Some Observations on the Old Age, Dereliction and Ruination of Classical Buildings and Structures

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Introduction and Background

My interest in this subject goes back a number of years and was first stimulated by my archaeological work in Jordan where a number of ancient classical buildings survive as impressive ruins to this day - a circumstance which taught me early on in my professional career to look for archaeological evidence sideways and upwards in addition to downwards! Incidentally, from a slightly earlier experience I remember too the discovery that a number of British Army barrack-blocks were uncannily similar to their Roman counterparts which later I spent many years in Chester attempting to elucidate. In Chester also came the growing awareness of the fact that a number of Roman legionary buildings had survived to an impressive extent for centuries after the end of Rome (Strickland 1994 a). Looking back on it I think, too, that my archaeological work at Winchester and Wroxeter had also fostered my interest in what becomes of buildings in their old age and ruination. This was particularly the case at Wroxeter (Barker 1973) where, of course, the growing awareness of the late Roman and Dark Age fate of the public buildings of that Roman city has added significantly to the range of experience on which I base a number of the thoughts presented below.

That said, I doubt very much whether many of my thoughts will be altogether new; and indeed some readers may even question the relevance of some of the parallels I draw. I present this contribution therefore as a supplement to Graham Keevill’s interesting and stimulating paper, in the hope that some of the images I present will help to stimulate your visual imaginations - an absolutely essential ingredient in the interpretation of the archaeological evidence relating to the fate of ancient buildings.

We must remember also that we are caught up, rightly or wrongly (whether we like it or not) in the "heritage industry" and I believe it is becoming increasingly important to society that we play our full part in the assessment, analysis and elucidation of the original appearance of ancient buildings, some of which will be restored or replicated. I call to mind, for instance, the astonishing Austrian achievement in the accurate and detailed reconstruction of the 2nd century library of Celsus at Ephesus where an imposing three-storey edifice has been rebuilt from tumbled, earthquake-shattered, fragments of stone (Erdemgıl 1986). Do we not have a public duty to explain and resurrect the past in terms which the layperson will understand?

The Importance of the Visual Image in Understanding Archaeological Evidence

It is clearly of the greatest importance to those of us who are increasingly involved in interpreting and presenting the past to the general public that we try to build up a picture of what it is we are attempting to describe from fragmentary evidence. An awareness of the original appearance of buildings and working practices at different times in history is essential. Thus, for example, it is salutary to be reminded of the fact that in antiquity buildings which were constructed out of beautifully dressed and squared blocks of stone were frequently stuccoed - and sometimes the stucco was even designed to reproduce what was actually hidden by it in the first place! Some examples of this custom which come to mind are the "Qasr el Bint" temple at Petra (Browning 1977), the gate and window arch-stones of the Roman fort at South Shields (Bidwell and Speak 1994) and parts of the Saarlburg fort on the Rhine frontier in Germany. Incidentally, we should remember that decaying stucco can also produce considerable deposits alongside wall-footings and that it can sometimes be reduced to its constituent materials by weathering.

Where examining the evidence for ruination of buildings on sites which consist almost entirely of stone it is my experience that there are always considerable quantities of stone rubble lying adjacent to the footings of walls, except in those places which have experienced intensive occupation over a period of subsequent centuries (for example, Kennedy and Riley 1990). It must, of course, be said at this point that recent squared blocks of stone tend to get reused many times over and will thus frequently be missing altogether from the vicinity of the structures from which they originally came. In this context I have noticed that stone from flights of steps is often the first
to be robbed for reuse - it is most easily removed. Prior to the systematic robbing of such stone which is frequently a feature of the late Saxon revival of urban communities in Britain (Thacker 1987) one suspects that the rubble-strewn building sites to be seen in various parts of the Mediterranean world to this day convey to us a probably reasonably accurate picture of what it must have been like in Britain adjacent to the ruins of the Roman period in the seventh and tenth centuries - to which must be added the nettles, docks and brambles of course! Whilst on this last subject has anyone done any work on the palaeoenvironmental evidence for the weed-cover of ruins in this country?

I suspect that property boundaries also have an impact on survival. The straight stretch of Roman road which abruptly comes to an end on a hairpin bend where it is crossed by the site of an early medieval boundary is something we must all have experienced (Chevalier 1976). The varied degrees of survival of two adjacent legionary barrack buildings off Princess Street in Chester, one substantially intact and the other completely robbed out, was probably also the result of an intervening early medieval property division (Ward 1994 (a)).

The Concept of and Reasons for Long-Term Survival of Major Buildings

I think that we are all of us now familiar with the fact that, even in our atrocious climate, major structural timbers can survive for very long periods. Certainly, this is something which those of us who are concerned with the assessment of standing buildings in historic urban centres should be well aware of. Even the superficially most modern of buildings in places like Chester can, and indeed do, contain more or less intact timber-framing even as much as seven hundred years old. This is a concept which should no longer surprise us and its implications for our understanding of the old age and processes of dereliction of buildings are clear.

We should also take note of the fact that reasons for long-term survival are extremely varied. Thus, for example, the great 1st century Roman amphitheatre at Arles survived through to modern times as a result of its conversion into a fortress. Seventh century hunting-baths in the Jordanian desert survive completely intact because changes in their political geography rendered them far from the beaten track and of no use to anybody. The late Roman fort at Burgh Castle near Great Yarmouth has, in my opinion, survived to such an impressive degree for the simple reason that it was made of concrete; and as, we all know, concrete is notoriously difficult to rob and reuse. The 2nd century Roman bridge at Alcantara in Spain and the Pont-du-Gard aqueduct near Nimes in the south of France have survived because they continue to be extremely useful bridges across deep and difficult terrain (Wheeler 1969 (a)); one suspects too that where it crosses the Gardon River the Pont-du-Gard would have been extremely difficult and dangerous to dismantle in any case (Wheeler 1969 (b)).

Ultimate Uses

Here I am referring to what I call the "second hand carpet salesman" concept. This is something which happens to many of our larger buildings however varied in importance their original functions, and we should not blind ourselves to the fact that this must have happened in antiquity as well. Certainly there are large numbers of redundant churches which have been converted to fundamentally different uses. I think of one church which I pass on my way to work which has been converted to an electrical salesroom. I think, too, of the public library in Chester, whose grand imposing entrance is dominated by an inscription which states proudly to all the world that it is "Lofty's Coachworks". The basilica in the Constantian imperial palace at Trier has survived to this day as a church (Wightman 1985). Indeed, the great 3rd century Porta Nigra in the same city became a medieval Bishops’ Palace (Wheeler 1969 (c)). These are lessons which we must constantly bear in mind when we examine the remains of substantial buildings from antiquity and puzzle over the relevance of the finds evidence and how, all too frequently, this may have no bearing on our assumptions about the original functions of the building concerned. There are so many modern examples of this phenomenon that I hesitate to mention any more. However, you will understand my drift if I say that an uncritical assessment of the archaeological evidence currently being generated by the armies of India and Pakistan would prove conclusively that the British Indian Army was still in residence nearly fifty years after it had actually departed.

Dereliction

Nowadays, we are well aware of the processes of structural collapse and stone-robbing but, given the effects of our climate and what can happen during the long-term abandonment of substantial buildings, we
should perhaps be more conscious of the processes of dereliction and decay and the evidence for them. Inevitably, the dereliction process is bound to be influenced by a number of factors, not least the quality and nature of the original structure concerned. To illustrate this point, I take an extreme example: namely, the ancient frontier fortress-town of Umm-el-Jimal in northern Jordan which was constructed entirely of stone - all forms of timber being totally absent. Thus, even the doors and roof-beams are made of stone (DeVries, Undated).

In suffering as they have done from weather erosion and increasingly nowadays from atmospheric pollution, it is frequently possible to identify deposits of dissolved stone adjacent to the footings of major structures. The Taj Mahal at Agra is a case in point. I also recall such an example adjacent to the foot of the City Wall at Chester (Strickland 1983).

I discovered by accident that Roman tegulae and imbrices may be fairly resistant to frost so long as they are maintained at an angle on a roof structure; but once they fall to the ground the effects of frost action on them are very rapid and considerable. Such tiles can be reduced to the smallest of fragments in a very short space of time. Whilst on the subject of roofing, observation of what can happen today on derelict buildings will demonstrate that roof-dereliction and collapse can, on the other hand, be an extremely long-term affair. Thus, it is my experience that as a general rule roofing tiles or slates will fall piecemeal long before the actual wooden roof structure comes down. Furthermore, roof tiles/slates do not come to the ground on a single occasion in this process and we should therefore look for the evidence of them spread vertically through the archaeological stratigraphy. This may well be the reason why, in urban archaeology, we so rarely find the extensive traces of collapsed roofing in a single deposit or sequence of deposits. Incidentally, is this why we so often assume mistakenly that the roofing tiles have been robbed? Should anyone doubt the effect of frost-action on a substantial structure, go to Castell Dinas Brân in North Wales on a fine winter’s day and listen to the process of freeze-and-thaw tearing the castle apart.

The Robbing and Re-use of Building Materials

Once again, a familiar and much discussed subject. However, remember that any assumptions that we might make about the robbing of now-missing structures must be determined by an understanding of what the complete structures concerned had originally consisted of. Thus for example the stubs of the stone wall-sills of formerly half-timbered buildings might well tend not to be covered or associated with quantities of adjacent stone rubble. Indeed, where wall-stubs survive, the very cleanness of the adjacent parts of the site might suggest the former existence of half-timbering - or pisé - rather than robbed out stone walls. After all, by its very nature the partial robbing of masonry structures is often a haphazard and untidy process and can even on some occasions be responsible for pulling parts of a building down - especially if the robbing has been highly selective and restricted to the better quality more reusable elements of a structure. That said, we must also be wise to the fact that some forms of substantial structure (especially, for instance, brickwork and ashlar masonry) can be totally removed for reuse elsewhere. One can think of so many modern examples of this that the concept of such total removal requires no further elaboration. The important point here is that, by and large, total robbing implies that the robbed structure was worth robbing totally and that it could be robbed without leaving substantial remains behind. This in itself will say something for the nature of the original structure and its structural condition at the time of robbing.

Abandonment of Roads and Bridges

Anyone who has studied Ivan Magrery’s famous pilot-study of Roman roads in the Weald will be familiar with his remarkable discovery of some sections of perfectly preserved Roman road which must not only have been completely abandoned but, as a consequence of this abandonment, have left no hint of their existence in the present-day surface landscape (Magrery 1948). As with property-boundaries, local changes in political geography must of course have contributed to the break-up of some Roman road systems. Politics can sometimes play a major part in the fate of buildings. A modern example is the Berlin Wall which, of course, has been totally demolished relatively suddenly on the collapse of the Soviet empire.

Modern experience again also demonstrates that it is sometimes easier to construct new structures on new sites rather than on the sites of existing ones. This also applies to roads. Roads themselves are not especially the subject of this paper but they serve to remind us of what must have happened with the gradual dereliction of the Roman bridge across the River Dee at Chester. Here, research has demonstrated that the Roman bridge, which incidently
appears to have survived into the Middle Ages, was some ten metres downstream of its medieval counterpart. The very choice of a new line for the replacement structure caused diversions in the roads leading to the bridge from each side and these diversions are clear in the modern-day urban landscape (Strickland 1994 (b)). One should not forget either that it is sometimes necessary to keep an existing, though decayed, structure in use while its replacement is being constructed. That said, in the case of the Roman bridge at Chester contemporary documentary evidence suggests that it had fallen down in a flood. It is not only easier but cheaper of course to build on a new clean site than to have to contend with, and clear away, the rubble of an imposing structure first.

Defensive Walls

From observation and archaeological work adjacent to the stone defences of Roman forts in Jordan I have always been able to bring to bear on my analysis of the walls of Chester a clear picture of what can happen in the ruination of such structures. A few examples should suffice here. First, it is very clear that defensive walls, albeit simple in their function, can have surprisingly long and complex histories. This is particularly well illustrated in the case of the city walls of Chester where recent dissection of two stretches of wall has demonstrated the presence of a 1st century turf-revetted rampart, a 2nd and 3rd century stone revetment, a medieval structure, an 18th century wall and a 19th century interior face, all within one superficially simple length of wall (Strickland, forthcoming).

I have also observed that with features like defensive walls what appears to be the structural history of one section in dereliction and decay need have no relevance whatsoever for a stretch a short distance away (Strickland 1994 (c)). It is also clear that even when completely in ruin the tumbled masonry from formerly substantial defensive walls can be a very significant obstacle in its own right and thus can render a site still effectively defensible against less organised opposition (Strickland 1994 (d)). Add to this the English bramble and nettle and an attack can be rendered extremely difficult. Whilst on the subject of defensive walls it may be of interest to the reader that I have observed on a number of sites that, during the dereliction-process, the corners of towers seem to survive far longer than the stretches of walling in between them and, furthermore, that the outward-facing wall of a tower tends to collapse before any of its other three sides or the adjacent stretches of curtain-walling. Could this be the explanation of some of the curious anomalies in the facing masonry of parts of the northern City Wall at Chester where post-medieval repair coincides with the sites of several Roman towers?

Superficial Abandonment

Referring to the winter of 893/4 the Anglo-Saxon Chronicle refers to Chester as an empty fortress (Thacker 1987); but is this an accurate description? The largely neglected ruins of ancient settlements and towns can frequently appear to the superficial glance to be completely unoccupied but, on closer inspection, it becomes clear that occupation in some form or another continues. As an example of this phenomenon I call to mind again the Nabataean and Roman town of Umm-el-Jimal in northern Jordan where a general view convincingly indicates abandonment. A walk down the remains of any street, however, will demonstrate that some ancient houses are still in use.

Whilst on this subject, it is worth noting that the walls of formerly major buildings can make superb animal pens! Thus for example the white camels of the local sheikh at Umm-al-Jimal are kept within the shell of the so-called praetorium. Surely such activity must provide part of the explanation of the deposit we describe as "dark earth" which, so often, lies within or adjacent to the walls of ancient buildings in this country (Ward 1994 (b)).

Summary and Conclusions

There are five points with which I should like to sum up:

1. In trying to understand what has happened to a robbed-out structure it is obviously important to make a careful assessment of what are likely to have been the original building-materials used.

2. Be aware of the fact that it is possible to apply many of the processes we see around us today to our analysis of incomplete archaeological evidence of the distant past.

3. It is important to form a clear picture of what a site under analysis might have looked like in its contemporary setting. Again, plentiful modern parallels exist.
4. Remember that dereliction, because it is a long-term process, can leave archaeological evidence spread piecemeal through a vertical stratigraphy. Do not make the mistake of assuming the results of roof-collapse in the dereliction scenario will be found in a single stratigraphical horizon.

5. When considering the fate of large buildings and structures always remember that events in one part may have no relevance to events in another.

Bibliography

Barker, P., 1994 'The Survival of Roman Chester' in *Excavations at Chester: Saxon Occupation within the Roman Fortress* by Ward, S. *et al.*, 5-17 (Chester)

Strickland, T.J., 1994 'The Survival of Roman Chester' in *Excavations at Chester: Saxon Occupation within the Roman Fortress* by Ward, S. *et al.*, (a) 5-17, (b) 15 (c) 12 (d) 9-11 (Chester)

Bidwell, P. & Speak, S., 1994 'Excavations at South Shields Roman Fort' *Society of Antiquities* (Newcastle)

Ward, S. 1994 'Excavations at South Shields Roman Fort' *Society of Antiquities* (Newcastle)

Browning, I., 1977 *Petra* 154-164 (Chatto and Windus)

Wheeler, M., 1969 *Roman Art and Architecture* (a) 152-3 (b) 150-1 (c) 73-4 (Thames & Hudson)

Chevalier, R., 1976 *Roman Roads*, Fig. 23, 113 (Batsford)

Wightman, E.M., 1985 *Roman Roads*, Fig. 23, 113 (Batsford)

DeVries, B., 'Umm el-Jimal in the first three centuries AD' in *Defence of the Roman and Byzantine East* B.A.R. Int. Series 297, 227-41 (Oxford)

Erdemgil, S., 1986 *Ephesus*, 84-86 (Istanbul)

Kennedy, D. & Riley, D., 1990 *Rome's Desert Frontier from the Air*, 173, 188, 201 (Batsford)

Margary, I., 1948 *Roman Ways in the Weald* Pl. 1x (Phoenix)

Strickland, T.J., 1983 'The Defences of Roman Chester: discoveries made on the East Wall 1983' in *J.C.A.S.* 66, 6, Fig.1, 8

*Gallic Belgica* 234-6 (Batsford)