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“We will consider whether further limited exemptions can be applied for other traditional uses”

On 1 June 2021, Philip Davies, Conservative MP for Shipley, asked the Secretary of State for Business, Energy and Industrial Strategy: “If he will bring forward legislative proposals to allow packaged and loose goods to be displayed in imperial measurements only”.

The minister Paul Scully replied: “The Government recognises that some people have a preference to use imperial units in their day to day lives. At the same time, it recognises that many others are not familiar with imperial units and that the use of metric is a necessity for British businesses to compete in markets around the world. Therefore, the UK system allows for information to be provided in imperial units alongside metric. While the majority of trade in the UK is conducted using metric units to ensure consistency in commerce and science, there are already some limited exemptions that allow for certain traditional imperial measures to be used, without metric alongside, for specific uses. Now we have left the EU we will consider whether further limited exemptions can be applied for other traditional uses”.

Online poll: 71% back imperial

The *Daily Express* website ran a poll on 14 June, which asked: “Should Boris Johnson reintroduce imperial measurements now the UK is out of the EU?” The *Express* reported, “Our poll found 6,105 people (70.8% of respondents) replied Yes and hoped that imperial measures were poised for a comeback. Meanwhile, 115 of 8,611 respondents (1.33%) said No and appeared to express a preference for the metric system. 2,391 people (27.7%) said they were not sure”.

Warwick Cairns was quoted: “If you go to the supermarket and you want a pound of bananas, or a pound of apples or whatever, you should be free to ask for it and to receive it. It’s a living connection with our past.”

Imperialise the campuses

In May, Oxford University said it was “decolonising imperial measurements”; we have written to the dons for an explanation. In the meantime, we quote Philip Harris of Crewkerne, who wrote to the *Telegraph* on 19 May: “Sir, Good luck to Oxford University in its attempts to remove imperial measurements from a world where ships and aircraft travel at speeds measured in knots, aircraft fly at heights measured in feet, and half of America’s scientific community still use feet, inches and pounds”.

John Gardner, Director

BWMA is a non-profit body that exists to promote parity in law between British and metric units. It enjoys support from across Britain’s political spectrum, all manner of businesses and the general public.

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The Sunderland Metric Martyr and reluctant hero - his daughter pays tribute

***The Chronicle*, Mike Kelly, 9 April 2021**

This is the first of two articles published by The Chronicle on 9 April 2021; the second, "Metric Martyrs 20 years on - how a bunch of bananas sold in Sunderland led to Brexit", will be in the next Yardstick.

For Georgia Thoburn, the Metric Martyr case brings back fond memories of her dad Steven who was at the centre of the political storm. She speaks with pride about him and her mam, Leigh, and how they coped during the stressful, groundbreaking court case.

Georgia said: "My dad was just an ordinary market trader who became an extraordinary, reluctant hero. My mam was his rock and supported him all the way despite the initial concerns."

It had begun when her dad's imperial measure weighing scales were confiscated by Sunderland City Council trading standards officers from his stall at Southwick Market in 2000. It led to a court case which on April 9, 2001, where Mr Thoburn was convicted of two offences of breaching the Weights and Measures Act 1985 after a trial held at Sunderland Magistrates Court. He was prosecuted for refusing to convert from traditional pounds and ounces to Euro-approved metric measures and had become the first British trader to be prosecuted under regulations that came into effect on January 1 that year and became the first Metric Martyr.

Even at a tender age Georgia would often accompany them on Metric Martyr trips alongside her dad's friend and fellow campaigner Neil Herron, his wife Lynn and their family. Georgia, now 24, said: "I was only four when the whole thing started, when his scales were seized and can remember travelling on the train to London with my Mam and Dad and Neil and Lynn and their family to present the petition to Number Ten.

It would be a few years before I really understood about the campaign and how important it really was, the role it played and its position in history. It was just 'normal' that my Dad was the Metric Martyr and everyone in school, and all my friends and teachers would say 'your

Dad's the Metric Martyr,' and it was just something that was accepted as though it wasn't a big thing."

Asked how it affected the family, she said: "I was too young to really notice or understand what was going on and the historic coverage shows that both my mam and dad were under a lot of stress during the early days of the case but they were solid and determined. Whilst my mam may have had doubts in the early days she wholeheartedly supported and backed my dad whose stance was simple. He wanted to continue to serve his customers the way that they wanted to be served and he would continue to fight for that freedom. He was our hero regardless but looking back, both him and my mam were devoted to our family and dedicated to doing the right thing."

Georgia's brother Jay was born in March 2002, just a few weeks after Mr Thoburn lost his High Court challenge to a ruling that he should not sell fruit in imperial measures. A statement released by the Metric Martyrs at the time said: "Steven and Leigh Thoburn are delighted to announce the birth of Jay Steven Thoburn who weighed in at - as Sunderland Council, the DTI and the European Union would like you to know - 3,790 grams. As probably 99pc of you out there are now scratching your heads as to whether the baby was the size of a small tomato or a three week premature hippopotamus, if we had said 8lb 5oz, then everyone would have understood and created the mental image of the newborn's size."

Both her parents were to die tragically young. Steven passed away in March 2004 aged just 39 after a heart attack. Georgia, 24, said: "He died on the day of my seventh birthday party and to say that we were all devastated is the biggest understatement. It was a complete shock for everyone."

And Leigh passed away in 2016 aged 43 [of a brain haemorrhage]. "We all miss them terribly and there isn't a day goes by when they're not in our thoughts," said Georgia. "My memories are of two extremely hard-working people who were devoted to each other and to their family. I loved them and what they did for me and Jay when we were young. It is also where I get my work ethic from - my dad was up and out for work at 2am, six days a week and my Mam

supported him and often worked on the stall and in the shop. I have particular fond memories of going out for dinner, often Gabrielle's on the sea front in Sunderland and just being together as a family and the warmth and love that surrounded us."

Georgia said she had particularly fond memories of going to work with her dad and two things in particular stick out. One was going through to the wholesale market at Team Valley with him. "He was well liked by all the traders and it was extremely lucrative if I'd lost a tooth and they'd all give me a couple of pounds," she said.

"I also loved going to the stall on Southwick market and even when I was four he'd have me 'selling' to the customers, reciting a song about him needing sales because he had holes in his socks and he wore his brother's shoes. There was also a day where I was out of the front of the market with a barrow full of strawberries to sell. Again, I must have only been four or five but just loved being there with him. He also taught me how to peel an orange in my pocket with one hand, something I can still do today."

She added: "He doted on me and Jay and worshipped my Mam although buying me a pink mix-up from the corner shop when I was three weeks old wasn't one of his best presents.

"When my Dad passed away my Mam stepped into the role of running the business and she too wasn't frightened of hard work and balanced that with bringing up two small children."

Georgia lives in Sunderland with her brother Jay in the house they grew up in. "I am in the second year of my Nursing Degree and feel as though it is extremely important for me to pay something back and help people. That is what took me into nursing."

Jay is at college and interested in becoming a mechanic.

She said the Southwick community still speak fondly of the Metric Martyrs' Campaign and her dad. "It was something that put Sunderland on the map," said Georgia. "I've read some of the letters of support over recent weeks and seen all of the national newspaper headlines from the time and it has struck home how important the campaign was to people, of Sunderland, the North East and across the country."

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Taskforce on Innovation, Growth and Regulatory Reform

In February 2021, the Prime Minister established the Taskforce on Innovation, Growth and Regulatory Reform (TIGRR) to make recommendations on "how the UK can reshape its approach to regulation and seize new opportunities from Brexit with its newfound regulatory freedom". Its members consisted Sir Iain Duncan Smith MP (Chair), Theresa Villiers MP, and George Freeman MP.

On 16 June, TIGRR published its 130-page report, which included Proposal 17.1:

Amend the Weights and Measures Act 1985 to allow traders to use imperial measurements without the equivalent metric measurement.

The Proposal expanded:

It is currently an offence under the 1985 Weights and Measures Act to use imperial measurement as the primary indicator of measurement without an equally prominent metric measurement for trading. This has long been identified as an example of overly prescriptive EU regulation, with notable prosecutions of small traders in the early 2000s. This change would require amendment of the 1985 Weights and Measures Act through primary legislation.

The Prime Minister replied in an open letter; referring to the report as a whole, he wrote: "... I want to reassure you that far from being the end of the process, your work on TIGRR is only the beginning of our drive to realise the promises of Brexit. I have asked Lord Frost to drive this critical work forward, creating a new Brexit Opportunities Unit at the heart of government to engage across society, academia, and industry, generating new ideas and acting as a counterweight to Whitehall orthodoxy".

BWMA note: the Taskforce's proposal makes the critical distinction: to allow traders to use imperial measurements without the equivalent metric measurement. In other words, to permit the use of imperial units *in their own right*.

No doubt the supermarkets will be up in arms, so BWMA has written to Lord Frost to offer support for Proposal 17.1. Readers may add their own voice by writing to their MP, at the House of Commons, London SW1A 0AA.

“Convictions of traders for selling wares in pounds and ounces could be disregarded”, Christopher Hope, Chief Political Correspondent, *Sunday Telegraph*, 2 May 2021

Ministers are working on plans to pardon the so-called “metric martyrs” – five market traders who were convicted for selling their wares in pounds and ounces two decades ago. Any change in the law is likely to mean that shops will be allowed to decide for themselves whether to sell goods in imperial measurements alone. Greengrocers Steve Thoburn, Colin Hunt and Julian Harman and fishmonger John Dove were all convicted in 2001 for selling produce in imperial measurements. Greengrocer Janet Devers – the fifth “martyr” – was convicted in 2008. Thoburn died in 2004.

A campaign for them to be pardoned will formally launch on July 4, the 21-year anniversary of the day that two Trading Standards officers, accompanied by two police officers, seized three sets of imperial scales from Thoburn’s stall. Letters have been sent to Boris Johnson, the Prime Minister, Dominic Raab, the Foreign secretary, Priti Patel, the Home Secretary, and Robert Buckland, the Justice secretary, asking for them to be pardoned.

The *Telegraph* has learned that work is already under way. Officials at the Business, Energy and Industrial Strategy department are looking first at how they can repeal the legislation under which the five were convicted. Once that has taken place, the martyrs or their families would have to apply to the Ministry of Justice for a disregard of their convictions. One government source said: “It is ridiculous that a greengrocer cannot sell pears in imperial measures.”

If the law is changed, it is likely that it will mean shops will be allowed to sell their goods in either imperial or metric measures, or both, for the first time in decades. Boris Johnson made a pledge on the 2019 general election campaign that he would lift the EU’s ban on shops selling in imperial measurements, saying: “We will bring back that ancient liberty. I see no reason why people should be prosecuted.”

The last pardon – known as a Royal Prerogative of Mercy – was for computer pioneer and codebreaker Alan Turing, whose 1952 conviction for gross indecency was overturned in 2013. Thoburn, then a Sunderland greengrocer, was convicted of two offences under the Weights and Measures Act 1985 for selling bananas using scales that had been ‘de-stamped’ by a Trading Standards officer because they were only able to weigh in imperial measures. That same year Hunt was convicted of six offences under the Price Marking Order 1999 for failing to display a unit price per kilogram. Dove and Harman were also convicted of two offences under the same

order, and of two offences of using a scale that was only capable of weighing in the imperial system.

Speaking before his death from heart failure in 2004, Thoburn said: “All I wanted to do was give my customers what they wanted. I’m not a hero, I’m just a hardworking man. If customers wanted me to sell fruit in kilos, I’d sell fruit in kilos. In my world, what the customer wants, the customer gets”. This weekend, Thoburn’s daughter Georgia, 24, whose mother Leigh died aged 43 in 2016, told The Telegraph: “My Dad was just an ordinary market trader who became an extraordinary, reluctant hero. My Mam was his rock and supported him all the way despite the initial concerns. I want to pick up the mantle and take forward the call for the pardon to finally clear my Dad’s name.”

Hunt, 72, now a restaurateur in east London, said: “I will be pleased if my name is eventually cleared and remember fondly of how much support we received from the great British public and the press at the time.”

Harman, 62, who runs a removals and furniture business in Cornwall, added: “I feel that justice needs to be finally served, especially posthumously for Steve. It is still galling that we were treated in such a way and criminalised for such ‘heinous’ crimes as pricing Brussels sprouts by the pound, when we see real criminals committing real crimes being given nothing more than a slap on the wrist.”

Devers, now 77, who had to pay nearly £5,000 in costs and received a criminal record after a prosecution brought by Hackney council, added: “To be singled out and persecuted and have my scales seized still to this day beggars belief. A total waste of public money and peoples’ time, especially when it was going on all over the country and at a time when the Government and the EU had effectively abandoned enforced metrication. To think that I stood on that stall in all weathers five days a week at the age of 66 and all the council were bothered about was taking me to court for using imperial scales. I look forward to the day that we can say we have been pardoned and look back with pride on the way the British public rallied behind us.”

BWMA has written to Kwasi Kwarteng MP, Secretary of State for Business, Energy and Industrial Strategy, to ask for “further information on the government’s present thinking and intentions” and the “timescales expected for the amending of legislation”. We will report his reply in the next Yardstick.

In the meantime, readers can see the response received from the Office for Criminal Justice, the last time a Pardon was sought for the Metric Martyrs, way back in July 2007, on the back page of Yardstick 63.

From the Archives:

A word to our overseas countrymen

BWMA's Report and Journal, October 1910

Evidence is not wanting to prove that the representatives of Canada, Australia, New Zealand, South Africa and other parts of the British Empire who will attend the Imperial Conference to be held in London next year, are to be once again exploited by the pro-meterists, and if at all possible induced to vote for the compulsory adoption of the metric system. Already the Press is being largely used to disseminate metric dogma and to bolster up a system, the fallacies of which happily are better understood in Great Britain than they ever were before.

The newspaper reports and "letters to the editor", which are written largely by one man who possesses several aliases, are being copied by the Colonial Press, and our countrymen across the seas are thus being led to believe that English manufacturers and traders can either no longer recognise a good thing when they see it, or that they are so bigoted and blind that it is necessary to engage pedagogues to sharpen them up and to bring wise men from abroad to lead them.

The position is absolutely ludicrous. Unable to get businessmen to identify themselves with the metric fallacies, the pro-meterists are using two schoolmasters to waken up Great Britain, and they are apparently relying on our Colonial Representatives to act the part of those who step in "where angels fear to tread", a course they possibly may do owing to their lack of information on the subject caused by their being such great distances from us.

We wonder if the representatives of Britain's overseas Dominions are aware of the change that has come over British Chambers of Commerce since they took to studying the matter of weights and measures reform for themselves. Are they aware that prior to four years ago the Chambers had regularly passed, for a dozen years or more, resolutions in favour

of the metric system, but that now the subject does not even find a place on their agenda, and that there are probably not half a dozen chambers in the country today who would vote for the metric system?

Why this change? Possibly between now and next summer many votes will have been given in favour of the metric system at meetings, held - nominally in many cases - under the auspices of Chambers of Commerce, but we would like our Colonial friends to know that school teachers and pupils are urged to attend these meetings, and that the votes given cannot be regarded as votes of the Chamber. The Imperial Conference representatives will do well to demand specific information from the Officers of Chambers of Commerce as to votes they are said to have given.

The Times of India, commenting on the possibility of the metric subject being discussed at the Imperial Conference, says "no useful purpose will be served in discussing this question unless the delegates come armed with the views of the business communities they represent".

We would like to go further and to urge those business communities, before expressing their views to their representatives, to take all possible care to get at the truth. That is what we are concerned about; the truth.

We do not want our friends in Australia or anywhere else, to say, as the Danish people said when we were able to lay before them evidence of the fallacy underlying the claims of the pro-meterists, that had they had this evidence before them earlier they would never have voted for the metric system.

The better they understand the fundamental principles underlying the science of metrology, and which also largely govern the question of the most suitable coinage system, the more complete will be their agreement when we say that this much vaunted metric system is really a retrogressive system, and one which ought not to be accepted by a progressive people.

The origin of the acre and rod

by Tony Bennett M.A.

The acre of 4,840 square yards is said to be the area of land a man and a yoke of oxen can plough in a day. It is also the area of a furlong (a furrow long) of 220 yards by a chain of 22 yards. The rod, also known as a pole or a perch - of 5½ yards, or 16½ feet, square - is of course a quarter of a chain, or a 40th of a furlong. The rod is still used, notably in Britain to measure allotments, and as a measure of land when selling property in India.

Around 1300 AD, Parliament passed the Composition of Yards and Perches Act (also known as the Statute of Ells and Perches). It ordained that: “3 grains of barley, dry and round, do make an inch, 12 inches make 1 foot, 3 feet make 1 yard, 5 yards and a half make a perch, and 40 perches in length and 4 in breadth make an acre”. There were several other measures of land related to the acre. An oxgang was the area of land tillable by one ox in a ploughing season. This could vary from village to village, but was typically around 15 acres. A virgate, 30 acres, was the amount of land tillable by two oxen in a ploughing season; and a carucate, 120 acres, was the amount of land tillable by a team of eight oxen in a ploughing season.

But what is the historical origin of the acre and the rod as units of measurement? In an attempt to find out, this article examines historical evidence from (a) etymology, (b) the Bible, and (c) one other important historical source.

The etymology (the origin and development of words) of ‘acre’ is very interesting. One site gives this list of equivalents in other languages: Old English *æcer*; Proto-Germanic *akraz*; Old Norse *akr*; Old Saxon *akkar*; Old Frisian *ekker*; Middle Dutch *acker*; Dutch *akker*; Old High German *achar*; German *acker*; Gothic *akrs*.

In some of those languages, it also means ‘field’, or ‘pasture’. In English, it was historically spelled *aker*. In Welsh today, a Brythonic language, it is *acre* or *acrau*; the Welsh border town of Acrefair translates as ‘Mary’s field’ or ‘Mary’s acre’ (Mair, or Fair, is the Welsh name for Mary). The ancient Molmutine laws of Wales/Britain, codified by Dyfnwal Moelmud around 400 BC, included the following provision: “There are three property birthrights of every Briton: five British acres of land for a

home; the carrying of arms; and the right of suffrage in the enacting of the laws, the male at twenty-one, the female on her marriage...”

One aspect that stands out from the etymology of ‘acre’ is the breadth of its use across many languages; not just northern European languages but also Latin *acram*, ancient Greek *ἀγρός* (*agrós*), and even ancient Sanskrit, in which अज्रा (*ájra*) denoted an area of land or ‘field’. Both Sanskrit and Tamil, together with Hebrew, have been hailed as “the most ancient languages of the world”. All three can be traced back to at least 1,500 to 2,000 BC. The Hebrew word for ‘acre’ appears twice in the Bible: in 1 Samuel 14 v14 (about 1,100 BC) and Isaiah 5 v10.

I now come to two possible historical sources for the origin of the ancient word, ‘acre’. The first is the Bible. Using the Bible as an historical source may raise the eyebrows of some. However, I am not aware of any substantial historical fact in the Bible that has been disproved. On the contrary, many of its accounts, and dates, have been proved correct down to exact details. The British Museum alone contains dozens of artifacts verifying Bible accounts.

I start with the measurements given in the Bible for Noah’s Ark. The date of the Flood of Noah was determined largely using Biblical data by Bishop James Ussher in the seventeenth century. He said the Flood occurred during the year 2,348-2,347 BC. He also determined the date of Creation as 4,004 BC, a date still held today by a great many ‘young earth Biblical creationists’.

In Genesis Chapter 6, Verse 15 of the Bible, we get the following measurements for Noah’s Ark: length 300 cubits; width 50 cubits; height 30 cubits. Built out of timber over many years, and bonded by pitch (bitumen), it was shaped like an enormous brick, and had three storeys. Water engineers will tell you that a wooden boat of such a shape will keep upright in even the most turbulent water. Its dimensions and design were just right for a tremendous, surging flood. But what we are most interested in here is the surface area of Noah’s Ark: 300 x 50 cubits.

We can’t be sure about the length of the cubit when Noah built his ship. The length of the cubit has varied in time and place from 17½ to 22 inches, but those who have studied the history of early measurements, and the cubit in particular, tend to agree that the cubit used by

Noah, and other ancient cultures around that time, was 20.4 inches. That is 1.7 feet, or 0.567 yards in modern English units.

In terms of yards, then, the Ark was 170 yds x 28.3 yds, with a height of 17 yards (51 feet). The surface area of the Ark, at 510 ft x 85 ft gives us an area of 43,350 sq. ft., or 4,816 sq. yards. We see straightaway that this is *remarkably close to our modern acre of 4,840 sq. yards.*

Leaving the Bible and Noah's Ark, we now come to the second source: the Epic of Gilgamesh, written in Akkadian script. Whilst the Epic of Gilgamesh was once thought to pre-date Noah's Flood by many hundreds of years, modern scholarship dates it around 2,100 BC, about 250 years after Noah's flood.

Gilgamesh was a king of the Sumerian city-state of Uruk. His poem is an epic story etched on tablets, one of which, Tablet XI, is the "Babylonian Flood Story" describing a worldwide flood. The tablets are often described as the earliest surviving great work of literature, dating from the Third Dynasty of Ur (c. 2,100 BC).

In the Flood Story, translated by archaeologist and historian George Smith, Gilgamesh asks a survivor of the flood, Utnapishtim, how he survived and obtained immortality. Utnapishtim explains that he was saved by the god Ea, who told him to build a boat. Utnapishtim was given precise dimensions, and the boat was sealed with pitch and bitumen. His entire family went aboard, together with his craftsmen and 'all the animals of the field'. A violent storm then arose which caused the terrified gods to retreat to the heavens. Ishtar, a Mesopotamian goddess, lamented the wholesale destruction of humanity, and the other gods wept beside her.

The debate about which account came first – Genesis or the Gilgamesh epic – is now settled in favour of the Biblical account. A remarkable fact is that there are numerous other 'Flood legends' from other peoples around the world, on all continents. Wikipedia lists 40, but other sources identify over 500. This can very easily be explained by one, cataclysmic, year-long Flood that was so terrible that the account of it has been passed down, from those on the Ark to their descendants, and thus spread around the world. These Flood stories, in so many languages, all contain elements of variation, per-

haps caused by 'Chinese whispers', whereby some details of the story are misremembered as the account is passed from one generation to the next.

Gilgamesh's account most closely resembles that of Noah's Ark in the Bible, and the similarities are remarkable; all these features are present in both accounts: a large boat; with precise dimensions; sealed tight with pitch and bitumen; 'all the animals' on the boat; only one family on it; and a violent, destructive flood. Moreover, the Bible says Noah's Ark landed on the Ararat range, now in south-eastern Turkey. Gilgamesh was writing in Mesopotamia, very close to where Noah's Ark landed.

Gilgamesh's Epic gives details about the construction of the Ark, including the assembly of its hull and the roof, and how the size of the Ark was measured using 'rods'. In Tablet XI, paragraphs 55-65, Gilgamesh writes that the Ark had an area of 'one iku', with the length, width and height of 'ten rods'.

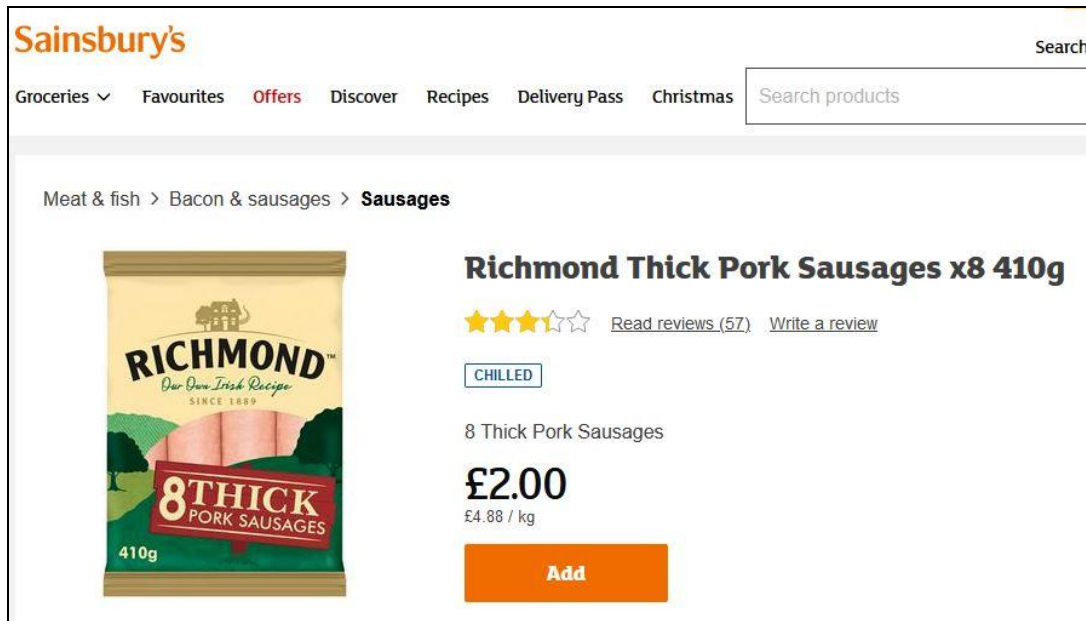
Assuming that the arks of Noah and Gilgamesh are one and the same, it seems that not only is the area of the acre based on the Ark's dimensions, but that Noah and his family used a measuring rod to measure out its length, width and height. Curiously, an artefact generally known as "the oldest measuring rod in the world" was found in Sumeria, a region roughly equivalent to ancient Mesopotamia, and very close to where the Ark landed.

So what have we learnt? First, that there are hundreds of credible accounts of a worldwide flood, the two best known of which reference two measures still in use today; the acre and the rod. Gilgamesh's handed-down account tells us that the dimensions of Noah's Ark were measured in rods and that it had an area of 'one iku' – while the Biblical account tells us that the Ark has an area closely matching our present acre. The coincidence of the surface area of Noah's Ark closely matching the size of the acre is surely enough to raise the strong hypothesis that *iku* is the earliest source of our word, *acre*.

And etymologists suggest that this very word became the standard measure of land area across the world, with all peoples using the very same word. Until, that is, the 'cultural revolutionists' in France brought us the metric system.

Metric downsizing: Richmond Sausages

Last November while shopping, BWMA's Director noticed that Richmond Sausages were 410 grams, as opposed to the traditional weight of 454 grams (i.e. 1 lb). On returning home, he looked up the details on the Sainsbury's website; this indicated a weight of 410g for £2:



However, a general search for “Richmond Sausages Sainsbury's” produced a result that referenced the former weight:



The link was broken but, on trying the cache,¹ the following image was retrieved, recording the weight of 454g at the same price of £2:



Thus, Richmond and/or Sainsbury's increased the price by 10% in real terms, by reducing the weight while keeping the price constant.

¹ The cache stores a recent snapshot of the webpage, and is accessible by clicking the small, downwards arrow, located just above the “454g”.

The twin packs of Richmond sausages were similarly reduced, from 908g (2 lbs) to 820g:



BWMA letter to Simon Roberts, Sainsbury's Chief Executive Officer, 17 December 2020

Our Association recently noticed that Richmond Sausages on sale at Sainsbury's are being sold in packs of only 410 grams, as opposed to the traditional weight of 454 grams (i.e. 1 lb).

This information is recorded on the Sainsbury's website, which also indicates a price of £2. [image]

After some internet digging, we retrieved a historic entry that referenced the previous 454g weight, also priced at £2. [image]

These images show that the price was kept constant while the weight was reduced, resulting in a price rise in real terms of 10%. Please explain why Sainsbury's did not reduce the price in line with the weight.

Regarding Sainsbury's own-brand sausages, we are pleased to see that these are still sold in 454 gram quantities. Please give an assurance that Sainsbury's will not reduce this weight. Has Sainsbury's considered adding "1 lb" alongside 454g on its own-brand sausages as a supplementary indication?

Using pounds as well as grams is likely to find strong favour with shoppers; a survey by YouGov in 2016 found that 45% of people in Britain wanted goods in pounds and ounces, and 39% who wanted kilograms and grams.¹

Reply from Sainsbury's, 22 December 2020

Thank you for taking the time to contact us. I can confirm there are a variety of factors which influence pricing for items in store and we

would not discuss the pricing of an item with the public due to this being an internal business decision.

We currently have no plans to reduce the weight of our own sausages that I have been made aware of; however I would be unable to guarantee that changes will not be made in the future.

Regarding the points you raised about imperial weights I will be happy to pass this information on to the relevant team so that it can be logged and should changes be made in the future this feedback can be considered.

Joshua Lewis, Executive Office

BWMA sent a near-identical letter to Nick Robinson, Chief Executive of Kerry Foods, owners of Richmond, but asking for a different explanation in the fourth paragraph:

"These images show that the price has increased in real terms by 10%; but this was not achieved by Richmond simply increasing the price to £2.20, but by decreasing the weight. Please explain why Richmond took this route".

Reply from Richmond, 26 February 2020

Thank you for your letter to Nick Robinson, our CEO, who has asked me to respond on his behalf.

Unfortunately, due to an increase in the price of raw materials, we've had to reduce the size of some of our products. This is not a decision we made lightly, and we remain dedicated to offering the best possible value for money without compromising on quality or taste you expect from Richmond.

Bethan, Consumer Relations Department

¹ See Yardstick 62

Counting in twelves

Michael Plumbe

Many years ago when first I became involved with computers, I had to grasp the concept of counting in a base other than 10, i.e., two or binary. This is probably the only system that can easily be used in a computer, because a voltage can be either OFF = 0 (zero) or ON = 1. It would be *possible* to use 'base 10' instead if *ten* levels of voltage could be accurately and consistently supplied and measured, but this is impractical so binary, OFF or ON, it must be. This leads to long strings of characters, or bits, shown as zeroes and ones (The first computer I worked on had a 'word' of 36 bits, with one bit as the 'sign' + or -. For the rest I will always remember that $2^{35} - 1$, i.e., all 35 'ones', was 34,359,738,367.)

As for counting generally, I submit that what is now 12 would be the better base for general use. We would need two new symbols for what are now 10 and 11, say \boxtimes and \boxplus (I have had to pick two existing symbols here, but we would ideally need two new shapes, in the way that existing numbers and letters are only shapes - see below). We would then count as 1, 2, ... 8, 9, \boxtimes , \boxplus , 10 (equals twelve) 11 (equals 13). What is now shown as 144, or 12×12 , becomes $10 \times 10 = 100$ (what is now 143 would be shown as $\boxplus\boxtimes$ - got it?). This of course is a gross which is often used for packing goods, being a 'square' which can be broken easily into smaller squares or cubes of 3×3 , 4×4 , or 6×2 (eggs - have you ever seen eggs packed in decimal fives or tens except on the Continent?). This sub-division cannot be handled as easily using base ten (decimal) where one can only use 5×2 , an awkward shape.

In fact, as far as I know, every country in the world now uses 0-10 for counting, unlike the symbols for writing where all manner of shapes are used to portray letters. Even where alphabets are essentially the same (English, French, German, Spanish etc.), there are variations such as ç, é, è in French. For counting, the Romans used I, II, V, XI etc. but this was still base 10. Interestingly, their system could not accommodate 0 (zero). It would in fact be far too confusing to have the present ten-base numbering symbols 0 to 9 in use alongside a new system based on 12.

The 'discovery' of 0 (zero), a clever concept, goes back to a Hindu mathematician in about 600 AD. Egyptians and Greeks invented the 'ciphered numeral' system about 100 years later.

I do not know how the present symbols came to be drawn and then used so widely. One might suggest that one upright finger represents 1, three sideways-on fingers represents 3, but this is fanciful. What is reasonably likely is that our ten fingers and toes were the source of the 10-based counting system.

In passing, I would like to see better distinction between 0 and O; and 1 (one), l (lower case L), and I (capital i). In the font I'm using, the difference is reasonably clear but sometimes one cannot easily tell which is meant. Occasionally I hear 0 being spoken of as 'zero'. This is a start. I have also seen 0 with a diagonal line across it.

I submit that, were we to change to a twelve-based system, we would need twelve completely new symbols and new names for these symbols. How did 1 come to be spoken of as 'one'? We would need a new spoken sound to replace this and the other names we now have (two, three, etc). Changing over to this new system would be traumatic of course.

Confused? Never mind. It will never happen.

Simon Heffer's Diary, *New Statesman*, 10 March 2021: The closure of my village pub has left a great hole in my life, and ... forced to buy beer from a supermarket and drink it at home, alone. And tragic home drinkers have not even had the dividend we craved from Brexit: the supermarkets still sell short-measure 500ml bottles rather than beer in pints.

Terence Jones writes, 10 September 2020: As much as I agree with Kyle Sammin [Yardstick 73], I must point out a common error under the heading "One size Doesn't Fit All". We do not have ten fingers, we have eight fingers and two thumbs, both figures sitting comfortably in the duo-decimal system of numbers. Fingers from base to tip have three segments and joints, thumbs have only two of each, but angle outwards from the hand to oppose the fingers to enable us to grip objects. Similarly we have only eight toes plus two misnamed big toes. The misnamed big toes do not curve away and oppose the others as we seldom attempt to grip objects with our feet, but they do help to preserve our balance when standing or walking. I would much rather follow god and nature than Napoleon and his acolytes. Our ancestors did not develop the system, it already existed in nature; they only developed a way to express it.

Metrication Madness: in June, BWMA was contacted by the Covenant Publishing Company, offering copies of the booklet *Britain's God-given Scientific Heritage Destroyed by Metrication Madness*. We are pleased to enclose a complimentary copy for supporters with this Yardstick.

Milestones

Cllr David Unwin writes, 17 Feb 2021: I have been a councillor in the Bridgend area for the past 45 years and have taken a keen interest in historical features, especially three ancient Grade II listed milestones dating from the 1830s when just putting a number against a town or village automatically meant miles. I enclose two photos of fine local examples which I recently painted. These milestones were erected by the Bridgend & District Turnpike Trust in association with adjoining Trusts and they followed the route of the early stage- and mail-coach services between Cardiff and West Wales (currently the A 48 & A 473). I am currently engaged with my neighbouring Unitary Authority - the Vale of Glamorgan Council - where there should be 13 such milestones, but some are in neglect and others appear to have 'gone missing over time'. I wonder if BWMA members have any similar mileage monuments in their area that are in a state of neglect?

Editor's note: for interest, we reproduce (next column) a 1975 government memo regarding the preservation of milestones. Members interested in milestones may be interested to know that there is a Milestone Society, established in 2001 to "identify, record, research, conserve and interpret for public benefit the milestones and other way markers of the British Isles". Its postal address is: Hon. Secretary, John Atkinson, Walkley, Walkley Hill, Stroud, Glos GL5 3TX. Website: www.milestonesociety.co.uk

Stephen Speakman wrote to Costco Wholesale UK Ltd regarding its metric petrol station gantry signs, in Trafford. On 23 February 2021, Stephen received the following reply: Just to inform you that the [imperial] signs have been put up for display on our Fuel stations canopy. Chris Snowdon, General Manager, Manchester.

Stephen wrote to us again, on 12 April 2021: Another 'battle' has been Stockport station approach where a year ago I noticed that two signs had been raised saying 100 metres and 80 metres to the station front. Given that you can see the station front anyway it defeats me why these signs were necessary but also of course they were in metric which is illegal. What ensued was a bouncing between Network Rail and Stockport MBC as to who was responsible. Eventually Network Rail sent a map copy confirming adoption by Stockport. A gentleman rang from Stockport to say he had not realized what the law was and thanked me for raising this matter. Many months of pursuit followed by me and eventually a councillor got them to ring me last week. They apologized and advised me Imperial signs are now on order.

Circular 13/75, from the Department of the Environment to County Councils, Metropolitan Counties, London Borough Councils, and the Greater London Council **19 March 1975**

Dear Sir

PRESERVATION OF MILEPOSTS

1. Stones or posts marking mileages on highways are important indications of historic development, especially for the turnpike age, and the Secretary of State is anxious that they should be preserved wherever considerations of cost or practical difficulties of siting do not rule this out. He therefore asks that the following points should be borne in mind by his agent authorities in dealing with works on trunk roads and by local highway authorities on other roads.

2. Stones and posts should be retained on their original sites wherever possible. If a post has to be moved because of highway widening or for traffic purposes it should, if physically possible, be re-set at the same distance point but further back from the road centre. The advice given in the Traffic Signs Manual should be followed when re-locating mileposts. If a diversion by-passes the highway at a milepost point, the post should be retained on the original alignment if this is practicable. In cases of extensive redevelopment at the site of a milepost, the possibility of retaining the post and including it in the new development should be considered. Should there be some reason, such as redevelopment which obliterates the highway or a risk of vandalism, which compels removal of the post entirely, the owners should be asked to offer it to a local museum or other custody for preservation.

3. Museums and local preservation societies may be interested to make and keep photographic records of historic mileposts, whether threatened or not. It is suggested that in any case where a milepost will be removed by road works, such local interests should be invited to record it for posterity before removal.

4. It is the policy to schedule mileposts only if they are the best examples of their type. Scheduled posts are protected under the Ancient Monuments Acts and must not be altered or moved without prior reference to the Ancient Monuments Secretariat in the Department of the Environment. Mileposts have also been protected by listing under section 54 of the Town and Country Planning Act 1971 and preceding legislation. Local highway authorities must consult the relevant local planning authority in cases where listed mileposts are affected.

5. Any enquiries about this Circular should be made to DOE, HM2a at Marsham Street, London (telephone 01-212 8514).

Sacred Measures against the Metric System

by John Michell

The following article is from the May 1979 issue of "Footprint", newsletter of Americans for Customary Weight and Measure. The text referred to, "A Defence of Sacred Measures", will be printed in the next Yardstick.

The Anti-Metrication Board's purpose, and the point of view behind it, was set out in a pamphlet, 'A Defence of Sacred Measures', which has since gone through many editions. The essence of our objection to the metric system is that it is based on an unsound philosophy, whose social effects are atheistic and destructive. In contrast, the traditional units of measure, still used in Britain, America and widely elsewhere throughout the world, derive from an ideal, comprehensive code of cosmology which is demonstrated in the plan of Stonehenge, in the symbolic dimensions of St. John's perfect city of New Jerusalem and in other representations of perfect order universally. The foot, mile, furlong, acre, etc., together with the measurement units of Ancient Greece, Egypt, Sumeria and Eastern Asia, are parts of a unified system and relate to each other through the ratios of classic geometry. Because they refer both to the dimensions of the earth, sun and moon and to the dimensions and functions of the human body, bringing the two scales into harmony, they illustrate the humane philosophy of man the microcosm. Their tendency therefore is to promote true science with human values wedded to the laws of nature, placed firmly at the foundation of civilisation and all its institutions.

The metric system was invented and made compulsory in France during the French Revolution at the end of the 18th century. It is an abstract system, related to no constant values, (its claim to represent a fraction of the earth's circumference has been abandoned) and to no human function. This was deliberate, since the idea was to break free of all previous standards and to celebrate the supposed triumph of scientific rationalism. While the revolutionaries were installing the Goddess of Reason, played by a young prostitute, in Notre Dame, the police were attacking the market folk all over the country, forbidding them the use of their customary measures, breaking up their scales and suppressing with bloodshed the 'metre riots' that followed. In no country has metrication ever been introduced without compulsion by central government, and wherever possible, even in France to this day, people have reverted to their traditional, convenient measures.

Our aim is to spread knowledge of the sacred origin and superior convenience in actual use of our metrological heritage, and to oppose the forcible introduction of the metric system. We have already won victories, notably the preservation of the pint for milk and beer and of the mile for road-sign use. The United States dropped plans to substitute kilometres when public reaction proved to be 98% against it. The metric language is alien to our own and threatens to cut us off from our past. If our units of measure are ever lost, then the battle for independence and idealism against the onslaught of centralized tyranny will be lost also. If, on the other hand we preserve and come to appreciate the great value of the measures we have always used - the measures which have united all the different races in North America into one nation - the way is then opened to the rediscovery of those principles of true philosophy which gave harmony and stability to the ancient world and which can perform the same service in a modern world civilisation.

BWMA gratefully records the Patronage of the late The Hon. Mrs Gwyneth Dunwoody, MP, Lord Shore, Vice-Admiral Sir Louis Le Bailly, KBE, CB, Lord Monson and Sir Patrick Moore, CBE

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