Essex Industrial Archaeology Group
(Incorporating The Essex Mills Group)

NEWSLETTER

Number 51 January 2024

Happy New Year and Welcome to this edition of the Essex Industrial Archaeology Group's (EIAG) Newsletter

In this edition we are pleased to present a paper on the history of the East Mill in Colchester written by our member, Peter Jones. The other main contribution is from another member, Dave Bazley, reporting on the 5th East-West Workshop on Industrial Archaeology held last November. Such contributions are very welcome; details below.

If you have any comments on the Newsletter generally or specific items in it, or wish to make a contribution to the next Newsletter, please contact us via our email address - essexiag@gmail.com.

Contributions for the Newsletter should be sent by the end of the month prior to publication (i.e. by end of March, June, September and December), please. Please submit text as a Word document and photos as separate files such as jpgs.

Programme of ESAH/EIAG events 2024

Friday 26th April 2024, 2:30 pm – Visit to Southend Museum. A talk on the Prittlewell Prince and a chance to examine the exhibitions which include the radio and domestic designs of EKCO (see Newsletter 36, September 2020). £8

Saturday 11th May 2024, 11:00 am – A walking tour of Harwich including a number of industrial sites such as the Treadwheel Crane. £10

Saturday 14th September 2024, all day – EIAG 5th Industrial Heritage Fair – details to be announced

Saturday 2nd November 2024, all day – ESAH Symposium 2024 – there will be a number of talks all with an industrial and transport theme. Further details will be published as they are finalised.

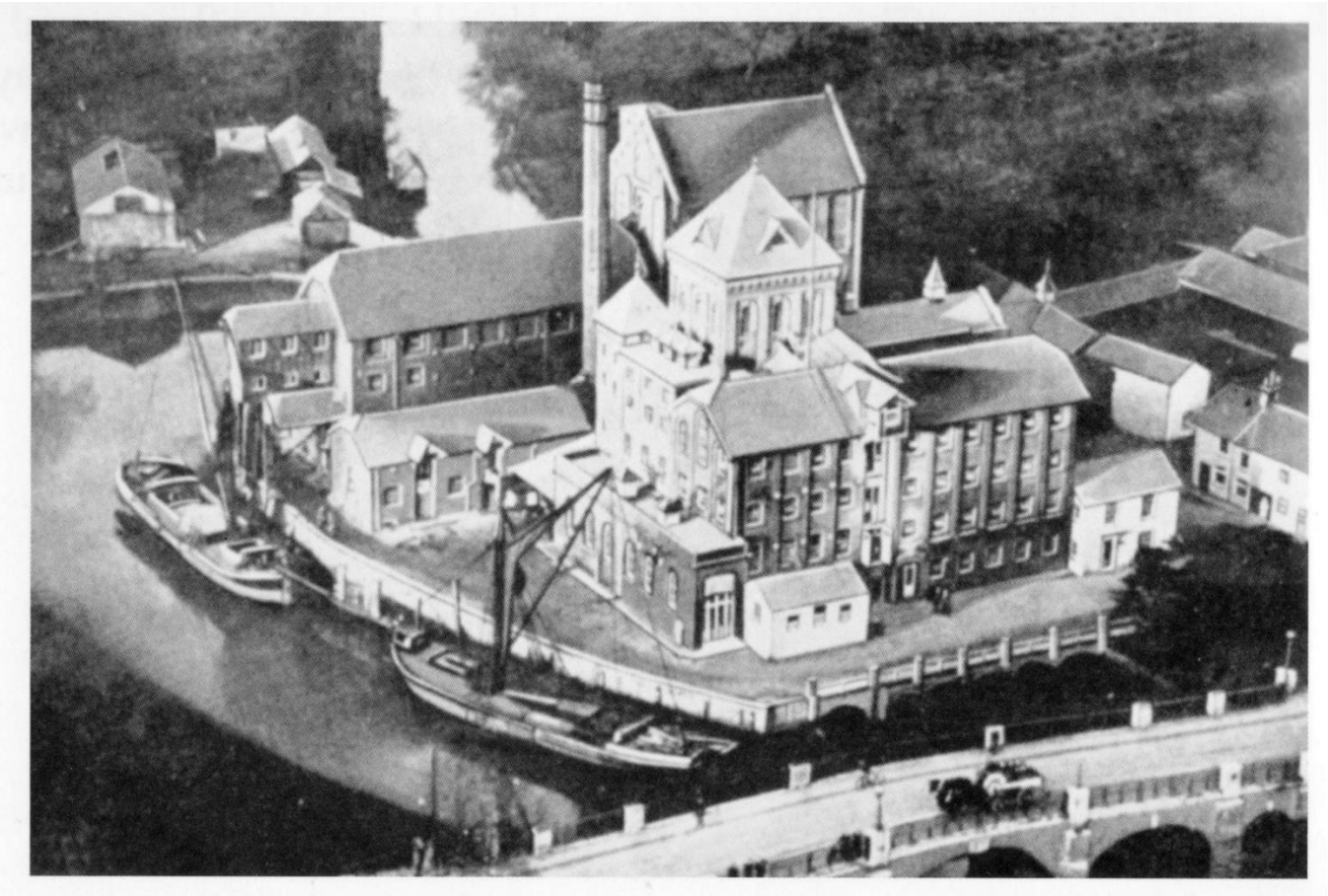
East Mill
Colchester

A brief history

Peter Jones

June 2022

East Mill, a brief history written by Peter Jones with grateful thanks to Peter Marriage for information about the Marriage family.



An aerial view of the mill taken between 1904 and 1927. The River Colne comes in from the top and is channelled to run under the mill exiting through the front section of the mill where it runs parallel with the bridge. The excess water from the river runs over a weir and round the left hand side of the mill. The Mill House is at the right hand end of the mill frontage.

Introduction

With the enthusiasm that we talk about renewable energy these days one could be forgiven for thinking that we had invented it. Essex industry ran on renewable energy, in the form of wind and water, for centuries. One of those sources of renewable energy in north Essex was the River Colne.

It is not the only river in England to bear the name Colne; there is a Colne in Hertfordshire, Lancashire and Yorkshire. The origin of the name is thought to come from the Celtic word meaning water.

As rivers go the Colne is quite diminutive, rising in the chalk lands of northwest Essex it winds its way 42 miles eastwards to flow into the North Sea at Mersea. It is the longest of all the Essex rivers and over the centuries it and its tributaries have powered over 40 water mills.

The 2-mile stretch of the Colne that runs through Colchester has, over time, powered at least 5 mills. The largest and most productive was East Mill, located at the bottom of East Hill. Milling took place on this site for nearly a thousand years. This is its story

East Mill A brief history

Nobody really knows who built the first waterwheels or when they were introduced. Apart from an occasional mention in written accounts there are no drawings or detailed records and, with the mills being largely made of wood, few remain.

It is generally thought that it was the Greeks, or it may have been the Romans, who first started using waterpower in the third century BC. The Romans certainly developed the technology and most likely were responsible for introducing the waterwheel to Britain. They used waterpower for milling on an industrial scale but when they left Britain around 410AD milling reverted to a domestic activity. It was later during the period referred to as the 'Dark Ages' under Saxon influence that waterpower was reintroduced. Following the Norman Conquest the Doomsday survey of 1089 lists 203 watermills in Essex, three in Colchester, but unfortunately it does not name them.

To build a watermill was quite an undertaking often requiring extensive earthworks and a diversion of the river. So the mill owners tended to be rich and powerful people such as the lord of the manor or the monasteries. Prior to the Norman Conquest the East Mill site was part of the estate of a rich Saxon lady called Leofleda and is thought to be one of the mills recorded in the Doomsday survey. It was first recorded as East Mill in 1311 when it was owned by St Botolph's Priory. At the Dissolution of the Monasteries East Mill, along with several other Colchester mills, was granted to Sir Thomas Audley. It worked as a corn mill until the mid 15th century when it was converted to fulling. This was a process in the production of cloth, a major industry in Essex for over 400 years. It involved pummelling the cloth in a mixture of urine and Fullers earth to clean and thicken it. In 1536 Audley conveyed the mill to John Christmas whose family had extensive milling and cloth interests around Colchester.

For most of its life East Mill worked as a corn mill with occasional periods of fulling. Over the years it had many changes of owners and by 1624 was both milling and fulling. With the decline in the cloth trade towards the end of the 18th century fulling ceased and the corn mills were expanded with the wheel running 6 pairs of stones. By the 1830s the mill was owned by Bartholomew Brown and after his death in 1839 put up for sale.

FREEHOLD

WATER CORN MILL AND ESTATE,

COLCHESTER, ESSEX.

To be Sold by Private Contract,

AND ENTERED UPON IMMEDIATELY,

The Good Will and Fee Simple of all that capital Water Corn Mill, called

EAST MILL,

SITUATE in the Parish of Saint James, in the Borough of Colchester, in the county of Essex, with upwards of 8 feet fall, now in full work, and containing 6 pair of French Stones, driven by 2 water wheels, and capable of breaking from 14 to 20 loads of wheat in short water season. With all the going Gears, Flour Mills, and Machinery complete. Mill-house, and Cottage, Stable, Cartlodge, and other requisite buildings, good Garden, Land, and other appurtenances.

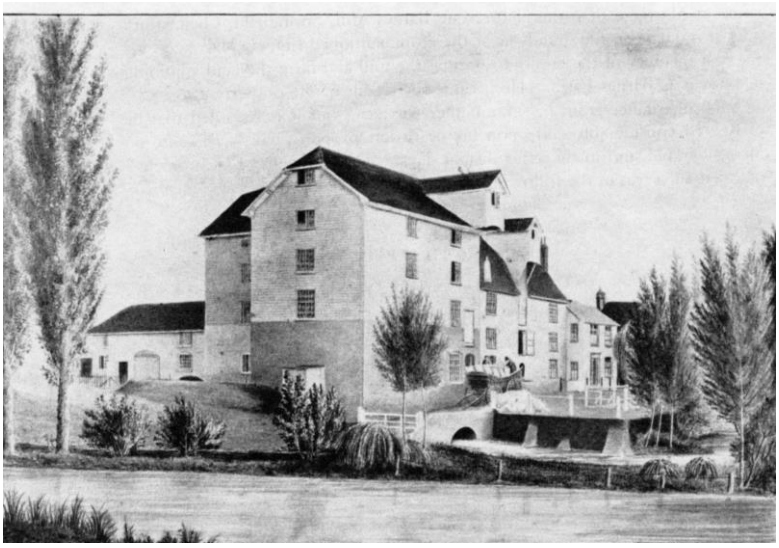
The Stowage is excellent, great additions having been made thereto by the late proprietor, and is capable of holding 1,600 quarters of grain—Flood gates new.

The whole of the above property is Freehold, and Land-tax redeemed; and its peculiar local advantages are such as render the present an opportunity for those engaged in the trade rarely equalled, and never excelled.

For price and particulars apply to Messrs. DANIELL, East Hill, Colchester (if by letter, post-paid).

Bartholomew Brown, Esq. deceased.

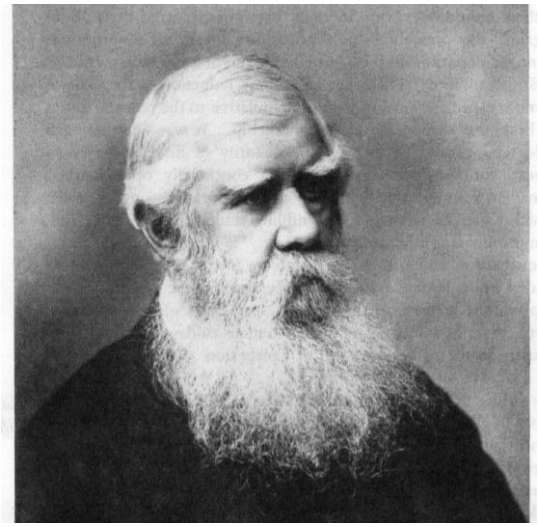
ALL Persons having any claim or demand on the Estate of BARTHOLOMEW BROWN, Esq., late of Colchester, in the County of Essex, deceased,



Left, the sale notice. Essex Standard December 20th 1839

Right, how the mill looked at the time of its sale. The Mill House is at the end of the front facing buildings immediately to the left of the trees.

In the 18th century the Marriages were a large family of French Huguenot origin involved in milling and farming around Chelmsford. On the death of their father two of the sons, twin brothers William and Henry were bequeathed Broomfield Water Mill. Although only aged 17 the brothers decided they wanted to put the milling business on a more commercial basis and in 1824 formed their own company.



Many members of the Marriage family became involved in the business over the years and in 1839 Thomas Marriage, a cousin of William and Henry acquired East Mill and the following year he installed Edward, the ninth of his thirteen children, as manager. Edward, just married, and his new wife Lucy moved into the Mill House (now flat 1) the only building that externally looks much the same as it did in 1840.

Edward Marriage installed an auxiliary steam engine in 1844 and in 1865 improved the river above the Hythe to enable the London barges to reach the mill. In the 1870s further improvements were made to the milling machinery including the introduction of a second steam engine and the installation of roller mills.

Edward Marriage in later life

These were a more efficient way of milling and more suitable for the harder grains of imported wheat. Between 1885 and 1893 the mill was almost completely rebuilt with more roller capacity being added but retaining the stones. In 1930-31 it went through another refurbishment when the waterwheel and stones were removed.

The 1865 improvements to the river enabled the barges to load and unload at the mill, something they were still doing into the 1950s, although getting a barge to the mill was a demanding and potentially dangerous undertaking. Four bridges crossed the river between the Hythe and East Mill. The Hythe Road Bridge, two railway bridges and East Bridge. The clearance on the railway bridges was adequate but the two road bridges were exceptionally low with the East Bridge further restricted by narrow arches.

For the bargee's two drafts were important, the amount of barge below the waterline and the amount above, known as the 'air draft'. They required six feet of water to float a loaded barge under East Bridge, much more than that and the barge would not get under the narrow arches. The trim of the boat was usually set absolutely level at 5ft 11 inches. If it was not level one end might jam under the bridge. If this happened when the tide rose the boat and the bridge could be seriously damaged.

To access the mill the barges would wait at the Hythe for the incoming tide. All the masts and rigging would need to be lowered, to an air draft of about 5½ feet, to enable passage under the bridges. The highest point on the barge was now the helmsman's wheel. As soon as it was afloat it was poled the 1¼ miles up river to the mill. Bearing in mind that the barge with its cargo could weigh in the region of 200 tons this was no mean undertaking. Two extra hands, known as 'Hufflers,' were taken on to do poling and it took about an hour to reach the mill. High water was usually about an hour and twenty minutes after they left the Hythe so time was critical. If the tide were too high then the barge would not be able to get through the arch and would need to wait for the next tide.

The journey begins; the barge Milrosa leaves the Hythe for East mill.

To unload the cargo the masts would need to be raised to gain access to the hold. Until the advent of suction to unload the grain it was in large sacks that all had to be unloaded by hand. With a typical cargo being between 1600 and 1700 sacks it could take a gang of seven or eight men two days of hard work to empty the hold.

Once unloading had been completed and if there were no outgoing cargo the barge would return to the Hythe 'light'. Having unloaded a substantial weight of cargo the draft below the waterline was reduced by about 3 feet and the air draft increased by the same amount. To get under the bridge now they would have to wait for a falling tide and go as soon as they were able.

With the barge now weighing much less only one huffler was needed to get back to the Hythe. It should not be forgotten that high and low water could be at anytime of the day or night meaning that frequently these operations were carried out in the dark and in all weathers. This was not an occupation for the faint hearted.

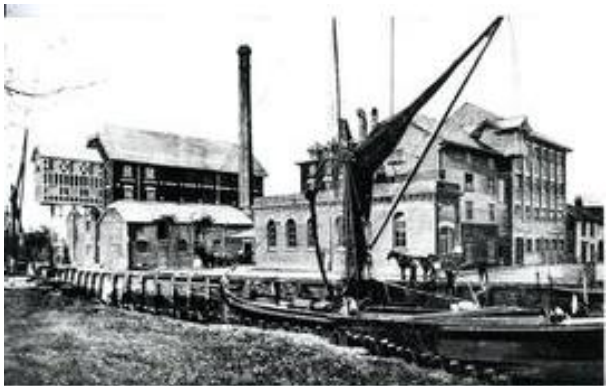
Barges unloading, note the grain sucker, the pipe extending from the lucam and dropping down to the right hand barge.

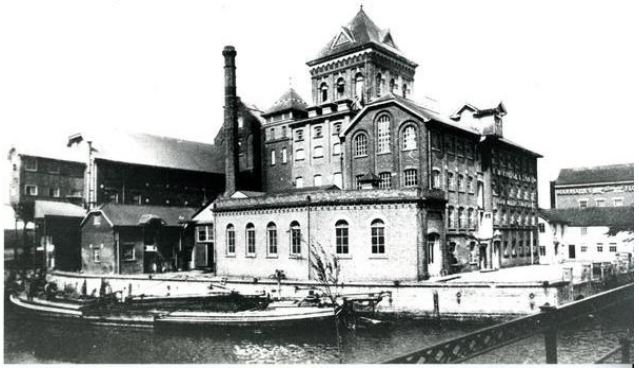
The grain sucker as it appears today

Left: the Bridge today showing the 1927 concrete widening.

Before the Colchester 1933 bypass this was part of the main road from London to Clacton, Harwich, Ipswich and Norwich.

Left: The Bridge plaque that can only be seen from the river, showing it was originally built in 1802





Spot the difference. The picture on the left was taken before 1885 expansion.

Marriage's business continued to grow with the company operating many mills in north Essex. In 1933 The Chopping family who had worked Middle Mill by Castle Park for many years sold out to Marriages who stripped out all the machinery. The following year they sold the building to Colchester Borough Council who used it for storage. It was unused for a number of years, fell into disrepair and was demolished in the 1950s. Meanwhile East Mill continued working until 1976 when it was closed and reopened as a hotel 3 years later. The hotel lasted 20 years and in 2001 the buildings were converted into apartments

The Marriage business is still prospering and is one of the top producers in the UK. It is still very much a family concern with 5th and 6th generation Marriages running the company. The business is now concentrated in Chelmsford at the Chelmer Mill using grain that is mostly sourced from regular suppliers within a 30-mile radius of Chelmsford. Chelmer Mill that the company originally opened in 1899 is now a highly sophisticated state of the art operation producing 35000 tons of flour per annum including 35 white flour varieties and 16 brown. The company still produces a range of stone ground flours as well as a selection of specialist flours for craft baking.

Another member of the Marriage family well known in Colchester is Edward's son Wilson Marriage, (1842 – 1932) who also managed East Mill, he was also a JP, a Colchester Alderman, Portreeve and Mayor four times. In 1933 the Barrack Street School was named after him.

A delightful picture postcard view of a barge unloading at the mill.

Great Saling Water Tower

In Edition 34 (May 2020) of this Newsletter, this photo was on the 'puzzle page' as I had forgotten where it was! Two members reminded me that it was of the Great Saling water tower, and this was reported in Edition 35 (July 2020). It is an example of a Braithwaite water tower built to service the USAAF then RAF Andrewsfield airfield in Great Saling. Earlier this month a short walk around Great Saling revealed that the tower has now been demolished and a residential property built on the site.

Text and photo: Tony Crosby

5th East-West Workshop on Industrial Archaeology

25th November 2023

The East-West series of workshops aims to exchange ideas and knowledge among Western and Eastern colleagues to build a more international and diverse industrial archaeology. They are organised by the Institute for Cultural Heritage and History of Science & Technology (USTB, China), the UK Association for Industrial Archaeology (AIA), and it's Young Members Board.

This workshop explored the architecture created for or by industry, and how post-industrial societies have transformed and repopulated the spaces of the industrial period. Three separate talks discussed industrial architecture in Spain, China, Cambridge and Athens.

The first talk, given by Dr Carolina Castaneda, was entitled "The imprint of the Spanish tobacco industry on the urban landscape: Permanencies and absences of an industrial memory". A long title indicating that Dr Castaneda was interested in the unseen human impact of industry as much as the more obvious architectural remains.

The development of the tobacco industry in Spain turns out to be similar to other industries we are perhaps more familiar with. Beginning in the 17th century, with raw materials coming in from the American colonies, individuals set up factories close to the ports in places like Seville and Cadiz. They used existing buildings, often substantial ones such as old convents. During the 18th century the Crown took over administration and as the industry expanded purpose built factories appeared. Tobacco became important to the country and these prestigious factories were built in the centre of town. They can now be found in 'historic' parts of these cities. To reflect their importance they featured classical architecture, palace like facades and castle features such as moats. The latter providing a genuine defence of a luxury product for which there was a thriving black market. By the 20th century expansion required new factories on greenfield sites at the edge of town. These led to further urban development and thus helped to shape whole cities.

Meanwhile changes were occurring in the workforce. Early production of tobacco products required horse driven machinery mostly operated by men. Later cigar and cigarette manufacture was more suited to women. This led to an empowerment of women which changed society. The factories began to include crèches, schools and even improved housing. More recently, changes in demand and manufacturing mean that most Spanish tobacco factories have now closed.

The second talk, given by Dr Fanlei Meng, was entitled "Research on the history and architectural heritage value of industrial construction in modern Beijing". 'Modern Beijing' here means 1860 to 1949, from the Qing dynasty to the Peoples Republic. A time of great change for China involving wars, occupations and powerful external influences. Dr Meng divided it into three parts, corresponding to three periods of Chinese history.

Beijing was the capital of the Late Qing dynasty and was first to see the movement from an agricultural to industrial economy. Industrial ideas, equipment and architecture arrived relatively late in China and mostly came from other countries, notably Britain. Industries established during this period included coal mines, railways and electric light. Industrial development in Beijing continued through the Northern Warlord period, bringing iron mines, a brewery and the beginning of light industry. This also led to an improvement in living standards. China was still using imported machinery at this stage. The third period was that of the National Government from 1925 to 1949.

Development continued but was still subject to outside influences. For example, Beijing's first industrial zone was built in 1938 during the Japanese occupation.

The industrial architecture reflects this history. Initially factories were built in a residential style using a mixture of traditional and western features. This could be a typical western mill decorated with regional Chinese symbols. Later, new materials were introduced, with the first use of reinforced concrete for a multistorey building being in 1884.

As elsewhere much has been lost. However, Beijing has a register of 65 heritage industrial sites, some of which have new uses such as museums. Dr Meng said it was important to understand the last 100 years as they had laid the foundation for the huge industrial development of the People's Republic since 1949.

The third part of the workshop, presented by Dr Gordon Davies, was called "An industrial tale of two cities: Filming the architecture of industry around Cambridge Museum of Technology (UK) and Athens Technopolis (Hellas)". This took the form of a multi-media video and explored how to promote industrial archaeology, especially in two 'heritage' cities better known for their much older pre-industrial histories. How many visitors to Cambridge and Athens know that both cities are home to significant examples of industrial heritage and host industrial museums?

The film included archive photography, contemporary drone photography, ambient-sound recordings and specially commissioned poetry. The Technopolis museum in Athens is on the site of the best-preserved architectural example of the industrial-gas-making process. It combines an industrial museum with a major cultural centre. This site was compared with the 'absence' of a similar plant in Cambridge - a former gasworks that has been redeveloped. The Cambridge Museum of Technology is housed in a Victorian sewage pumping station. It tells the story of industrial development in Cambridge from chalk, bricks and steam to semiconductors.

Touching on the architecture, Dr Davies pointed out that the same architect designed Cambridge Library and Battersea Power Station, using the same ancient classical references. He also shared his ideas and techniques for making promotional films. He suggested new ways to look at industrial heritage and how the part it plays in shaping cities can be preserved. An example of the value of this came from a participant in Peru asking how he could raise awareness of an industrial site that thousands of tourists pass on their way to Machu Picchu.

So, a truly international workshop. The next one is planned for spring 2024.

Recordings of AIA East-West Workshops can be found here: https://industrial-archaeology.org/conferences/service007/

Dave Bazley

A Project on Colne Valley

You are reading the first Update regarding the proposed project to commemorate the part the communities of the Upper Colne Valley played in the Second World War. I have sent this to both those people on the original list and some new organisations, including parish council clerks.

This is the first update but it might also be the last. All those on the original list have roles with other groups and are all busy people. For the project to get going we do need a commitment from a number of individuals who are willing to contribute to the work of collecting and collating material.

Roles will include:

- Publicity via social media.
- Research at the Essex Records Office.
- Arranging local drop in sessions.
- Website design.
- Fund raising.
- Interviewing and transcribing.
- Photography
- Digitisation
- Newsletter

This is not a complete list and many of the roles would be undertaken by more than one person. For example, individuals might be willing to lead on a particular area, such as: a specific village, an airfield, the railway, even one building or group of buildings.

The Project:

For those who did not see the previous updates, here is a summary of the proposed project.

Purpose:

Eighty years after the end of the Second World War, there are fewer people living who have first-hand recollection of the impact that conflict had on our communities. However there are many who would have known individuals who lived during that period and in addition there will be surviving diaries, paperwork etc. from the time. This project would seek to make accessible to new generation the stories of those who witnessed these times.

The legacy of the project should be a digital archive of the time, along with a travelling exhibition that would be made available to local groups for display.

Method:
The project would involve a number of phases:

- Initial research to create a diary of significant events during the period.
- This should also enable the establishment of a list of people and places to be researched.
- Drop in sessions in the local community to record the memories, first and second hand, of the time.
- The creation of a digital archive.
- The development of the travelling exhibition.

In order to get the project started we need:

People who are willing to join an initial steering group. This is the most urgent requirement and for the project to succeed there will need to be an initial meeting in January. This could be in person or online.

Volunteers who want to discuss who they might take on one of the roles outlined above.

The Heading:
You will note that this Newsletter does not have a title as one task is to decide on suitable wording. Any suggestions are most welcome.

The picture used at the top, comes from a Government Publication called "Transport Goes to War". This picture is used in a chapter entitled "Out on the Road" and is one of the few pictures in the booklet without a caption. This is because everyone reading the book, at the time it was published, would remember the removal of road signs.

If you would like to get involved with the project, or have any questions, please e-mail Cvr.museum@outlook.com
Please note although this is the e-mail address to the Brewster Centre Museum @ The Colne Valley Railway, this is not a project being led by that organisation.

Ford's of Dagenham – Styling & Design

Archive Journal has in its last two Issues, numbers 119 and 120, included a two part article on *Ford Styling & Design,* from the Model-T to the Capri. While design is seemingly a specialist aspect of car manufacture, these articles tell much about the history of car manufacture in Dagenham and therefore will appeal to a wider audience with an interest in this aspect of a past Essex industry.

For those of you who are interested in these articles – or generally interested in this Journal for British Industrial and Transport History – do go to their website at https://lightmoor.co.uk/category.php?section=IndArchive. Issues are available to buy at £8.25p per issue.