

The Making Of Winlaton

The history of Winlaton village, if viewed simply in relative terms to the history of England as a whole, would probably be summarised in a fairly concise timeline. However, a village's history is enlivened by the actions, whether performed for altruistic or selfish reasons, of notable individuals or characters, which were recorded by their contemporaries or simply became part of the folklore of that village. The original intent of the following essay was to give the reader an insight into the history of our village but the aspirations and achievements of one man had such an impact on the village and its surrounding area that it is probably more accurate to describe this article as being a brief review of the life of Sir Ambrose Crowley and his association with Winlaton. It would be impossible, to expound on the history of Winlaton without giving due regard to the history of this remarkable industrialist, politician, and social benefactor.

Acknowledgements & disclaimer: - information has been 'gleaned' from various sources e.g. M W Flinn's book "Men of Iron", local historian T. R. Hodgson's booklets, R. Anderson's "Winlaton Story", Marie B Rowlands "Masters and Men in West Midlands Metalware Trades and the many informative web sites dealing with the history of our locality.

It is not intended that the following essay should be an authoritative or comprehensive work, it is simply a re-telling of more informed people's works.

Originally intended to be posted on our local history website in order that visitors to the site may gain an understanding of Winlaton and its remarkable industrial history, it has simply become a subject for my personal interest.

The author apologises for any errors which may be found therein.

WINLATON – Early history

The earliest mention of the village of Winlaton occurs in a document referring to a charter (which was found to be a forgery but later sources show the information contained therein to be correct) originating sometime in the year 1086:-

***'William de St. Calais, bishop of Durham, entered into an agreement with one Meldred, to give the monks of Durham the village of Newton Ketton (Catton) in exchange for the village of Wynlactona.'* (Winlaton).**

For information purposes –

William de St. Calais was appointed bishop of Durham by

William I and it was Wm. de St. Calais who commissioned the demolition of the Anglo- Saxon cathedral at Durham and began the construction of the present cathedral.

Meldred or Maldred of Winlanton (as Winlaton was then known) born 1045 in Dunbar, was the son of Maldred MacCrinan , Lord of Carlisle & Allerdale, brother of Duncan I King of the Scots. Maldred MacCrinan was slain in battle in 1045 alongside his father Crinan "the Thane" when fighting Macbeth who had killed Duncan in 1040.

Maldred MacCrinan was married to Ealdgyth (Edith) daughter of Uchtred (Uhtred), Earl of Northumberland, granddaughter of Aethelred II the Redeless (Unready) King of the English.

(Incidentally there exists a lineage table (wishful or not) linking Crinan "the Thane" as a direct ancestor of George Washington first President of the U.S.A.)

Our ***Maldred of Winlanton***, as mentioned in the charter, married his first wife (unknown) and they had a son, Uchtred (Uhtred) FitzMaldred, born circa 1080 in Raby Castle, Durham. He married his second wife Athelreda of England and they had other children. Maldred died circa. 1084 in the Manor of Winlaton which is the year that the above transaction was said to have taken place.

The descendants of Maldred would eventually marry into the Neville family who would inherit “**The Manor of Winlaton**” and hold the title for approximately 400 years. They eventually sold the Manor in 1569 in order to raise funds for the “Northern Rebellion” against Elizabeth I. This was an unsuccessful attempt by the northern catholic Earls to depose Elizabeth in favour of Mary, Queen of Scots, and to return the realm to the catholic faith.

For information purposes –

The Manor of Winlaton was much more than just the village of Winlaton. Its boundaries extended from the River Tyne following the course of Blaydon Burn up through High Spen then down through the Beda hills to Lintzford where it would then follow the path of the river Derwent down to the river Tyne. In later years it would be divided into East and West Winlaton to make it more manageable.*

Author’s note -

**How old is the name Beda Hills? Certainly, the name Beda is still in use in Denmark. So, although conjecture on the part of the author, is it possible that an early Anglo-Saxon settler of this name owned these woodlands (or perhaps named them for his wife, as it can also be used as a girl’s name) before the land came into the ownership of the Bishopric of Durham?*

According to the Anglo-Saxon Chronicle, Bēda [which is the Anglian spelling] is the purported name of one of the Saxon founders of Portsmouth in AD 501))

Also, The Venerable Bede, who was born in the 7th century, was referred to as Bēda.

Although no archaeological evidence has been found, it is possible that a settlement may have been on the site of Winlaton since the earliest incursions of the Angles and Saxons, following the ‘migration’ from their homelands in the Jutland peninsular beginning in the 5th century. (After the Romans left Britain (circa 420 AD) and the then Emperor Honorius told the Britons “ to look to their own defences”. They did so by engaging the Anglo-Saxons as mercenaries to fight the invading Picts and Scots. Unfortunately the ‘hired help’ found Britain to be a very desirable land and after a series of battles, over many decades, ultimately defeated the Britons and settled the land and thus gave our country its name “Angleland”.

(It is interesting to note that the only surviving place name in the Winlaton area known to be of British (Celtic) origin is that of the river Derwent i.e. river with oak trees)

There have been a number of suggestions as to how the name ‘Wynlactona’ came into being, but all agree it is believed to have been of Anglo-Saxon origin

From the Saxon ‘*Winel-ac*’ (a twisted oak) + ‘*tona*’ (an enclosed space or hamlet/farm) - therefore ‘The hamlet of/near the twisted Oak’ (History of Blaydon 1975)

‘*Whin*’ (a shrub common to the area + ‘*Law*’...Saxon “Hleaw” meaning rising ground/hill + ‘*Ton*’ hamlet/farm - therefore ‘The hamlet of the Whinney Hill’ (W Bourn ‘History of Ryton Parish – 1896)

N.B. the area still referred to by local people as “The Windy Fields”, is shown on old maps as being “Whinney Common” and in Winlaton there is a street named Whinney Close.

‘*Wynln*’ (a female slave) + ‘*Loc*’ (a place shut in, cloister/prison + ‘*Ton*’ a hamlet/farm - therefore ‘The hamlet of the female slaves’

(From a book, located in Durham Cathedral library, on the meaning of Anglo-Saxon place names by J R Boyle)

Wynelacton (a farm belonging to Winelac) - presumed to have been an Anglo-Saxon farmer.

*[The above information has been taken from Mr T. R. Hodgson's informative book entitled **"Meldred – First Lord of Winlaton his Ancestors, Family & Descendants" which is a reference only book, a copy can be found in the local libraries.]*

Whilst the village was first mentioned circa 1086 (the next report being in the Boldon Book of 1183 which was commissioned by Hugh de Pudsey who was a "Prince Bishop" of Durham) a settlement may have existed on the present site of the village since the earliest incursions of the Angles and Saxons into Northern England i.e. any time from the late 5th century.

At that time the main occupations of the villagers of Winlaton would have been farming and husbandry but the following centuries saw coal mining becoming a prominent industry.

The Pipe Rolls (or Great Rolls) of 1367 show that the Sheriff of Northumberland, acting on behalf of the king, purchased 600 tons of coal from the Manor of Winlaton (at a cost of £47-19s-8d) to enable substantial alterations to be carried out at Windsor Castle. (Coal being used to 'burn off the lime' in the mortar making process)

Records also mention that the Fullay and Marley pits were in operation in Winlaton in 1425 and by 1581 a colliery, consisting of four shafts, was producing 20,000 tons a year. Of these four shafts – at least one was noted as being situated in Land/Lambs wood, another (possibly more) were located on, what is now known locally, as the 'Windy Fields'.

As with lots of villages in Co. Durham, coal production remained a mainstay of the economy of the village of Winlaton until well into the 20th century.

But from 1691 the burgeoning coal mining industry in and around Winlaton, was to be complimented by the establishment of a very remarkable ironworking industry.

This was the creation of Sir Ambrose Crowley, a seventeenth century entrepreneur, who changed Winlaton from being a small village to a thriving industrial community in a very short space of time. In essence the history of Winlaton is irrevocably linked with the history of this remarkable man, who by the first quarter of the 18th century had created a business enterprise, which was later to be described as being the largest integrated industrial production facility in Britain, indeed, possibly Europe. As the owner of this enormous company, that would grow to have premises in London, Stourbridge and Co. Durham, he was responsible for the overall management and organisation of a wide variety of trades and logistical facilities. He leased coal mines, coastal vessels (the company eventually owning four ships outright) and maintained a farm in Winlaton to provide for draught animals, while employing clerks, coopers, carters, farmers, seamen, warehouse men, Thames watermen, blacksmiths and other ironworkers.

Joseph Cowen, the eminent local politician and businessman, in a speech made in 1883 succinctly made reference to how Winlaton and its immediate surrounding area were in the vanguard of industrialisation – "When many busy centres of industry were moorland and forest, Winlaton was a seat of vigorous industry".)

When Ambrose Crowley first arrived in Winlaton in 1690, he proceeded to set up his "Factory" (which was in fact three separate production units which he called "Squares" consisting of individual "cottage forges") in which blacksmiths were employed to produce vast quantities of handmade nails to meet the orders of the Admiralty. Remarkably, there were over 100 types/sizes of nails the blacksmiths and their labourers could be required to make to specific orders.

Within 15yrs he had 'industrialised' his production methods by building rolling mills and slitting mills, which utilised the power of the river Derwent, at Winlaton Mill. Eventually he also established large production facilities at Swalwell where, amongst other things, they manufactured anchors that became renowned for their reliability.

But it is Winlaton village that holds the distinction of being the ‘foundation stone’ of Ambrose Crowley’s commercial enterprise - one that would grow to become the largest Ironworks in the country. In 1690 he made Winlaton his administrative headquarters and its workshops began the production of handmade nails (along with many other blacksmith wares) which would endure for 125 years.

Historically the nail-making industry was literally a ‘cottage industry’ where numerous families, including the children, had to endure life-long squalor and hardship producing nails in the ‘hovels’ that constituted their home. Nail making was the main source of income for thousands of the ‘Poor’ who were at the mercy of the metal suppliers and middlemen who sold them the raw materials, set extremely demanding production schedules, and then bought back the finished product at disadvantageous pre-set prices.

(The writer Francis Brett Young described the ‘Nailors’ of the Midlands *“as more like machines than human beings – the minute they ceased working they ate what they could then flung themselves down on their beds which they shared where they slept. When they woke, they ate greedily again and worked until their eyes and muscles failed. Hunger was taken as a matter of course.”*

“Grim and sweaty industry. A life of unending labour and brutal savagery”)

When Crowley planned his move to Winlaton, *he purposely made radical changes* to the then accepted method of nail production, as well as the social conditions of his employees. He sourced and bought the raw materials and free issued these to his workforce who would convert it into nails etc. that were produced at a fair and reasonable wage that was paid weekly (a not inconsiderable benefit at that time).

His employees would not suffer the levels of degradation, at a social and employment level, as those suffered by the ‘Nailors’ of the Midlands.

However, he is probably more remembered for establishing codes of conduct (*The Law Book of the Crowley Ironworks*), by which his employees had to agree to abide, as well as establishing what was probably the earliest form of superannuation scheme,

His welfare benefits included medical attendance for the sick, pensions for retirees as well as providing for the dead. In the in the early 1700s he had established a school in Winlaton village, and paid for the services of a teacher for his employees’ children, which was truly a remarkable act at that time. This was acknowledged by the fact that in those early days Winlaton was referred to in the locality as “Knowledge Hill” and indeed there still exists a street of that name located nearby where the school was situated.

His social welfare was, however, provided on the basis that his employees subjected themselves, and indeed their families, to his rigorous, authoritarian paternalism which governed both their working and social lives. It is somewhat paradoxical that his workers, renowned for being hardy, strong characters who, in later years, would be willing to challenge authority (even in the form of the local militia) would accept such stringent conditions but they seemingly did so without any recorded complaints.

His blacksmiths were offered steady employment with comparatively well-paid wages, as well as being provided with a workshop with house attached and a small garden. With such benefits on offer they would as likely as not have been grateful to have been taken onto Crowley’s payroll. Indeed they were fortunate because the Crowleys, (both Ambrose & his son John), held the strong belief that as employers they had social obligations to create working conditions for their employees in which they would be *“ quiet and easy amongst themselves and happy flourishing people amongst their neighbours”* (*M W Flinn’s edition of the Law Book – extract from Law 49*)

However, to give an insight into the life and the character of Sir Ambrose, it may be beneficial to give a brief introduction to his father, also called Ambrose, (as was his grandfather) who was also a very remarkable man.



Ambrose Crowley II 1635 – 1720

The elder Ambrose was a self-made, successful businessman, who rose from being a “domestic nailor” [sic] (like his father before him) to “blacksmith” and then to being described as an “ironmonger”.

(An Ironmonger in the seventeenth century was someone who was concerned with the wholesale trade in ironware, rather than a retailer.)

In spite of him being unable to write (all surviving documents are signed with a cross), by the 1670’s the elder Ambrose had created a thriving ironmongery business in the West Midlands at Stourbridge, near Birmingham. He was therefore actively involved with the buying of the raw materials of iron and steel from various processors, then selling them on to slitters, blacksmiths and nail-makers etc.

Records show that between 1680 and 1700 his business interests had extended into manufacturing, as he had purchased the leases on two iron forges and was processing ‘pig iron’ (a brittle form of iron in ingot form). The end product, ‘bar iron’ (wrought or ductile iron) was then put out to local slitters, who would heat and re-roll the bar (by using water powered rollers) into plate, which was then slit (using water powered slitting machines) into flat rod iron for nail-making.

He was also actively interested in steel making and was noted as being an ‘experimenter’ ** in steel manufacture (at that time, an expensive and time-consuming process) and he had a part interest in a steel making furnace in South Wales with John Hanbury (inventor of the rolling process used in the production of Tinsplate).

(n.b. It could be said that Ambrose Crowley senior, along with Andrew Yarranton, an engineer, were involved in an early case of industrial espionage, as in 1667 they were commissioned by a group of local Ironmasters to travel to Dresden to find out their methods of producing tinsplate.

They were successful and in time John Hanbury had improved on the methods used in Dresden and was producing better quality tinsplate at his mill in Pontypool.)

It is natural to assume that young Ambrose, even before his apprenticeship with a London Ironmonger, would have acquired, at first hand, a substantial knowledge of the whole process of iron & steel manufacturing and the ironmongery trade, as well as having been taught the skills of the blacksmith trade, by his accomplished father Ambrose.

In fact, in later years, correspondence between father and son show that the elder Ambrose was offering advice and recommendations to his son even after the Winlaton Mill works had been set up. viz ***“I have some firestone come out of Wales... I would have thee send it to Winlaton to be tried with some of thy firestone”***

(This is thought to be because the younger Ambrose experienced teething problems with the furnaces he set up at Winlaton Mill due to the melting of the firebricks in the inner lining.)

After his second marriage, the elder Crowley had become a firm adherent of the nascent ‘Quaker’ (Society of Friends) religion and lived by this movement’s principles of honesty and personal integrity in all dealings with their fellow men. He was described as being a ‘pillar of the Quaker community’ and proved to be a generous benefactor,*** so much so that young Ambrose, in his father’s later life, had difficulty controlling his elderly, and forgetful, father’s largesse. It is therefore no surprise that his eldest son, whom he would outlive by seven years, would have been imbibed with his father’s set of high standards of service to others and this was evident in his probity during the course of all his business affairs.

** *For information –*

the Quakers were persecuted for their beliefs by the establishment, many suffering imprisonment and, because, of their faith were excluded from ecclesiastical, civil and military employments. A remarkable number of Quaker families of that period were to invest in “alternative enterprises” such as the burgeoning iron industry and were actively engaged in the new technology of metallurgy.

*** *For information –*

On 8th Oct 1689 Ambrose Crowley senior leased land in Stourbridge to ‘The Friends’ for a peppercorn rent on a 313 year lease to enable that “buildings may be set apart for public worship”. This building still stands today and is used as the Quaker Meeting House. Exactly 300 years later, the Reverend Brian Crowley, a descendant of Ambrose, planted a tree in the garden, and was presented with 300 peppercorns for the (probably) outstanding rent.

As an interesting foot note –

Ambrose Crowley’s daughters, Sarah and Mary (half-sisters of Sir Ambrose), following the (then) Quaker tradition of endogamy (marrying one’s own kind) married brothers Charles & Sampson Lloyd, sons of a land owning Quaker family from Montgomeryshire.

The eldest son, Charles Lloyd, was drawn into the iron business, probably with the elder Ambrose Crowley’s encouragement, and this proved successful for him but not in later years for his son.

The younger brother, Sampson Lloyd I, sold his farm lands and became a modestly successful wholesaler of bar iron in Birmingham but his son, Sampson Lloyd II, would grow the business to incorporate slitting mills, forges and furnaces (and had business dealings with the younger Ambrose)

It was his son, Sampson Lloyd III, who with his business partner John Taylor, was responsible for establishing the Taylor & Lloyd Bank in Birmingham.

As this bank would evolve into The Lloyds Bank we know today, I think it is fair to say that the Crowley’s influence had a link, albeit tenuous, with the establishment of an enduring financial institution.



Sir Ambrose Crowley III 1657/8 – 1713

The young Ambrose Crowley was born in 1658, the only child to his mother, Mary (nee Hall), who died shortly after his birth. His father eventually married again to Sarah Morris, who produced 13 children between 1669 and 1690. Though not all survived infancy, Ambrose still had many younger half brothers and sisters.

At the age of fifteen, Ambrose was indentured to a London ironmonger, Clement Plumstead (who was a member of the Guild of Drapers,** one of the original Livery Companies of the City of London) where, according to Crowley himself, he served his apprenticeship “with exemplary diligence” ... ‘I never asked for one holiday all my time of apprenticeship except when my father was in town . . . My diligence in my apprenticeship raised me several friends who were always ready to assist me in everything that was needful.’

**** *The Freedom of the City of London***

The Livery Companies of the City of London originate from the medieval trade guilds which were established to regulate particular crafts. Guilds supervised the training of apprentices, controlled standards of craftsmanship, and protected craftsmen from unfair competition. They also provided financial support to their members in old age and in time of poverty and bereavement. Up until the nineteenth century, Freedom of the City of London (or Citizenship) and the right to exercise one’s trade there could only be obtained through membership of a Livery Company. (As show on the Records of London’s Livery Companies Online)

N.B. An apprentice could follow a trade other than a Draper and the underlined section would explain the necessity for young Ambrose to apply for a apprenticeship into The Guild of Drapers as this very ambitious young man would certainly have planned to set up a business in London.

Ambrose completed his apprenticeship and by 1682 and had set up as an ironmonger in Carey Lane, London. His business must have thrived because the following year he married Mary Owen of Shropshire who was to bear him 11 children, one son John and five daughters and five who died in infancy. In 1685 he moved the business to premises in Thames Street, which was the business centre for the London ironmongers, and in 1704 he purchased an imposing house in Greenwich, where he also built a wharf and a large warehouse, which became the headquarters of his business.



Crowley’s wharf & warehouse at Greenwich ... to the west can be seen Greenwich Hospital

Images from the ‘National Maritime Museum, Greenwich, London’ dated 1825 Reference PAH0113

Surprisingly by that time he had already built a factory in Sunderland to produce nails and iron goods. (The author M W Flinn states that the factory was built in 1682 and this is given substance by remarks that when the building was demolished in 1918, it was noted that the date 1682 was carved on a stone above the door)

For Crowley to take such an audacious step in building his factory outside the Midlands, where the necessary supplies and skills had traditionally been centred, was seen as being a rash business move by his contemporaries but he had already fallen out with his Midland suppliers who supplied him with nails.

In 1685 he sent a letter to his father in Stourbridge instructing him to have its content read out to the Midland merchants. It is evident from the content of this letter, he had indeed quarrelled with the merchants and that he had determined to make his own nails in Sunderland.

The letter stated his reasons as being lower costs for ‘*vitalls*’ (i.e. food etc.) and accommodation for his “*implanted*” workers, and ready supplies of good quality coal as reasons for his venture. He explained that, by locating his factory on the north east coast, this would allow him direct access by sea to the principle outlets of the nail industry. These were located on the east and south coasts, between Sunderland and Exeter, whilst the large naval dockyards were all located on the Thames or the south coast.

(Author’s comment - It is worthy of mention that young Crowley would forsake the Quaker religion and become an Anglican ... perhaps a wise business decision as the Quaker religion, being pacifistic, did not allow ‘The Friends’ to supply contracts to the armed forces.)

The letter also pointed out the commercial advantages the move to Sunderland would provide him – one being lower costs of bar iron (the raw material in the nail making process) that he could source at cheaper cost from European suppliers and which would then be delivered to Sunderland on ships returning after delivering their cargoes of coal to Rotterdam and Dortmund. Returning empty vessels would normally use stone as ballast and subsequently incur costs for unloading at Sunderland, so the use of bar iron as ballast would have cost him much lower shipping costs compared to road transport costs.

Crowley actually had the temerity to warn the Midland merchants not to act against his interests i.e. by preventing workmen from re-locating to Sunderland.

His Sunderland factory was successful and by 1688 he was employing over 100 workers including skilled workers who were brought from London and Europe.

In his letter of 1685 to the Midland merchants Crowley indicated that he would be adding a forge and building his own slitting-mill at Sunderland. The fact that he had brought in workers from Liege (from where the slitting-mill had previously been introduced into England in 1590) would lend substance of his intention, but there is no evidence that these were ever constructed in Sunderland.

There continued to be a huge demand for nails by the Admiralty, in particular the ‘sheathing nail’, to meet the needs of all of their naval yards and in her book, “Masters and Men: In the West Midland’s Metalware Trades”, Marie B Rowlands suggests that “*Crowley may have taken steps to corner the supply of sheathing nails by entering into a contract with R Foley of Stourbridge (who owned a ‘nail factory’) to buy the total output of this particular nail; it being vital to his securing contracts with the Admiralty.*” The Crowley/Foley contract is known to have lasted until at least 1690 and would have been an annoying concern to the other Midlands merchants who would have been doing everything in their power to maintain their lucrative contracts with the Admiralty.

For information purposes

the sheathing nail was used to attach sheets of thin wood to the hulls of sailing ships as protection against shipworm and marine growth. This was a much cheaper alternate method to the more costly use of copper sheet. n.b. incidentally the use of copper sheet had given rise to the term “being copper bottomed” i.e. something being reliable, guaranteed.

Whilst the factory at Sunderland seemed to be successful, Crowley, for unknown reasons, decided to close the business and move everything, including workmen, to Winlaton. What decided him to move from a riverside location, that had direct access to the sea, to a small hilltop village, which by that very fact would incur logistic problems, has not been recorded. It has been surmised that the factory's location in Low Street Sunderland, did not allow for any expansion and, at that time, there existed a ban on the cutting down of trees within three miles of the coast.

This would have impeded the supply of charcoal, an essential ingredient in the production of steel and Crowley may have considered this to be a drawback in his long term plans to incorporate steel making within his business schemes.

However, it is recorded that the skilled foreign workers, brought in from Leige, who would have been Catholics and ***“have taught the English workmen there to work better and swifter than formerly, and to make such nails as used in Holland for Sheathing of Shippes”*** (M W Flinn – *Men of Iron*) were being harassed by some of the locals and in 1688 Crowley had petitioned the king ***“that his workmen may not be molested on account of their religion or otherwise.”***

King James II granted the request and ordered the Bishop of Durham to give protection to Crowley's workmen.

Whether or not the bishop took any action is not known but by 1690/1 Crowley had bought leases on land and houses in Winlaton village, as well as a corn mill and fulling mill at Huntlayshaugh ** beside the fast-flowing Derwent River and he closed his factory in Sunderland and moved his men and tooling etc. to Winlaton.

****For information:-**

William Bourn, in his history of the Parish of Ryton, said Winlaton Mill was known as Huntlayshaugh before the advent of Crowley.)

A letter from Crowley, written in Winlaton in 1702, to Sir William Bowes (who inherited the Gibside estate through his marriage to Elizabeth Blakiston in 1693/4) could be thought to imply that Bowes had provided the finance for Crowley's Winlaton developments and possibly provides a reason for his move to Winlaton:-

“the greatest of my grief is that I am not in London to show how sensible I am of the great favour I have had from you even to the enabling of me to establish the iron manufactory in this country which be to your immortal glory”.

However, it could also have been that he was in fact thanking Sir William for using his influence, being the Member of Parliament for Co Durham, in helping Crowley to make the right contacts so that he could purchase the necessary properties.

His new hilltop location, became so successful that at its peak it that was employing over 1000 men in Winlaton and the surrounding areas of Winlaton Mill and Swalwell.

Crowley was an exceptional man; he was very assertive, and had such self-belief that he never had the need, nor indeed trusted, any one person to manage his company.

‘The Factory’ was overseen by a works Council (appointed by Crowley) who by means of various Committees (again appointed by Crowley) carried out his meticulous written instructions, which were issued on a weekly basis from London. Any perceived failings on anyone's part, regardless of rank would be sternly rebuked through the exchange of the weekly letters.

However this method of governance by committee did not mean that Crowley favoured industrial democracy as it is M W Flinn's opinion, in his book "The Law Book of the Crowley Ironworks" that ***"Crowley adopted the 'committee' system mainly because he thought that this way dishonesty and neglect would be reduced to a minimum"***

An important aspect of Crowley's management of his northern enterprise was, by Crowley's decree, the formation of 'The Court of Arbitrators' where welfare matters and infringements against his 'Laws' would be judged & punishments issued, strictly in accordance with those devised by Crowley himself and were included in his Law book. The composition of The Court included worker's representatives, elected under procedures laid down by Crowley would meet on a weekly basis. The Court was held in Winlaton Hall which would be referred to by the locals as "Crowley's Castle" and in the final years after the Crowley family had sold the business, it was also known as "Belt's Castle" the latter being Anthony Belt, an agent of the company for 54 years, who faithfully recorded the minutes of the meetings, which after a continuous period of over 100 years, were then being held once every ten weeks and when, by then, he was the only attendee.

Crowley (and later his son John) literally organised every aspect of production and laid down every one of the conditions contained in the Law Book. This was achieved without him ever actually being based in the North East. He did make visits to Tyneside (in 1712 he leased Old Axwell Hall, in the parish of Whickham from Sir John Clavering) and his family would reside there when they visited the north east.

At the inception of Crowley's business interests in the village, Winlaton Hall (estimated by some to have been built by the Neville family during the 13th century when they were Lords of the Manor of Winlaton) was owned by the Hodgson family but they sold it to Lord Widdrington in 1698 and he then let it to Crowley. It became the northern administrative headquarters for the Crowley organisation but according to D Cranston's "Industrial Archaeology Review : 2011 - ***"By 1711 the governance of the company had moved to Swalwell"***.

The Hall, which would be used as a residence by the Crowley family during their visits north i.e. until they vacated it in 1753, also housed the offices and a warehouse but this was simply a central stocking point to which the blacksmiths would send their finished articles for "reckoning" (payment) before they were eventually shipped to the Thames-side warehouses.

It is believed that another warehouse ****** (site not recorded) was built in Winlaton at the inception of the business to hold stocks of bar iron, under the control of "the Iron Keeper", from which the blacksmiths would each week draw the required amount of materials to meet the orders allotted to them by the offices.

The Hall was eventually demolished c. 1935 and, even then, was known as 'Crowley's Castle'.

**** Author's comment –**

In Winlaton village there exists a small street, consisting of a few terraced houses, named Store Street. This is in close proximity to Commercial Street, and nearby used to be one of the three blacksmith's 'Squares' Crowley first established in Winlaton i.e. Commercial Square.

It is the author's supposition that Crowley's warehouse in Winlaton, used for the stocking of raw materials, may have been located near to Commercial Square and, in all probability, being then simply referred to as "the Store", would in later years be demolished to make way for housing. But the name Store Street may have been retained because of the memories of Crowley's warehouse.

An example of Ambrose Crowley's 'paternal welfare benefits' is that in 1703 he licensed Winlaton Hall as a place of religious worship so that his workmen & their families did not need to travel to the then nearest church in Ryton (other than for marriages, christenings and burials).

In April 1705 a subscription was commenced for the building of a chapel (capable of seating 300 people) thought to have been on the ancient site of St Anne's chapel which, according to local legend, was burnt down in 1569 as a reprisal against the rebellion, led by the northern Catholic lords, against Elizabeth I,

After the 'Glorious Revolution' of 1688, which saw William of Orange & his wife Mary II ascend the throne after James II was deposed, England seemed to be at constant war with the Catholic countries of Europe for the next 100 years. The Crowley Company, which was to become the Admiralty's biggest supplier of nails, chains, anchors and miscellaneous ironware, therefore had constant orders for most of that period.

All of the ironware was manufactured in individual blacksmiths' workshops, the majority of which were laid out in the form of an open 'Square'. Each 'Square' consisted of individual workshops, with living quarters attached, plus a small garden for each blacksmith. Across the entrance to the "Square" would have been a large wooden gate for works traffic and a little wicket gate for pedestrians. This gave full control to The Warden of the Square as to all materials moving in and out and he had the responsibility of locking the gates at night as a precaution against unauthorised removal of materials. The blacksmiths and their families worked and lived in these 'Squares' and had to agree to abide by Crowley's code of conduct which included a curfew from 9pm until 5am the following morning.

There were three such 'Squares' in the village of Winlaton - Hood Square, Hanover Square and Commercial Square and it was mainly in these units where prodigious quantities of high quality hand-made nails, along with small ironmongery items and chains were made. In times of high demand, Crowley did allow for the sub-contracting of orders to individual blacksmith shops in the surrounding areas, but only if that blacksmith had demonstrated a high degree of integrity and strict quality control checks were conducted on the finished goods.

The land & buildings in Winlaton village, on which Crowley had taken out a 99yr lease in 1690, would have permitted Crowley to commence the production of handmade nails relatively quickly, (his Law Book describes the payment arrangements that were made to local house owners in order to encourage them to take in his workmen as boarders – their rents were paid weekly by the company and then their wages would be docked accordingly, thus ensuring the landlord's rents were always paid on time.)

However, the setting up of the "iron manufactory" (sic) at Hunstlayhaugh, which was always referred as to as the Mill or Mill No. 1 in his correspondence and "Law Book", would take much more intricate planning, involving as it did the damming of the river Derwent, and the building of sluices to utilize the power of the fast-flowing waters of the river. (Interestingly, the slitting mill was mainly fabricated in London and shipped, in pieces, by sea to Winlaton Mill where it was then reassembled.)

Crowley's talents were such that he alone was responsible for the design of the river dams, sluices and waterwheels. He also drew up the plans for the subsequent layout of rolling and slitting mills, forge and cementation furnaces.

He also gave precise instructions for the building of two 'squares' arrange in the same manner as the squares built at Winlaton village. He instructed that the windows should be small and placed high up so that the workers could not look out and be distracted from their labours.

Within the space of a few years, the steel cementation furnaces and water wheels, were fully operational and it has been reported that one of the forge hammers was reputed to have been capable of beating iron at the rate of approximately 560 strokes per minute – such was the power supplied by the water wheels.

The ‘Squares’ (named Old Square and New Square) also produced miscellaneous iron-ware e.g. at one time fourteen workshops alone at Winlaton Mill were making files, however it should be said that this was at a time when Naval orders for anchors and chains were low.

In 1707 Crowley continued to expand his business when he bought out a competitor**, Edward Harrison, who in partnership with Wm. Bayliss and John Wood, had set up a slitting mill and ironworks at Swalwell in 1702/3. Crowley rebuilt and expanded on this site so that over time it would extend to cover an area of four acres and employ hundreds of men. Eventually (i.e. the early 19th century) the Swalwell works superseded Winlaton as the control centre of the company.

**** For information:-**

Harrison has been described as a “competitor” of Crowley however he was already acting as Crowley’s Newcastle shipping agent, while John Wood, owner of a slitting mill at Masbrough, had links with Crowley through his connections with Dennis Hayford a Yorkshire Ironmaster.

In fact, Harrison sold the leases and tools of the Swalwell works not to Ambrose Crowley but to Sir Gregory Page of Greenwich, a wealthy merchant who also had close connections with Crowley.

There is no known record of the transfer of title to Sir Ambrose but by 1710 he clearly did control the works. One assumption is that Harrison & partners perhaps ran into financial difficulties and Crowley may not have had the capital available at the appropriate time so used his association with Page to finance the deal. (David Cranstone - “From Slitting Mill to Alloy Steel: The development of the Swalwell Ironworks” Industrial Archaeology Review 2011)

Or it could be that Crowley may have been an interested party from the very first but perhaps his relationship with the Clavering family, who originally owned the plots, would not permit direct involvement in the original purchase. The Clavering family and Crowley family were later to become embroiled in prolonged litigation over the leases of Swalwell Ironworks.

In the eighteenth century the Crowley works had established a formidable reputation, not only for the production of high-quality steel, but also large anchors (up to 5 tons each) and anchor chains (with links of up to 3 feet in diameter and weighing 250 lbs each). These latter products, for which the Swalwell works would later become world famous, required special techniques and the introduction of a machine known as a ‘dolly’, which helped in the chain-making process, has been attributed to one of Crowley’s workmen, Robert Lumley. (See “Men of Iron” – M. Flinn)

The expertise of Crowley and his workmen in the working of iron and steel had gained world renown and amongst the many notable people who came to visit his works was William Penn, founder of the State of Pennsylvania, who had come to England to consult the best authorities for the development of Pennsylvania. **“He obtained from Crowley directions as to working the iron of the colony.”**

(J M Swank, “Manufacturing Of Iron In All Ages”).

Indeed, Crowley’s confidence in his products was such that he warranted that if any of his anchors broke (sic) he would replace them free of charge and he supported this with a statement in his publication of 1705 that **“during the great storm of 1703 whereas anchors of other manufacturers had broken, none of his were so reported.”**

The making of anchors remained a mainstay of the business throughout its long history. Even into the mid-nineteen century, which saw the demise of the then Crowley, Millington & Co., the company was still described in the local directory as ‘anchor manufacturers’.

A warehouse had been built at Blaydon (1701) to house stocks of bar iron (some of which would have been imported from Sweden, Russia & the U.S.A) which were then distributed to the manufacturing points. The finished products from each works would be hauled by cart to Blaydon, to be shipped via keels to the 'New Quay' at Newcastle, where it would then be loaded onto ships (some belonging to Crowley) for onward shipping to his warehouses in London, for ultimate distribution to outlets around the world.

Ambrose Crowley was knighted in 1706, which would have been more of a consequence of his political activities (he was nominated and subsequently appointed Sheriff of London), rather than for the single-handed running of the largest business in the country. He had successfully contested the parliamentary seat for Andover but before he could take his seat when the new Parliament assembled, he died suddenly on 7th October 1713 aged 55yrs old. He was buried at Mitcham in Surrey where there is a monument with the following inscription:

NEAR THIS PLACE ARE DEPOSITED THE REMAINS OF SIR AMBROSE CROWLEY KNIGHT, CITIZEN AND ALDERMAN OF LONDON, WHOSE NUMEROUS FAMILY AND GREAT ESTATE WERE THE PRESENT REWARDS OF AN IDEFATIGABLE INDUSTRY AND APPLICATION TO BUSINESS, AN UNBLEMISHED PROBITY, AND A SINCERE BELIEF AND PRACTICE OF TRUE CHRISTIANITY, AND PARTICULARLY A BOUNDLESS LIBERALITY TOWARDS THE POOR, MANY HUNDREDS OF WHOM HE CONTINUALLY EMPLOYED.

A funeral poem celebrated Ambrose Crowley's unique contribution to his industry:-

*Great Crowley led,
Not followed, his proud structures all his own,
the founder of his feast himself alone.*

Sir Ambrose Crowley was a business man of the highest integrity. He was held in high esteem and trusted by all in his business dealings. This is perhaps evidenced by the acceptance of his 'Current Bills' which he introduced in 1694 (and in all probability this was the first ever cheque payment system). These Current Bills were issued by his works and were payable "*on first demand without delay*" and they became trusted and accepted by shops and businesses throughout the area.

He left his four unmarried daughters £10,000 each and to his only son John, he left his great Ironworks estimated to have been worth well over £100,000.

John Crowley 1689 - 1728

John, who like his father before him, became a member of the London Draper's Company and was granted "Freedom" status in 1713, had worked alongside his father in the business for a number of years, took over the running of the company and continued its expansion at Swalwell and he also established other peripheral sites.

Records show that in 1715, John bought some land, near the river Tyne, in Dunston and would appear to have reproduced the style of building work as used at his other manufacturing sites because the 1st edition of the Ordnance Survey map show buildings marked as "Great Square" and "Little Square". However it is not recorded what was built or produced on this site but the use of the term "Squares" would indicate manufacturing processes of some sort.

At about this time, factories were also established on the river Team (a subsidiary of the river Tyne) in old water mills, High & Low Team mills, as extensions to the factories at Winlaton Mill and Swalwell. Compared to the latter manufacturing sites, both the Team's works had a relatively small work force which was producing nails, spades, locks & general ironware. The Team's works were in use until 1860 when the Low Team works was converted for use as a paper mill and the buildings of the High Team's works were subsumed into the farm buildings of the Teams estate.

In the year John (Jack) Crowley assumed command of the business, the Treaty of Utrecht was signed thus ending the war, which had been ongoing since 1701, between the major European powers. The peace would have caused a major downturn in orders from the Admiralty, and John looked to the American colonies as they could provide a substantial market for agricultural tools—a civilian substitute for the lost military orders. The Sugar trade in the West Indies had provided a market for agricultural equipment such as hoes, axes, spades, etc., as well as the dreadful paraphernalia associated with the slave trade.

In North America, South Carolina had converted its abundant swamp areas for the cultivation of rice and this became the colony's main source of revenue. The preparation of the land and the growing of the crop was extremely labour intensive and this created a huge demand for agricultural equipment, which John Crowley was able to meet with regular shipments in his vessels, *The Crowley*, *The Ambrose*, *The Theodosia* and *The John*.

John married Theodosia Gasgcoigne in 1715 and they had six children before he died in 1728. An inventory of his factories and warehouses, made after his death, included "Barbados Hoes (8 types), "Virginia Hoes" (8 types), Carolina Hoes & Carolina Axes and included on the list were padlocks described as being for "Negro's Necks"(sic).

For information purposes:-

Regrettably the Crowley family are tainted with association to the slave trade.

The Blackheath Bugle in an article dated August 11th 2008 entitled "Blackheath and the Slave Trade" regarding Blackheath Golf Club (which is in the vicinity of Greenwich where Crowley had situated his headquarters) states - "the first official golfing club in Great Britain.... its membership was exclusively Masonic and disproportionately connected to local slave trading interests, from the plantation owner turned banker Francis Baring, to the slave trader turned Lloyds bank founder, John Julius Angerstein (founder of the National Gallery). Also members, were the Greenwich iron merchant Ambrose Crowley, who manufactured shackles and collars."

And it should be remembered that Sir Ambrose Crowley was at one point the Deputy Governor of The South Sea Company and therefore cognisant and complicit in that notorious company's contract to supply African slaves to the Spanish Colonies.

The year 1715 would appear to have been a momentous year for John Crowley, not only did he get married he was also:- ***"arrested in September on suspicion of being an active Jacobite, but he was soon released."*** (*History of the British Parliament – Alderman John Crowley*)

As John Crowley, like his father before him, was an Anglican, the author was curious as to why he would become involved in the Jacobite (Stuart) cause. A brief overview of that troublesome European time may give an insight as to the motives of John's alleged risky ventures into the political intrigues of that period.

Historical note:-

The Jacobites are generally thought of as being Catholics who supported a rebellion against George I with the intention of replacing him with James Stuart (son of the deposed James II) and reinstating Catholicism as the official religion of the realm. (In 1701 the "Act of Settlement" had been passed by Parliament to settle the succession of the English & Irish crowns on Protestants only.) However the Stuart cause was supported by many Protestants, whether Anglican, Episcopalian etc., and indeed it did not have the full support of all British Catholics.

There were many disgruntled British who believed that James Stuart had the legitimate birth-right to the throne, certainly more so than the tenuous claims of George I (“German George”). George’s mother, Princess Sophia, Electress of Hanover, granddaughter of James I and a Protestant, was nominated heiress of the English throne if William III and his wife Mary, or her sister Anne, died without issue.

The fact that nearly 50 other relatives had stronger claims than Sophia of Hanover was irrelevant because they were all Catholic and thereby excluded by the Act of Settlement.

John Crowley was a Tory, this was a political party displaced from power in English politics by George I in favour of the Whig party who were more amenable to his policies. As already mentioned John was an Anglican and, like his father before him, a “non-juror” (i.e. someone who refused to take the oath of loyalty to King George (and King William before him) because they had already sworn allegiance to James II.

It was alleged that John Crowley had offered £5000 to help the Jacobite’s cause in the 1715 Rising. Thus after the rebellion failed he was arrested and imprisoned, along with many others also suspected of holding Jacobite sympathies. John may have been influenced by:

“Since 1714 he (George I) had worked, as Electorate of Hanover, to involve the resources of Britain in a war with Sweden which not only was of no benefit to Britain but was decidedly detrimental to her trading and commercial interests in the Baltic.”

(The English Ministers & Jacobitism between the Rebellions of 1715 & 1745 by Paul S Fritz)

His short spell of imprisonment did not seem to quell his opposition to the Hanoverian king, as it is also alleged that he subsequently offered a much more considerable sum of money in 1716 to the Jacobite’s attempt to involve King Charles XII of Sweden in their efforts to raise a force to invade England. This alleged second treasonable offence may have been in response to the actions taken by George I after the failed rebellion. A few notable people were executed and many imprisoned but the

imposition of an embargo on all trade with Sweden would have a direct impact on the Crowley businesses.

John Crowley needed affordable supplies of Swedish bar iron (renowned for being of the highest quality) to meet the demands on his ironworks and his steelmaking forges in the Midlands and Durham.

The vast supplies of wood needed to produce charcoal to fuel iron furnaces were becoming less readily available in Britain, and as a result the British iron industry:

“Failed to compete with the Swedish iron industry because charcoal was available in abundance in the Baltic. By 1700 half of the bar iron was of Swedish origin.”

(Decline of the British Charcoal Industry)

“Before the revolution in coal technology that swept the British iron industry in the last years of the eighteenth century, native ironmasters were unable to meet the burgeoning demand for malleable bar iron. The shortfall was made good by imports of bar iron from the Baltic, first from Sweden, then from Russia.”

(Baltic iron and the British iron industry in the eighteenth century by Chris Evans)

The above information is surmised by the author to be, perhaps, some of John Crowley’s economic reasons for his opposition to George I.

After John’s death in 1728, Theodosia continued running the business through the adept management skills of the company’s General Manager, John Hanmer. This arrangement ran for 11 years until her son Ambrose came of age in 1739, however he died of smallpox in 1754 and his younger brother John took control of the company affairs but within little more than a year he also died.

Theodosia, who was to remain a widow, once again took control of the company and she managed this considerable enterprise, involving as it did facilities and land in London, the Midlands and the north of England, for a further 27 years until she died at the age of 88 in 1782. That she did this through several General Managers does not lessen the exceptional achievements of this remarkable woman who must have defied the preconceived norms of the time regarding the roles of a woman in a male dominant society.

Isaiah Millington, one of Theodosia's managers, bought some shares in the business from her executors and ran the company as 'Crowley Millington & Co', along the same lines as Ambrose and John Crowley.

His son Crowley Millington then took control of the company and after the end of the Napoleonic wars, when there would be a significant decrease in product demand by the Admiralty, **he decided to close all of the works in Winlaton village in 1816** and relocate the administration offices to Swalwell.

His decision had a calamitous effect on the lives of the people of Winlaton village and indeed a Soup Kitchen was opened to help alleviate their suffering. However those blacksmiths, who did not move away to seek alternate work, became independent manufacturers of ironware and they would go on to form a Friendly Society through which they would maintain the mutual social benefits that had been established by Sir Ambrose Crowley.

(see T. R. Hodgson's – "The Winlaton Blacksmiths' Friendly Society" a reference book held in the local library)

The Winlaton Mill and Swalwell factories continued operating under Crowley Millington's ownership until he died in 1849 but by this time the works has been described as having "*lost its way and direction*".

In 1850, after being managed by Fergus Graham, the Crowley Millington works were sold to Mr. Laycock of Winlaton. Wanting to get rid of the practices and customs established by the Crowley family over 150 years earlier and hence forth introduce new terms of labour, Laycock burned the company records and the Law Book in front of his workers. But by this time the works were in decline and shortly after they were closed.

In early 1863, the works were sold to a company called Powe & Falcus of South Shields and they later leased it to Ridley & Co. who established a steel foundry, with forges, and smith's shops on the site but this closed in 1911.

Wm Grace & Co built a paper mill (Northumberland Paper Mills) on part of the site of the Swalwell works but all that remains of this enterprise is the large chimney which was built some time in the Victorian age.

Eventually the Winlaton Mill works passed to Raine & Co (formed by the brothers Benjamin & George Raine in 1885) who carried on the business as the Winlaton Rolling Mill but in 1915 the company moved their operations to the new Delta Works at the mouth of the Derwent.

Thus all of the remnants of the Crowley ironworks at the three main locations, and indeed all other manufacturing plants, were to become extinct – with the exception of the last remaining blacksmith's shop which has been preserved at Winlaton.



This is the only remaining cottage forge (seen here without the blacksmith's living accommodation which would have been attached to the left hand side of the forge) built c. 1691, and was originally part of Crowley's Hood Square.

Ambrose Crowley's introduction of social benefits for his employees and their dependants was some 100yrs ahead of the social reforms advocated by Robert Owen, regarded as being an early philanthropist and social reformer.

The Winlaton Blacksmiths' Friendly Society

The end of the Napoleonic Wars in 1815 had brought about the end of long standing Admiralty contracts and the demand for hand-made nails etc. had diminished to such an extent that it was no longer viable for the company to continue the production of light iron-ware in the village of Winlaton. This must have had a devastating effect on the people of Winlaton and some would have had to endure a very hard transitional period. Without the Crowley social system there was no welfare of any kind and if they couldn't earn money, they would have been turned out of their houses and declared to be paupers. Whilst some workers would have found work at Winlaton Mill or Swalwell, others would have moved to other parts of the country to follow their trade. Ancillary workers would have sought employment in coal mining, brick manufacture and glass bottle making.

However those blacksmiths that had their own forges began in business for themselves and sought out markets for the iron ware they could still produce. Therefore the village of Winlaton, through the reputations of companies which grew up after the demise of Crowley (such as Thos Renwick – Odd-ware Smith & Chainmaker, Robert Laycock & Sons, R.S Bagnall & Sons Ltd - Chain makers, Nixon and Whitfield – Chain makers, the Nut and Bolt factory, James Hurst & Son – hinge makers etc.) continued to be synonymous with the iron trade in one form or another throughout the 20th century. In fact chain making continued until December 1968 when blacksmith Jack Hunter, and his striker Brian Kyle, forged the last chain link to be made in Winlaton at the Nixon & Whitfield factory before its closure.

Among the successful companies who established themselves after the departure of the Crowley Millington Co., were men who had previously worked for the Crowley firm. They were mindful of the educational, religious and social benefits it had provided for them and their families and therefore determined to establish a society for 'The mutual relief of each other when in distress and for other good works'.

In 1826 the founding 12 members formed the above Society and held a monthly meeting in The New Inn (the Landlord was John Cowen who, as well as being an Innkeeper was listed as being a Manufacturer of nails, chains, pattern rings and hinges in the Parson & White trade directory of 1828. His eldest son Joseph, who was also one of the founding members, served his apprenticeship as a blacksmith with his father but at the time of the formation of the Society, he was listed as being a brick manufacture at Blaydon Burn. He became an MP for Newcastle in 1865 and was knighted in 1871. The purpose of the Society was to establish 'a fund for the mutual relief and maintenance in old age, sickness and infirmity of all and very one of the members there of'.

Qualification for membership – prospective members must be of good character, in perfect health, free from every natural defect of body and mind and neither be a seaman, pitman or miner, nor pensioner. No benefits were permitted unless a claimant had paid his entrance fee (2/6d) and twelve months contributions (1/3p per month). He was then entitled to payment of 7/- per week for 26 weeks, then 4/- per week for a further 13 weeks and 2/6d per week thereafter. (Other amounts were paid out depending on the intervals of the infirmity or illness.)

Exclusions from sickness benefits were stipulated as – ***“no member laboring under the Veneral Disease or hurt received while in a state of intoxication or in a quarrel or wilfully inflicted by his own hand shall be entitled to any sick benefit from this Society. But should the hurt or injury received in any of these cases end in death, their nature shall not affect the legacy payable at the Members death”***

The Winlton Blacksmiths' Friendly Society was to continue into the 1900's and at that time it encompassed a variety of trades, the majority still being blacksmiths but included Butchers, Chemists, Shoemakers, Cartmen, Husbandmen, Fitters Insurance Agents and finally a Miner, a trade which was banned in the rules of the Society.

Acknowledgements – the above information has been derived from Mr T R Hodgson's "Winlton Blacksmith Friendly Society 1826" a reference only booklet - a copy of which is in the local library.