many feasts, numerous toasts were drunk including those to the King, 'The talent of the United Kingdom in the British Association' and to Dr Coulter.

Thomas Coulter made an arrangement with his old tutor, Dr Bartholomew Lloyd who was by this time the Provost of Trinity College, which allowed him to occupy some rooms in College: initially he did not have any academic duties, but he was promised a position, and in return he had agreed to donate his collections to the university. On Christmas Day 1835 Tom was at The Scalp collecting mosses, and in January 1836 he attended the first evening scientific meeting organized by the Royal Dublin Society; the gigantic pine cone was again displayed.

Provost Lloyd died in 1837 and Coulter's proposed arrangement with the university was abandoned; a friend later commented that '. . . it is a vexacious thing that [Coulter] did not obtain the appointment before the Provost died, indeed it is a loss to every true lover of science in Ireland.'[15] He did not like the new Provost and was asked to leave the College taking his collections with him.

Tom's health was poor after his return from Mexico: in May 1837 he was so ill when he left Dublin, perhaps to go to Dundalk, he had to be 'carried in a litter'. By June 1839 he was much better, but in the winter following, Tom again became 'very ill from his imprudently travelling outside a stage coach. . .' This persuaded him to plan again to visit South America hoping there to recover his health,[16] but this was a short-lived flight of fancy. The Provost, Franc Sadleir, and Thomas Coulter resolved their differences and in June 1840 Coulter began moving back into Trinity College. He wrote to his younger brother Robert:

'My arrangements are briefly this — I make over to them by deed my whole herbarium, a gift, and they make me curator of it with Fellows chambers and commons (worth about £40) and £100 cash per annum, for the present, to be made £300 on the death of Dr Stokes. So far all right, but they would insist on another condition, which as it happens is not a disagreeable one, but which you must keep to yourself — it is that I must accept the chair of Botany when vacant if they elect me — very hard isn't it.'[17]

Dr Coulter was given rooms on Staircase 40. Carpenters and plasterers were engaged in getting his rooms ready. Tom set off for

a visit to Geneva, but only got as far as Paris before he was forced to return to Dublin because he was ill. He recovered again, and was able to supervise new works in the College Museum. For the next year he devoted his time to entomology and conchology, and persuaded the Board to spend money on collections and cabinets. In 1842 over £900 were spent at his behest, and in 1843 the College paid £430 for large collections of shells and insects as well as £350 for books which Coulter required. He wrote triumphantly to his sister:

'Contrary to the opinion of everybody, I have succeeded in getting the Board to do everything I proposed. They took my shells and insects at what they cost me. They allowed me to purchase a large and costly set of Phillipian Isle land shells and a large collection of English insects at high prices and authority, and they have bound me to go on with the construction of the [museum] cases. Now all this comes to £1,600. I had an hour's conference with the Board last Saturday week, and any person who would say in my going there that I could have got 1,600 pennies from them on any pretence whatever would have been thought a blockhead. I got it however and right proud of it I am. . .'[18]

At this time William Harvey, who had just returned ill from the Cape of Good Hope, was undoubtedly jealous of Thomas Coulter, and he penned this piquant word-portrait: '. . . Dr Coulter is a very clever fellow, but rather idle — being sadly addicted to flyfishing. Six feet high with a delightfully rich brogue.'[19] Tom still practiced the fishing skills that had impressed David Douglas, and he had not forgotten how to shoot!

The Rifle Club in Trinity College was a recent foundation. Tom did not like their rules, but when these were revised he decided to join. The club organized a shoot for a prize rifle and it was won by Mr Warren. Tom had not entered, but when it was finished he was not at all impressed, and while he became a laughing stock for entering to win a prize already bagged, he persisted in claiming that he could shoot much better than Warren. His challenge was eventually accepted and he shot at the targets — his results were the best ever recorded in Ireland, and even his worst attempt was better than any by the club members. Coulter told his uncle that '. . . it's very absurd, but it's a fact, that my shooting is talked of more than my ten years labours in Mexico.'[20]

In April 1843 Dr Coulter went on an excursion to the Wicklow Mountains where he was drenched by rain: he caught a fever from which he never recovered. On 28 November in his rooms in Trinity

College, Thomas Coulter died. The great bell of this university was tolled for five days in his honour. A procession of all the undergraduates, followed by the scholars, fellows and professors, and the Provost, led the cortege to the front gates on College Green. The family mourners preceded the coffin which was carried by the College porters. A hearse, drawn by horses decked in white plumes, brought Coulter's remains to Mount Jerome Cemetery and he was buried in an unmarked grave. His friend and executor, Dr Thomas Romney Robinson wrote this epitaph:

'It is an old saying, that science has it martyrs as well as religion. In this sacrifice of self to science, few have surpassed [Thomas Coulter].'[21]

What was the legacy of Trinity College's miner-botanist? He published the first monograph on the family Dipsacaceae, and intended revising it: the manuscript notes for the revision survive today in the School of Botany. He collected numerous hitherto unknown plants in Mexico and south-western California but he did not proceed, as was expected, to publish an account of his collections. Undoubtedly his battered health, which sapped his enthusiasm and energy, caused this neglect, but this family suggested that there was an innate cause; his niece wrote that '. . . he possessed that fatal Coulter indolence and entire want of desire to take advantage of his brilliant abilities.'[22] In the end, William Harvey sorted, labelled and distributed Coulter's botanical specimens, and named a few of his predecessor's discoveries.

We cannot trace any record of Coulter's collaboration with James Vetch in the mapping of central Mexico, and his excellent plans to Mexican silver mines have vanished. The astronomical observations that he made for Dr Romney Robinson cannot be assessed because his correspondence with Robinson is also lost. Coulter did publish his impression of California Alta,[23] and his all too brief account gives us some slight glimpses of that region and its people before it became part of the United States. His lengthy treatise on the banking system of Mexico,[24] now much out-of-date and thus of little modern value except perhaps as an historical curiosity, was the only other publication he produced.

As for his contribution to the University of Dublin, Thomas Coulter brought together the College's meagre, and widely dispersed natural history collections into one museum,[25] and may be said to have been the first scientific curator of the botanical and entomological collections. He established the present herbarium as

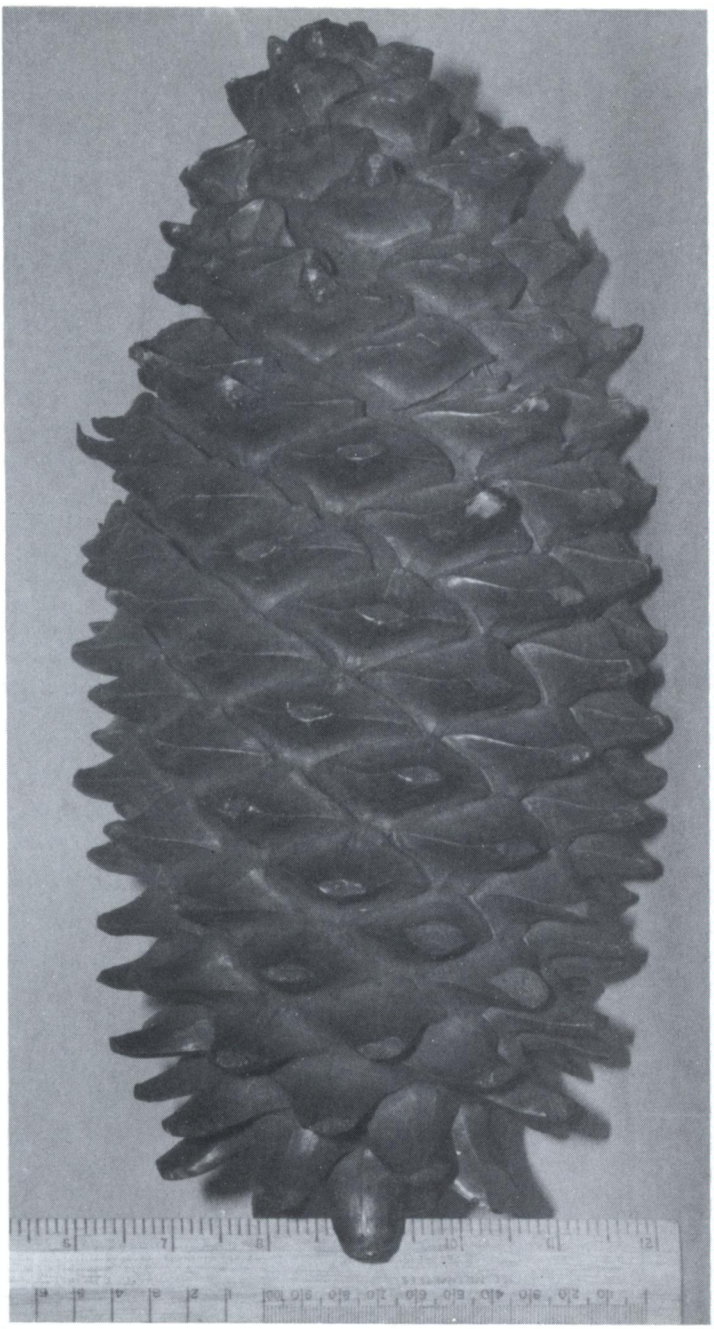

Fig. 2 The cone of Pinus coulteri *collected in Calfornia during his sojourn there (1831-1833) by Dr. Thomas Coulter and later used by David Don when the pine was named and described; this cone, now in the herbarium, School of Botany, Trinity College, is the type specimen for* Pinus coulteri *D. Don. (Photograph by courtesy of Dr. J. Parnell, School of Botany.)*

Fig. 3 Romneya coulteri, *the matilija or Californian tree poppy, named by William Henry Harvey in honour of Dr. Thomas Romney Robinson and Dr. Thomas Coulter. Watercolour (with sepia drawing of the arms of the University of Dublin, inset) by Wendy F. Walsh, commissioned and published in a limited edition by the Trinity College, Dublin, Association and Trust and the Irish Architectural Archive, to mark the tercentenary of the College Botanic Gardens, 1987. Reproduced by kind permission of the T.C.D. Trust and Association, and of the Irish Architectural Archive.*

a valuable repository by adding his own American collections to the few specimens from other parts of the world that were already here. William Harvey's subsequent additions reinforced, indeed greatly enhanced, Thomas Coulter's collections. Thomas Coulter also left his zoological collections to the College, but these were neglected and now, like his Mexican woods, his shells and minerals, only a few remnants can be found. As for the imporant entomological collections, it is immensely difficult to assess Coulter's influence because, unlike his botanical successors, those who later had care of the insects of Tardy, Curtis and Coulter failed to ensure the complete preservation of the specimens: a pathetic few insects are all that exists today of what was acknowledged to be one of the finest museum collections of its time.

But Thomas Coulter was assured of immortality when he collected just one plant. He did not apparently recognize its significance, but William Harvey did and (perhaps serendipity had some part to play) succeeded in giving it a name which remains today a potent memorial not just of one Trinity graduate, but of two. Among that fraternity of gardeners here and in other parts of the world who appreciate beautiful flowers, your miner-botanist is remembered, indeed admired, and the plant by which he is remembered is the matilija, the California tree poppy (Fig. 3). Each flower has five overlapping petals, pure white, like crumpled silk, translucent, forming a bloom that would only just sit comfortably in your cupped hands. In its centre is a quivering mass of stamens dusted with yellow pollen, a globule of golden quicksilver whose heart is rich burgundy in colour. It is a blossom that might aptly be described, in the words of Thomas Hood, as a flower 'made of light'. The individual blooms stand open and erect at the tips of tall stems that are sparsely cloaked in jagged-edged leaves of a sea-grey green. These marvellous poppies love sunshine and on warm summer days they exude a perfume which some say resembles the bouquet of a fine old hock; but scents are fickle and others protest that the flowers smell exactly like a well-worn pair of old socks![26]

The plant is *Romneya coulteri* and it first flowered about 1870 in the Botanic Gardens of the Royal Dublin Society, now the National Botanic Gardens, at Glasnevin.

You have done Thomas Coulter the honour of making him the subject of this discourse, and I would like now to return part of that compliment. I can do it comfortably as I am neither a graduate of this university nor am I directly associated with its botanical achievements, which are considerable. Three hundred years ago

the Board made a most courageous decision. On 25 June 1687, the Provost, Dr Robert Huntingdon, persuaded his colleagues that the College kitchen garden should be turned into a botanical garden. This was done promptly: the College muniments confirm it, recording that Margaret Armstrong was paid for mending the pond in the new physic garden. Where that garden was situated within these precincts we cannot ascertain, but in 1723 a second garden was formed between the new Anatomy House and Nassau Street, a rectangular plot now partly occupied by the Berkeley Library. In turn that garden was abandoned to the rats which fed on the offal of the medical faculty, and a third garden formed at Harold's Cross, but again the site is not known. In 1806 the College's fourth and most famous garden was established at Ballsbridge — sadly it too was dismantled, but not without a fight, in 1968. And today the garden at Palmerston Park, the fifth one, continues the act as a bright beacon in Irish botany. Long may it flourish.[27]

Thomas Coulter has no grave-stone. He does not need one. *Romneya coulteri*, the matilija, is a memorial better than cold stone, a testimonial most fitting for the tall Irishman who chased butterflies in Santa Barbara, who endured the rigours of the Sonora, who whistled tunes to his pet lizards, and who dreamt about Lake Titicaca. Among his surviving correspondence there is a letter written from Mexico to his young friend Alphonse de Candolle; in it Tom expressed his sadness at receiving the news of the accidental death of Benjamin, Alphonse's older brother. These sentences can be Tom's epitaph too.

I do not think you are right to say that the uncertainty of life should prevent us from forming projects for the future. It is quite true that out of a thousand projects scarcely one succeeds. But what a difference there is between dying leaving fine schemes imperfect and living without forming any.[28]

Notes

J. Curtis Mss. — Royal Entomological Society, London (Haliday/Curtis correspondence).
Hooker Mss. — Royal Botanic Gardens, Kew (Hooker correspondence).
M. Coulter Mss. — family papers of Dr Michael Coulter, Devon.
R. de Candolle Mss. — family paper of Mons. Roger de Candolle, Switzerland.
Real de Monte Mss. — archives of Real del Monte Company, Pachuca, Mexico.

1. This is an edited transcript of the Memorial Discourse given at Trinity College, Dublin, on Trinity Monday 11 May 1987. The discourse was based on a biography of Dr Thomas Coulter, by E. C. Nelson and the late A. Probert, which at the time of completion of this paper (March 1988) was unpublished. The biography contains a comprehensive bibilography, with full citations of all manuscript and printed sources.

2. Letter I — see Appendix to E. C. Nelson, 'Thomas Coulter (1793-1843) in North America: Some Bibliography Problems and Some Solutions' in A. Wheeler (ed.), *Contributions to the History of North American Natural History* (London: Society for the Bibliography of Natural History, 1983), pp 59-71.

3. W. H. Harvey to W. J. Hooker, 1 March 1845 (Hooker Mss., English Letters, vol. 23, no. 273).

4. E. C. Nelson, 'A Dundalk Farmer's Library in 1803' in *The Linen Hall Review* 4 pt. 3 (1987), pp 14-16.

5. Letter II — see note 1.

6. A-P. de Candolle, *Memoire et souvenir* (Genève, 1867), p. 331.

7. T. Coulter to Alphonse de Candolle, 4 July 1824 (R. de Candolle Mss.)

8. R. McVaugh, 'The Travels of Thomas Coulter, 1824-1827' in *Journal of the Washington Academy of Sciences* 33 (1943), pp 65-70. The original manuscript diary is in the Smithsonian Institution, Washington DC.

9. J. Vetch to James Colquhoun, 6 September 1825 (Real del Monte Mss.)

10. J. Vetch to Thomas Fowell Buxton, 28 January 1827 (Real del Monte Mss.)

11. Letter X — see note 1.

12. David Douglas to W. J. Hooker, 23 November 1831 (Hooker Mss.)

13. Letter XI — see note 1.

14. Miss Jane Davison to Robert Coulter, 31 March [c.1914] (M. Coulter Mss.)

15. J. Curtis to A. Haliday, 1 June 1839 (J. Curtis Mss.)

16. J. Curtis to A. Haliday, 3 February 1840 (J. Curtis Mss.)

17. Letters XVIII and XIX — see note 1.

18. Letter XXI — see note 1.

19. W. H. Harvey to W. J. Hooker, 9 March 1835 (Hooker Mss., South African Letters, vol. 58, no. 37).

20. Letter XXII — see note 1.

21. T. Romney Robinson, 'Biography of Doctor Coulter' in *Proceedings of the Royal Irish Academy* 2 (1844), p 553.

22. Miss Jane Davison to Robert Coulter, 31 March [c. 1914] (M. Coulter Mss.)

23. T. Coulter, 'Notes on Upper California' in *Journal of the Royal Geographical Society* 5 (1835), pp 65-70.

24. T. Coulter, 'A Reply to Part of an Essay . . . by Mr. Clibborn' in *Proceedings of the Royal Dublin Society* 75 (1838), Appendix V, pp xxiii-xxxiii.

25. R. Ball, *The Dublin University Museum, January 1846* (Dublin, 1846).

26. A limited edition print depicting *Romneya coulteri*, with the arms of the University of Dublin, was issued in 1987 by the Trinity Trust; the original watercolour was by Wendy F. Walsh. For details of this plant, see e.g. E. C. Nelson, 'An Irishman in the Country of Flowers' in *Zoonooz*, 55, pt. 3 (San Diego, 1982), pp 16-18; E. C. Nelson, *'Romneya coulteri'* in W. F. Walsh, R. I. Ross and E. C. Nelson, *An Irish Florilegium* (London: Thames & Hudson, 1983), pp 190-192; E. C. Nelson, *An Irish Flower Garden* (Kilkenny: Boethius Press, 1984), pp 89-90.

27. E. C. Nelson, 'Introduction', in W. F. Walsh and E. C. Nelson, *An Irish Florilegium II* (London: Thames & Hudson, 1987 [1988]).

28. T. Coulter to Alphonse de Candolle, 8 September 1826 (R. de Candolle Mss.)

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