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The retirement years of Doctor Helen B. Taussig: an intersection of art and medicine

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Abstract

Dr Helen B. Taussig (1898–1986) worked a paediatric cardiologist at the Johns Hopkins University in Baltimore, Maryland from 1930 to 1963. Dr Taussig would become worldrenowned for her contributions to the systemic-to-pulmonary artery shunt to treat congenital heart patients with cyanosis. This shunt would eventually be named after the surgeon/ cardiologist as the Blalock–Taussig shunt. Dr Taussig's name was also attached to the description of one form of double outlet right ventricle called the Taussig-Bing malformation. Dr Taussig ultimately received the Presidential Medal of Freedom in 1964 as a testimony to her life-long contributions to the field of congenital heart surgery.

In 1963, Dr Taussig retired from clinical practice but continued her teaching and academic pursuits at Johns Hopkins for another 14 years. Upon her "second retirement" in 1977, she moved to Kennett Square, PA. This paper will review the retirement years of Dr Helen Taussig and the curious intersection between art and medicine.

Dr Helen Brooke Taussig was born on 4 May, 1898 in Cambridge, Massachusetts. Her father was a distinguished professor of economics at Harvard University. She graduated from college in 1921 from the University of California Berkeley and from medical school at Johns Hopkins University in 1927. She then did a three-year paediatric internship and residency at Johns Hopkins University.¹

Following completion of her training, Dr Taussig was appointed to the paediatric faculty at Johns Hopkins in 1930 by Dr Edwards A. (Ned) Park (1877–1969), who was Chairman of the Department of Pediatrics from 1927 to 1947. Dr Taussig (Fig 1) was placed in charge of the cardiac clinic at Harriet Lane Home and was challenged by Dr Park to "…learn (about) congenital malformations". Perhaps no challenge has been undertaken with greater zeal and with such complete success.^{2,3}

Dr Taussig's name became world famous within the medical community due to her work with Dr Alfred Blalock (Fig 2), who was the chief of Surgery at Johns Hopkins. The collaboration between Drs. Taussig and Blalock lead to the conceptualisation and then performance (29 November, 1944) of the first systemic-to-pulmonary artery shunt to treat cyanotic CHD.⁴ This was just the second operation developed to treat any form of CHD. Dr William Gross had previously described the surgical ligation of a patent ductus arteriosus in 1939. Indeed, from a physiologic standpoint, the two operations represent the antithesis to one another.

To put this into a historical context, when the first Blalock–Taussig shunt was performed in November 1944, World War II was still raging – with the Battle of the Bulge a few weeks away in the European theatre and Iwo Jima a few months away in the Pacific. From a medical standpoint, modern day anaesthetics such as Halothane were still 15 years away, and so the procedures were performed under ether anaesthesia (Dr Merel Harmel was the anaesthesiologist) with the patient spontaneously breathing (Fig 3). The suture material that Dr Blalock used for the anastomosis was fine silk that had been soaked in oil so that the suture would not tear or cut the arterial walls. The very first Blalock–Taussig shunt had a clamp time of 30 minutes, as Dr Blalock carefully placed the running suture line (Fig 4). During this time, the child was surviving on one lung, and it was not known how long that was sustainable. And finally, upon completion of the procedure, the child went to the recovery room, as at that time there was no such thing as an intensive unit (much less a paediatric cardiac intensive care unit).

The systemic-to-pulmonary artery shunt procedure would change the course of children born with cyanotic CHD. The operation was subsequently named the Blalock–Taussig shunt and propelled Blalock and Taussig into stardom. Much has been written in more recent years about their collaboration and the role that Vivien Thomas played in the development of the shunt (Fig 5). Vivien Thomas was an African-American who worked in Dr Blalock's laboratory and was instrumental in developing the surgical techniques ultimately utilised by Dr Blalock in the clinical setting. The 21st century books and movies have made the trio of names Blalock, Taussig, and Thomas into household names.



Figure 1. Photograph of Dr. Helen B. Taussig circa 1940. Dr. Taussig was 42 years old at the time of this photograph (Reproduced with permission from the Alan Chesney Medical Archives, Johns Hopkins University).



Figure 2. Portrait of Alfred Blalock MD (1945, Isabella Hunner Parsons, oil on canvas, 40×31 cm, Johns Hopkins University, reproduced with permission).

Dr Taussig's name would also be appended to a form of complex CHD (double outlet right ventricle) called the Taussig-Bing malformation. Dr Richard J. Bing was trained as an adult cardiologist and had brought with him the developing technique of cardiac catheterisation from Bellevue Hospital in New York. He joined the faculty at Johns Hopkins in 1942 and was tasked by Dr Blalock to start the catheterisation lab at Hopkins. At first, Dr Taussig was adamantly opposed to this effort and was quite hostile to Dr Bing. However, she eventually realised that this new technology was here to stay. In 1949, Drs. Taussig and Bing would describe the form of double outlet right ventricle which to this day carries this eponym.⁵

Dr Taussig was to make one more lasting contribution to the medical profession prior to her retirement. In 1961, Dr Taussig became aware of an increasing number of children who were born in Europe with severe limb deformities. She travelled to Germany where she realised that there was an association between mother's taking a medication called thalidomide (to alleviate morning sickness) and the limb deformities. Dr Taussig returned to the United States where she successfully lobbied the Food and Drug Administration to prevent the approval and use of this drug in the United States.⁶

Disabilities, personality, and personality conflicts

Despite coming from an upper-class family, Dr Taussig's formative years were marked by many serious adversities. Dr Taussig described herself as a weak and sickly child. She contracted mediastinal tuberculosis as a child but eventually was able to recover from this infection. Unfortunately, her mother was not as fortunate and passed away from tuberculosis when Taussig was 11 years old. Helen Taussig also had significant dyslexia which made reading a challenge during her youth and throughout her adult life. During her internship at Hopkins, Dr Taussig contracted whooping cough complicated by severe bilateral ear infections. The sequelae was profound and permanent hearing loss to a degree that she was rendered nearly deaf. She was to teach herself how to use her fingers to feel for a thrill since she was unable to use a stethoscope to her a murmur. Contemporary colleagues described that she had difficulty hearing at conferences and was unable to discern how loudly she was speaking - sometimes in a whisper and other times unknowingly shouting. These traits were off-putting at best, and at worst were misinterpreted as anger or aloofness, particularly for those who did not know her well.

Much has been written about the personality of Dr Taussig and the dichotomy in these descriptions could not be greater. To junior colleagues, Taussig could display great kindness and in return they were often very tolerant of her idiosyncratic ways. It would appear that her willingness to teach and mentor younger colleagues was modelled after her own mentor, Dr Park. She was also quite kind and caring to her patients and their parents. This trait sometimes lead to conflict, as some colleagues felt that she became overly involved to the detriment of care. Dr Taussig never married and never had children, but her fellows became her family and afterwards were called the "Taussig fellows".

There could not be a greater contrast than the difficult interpersonal relationships which Dr Taussig had with her peers or seniors, all of whom (at that point in time) were men. Her working relationships with both Drs. Blalock and Bing were described as tense, with nearly daily arguments, and Dr Bing was later to state that one of the major reasons why he left Hopkins was Helen Taussig.⁷ Her interactions with other professional colleagues such as Drs. Wilfred Bigelow and Denton Cooley were equally strained as she was described as intrusive and overbearing. To them, she was a tyrant dressed up in sheep's clothing. Thus, the dichotomy in Dr Taussig's personal relationships could not have been more extreme during her working years. It is likely that the sharp edge of behaviour softened after retirement when she no longer had direct patient care and thus was no longer thrust into this potential battleground.



Figure 3. Photograph of the operating room with Dr. Blalock performing one of the early Blalock-Taussig shunts (Reproduced with permission from the Alan Chesney Medical Archives, Johns Hopkins University).



Figure 4. Illustration of the surgical technique used by Dr. Blalock to construct the systemic-topulmonary artery shunt. The description of the technique states "This was followed by the insertion of a running suture, which was not drawn taut until the greater part of the posterior row had been placed...The anterior row consisted of a simple through and through continuous suture which approximated intima to intima." (from JAMA 1945; 128: 189–202).

The retirement ceremony

Dr Helen Taussig officially "retired" from the position as physician-in-chief at the Harriet Lane Clinic in the summer of 1963 at the age of 65. This was a position that she had held for 33 years. She was considered one of the founding figures of paediatric cardiology and arguably was the most famous and decorated female physician of her time. She was to receive the Presidential Medal of Freedom the following year (1964) from Lyndon Johnson, and this remains the highest civilian award in the United States (Fig 6). Thus, her retirement was a momentous occasion at Johns Hopkins University.



Figure 5. Portrait of Vivien Theodore Thomas (1969, Bob Gee, Oil on canvas, 33.5×29.5 cm, Johns Hopkins University). Vivien Thomas played an instrumental part in developing the systemic-to-pulmonary artery shunt with Dr. Alfred Blalock (Reproduced with permission).

In order to honour Dr Taussig, the Department of Pediatrics decided to commission a portrait of Dr Taussig. The initial thought was to approach Andrew Wyeth, who had risen to acclaim as one of the great 20th century American artists. Andrew Wyeth lived in

Chadds Ford, Pennsylvania (about an hour and a half from Baltimore). At first, it would seem to be quite a stretch to approach Mr. Wyeth for a portrait. Was this based solely on the fact that he was a famous artist? As it turns out, the answer is a definitive "No".

According to Dr Catherine Neill, who was a fellow at the time, the person responsible for suggesting Andrew Wyeth as the person to perform the portrait of Dr Taussig was none other than the aforementioned Dr Ned Park.³ Dr Park had been introduced to Andrew and Betsy Wyeth several occasions. One of these circumstances was in 1958 shortly after Dr Park had celebrated his 80th birthday. Proof of this meeting is that Andrew Wyeth produced a sketch of Dr Park (Fig 7). It was this sketch that convinced Dr Park that Andrew Wyeth would be the perfect choice for the portraiture.

The next logical question is who and why would Dr Park, a retired physician from Baltimore, has been introduced to the Wyeths in Chadds Ford. After researching this question, the answer and connection is a physician named Dr Margaret Irving Handy (1889-1977). Dr Handy was one of the earliest female paediatric residents to have trained at Johns Hopkins and Dr Park had been one of her important mentors. Dr Handy subsequently established a paediatric clinic in Wilmington, Delaware where she was chief of Pediatrics for more than 40 years.⁸ However, Dr Handy lived in Chadds Ford, a small town roughly 12 miles from Wilmington. As the authors of this paper were to discover, it turned out that Dr Handy's house (Fig 8) was just 60 yards up the hill from the where the Wyeths lived from 1940 to 1961. In 1949, Andrew and Betsy Wyeth's son Nicholas became extremely ill and Dr Handy was asked for her expertise. After a number of house calls, Nicholas made a full recovery. With a sense of appreciation and gratitude, Andrew Wyeth painted the dual portrait of Dr



Figure 6. Photograph of Dr. Helen Taussig and President Lyndon Johnson in 1964. Taussig was awarded the Presidential Medal of Freedom. Dr. Taussig is standing in the back row in front of the column (Courtesy of the Alan Chesney Medical Archives, Johns Hopkins University).



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Figure 7. *Portrait of Dr. Ned Park* (1958, Andrew Wyeth, Pencil on board). Dr. Park was Chairman of the Department of Pediatrics from 1927 to 1947 and met the Wyeths on several occasions.

Handy called *The Children's Doctor*, *1949* (Fig 9). The Wyeths and Dr Handy became very close friends and socialised with one another for the next several decades.⁹ In 1974, 25 years after painting *The Children's Doctor*, *1949*, Andrew Wyeth painted a second portrait of Dr Handy called *From the Capes* (Fig 10). Andrew Wyeth gave Dr Handy numerous paintings, one of which *Marsh Hawk* sold at auction for \$1.4 million following her death in 1977.¹⁰ Thus, it is certain that the individual responsible for introducing Dr Ned Park to the Wyeths was Dr Margaret Handy.

There is very strong circumstantial evidence that Andrew Wyeth and Dr Taussig met each other sometime between 1958 and 1963. The first piece of evidence is provided in an address given by Dr Taussig in 1971 and subsequently published in the journal Pediatric Research.¹¹ In this article, Dr Taussig was honouring her mentor Dr Park, who had died two years previously at the age of 91. The publication includes a copy of the pencil drawing that Andrew Wyeth had made of Dr Park in 1958 on the occasion of his 80th birthday celebration held at Dr Handy's house. The fact that Dr Taussig knew the existence of this drawing some 13 years later provides presumptive evidence that she was present at this dinner and observed Andrew Wyeth performing the sketch, as this sketch had never been exhibited and was in the possession of Andrew Wyeth. Dr Taussig must have written to Andrew Wyeth not only to obtain an image of the pencil sketch but also to request permission to publish it, which was granted as indicated by the caption "Fig. 8. Dr Park - drawing. (Reproduced by courtesy of Andrew Wyeth)".

The other circumstantial evidence that Andrew Wyeth and Dr Taussig met is suggested in a letter from Wyeth to Taussig dated 29



Figure 8. Photograph of the home of Dr. Margaret Handy in Chadds Ford, PA. The house is located 60 yards up the hill from where Andrew and Betsy moved to in 1940. The Wyeths and Dr. Handy were to become close friends during the 21 years that they lived in close proximity.





Figure 9. *The Children's Doctor, 1949* (1949, Andrew Wyeth, Tempera on panel, 67.8 × 64 cm, Collection Brandywine River Museum of Art). The portrait of Dr. Margaret Irving Handy was painted by Andrew Wyeth after she had cared for the Wyeth's oldest son Nicholas, who had become extremely ill but made a full recovery.



Figure 10. From the Capes (1974, Andrew Wyeth, Tempera on panel, 61.6×47 cm). This second painting of Dr. Handy took place 25 years after the initial one and is a testimony to the friendship that had developed between the Wyeth family and Dr. Handy.

July, 1963 (Fig 11). Dr Taussig had sent a letter to Andrew Wyeth congratulating him for being awarded the Presidential Medal of Freedom. The letter from Wyeth to Taussig is in response to that letter and he thanks her for "taking the time" to send congratulations. The simple fact that there was correspondence back-and-forth is a strong hint that the two were well acquainted. On the second page of the letter, Wyeth states "Looking forward to meeting you this winter." Whether this sentence meant that he was looking forward to meeting her again or for the first time is unclear. Nevertheless, the letter provides evidence that there was at least a plan to meet in the winter of 1963.

The lives of Dr Helen Taussig and Andrew Wyeth also had the parallel feature of both winning the Presidential Medal of Freedom - Wyeth in 1963 and Taussig in 1964. The two had lived in completely different worlds, and yet they had both made unique contributions to their areas of interest and expertise. This may account for why their correspondence had more the feel of life-long friends sharing thoughts and emotions. Given the connection between Andrew Wyeth and Johns Hopkins University specifically, the trio of Drs. Handy, Park, and Taussig - it is not surprising that when Dr Taussig announced her plans for retirement in 1963 that the Department of Pediatrics would turn to Andrew Wyeth to paint her retirement portrait. Afterall, Dr Taussig was one of the most famous paediatricians in the world, and Andrew Wyeth was a world famous painter. The Department of Pediatrics raised \$1,400 for the project and put forward the request to Andrew Wyeth. It was their intention that this painting could be hung in the Blalock lobby next to the other luminaries who had worked at Hopkins - all of whom were men at that time.

While Andrew Wyeth may have considered Dr Taussig to be an acquaintance, he was a fiercely independent artist who chose to

paint only what he wanted to and did not accept commissions. It is also worth noting that his paintings were selling for more than a 1000 times the price that had been offered the Department of Pediatrics at Johns Hopkins. Whether it was the former and/or latter reason, Andrew Wyeth put forth an alternative suggestion that the retirement portrait of Dr Taussig could be passed on to his son, Jamie Wyeth. This arrangement was agreed to by the Department of Pediatrics. Jamie had been trained as an artist by his famous father, and at age 17, this was to be his first commissioned work. In August 1963, Jamie Wyeth met with Dr Taussig on Cape Cod where Taussig had a summer cottage in the village of Cotuit. There are divergent stories of whether this sitting for the portrait lasted for a day or two or was stretched out over two weeks' time. At the conclusion of this time, Jamie packed up his sketches and subsequently finished the portrait over the next weeks or months.

The official unveiling of the portrait did not take place until May 1964 when Dr Taussig along with friends and colleagues gathered at Johns Hopkins University. The painting on its own merit is exceptionally well executed, showing an en-face view of the doctor with the intensity of her personality literally jumping off the canvas (Fig 12). It is an electrifying image, and a testimony to the skill of the 17-year-old artist. There is no question that he successfully captured much of his subject in the painting.

However, at the unveiling of the portrait at Johns Hopkins, the audience was aghast.¹³ They had intended this ceremony to honour their colleague, and before them was what they considered a horrifying depiction of Dr Taussig – disheveled, with her hair askew, dress draped off her shoulder, and a crazed look in her right eye. Jamie Wyeth was in attendance and reportedly was "devastated" over the painting's poor reception. Dr Taussig on her part showed restraint and did not comment on the portrait at the time. However, her friends disliked the painting so much that they decided not to hang the painting at the hospital as had been

ANDREW WYETH CUSHING ROAD HOMASTON, MAINE Wear Wn taussig I was deeply worked by your hersy life to write my such a fine lettery a hart they Freedam loverd. My warmant thanks -Jamie is an tice patiency with great exceture his comment adventure with your - This will le a wouder for l'appendence

In him out I thear by will get the wort and Too thing forward to meeting you this winter with thinkest regard, Surcere S Muching Mysty

Figure 11. Letter from Andrew Wyeth to Dr. Helen Taussig dated 29 July, 1963. The letter was in response to Taussig's letter congratulating Mr. Wyeth for receiving the Presidential Medal of Freedom. The back-and-forth correspondence and the tone of the letter provide circumstantial evidence that the two had been introduced to one another sometime between 1958 and 1963 (Reproduced with permission from the Alan Chesney Medical Archives, Johns Hopkins University).

intended. Some even suggested that the painting should be destroyed (as Winston Churchill did with his retirement portrait). In the end, the painting was "gifted" to Dr Taussig who took it home, wrapped it up in a bath towel, and stored it in her attic.

In retrospect, it is hard to square exactly what happened regarding the portrait of Dr Taussig by Jamie Wyeth. The intention of Dr Taussig's friends and colleagues was to honour her upon her retirement - an accomplished woman who had made enormous contributions to medicine at a time when there were very few women in the field at all. Had Andrew Wyeth accepted the commission to paint the portrait, it is likely that the outcome would have been very different given the professional reverence and respect that he had accorded both Drs. Park and Handy. By passing the request on to his son Jamie, he was also passing this on to a generation that would have an entirely different perspective. Clearly Jamie Wyeth did not keep in mind the intention of those who had commissioned the work but instead it was a display of his own artistic sentiment. Whether Andrew and Betsy Wyeth ever saw the painting before its unveiling is also an unknown - one would think that they would have provided some supervision of a work that they had passed to him.

Early retirement years (1963-77)

Although Dr Taussig officially retired from clinical practice in 1963 at age 65, many of her other professional duties continued nearly uninterrupted. She continued to make rounds, to teach, to lecture, and write.¹⁴ In this transition period, she was named as the Thomas M. Rivers Research Fellow. In 1964, Taussig received the Presidential Medal of Freedom and in 1965 was named the president of the American Heart Association, the first female to serve in this position. The accolades continued to pour in, and some awards came with significant monetary prizes which she used to fund research projects evaluating the long-term outcome of patients who had undergone a Blalock–Taussig shunt. These results were published in a series of papers published from 1971 to 77.^{15–20} Thus, yet another of Dr Taussig's contributions was the emphasis on long-term outcomes in patients with congenital heart disease (Fig 13).

Dr Taussig continued to participate in many medical school events during the time period between 1963 and 1977. One of these events was the honouring of Vivien Thomas, who was awarded the Doctor of Laws in May of 1976. The photograph of this event depicts Dr Taussig, Dr Thomas, and Dean Richard Ross (Fig 14).

Second retirement and the move to Kennett Square (1977)

Following her "second" and what might now be considered full retirement in 1977, Dr Taussig moved to Kennett Square, Pennsylvania. The retirement community that she selected was called "Crosslands" (Fig 15) and presumably was chosen due to its geographical proximity to Chadds Ford (Fig 16). From this location, it is just 3.9 miles to the mill where Andrew and Betsy Wyeth had moved to in 1961 and 5.6 miles to where the Wyeths and Dr Handy had lived and where Andrew Wyeth maintained his painting studio. Ironically, Dr Handy passed away the same year (1977) that Dr Taussig moved to the area. But it is a certainty that



Figure 12. *Portrait of Helen B. Taussig MD* (1963, Jamie Wyeth, Oil on canvas, 62.8 × 40 cm, Johns Hopkins University). The painting was unveiled in a ceremony at Johns Hopkins University in May of 1964. Friends and colleagues of Dr. Taussig were shocked by the painting. Jamie Wyeth, for his part, stated that he felt that he had accurately captured the essence of the subject. "It is not a Betty Crocker portrait", he admitted later in life. (Reproduced with permission from the Alan Chesney Medical Archives, Johns Hopkins University).



Figure 13. Photograph of Dr. Helen Taussig in 1975 by photographer Yousuf Karsh. This is one of the most famous images of Dr. Taussig showing her holding an infant and listening to the child's heart with a stethoscope. There is a subtle irony in this image, as Dr. Taussig was nearly deaf and so compared to other pediatric cardiologists would have found the stethoscope less useful.

the selection of this site to retire was based on the numerous trips that she had made to this area and the familiarity that she had acquired of the region.

Dr Taussig developed an interest in ornithology, perhaps something else that she had picked up from her former chief Dr Ned Park. The local countryside lent itself well to this pursuit, being largely rural and undeveloped. It is probably also true that her personality lent itself well to ornithology. Dr Taussig focused her attention of the development of the avian heart. Two of her final manuscripts were on avian heart development, citing Johns Hopkins and the University of Delaware as her working addresses.^{21,22} Her last publication (published posthumously in 1988) was titled "Evolutionary origin of cardiac malformations" and speculated on whether genetic defects could play a causative role in these malformations.

In 1980, Dr Taussig granted an interview to then medical student Gerri Lynn Goodman from Yale University. Ms. Goodman wrote to Dr Taussig on May 28th requesting the interview but did not receive a response until the middle of July. The response from Dr Taussig stated that she was extremely busy and suggested that Ms. Goodman might try contacting her again "after August 12th". Ms. Goodman did follow-up, and arrangements were made for her to meet at Dr Taussig's summer cottage in Cotuit. After the terse response that Ms. Goodman had initially received, it is no wonder that she had some trepidation as she drove to Cape Cod. However,



Figure 14. Photograph of Vivien Thomas, Dr. Helen Taussig, and Dean Richard Ross at Johns Hopkins University, May, 1976. Vivien Thomas had just been awarded an honorary doctorate degree (Doctor of Laws) and became a member of the medical school faculty as an Instructor of Surgery. He retired in 1979 and passed away on 26 November, 1985 at the age of 75. (Reproduced with permission from the Alan Chesney Medical Archives, Johns Hopkins University).



Figure 15. Photograph of the entrance to the retirement village Crosslands, where Dr. Taussig moved to from Baltimore in 1977. She lived here until her death in 1986.



Figure 16. Map of the Kennett Square and Chadds Ford area in Pennsylvania. The Crosslands where Dr. Taussig lived was located 2.7 miles from the Pennsbury Township Building where her fatal car accident occurred. Crosslands was 3.9 miles from the Andrew and Betsy Wyeth mill where they moved to in 1961 and 5.6 miles from the Handy house and where Andrew and Betsy lived from 1940 to 1961 and where Andrew maintained his studio (Map created and illustrated by Erin Anne Mainwaring).



Figure 17. Photograph of an elder Dr. Helen Taussig. This photograph was taken on 12 January, 1986 when Dr. Taussig was 87 years old.



Figure 18. Photograph of the Pennsbury Township Building just off Route 1. On 20 May, 1986, Dr. Taussig drove here with a friend of hers to vote in the Pennsylvania primary election.

her recounting of the day's events (summarised in her Yale MD thesis) described Dr Taussig as very warm and personable.²³ Dr Taussig made sandwiches for lunch, she talked about her career and the many challenges that she had encountered, they took a swim in the ocean, and before Ms. Goodman left, Dr Taussig baked cookies to send her home with. These anecdotes are indicative that

Dr Taussig could be quite charming and hospitable when in the role of senior (in this case grandmotherly) to a much more junior person. Ms. Goodman graduated from Yale medical school in 1983 and subsequently has been a practicing ophthalmologist.

Dr Taussig appears to have made numerous trips back-andforth to Johns Hopkins University following her retirement in



Figure 19. Modern day photograph of the intersection of the Pennsbury Township Building drive and Route 1. On 20 May, 1986, Dr. Taussig attempted to cross the two northbound lanes of traffic and take a left to merge onto south Route 1. However, she failed to notice a car travelling in the north-bound lanes. Her car was struck on the driver's side at high speed and was pushed into the ravine on the opposite side of the road. The intersection has been substantially redesigned, with the addition of a red light, perhaps due to the occurrence of this and other fatal accidents.

Pennsylvania. On 8 December, 1983, she attended a ceremony at Johns Hopkins University where the cardiac clinic was rededicated as the "Helen B. Taussig Children's Heart Center" in the new building. The heart centre continues under this name to the present day.

In 1984, Dr Taussig returned to Johns Hopkins for another dedication ceremony that was held to honour Vivien Thomas. Dr Taussig was now 86 years old. Nevertheless, she made the trip back to honour her former colleague. Also in attendance were surgeons Drs. Bruce Reitz and Bill Baumgartner, both of whom had trained under Dr Norman Shumway at Stanford University prior to moving cross country to Johns Hopkins. Dr Reitz was the Division Chief of Cardiac Surgery at Johns Hopkins and Dr Baumgartner not only was to work at Hopkins for the remainder of his career but succeeded Dr Reitz as the Chief of Cardiac Surgery and held this position for nearly 20 years. When the first author (RDM) of this paper inquired about their meeting Dr Taussig, they wrote:

I felt very fortunate to have the opportunity to meet her when she visited Johns Hopkins at the time a portrait of Vivien Thomas was presented to the Medical School, to be hung in the "Blalock Lobby" of the Blalock Building. This was probably around 1984, I would guess.

I thought it was incredibly kind and thoughtful that she would make the trip, which was not easy for her at all. She was very gracious and friendly towards us. She had a kind presence about her.

> Bruce Reitz MD 21 June, 2021

I don't have much to add to what Bruce said. I also had the pleasure to meet Dr Taussig when she came back to Hopkins to celebrate Vivien's portrait. Unfortunately, I don't have a picture from that visit.

> William Baumgartner MD 22 June, 2021

The final years

Dr Taussig spent the last several years of her life pursuing her interests – researching, writing, and communicating with her past fellows (Fig 17). She continued to split her time between her Pennsylvania residence and the Cape Cod cottage.

On 20 May, 1986, Dr Taussig and a friend of hers set off to cast their vote in the Pennsylvania primary election. Dr Taussig drove the 2.7 miles to the Pennsbury township building (Fig 18). After casting their ballots, Dr Taussig pulled out of the intersection but apparently failed to see a car travelling north on Route 1 (Fig 19). Her car was struck on the driver's side at high speed and pushed across the road into a ravine. Emergency workers arrived and rushed her to Chester County Hospital where she died an hour later.²⁴ She was four days shy of her 88th birthday. The passenger in her car did survive the accident.

Epilogue

The life of Dr Helen Taussig looked upon from a distant perspective and several generations later was one of triumphs and successes. She is credited as one of the founders of paediatric cardiology and was part of what became a paradigm shift in the care of children born with congenital heart disease.²⁵ Her life was also full of contrasting and conflicting elements. She had many disabilities and had endured many hardships along her path. However, in the end, it is likely that the adversity she faced was exactly what allowed her to achieve her remarkable accomplishments.

Following her death in 1986, the painting by Jamie Wyeth was donated back to Johns Hopkins University by Taussig's family. The fate of the painting was much debated amongst the circle of former fellows and loyalists who knew how much Taussig and her closest friends had detested the portrait. For a while, the painting remained in its package, but eventually Hopkins officials decided to hang the portrait inside the archives where it would have very limited visibility. In an article published in the New York Times,²⁶ it is stated:

It was hanging there in 2011 when Dr Taussig's last living colleague with whom she was close, Dr Charlotte Ferencz, arrived to donate some letters. Dr Ferencz, who had unveiled the portrait in 1964, was so upset at having to stare at it again in the tiny space that she wrote a final protest letter, this one to the president of the university, begging him to remove it from even this remote area.

The New York Times article continues on to state that when the Vice Dean of Faculty Affairs in the School of Medicine (Dr Janice Clements) saw the painting of Dr Taussig in 2000, she immediately was a big fan. In 2009, coincident with her own daughter starting medical school at Hopkins, Dr Clements ordered a copy of the painting to be hung in the student lounge as an inspiration to those just beginning their careers. The antithetical views of Drs. Ferencz and Clements could not be more profound and are perhaps a 21st century metaphor for the life of Dr Helen Taussig.

Andrew Wyeth passed away in 2009 at the age of 91. Five years later (2014), a comprehensive retrospective on the work of Jamie Wyeth was assembled at the Museum of Fine Arts in Boston.²⁷ This show analysed more than five decades of work by the painter, and for the first time, the painting of Dr Helen Taussig was exhibited in public. The curator of the show, Eliot Bostwick Davis, contacted Johns Hopkins University and requested permission to include the painting of Dr Taussig in the exhibit. By then, Dr Taussig had been dead for 28 years and much of the angst regarding the painting had quieted down. Even Dr Ferencz had by now given up the fight (Dr Ferencz passed away in 2016). The voices who knew Dr Taussig and shared in her strong dislike of the painting were replaced by voices of people who were two generations younger and viewed Taussig as the prototype for the ascendancy of females in medicine.

Officials at Johns Hopkins approved the request to exhibit the painting – first in Boston, then at the Brandywine Museum in Chadds Ford, PA in 2015, and then on to numerous other venues. It is estimated that several million people had the opportunity to see this painting while it was on tour.

In summary, Dr Helen Taussig was one of the most famous paediatricians of the 20th century and is considered a founding figure for the specialty of paediatric cardiology. Andrew Wyeth is considered one of the most famous American artists of the 20th century. At first pass, it would seem that these two individuals would have nothing in common. However, as the authors of this paper discovered, there was a surprising and hidden connection between the two. This connection explains why friends of Dr Taussig approached Andrew Wyeth to paint her retirement portrait. Andrew Wyeth was to pass this commission on to his son

Jamie, who (by definition) was of a different generation. The resulting portrait was highly controversial, as it depicted Dr Taussig with a striking realism (and perhaps some irreverence), but completely missed the mark regarding the intent of the portrait. The portrait was so detested by the friends of Dr Taussig that it was hidden away in an attic for the next several decades. After Dr Taussig passed away, the painting was returned to Johns Hopkins University and people who did not know her (or perhaps even know her views) took charge of the painting. The decision to allow the painting to be exhibited is yet another controversial aspect of the painting - this clearly would not have been the wish of Dr Taussig or her friends. However, the subject of the painting was long gone and so it is hard to make a case that anyone could be harmed by touring the painting. The exhibition of the painting allowed millions of people to see this powerful painting done by the then 17-year-old Jamie Wyeth. It is quite likely that very few of the patrons had any idea who Dr Helen Taussig was and thus would have viewed the portrait on its artistic merit alone. In the end, the exhibition of the painting is justified, as it is the power of the painting (and the controversy behind it) that have people talking and researching to this day.

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