Between 2010 and 2012, the authors worked on Leslie House, Fife, and Kinross House, Perth & Kinross, both by Sir William Bruce. New discoveries included the predecessor structures, and the effect of the 1760s fire at Leslie, and the original arrangement of the Great Dining Room ceiling at Kinross House. An interdisciplinary approach combining the techniques of architectural history and buildings archaeology was used in both cases, and this paper re-emphasises the importance of this approach in reaching reliable conclusions about historic buildings as well as providing some insights into the workings of these houses at the time of their construction under the guidance of Sir William Bruce.

The interdisciplinary combination of expertise and methodology from both fields is still not common practice in dealing with historic buildings. It is usually the case that analysis based solely on academic architectural history, or buildings archaeology, does not enable a full understanding. Both disciplines have their own strengths and limitations, but in many ways are artificially separated in pedagogy and practice while being in fact entirely complementary. Though researching the history and context of a building has always been best practice for some architects, typically research is limited to either an examination of evidence in documentary sources (architectural history), or the evidence in the physical archaeological record (buildings archaeology). This paper highlights the value of an interdisciplinary approach, which allows for a more complete understanding of the building and its context.
fabric (buildings archaeology). At its best, interdisciplinary research should also include aspects of what is usually termed social and art history, although, admittedly, resources sometimes make this difficult in a commercial context.1

A recent and spectacular example of the potentially rich results of this research approach taken through to conservation is in the restoration of the Robert Adam decorative scheme at Headfort House, County Meath in the Republic of Ireland, published in the Journal of Architectural Conservation in 2011.2 The Adam-period plaster survived, but in order to restore the paint colours accurately, skills from art and architectural history established that the pigment in the original coloured drawing had faded. Investigation of the fabric by microscopic paint-layer analysis established a use of colours that Adam would never have permitted, but it was only examination of correspondence that showed Adam had never actually seen the house. This understanding led to a historically accurate restoration that would not have been possible by any one method on its own. The discoveries that were made at both Leslie and Kinross were not of the same magnitude, but nonetheless will lead to better conservation of these houses than would otherwise have been possible.

Of course, the research did not focus solely on the period when Bruce built these houses, but attempted to examine their entire history from predecessor structures on the site through to the present day, identifying and seeking to understand changes and alterations, to arrive at as full an understanding of each building as possible. In architectural history as an academic discipline, later alterations are often ignored if it is considered that the original design is of primary importance. Given the theme of this volume, there is some emphasis placed on the Bruce period; however, it is important in conserving these buildings to consider all phases of their development, because subsequent historical alterations may now be as significant as the original fabric.

The two buildings are clearly very different. Kinross is Bruce’s greatest essay in a highly controlled, continentally-fashioned classicism, while Leslie is one of his earliest commissions, in the Scots château manner. It should be noted that Leslie was gutted following fire in February 2009, and had been previously much altered after a fire in the mid-1760s.

Leslie House

Leslie House was begun by the King’s Master Mason in Scotland, John Mylne with Sir William Bruce, in the late 1660s, for John Leslie, 7th Earl of Rothes (c.1630–81).3 The earl was arguably the most prominent and successful member of a family that had held the titles since the 1200s. He emerged at the time of the Restoration as a favourite of the king and enjoyed great political and financial success for a number of years thereafter. Rothes had been closely connected with the Stewarts from early in his life. As a young man, in 1650, he had carried the sword of state at Charles II’s coronation at Scone; he raised troops in Fife and committed them to the royalist cause against Cromwell. He was captured at the
battle of Worcester in 1651 and was imprisoned until 1655, when the intervention of the Countess of Dysart brought about his release, at least until 1658, when he was imprisoned in Edinburgh Castle and had his lands sequestrated.⁴

All of that, of course, simply emphasised his royalist credentials and with the Restoration, Rothes was immediately rewarded with a pension and a place on the Privy Council in 1660, and this was quickly followed by a series of other positions and honours: in 1661 he was made Extraordinary Lord of Session while in 1663 he became Lord High Treasurer for life and King’s High Commissioner, to preside over the Parliament that met at Holyrood.

By the mid-1660s, he had secured the three highest offices in the kingdom: Lord High Commissioner, Lord High Treasurer and Keeper of the Privy Seal.⁵ He was also general of the forces in Scotland and was made the 1st Duke of Rothes in 1680, but this title died with him the following year. The 7th Earl & 1st Duke of Rothes was therefore one of the most powerful men in Restoration Scotland, whose offices and sinecures gave him a vast annual income and an ability to build on a truly grand and ultimately ducal scale.

Perhaps the most important discovery in the research at Leslie House was the clarification of the extent to which predecessor structures affected the fabric of the 1660s building. The building, as illustrated in William Adam’s Vitruvius Scoticus, plates 66 to 68, in the early eighteenth century, was the result of Mylne and Bruce extending an earlier house. This conclusion is not new, but the research added to the existing corpus of evidence in the work of John Gifford and others by providing the solid archaeological evidence.⁶ Gifford’s argument was based on the Vitruvius Scoticus engravings, which clearly show an earlier L-plan house, doubled in size by Mylne and Bruce. The Vitruvius Scoticus plans show noticeably thicker walls in the south and east ranges, and the fabric of the previous L-plan house, broadly comparable to other house plans of the sixteenth century and earlier, with chimneys in the cross walls, a turnpike stair in the re-entrant angle and a single pile plan throughout. The engraving is remarkably accurate, and comparing it to a survey plan made by the Royal Commission (RCAHMS) in 2009, the thicknesses of the remaining walls were identical, proving that the thicker walls of the south and east range shown in the engraving were accurate. It is worth noting that Adam’s drawing itself was a survey drawing of an existing building, and plate 68 may be a proposal for a new facade.

The fact that there was a pre-existing building on the site is corroborated by early cartographical evidence, which generally shows the settlement of Leslie and a fortified structure. This evidence indicates that there was probably a defensive structure that pre-dated even the L-plan.

This evidence was so clear, that a question arose why the presence of an earlier house had ever been in doubt. Documentary research revealed that the widely held view before Gifford’s examination in the late 1980s was based on a series of published travel books, going back to the second account of the house by Sir Robert Sibbald in 1710. He comments that
the house was ‘all built of new by the late Duke’. Though he describes the key interiors in the new ranges, he cannot have looked much further into the house as the older parts must have been fairly evident. Almost all of the subsequent accounts, mainly of early eighteenth-century date, seem to have been influenced by Sibbald, and only Hannan in 1928 admits the possibility of a previous structure. He says that it would be extremely unlikely had there been nothing earlier than the mid-seventeenth century, though he comments that there was ‘not even a tradition’ of a house pre-dating Mylne and Bruce’s work.

Based on this documentary evidence, it was hoped that parts of the older L-plan building might be identified in the southern parts of the west range. However, nothing was apparent and the historical sources seemed to be at fault.
However, this raises the second, significant finding of the investigation, which is the extent to which it had been underestimated how much the house had been altered following the mid-1760s fire. It was always assumed that the west range had survived intact, and that there were only minor internal alterations to make it a functioning house, including the addition of an upper floor. As we looked at the fabric of the building, however, fire-reddened masonry was noted far more extensively than expected, and in some areas it was overlain by later masonry. Through this archaeological evidence, it became clear that the 1760s fire had burned through the entire house and not spared the west range as previously assumed. With the subsequent demolition of the other three ranges, and the substantial remodelling of the west range, it was concluded that all upstanding elements of the pre-1660s L-plan building must have been removed.

In 2009 a rectified photographic survey of the standing walls was commissioned, and subsequently, detailed drawings of the principal walls were generated digitally from the photographs. This analytical drawing technique allowed the mapping of changes in the pattern of masonry, construction breaks and other variations which are not visible to the naked eye. At Leslie, the analysis showed that the four cross walls of the 1660s building had survived the 1760s fire, as had the north, south and east elevations, and most of the west. However, the analysis also revealed the extent of the mid-eighteenth-century remodelling which the documentary evidence could not, as between the 1730s and c. 1900, there are no known surviving plans.

The extent to which the 1660s building survived was clear from the masons’ marks on the dressed masonry of that period alone. Apart from the removal of any trace of the pre-1660s L-plan house, the major change to the plan in the eighteenth century was the addition of a central corridor on each level, with door openings punched through the cross walls. These openings replaced the former *enfilade* doorways, close to the east and west facades, which were blocked. In several cases, it is clear that these 1660s *enfilade* doorways, connecting the great dining room with its flanking drawing rooms, had doorcase mouldings carved in stone. Tooling marks showed that the mouldings were clawed off in the mid-eighteenth century to create a smooth wall plane.

The most complex elevation to understand was the east elevation. It was possible to establish that the central portion survived from the 1660s house, where it fronted the earlier off-centre courtyard. What became clearly visible was the eighteenth-century rationalisation following the removal of the north and south ranges and the addition of a further storey. The distribution of windows and the stair windows in particular demonstrates an intelligent exercise in rebalancing a partially existing facade to make it symmetrical.

The investigation of Leslie House has involved an interaction of archaeological research and existing, i.e. mainly secondary, source architectural history. This has allowed a widely held view about a pre-existing structure to be corroborated and, at the same time, has exposed how there ever came to be any doubt about it. Thus far, however, in archival terms,
2. The remains of the east doorcase to the Great Dining Room from the north drawing room, blocked in the 1760s. Tooling clearly shows where two lines of mouldings have been clawed off, and two square holes have been cut for laths. Fire reddened masonry is visible on the upper right. (Addyman Archaeology)

Leslie remains a puzzlingly under-researched building and it perhaps shows the practical boundaries on a project that is time and resource-limited.9 However, the investigation was able to pull together a number of sets of plans, some previously unknown, to inform the historical phasing of the building work at Leslie.10

Among the other riches of the archives perhaps the most notable are a number of inventories from around the late seventeenth and early eighteenth centuries.11 What emerges from even a fairly cursory examination of this material, combined with the plans of the building, is an impression of Leslie House as a crucially important Scottish house of the Restoration period. It links with an approach that was frequently used with old properties, of expanding, modernising and, to an extent, classicising them, essentially by making them symmetrical. The techniques used by Bruce and Mylne at Leslie were essentially the same as those they used at Holyrood, which they started in 1671 but based on earlier ideas about the modernisation of the building.12
3. East elevation from the inside with historical phasing. North is to the left. (Addyman Archaeology)
Leslie, in common with most houses being built or modernised almost anywhere in Europe at this time, adopted modern, hierarchical, apartment planning, derived ultimately from royal planning and mainly of French inspiration. The precise sequencing of the plan is less clear at Leslie than in other houses (and certainly Kinross) but it is discernible and it has some aspects in common with the royal planning of Holyrood (see Figure 4 showing the principal floor plan of Leslie from *Vitruvius Scoticus*). The core of the plan is the Great Dining Room (Salon) in the centre of the west range and the first room in the formal sequence. It forms the starting point for a number of spatial sequences. The first of these runs towards the south pavilion with a standard apartment of dining room, (south) drawing room, bedchamber and closet. However, in reality the theoretical sequence could be rather more nuanced than that and the inventory suggests a sequence of Great Dining Room, Ante-Chamber, King’s Bed Chamber and Closet, suggesting, at the every least, that this was the major sequence in the house. Leaving aside for the moment the corresponding north drawing room, there is another sequence that leaves from the south-east corner of the Great Dining Room into an ante-chamber, bed chamber and closet in the south range. The third sequence, into the north drawing room and then the gallery, is, at least superficially, similar to Holyrood. Certainly the idea of sequences of spaces running from a common origin point is very similar (though not identical) to Holyrood and the position of the gallery is identical. However, the Rothes gallery could never have fulfilled the linking function of the two royal apartments that the Holyrood gallery does.

The presence of the gallery at all is, however, interesting and significant. A gallery at this level and on this scale was highly unusual in Scottish architecture. It stands out in the plan as the brand new space, linking up and completing Leslie’s grand, new house. For Leslie it clearly had huge significance and, apart from any practical function as a place of promenade, it is very noticeable in reading the inventory that the gallery was very much a place where family, dynasty and alliance were commemorated, in that respect very much like Holyrood and very appropriate for a nobleman who, albeit briefly, wallowed in royal approval and comital power.

**Kinross House**

In sharp contrast to Leslie House, a modernised ducal seat, steeped in the history and tradition of a great family, Kinross House was a new house, built by Sir William Bruce for himself. It was begun in the 1670s but never fully completed. In the heyday of the Restoration, the patronage of the Earl of Lauderdale and the support of Charles II, Bruce confidently expected elevation to the peerage and thus the achievement of a similar sort of recognition as Rothes, but, in his case, one that would elevate not only him but his family. Thus Kinross is arguably more of a house for a duke than a baronet and it was certainly a house that was intended for a dynasty. However, Bruce’s income and political influence collapsed with the accession of James VII & II and worsened with the Glorious Revolution.
in 1688. Kinross was almost continually under construction until the early 1690s, but from 1687 was officially owned by his son John. The interiors of the house were left incomplete, and one of Bruce’s last actions was the completion of the enriched plaster ceiling of the state stair in 1693. Almost worse than the problems caused by the stalling of the building work was the breakdown in relations between the elder and younger Bruce. This was no doubt partly due to the stresses and strains caused by the lack of finance and the political difficulties suffered by Bruce, but it was also due to John Bruce’s failure to produce an heir: there was not much point in building for a new Bruce dynasty if there were no offspring to take the
name and possibly the title forward. Bruce and his son both died in 1710, apparently having given up on completing Kinross House.

That lack of completion is partly responsible for the subsequent, complex building history that has been elucidated by the investigation carried out over the past two years. Leaving aside the detail of this (some of which is explored below), what is clear is that the organisation of the house that appears in Edward’s plans (Figure 5) is largely accurate. The design sources for Kinross are highly complex, ranging from Palladio, Inigo Jones and other French, English and Dutch sources. A recent discussion that focuses purely on the Dutch notes the emphasis on the central corridor in the ground floor of Kinross, an arrangement not found in Dutch architecture and therefore attributed to English. This is correct, as far as it goes, but the English double pile plan, exemplified by a house like Sir Roger Pratt’s Coleshill, though crucial to Kinross, is only the starting point. That arrangement, with apartments arranged in the corners around central public rooms and usually also incorporating a spinal corridor for ease of service, is common in medium size houses of the gentry of this period (and for some considerable time afterwards), but Bruce’s ambitions, both architecturally and in terms of rank, went beyond a convenient and comfortable house in the country. There is a grandeur about Kinross that suggests wealth and ambition beyond that of a minor baronet. Externally this can be seen in its precisely cut ashlar and its giant order Corinthian; internally, it can be traced in the plan. Notwithstanding the debt it owes
Leslie House and Kinross House

to the English double pile plan, there is an immediately obvious difference between Kinross and, for example, Coleshill,16 which is that the plan of Kinross is not symmetrical and it does not have the service corridor on the principal floor. The lack of symmetry in a new-build house, for his own use, by an architect who was otherwise preoccupied by strict symmetry in his overall design17 is perhaps a surprise but it is caused by the insertion of an extra room into the state sequence, that is an ante-chamber between drawing room and bedchamber. That insertion indicates that Bruce was much more concerned with the formal sequence and the social hierarchy that this implied than he was with paper symmetry. Similarly, the lack of a service corridor at that level meant that service was not to be invisible or necessarily discreet; it was to be highly visible or even ostentatious, as befitted a man, and a family, of Bruce’s calibre and rank. Kinross is not a ‘great house’ but Bruce nevertheless employs a method of planning that is ducal in its scale, if not its actual size.

During the course of research for the conservation plan for Kinross, new detailed information relating to the incomplete nature of Bruce’s masterpiece came to light. The most significant relates to the Great Dining Room, called the ballroom from the early twentieth century, on the first or state floor. It was established that the Great Dining Room had been designed and actually executed as a double cube with the musician’s gallery shown in Alexander Edward’s drawing, and that the roofline of the house was higher than it is at present, with a wall head cornice gutter, probably removed in the mid-nineteenth century. This understanding of the ballroom changed the assessment of the significance of the space and therefore the possibilities for proposed alterations in the future.

This new understanding began with the physical evidence at the house. In the east wall of the ballroom, a semicircular relieving arch over a lintel, was noted in the roof space above the present ceiling (Figure 6). In the same wall, there are stone corbels, which initially seemed to have been set very high, at about the same level as the top of the relieving arch. The position of these elements was much higher than the present ceiling which was installed c. 1906 by the architect Thomas Ross.

Consulting Edward’s tiny plan for the chamber storey of the 1680s, a central opening in this wall was intended as a musicians’ gallery. However, returning to the physical evidence at the house, the opposite side of the roof space has no corresponding wall with corbels to support a ceiling structure.

A drawing in the RCAHMS is an east–west section of the house by Sir Robert Lorimer’s firm, drawn before 1901. There are several drawings at the RCAHMS by his office showing the house as it existed, and several showing alterations, including the executed panelling scheme of the entrance hall.18 Importantly, the east–west section drawing records the ballroom before its alterations by Ross. It shows that the attic level windows were then open, lighting the room as an upper tier of windows, not blind as they are now. This is another thread, connecting Bruce’s design to contemporary work on the Continent, where examples of salons, in some ways the equivalent space to the British great dining room, were
6. Kinross House, photograph of east wall of the ballroom, looking south, showing the corbels intended by Bruce to carry the ceiling. The c.1906 ceiling and its timbers are below. (Simpson & Brown Architects)

sometimes lit by two tiers of windows. One possible source for this type of arrangement is Rubens’ Palazzi di Genova, occasionally cited as a possible source for Bruce’s ‘supressed attics’ at Kinross, Moncrieffe and Dunkeld.19

The Lorimer section drawing also shows that the ceiling c.1900 was flat with a simple run cornice that did not sit comfortably in the space, squeezed in above the lintels of the windows. This ceiling was certainly not the original ceiling either, and was also below the level of the corbels by at least one metre.

Various sources, including Buildings of Scotland, note that the house was re-roofed in the 1860s and this was confirmed by examining the timbers, few of which are from the seventeenth century.19 As the house was at that point unoccupied, this must have been an essential repair to keep the house weatherproof. Comparing the present elevation with the engraving of the facade in Vitruvius Scoticus, it seems that in the re-roofing the height of the wallhead was reduced.

If water was penetrating the building, it is possible that the source of the problem was identified as being the stone wallhead gutter, concealed in the top of the cornice and
probably lined in lead. It may have been decided to remove the stone gutter arrangement in its entirety, and replace it with cast-iron rhones and downpipes. As this required an entire course or two of masonry to be removed, the pitched roof needed to be at a steeper angle and drop further to meet the new wallhead which obscured the lintels of the attic-level windows. The platform of the roof may also have been dropped as there are slightly odd lead apron flashings around the bases of the chimney stacks. Though the Vitruvius Scoticus engravings are not entirely reliable, a nineteenth-century photograph of Moncrieff House, a near contemporary of Kinross also by Bruce, shows a cornice gutter over attic-level windows (Figure 7).

By the time that Lorimer and subsequently Ross were working on the house around 1900, the lowered wallheads must have presented difficulties in reinstating a Bruce-style plaster ceiling in the ballroom, as requested by the owner, Sir Basil Montgomery. Lorimer clearly did not work on Kinross for long, the latest drawings dated May 1901 relating to the panelling of the hall. It is suspected that Lorimer and Sir Basil did not agree, and the earliest drawings by Macgibbon & Ross are dated August 1902.

Ross must have decided that the only way to resolve the problem of the ballroom ceiling was to conceal the attic-level windows with a coomb. The ceiling that was designed and installed by Ross is not an aesthetic success and is not historically accurate. It copies the coomb and circular plaster roundel of the state staircase, repeating the latter three times in square compartments. This is an aesthetically weak composition for one large room, and in the seventeenth century a single central roundel would have been more typical. Additionally, the quality of Ross’s copy is also poor, but perhaps this may be excused as the state stair plasterwork at Kinross is by the same plasterers who worked at the Palace of Holyroodhouse. Ross’s ballroom ceiling is an interesting example of a historicist reconstruction, but further
compromised Bruce’s intended double cube, already reduced in height by the lowering of 
the roof structure. The musicians’ gallery disappeared above the level of the coomb, and
only remains on the other side of the wall as a cupboard.

Later Changes to both houses
There were many smaller discoveries made about the construction and subsequent alteration
of Leslie House and Kinross House. The later alterations to both houses provide fascinating
insight into development of the country house in subsequent centuries. It is interesting to
note the correlations of certain features across both houses in the late nineteenth century,
including the insertion of modern technology like heating systems and lifts. In the plans
of both houses around 1900, there is an increasing specialisation of room spaces, like
gun rooms, indicating the new use of these houses, and increasing demarcation of spaces
on social and sexual distinctions. Lorimer’s changes to the entrance hall at Kinross are
particularly interesting as they show the returning prominence of the hall at the end of
the nineteenth century as a social space rather than as a place of entry.

Conclusions
Leslie House and Kinross House are two works in Bruce’s limited but outstanding oeuvre.
The rich results of the interdisciplinary research into these two houses re-emphasises the
importance of this method, as many of the conclusions would not have been possible with
the methods of one discipline alone.

In the course of research, archaeology revealed changes to the fabric of the houses but
could not explain why they had been made. However, architectural history would not
have been able to evaluate what alterations had actually been made and how this really
affected the fabric of each building. The combination of the two, however, enabled a wider
understanding of the house and more reliable conclusions.

At Leslie, archaeological research was only possible because of the near destruction of
the house, and there is much work to be done in examining archival material relating to
the Earls of Rothes. At Kinross, the proposed modernisation gave a focus to establishing an
understanding of the development of the building, but more buildings archaeology could
enrich understanding further. However, the conservation plan for Kinross House should at
least ensure that elements of great significance remain unaltered for future investigation.

Notes
1. The Scottish Parliament archaeology project, also involving a collaboration
of Addyman Archaeology and the University of Edinburgh, is an example
of collaborative, interdisciplinary research being carried out in an admittedly
unusually well resourced context. See Holyrood Archaeology Project Team,
Scotland’s Parliament Site and the Canongate: Archaeology and History, Society of Antiquaries, Edinburgh, 2008. This paper was written by John Lowrey (University of Edinburgh) and Tom Addyman and Nicholas Uglow (Simpson & Brown Architects with Addyman Archaeology).


3. John Mylne died in 1667, not long after work commenced. Thereafter his nephew, Robert Mylne, who immediately replaced him as King’s Master Mason, also took over the work at Leslie. The Rothes papers in Fife Council Archives indicate some involvement of the Mylnes from 1666, but with the main contract ‘to build ane statelic and fair building of stone work . . .’ in 1667. By 1670, the work undertaken by Robert Mylne included ‘covering the great stair with wainscot by Sir William Bruce’s special order . . .’, lining the rooms of the house and repairing the gallery, indicating that construction work was at a fairly advanced stage by that time. See Rothes Papers, Fife Council Archives, NRA(S) 744/40/69: Papers relating to Robert and John Mylne.


9. One explanation for the relative lack of research on Leslie is that the archival material itself has a complex history, with much still uncatalogued.

10. Three sets of Dean of Guild plans for alterations to the house around 1900 were lodged in the Fife Archives in Kirkcaldy, and a complete set of 1954 alterations drawings were disclosed by a local history enthusiast who had pulled them from a skip in the 1950s. These drawings showed how the house was modernised for use as a Church of Scotland Eventide Home, and added a new layer to understanding the plan. These plans, combined with the emerging understanding from the buildings archaeology, enabled a historical phase plan to be drawn of the ground storey.

11. The most important of these is one made by a Margaret Matheson, probably in the mid-1720s (based on internal evidence from portraits listed in the various rooms), Fife Council Archives, NRA(S) 744/40/58/1. There is also a typescript of it in NMRS.

16. This difference can also be seen in comparing the Kinross plan with the Talman plan identified by Ottenheym (‘Dutch influences’, op. cit.).
17. See the paper by John Lowrey in this volume.
18. LOR K/14/1–4.
23. At the time of research in November 2010, these drawings were still at Kinross House and are now awaiting cataloguing in the RCAHMS.