

1986 - Box 3

Report No: 1986R022

STRUCTURAL
REPORT -
BUILDINGS SURVEY

WORKING COPY

JOHN R SMITH



THE KENNALL GUNPOWDER COMPANY, PONSANMOOTH.

AN ARCHAEOLOGICAL / HISTORICAL STUDY ON BEHALF OF THE CTAC.

VOL I.

INTRODUCTION

HISTORY OF THE SITE: WATER POWER ON KENNALL RIVER (MAPS)
HISTORY KENNALL GUNPOWDER Co
REFERENCE TO "CORNISH EXPLOSIVES"

PART 2

THE ARCHAEOLOGICAL EVIDENCE

- A) DESCRIPTION OF THE SITE (MAP)
- B) DESCRIPTION EXISTANT STRUCTURES (FROM BUILDINGS REPORTS BUT ELABORATED)
- C) SURVEY OF SITE + RESULTS (1:500)
SURVEY OF SELECTED STRUCTURES (1:50)
- D) DISCUSSION OF UNUSUAL FEATURES / PROBLEMS

PART 3

CARTOGRAPHIC

PART 4

THE DOCUMENTARY EVIDENCE

- A) CONTEMPORARY ACCOUNTS
 - B) ACCIDENT REPORTS (INCLUDING H.M.I.E)
 - C) THE KENNALL PAPERS (CRO)
 - ~~D) CARTOGRAPHIC SOURCES~~
 - E) KELLY'S ENTRIES
- } + COMMENTS

→ SUMMARY OF CONCLUSIONS

PART 5

CONCLUSIONS

- A) CHRONOLOGY FOR THE SITE
- B) METHODS OF WORKING
- C) TRANSPORT
- D)

PART 6

PHOTOGRAPHS

FURTHER RESEARCH DIRECTION —
STUDY OF ACCOUNTS / ORAL SOURCES / LEVELS ETC

PART 7

SOURCES + BIBLIOGRAPHY

VOL 2

MANAGEMENT PROPOSALS FOR THE SITE

PART 1 GENERAL APPRAISAL

PART 2 FOOTPATHS & ACCESS

PART 3 LEATS & WEIRS

PART 4 STRUCTURES & INTERFACES

KENNALL VALE - STRUCTURES REPORT

The CTNC leased area at Kennall Vale includes the greater part of the Kennall Gunpowder Company's works and buildings. These are arranged on various levels along the length of the valley, but in general occupy positions in close proximity to the river and leat system which provided power for milling and other processes; the upper valley slopes contain no remains of this type. The buildings were linked by a complex system of tracks and pathways, involving several bridges across the river. This system remains intact for the most part, although overgrown and very wet in places.

The process buildings which have extant remains at Kennall Vale are of great importance to the full understanding of the gunpowder making process, and offer us a unique opportunity to study in detail a nineteenth century industrial complex. In this respect it is very fortunate that so many buildings have survived virtually intact.

As lessees of the site, it is now the trust's responsibility to ensure that the archaeological content is properly conserved for present and future generations to appreciate and study; architecturally, the buildings are of high quality and add to, rather than detract from, the appearance of the valley. The necessarily massive nature of the mills in particular in many respects has not only ensured their survival to the present day but also reduces the problem of conservation in the future. Much basic conservation work does, however, need to be undertaken in the near future if long-term problems are to be avoided. The work required is simple, requires no great financial outlay, and can readily be undertaken by the MSC team already allocated to the site.

General Principles for Management

- a) A CLEAR AREA should be established around each extant building or structure. A strip 4 metres wide, measured from the external walls, should be cleared around each building. The interiors of all buildings should be similarly cleared of vegetation and debris, this process to be repeated on a yearly basis. The purpose of this is two-fold; it allows proper study and examination of the remains, and also greatly enhances safety for the visitor and site worker. At present many wheel-pits, shafts and other traps for the unwary are heavily obscured by undergrowth. The loss of habitat resulting will be a very small proportion of the whole.
- b) FALLEN TREES, where they are lying across or on top of walls or structures, must be removed. Debris from the interior of buildings should be carefully removed in case significant artefacts are discovered.
- c) IVY must in all cases be removed from masonry walls. This plant is extremely destructive, and if left to grow unchecked will effectively demolish the buildings.
- d) STABILISATION of masonry should be undertaken where required. This may involve in some cases a simple cement-capping of walls, in others re-pointing and a limited amount of reconstruction may be required.

The buildings and structures under consideration in this report are only those of the Kennall Gunpowder Company; the later quarry buildings are not considered here and should perhaps be the subject of further study if time allows.

The Structures

Reference is made to all structures by number. These are the original factory numbers, as defined on the plan "Kennall Vale - Buildings by Function". Buildings nos 1 to 10 inclusive fall outside the leased area and are not included, as do 54, 55, and 56. Buildings 11 and 14 are also excluded from the leased area, although under the ownership of Ross Williams.

It is fortunate that the remains of the Kennall Gunpowder Company are in such an excellent state of preservation; a large part of the leat structure, trackway system, and the majority of the process buildings have extant remains. By far the most spectacular are the massively built Incorporating Mills, which are arranged in a series of seven pairs on the northern side of the valley. These have been provisionally classified into three types, each representing a distinct phase of construction; type A is represented by pair 22/23, type B by pairs 24/25 and 20/21, and type C by pairs 26/27, 28/29, 30/31, and 32/33. Both Corning Houses are well preserved, with underground wheelpits. One Glazing Mill survives virtually intact, as does the lower Mixing House. The original Gloom Stove is well preserved, although is not within the leased area. Kennall Vale is in effect two factories, upper and lower, and this duplication of the process buildings has meant that more survives than might have been expected when the destruction by the later quarry workings is taken into account. There are many extant Expense Magazines, Dusting and Separating Houses, and one Packing House; both Press Houses have, however, been completely destroyed.

Artefacts

So far very few artefacts definitely attributable to the era of gunpowder manufacture have been found on the site. This is perhaps not surprising when the wooded and heavily overgrown nature of the area is considered, coupled with the later re-use and obliteration of features within the quarry area. Within the leased area there are three millstones, parts of a bedstone, and various pieces of ironwork from the mixing-house (17). The collapsed waterwheel in mill pair 32/33 is probably original.

John R Smith

CTNC Archaeologist
October 1985

KENNALL VALE

PROPOSED WORK SCHEDULE (MODIFIED)

November 1985

Following the first meeting of the Kennall Vale Management Committee on 30 October 1985, it was decided that (in view of the current difficulty relating to adequate project funding) a revised work programme should be put forward for discussion. This programme should outline work on the site which will contribute to the overall management plan in the long term, but should have an emphasis on those aspects of the project requiring minimal funding.

The following proposals are outlines only for guidance as to the options available; for a full discussion of the management principles and a detailed analysis of project schemes the earlier reports on Footpaths, Leats and Structures should be referred to.

On the accompanying map coloured areas indicate those parts of the site which are in urgent need of clearance and investigation; this work is ideally suited to the winter months, when disturbance to wildlife will be minimised, and are highly labour-intensive but require little in the way of materials. No priority is implied by the following order of presentation:

- ✓ a) Construct footpath from Workbase (50) to the lower trackway.
- ✓ b) Clear and re-establish the drainage ditch beside the lower trackway down to the stone bridge.
- ✓ c) Establish a temporary path to buildings 52/52a. Establish a clear area around the buildings, clear the debris and fallen trees. Clear pathway to 53 and bridge abutment, clear 53.
- ✓ d) Carefully clear the interior of 18, with special reference to possible artefacts.
- ✓ e) Trench across a portion of the interior of 17, object to establish the original floor level.
- f) Investigate the site of 13, attempt to establish position of leat tailrace.
- g) Establish clear area around 14 and pump house to allow survey.
- ✓ h) Clear vegetation from the leat feeding 17, carefully excavate wheelpit to establish position of tailrace.
- i) Establish clear area around mills 20/21, remove debris.
- j) Clear mills 26/27 & 28/29, establish clear area around bridge, tailrace and leat. Remake the footpath in this area as required.
- k) Clear mills 30/31, 32/33. Remake footpath in this area.
- l) Remake footpath to 34, clear and investigate for further work.
- ✓ m) Clear the interior of 41 for investigation .

John R Smith
CTNC Archaeologist

November
1985

THE KENNALL GUNPOWDER MILL COMPANY

Established in Kennall Vale in 1812, the Kennall Company was the second gunpowder works to be set up in Cornwall, the first being nearby at Cosawes in 1809. By this time the use of powder as a blasting medium in the mines and quarries of the County was standard practise, and a ready market existed for good quality gunpowder; the development of Bickford's safety fuse in the 1830s offered the powder makers another market for their products and made blasting safer and more convenient for the user.

The factory at Kennall Vale was constructed in two stages; the original lower works, running up the valley from Kennall House, was expanded in 1844 by a second self-contained works higher up, known as the Roches section. Thus most of the process buildings were in fact duplicated on the site. Outside the immediate factory area were the main storage magazines, the saltpetre refinery, and the charcoal mill. The Company also owned two paper mills and a farm higher up the valley, and several cottages in Ponsanooth village.

The process used for powder-making at Kennall was the standard method of the time. The basic raw ingredients of gunpowder, saltpetre, sulphur and charcoal, were weighed out in the correct proportion and given a preliminary mixing in a rotating wooden barrel in the Mixing House. This "green charge" was then taken to one of the Incorporating Mills. Here the powder was spread onto the bed of the mill, dampened, and thoroughly ground and mixed to a fine consistency by the action of two large edge runners rotating on the bed. The time taken for this operation varied according to the grade of powder being manufactured; blasting grades required about four hours in the mill. From the mill the powder was taken to the Press House, where it was compressed by means of a hydraulic ram into a cake about an inch thick. This "press cake" was then broken into small pieces with wooden mallets in the Breaking Down House. The Corning House or Granulating House further reduced the lump powder to grains, graded to size by a series of vibratory screens; from here the powder was taken to the Stove for drying, and was cycled via the Dusting House to the Glazing Mill. Here the grain powder was placed into a rotating wooden drum with the addition of a little graphite to round and glaze the finished product. The powder was then packed into wooden barrels in the Packing House, ready for sale to local mines and quarries.

All these processes at Kennall Vale were powered by waterwheels, fed from a complex series of leats which ran on both sides of the river. Transport within the works was by horse and a small enclosed two-wheeled cart. At its peak in the mid-nineteenth century the works employed upwards of fifty men, but the collapse of Cornish mining in the 1880s and the invention of high explosives such as dynamite resulted in a greatly reduced demand for gunpowder. The Kennall Company sold the works to Curtis's & Harvey in 1898, who seem then to have concentrated production on specialised products such as fuse powder and compressed cartridges until eventual closure in ca 1914.

GLOSSARY OF PROCESS BUILDING TERMINOLOGY

BREAKING DOWN HOUSE

Press cake from the press house was here broken into small pieces by wooden mallet.

CHANGE HOUSE

Provided for the workforce to change clothing.

COMPRESSED CARTRIDGE HOUSE

Here gunpowder was compressed by hydraulic power into pellets or bobbins; gunpowder in this form was popular for blasting in the late 19th century.

COOPERAGE

Wooden casks were made and repaired here for packing the finished product; the standard measure was 100 pounds weight.

CORNING HOUSE

Powder from the Breaking Down House was here further reduced in size and graded by a series of vibratory screens.

DUSTING & SEPARATING HOUSE

After the corning process, residual dust was separated from the granulated powder and passed back to the press.

EXPENSE MAGAZINE

Magazine used for the storage of materials between processes; these were necessary to avoid accumulations of gunpowder in the process buildings beyond the permitted storage limit.

GLAZING MILL

The grains of powder were placed in a rotating wooden drum with the addition of a quantity of graphite, to round the particles and give them a protective gloss.

INCORPORATING MILL

The "green" charge from the mixing house was here thoroughly mixed or incorporated in a slew mill consisting of two large edge runners working on a stone bed. The charge was dampened at intervals, the process taking four hours for normal blasting powder.

MAGAZINE

Building used to store explosive materials.

MIXING HOUSE

Here the raw ingredients of gunpowder, sulphur, saltpetre and charcoal, were mixed in a rotating wooden barrel before being taken as a "green" charge to the incorporating mills.

PRESS HOUSE

Powder from the incorporating mills was placed in a hydraulic press and compressed into slabs about an inch thick. (press cake).

STOVE

Powder from the corning house was dried on trays placed over a series of flues fed by steam from a boiler.

KENNALL VALE MILLSTONES

Next to Mill no 25

2 runner stones, one broken in half.

Intact stone: 1.6 x 0.41 metres

Centre Hole: 0.25 x 0.25 sq

Bearing: 0.18 od x 0.103 id

WEIGHT PER STONE: ~~1.72 tons~~
1.72 tons

In Building no 41

Intact stone: 1.43 x 0.25 metres

Centre Hole: 0.24 sq

Row of holes plugged with wood dowels around circumferential face.

At Cosawes Entrance

Intact Stone: 1.55 x 0.38 metres

Centre Hole: 0.24 sq

2 round holes 0.04 dia spaced at 0.26 from centre.

KENNALL MILLSTONES FROM INCORPORATING MILL 25

SIZE: 1.6 x 0.41 metres

CENTRE HOLE 0.25 x 0.25 metres square.

$$\text{VOLUME OF STONE} = \pi \times 80^2 \times 41 \text{ cc.}$$

$$= 824461 \text{ cc}$$

$$\text{LESS VOL HOLE (25625 cc)} = 798836 \text{ cc.} / 28.2 \text{ cu ft.}$$

VOL OF STONE SAMPLE: 80 cc

WEIGHT OF STONE SAMPLE: 175 gs.

$$\therefore \text{WEIGHT OF STONE} = \frac{798,836}{80} \times 175 \text{ kg}$$
$$\frac{1000}{1000}$$

$$= 1747 \text{ kg (1.72 tons)}$$

TOTAL WEIGHT STONES:

FOR 2 PAIRS MILLS (8 stones) = 13.76 tons

FOR 3 " " (12 ") = 20.64 tons

1 cu ft marble = 171 lb

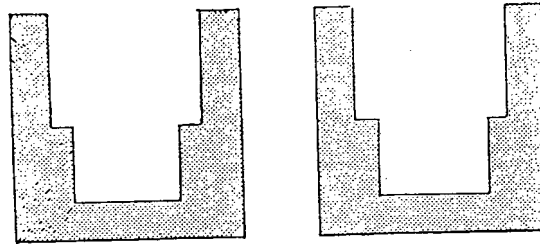
\therefore if marble stone = 2.15 tons

TON = 2240 lb

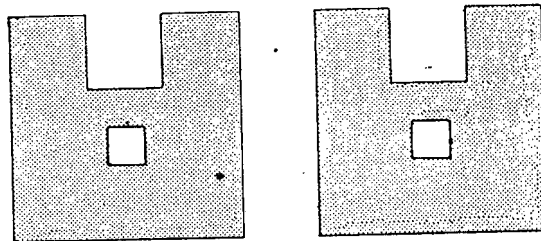
1 k.l.b = 2.2046 lb

Kennall Vale - mill types

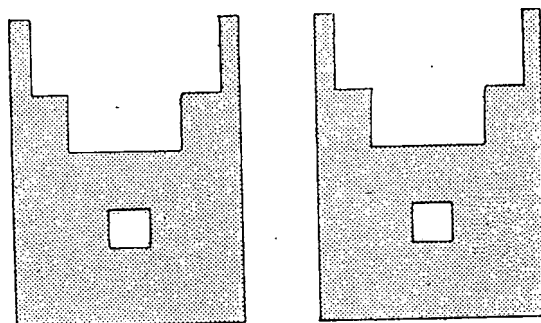
a



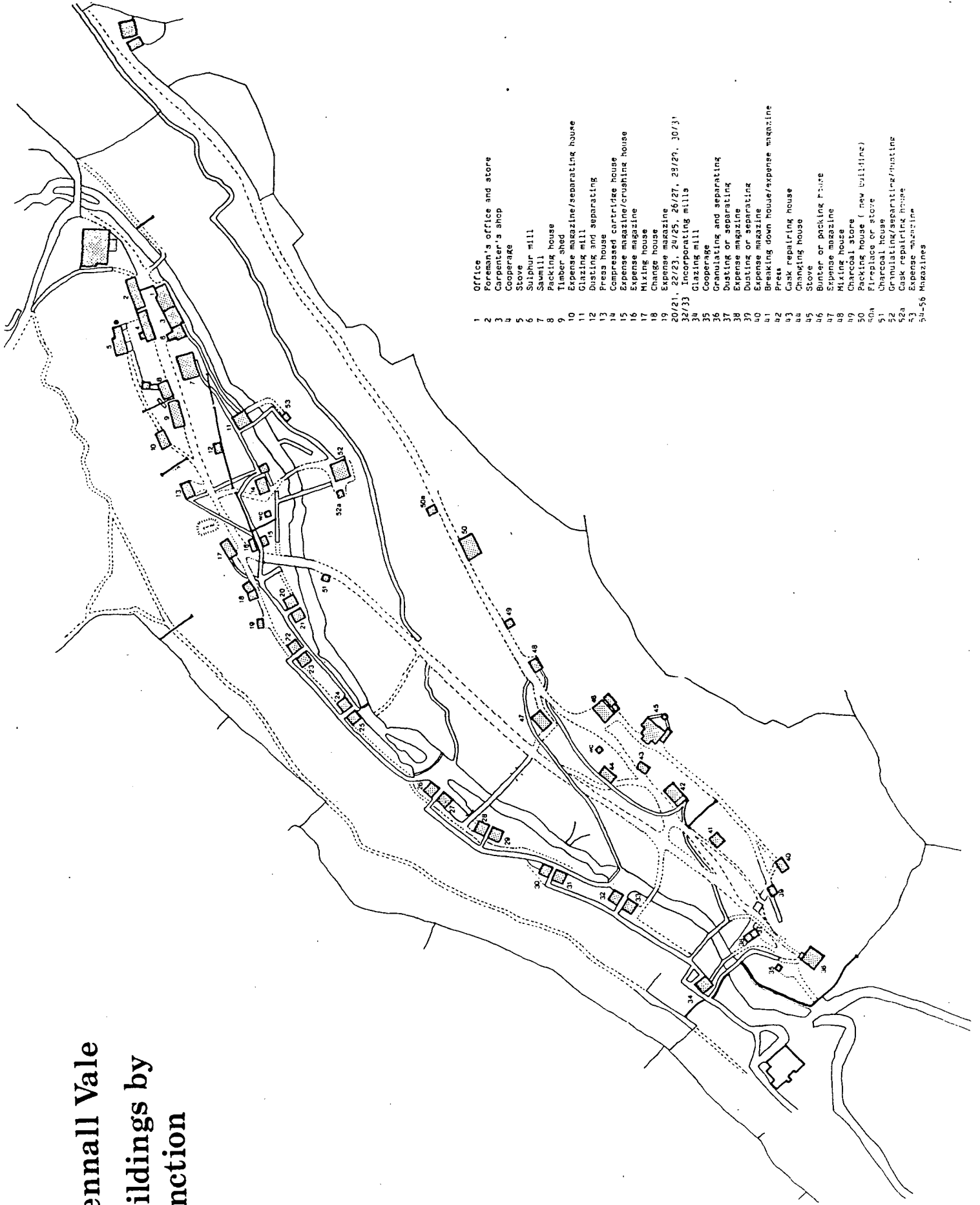
b



c



Kennall Vale buildings by function



- 1 Office
- 2 Foreman's office and store
- 3 Carpenter's shop
- 4 Coopersage
- 5 Stove
- 6 Sulphur mill
- 7 Sawmill
- 8 Packing house
- 9 Timber shed
- 10 Expense magazine/separating house
- 11 Glazing mill
- 12 Ducting and separating
- 13 Press house
- 14 Compresser cartridge house
- 15 Expense magazine/crushing house
- 16 Expense magazine
- 17 Mixing house
- 18 Change house
- 19 Expense magazine
- 20/21, 22/23, 24/25, 26/27, 28/29, 30/31 Incorporating mills
- 32 Glazing mill
- 33 Coopersage
- 34 Granulating and separating
- 35 Ducting or separating
- 36 Expense magazine
- 37 Ducting or separating
- 38 Expense magazine
- 39 Breaking down house/expense magazine
- 40 Press
- 41 Cask repairing house
- 42 Changing house
- 43 Stove
- 44 Butter or packing frame
- 45 Expense magazine
- 46 Mixing house
- 47 Charcoal store
- 48 Packing house (new building)
- 49 Fireplace or stove
- 50 Charcoal house
- 51 Granulating/separating/mixing
- 52 Cask repairing house
- 53 Expense magazine
- 54-56 Mixazines

BUILDING NUMBER: Kennall House

ORIGINAL FUNCTION: Gunpowder Company Manager's residence

PRESENT CONDITION AND EXTANT FEATURES:

Extant as private residence. Owner Mr Bott, on whose land are situated factory buildings 1 - 10

RECOMMENDATIONS FOR CONSERVATION:

ACTION TAKEN:

BUILDING NUMBER: 1 / 3 / 6 / 7 / 8 / 9

ORIGINAL FUNCTION: Office; Carpenter's Shop; Sulphur Mill; Sawmill;
Packing House; Timber Shed.

PRESENT CONDITION AND EXTANT FEATURES:

These buildings have all been destroyed and there are no extant remains
except: end wall of 1. Base of 8. Base of 9.

RECOMMENDATIONS FOR CONSERVATION:

Not within leased area

ACTION TAKEN:

BUILDING NUMBER: 2

ORIGINAL FUNCTION: Foreman's Office and store.

PRESENT CONDITION AND EXTANT FEATURES:

Has been extensively modified. Rear wall and foundations original

RECOMMENDATIONS FOR CONSERVATION:

Not within leased area

ACTION TAKEN:

BUILDING NUMBER: 4

ORIGINAL FUNCTION: Cooperage

PRESENT CONDITION AND EXTANT FEATURES:

Frontage intact in good condition, may have been reduced in height.

RECOMMENDATIONS FOR CONSERVATION:

Not within leased area.

ACTION TAKEN:

BUILDING NUMBER: 5

ORIGINAL FUNCTION: Stove

PRESENT CONDITION AND EXTANT FEATURES:

Extant walls of Stove and Boiler House, also Chimney Stack.

RECOMMENDATIONS FOR CONSERVATION:

Not within leased area.

ACTION TAKEN:

BUILDING NUMBER: 10

ORIGINAL FUNCTION: Expense Magazine & Separating House

PRESENT CONDITION AND EXTANT FEATURES:

Walls Extant.

RECOMMENDATIONS FOR CONSERVATION:

Not within leased area.

ACTION TAKEN:

BUILDING NUMBER: 11

ORIGINAL FUNCTION: Glazing Mill

PRESENT CONDITION AND EXTANT FEATURES:

Footings only extant, heavily overgrown. The abutment of the bridge to 52 is in situ, as are the piers to support the leat aqueduct at the rear. *PROBABLY THE SUBJECT OF 1841 EXPLOSION.*

RECOMMENDATIONS FOR CONSERVATION:

This building falls outside the leased area, but is in the Williams' ownership. It would be very desirable to clear the vegetation to allow further study/survey.

ACTION TAKEN:

BUILDING NUMBER: 12

ORIGINAL FUNCTION: Dusting & Separating House

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding walls extant with window and door openings. Forms a lean-to against the blast wall at this point.

RECOMMENDATIONS FOR CONSERVATION:

Establish a clear area. Cap the wall with cement.

ACTION TAKEN:

BUILDING NUMBER: 13

ORIGINAL FUNCTION: Press House

PRESENT CONDITION AND EXTANT FEATURES:

No extant remains apart from scattered granite blocks. Wheelpit may be in situ but choked with debris.

RECOMMENDATIONS FOR CONSERVATION:

Vegetation should be removed from this area to establish if possible the location of the wheelpit and tailrace.

ACTION TAKEN:

BUILDING NUMBER: 14

ORIGINAL FUNCTION: Compressed Cartridge House & Pump House

PRESENT CONDITION AND EXTANT FEATURES:

Base only of Cartridge house extant, pump house has upstanding walls; wheelpit and tailrace in situ. Masonry appears to be in good condition.

RECOMMENDATIONS FOR CONSERVATION:

These buildings fall outside the leased area, but are in the Williams' ownership. It would be very desirable to clear the vegetation from them to allow proper study/survey.

ACTION TAKEN:

BUILDING NUMBER:

ORIGINAL FUNCTION: Blast Wall surrounding 11 & 14

PRESENT CONDITION AND EXTANT FEATURES:

Wall extant to full height with door openings. Masonry in good condition at present.

RECOMMENDATIONS FOR CONSERVATION:

Clear Ivy and examine for remedial work as required.

ACTION TAKEN:

BUILDING NUMBER: 15 & 16

ORIGINAL FUNCTION: Expense Magazines and Crushing House .

PRESENT CONDITION AND EXTANT FEATURES:

No extant remains visible.

RECOMMENDATIONS FOR CONSERVATION:

ACTION TAKEN:

BUILDING NUMBER: 17

ORIGINAL FUNCTION: Mixing House

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding walls and gable ends to full height, rubble masonry with cut granite quoins. Door and window openings which are unstable and unsafe at the east end in particular. Wheelpit in situ. Various artefacts found including iron grates, shaft and gear. * NOTE: GABLE ENDS HAVE BEEN RE-BUILT AT SOME POINT WITH ROUNDED STONE FROM RIVER *.

RECOMMENDATIONS FOR CONSERVATION:

Establish clear area, remove ivy. Make good, repair and re-point door and window openings, cap walls. Dig out and clear wheelpit.

ACTION TAKEN:

Clear area established.

WHEELPIT CLEARED
TRENCH DUG TO ESTABLISH FLOOR LEVEL (BENEATH)
POSSIBLE LOADING BAY = RAMP AT FRONT

BUILDING NUMBER:

ORIGINAL FUNCTION: Stone Bridge across River Kennall.

PRESENT CONDITION AND EXTANT FEATURES:

Granite lintels laid across stone piers, stone parapet. Condition is excellent.

RECOMMENDATIONS FOR CONSERVATION:

No work required to bridge. The drain beside the track should be re-made to divert and channel water escaping from the higher leat.

ACTION TAKEN:

DRAIN BESIDE TRACK CLEARED.

BUILDING NUMBER: 18

ORIGINAL FUNCTION: Change House

PRESENT CONDITION AND EXTANT FEATURES:

Constructed of rubble masonry with some use of brick. Subdivided into two rooms, with hearth in one. Door and window openings to upstanding walls. collapsed in places. GRANITE MILLSTONES SET INTO FLOOR IN EASTERN ROOM.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation, remove rubble from interior (examine carefully for artefacts). Stabilise and cap walls.

ACTION TAKEN:

FLOOR CLEARED IN EAST HALF, PARTIALLY CLEARED IN WEST.
3 GRANITE MILLSTONES (POSSIBLY FROM SULPHUR MILL?). FIREPLACE
& BRICK FLOOR IN PART.

BUILDING NUMBER: 19

ORIGINAL FUNCTION: Expense Magazine

PRESENT CONDITION AND EXTANT FEATURES:

Small building constructed of rubble masonry. Upstanding walls, collapsed by entrance.

RECOMMENDATIONS FOR CONSERVATION:

Cap walls with cement.

ACTION TAKEN:

Vegetation has been cleared.

BUILDING NUMBER: Wheelpit by Stone Bridge

ORIGINAL FUNCTION: Possibly the remains of early Incorporating Mill

PRESENT CONDITION AND EXTANT FEATURES:

Extant wheelpit and tailrace, remains of walls.

RECOMMENDATIONS FOR CONSERVATION:

Clear debris from wheelpit.

ACTION TAKEN:

Vegetation has been cleared (1985). Area surveyed at 1:50.

BUILDING NUMBER: 20/21

ORIGINAL FUNCTION: Incorporating Mills Pair / type 'B'

PRESENT CONDITION AND EXTANT FEATURES:

Faced granite block construction, wheelpit with underground tailrace. Walls extant to full height, capped with cement. Condition excellent. Surrounding area heavily overgrown and access difficult.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation and debris, establish clear area. Re-make leat outfall and launder.

ACTION TAKEN:

VEGETATION & DEBRIS CLEARED

BUILDING NUMBER: 22/23

ORIGINAL FUNCTION: Incorporating Mills Pair / type 'A'

PRESENT CONDITION AND EXTANT FEATURES:

Rubble masonry with cut granite quoins. Upstanding walls to full height, cement capped. Condition generally good.

RECOMMENDATIONS FOR CONSERVATION:

Clear Ivy. Install guard rails and new launder.

ACTION TAKEN:

Supporting pier for launder has been rebuilt (1985). Surveyed at 1:50.

BUILDING NUMBER: 24/25

ORIGINAL FUNCTION: Incorporating Mills Pair / type 'B'

PRESENT CONDITION AND EXTANT FEATURES:

Cut granite block construction, walls upstanding to full height, capped with cement. Condition generally good, but doorway to 24 partially collapsed. Contains bedstones and pair of millstones from 25.

RECOMMENDATIONS FOR CONSERVATION:

Clear debris, and remove artefacts. Stabilise and reconstruct doorway to 24. Install handrails across wheelpit.

ACTION TAKEN:

Wheelpit has been bridged (1985)

BUILDING NUMBER: 26/27

ORIGINAL FUNCTION: Incorporating Mill Pair / type 'C'

PRESENT CONDITION AND EXTANT FEATURES:

Rubble masonry infill with cut granite quoins. Upstanding walls to full height but no gable ends, possibly capped (?). Condition good .

RECOMMENDATIONS FOR CONSERVATION:

Clear ivy, vegetation and debris. Bridge wheelpit and install handrails.

ACTION TAKEN:

BUILDING NUMBER: 28/29

ORIGINAL FUNCTION: Incorporating Mills Pair / type 'C'

PRESENT CONDITION AND EXTANT FEATURES:

Mostly faced granite, some rubble infill, upstanding walls to full height with three extant gable ends. Walls capped, condition good. Very overgrown and access difficult. Underground tailrace and leat overflow conduit.

RECOMMENDATIONS FOR CONSERVATION:

Establish clear area, remove debris. Correct drainage and leaks from leat at rear.

ACTION TAKEN:

BUILDING NUMBER: 30/31

ORIGINAL FUNCTION: Incorporating Mills Pair type 'C'

PRESENT CONDITION AND EXTANT FEATURES:

Cut granite construction with some rubble masonry infill. Walls to full height with full gable ends. Condition excellent. Structural integrity at present threatened by two overhanging trees.

RECOMMENDATIONS FOR CONSERVATION:

Clear ivy, remove two trees on corner of 30. Clear debris and logs, construct bridge, handrails and launder. Cap walls if required.

This is the best preserved of the second-phase mills, and as such is in the long term the candidate for a full restoration. It would be a fairly simple matter to reconstruct the roof and windows to present the correct external appearance, together perhaps with a working water wheel installed in the pit.

ACTION TAKEN:

BUILDING NUMBER: 32/33

ORIGINAL FUNCTION: Incorporating Mills Pair / type 'C'

PRESENT CONDITION AND EXTANT FEATURES:

Cut granite with rubble infill. 32 is semi-ruinous, 33 is intact less gable ends. Heavily overgrown and access difficult at present. Remains of the original (?) waterwheel are collapsed into the wheelpit. Various shafts and gears remain in 33 which are not associated with gunpowder making, and these represent a re-use of the building at late date for an at present unknown purpose.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation and debris, stabilise and cap walls as required; install bridge and handrails across wheelpit. Remove collapsed waterwheel for storage/restoration.

ACTION TAKEN:

BUILDING NUMBER: 34

ORIGINAL FUNCTION: Glazing Mill

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding walls to full height except at front, with door and window openings; two storey building with sockets for floor joists. Wheelpit in situ, as are sockets for aqueduct support on eastern wall and blast wall. Use of this building appears to have ceased before rest of works (wheelpit blocked off from leat system). The front wall is in a poor/potentially dangerous condition.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation, ivy and debris. Access to this building is at present very poor and the pathway will also require clearance/reconstruction. Clear vegetation from the tailrace and associated aqueduct. Stabilise and cap the front wall. Attempt to cure leaks from leat at rear.

ACTION TAKEN:

BUILDING NUMBER: Blast Wall

ORIGINAL FUNCTION: Blast wall at end of site next to 34

PRESENT CONDITION AND EXTANT FEATURES:

Wall upstanding to full height. Condition good.

RECOMMENDATIONS FOR CONSERVATION:

Examine for remedial work as required.

ACTION TAKEN:

BUILDING NUMBER: Blast Wall

ORIGINAL FUNCTION: Blast wall at end of site surrounding buildings 35 & 36.

PRESENT CONDITION AND EXTANT FEATURES:

Collapsed beside river bank, otherwise extant to full height. Door opening behind 36 with sliding doors (not original).

RECOMMENDATIONS FOR CONSERVATION:

Stabilise and cap section along river bank.

ACTION TAKEN:

BUILDING NUMBER: Bridges across river by 34/38, 33, opposite 30/31,
between 27 & 28, 14 & 52, 11 & 53.

ORIGINAL FUNCTION: River crossings between process areas.

PRESENT CONDITION AND EXTANT FEATURES:

The stone abutments and approach embankments for all these crossings are in situ, the bridges themselves have collapsed and disappeared.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation and trees from abutments and approach ways. Examine and stabilise masonry as required. Reconstruct river crossings as proposed in footpath scheme.

ACTION TAKEN:

BUILDING NUMBER: Aqueducts above and below 34 & 38

ORIGINAL FUNCTION: Provided water supply to 36 and south bank leat system.

PRESENT CONDITION AND EXTANT FEATURES:

Abutments and embankments are in position on both sides of the river. The lower aqueduct is fed from (or feeds?) an underground channel.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation, examine and stabilise masonry as required. In the long term it would be desirable to reinstate the leat system in part.

ACTION TAKEN:

Some clearance has been done on the top aqueduct.

BUILDING NUMBER: 35

ORIGINAL FUNCTION: Cask Repair House

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding walls to approx. half original height except at door end which is virtually intact. Very small building.

RECOMMENDATIONS FOR CONSERVATION:

Clear vegetation and debris. Stabilise and cap walls.

ACTION TAKEN:

Some clearance work has been done in this area.

BUILDING NUMBER: 36

ORIGINAL FUNCTION: Corning House

PRESENT CONDITION AND EXTANT FEATURES:

Rubble masonry with cut granite quoins. Underground wheelpit (partially blocked). Roof has recently been removed, walls upstanding to full height and capped. At present used for storage of dismantled waterwheel ex Trago Mills.

RECOMMENDATIONS FOR CONSERVATION:

No immediate measures required.

ACTION TAKEN:

BUILDING NUMBER: 37/38

ORIGINAL FUNCTION: Dusting & Separating House / Expense Magazine

PRESENT CONDITION AND EXTANT FEATURES:

Some upstanding walls at north end, remainder ruinous.

RECOMMENDATIONS FOR CONSERVATION:

Clear ivy, stabilise and cap walls where possible.

ACTION TAKEN:

Some clearance has taken place in this area.

BUILDING NUMBER: 39

ORIGINAL FUNCTION: Dusting & Separating House

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding masonry walls have internal subdivision but no door opening, perhaps base only. Condition good.

RECOMMENDATIONS FOR CONSERVATION:

Clear ivy, examine and cap walls if required.

ACTION TAKEN:

BUILDING NUMBER: 40

ORIGINAL FUNCTION: Expense Magazine

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding walls to full height, door and window openings.

RECOMMENDATIONS FOR CONSERVATION:

Clear ivy, examine, stabilise and cap walls.

ACTION TAKEN:

BUILDING NUMBER: 41

ORIGINAL FUNCTION: Breaking Down House / Expense Magazine.

PRESENT CONDITION AND EXTANT FEATURES:

Footings only remain. A mill stone is set into the floor on a masonry plinth inside the building.

RECOMMENDATIONS FOR CONSERVATION:

Establish a clear area inside and outside the building.

ACTION TAKEN:

VEGETATION & DEBRIS CLEARED.

BUILDING NUMBER: 42 / 43 / 44 / 45 / 46

ORIGINAL FUNCTION: Press House / Cask Repair / Change House / Stove /
Packing House / WC

PRESENT CONDITION AND EXTANT FEATURES:

As far as can be seen all these buildings have been destroyed by quarry workings and no visible traces remain.

RECOMMENDATIONS FOR CONSERVATION:

ACTION TAKEN:

BASE OF 43 IS JUST DISCERNABLE. SITES OF REMAINING
BUILDINGS ESTABLISHED BY SURVEY BUT NO EXTANT REMAINS.

BUILDING NUMBER: 47

ORIGINAL FUNCTION: Expense Magazine

PRESENT CONDITION AND EXTANT FEATURES:

Has been filled with granite waste and overbuilt by later quarry structure. Original walls extant to full height, door and window openings.

RECOMMENDATIONS FOR CONSERVATION:

None required at present.

ACTION TAKEN:

BUILDING NUMBER: 48 & 49

ORIGINAL FUNCTION: Mixing House / Charcoal Store

PRESENT CONDITION AND EXTANT FEATURES:

Both these buildings appear to have been destroyed by quarry workings and no traces have been discovered.

RECOMMENDATIONS FOR CONSERVATION:

ACTION TAKEN:

BUILDING NUMBER: 50 & 50a

ORIGINAL FUNCTION: Packing House and fireplace or stove

PRESENT CONDITION AND EXTANT FEATURES:

50 is fully extant and in use as CTNC workbase. Slate and GI roof, glazed windows, masonry walls, wood lined. There is no trace of 50a. The oven discovered in the rear of 50 may possibly be from it (?).

RECOMMENDATIONS FOR CONSERVATION:

50 is to be the subject of a grant-aided restoration.

ACTION TAKEN:

BUILDING NUMBER: 51

ORIGINAL FUNCTION: Charcoal Store

PRESENT CONDITION AND EXTANT FEATURES:

Only the footings are extant.

RECOMMENDATIONS FOR CONSERVATION:

Establish a clear area at this point.

ACTION TAKEN:

BUILDING NUMBER: 52 & 52a

ORIGINAL FUNCTION: Corning House and Cask Repair House

PRESENT CONDITION AND EXTANT FEATURES:

52 has upstanding walls to full height, door and window openings. Vertical shaft in floor connects with underground wheelpit, lead entry and tailrace at lower level. 52a is very similar to 35 but in better condition with upstanding walls and door opening. The area is heavily overgrown and access is difficult.

RECOMMENDATIONS FOR CONSERVATION:

Clear the fallen trees, ivy and debris. Establish a clear area around the buildings. Stabilise and cap the walls.

ACTION TAKEN:

VEGETATION & DEBRIS CLEARED

BUILDING NUMBER: 53

ORIGINAL FUNCTION: Expense Magazine

PRESENT CONDITION AND EXTANT FEATURES:

Upstanding walls to full height with door opening. Set into hillside.
Area very overgrown and inaccessible.

RECOMMENDATIONS FOR CONSERVATION:

Establish clear path from 52. Clear vegetation and ivy, cap walls.

ACTION TAKEN:

BUILDING NUMBER: 54 / 55 / 56

ORIGINAL FUNCTION: Main Storage Magazines.

PRESENT CONDITION AND EXTANT FEATURES:

In situ and roofed. Outside the leased area.

RECOMMENDATIONS FOR CONSERVATION:

ACTION TAKEN: