

Understanding Britain's **ATLANTIC WALLS**



A Dunblane Museum Project



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CONTENTS

Introduction	05
What was the Atlantic Wall	07
Who built the Wall?	08
Why are there Atlantic Walls in the UK?	09
Where are the other UK Walls?	11
Intelligence - finding out about the real wall	12
Hobart's Funnies	14
The Anti Concrete Committee: what was their role?	16
What we know about the Sherffmuir Wall	18
Local Information	20
Sources	26
Glossary	27
Further reading	27
Acknowledgements	28



01 ^ One section of the Sheriffmuir Wall as it looks now (2014). Laser scanning shows more detail and will even be able to render the wall to show it in its original state.

Image: Wardrop and Crockett

02 v The concrete was reinforced with metal bars. The success of an explosive device could be measured by how deformed the metal bars were.

Image: Wardrop and Crockett



INTRODUCTION

The existence of a replica of the Atlantic Wall on the Sheriffmuir Hills above Dunblane seems to have remained something of a secret for over 70 years. It has been recorded and listed as an historic monument. However, locals still seem to know very little about it.

Some ten years ago the husband of one of our museum volunteers mentioned that he had been in Dunblane in 1943 working on the construction of the wall at Sheriffmuir.

In August 2012 Gordon sent us a letter about his time in Dunblane. He apologises that his memory is not as clear as it once was:

“ 49th Division came to Scotland in July 1943 for training in its role of assault division for the Normandy landings. The various units of its infantry, artillery, engineers, etc were located in all areas across the country from Ayrshire to Inverness, and moved around training sites such as Rothesay, Tighnabruach, Inverary, Dunblane. In late 1943, I spent three weeks in Dunblane with my platoon from 756 Field Coy Royal Engineers.



03 ^ This is a solid concrete gun emplacement in 1943, in France. It gives an idea of the solidity of the German defensive structures that the Allies could expect to encounter.

Image: 10905058/DPA Mary Evans Picture Library



04 <

These concrete structures, in Northern France, were known as 'dragon's teeth'. They presented an obstacle to tanks in WW2. The workers who built them file past in the background.

Image: 10296234/RHL Mary Evans Picture Library

WHAT WAS THE ATLANTIC WALL?

A series of concrete defence structures built along the west coast of Europe from the northern tip of Norway to Spain. Built by the Germans using slave labour, between 1942 and 1944, it was to protect against an anticipated invasion of mainland Europe from Britain.

In the spring of 1942 this megalomaniac scheme for encasing all Europe in a solid girdle of concrete had one overall title: *Atlantic Wall*.



WHO BUILT THE WALL?

'Organisation Todt' were the German Engineers in charge of constructing the wall. They forced approximately 1.4 million labourers into service.

Many of them were Prisoners of War, slave labour from occupied countries and others were Germans rejected from military service. All of them were treated as slaves and many did not survive the work.

“ The installations on the sea front and inland together constitute an impregnable fortress!

German propaganda

Not everyone believed the propaganda. Friedrich Kellner, a German Official kept a diary. His entry for 25th April 1943 made this comment about the actual Atlantic Wall

“ This will not stop the Allies.



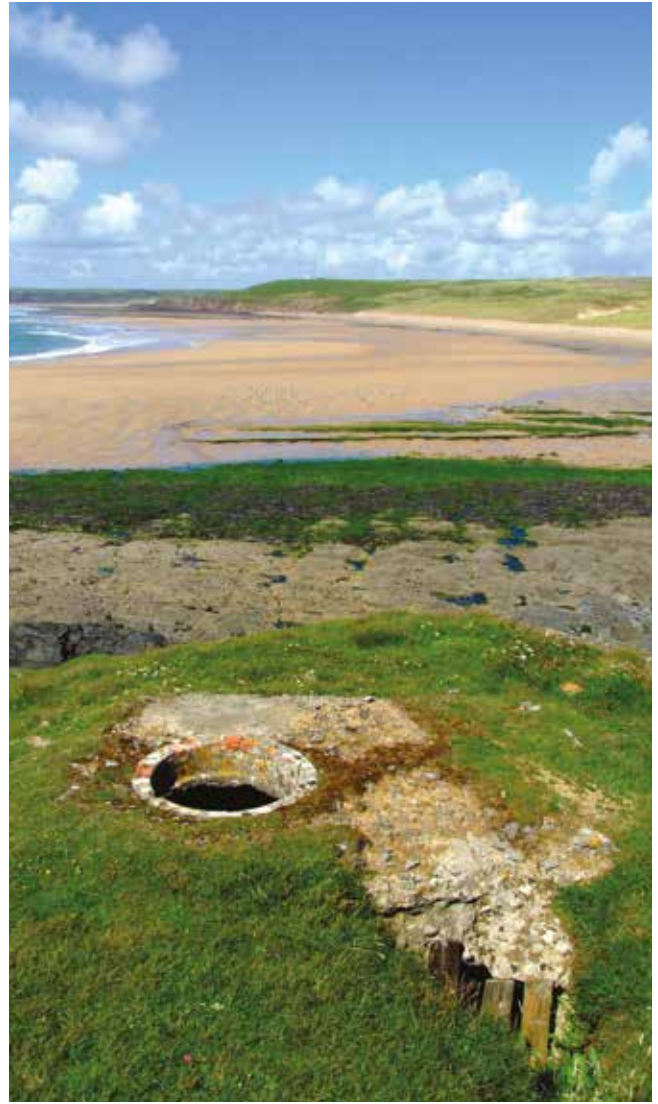
WHY ARE THERE ATLANTIC WALLS IN THE UK?

During WW2 British Military Intelligence gathered information about the German's Atlantic Wall – its size, structure and the materials it was made of. The Allied Forces knew they would have to break through these German defences for a seaborne invasion into occupied France to be a success.

A great deal of effort was put into developing technology to achieve this, including specialised tanks known as “Hobart’s Funnies” and the creation of an anti-concrete committee. Vital information came from the French Resistance, and other sources such as aerial photographs.

This enabled accurate mock-ups of the Atlantic Wall to be built in various locations in the UK. These were used for military training and testing prior to D-Day in June 1944.





05 ^r This circular Tobruk shelter gave protection for one man to crouch inside armed with a weapon. It is about 74cm (or 29") in diameter - a fairly tight fit. This one is at Sheriffmuir. 2014.

Image: Wardrop and Crockett

06 ^r Remains of the replica wall at Castlemartin, Pembrokeshire. Unlike the other UK Atlantic Walls this is near the coast.

Image: R Thomas

07 [<] Hankley Common Wall, Surrey. A tank, equipped with a device called "The Onion" (or possibly "Double Onion"), carried 1000lb of explosives which were placed against the concrete wall. The explosion created a gap or 'breach' in the wall.

Image: C Shephard

WHERE ARE THE OTHER UK WALLS?

There are five known locations of UK Atlantic Walls:

- 1 Sheriffmuir, Perthshire
- 2 Hankley Common, Surrey
- 3 Castlemartin, Pembrokeshire
- 4 Sudbourne, Suffolk
- 5 Shoeburyness, Essex



There are probably more replica walls to be discovered. The remains of these walls survive today pockmarked by explosives and surrounded by softer fortifications in the form of ditches and trenches.

INTELLIGENCE – FINDING OUT ABOUT THE ‘REAL’ WALL

The French Resistance movement was created in 1940 and they were asked by British Intelligence to find out all they could about the real Atlantic Wall. By various cunning means the Caen group collected more than 3,000 documents which they sent to London.

René Duchez, a painter and decorator, was a member of the French Resistance in Caen, Normandy, where the German Engineering organisation, Todt, had its HQ. They were responsible for building the concrete fortifications along the

west coast of Europe during WW2.

Duchez saw an advertisement requesting quotes for redecorating the Todt offices so he presented himself and offered to do the work at a very low price.

A chance opportunity allowed him to steal a plan of the enemy coastal defences. He hid it behind a mirror and came back later after being given the job and retrieved it without arousing suspicion. He was the decorator, so no-one took any real notice of him.

The stolen document indicated very accurately the position of all the defences and how they were constructed. However, Intelligence in London were concerned that the German Engineers would change the design as soon as they realised that the Allies had got hold of a blueprint. However, Germany kept quiet about their loss.

Using this important information the replica walls built in the UK were based on the actual German design. In London a special committee, known as the Anti-Concrete Committee was set up to look at methods of destroying these structures.



Léon Dumis, Léonard Gille and René Duchez

08 <

Left to right:

Léon Dumis, Léonard Gille
and René Duchez.



“ I really think we have something. I think this may be the most important thing we have ever got hold of.

Colonel Touney, Head of the Organisation Civile et Militaire in Paris, on receiving the blueprints.

The blueprint of the wall was smuggled across the Channel in a biscuit tin with Colonel Remy (a member of the Resistance). He and his family were hidden away in a fishing boat.



09 ^ False identity card of René (Third Fool) Duchez.



10 ^ Duchez was awarded the “Croix du combattant volontaire de la Résistance”. The two-barred cross was the symbol of the Free French Forces in WW2.

HOBART'S FUNNIES

In August 1942 an unsuccessful seaborne assault was made on the port of Dieppe on the northern coast of France. Allied commanders were forced to call a retreat. Amongst other problems obstacles on the beaches had prevented the raiding force from making good progress. It was clear that new models of tank would be needed for future invasions.

In April 1943 Major-General Percy Hobart, an engineer, was given responsibility for many of the specialised armoured vehicles that would take part in the Normandy invasion in 1944. Under Hobart's leadership, the 79th (Experimental) Armoured Division Royal

Engineers assembled units of modified tank designs. They became known as "Hobart's Funnies". They were specialised devices to deal with specific obstacles, including some natural hazards such as soft ground and sand dunes.

The 79th Armoured Division were involved in exercises prior to D-Day at Castlemartin, Pembrokeshire. The replica German defences were attacked from the sea. In Suffolk the villages of Sudboure and Iken were requisitioned by the Army as a battle training area for the 79th Armoured Division under Major-General Percy Hobart.



10 ^ 02. Sir Percy Cleghorn Stanley Hobart 1885 – 1957
Armoured Warfare Specialist and Military Engineer.



- 11 ^ A Fascine - a bundle of wooden poles or rough brushwood lashed together with wires and carried at the front of the tank. It could be dropped to fill a ditch or form a step. Concrete obstacles modelled on the German beach defences were built as a training aid. This wall is at Orford, Suffolk.

Image: 0117-E1 Tank Museum.



- 12 ^ The Crab - the rotating flail of chains at the front detonated mines in the path of the tank. Training in the UK.

Image: 352-E2 Tank Museum



- 13 ^ The Bobbin - a reel of wide canvas cloth reinforced with steel poles could be unwound onto the ground in front of the tank to prevent sinking into the soft ground of the beaches.

Image: 2793-F4 Tank Museum



- 14 ^ 01. The 'black bull' badge of the 79th Armoured Division. They had the nickname of the 'zoo' or 'menagerie' due to the odd assortment of specialized tanks they used, with names like goat, crocodile, scorpion and crab.

Image: 8987-B6 Tank Museum

THE ANTI-CONCRETE COMMITTEE? WHAT WAS THEIR ROLE?

In 1943 the Anti-Concrete Committee was formed. It first met in London on Friday 25th June 1943. Its brief was to:

Review and co-ordinate existing work on methods of destroying, breaching and traversing concrete and reinforced concrete structures, including walls, pill boxes and other fortifications, and to recommend experimental work on new methods where desirable.

The concrete used in building the defensive structures was reinforced with steel bars. Many of the experiments carried out under the instructions of the Anti-Concrete Committee were aimed at finding out how these steel bars were affected. Were they bent, crumpled

or broken through and what weight or shape of explosive was required to do the most damage?

The ability to 'breach' the Atlantic Wall was the key to a successful invasion. The Committee gave the following definition of a 'breach':

A breach meant a 'tank breach', or one capable of admitting passage of a Churchill tank and should be 12 feet wide. Colonel Withers said that since Sherman tanks were likely to be available in greater numbers, the 'tank breach' should be large enough to admit this type, and that instead 14 feet was required. Where a Sherman tank could go, a Churchill could also.

“ ...I was sent back to my old battalion in Suffolk, who were experimenting with flails, snakes and scorpions and all the other strange menagerie of things, in the Orford training area, a part of Suffolk that was sealed off, highly secret. Some of the villages were evacuated, boarded up, and there they'd built replicas of the Atlantic Wall - pillboxes, bunkers, walls, minefields, wire, anti-tank ditches, the lot, full-sized - and we practiced breaching them.

Lieutenant Ian Hammerton
Sherman Crab flail tank commander, 22nd Dragoons
Extract from his contribution in "Forgotten Voices".



- 15 ^ 1944 Damaged concrete wall, France WW2 (caused by 'Flying Dustbins' the nickname for an explosive device fitted to a Churchill AVRE tank).

Image: 10218150/ILN Mary Evans Picture Library



- 16 ^ At Hankley Common, Surrey, the wall as it stands today. Explosive devices like "The Onion" created breaches in the replica concrete walls.

Image: C Shepherd



- 17 ^ Sheriffmuir, Perthshire. Showing the scatter pattern of the material that has been blasted out when breaching the wall.

Image: Wardrop and Crockett

WHAT WE KNOW ABOUT THE SHERIFFMUIR WALL

We know for a fact that Majors Fraser, Tyzack and Lt Broughton were sent to Scotland, 1 - 6 June 1943, to look for suitable sites "near Perth and Kilmarnock for proposed building of replicas of defences on the French Coast."

We also know a local man, Gordon Drew, who was in Dunblane with 49th Division. He tells us that:

“ In late 1943, I spent 3 weeks in Dunblane with my platoon from 756 Field Coy Royal Engineers.

18 ~ A small tunnel runs through this section of the Sheriffmuir Wall. The pattern of the corrugated iron sheets used for the shuttering in the construction of the wall are clearly visible.

Image: Duncan Ainslie





Gordon continues:

“ For many years after the war 49 Div Engineers held annual reunions. When I came to live in the area the question was often asked - 'is our wall still standing?'

And Major Fraser of 757 Field Coy recounting how the layout replicated a section of the Normandy defence system.

19 < A damaged section of the wall exposing deformed reinforcing bars. It is quite likely that barbed wire was strung along the top of the wall attached to twisted iron 'picket' rods.

Image: Wardrop and Crockett



20 < A well preserved section of the wall showing circular Tobruk shelters. One armed soldier could crouch down inside this shelter.

Image: Duncan Ainslie

LOCAL INFORMATION (DUNBLANE)

1944

Willie McLaren was 8 years old and stayed at Netherton Farm, near Blackford. Just down from the farm was Carsebreck Rail Station (no longer there), and in June 1940 the station was commandeered by the Army.

The remnants of the Tank Corps from Dunkirk arrived, with only three tanks. Willie still has a track spanner from one of them, complete with the marks where the German bullets hit it. It weighs over 12lbs (5.4 kg) and is 24 inches long (60 cms). Willie very kindly lent us this spanner for the Dunblane Museum temporary exhibition in 2014.

During the summer of 1940 the farm buildings at Netherton were used to house soldiers. Three rooms in the farmhouse were taken over for the officers' mess. It would appear that between 1940 and 1944 Blackford was designated as a Garrison (occupied by troops). Willie recalls that the wall on Sheriffmuir was used to train both Infantry and Artillery (heavy weapons), the Artillery being fired, blind, from Glen Artney. ('Firing blind' means that the target could not actually be seen!).

June 1940

The remnants of tank corps were stationed between Greenloaning and Blackford. "Carsebreck" station was built in 1850s for the curling pond with sidings for 6 trains. Tanks were unloaded at Carsebreck where they had to build a platform to offload them.

Approx 300 soldiers were billeted in the farm steading at Netherton (the house is still there). 3 rooms were commandeered for the Officers mess. Food was prepared down in the restaurant railway cars.

Most men slept in lofts and the farm building. In Nov 1940 the farmer did not know if he would be keeping cows or keeping soldiers! Soldiers stayed until 6 weeks before D-Day.

Tanks and artillery were firing blind from Glen Artney. During WW2 everything south of the A9 road was closed to the public (the old Roman Road).

Sept 1940

25 USA tanks – were taken through the fields to re-equip our own tank corps.

Blackford was not too far from Sheriffmuir.

According to Willie, in 1942/43 you could hear the shells being fired from across the valley. Many of the houses had south facing windows cracked with the blasts. They were all replaced by the authorities (or Army?).

During the war NO photographs of Blackford were allowed. It was illegal to carry a camera. The area was declared a "Military Sensitive Area".

There were quite a number of regiments. Either tanks or artillery. French Canadians and Americans.

April 1944

A Church service was held for the Army (before they left to muster down on the south coast of England prior to D-Day). The church was packed with soldiers in the body of the church and the local congregation up on the balcony. As they sung "Onward Christian Soldiers" there was not a dry eye in the house.

Another memory is of tanks parked up all down Stirling Street, Blackford. When they moved off you could feel the small village school shake!

Apparently there were ammunition huts on the north side of the A9, built in groups of 4. Everything in Blackford and area was very hush, hush.

The tank track spanner that Willie had came back from Dunkirk with one of the soldiers who stayed with Willie's father. The spanner was damaged with bullet holes from German fire. On leaving Blackford the soldier left it as a keepsake with Willie's father.

Truck bogies were pushed on tracks across the peaty land (presumably to move materials for mixing the concrete). Near Harperstone there was an area of flat land with piles of gravel. It was assumed that free-standing concrete mixers were stood here.

LOCAL INFORMATION (DUNBLANE) ...CONTINUED

Major General Urquhart kept in touch with Willie's mother until the 1980s

[According to Wikipedia: Robert Elliott "Roy" Urquhart born London, 28 Nov 1901 (Father was a Scottish dentist) died 13 Dec 1988 Port of Mentieth].

1939/40

Telegraph poles were placed in the fields around Blackford, near where Highland Spring is today, to stop gliders landing.

Peter's story:

Peter McColl from Aberfoyle was a Veteran of the Normandy landings.

He landed on 6th June 1944 near Arromanches. He was serving with 14 Platoon, 546 Company, Royal Engineers. They sailed across from the UK on the Liberty ship "Empire Earl". Their vehicles were lifted onto landing craft barges which then sailed to the beach, which was still under German artillery fire.

The Liberty ship was a class of cargo ship built in the United States during World War II. Though British in conception, the design was adapted by the United States for its simple, low-cost construction. Mass-produced on an unprecedented scale, the now iconic Liberty ship came to symbolize U.S. wartime industrial output. (source: Wikipedia)

Roosevelt said that this new class of ships would bring liberty to Europe, which gave rise to the name Liberty ship. (source: Wikipedia)

LOCAL INFORMATION (SURREY)

The Surrey Defences Survey, part of the Surrey Industrial History Group, aims to record all defence and associated works still in existence in the county.

Chris Shephard, a member of this group prepared a short article title "A Sea Wall in Surrey?" in 1995. With Chris' permission the text of his article follows:

A **SEA WALL** in **Surrey?**



An explanation of some of the
wartime activities on Hankley Common
near Farnham
by Chris Shephard

The Second World War has left many physical reminders in Surrey, particularly as there were such a large number of troops billeted here just prior to D-Day. Most of this evidence is in the form of pillboxes and other defence works, but did you know that we have the distinction of having a sea wall many miles from the nearest coast?

Just what is the story behind this strange artefact in the middle of Hankley Common, between Elstead and Tilford? Many walkers in the area have come across the strange structure amid the silver birch trees looking something like the ruins of Ankor Wat in Cambodia, but very little has ever been recorded about it.

An article in the Ministry of Defence conservation magazine "Sanctuary" published in 1988 provides much information supplied originally by a Mr Wood who was involved in the wartime trials with the wall.

During the summer of 1943, Mr Wood, a Royal Armoured Corps driver/mechanic, was attached to the Fighting Vehicle Proving Establishment at Chertsey. His section was involved in the testing of assault equipment and was sent with a Churchill Mk II tank to Elstead where he was billeted in a hutted camp with Canadian troops.

The task, over a period of several days, was to take the vehicle, which was equipped with a device called "The Onion" (or possibly "Double Onion"), across the common to the Lion's Mouth (SU883413). Here an area of obstacle had been set out to represent the defences thought likely to be found during a landing in Europe. These consisted of a large section of reinforced concrete wall, approximately 100m long and 3m high by 3.5m wide. In the centre of this wall was a gap 6 ft wide, closed by a three section heavy steel girder gate running on rollers. To one end of the wall were several types of tank traps, including "dragons' teeth", lengths of railway track set in concrete and wire entanglements.

Most of the obstacles were to be attacked with rockets hauling lengths of explosive filled tube (known as "Bangalore Torpedoes") and 'carpet laying devices' for the barbed wire. Mr Wood's Churchill tank, however, was designed to deal with the wall itself and the steel gates. To this end it was equipped with a steel frame measuring some 10 feet wide by 6 feet, fitted vertically in front and mounted on arms attached to the vehicle sides. On this

framework were hung boxes containing some 1000 lbs of explosive.

The tank was driven towards the wall and, on arrival, the framework was lowered to the ground against the obstruction. The vehicle was then backed off to a distance of some 100 feet, paying out an electric detonating cable as it went. The explosives were then detonated by the driver and the resulting effect can still be seen in the remains of the wall to this day, each of the two gaps created measuring some 3.5m (just about 12 feet) in width. Obviously these resulted in considerable bangs which must have been heard throughout the district and it is thought that these could have led to claims against the War Department for ceiling collapses in nearby Tilford village which originate at about this time.

Mr Wood believes that the Canadian troops were responsible for building the "Atlantic Wall" here, and the commandant of the Longmoor military training area, under which Hankley now falls, has reported that raiding parties were sent across the Channel to accurately measure the real thing and bring back samples of the concrete to ensure the training version was as realistic as possible. This must have been quite an undertaking, especially as it was necessary to chip pieces off without being heard!

Another inland example exists in Stirlingshire (NN838037), on the Sherffmuir Hills. Again, this was used in demolition tests. This second wall has recently been surveyed and found to be very similar in overall size although it tapers in section dramatically towards one end. The thickness of the wall varies from 3 m (approx. 10 feet) down to 0.7 m (approx. 2ft 4 inches) and a two metre deep ditch lies on the down slope side. Again concrete is scattered back a considerable distance from a single explosive created breach in the wall.

As well as the two massive breaches blasted in the Hankley wall by the explosives there are also many marks made by shells spalling off the concrete and snapping and twisting the reinforcement near to the surface. Other than this the wall must be very much as it was built, even though several more generations of troops have trained in the area which has provided military training since the inter-war period.

LOCAL INFORMATION (PEMBROKESHIRE)

Castlemartin RAC Range

At Frainslake, Castlemartin, Pembrokeshire

Type: ANTI TANK WALL (Assault Training)
WW2

Condition: Bad

Material : Concrete

Constructed approx. 1943

Field visit on 1997/05/10

Description: Blasted fragments of a concrete anti tank wall at high tide mark on Frainslake Beach, built for exercise "Bullseye" in 1943
Plotted by GPS

Source www.experiencepembrokeshire.com/history-archaeology/military-heritage/castlemartin

Pembrokeshire Military and Maritime Heritage Group

Roger Thomas, Chairman

Ref: Thomas 1995 "Castlemartin's little bit of Tobruk"

(MOD Conservation magazine) 24

Longhorsley Moor (Northumberland) became a tank training area (mention of men from 5th Royal Inniskilling Dragoon Guards going to Castlemartin with their tanks for full scale gunnery practice and manoeuvres).

www.longhorsleylocalhistorysociety/ww2

Information from Roger Thomas

At the Castlemartin range:

- 2 observation posts
- 7 tobruk shelters (2 may no longer be any good but the others are of an unusual design)

Roger mentioned Braunton Sands, N Devon, near Barnstaple. Used for

training Walls built and re-built

Satchel charges place against it

As it stands it is pock-marked along its full length

Photos in Washington (USA) archives

LOCAL INFORMATION (SUDBOURNE)

Information about the Sudbourne Wall, near Orford in Suffolk.

Chris Shepheard was very generous with his information and informed us about the wall at Sudbourne (near Orford in Suffolk).

A volunteer from Orford Museum (Brian Boulton) wrote the following to Chris in May 2009.

"In October (2008) we held a very successful two day exhibition in Orford Town Hall to celebrate the 60th anniversary of the release of the villages of Sudbourne and Iken back to the residents following their requisition by the Army as a battle training area by the 79th Armoured Division under Major-General Sir Percy Hobart. During the course of the event and since then further information has been forthcoming about events and items that relate to the period between 1942 and 1948."

"Following information from a local resident I attended a location in the village of Sudbourne with our Curator and the landowner where we are now certain we have discovered a section of the missing concrete Atlantic Wall. The present section of wall, built into a bank separating two fields, is 22 metres long and eight feet high."

"I have been in contact with the (Bovington) Tank Museum and obtained from them a copy of a photograph showing a Churchill 'Double Onion' placing a charge against a wall. This photograph has been identified as having been taken at Sudbourne on the section of wall we have now located. In addition I have today received a scan of an aerial photograph taken of the site by the RAF in 1945, and part of the wall can be seen by zooming in on the image".

The British 79th Armoured Division trained at Linney Head, South Wales. The division's 1st Assault Brigade (Royal Engineers) established a training school at Orford, Suffolk in October 1943

SOURCES

The book:

"Ten thousand Eyes... and the wall came tumbling down" by Richard Collier. Published by Collins, London, 1958

Book description from the fly leaf of the 1958 hardback version:

While the Todt Organisation was constructing a Wall which Hitler hoped would forever keep the Western Allies off the Continent of Europe, thousands of French men and women were observing and transmitting its secrets in peril of their lives. Particularly in the area between Cherbourg and Le Havre, where military opinion quite clearly foresaw that re-entry into France was most likely to be effected, housepainter, electrician, port employee, steeplejack, doctor prepared for D-Day with a thoroughness all the more deadly for its outward casualness. Meeting every evening for their customary calvados and under cover of their lively disruptions, they received precise instructions from the secret agents sent out by de Gaulle's Intelligence in London as to what to look for.

Then, as they went about their daily business, they watched, measured, noted their observations on cigarette papers in invisible ink and smuggled them to Paris. From there they were forwarded to London by means of a battered old fishing vessel which made rendezvous with a British trawler towards dusk off the Breton coast.

On one occasion the wily housepainter, Duchez, managed even to steal, by a daring ruse, a blueprint of the Wall itself. It is a tale of infinite courage, cunning, tenacity and danger.

Hardly less resourceful and persistent than the actors in the story were the efforts of the author to track them down and put it together. He succeeded in making contact with the survivors (not all survived the Gestapo inquisitions), recorded the memories of each and has put the whole together to make not only an immensely exciting book but one assured of a permanent place in the literature of espionage.

The National Archives in Kew

The official archive of the UK government Kew holds records covering more than 1,000 years of history. Government records which have been selected for permanent preservation are sent to the National Archives.

War Office records in the series WO 195 contain reports relating to the attack on reinforced concrete, the weapons under development to destroy concrete, trials at 'Obstacle Assault Courses', minutes of the Anti Concrete Committee and more.

For our purposes the Anti Concrete committee papers were the main starting point.

Canmore / RCAHMS

Information from Historic Scotland, scheduling document dated 19 November 2003

Visited by RCAHMS (DCC) 27 November 1998 with information from Dr Diana Henderson (The Scots at War Trust) and John Guy

[Area centered NN 8379 0369]. Scheduled as Sheriff Muir, Whitestone Range, SW of Harperstone...visible as upstanding ruins, ditches and earthworks.

GLOSSARY

COHQ	Combined Operations Head Quarters	EinC	Engineer in Chief
OAC	Obstacle Assault Course	RE	Royal Engineers
ATEE	Anti Tank Experimental Establishment	E&M	Electrical & Mechanical
DBD	Director Bomb Disposal	HE	High Explosive
LCT	Landing Craft Tank	LCM	Landing Craft Mechanical
AVRE	Armoured Vehicle Royal Engineers	LCVP	Landing Craft Vehicle Personnel
CCS	Combined Chiefs of Staff (Allies)	RCT	Regimental Combat Team
COSSAC	Chief of Staff, Supreme Allied Commander (HQ of CCS in London)	ACT	Assault Combat Team

FURTHER READING

Gold Juno Sword by Georges Bernage.
Published Heimdal 2003
ISBN 2 84048 168 5

The Illustrated Guide to Tanks of the World by George Forty.
Published Hermes House 2005
ISBN 1 84477 744 8

Building the Third Reich. Organisation Todt from Autobahns to the Atlantic Wall.
Edited by John Christopher.
Published by Amberley 2014
ISBN 978 1 4456 3856 0

The Atlantic Wall Normandy 1944 by Rémy Desquesnes (Historian)
Published by OREP Editions 2008
ISBN 978 2 915762 61 7

The Atlantic Wall History and Guide by J E Kaufmann, H W Kaufmann, A Jankovič-Potočník, Vladimir Tonič
Published by Pen and Sword 2011
ISBN 184884387 9

Hitler's Atlantic Wall Normandy by Paul Williams.
2013 Published by Pen and Sword
ISBN 978 1 78303 058 3

Hitler's Atlantic Wall Pas de Calais by Paul R Williams.
Published by Pen and Sword 2013
ISBN 9781848848177

Tank Men The Human story of tanks at war by Robert Kershaw.
Published 2008 Hodder & Stoughton
ISBN 978 1 444 71483 8

Ten Thousand Eyes by Richard Collier.
Published by Collins 1958

Forgotten Voices of D Day by Roderick Bailey
Ebury Press 2009

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Dunblane Museum

The Cross, Dunblane FK15 0AQ
dunblanemuseum.org.uk

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