#### Introduction

As you know, our community have been pressing Sevenoaks District Council to carry out their responsibility of care for our ancient monument for many years. Those large pieces of masonry fell from the upper doorway almost four years ago. Since that time we have been pointing out the seriousness of the leaking and rotting roof and the damage it was causing to the mortar and brickwork below. Our concerns fell on deaf ears unfortunately. Over and again, much was promised but little done.

Thanks to increasing publicity, as you will have read in the chronicle that SDC have finally agreed that they do have a legal responsibility to maintain ('and improve') it. After a number of meetings beginning in December last year, action is finally being taken. Work will begin in two weeks, beginning on the 17<sup>th</sup> August. As close neighbours to this ancient monument, I felt you would wish to be kept aware of progress.

I will, I hope, get debriefed on progress each month. This information I will pass on to you by way of a news letter. I do not imagine that our advice will be sought during this period but there will be much to do and to prepare before the tower and its part-gatehouse have been fully conserved.

Two weeks ago, on 23<sup>rd</sup> July 2015, I attended a meeting at SDC with our parish chairman, John Edwards-Winser and his parish council colleague, Jon Verrall. It included the SDC team responsible for taking forward work on the palace, as well as their selected architect, John Bailey from Thomas Ford & Ptnrs. (They were the firm who re-mortared St. Bart's tower.)

Here is a summary of the minutes from that meeting:

#### The Condition Report

The first objective was to carry out a Condition Report in order to assess the state of the buildings (Tower and gatehouse) and assess the amount of work that was necessary to be carried out in order to make it stable and safe. Improving its state and conserving it as a heritage site is a further, separate objective. Right now we have to stop it being critically damaged any further.

A Condition Report was completed in January and submitted by the architects, Robert Ford & Ptnrs to Sevenoaks District Council. Then everything stopped for the elections and of course six months have elapsed before a meeting was eventually called. In summary, the condition report showed that:

- the main roof is in imminent likelihood of collapse.
- Most of the brickwork in the upper floors is completely saturated and lacking any form of binding.
- Many of the window bressumers are rotten and dangerous
- Almost all the brickwork done in the 1960's was carried out without the internal void being filled with mortared tiles. This has put the stability of the tower at risk in many areas.
- Almost all the old and new brickwork has been pointed in non-porous cement and will require re-pointing in porous lime plaster.

• Many of the arches (both door and windows) will require temporary timber shoring to reduce any chance of failure.

In a nut-shell, the tower is in an even worse state than we suspected and requires urgent repair in order to remain stable.

#### Urgent Repairs

Ford's architect, John Bailey, summarised the work that is required to be urgently undertaken and has obtained competitive tenders for this. The selection process has chosen the well known conservation firm of Pierra Restoration, to carry out the work. (probably a 4-man team)

Including architects fees and a (small) contingency, the urgent works total £130,000 which SDC cabinet has now approved in full council two weeks ago.

#### Schedule:

Work will commence on w/c 17<sup>th</sup> August. The team will work from the roof down. As this will be a delicate (and dangerous) task on a conservation building, both English Heritage and the Canterbury Archaeological Trust will be working with the contractors.

We can expect 3-4 specialist workmen on site.

They will work only during weekdays from 9-5, I understand.

Installing a new main roof as well as two additional roofs over the two smaller towers, will be their first task. Getting the tower weatherproofed as soon as possible is first objective It is estimated that all the necessary work could take up to 12 weeks to complete which puts a completion date of 4<sup>th</sup> December.

Please note that this first phase is a 'saving the tower' operation and will leave parts of it appearing incomplete. (timbers shoring up some of the windows & doors for instance)

### The next phase of the operation

Two exercises will then need to be undertaken before the main conservation/preservation work on the tower can begin:

- An Options Appraisal process needs to be undertaken. It is likely to be led by Rick Bayne of the Kent Downs AONB, who is already working with the Heritage Lottery Fund to improve and enhance many aspects of our Darent Valley. The AONB project is called 'Valley of Vision' (after Samuel Palmer). In the Appraisal process, both SDC, the architect, Historic England (previously known as English Heritage) and the Otford community will need to agree and recommend the best use for the tower as a historic asset which can be of benefit to future generations. Whatever is proposed, if it is to support any funding request, the proposal must be sufficiently financially viable to be able to pay for itself in the future.
- A Conservation Management Plan then needs to be prepared and estimated. This will form an agreement by all concerned about what can be done, in conservation terms, to the tower in order to put it back into structural good health and to meet the objectives set by the Options Appraisal. It is a major undertaking which needs input from many experts as well as our community. It will form the main document when/if English Heritage Lottery Fund are approached for what is likely to be a large injection of capital.

### Funding:

SDC is quite adamant that it has pretty much exhausted all its available funds for this first 'urgent repair' phase. There is no more in the till.

If the other phases of the work are to be achieved, fresh sources of funding will be required. Both I and SDC are making enquiries about other viable funding sources.

At the end of the day, some top-up funding may be sought from the community, our parish council and from local associations.

We will firstly need to know the outcome of the Options Appraisal process and how our community is to benefit from further work. Only then might we involve ourselves in trying to raise any funding.

I hope you feel this brings you up-to-speed and I will look forward to passing on futher information each month, from now on.

If you need to get in touch my email is rodshelton@greenbee.net

## 28<sup>TH</sup> August '15

The SDC palace team carried out an inspection of the tower yesterday following the first week of work. With thanks to Emma Vincent of SDC, I have made a copy of her report to up-date us all.

Despite the rain we have had this week, Pierra have been on site and stripped the roof of the remaining felt, as well as removing the corner that was close to collapse. Originally we were only going to repair the damaged corner, but after stripping the felt is has become apparent that the entire roof will need replacing as the structure underneath is not useable.

The brickwork under the corner of the roof that was damaged will need work before the roof can be reinstated. It is evident that it is not stable enough to hold the foundations for the roof due to water damage causing the bricks to disintegrate and become loose. The next step will be to stabilise this corner before the new roof can be installed. At present, the old roof remains in situ to protect the rest of the tower.

An architect has visited the Tower and showed particular interest in the little gargoyle that still remains, the mid level fireplace and the diagonal slots in the wall that we think were used to put the beams for the ceiling and flooring. He is keen to be present when any brickwork is removed to expose any voids as he thinks there may be more beam slots behind them.

I have added a few photos of the area for your better understanding.

There will be a fuller site meeting on  $14^{th}$  September and I will provide you with a report after this date.

Regards

**Rod Shelton** 





## 17<sup>th</sup> September '15

Work on the tower is now beginning to show some visible results. The old roof, which we are told, was 'hanging on by its fingertips' with only the sheets of plywood holding it in place, has at last been removed. A new, stronger framework of beams has now been installed and heavy duty ply has been covered by three layers of roof felting. This has a life of some 15 years I believe.

Certainly, to my eyes, the job that Pierra have done so far, looks very solid and professional. They have also installed a new roof over the guardrobe tower for the first time in six centuries. At long last this tower is protected from further rain damage! The staircase tower will now follow its neighbour and get afforded the same protection. This is a really important step forward for the tower's future protection.

The architect, John Bailey, pointed out a potential problem that they had uncovered with the balustrade which surrounds the roof. When re-building the upper part of the damaged tower in the late 1950s, the construction company needed to re-build the missing balustrade into some form of level. Unfortunately, whilst they used an economic porous brick for both the inside and outside surfaces, they packed the void with cheap (white) non-porous bricks on the inside. This of course, combined with the cement used, creates a structure which will no longer 'breathe'. Whether or not the whole balustrade will require re-building is still unresolved. (And notice that very evident crack in the top of the staircase tower, aggravated by use of hard cement.) A contingency figure was allowed for this sort of eventuality in the estimate so this would be covered within the current quote. I am assured that the works are, however, still running to schedule. Let's just hope there are not too many more surprises waiting to be uncovered.

Making one's way through the scaffold floors of the interior, it was concern-making just how much the sandstone work supporting doorways and windows, has become damaged through weathering. I understand that much of this stonework will be replaced by new stonework as the project moves forward.

So – I report an optimistically good start to the first stage of protecting the tower from further damage. Thanks to all those putting so much effort into helping us. My next report will be in a month's time.

Rod

### 13<sup>th</sup> October '15

Yesterday we had the opportunity to explore the outside surface of the tower at each floor level and to see the progress being made.

As you know, the objective set by the architect is to remove all the 1960s cement rendering from the brickwork. As cement is non-porous, it has the effect of holding damp within the bricks and stonework joints. It will now be replaced by a lime and sand mix, similar to the original mortar, which will allow the structure to 'breathe' (much as was done on the church tower a few years ago.)

Two types of mortar have been tested on sections of the upper brickwork and it has been decided to use Westerham sand within the lime mix. This has a slightly orangy yellow tone, similar to the original mortar. The architect pointed out to me, though, that much of the brickwork has wider mortar spacing than usually found in buildings of this type and age and we may feel that the new mortar is a bit dominant when we first see it. This however is the way it once was and, as he surmised, it would appear the tower was built in a bit of a hurry. (The whole palace was built in four years so we need hardly feel surprised!)

The result of this re-pointing will be that it reduces significantly the speed of deterioration. The cement had been applied in quite shallow amounts and comes away quite easily. The old mortar will be cleaned out to 20mm so that the new mortar has a good hold on the brickwork. Certainly the walk around the tower at close quarters yesterday, demonstrated in what a poor state some of the brickwork had become.

No work has progressed on the interior as the builders have been awaiting delivery of the hand-made 'Tudor-style' bricks, which is now imminent. This will allow them to re-build all those unsafe areas of brickwork on the upper storey.

As you will see from the photos, much of the Kent rag stonework – particularly the window mullions, had reached a pretty poor state of deterioration. In consequence as the builders have progressed around the tower, they have removed the worst of the stonework and mullions which are beyond saving. These will be replaced with new stonework in due course.

Finally, just a point of interest, at the centre of the top of each window, there would appear to have been some design or sculpture. In every instance, bar one, they seem to have been chipped away – so maybe it was another example of reformation zeal if they were images of saints (it was an archbishop's palace, remember). However the remains of one gargoyle-like

figure remain. As far as I could ascertain, it resembles a Gollum-like creature – so may be it scared all the saints away!

I am pressing SDC to begin work on an Options Appraisal for the Palace so that as a community we are involved with deciding how the site might be used in the future. When and if they respond, I will let you know.

Right now, a big thank you to the team who are carrying out all this work and all I can say is I'm optimistic that we will have a very satisfactory result. I'll report in another month.

Rod

PS If you would be so kind as to take a moment to email me with the words *Palace Tower*, I can ascertain your email addresses and you can get these reports (in colour) in future! Thanks R.

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A test section of the new mortar. This matches the original mortar in terms of colour and consistency.



Notice the depth of the cut and the poor state of the stonework

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Awaiting new stonework



Can you make out 'Gollum' but lacking his nose?



You can get a good idea on how much new replacement brickwork will be required - and this is just one top floor section.

### 13<sup>th</sup> November '15

This week we were again invited up the Tower to view progress with the architect, John Bailey of Thomas Ford & Ptnrs. and his team from Pierra, the contractors. The first thing to report is that they are well on the way to achieving the objectives set by the Condition Survey.

The main roof is, as you know, now fully covered with a triple layer of roofing felt. The two ancillary towers have had their roofing framework completed and are in the process of being covered. This will complete the water-resistance process of the tower which has been the cause of so much of the original dilapidation.

Meanwhile, the balustrade surrounding the tower roof is now receiving a thick layer of lime mortar along its top surface (#2). Previously, this was coated in cement (#1). Once dried, weather permitting, the roofing felt will be folded up and over the balustrade and tidily pinned with timber batons all around the exterior, completing the water-tight process.

Unfortunately, the drainage pipe (though with a larger sump) will continue to drop down inside the tower as previously. Whilst we agree with the architect that ideally this should have been diverted, through the balustrade brickwork, to have dropped externally, I fear English Heritage will not agree to any brickwork damage at this stage. Hopefully this is a result to be achieved at stage two.

Over the past month, Pierra have replaced all the upper interior brickwork which had become detached and destroyed beneath the blocked drain on the roof (#3). The result is a very fine and attractive piece of work. (#4) They are combining different tones of brick so that they closely resemble the original brickwork. If this is an indication of their standard of work overall, then we can be very pleased they are on site.

This week the stone masons arrive. You may see them chipping their blocks of Kent Rag on site if you are nearby. As you know, they are replacing many (sadly not yet all) of the window mullions and cills which have become unsafe through weather erosion over the centuries. Sad to see the effects of prolonged exposure to cement that these cills have suffered. (#5. The cement covering on this one has caused the original stone to completely shatter)

I believe all the cutting out of the cement work between exterior bricks has now been completed. So we can expect quite a visual change in the look of the tower over the coming month.

I am told the whole process is running to schedule and on budget so well done to all involved.

Now, with completion in site, we urgently need an indication from SDC as to when they will commence the Options Appraisal so that we can prepare a full feasibility study in preparation of applying for Lottery Funding.

**Rod Shelton** 



!: The Balustrade with the concrete removed



2: - and as it is today



3: The upper brickwork below the roof in a state of collapse



4: - and today, with it re-built with new bricks and lime mortar



5: Mullions and cil, once single pieces of Kent Rag, reduced to rubble with the effects of a cement coating. Ominous what state parts of the tower had reached even though not previously visible.