

The Herschel Compass

The final chapter of the Slough 2020 project

Slough Museum



Slough2020 Project – 2020/2021 Slough Museum

This project brought together twenty Slough based artists with twenty community groups in Slough. The artists selected one item each from the Slough Museum Collection and used this item to inspire local residents in producing their own art in various forms. One of the selected artists was writer Michael Percy. His original project for Slough2020 was *Made In Slough*, a collection of recollections about migrating to and working in Slough in the 1960s and 1970s. The object selected from the museum collection as inspiration was a radio receiver manufactured in Slough by the McMichael company in 1934. A portable transistor radio purchased in the Slough Co-op store in the 1960s was used as inspiration for this project.



These recollections were published in a booklet and produced as a series of podcasts voiced, in most cases, by the contributors. Project details and links to the podcasts may be found at www.michaelpearcywriter.co.uk/202020

The Herschel Compass – February 2022

The *Herschel Compass project* became the final part of the Slough Museum *Slough 2020* project which began in 2020 continuing into 2021.



Resting among uncatalogued items in Slough Museum, the Herschel Compass is a fascinating item of very modest size - it has a diameter of approximately three centimetres. Despite its size, it has been able to provoke much mystery and intrigue.

The 'Prof. Herschell' (sic) mentioned in the inscription is most likely to be **Professor Alexander Stewart Herschel, DCL, FRS** (5 February 1836 – 18 June 1907). Although not as famous as his grandfather the astronomer William Herschel, Professor Alexander Stewart

Herschel followed a successful career in the fields of astronomy and physics with some notable discoveries attributed to his name.

Slough based writer and dramatist Michael Percy was asked to promote the Herschel Compass in the Slough community with the intention of promoting artworks made by Slough residents. This turned into a voyage of discovery about the origins of the compass and the people involved in its history, inspiring along the way, a wide variety of mainly written art and historic investigation.

At the beginning of this journey of exploration into the Herschel compass, very little information was available beyond what was inscribed on the back of the item. For reference the inscription reads: *'Presented to GH Spiers, Upton Park, from Prof Herschell (sic) November 1904'*. The misspelling of Herschel added to the mystery of the object.

It is 118 years since the presentation of the compass to G.H. Spiers and the whereabouts of the compass since that time and how and when it arrived at Slough Museum inspired the imaginations of the writers and gave the historians a mystery to solve.

The first group in Slough to confront the Herschel Compass was Slough Writers, a group of 33 active writers who have among their ranks several published authors and many who have achieved success in the world of writing.

The writers latched onto the mystery surrounding the item and used this to take flights of fancy inspired by the compass. These included the involvement of the singer Britney Spears, the explorer Shackleton and a raid on Slough Museum by masked gunmen. These highly imaginative stories are printed below.

The writers made the first drafts of their stories at the presentation and workshop event. They were read out to the audience and a brief discussion of each piece took place. The writers were able to amend and develop their stories after the event, and submit them to be included here.

The Compass That Lost Its Way (and found it again)

By Lee Taylor (Slough Writers)

In the last few days, the true site of the Endurance, the ship that Sir Ernest Shackleton used in his ill-fated voyage to the south pole in 1915, has been found. In a curious coincidence, one reason why the Endurance has been located is thought to concern an old compass, itself rediscovered, in of all places, one of the storage rooms in Slough Museum

The navigators of the Endurance plotted their position by the use of star maps. Using the positions of stars as they disappeared behind the moon (lunar occultations) combined with longitude calculated using marine chronometers and their

compass, the crew estimated their position as 68° 39' 30" South by 52° 26' 30" West.

But when modern marine archaeologists searched for the *Endurance* in that location it wasn't there...

The compass discovered in Slough Museum had no documentation with it. The sole clue to its provenance comes from script engraved on the back. This tells that the compass was given to a G H Spiers in 1904 by a Professor Herschel, now thought to be Professor Alexander Stewart Herschel, the grandson of William Herschel, astronomer to George III who, with his sister Caroline in the late eighteenth century, built the first reflecting telescope and added greatly to our knowledge of the heavens and the reliability of our maps of the stars. William and Catherine Herschel lived and built their telescope in Observatory House in Windsor Road Slough. This was the Herschel family home until 1960.

Was this compass the one used by the crew of the *Endurance*? Was it formerly owned by William Herschel, the man who, with his sister, created the star maps? Were these the star maps, albeit extended to the Southern Hemisphere, referred to by the crew to fix their position in 1915?

The *Endurance* wasn't where the archaeologists thought because (a) the 1915 chronometers were running fast by 22 seconds and (b) the star positions in the 1915 almanac were also marginally out. Perhaps Herschel's observations, or sister Catherine's transcribing of them, weren't quite up to the standards of the atomic age. The actual location of the *Endurance* is 3km East of the original estimate and 3,000m down.

Even so, not bad for a Slough boy.

But how did his compass make its way home and why?

Professor Herschel's Compass

By Keith Heskin. (Slough Writers)

This compass, which was recently discovered in a box of uncatalogued items in the Slough Museum, is a small pocket-sized item about 30mm across. It is one of a type made by a Birmingham instrument maker, circa 1900, and widely sold to wealthy Victorians for use by explorers, and often given as a gift to boys when they joined the boy scouts or similar organisations.

This particular compass was given to Gordon Henry Spiers on the occasion of his 16th birthday, by Professor Alexander Stewart Herschel, who was a friend of his father, Charles David Spiers. Charles Spiers was a military man who served in South Africa, which is where he befriended Alexander Herschel as they were both keen Polo players.

Gordon was the oldest son and was named after Gordon of Khartoum. The compass was donated to the museum with a large number of other items not deemed particularly valuable after Gordon died without issue.

North is in My Dining Room

By Timothy Trencher (Slough resident)

It was the end of summer when a gentleman in a smart dark suit arrived at my father's jewellery shop. He was helped to step down from the carriage by his driver before he walked with the aid of a walking stick into the shop.

I watched from behind a glass case full of hip flasks and costume jewellery as the man brought out what looked like a small fob watch from a tiny leather bag. But it wasn't a watch, it was a compass, a shiny north, east, south and west compass. I knew explorers and sailors used compasses. But the man looked too old to be an explorer or a sailor. The gentleman flicked the compass open and held it up to my father. I could see it in great detail and when I looked up, the gentleman was smiling straight at me through the glass display cabinet.

"It's a lovely item is it not young man?" he said.

I could just about stammer at him, "Ye...ye...yes sir."

His voice was weak with age and his hands showed a slight tremor as he wrote the order slip for the engraving he required. Then my father read aloud from the slip of paper, "Presented to G.H. Spiers, Upton Park, from Prof. Herschell, November, 1904."

Father counted the number of letters to arrive at a cost for the work, "That will be fifty-seven letters and numbers and eight items of punctuation. Giving a total of sixty-five items in all. The cost is one penny per item engraved, total five shillings and five pence."

"My goodness", said the elderly gent, holding my father's gaze "Are you sure?"

“I am sir, yes. If you will allow me to leave out the eight items of punctuation that will be, let me see, four shillings and nine pence.”

The old man looked even more shocked, “Oh no, no, that will never do, the punctuation must be correct.”

Father said that if all the punctuation was included, the price had to remain at five shillings and five pence. The Old man made a funny harrumphing sound and then he paid, carefully counting out the money from a small leather purse. “Paying in advance,” said my father later, “was the mark of a true gentleman.”

The last part of taking instructions for any engraving work was always to check that the customer’s handwriting was clear and to ask the customer to confirm all the spelling.

“Sir,” said the customer, “I am a retired scholar – Professor Herschel - and as such, unused to my spelling abilities being brought into question.” With that he handed the slip back without looking at it. “When will the item be ready for collection?” he asked.

“One week from today,” said my father. “If it should be available sooner, shall I send my boy round with the finished item?”

“Please do that. My name is Professor Herschel, residing at Observatory House.” Then he stared straight at me through the glass display case. “I’m sure you know the building in Windsor Road, young man.” And

I did.

Father had the engraving ready in three days and I was sent with the item to the big house. Professor Herschel carefully unwrapped the compass and flicked it open again so I could see inside where all the degrees were marked round the edge.

“Look at that,” I said, “just look at that!”

“Hold it,” said Professor Herschel.

The metal was cool and smooth as the compass rested in the palm of my hand. I watched the needle move round and settle on north. “Look, look”, I cried, “North is in your dining room.”

Professor Herschel laughed out loud, “It is, you are correct young man, North is indeed in my dining room!”

After we stopped laughing, he inspected the compass carefully. “Oh dear,” he said. “Oh dear me. I’m afraid your father has misspelt my name.”

I stepped back in horror, and I knew my face was glowing bright red.

“I cannot have that I’m afraid, not a spelling mistake. There should be only one letter ‘L’ in Herschel.” He shook his head as he pulled out my father’s order slip from the delivery box.

“Look here, do you read boy.” “Not ever so well sir,” I mumbled.

“It’s here, plain as day,” and he read from the slip saying each letter on its own, “H-E-R-S-C-H-E-L-L. Oh my goodness. How embarrassing. It appears...” His voice disappeared to a whisper.

He held the slip in front of my face and even I could see two letter Ls, the extra one being tucked at the edge of the compass where the metal curved back.

“I shall have to ask you to take the compass back to your father. I will acquire another compass and he will have to engrave it again. I will of course pay again for his services.” “What should father do with the wrong compass sir?” I asked in my shaky voice.

“I’ve no idea. It’s no use as it is.” He pulled a face that meant he was thinking hard. “I have an idea – there is one person who may have a use for a compass,” he said.

“Who sir?” I asked.

“Who do you think boy?” he said, holding the compass towards me with a big smile on his face.

The Melody Lingers On

By Martyn Lloyd (Slough Writers)

Does Britney Spears know she could be related to the mysterious G H Spiers and that he received the gift of a small but well-engineered compass in 1904 from Professor Herschel? In the past, spelling has been variable as shown by the variation in the spelling of Herschel with two Ls (*Herschell*) in the engraving on the compass. Over time, the spelling of ‘Spiers’ may have varied, hinting at a possible link existing between the G H Spiers family and the Britney Spears family. Slough Museum contacted the singer to find out if she has an ancestor named G H Spiers who may have received the compass, signed as a gift from Professor Herschel. So far, a reply has not been received from the famous singer and so other lines of enquiry are being followed to find if a link exists between the two families.

Violent Raid on Slough Museum

By Terry Lloyd (Slough Writers)

Three armed men burst through the museum doors, the demands were clear, ‘Give up the Herschel compass or die’.

I thought quickly and denied knowing where it was. They held a gun to my temple, but I knew I couldn’t give it up, it was too precious.

I knew my last chance was to say the words, just say the words – I yelled, ‘Spiers. Spiers!’

And in that instance, sharp metal daggers were summoned which flew through the air and fatally wounded each of the armed men.

The famous Herschel Compass, as presented to the mysterious G H Spiers, was saved.

The Career of Thomas Wallace

By Michael Percy (Slough Writers)

Tommy Wallace closed the door to the workshop and secured the lock. As he turned away from the building a boy on a bicycle sped past almost crashing into Tommy. It was the new apprentice who had started work that morning.

“Goodnight Mr Wallace,” the boy called over his shoulder. “Goodnight Jim,” replied Tommy. “See you tomorrow.” Tommy watched the boy speeding away. Jim was a good kid and if he worked hard, he would have a bright future.

Tommy smiled, although the memory that the sight of the new apprentice had stirred up was not a happy one. His mind spun back twenty years, but the image of that angry face was as fresh as ever.

“What do you see here boy?” said Arthur Turnbitter, the chief engraver at G. F. Hallberry & Son, Jewellers, by Royal Appointment. “Read what you see engraved upon this expensive compass.”

Young Tommy read the engraving out loud, “*Presented to GH Spiers, Upton Park, from Prof Herschell, November 1904*”.

“What do you notice about the wording boy?”

Tommy read it again, silently mouthing each word. Then he mounted his defence. “The man said ‘*Prof*’ was right, it’s short for ‘professor’.

“I know that boy. Look at the name Herschel.”

Tommy began to feel giddy as if the world was tilting under his feet. He could see nothing wrong with engraving.

“Look hard boy.”

Looking harder was no good, the word still looked the same.

“I... I... Herschell, It says Herschell.

“How many Ls do you see boy?”

“Two sir. Two.”

“And that, Master Wallace, is one L too many!”

Tommy’s eyes grew wide, his mouth dropped open as he realise what had happened.

“The man... he was... he was very old. I thought he’d made a mistake.”

“That ‘old man’, young Thomas, is Professor Alexander Stewart Herschel, a highly respected scholar and scientist. And believe it or not, he is well able to spell his own name.” ‘It’s not my fault,’ said Tommy, desperate to save his job as trainee engraver in the most prestigious jewellery shop in Windsor. “I just wrote down what the man said - Herschell. How should I know it only had one L? I had to write down Marshall with two Ls for that engraving job last week and that was okay. I wrote Williams the other day with two Ls – how was I supposed to know Herschell only had one? The toff who brought the compass for engraving spelled it out to me but when he’d gone I thought it was wrong – he was ever so old and his hands shook. So I stuck in another L just to be on the safe side.” Tommy was close to tears, his face was burning with embarrassment and anger at the unfairness of it all.

The chief engraver, stood over Tommy with his arms folded over his belly – a belly so large that from where Tommy was, all he could see was Arthur’s eyes and bushy eyebrows. The eyes spoke volumes about the trouble Tommy was in.

Turnbitter growled at Thomas, “Young man, you have cost the firm a considerable sum of money. We must do the engraving again for free, and,” he paused for effect. “And your employer must also buy a replacement compass to do the *free* engraving upon.”

Tommy squeezed back his tears.

“Do you realise that amount of money is ten times what you earn in a week?” shouted the indignant Turnbitter, determined to make those tears flow.

Perhaps if Tommy had allowed the tears to seep out, he would have escaped with a telling off. As it was, no tears of

remorse meant no job as far as the dreadful Turnbitter was concerned. Tommy faced the long walk to his home in Slough feeling as if every person he passed knew the full depth of his shame. Sacked. Unemployed. Disgraced.

When he arrived home, he failed to find the courage to tell his parents. He waited, through a sleepless night, until he was due to leave for work the following day. His mother listened. Nodded. Took the distraught Tommy in her arms. “Don’t take on so Tommy, you will get another job. You’re a very bright young man, any boss would be pleased to have you.”

Tommy’s tears were drenching his mother’s blouse. He sobbed, “I’ll never get another job, I know I won’t. And I really wanted to do engraving.”

Tommy’s mother smoothed his hair and dabbed at his tears. “It just so happens that there’s a place taking on apprentices near the railway station. I don’t understand what they do but your dad said farm tractors, whatever they are, will be everywhere before long. No more horses. Can’t see it myself, but that’s what the man told your father.”

Tommy watched Jim, his new apprentice as he cycled away, then stepped back to look up at the sign over his workshop. It read: *Thomas Wallace & sons, Agricultural Machinery Manufacturers (est. 1920).*

It was good to see his family name up there for the world to admire. Thomas Wallace. And the surname had, and would always have, two Ls.

Presentation to Slough University of the Third Age (U3A) History Group

In the early stages of the project, a lack of information about the compass became a source of inspiration for the writers; for the Slough U3A history group it offered a challenge, one the group responded to by using their skills in historic research to the full extent. Their work was a significant addition to this project and will go on to inspire more academic studies into the history of the Herschel compass.

Pauline Hodges was prominent in the group’s research and provided this summary of what was discovered.

Who Was G.H. Spiers?

(Editor’s note - There was some debate about which Herschel was involved in the presentation of the compass. There are three candidates: William James Herschel (1833-1917);

Professor Alexander Stewart Herschel (1836-1907) and John Herschel (the younger) 1837-1921. Since only one of the brothers – Alexander Stuart Herschel – was a Professor, he is the most likely candidate. Although he died only three years after the presentation of the compass, he appears to have been quite fit and well during this period because in 1905 he made a journey to Spain to observe the solar eclipse which occurred that year.)

Pauline Hodges

In my opinion the presentation was made by *Professor Alexander Stewart Herschel (1836-1907)*.

To begin with a comment on the misspelling of Herschel with two Ls, it is worth noting that historically, things get changed and errors are made and nobody takes much notice. It is wise not believe all you read. There are instances in the records concerning GH Spiers which are shown later and illustrate the danger of taking historic records literally without considering the context.

In my research in the **1901 Census**, I found George Henry Spiers, age 37, a widower and caretaker living at The Lodge in Upton Park. Also, at Upton Park was Ruth Heath who George would later marry.

Moving forward to the **1911 Census**, George is shown as age 45 and still a caretaker in a private park. He is still living at The Lodge but now with wife Ruth and a son, George (George Henry Spiers after his father.)

In the **1921 Census**, Our George is 60 with wife Ruth and son George. They have moved house to 140, Windsor Road. George records that he is a gardener to solicitors who are based in Upton Park.

In the **1939 Survey** (or Register – see footnote* Ed.) George said he was actually born on the 9th December 1859 and he is a gardener on a private estate. (The transcript says ‘private *means*’ but if you read the actual original it says *private estate*). He is living with wife Ruth at Lower Lodge Upton Park. George is a special constable.

Going through the various dates in addition to the Census information, in 1892 George married his first wife Christina Plumber. They had a daughter born 1895 but she unfortunately died in 1897, aged two years. The couple had a son in 1897, Christopher Stephen, but sadly Christopher died in 1898. George’s wife Christina dies aged 32 in 1899.

George goes on to marry Ruth Heath in 1901. Their son George Henry (after his father) is born in 1903. Ruth dies aged 73 in 1943. In 1946 George dies at Botleys Park War hospital aged 86. His home address is still Lower Lodge, Upton Park.

Further investigations in the Windsor and Eton Express dated March 1904 show a report of a Slough Urban District Council meeting including nominations for people to serve as Parish Constables. This mentions G Ackerman of Upper Lodge, Upton Park and H. Spiers of Lower Lodge, Upton Park. H. Spiers is said to be a bricklayer.

Returning to what I said at the beginning about inaccuracy in some historic records (you can't believe all you read!), I think H Spiers is in fact George Spiers. Remember George is actually G.H. Spiers and there could have been confusion when the report was published in the paper. I don't know where the job description 'bricklayer' comes from, because the 1901 Census shows, as we've seen, George described himself as a caretaker. One theory I would offer for the gift of a compass is that Professor Herschel perhaps bought a compass for all the newly elected Parish Constables. The compass was presented in 1904 and George Spiers became a Parish Constable in the same year. Also, it could have been given in respect of something George had done in connexion with his job as a constable.

(Regarding linking the presentation to the appointment of special constables, one would have expected the fact of the appointment or any special achievements as a special constable to have been referenced in the engraving. Ed.)

Another possible theory is that the compass was a christening present marking the birth of George's son in 1903. This idea is suspect because the gift would have been made a year after the birth and is inscribed with the wrong year.

(The situation is further confused because the inscription 'presented to G.H. Spiers' could refer to either the son or the father since they share the same name. Ed.)

Regarding George's will, I requested a copy from the Government Record Office but they said they could not find the will.

From another source, I have discovered that George left 310 pounds 14 shillings and 9 pence in his will. What is interesting is that probate was granted to Stanley Walter Goddard, a baker. Why Stanley Walter and not his own son? A search for Stanley Walter Goddard in the 1939 Survey shows he was in Reading, a single man and a master baker born 25th of June 1904. Also, he is also a special constable.

Stanley's mother's maiden name was Heath. George married a Ruth Heath, so it is possible that Stanley was George's nephew. If Stanley was nominated to handle the probate of George's will, could Stanley have inherited the compass upon George's death in 1946?

Could Stanley Walter Goddard and his descendants provide an answer to the question of how the compass reached Slough Museum?

**The 1939 Register is one of the most important twentieth century genealogical resources for England and Wales. The 1931 census was destroyed by fire. No census was taken in 1941 because of the war. The 1939 Register is the only national census-like resource available for this period.*

Following the start of the Second World War on 3 September 1939, the British government needed to conduct an accurate count of Britain's civilian population to enable issuing of ration books and ID cards, the direction of labour and conscription into the armed forces. The 1939 Register is therefore the most complete snapshot available of the English and Welsh population on the eve of war. It lists the names, addresses and other details of over 45 million people. The original 7000 volumes of the 1939 Register are held at The National Archives.

Does The Compass Have a Role in Astronomy?

Slough Astronomical Society (Ian Bruce)

We have been mulling over your request.

I am afraid we have no knowledge of any compass that William Herschel or his son John or any of the grandchildren acquired or made. From the date of the gift, (1904) it would have been from John's son William James, who was an early pioneer of fingerprint technology, but not an astronomer. (*Another possibility is Professor Alexander Stuart Herschel - Ed.*) The Herschel family delved into all aspects of science and so it is no surprise they owned, and no doubt used compasses. However, there is no role a compass played in William's astronomical observations. All positional data he recorded was related to specific points in the sky relative to each other.

Apart from the altitude and azimuth position his telescope was pointed at, he would have used as accurate a time piece as was available in his times.

All his observations were recorded as altitude (which he measured as zenith distance), azimuth and time, and these were diligently written down by Caroline. A compass would not offer any assistance with this process.

Caroline was not a mathematician, it was John, William's son, who was the brilliant Mathematician, and was offered the Maths Professorship at Cambridge at a very young age. Caroline was the diligent recorder of William's observations (time, azimuth and zenith distance plus a brief description) which she then translated into positions of the objects on the celestial sphere. This is a tedious task involving accurate repetitive simple arithmetic, and without which her brother, William, would not have been able to accomplish so much. After her time many women were employed by Observatories to perform similar roles as they were found to be more accurate and reliable than their male counterparts at performing the task!