

## Tony Ford: the man and the chemist

### Prologue

*To be born Welsh,  
Not with a silver spoon in your mouth,  
But, with music in your blood  
And with poetry in your soul,  
Is a privilege indeed.*

“In Passing”. Brian Harris (1967)

In recognition of this, I am going to commence this eulogy by playing a Welsh song: music and poetry together. You might recognise the tune and have always assumed it is an English composition but it is in fact a Welsh lullaby: *Ar hyd y nos*.

It is impossible to translate poetry literally from one language to another, not just because of the loss of rhythm and rhyme, but because of the loss of the word craft that weaves images in the mind of the reader. This song really needs to be heard in Welsh.

Tony and I had discussed various versions of this song, some sung by the great operatic voices of Wales or by any number of Tony’s beloved male voice choirs. However we agreed that this version, sung by Cerys Mathews, with minimum accompaniment, has an endearing fragility as a mother sings about all through the night.

*(Ar hyd y nos)*

When Wales plays the Springboks at Twickenham on 22<sup>nd</sup> June and you hear the Welsh crowd sing the chorus of a Max Boyce composition, please remember Tony:

*And we were singing  
Hymns and arias,  
Land of my Fathers  
Ar hyd y nos*

I hope that you recognise that there’s a cunning Celtic double entendre in there: *Ar hyd y nos* being a song and, at the same time, the English translation indicating that singing will go on “all through the night”.

### Tony: the man I knew

I first met Tony at the start of 1978 when I arrived at Wits University to commence my PhD. The last time I saw him was just after he had passed away on Monday evening. Although he was not Welsh speaking, my instinct was to speak the words I had heard so many times from my parents when going to bed: *Nos da i ti* (“Goodnight to you”) because he looked as though he was now going to be sleeping peacefully all through the night.

There is an assumption that all Welshmen play rugby (not necessarily that well these days), sing and drink beer. Tony ticked all three boxes there: second-row forward, lovely tenor voice and a taste for Carling Black Label. Unsurprisingly perhaps, we met in an establishment that catered for the latter: the University of the Witwatersrand Post-Graduate Club. Not having a Liquor Licence, there was a mild legal issue about serving alcohol there that was never brought to the full attention of the university or, more importantly, any constables.

Tony was a Senior Lecturer in the Chemistry Department so had access to the University Staff Club, but much preferred the far more convivial atmosphere of the post-grad club. He did once invite me to the Staff Club. However I had to point out that I did not have a tie, which could easily be overcome, but not having a shirt for a tie or a pair of long trousers was a slight problem. We continued to meet in the post-grad club.

There is also an assumption that if two Welshmen join an establishment devoid of a choir and a rugby team, they will

immediately rectify this. Saturday night singing (I use that word very reluctantly) at the post-grad club made it clear that any attempt at forming a choir would be a lost cause; the Croaking Frogs of Aristophanes had more harmony than that bunch. Besides which Tony was already member of a choir.

As regards the rugby team, that took three years. Tony and I disagreed here about how this came about. What we did agree on is that I was in the bush doing field work for the first three winters I was at Wits. However I regard it as pure coincidence that the rugby team came about the year I was back in town for winter; Tony did not. We agreed that it came about one Saturday night when someone suggested it and all and sundry in the bar volunteered, although I say he proposed it while he said it was me.

Whatever the case, in the cold light of the following Monday morning it was definitely one of Tony's colleagues who phoned around to reaffirm commitments because the team had to be entered into the Inter-faculty League that day; first match on Thursday evening. Thereby the University of the Witwatersrand Post-graduate Club Rugby Team was formed.

Come Thursday it dutifully took to the field, notably without a single player having matching socks. We both recalled well, but possibly incorrectly, how we dominated the Inter-Faculty League. This despite having at most 6 players who could actually play rugby, recruiting the others from whoever was in the bar or walking past the pitch or even from across the Jukskei. It is during such battles that firm friendships are forged between the Men of Harlech.

I then drifted on down to UCT while Tony continued to frequent the Wits Post-grad club until he moved to the University of Natal, Durban in 1992. I had already been there for three years and when we met up, we agreed that our rugby careers should continue- in the stands. So we purchased a

pair of Kings Park season tickets and over the years steadily improved the position of our seats until we were as close to the halfway line as possible without becoming a rugby administrator.

At innumerable matches we discussed rugby at length, keeping our voices low when it came to Welsh rugby, and how these days it wasn't the game we played. So determined we were to set it right that, last year, we had a document, largely composed by Tony, that was intended to be submitted to SARU explaining how the SA rugby calendar could be improved. The delay in submission was either due to sorting out the finer details or our recognition that a couple of grumpy old fashioned rugby lovers might not be taken seriously.

When the Chemistry and Geology departments were still on what is now the Howard College campus, we used to meet most lunchtimes to set the world right. We were never deterred by the not very oblique comments by our Dean about seeing us in the Staff Club each time he was there (This staff club did not require a tie or longs).

When our departments were moved across to the Westville campus, the lack of a suitable staff club drove us to take lunch off campus at Waxy's in Westville. This tradition continued once a week after Tony had retired nearly up to the very end. In this we were joined by my colleague Steve McCourt and by Peter Leach from Mathematics, whereupon we rotated our largess between all three Waxy establishments in Durban, branching out to Stoker's in Kloof.

I must admit that sometimes Tony and I rather went off on our own when discussing Wales. Mentioning places near Aberystwyth like Devil's Bridge or Borth caused some glazing over of the other two. When it came to Llandysul and Llandysilo, there was a look of confusion; weren't they the same? While Penrhyndeudraeth

induced near panic. Was it some disease? Quick, order another drink to recover.

Through all those years, Tony was the best of companions to spend time with; never boring, never irritating or irritated, and always with some eminently sensible and interesting contributions to any conversation. To put it quite simply, he was the finest of gentleman.

### **Tony: the chemist**

Professor Thomas Anthony Ford BSc (Hons), MSc (Wales), PhD (Dalhousie), CChem, FRSC, FRSSAf, FLSW, FSACheMI, Fellow of the University of KwaZulu-Natal, Fellow of the International Union of Pure and Applied Chemistry.

That's a lot of "F"s behind his name and to understand that we need to start at the very beginning.

Thomas Anthony Ford was born on the 4<sup>th</sup> August 1941 in Aberystwyth, a town about halfway up the west coast of Wales. The fact that he is known as Tony is a Welsh quirk; not the shortening of his second name but that he is known by his second name. It is claimed that this is due to the fact that many first born sons are given the same first name as their father so by using their second name there is no confusion. That may be the case but it is extremely useful when the police come knocking looking for Thomas Ford, you can say, hand on heart, that you don't know any Thomas Ford or, even better, that Thomas Ford doesn't live here and then give the address at which another Thomas Ford really does live.

His undergraduate degree in chemistry was obtained at the University College of Wales, Aberystwyth. I am being very precise about this; that degree in 1963 and his MSc in 1965 were awarded by the University of Wales. He was proud of that, as I am of mine, and we both lamented when that university was dismantled so that each college became a separate university.

It removed the unification that all Welsh students felt for our national university. Of course being separate colleges in the same university did not diminish the rivalry on the sports fields. I can assure you that when those lads from Aber came to play us in Swansea, it was war; there was absolutely no way they were going to have bragging rights with our girls.

While an undergraduate Tony had taken the opportunity of an exchange scholarship in Italy for a summer. This may have stimulated his desire to expand his horizons because, for his PhD, he crossed the Atlantic to Dalhousie University, Halifax, Nova Scotia Canada. Presumably he was aware in advance that the climate would be rather different to sunny Italy. However having grown up in Aberystwyth, he was conditioned for a cold, wet climate.

After his PhD was awarded in 1968, and possibly desiring further purgatory in a climate devoid of sunshine, he crossed the Atlantic back to the UK. He went to the north-west of England, first to University of Salford, England then to nearby Stockport College of Technology.

In 1970 it would appear that the desire to dry out and see the sun may have been one of the reasons why he chose to go abroad again, this time permanently. He joined the staff of the Chemistry Department at the University of the Witwatersrand, Johannesburg. Over the next 22 years he rose up through the ranks from Lecturer to Senior Lecturer to Reader and then Associate Professor. In 1991 he was also appointed as Deputy Dean of the Faculty of Science.

His sabbatical leaves were all spent overseas. In 1974 he returned to Canada as a visiting associate at the University of Toronto. In 1982 he chose the warmer climes of University of Florida, while in 1988-89 he was a visiting researcher at the Los Alamos National Laboratory, Los

Alamos, New Mexico, USA (which, given the success of the film *Oppenheimer*, may be a name familiar to many now).

Then in 1992 he abandoned the highveld and moved down to the seaside resort of sunny Durban when he was appointed Professor of Theoretical Chemistry at the University of Natal. The following year he was appointed Director of the Centre for Theoretical and Computational Chemistry at the university. Then in 1998 he commenced a 3-year headship of the Department of Chemistry and Applied Chemistry which, in 1999, became the School of Pure and Applied Chemistry. After retirement in 2006 he was appointed an Emeritus Professor at the University of KwaZulu-Natal.

The quality of his research was such that in 1989 Tony was awarded the AECI Gold Medal, for papers published in the *South African Journal of Chemistry* from 1985-88. In 1997 he was awarded this again, for papers published in the *South African Journal of Chemistry* from 1993-96. Then in 2006 he was awarded the Gold Medal of the South African Chemical Institute, for scientific contributions in the field of chemistry adjudged to be of outstanding merit.

I have not even discussed his teaching. Suffice it to say that in Wales there's a tradition of producing preachers and teachers. Tony excelled at both being an excellent teacher of chemistry who preached a doctrine of "meticulous detail" in research that others have now adopted.

Finally, with all that background, we get to all those "F"s that follow Tony's name. For those of you who are not academics, let me explain that they stand for Fellow. You can only be elected as a Fellow by other Fellows of learned societies or institutions for your outstanding service in the field of that society or institution. So when I now list each of those "F"s you will appreciate the

years of quality teaching, research and administration involved in Tony's career as a chemist:

- In 1979 he was elected as a Fellow of the Royal Society of Chemistry
- In 1998 he was elected as a Fellow of the Royal Society of South Africa and as a Fellow of the University of Natal
- In 2002 he was Elected as a Fellow of the International Union of Pure and Applied Chemistry
- In 2012 he was elected as a Fellow of the Learned Society of Wales
- In 2013 he was elected a Fellow of the South African Chemical Institute (having been President from 2005-2007).

That's quite some record for a boy from Aber.

### Epilogue

At the end of Tony's life, I want to return to the very start. All of us are of woman born (with the probable exception of some front row forwards). When Tony was born, could his parents possibly have realised where he'd go and what he'd achieve. This man has done his parents proud.

I started this eulogy with a Welsh lullaby and I will finish with one: *Suo-Gân*. It is sung by a lass with the voice of an angel, Charlotte Church. It is a mother singing as she cuddles her baby up to her. If you have seen the film "Empire of the Sun", you will recognise it. The film has absolutely nothing to do with Wales and the opening scene has nothing to do with a mother cuddling her baby. The director Steven Spielberg simply wanted it in the film for its auditory beauty.

As you listen I would like you to reflect on Tony's life, starting out being cuddled by his mother and then his blossoming career, the friends he made and, most importantly, the family he now leaves behind.

*(Suo-Gân)*

## Ar hyd y nos (All through the night)

Sung by Cerys Mathews

<i>Holl amrantau'r sêr ddywedant</i>	All the stars' twinkles say
<i>Ar hyd y nos</i>	All through the night
<i>"Dyma'r ffordd i fro gogoniant,"</i>	"This is the way to the realm of glory,"
<i>Ar hyd y nos.</i>	All through the night.
<i>Golau arall yw tywyllwch</i>	Other light is darkness
<i>I arddangos gwir brydferthwch</i>	To show true beauty
<i>Teulu'r nefoedd mewn tawelwch</i>	The Heavenly family in peace
<i>Ar hyd y nos.</i>	All through the night.
<i>Hyd y nos.</i>	Through the night.
<i>O mor siriol, gwena'r seren</i>	O, how cheerful smiles the star,
<i>Ar hyd y nos</i>	All through the night
<i>I oleuo'i chwaer ddaearen</i>	To light its earthly sister
<i>Ar hyd y nos.</i>	All through the night.
<i>Nos yw henaint pan ddaw cystudd</i>	Old age is night when affliction comes
<i>Ond i harddu dyn a'i hwyrddydd</i>	But to beautify man in his late days
<i>Rhown ein golau gwan i'n gilydd</i>	We'll put our weak light together
<i>Ar hyd y nos.</i>	All through the night.
<i>Hyd y nos.</i>	Through the night.

Traditional Welsh tune first published 1787  
Words by John Ceiriog Hughes (1832-1887)  
English translation by Sir Harold Boulton in 1884

## Suo Gân (Lullaby)

Sung by Charlotte Church

<i>Huna blentyn ar fy mynwes,</i>	Sleep my baby in my bosom,
<i>Clyd a chynnes ydyw hon;</i>	Warm and cosy may you rest,
<i>Breichiau mam sy'n dynn amdanat,</i>	Mother's arms are round you tightly,
<i>Cariad mam sy dan fy mron;</i>	Mother's love is in my breast
<i>Ni chaiff dim amharu'th gyntun,</i>	Not a thing shall mar your resting,
<i>Ni wna undyn â thi gam;</i>	Nor a person do you harm,
<i>Huna'n dawl, annwyl blentyn,</i>	Be at rest, my darling baby,
<i>Huna'n fwyn ar fron dy fam.</i>	Sleep my baby, on your mam.
<i>Huna'n dawl, heno, huna,</i>	Sleep in peace tonight, my beauty
<i>Huna'n fwyn, y tlws ei lun;</i>	Sweetly sleep, my work of art;
<i>Pam yr wyt yn awr yn gwenu,</i>	Why have you just started smiling,
<i>Gwenu'n dirion yn dy hun?</i>	Smiling gently in your heart?
<i>Ai angylion fry sy'n gwenu,</i>	Could it be some angels smiling
<i>Arnat ti yn gwenu'n llon,</i>	Down on you, in smiling rest,
<i>Tithau'n gwenu'n ôl dan huno,</i>	With you smiling back and sleeping,
<i>Huno'n dawl ar fy mron?</i>	Slumb'ring sweetly on my breast?
<i>Paid ag ofni, dim ond deilen</i>	Fret you not, tis but an oak leaf
<i>Gura, gura ar y ddôr;</i>	Beating, beating at the door.
<i>Paid ag ofni, ton fach unig</i>	Fret you not, a lonely wavelet's
<i>Sua, sua ar lan y môr;</i>	Murm'ring, murm'ring on the shore,
<i>Huna blentyn, nid oes yma</i>	Sleep my child, here there is nothing,
<i>Ddim i roddi iti fraw;</i>	Nothing that can frighten you;
<i>Gwena'n dawl yn fy mynwes.</i>	Smile in peace upon my bosom
<i>Ar yr engyl gwynion draw</i>	On the distant angels true.

Traditional Welsh tune first published 1800  
Words by Robert Bryan (1858-1920)  
English translation by Dafydd Price Jones in 2005