



**OFFICIAL REPORT**  
AITHISG OIFIGEIL

# Culture, Tourism, Europe and External Affairs Committee

**Thursday 17 January 2019**

**Session 5**



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**CULTURE, TOURISM, EUROPE AND EXTERNAL AFFAIRS COMMITTEE**  
**2<sup>nd</sup> Meeting 2019, Session 5**

**CONVENER**

\*Joan McAlpine (South Scotland) (SNP)

**DEPUTY CONVENER**

\*Claire Baker (Mid Scotland and Fife) (Lab)

**COMMITTEE MEMBERS**

\*Annabelle Ewing (Cowdenbeath) (SNP)

\*Kenneth Gibson (Cunninghame North) (SNP)

\*Jamie Greene (West Scotland) (Con)

\*Ross Greer (West Scotland) (Green)

Stuart McMillan (Greenock and Inverclyde) (SNP)

\*Tavish Scott (Shetland Islands) (LD)

\*Alexander Stewart (Mid Scotland and Fife) (Con)

\*attended

**THE FOLLOWING ALSO PARTICIPATED:**

Barbara Cummins (Historic Environment Scotland)

Thomas Knowles (Historic Environment Scotland)

Stephen Mackenzie

Dara Parsons (Historic Environment Scotland)

Dawson Stelfox (Consarc Design Group Ltd)

Sandra White (Glasgow Kelvin) (SNP)

**CLERK TO THE COMMITTEE**

Stephen Herbert

**LOCATION**

The Robert Burns Room (CR1)



## Scottish Parliament

### Culture, Tourism, Europe and External Affairs Committee

Thursday 17 January 2019

*[The Convener opened the meeting at 09:03]*

#### Glasgow School of Art

**The Convener (Joan McAlpine):** Good morning and welcome to the committee's second meeting in 2019. I remind members and the public to turn off their mobile phones. Any member accessing committee papers by electronic device should make sure that it is turned to silent.

We have received apologies from Stuart McMillan MSP, and I welcome Sandra White MSP to the meeting.

Agenda item 1 is an evidence session with two fire experts on the Glasgow School of Art inquiry. This is the final evidence session on the Glasgow School of Art, and the committee will report on the issue in due course. I welcome Dawson Stelfox, a conservation architect and consultant from Consarc Design Group Ltd, and Stephen Mackenzie, who is an independent fire, security and resilience adviser. Thank you for coming to give evidence to the committee.

We have two panels today, so we are pushed for time. You can also see that we have quite a few members, so questions and answers should be as succinct as possible. I do not want to interrupt people, but if I feel that you should be concluding, I will wave my pen, which is a polite way of saying that we should move on.

I will start with an opening question. You will have had the opportunity to listen to the evidence that Glasgow School of Art and its architects and contractors gave at previous meetings. Many of our lines of questioning revolved around the compartmentation of the building and the existence of voids in it. After the 2014 fire, the fire investigation showed that voids had accelerated the fire. We have received evidence that those voids were pointed out to the art school by the fire expert Stewart Kidd when he toured the building with Historic Scotland as long ago as 1997. They were also highlighted in the Buro Happold report in around 2006. However, when we spoke to Page\Park Architects, it was made clear that those ducts and shafts had not been blocked during the conservation after the first fire.

Could you give us your expert opinion on the existence of the ducts, the fact that they were not dealt with and whether you think that that was

something significant that should have been addressed earlier?

**Dawson Stelfox (Consarc Design Group Ltd):** I will focus on the work done during the construction period. From reading the documents, I think that it was planned to deal with the ducts as part of the works on completion, so the fire would have been stopped.

What is missing from what I have seen so far are measures to stop fire spread during the construction process. Those ducts were not compartmented. In fact, one of the Kier Construction representatives said that it was impractical to do so during the process.

That brings us to the fire safety assessments during the construction period. The statutory position is that a fire risk assessment has to be done, but the focus of that assessment is on life safety and getting people out of the building in time, not on asset safety or protecting the building. I suggest that it is worth the committee looking at changes to requirements in fire safety assessments during the construction period to take into account fire asset safety and fire spread through the building.

It is not easy to do. The Kier representatives said that those ducts were going to be used for services distribution: cables and pipes were going to be put in them during the works. Fire stopping during construction is not therefore easy because it might be continually disrupted and have to be put back in place. I would suggest that there has not been enough focus on achieving compartmentation fire stopping during the construction process.

**The Convener:** We have received some quite contradictory comments, and you are quite right that Kier representatives talked about putting services through the ducts. However, they also talked about conservation. Obviously, they were Charles Rennie Mackintosh ducts and integral to the building.

At the earlier stage, the Buro Happold report said that it would be just too expensive to do the extent of fire stopping required. Was that an issue? Are there issues in the conservation rules that stop us making unusual buildings like that safe in modern terms?

**Dawson Stelfox:** I read those comments. Without being there and being involved, it would be difficult for me to say. However, at the very least, the process of seeing what was involved in doing it and whether it would have had a detrimental effect on the heritage of the building should have taken place. I do not know whether that got as far as being put to and discussed with Historic Environment Scotland, for example, but it

did not seem to. It seems that it was ruled out early on.

It is important to put on the record that none of this is easy to do. Every historic building is unique. A lot of these ducts and things that go through the building will not be recorded in drawings and will be finding their way through fixed hollowed walls. Even finding the routes of all the voids can be difficult and sometimes, because it is difficult, it becomes expensive and it gets ignored.

I would suggest that the process should go right back to the original survey stages, to the assessment stages, to doing risk management at the design stage, and to following that up with a strategy that leads into the construction stage. Interconnecting voids through a building become the sources of the fire rate in many fires in historic buildings, not just in the Mackintosh school. That factor contributes greatly to the loss of heritage.

**The Convener:** What is your view on that, Stephen?

**Stephen Mackenzie:** I agree with Dawson Stelfox's points in their entirety. I would like to add, that, having looked at the evidence bundle, and given the two-week timeframe of my invitation to today's session, which arrived during the holidays, and the complexities of the case, I thank the committee for the dispensation to continue the compilation of a written response.

For the record, I am concerned not so much about what has been disclosed, but about what has not been disclosed. During the 1999 city of architecture and design project in the Lighthouse Mackintosh building, there were a number of site-based fires. I was an on-site engineer there and I intervened on at least two fires with first aid firefighting equipment. There was one significant cladding fire, and the person responsible was dismissed for unauthorised works and actions. That has not been disclosed, and nor has the construction phase fire safety plan or the construction phase construction plan, as required by the Construction (Design and Management) Regulations 2015, or any arson prevention threat assessment or whether any such threats were addressed.

There are significant concerns about the voids, errors and omissions in the evidence pack that has been submitted, and again, I suggest that there is a potential need for a full, detailed forensic investigation of not only the fire ground, but all the project documentation, roles and responsibilities. As in 2014 and 2018, because of the complexity of these hearings, I press upon the committee that there may be a case for a public inquiry to look at the issues and the wider context, and to instigate dialogue between the civil service and the fire sector and conservation sector as to where we go

next, considering the backdrop of the on-going Scottish building standards review.

Coming back to the construction phase, I worked with Buro Happold, but not on the Glasgow School of Art risk assessment. I have made a full and transparent disclosure of any conflicts of interest, non-disclosure agreements and security aspects that I am subject to. However, as a professional and ethical fire engineer, I use a degree of latitude in the public interest. I am concerned about the recent report in the press about Kier Construction's failure to disclose the construction phase plans. Some of those failures disclose certain issues.

For the public record, I am also stating that I have had sight of a report from the Health and Safety Executive in 2015, which I was asked to keep confidential, and which issued an adverse notice of deficiency on the Glasgow School of Art site. However, I must note for the record that that was before Kier Construction's appointment. I would suggest that there is a need for additional detailed understanding of the roles and responsibilities of the three contractors that were identified in the evidence bundle, and of why, given the two fires, that notice of deficiency has not been disclosed.

**The Convener:** Can I interrupt you? Can you explain what an HSE notice of deficiency means?

**Stephen Mackenzie:** Under the Construction (Design and Management) Regulations 2007—in fact, it is easier to go back a bit. Under “The Guest Report 1970”, there are three strands of health, fire safety and building standards. One deals with local authority building controls, under building standards; one deals with the Health and Safety Executive and construction standards; and one deals with the specialist knowledge needed for fire safety standards. More recent legislation comes in the form of the Construction (Design and Management) Regulations 2007 and the Construction (Design and Management) Regulations 2015, which require construction phase fire safety plans. That is a formal statutory requirement. We also have parallel requirements for fire safety and risk assessments on the client's and contractor's sides.

On the HSE notice of deficiency, the HSE was called in and conducted an inspection on site. I am not sure about the grounds for the inspection, but I have seen the original emails and correspondence; they are available in the public domain, so I do not see any reason not to publicly disclose them. You can get them within 21 or 28 days through a freedom of information request. They should have been entered into the evidence. The correspondence specifically raised concerns about fire safety on the GSA site from 2014 to

2015 and deficiencies in the means of warning and some of the firefighting provisions.

From another sector contact, I believe—although this is unsubstantiated—that, following the 2018 fire, Kier Construction was upgrading the on-site means of fire detection and warning from a manual system to an automatic system. However, I do not have any details other than what I received verbally. I want to log that for the public record. I have asked my source for the HSE disclosure, in order to confirm that, but they are reluctant to provide it; hence, I am telling you that it is available through an FOI request or a committee request.

09:15

**The Convener:** Thank you. Given the pressures of time, I will move on.

**Claire Baker (Mid Scotland and Fife) (Lab):**

As well as looking at the recent fire, the committee has been considering the 2014 fire and some of the decisions that were made in the lead-up to it. The evidence that we have heard for the decision to install mist suppression as a fire prevention system suggests that there were no other options and that those involved were limited by the design of the building. The evidence that we heard from and the argument that was made by the Glasgow School of Art was that all but one of the potential property fire protection options had been ruled out, so it was left with the mist suppression system. Do you think that that was appropriate? In your opinion, was that the correct decision to make to preserve that building?

**Stephen Mackenzie:** There are major concerns about the ambiguity over the status of the proposed fire suppression works prior to the 2014 fire and during the works in the run-up to the 2018 fire. The fire suppression water mist system is the contemporary system to install in historic buildings in particular, as it uses less water and is less damaging while providing a level of cover equal to more traditional wet-based sprinkler systems.

I categorically question the view that it was the only system available. As far as historic buildings are concerned, there is, in the National Museum of the Royal Navy archives, not only a water-based suppression system but, in the unoccupied archive area, a gaseous suppression system, which, because it does not use water, is less damaging and makes recovery easier. That building has a mixed-mode system.

I question the timeframe for implementing the suppression system before 2014, and I do not buy the argument that there was asbestos. For a building constructed before 2000, you are required to have an asbestos plan; that allows you to anticipate where it will be, and you can employ

specialist contractors to work in asbestos-controlled areas. I therefore categorically refute that position. A number of erroneous positions and statements have been made that will not stand up to expert interrogation, and I impress on the committee the need to recommend a full forensic examination.

I do not want to labour the point, but, coming back to sprinkler systems, I question why the installation was not phased, given that the building, in its original design and construction, was in two phases itself. The building lends itself to the undamaged wing and the damaged wing being treated as two separate entities and linked back to the new tank areas.

I do not buy what has been said about the lead times; I do not buy what has been said about bringing in pump sets towards the end of the project instead of doing so earlier; and I do not understand why there were no temporary arrangements. I am not saying that they should have been put in building-wide, because that would have been challenging and cost prohibitive, but they should at least have been put in around the boundary of the damaged area to compensate for the compartmentation issues. Sprinkler suppression compensates for other deficiencies, predominantly with regard to compartmentation, and that is why it is so important to have the guidance and the statutory requirement and to educate clients with historic buildings.

**Dawson Stelfox:** On the last point that Stephen Mackenzie made, which was about suppression systems compensating for a lack of compartmentation, I find, having read the reports, the conclusion that this was the only possible way—even in 2014, when a lot of the building was intact—to be a bit of a jump. I do not know whether that was taken up with Historic Scotland at the time, but the reason given for not providing compartmentation seemed to be concern about disruption to the historic fabric. How far that was investigated should be challenged, because it seems to me a big jump to immediately say that compartmentation could not be put in, because of the disruption to the historic fabric, and that the only option was a suppression system. Suppression is nearly the last thing that you would do, after you have compartmentalised to reduce the spread of fire through the building.

**Stephen Mackenzie:** I agree. As professional fire engineers, looking at the whole project, we will start with the end point and what we are trying to achieve in risk reduction, protecting a historic asset and so on. We can in-build at an early stage the fire dampers, pipe runs and the intumescent openings that we can run cable and pipework through to compensate for poor compartmentation and to form the compartment lines. After that, we

can put in a fire suppression system, which would give an extra level of not only life safety but property protection. That is the way to go. The fact is that we lag behind North America in the adoption of suppression-based systems and holistic historic building protection using contemporary fire engineering solutions.

**Dawson Stelfox:** A focus on the importance of the historic building asset in a fire risk assessment is currently lacking in the guidance and legislation. Instead, the focus is on life safety, both during and after construction. That mindset is starting to change and we need to think about how we use fire safety measures and audits to protect historic fabric in the long term. That is not a requirement at the moment; individual owners might consider it as such, but it is not a statutory requirement.

**Claire Baker:** The art college is a working college, while the naval museum that was mentioned is a different type of building. Indeed, that is one of the arguments that the Glasgow School of Art has consistently made: the fact that it is a working art college is as important as maintaining the historic fabric and the importance of the building itself. The evidence that we heard from the college on the 2014 fire was that it was the fault of one student and that if that individual had done what they had been told to do, the fire would not have happened. Is that a reasonable statement, and does it show a responsible use of the building?

**Dawson Stelfox:** No. The idea that we can stop fires happening in buildings is fanciful. According to statistics that came out the other day on the increase in construction site fires in recent years, one of the sharpest rises was in fires that had been started deliberately. No matter how many precautions we make through, say, good practice in hot work, electrical work or temporary works, we have to accept that there will be fires in buildings, including ones that are started deliberately.

It is not possible to say that fires will not happen, just because people are told to behave in a particular way. We can give people good advice and follow all the good practice in hot work, site works and everything like that, but we must still assume that there will be fires in buildings.

**Claire Baker:** But the building was not a construction site when the first fire happened.

**Dawson Stelfox:** No, but even so, we would still have assumed that there would still be a fire.

**Stephen Mackenzie:** As someone who generally works in complex environments such as hospitals, universities and a wide range of historic buildings, I can tell you that we can retrofit historic buildings that are still in active use. We can use night-time and weekend crews, and we can even remove asbestos from live buildings by packaging

off smaller compartments, doing the removals and turning things around overnight, to improve functionality.

In any academic session, there will be significant holiday periods. Indeed, I was an academic, and I know that we really teach for only 30 to 35 weeks of the year; as a result, the other weeks can be used for retrofitting, which is what we do. I had an assignment at Kings College London, managing the entire property portfolio for the summer works, building works and £0.5 million of capital development. As I have said in my paper on fire engineering throughout the lifecycle of a building, a good fire engineer can help the client address those issues, but having considered the evidence bundle, I have to question whether the client was following the advice of the nominated competent person. That is a major point.

**Dawson Stelfox:** Finally, on that point, I am working for the University of Edinburgh at the moment and for the past few years, we have been retrofitting fire safety measures in some of its most historic buildings both while the buildings are in use or during the holidays. It is difficult to do and requires a certain amount of decamping and disruption, but it is not impossible.

**Stephen Mackenzie:** I have a couple of things to add. Dawson Stelfox is absolutely correct to say that the main thrust of legislation throughout the UK, Europe and the developed world is life safety, but that does not remove the need to look at environmental protection, protection of operational firefighters entering the building for search and rescue, damage control or other matters. There are explicit life safety provisions, but there are other implicit fire safety objectives. Under the risk-based regimes that we now have, you are defective if you do not consider all risks and look only at life safety.

Therefore, our legislation needs to be reinforced in relation to historic building protection, the main building standards review that Dr Paul Stollard is doing following the Grenfell tower fire and the ongoing Hackitt review. There are ways to do that. We could have, say, an integrated safety and resilience standard for systems, operation and guidance et cetera. We also need to make a decision whether we are prepared to lose historic and cultural assets or whether there is more that we can do. A lot of evidence is coming out of America on that; the Smithsonian Institution, for example, does a lot of work on conservation.

I dislike the term “accident”—we do not use it any more. We talk about road traffic incidents rather than road traffic accidents, because the term “accident” suggests that there is no apportionment of blame or no failure. Although the student whom you mentioned might not have followed policy and direction, there was also a

supervision failure. Therefore, we call such things “incidents”, and they are not to be speculated on; indeed, Ms Gray objected to such speculation. I am a public accredited criminal investigator, and our approach is to generate hypotheses for evidencing and testing from the documentary evidence, the human witness statements, the closed-circuit television or the physical on-site fire investigation evidence.

There are some quite significant positions that need to be corrected. I am also concerned about some of the apparent errors and omissions and erroneous and misleading statements that have come out of the evidence sessions to date. That is why I believe that we need an appointed task group with a chair and a number of experts—because experts can either agree or disagree, or we can all say something else. It is a complex issue, because there are different routes of compliance, but we can assist in that process.

**Tavish Scott (Shetland Islands) (LD):** I want to carry on with Claire Baker’s line of questioning on the mist suppression system. As we understand it, the system that went in before the fire in 2014 largely survived that fire and was then ripped out. Can you offer any thoughts as to why that might have been a good idea? If the system had stayed in, might it have helped to alleviate the worst impact of the subsequent fire?

**Stephen Mackenzie:** We do not have enough evidence just now to answer that without speculation. However, I can say that Mackintosh was innovative in his design and use of modern technologies and materials. Sprinklers have been around since the 1800s and are not a new technology. Part of the problem is that, in historic buildings, unless there is a change of occupancy or a material alteration of a building that then excludes like-for-like changes, we do not need to have new building warrants or to upgrade to meet current standards—it is deemed satisfactory to meet the standards of, say, the 1900s.

**Tavish Scott:** So we could have kept the old system in place.

**Stephen Mackenzie:** We could have kept it in.

**The Convener:** Excuse me for interrupting, but are the witnesses aware of the story that was in *The Times* this morning?

**Stephen Mackenzie:** I have not seen it.

**Tavish Scott:** It simply reflects the evidence that Gordon Gibb gave to the committee, which relates to the removal of the mist suppression system. The committee was not told that it was removed after the first fire. I guess that we are all puzzled about why a system that, as we understand it, had broadly survived the first fire

would have been removed, as it presumably could have played a role thereafter.

**Stephen Mackenzie:** As an expert, I am puzzled, too.

**Tavish Scott:** To put it the other way, would there have been a good argument for retaining the system until such time as other things were developed, if that was the fire prevention proposal for the future?

**Stephen Mackenzie:** I have stated categorically that there should have been a temporary or phased installation, and that system could have formed part of that. I have not had time to digest the minutiae of the evidence bundle adequately, but I am incredibly puzzled to hear now that that occurred and that there is a line of questioning on the issue. It is a lessons-learned option.

**Tavish Scott:** It is a pretty big lesson.

**Stephen Mackenzie:** Definitely.

09:30

**Tavish Scott:** You will understand all the technical stuff, which I do not, but I note that the evidence also cites the joint fire code. You will be familiar with such codes. I will not read you the quote, as you will know it off by heart, but, as far as I can see, it says that the high-pressure mist suppression system could have been activated during the Kier works commencing on 8 August 2016, protecting the Mack building during construction. Do you think that is a fair observation?

**Stephen Mackenzie:** Yes, and I am surprised that it did not occur.

**Tavish Scott:** Right. Mr Stelfox, do you wish to comment?

**Dawson Stelfox:** Yes. In my experience, it is not normal to have fire suppression during construction in this country. It is much more normal in America and Canada, where timber-frame buildings are more prevalent. However, although it is not normal, you would have thought that, given the history and the fact that there was a system there, it should have been considered.

**Tavish Scott:** So it is reasonable for our committee to ask why the system was taken out. We do not understand that.

**Dawson Stelfox:** Yes—why it was taken out and why they thought about a temporary fire-suppression system.

**Tavish Scott:** In your professional view, is there a logical reason for taking the system out? Is there some good reason that we cannot see at this stage?

**Stephen Mackenzie:** The obvious one is that it was damaged or incomplete. Was it fit for purpose, or could it operate following the fire and another investigation? It is also important to draw the committee's attention to the fact that, although it is relatively uncommon, it is not unknown for a temporary system to be put in place. People definitely do phased installations. Indeed, with the building in question, it is an automatic decision.

New products are emerging on to the market all the time, including the new plug-and-play personal-protection water mist systems. If there is a socket, we can install a tank, a pump and detection, which are all self-contained—they were developed for vulnerable person protection—and use them in small compartments. Although they have not been tested for that application, I would, as a fire engineer, argue for putting them in the damaged portion of the building when there are hot works and remedial works, just to reduce the risk.

**Tavish Scott:** Thank you.

**Sandra White (Glasgow Kelvin) (SNP):** I thank the committee for letting me come along. I move the discussion on to cladding and insulation. After much probing in previous questioning of Kier Construction, it was discovered that the cladding that was used in the Mackintosh building was the same as that used in the Grenfell tower. You will know better than me that there is supposed to be space and concrete at the bottom and so on; there was obviously timber present as well. I would like your expert opinion on using that type of cladding, which is obviously cheaper. Unfortunately, there was the tragic situation at Grenfell. Why would they use that type of cladding in that type of building?

**Stephen Mackenzie:** I have spent 19 months working pro bono on Grenfell. That question comes up time and time again—just this morning, I tweeted something about cladding. I tweeted about stone wool versus foam insulation, because somebody else asked about it. The reason why we can use that type of cladding is that it appears to comply with the tests and standards at the time of construction. However, there is legal precedent on its use through other cases that have been upheld. I could look those up on my phone, but that would take time. There is the case of Sahib Foods Ltd, which is a food factory down south. The architect specified, despite repeated warnings, the use of a different type of expanded polystyrene insulation around a high-risk area. The company was found to be deficient and grossly negligent for not following other advice, not adequately reducing the risks at source and not adequately considering risks. Although the Court of Appeal reduced the damages against the company from—I think—£25

million to £10 million, it went bankrupt because it had only £5 million of insurance cover.

There is a big debate in the UK in this area, which I will kill off today. Foam insulation gives you a marginal benefit in terms of thermal performance but does not necessarily give a cost benefit when compared with stone wool, which has the same performance requirement. Stone wool might be slightly thicker to achieve the same performance, but it is safer; it is not combustible. An Australian colleague and other material manufacturers call foam insulation “plastic petrol”. It does not ignite under the tests, and it will not ignite in most instances because there is a concrete slab and a uPVC layer. However, if there are hot works or sustained ignition through a fully developed fire, foam insulation will add to the fuel load by an order of magnitudes, whereas stone wool will not.

As an expert, I find the design team's rationale that the cladding complied to be defective. It had not considered the risks under the building standards, the Construction (Design and Management) Regulations 2015 and the Fire (Scotland) Act 2005. If someone fails on one point in our legislation, they fail on multiple points.

I will leave it there, because of the on-going civil and criminal investigations, but I will submit a formal written paper to clarify the matter once and for all.

**Dawson Stelfox:** I like stone wool as a material, and I use it a lot—more because of its breathability and for moisture transference than because of its fire-related properties. When working with historic buildings, we are always looking for breathability and moisture movement. As an inert material, it is a very good insulation material for historic buildings. In defence of the architects, if an architect is given a product that seems to comply with legislation, it is understandable why the product would be specified in those circumstances.

There is a lot of confusion in the construction industry about the performance of foam materials, particularly in relation to composite layers—for example, when a layer of foam is buried above a concrete roof or when a ceiling is underneath a fire-resistant material. Most architects would not think that that adds to the fire risk of a building. If it is adding to the risk—the evidence suggests that it is—the profession will certainly need to do more to specify what materials can be used. After Grenfell, our understanding of those issues has changed quite a lot. However, there are uncertainties about how the products perform when they are in complex composite layers.

**Stephen Mackenzie:** I agree. I have said on record in relation to the Grenfell debate that the potential root cause and the common cause failure

of the Grenfell fire—474 other towers have Grenfell-style cladding—and a contributing factor to the Glasgow School of Art fire was an unknown defect in the advice, the tests and the compliance routes. During a Local Government and Communities Committee evidence session following the “Review Panel on Building Standards (Fire Safety) in Scotland” report, Dr Paul Stollard alluded to the review panel having a very good understanding of where contractors, designers and specifiers have gone wrong. The fire certification and accreditation process is to allow us to make rapid decisions; a fire certificate shows that something has been tested independently and that it is safe. Therefore, there are a number of multifaceted problems here—it is not just about safety and Historic Environment Scotland; it is also about fundamental building standards and regimes.

**Sandra White:** Just—

**The Convener:** I am afraid that, to allow other members to ask their questions, we will need to move on.

**Jamie Greene (West Scotland) (Con):** It is probably worth taking a step back to look at the committee’s remit. We are not here to identify the cause of the fire, to apportion blame or, indeed, to make any explicit recommendations on changes to fire regulations. Nonetheless, a lot of those issues are coming out in the wash.

Mr Mackenzie, I fully acknowledge that you are an expert in the field, but you have made some broad statements. Are you suggesting that witnesses, in either the written or the oral evidence that the committee has received as part of its inquiry, under its remit, have inadvertently or purposefully withheld evidence from us?

**Stephen Mackenzie:** There appears to be an inference that that might be the case.

**Jamie Greene:** There appears to be an inference that that might be the case. Do you think that that is the case?

**Stephen Mackenzie:** There are significant gaps, errors and voids in the bundle of written submissions. I will give the committee a list of the documents that should have been submitted, as a priority. The fire safety plan, the construction phase plan, the arson assessment and any disclosure of enforcement notices or notices of deficiency should all have been in that bundle. That does not appear to have been the case, and I do not understand why.

I know that there are active and on-going investigations, and that no lives were lost or injuries sustained in the fire, but there has been a property protection or statutory failing. I encourage clients—this is my personal opinion—that there

should be full disclosure, because courts are now starting to look at the conduct of parties.

Sentencing can be mitigated by early admission of guilt, as is outlined in the Scottish Sentencing Council’s guidance. Someone’s sentence can be reduced by a third if they plead guilty at the first opportunity, but that reduction tapers off following each opportunity to plead guilty. If someone continues to plead not guilty but are found guilty, the penalties can be harsher. If someone obstructs, frustrates or is combative in their approach to an investigation, a public inquiry or a public hearing—or if they are found to have feigned disclosure rather than to have provided full disclosure—the courts will assign harsher penalties. That has happened under fire law south of the border. I will dig out the case briefs, so that the committee can see that it is not just Mr Mackenzie saying this. What I am saying is based on what I, as a criminal investigator and a fire expert, have and have not seen in the bundle and on the case law that has come through the courts.

**Jamie Greene:** Thank you. I repeat the point that this is not a court of law.

**Stephen Mackenzie:** I understand that.

**Jamie Greene:** We are not apportioning liability or blame on anyone. We are taking evidence from people—and listening to their assertions—and summarising that evidence. What I am asking you is: are there specific areas where you feel either that evidence is misleading or that evidence that is relevant to the committee has been omitted?

**Stephen Mackenzie:** Yes.

I will just add one very important factor. I am not saying that A, B and C are guilty of X, Y and Z. I am suggesting areas for investigation and raising concerns in the public interest about a particular course of action by the respondents.

I specifically encourage respondents to give full and appropriate disclosure to this committee, or to any other investigation. It is in their best interests to do so, and they need to think carefully about the advice that they are getting from legal counsel on that matter.

**Jamie Greene:** Thank you. I am sure that the convener and the committee clerks will reflect on that.

I will ask a wider question, in case other members have more specific questions.

This is quite an unusual scenario in that there had already been a fire in the live environment of a building that clearly served many purposes. As the deputy convener said, it was a live academic and educational environment. It was also a building of historic importance and influence in Scotland and, in that respect, a great treasure to us.

After that fire, there was another incident when the building was undergoing reconstruction. Should that building have been treated differently to how any other live construction environment would be after an incendiary incident? Any other building in which there had been a fire and which was undergoing reconstruction would have in place appropriate fire prevention mechanisms. Should the Mackintosh building have been treated any differently? Was it treated any differently? If not, why not?

**Dawson Stelfox:** The fact that there had been such a devastating fire—and the fact that the fire report shows how it rapidly moved through the building from the basement to the roof—certainly would have set off all sorts of alarm bells for me about how that building should be treated.

You learn lessons. Lessons should have been learned from the previous fire, and the report about how that fire moved through the building was there. Preventing that from happening again should have been the top priority. Once that is done, you would obviously start looking at other scenarios by which fire might spread through the building.

The fact that there had already been a fire—and that there was a report about it—should have increased the attention that was given to the potential for future fires.

**Stephen Mackenzie:** I agree. I have investigated many types of incidents. We always look at the conduct, errors, actions and omissions; the safety features and protocols; and the case for mitigation or defence before, during and after each event. We want to learn the lessons from the base event and put in place a robust response to prevent the next one.

Glasgow School of Art knew about the issues through the 2006 and 2008 Buro Happold reports. In 2014, it was either about to put in a suppression system or it was already being installed. It had a major fire, and it had failures in inductions, policy, procedures and supervision from 2014. Then we do not see some of the evidence, and it has got a failure in 2018. The cause of that is yet to be determined—we know the potential causes, but not the actual cause.

I therefore would have thought that Glasgow School of Art would—this is within some of the standards—look at the reconstruction more strategically and holistically with stakeholder groups, Historic Environment Scotland, the Scottish Fire and Rescue Service, building standards and specialist fire engineers. I do not even see the appointment of a specialist fire engineer between 2014 and 2018. That is one of the things that I drive people towards, along with the integration of fire, security—that is, site

security and arson prevention—and resilience work through business continuity, emergency planning, what-if analysis, contingencies, disaster recovery and crisis media response.

I have provided the committee with examples from five London hospital fires. I have also provided a thick and extensive guide on historic building protection and fire safety and contingency planning from the 1980s and 1990s. All the information is there.

We recognise as experts that fragmentation makes it very hard—even for informed professionals—to find the right route. Each case is different and has added dynamics. Ultimately, this was one of the oldest working schools of art and architecture, and it is not a very good advertisement to have not one major destructive fire, but two such fires in a school of architecture. There was a reputational consideration to this.

09:45

According to “The Economic Cost of Fire”, which was produced by the Office of the Deputy Prime Minister and is available through the Department for Communities and Local Government, the direct cost, which is an insurable cost, accounts for a third of the economic cost of fire. Incidental costs, reputational damage, good will loss, concern, legacy issues and speculation account for the other two thirds of the cost, which most companies do not recover.

We also have statistical inference. According to the Fire Protection Association, 60 per cent of construction fires happen when the building is 90 per cent complete, and the Glasgow School of Art fire is another instance of that.

**The Convener:** Thank you very much.

**Ross Greer (West Scotland) (Green):** I return to Claire Baker’s line of questioning. We raised with the art school representatives the fact that the installation of a fire suppression system was not completed before the 2014 fire. They claimed that the reason for the significant delay in the completion of that system before the 2014 fire was the discovery of asbestos in the building, on which Mr Mackenzie has helpfully commented. I raised with them the fact that a far larger delay was caused by their choosing to fundraise for the fire suppression system while spending existing funds in other areas—for example, the school’s property portfolio expanded at the time.

Do the witnesses have a view on the priority that those actions suggest that the school attached to fire safety? In your experience, how common is it for an organisation that is responsible for a building of such historic importance to fundraise

for fire safety while spending on non-safety-critical areas?

**Stephen Mackenzie:** I will go first. This is probably the crux of the problem. I draw the committee's attention to the fact that the requirement for risk-based fire safety legislation was introduced in 1997. There was a massive gap from then until 2006. What happened? We had the Fire (Scotland) Act 2005, following which there was a flurry of activity in 2006, which coincided with the Scottish Further and Higher Education Funding Council's requirement to have formal written estate plans in place in 2007 and for those to be updated every five years. In 2012, four years after the 2008 Buro Happold report and six years after its 2006 report, Ms Gray made an ambiguous statement about fundraising—finally, the school said that it needed to raise some money—but we know about the long lead times on the Kier building; we are talking about a cost of about £50 million.

The school has other campuses. I cannot argue with the fact that it has multiple sites and buildings, but there are mutual reciprocal aid agreements that cover the universities in Glasgow and the City of Glasgow College infrastructure, so many of the arguments that I would consider if I was acting for the school, the architect or the project team quickly evaporate.

This is not work that we can do after just a two-week evidence bundle sift; we need to do a more detailed investigation to help us to understand what the root cause failures, the compounding failures and the cascade failures were, and what mitigation was afforded to all the parties. That is where independent experts come in. We take the side of public safety and the public interest, and we look at what the evidence shows us. What is most important at that stage is that lessons are learned, so that we know where to go next and what recommendations to make to help the committee or to bring about legislative or guidance changes.

**Dawson Stelfox:** I will comment on the principle of incremental improvement. From rereading the documents, it seems that it was a case of all or nothing. Everything went on the mist suppression system; everything else was ruled out. It was a large, complex system that was expensive and took a while—rightly or wrongly—to put in.

The principle of incremental improvement is a very important one, especially in dealing with historic buildings. The idea is not to let perfection get in the way of doing good. It is better to start to make small improvements such as compartmentation or fire stopping to improve the situation, even if the whole thing cannot be done at once. The making of such improvements in a phased way over time does not seem to have

been considered. It is a messy and awkward approach, because it involves doing little bits here and there, but, over time, you are fairly quickly improving the fire safety of the building.

Incremental improvement is an approach that I find works with historic buildings. You are not going in and being massively disruptive, but are slowly improving the fire resilience of the building. It is not terribly sexy or interesting and there is no big project, and it would be difficult to fundraise for, but that approach makes buildings safer without the loss of historic fabric. That does not seem to have been considered. That takes us back to the question of why total faith was put in the mist suppression system, which took so long to be installed that it left a gap in protection.

**Ross Greer:** Is it common for organisations roughly the size of the GSA that are responsible for buildings of this level of importance to fundraise for safety-critical systems?

**Dawson Stelfox:** It is not something that I have heard of.

**Stephen Mackenzie:** The expectation would be that the funds would come out of Scottish funding council funded repair and maintenance works—the capital investment works. If upgrades are needed as a result of legislative changes following the Disability Discrimination Act 1995 or the Equality Act 2010 provisions, that comes out of the public purse, augmented by student fees, consultancy fees and other means of income generation, including through sponsors and stakeholders in the building. Some of the position statements require clarity.

**The Convener:** You said earlier that it would cost £50 million for the Kier building. I take it that you mean that that was the cost of rebuilding the Mackintosh building.

**Stephen Mackenzie:** Sorry—

**The Convener:** I just wanted to clarify that for the record.

**Stephen Mackenzie:** Thank you for the correction.

**Annabelle Ewing (Cowdenbeath) (SNP):** I want to pick up on the period between the first catastrophic fire and when Kier Construction came into the situation in 2016. Stephen Mackenzie has already referred to some of this. I want to know the position with regard to Kier becoming de facto controller of the site. I would like to know about the tender process, in terms of the relevant conditions to be fulfilled, with regard to fire safety in particular, and the contract that was subsequently awarded. I would also like to know about the arrangements for oversight by the GSA, which remained the owner, although it was not in de facto possession of the site at the time, and had

responsibilities as owner—in particular, to the nation and the world, because of the nature of the building concerned.

Do you have any further comments to make on fire safety in relation to the arrangements that were put in place, to the extent that you have been able to ascertain exactly what the provisions were?

**Stephen Mackenzie:** We can confirm the statutory position. There have been a number of statements saying that the GSA handed control of the site to the contractor. That control was not entire; as you said, the GSA remains the owner of the building. It employs the contractor to act as its competent person, and to be given beneficial control of the site. However, there have been instances in which the client can also have beneficial access, under supervision.

To address such issues, there is a statutory requirement under the Construction (Design and Management) Regulations 2015 to identify the client as the ultimately responsible person. The client appoints a principal designer and a principal contractor as responsible competent persons to act on the technical detail. However, the client must ensure that they have adequate on-going means to inspect and manage those parties; they cannot just hand over the site and walk away. Hence the joint fire code that has been alluded to, which applies to projects that will cost more than £2.5 million. Under that threshold, there is a condition of contract or an insurer's requirement for high risk or unusual works.

There are a number of checks and balances within the regime that require the GSA to manage effectively on an on-going basis. We have seen instances of reduction in use of a rotational clerk of works, with the Institute of Clerks of Works and Construction Inspectorate—the contract administrator—performing that role. What we recommend now is the use of a professional fire engineer or fire safety professional to act on the client's part and to advise them on statutory enforcement and compliance. That person would do all the inspections and tests, all the regime checks and balances on site, and all the audit. That means that when something happens, the client is safe in the knowledge that they have done everything in their power. Some statements have suggested that we do not have a good handle on the level of application across the parties.

**Annabelle Ewing:** I want to pick up on one point. You said that you recommend that there should be a specialist fire engineer. It seems that that is a recommendation and not a statutory requirement—unless I misunderstand. With a building of the GSA's size and the issues and risks that are involved, is it normal practice to have a

specialist fire engineer with oversight of the structure?

**Stephen Mackenzie:** That is a grey area. We recognise the principles, and academics do not have fire safety knowledge. There is provision in legislation for identification of a person who is ultimately responsible, for appointment of a competent person and for there to be adequate resources and authority for the responsible person to ensure fire safety. If those things are not in place, the situation is automatically not compliant with the legislation.

I am a fire engineer and, at times, a consultant. Due to the complexity of historic buildings, technologies, fire engineering solutions and contemporary engineering knowledge, it is beneficial for in-house fire safety managers, or nominated competent fire designates who do not have the skills for complex projects, to appoint a fire engineer on the client side to provide oversight, to look at everything and to give the client options when there is a technical or physical challenge. I do not see it, but I hope that that was there in this case.

There is a mix of statutory, insurance and ethical requirements.

**Annabelle Ewing:** Yes. We asked to see a copy of the insurance policy and understood that that would be forthcoming. We were subsequently told that it would not be forthcoming, so we are a wee bit in the dark about what conditions might have been imposed by the insurance company.

**Dawson Stelfox:** I want to make the point again that we have not seen the construction stage fire risk assessment. Obviously, it was offered to the committee on the basis that it would remain confidential.

**Annabelle Ewing:** Do you mean Kier Construction's fire risk assessment?

**Dawson Stelfox:** Yes.

**The Convener:** That was the fire plan during the construction stage. We have not seen the insurance policy.

**Dawson Stelfox:** The point that I was making is that there is evidence that Kier had been required to protect the asset of the building, but we have not seen its fire risk plan for the construction stage. As was said before, that extra level of protection for an historic asset is not statutory. Something would have to come from the client side to make it a requirement. The client said that that was built into the requirements, but we have not seen measures in the construction-stage fire risk plan that would give any extra protection. The bit that is lacking is what happened with protection of the heritage asset during the site construction.

**Annabelle Ewing:** I will move on to a related question.

During our meeting with Glasgow School of Art some weeks ago, we tried to explore what was happening on the site after Kier was appointed, because there were reports about a number of activities. It seems that there were a number of people on the site who were not directly related to the construction work. Lectures were held there, as well as what Glasgow School of Art termed “occasional events”. We understand—we saw a picture on social media—that there was a big choir event on the building site with a host of people singing with hard hats on. From the perspective of fire safety, is that normal on a construction site?

There is one other issue. For part of the time, the GSA had a base on the site with some facilities, including, inter alia, a microwave oven. In the circumstances, would you have expected that?

**Stephen Mackenzie:** I have direct knowledge of the Lighthouse project, which is comparable. Due to international recognition, it was a short-duration project, and there were funding challenges. There were a number of visitors to the site, including sponsors, for other activities. That is perfectly acceptable under beneficial occupation, the provisions of the contractor’s insurers, the construction phase of the health and safety plan and the construction design and management plan. There is a degree of collaboration and co-operation on such matters.

We do not expect to see something that is obviously not appropriate and which might put persons in danger of injury or death. I cannot comment further.

We can also see that the client was given a portion of the building for practical reasons for a site-based project office, with welfare provisions, including microwaves and suchlike. I would shy away from toasters and some other hot-work items in order to reduce the risk, but microwaves are legitimate and are a lower risk than gas ring or electric cookers, so they are appropriate. Plus, under the Health and Safety at Work etc Act 1974 and health and welfare regulations, they are an adequate provision.

10:00

We need a little more clarity from the project team on the nature and extent of the activities. We can, for example, shut down a site for what would, in a new-build, be the traditional topping-out ceremony, to mark the last piece of steel going in. We can have a celebration, but we will have robust security and site boundaries so that no one can inadvertently be injured or wander off and enter a prohibited area. That is permissible, as long as there is a safe systems of work

collaboration agreement and no person is exposed to injury, disease or, potentially, a fatality. The driver is that everybody is kept safe, but we can have a degree of latitude, even on a live construction site. Is it a building with a construction site or a construction site in a building? We look at the project risks.

**Dawson Stelfox:** The principle is that the contractor is in control of the site. Therefore, there should be no activities and nobody on the site without the contractor’s permission, and the contractor should give that permission only if it can provide a safe environment and be satisfied that there is no risk to the works or the building as a result. The onus remains with the contractor in such cases.

It is quite normal to invite people in, especially with heritage buildings. I regularly do hard-hat tours, which are partly about explaining the historic building restoration process to the public and to funders, owners and other people. There is nothing abnormal about bringing people in, but control and management of that are important, and the responsibility is with the contractor that is in possession of the site.

**The Convener:** I will allow the evidence session to go slightly over time, but I again emphasise that questions and answers should be as succinct as possible.

**Alexander Stewart (Mid Scotland and Fife) (Con):** I want to follow on from Annabelle Ewing’s questions. You have talked about the tendering process. Was the tendering process, when the contracts and the oversight were put in place, robust enough? Were there any flaws in it?

**Stephen Mackenzie:** I will respond quickly. I have not had sufficient time to delve into that, so we have insufficient information from which to draw reasonable conclusions. We asked for more time and more disclosure, but we do not have everything on the client requirements, the tender process, due diligence, contractor assessments and contractor award criteria. There are an awful lot of gaps in respect of standardised codes of practice and in the constructor, client and insurer requirements on the project. It is possible that we could clarify that very easily with disclosure of the direction. In fairness to the project parties, it might be that they were trying to minimise the submission to the absolute nub of the matter, so it might need to be expanded slightly.

**Alexander Stewart:** Does the fact that the parties have not been free and open with that information lead you to suspect or believe that there may have been flaws in the process? If the parties were completely up-front and honest about what went on and what was to take place, there would be no comments raised or fears about the

process, but because of the actions that they have taken, we are led to believe that there could be something inadequate in the process and that, if it had been adequate, the situation might well not have come about.

**Stephen Mackenzie:** That is why I recommend to clients and legal counsel, quite robustly and forcefully, that the days of trying to minimise exposure or self-implication are gone, and openness and transparency are the way ahead. They should take the lead from the investigating authorities and the prosecution counsel. Police Scotland, the Scottish Fire and Rescue Service and the procurator fiscal are their guide. They will then be able to make a statement, with the advice that they have received in writing from those bodies. Their not doing so opens the situation up to speculation, which parties find objectionable.

I prefer to call it a hypothesis for testing. As investigators, fire engineers or expert witnesses, we set out areas in which there are errors, omissions, or misleading concealment. I do not suggest that any of those apply in this case. I trust that it is through an oversight or due to the brevity of the submission to the committee that you have been given the high-level documents, but I suggest that we need a full schedule and audit, and transparency. If they are not provided, the speculation will remain.

**Alexander Stewart:** Without that confidence and oversight, the speculation will continue, as you rightly identify. That creates a cloud over the whole process in relation to its competence and the effectiveness of its management. If people are not prepared to show the information, there will be on-going speculation.

**Stephen Mackenzie:** Yes.

**Kenneth Gibson (Cunninghame North) (SNP):** In evidence to the committee, Muriel Gray said:

“we took every possible step above and beyond the standard in specifying the contract terms, including fire precautions, for the Mackintosh building restoration project.”—[*Official Report, Culture, Tourism, Europe and External Affairs Committee*, 15 November 2018; c 2.]

Would you agree with that?

**Stephen Mackenzie:** I think that there is a statutory requirement to consider all risks at source, and to remove, replace, reduce, mitigate and then transfer the non-statutory duties to insurance—the residual risk that we cannot do anything with. There is always the unforeseen. They said that they complied with all legislation, but they have not demonstrated how because there are an infinite number of routes to compliance. Also, we do not know which legislation they are referring to. It could be any number of things, including health and safety,

building standards, fire safety, civil contingencies or disability discrimination. How is that reflected in client, contractual or insurance requirements, which filter down to the design team, which acts upon them, and then the construction team? I have worked on all sides of the construction sector and one of the common complaints from the contractor is that they essentially follow the instruction and requirements of the client. However, the good ones will make robust recommendations when they feel that the client is opening themselves up to exposure, or that there are cheaper or safer ways to achieve something. I dislike the term “value engineering”, which is often applied wrongly these days.

In this project, there are a number of statements but no substantiation or evidence underneath them, which has led to some public concern, calls for further investigation and speculation in the media. In a crisis response, or a resilience, emergency planning or disaster recovery response, transparency and effective communication are good. More is less; if you provide all the information, there will be less speculation, and fewer errors or questions about your transparency. That will not always be the case if you hide behind public relations statements or say that you cannot comment or provide information on an on-going investigation. When I work with someone, as an independent expert or as the criminal investigator in the public interest, I will dictate what can and cannot be disclosed to the parties. That is another thing that we need to look at.

One of the reports that I provided to the clerks, in advance of today’s meeting, was on the five London hospital fires. That report went to great lengths to look at the failures, the compounding factors, the cascades, the responses from the hospitals and their executives, and what could have been done better. One of the recurring themes was crisis communications. Following both the Glasgow School of Art fires, that was quite weak on a number of levels, which led to the need for this committee’s investigation and my call for a public inquiry to get clarification and give everybody an option. However, that matter sits under the auspices and recommendations of the committee.

**Dawson Stelfox:** It is a very big if in the circumstances, but if the building had been finished, it would have had good fire protection measures—compartmentation and fire suppression—built into it. The tragedy is that the building did not get finished; therefore the gap in the client’s requirements, the scientific requirements and the contractor’s requirements was in protecting the asset during the construction period. We have the evidence from the previous fire, and evidence from all the fires that have taken

place during construction in historic buildings, and we understand that the highest risk for a historic building is during the construction period. I would suggest that the gap in provision was the lack of attention to the protection of the heritage asset from fire during construction.

**Kenneth Gibson:** So not “above and beyond”, then.

In *The Times* today, a GSA spokeswoman said:

“As regards having a working mist suppression system at the time of the fire, there is no such system that could have been operational in the Mack prior to the completion of the build phase.”

Is that something that you would—

**Stephen Mackenzie:** I reject that statement in its entirety.

**Kenneth Gibson:** Right, okay.

**Stephen Mackenzie:** Sorry—we try to be direct at times.

**Kenneth Gibson:** Good. I appreciate that.

**The Convener:** Direct is good.

**Kenneth Gibson:** That was good, after your previous, exceptionally long answer.

**Dawson Stelfox:** Temporary fire suppression systems are available on the market.

**Stephen Mackenzie:** And there is phased installation. The building was designed and constructed in two phases. It has three main areas—the east wing, the west wing and the central core. We can subdivide the phased installation by floor, we can work top down or bottom up, or we can build in the infrastructure. The construction phase, the fire safety plan, the risk assessments, the method statements, the contingencies and the construction programme are absolutely important to the evidence, because they allow me to see the critical path. I catch out many cases because I am not just a fire engineer.

**Kenneth Gibson:** I have one final point. The decision was made between April and August 2016 to replace the near-complete high-pressure mist system with a low-pressure mist system. Why would you replace a high-pressure system with a low-pressure system? What would be the benefit of that?

**Stephen Mackenzie:** Without seeing the particulars of the design, I cannot comment.

**Dawson Stelfox:** Again, I would need to know the design rationale behind it. It could be as simple as a different supplier or manufacturer, or somebody asking somebody else where they stood over a system that somebody else had put in. All sorts of things could have come into it.

**Stephen Mackenzie:** For clarity, we have to ask ourselves whether it was as a result of the base design specification and then the more detailed, matured specialist contractor design portion. You have the headline design and the specification tender. The contractor for life safety systems will then appoint a specialist subcontractor, who will finish off the detailed design that is going to be installed, tested, commissioned, inspected and handed over. There are a number of certificates going through there. There is also evolution of the British and international standards, so there might have been a step change or a technology change.

**Kenneth Gibson:** As a layperson, I automatically assume that a high-pressure system would be more effective than a low-pressure system.

**Stephen Mackenzie:** But it would bring in different risks.

**The Convener:** I want to nail the issue about the choice of a complex mist suppression system after 2008, instead of the tried-and-tested sprinkler system. In the evidence, we were told of two reasons why the latter was not chosen. One was that permission would not be given for it and the other was that there was not enough water in Garnethill to run a sprinkler system. What is your view on those two reasons?

**Dawson Stelfox:** To start with, I will speak from a conservation architect’s viewpoint. To me, there is no doubt that a mist suppression system is better for historic building fabric because of the sheer amount of water that a sprinkler system would put into a building. From the evidence that I have, I would support the decision to go for mist suppression or, in certain areas, where there are no people, a gas suppression system, as opposed to the traditional flood of water.

My criticism is more that too much emphasis was put on a mist suppression system alone as the answer to the fire safety issues, rather than a combination of that and—more important, to my mind—compartmentation.

**Stephen Mackenzie:** I am not aware of any reasons why it would not be permissible. It is a recognised system. In fact, it is the system that we are leaning towards in historic buildings because it uses less water, and there is less kit and less damage.

I want to correct one of the statements by the GSA. It said—maybe under the pressure of presenting to the committee—that water damage was more destructive. Actually, we can recover from water damage—especially with regard to historic archives and contents—but we cannot recover from a catastrophic fire. It can be done, but it is very cost prohibitive.

On the question about the water pressure and supplies, there is increasing knowledge that we cannot always guarantee water supplies, especially if there is a simultaneous fire or a burst water main. Therefore, as a contingency, the water authorities and providers try to provide minimum pressure and flow requirements for the fire service. They will divert everything into the fire mains for that civil contingency.

They also encourage the installation of resilient tank supplies. The water mist system is pressurised—as it involves atomising the water, less water is needed, so the tanks, the kit and the pipe bore are smaller. To summarise, it should not have taken from 2006 until 2012, 2014, 2016 and 2018 to do the work. Let us get on with the job and protect the building.

10:15

**The Convener:** Two former directors of the art school have suggested that the pressures of running a major educational institution are not compatible with a rebuild of the scale and complexity that we are talking about and that, if the art school is to be rebuilt, it should be taken out of the hands of the board. Do you have a view on that?

**Stephen Mackenzie:** From a fire engineer's perspective, we recognise the need for stakeholder consultation—that is recognised in British standard 9999. There is a need for stakeholder consultation on what happens next. Personally, I would like the building to be rebuilt. I will provide the committee with the case history on the Windsor castle reclamation and refurbishment. Any number of pictures show what was done; it is like night and day.

It will need to be determined who has responsibility for and control over the work and who has the necessary technical competency or capacity. I would lean towards having two designated responsible persons. If the art school and its board of governors or its operational executive do not have the capacity, that might lead to a recommendation by the committee.

**Dawson Stelfox:** I agree. It is less a case of the headline institution that is in charge; it is more a case of who is tasked with doing the work and who is deemed to be experienced, competent and knowledgeable enough to do it. Therefore, I do not think that there is necessarily a case for taking responsibility away from the art school. What happens below that level is more important, which concerns the people who are tasked with the proper running of the job.

I am more familiar with the arrangements for the University of Edinburgh's estates team. The people who run the building operations are not the

people who direct the refurbishment and restoration work. There is a professional estates team that does that, and it does it very well.

**Stephen Mackenzie:** I would counter that. I have worked for some of the major support service partnerships in the national health service, as well as some of the framework providers—the big, top-tier companies. The GSA is not alone; many clients no longer have direct labour or technical teams. It is possible to belong to a reciprocal support service. That arrangement is commonly used in higher education across different universities. It is also possible to have a framework agreement. Alternatively, agency project managers can be contracted in or a project management contractor can be commissioned to manage the contract. It is possible to have a project management contract, a design-and-build contract or a traditional contract.

Some of the statements have validity but, in part, they can be rejected, because there are other mechanisms, which are driven by the market dynamics. It is a bit of a strange position statement.

**The Convener:** I thank our witnesses for coming to give evidence. I suspend the meeting to allow for a changeover of witnesses.

10:18

*Meeting suspended.*

10:23

*On resuming—*

**The Convener:** I welcome our second panel. We are joined by officials from Historic Environment Scotland. I welcome Barbara Cummins, who is the director of heritage; Dara Parsons, who is the deputy head of casework; and Thomas Knowles, who is the head of grants. I apologise to our witnesses for keeping them waiting—our previous evidence session ran a bit over.

You will have seen the submissions from Glasgow School of Art, which talk about the work that was done on fire assessment in 2006. The building was assessed as requiring a fire prevention upgrade. The art school said that, at that stage, Historic Scotland was involved in providing advice. Will you tell us about your role in those discussions? Why was greater priority not attached to the installation of fire prevention measures in a timely manner? We know that it was not until 2014 that a fire suppression system was put in and that no compartmentation was done in that time.

**Barbara Cummins (Historic Environment Scotland):** I thank the committee for inviting us to provide answers. We are involved with providing building owners across Scotland with advice on the management of their buildings. When it is a significant building such as the Glasgow School of Art, we are closely involved with the owners and the local authority, which is ultimately responsible for deciding whether consents are required and whether to grant them.

We act in an advisory capacity; we do not tell people what to do. When it comes to things such as fire measures, experts—you heard from some earlier—will advise on the appropriate mechanism. We give advice for our interests in the historic environment, such as the impact that a mechanism might have on the fabric of a building and whether the intervention is appropriate.

We were discussing the matter before the meeting started, and we cannot think of an instance in which we have advised against a suppression system, compartmentation or other measure appropriate for fire safety and said that it should not be allowed in a historic building. However, we cannot compel someone to do something in a timely manner. We were part of the discussions about what was appropriate for the GSA, but we were giving advice purely for our historic environment interests and not about the speed of delivery.

**The Convener:** If, as a result of the 2008 report, the GSA had decided to go for a sprinkler system that was easier and quicker to install, is it correct that you would not necessarily have said no to that? We have heard evidence that there are such sprinkler systems in other historic buildings.

**Barbara Cummins:** Indeed. We would look at what was required in the way of physical interventions and whether they were appropriate.

**The Convener:** You said that your role in consents is very much about making sure that things are preserved as they should be in terms of maintaining historic and artistic integrity. In your submission, you show that you have given a lot of money to the Glasgow School of Art over the years to upgrade the building.

Given the context of two fires in one of our most precious buildings, people might perhaps question why your role was reserved to those aspects of conservation. If two fires destroy a precious asset, there is nothing left to conserve, so perhaps your role should have been a bit more proactive in making sure that we had also put in protection measures to stop the destruction of such a precious asset.

**Barbara Cummins:** I see why you might say that, but there are lots of new understandings and regulations that govern how we conduct our lives,

including how we manage our buildings. Those regulations and our understanding all postdate the construction of those buildings. As of a couple of days ago, there are 46,916 listed buildings in Scotland. We cannot apply the regulations retrospectively and proactively to all those buildings.

We have to be careful that we are not apportioning a degree of blame to people for not being up-to-date with current technology, ways of thinking and building management practices. We encourage good practice through the guidance and advice that we provide. We have a guidance note on fire protection in traditional buildings and guidance on managing change to that. We certainly advocate that for owners, but we cannot retrospectively apply what we would now expect of a brand new building. When occupants change or new developments occur, we expect people to try to bring buildings up to the modern standards.

**The Convener:** Yes, but according to Glasgow School of Art you attended workshops and were intimately involved in planning for the future of the building after 2008. Surely, at that point, you should have instilled a sense of urgency about both compartmentation and a fire suppression system.

**Barbara Cummins:** There is nothing that we can to do require somebody to implement measures or consents within a particular timeframe. That is not in our remit. In any event, I am not sure how that could be enforced. We have no enforcement or decision-making powers; we can purely provide advice. Part of the discussion that took place both before the first fire and between the two was about fire suppression measures, but it was not about the timescales to deliver them. We are not in a position to require that of any owner.

10:30

**The Convener:** Yes, but you can require that the owner uses a certain type of wood in the restoration, for example.

**Barbara Cummins:** No. We can respond to what the owner is choosing to do, and we can give advice on what we know about the construction of the original building and what would be an appropriate alternative, but we cannot require anyone to do anything. The decisions that are taken about physical alterations are taken by the local authority as the planning authority.

**The Convener:** I see. We were custodians of one of the greatest pieces of art ever produced and we have lost it. In the context of that international embarrassment, do you think that your role should change?

**Barbara Cummins:** I do not think that Historic Environment Scotland should be responsible for preventing disastrous fires in the historic environment. We can respond to the causes of this fire, as we did to the previous one, by updating our guidance based on the lessons learned, but I do not know what powers we could be given to deal with something like this in future. We are involved in and give advice on the construction and building regulations around fire. We advise on the building regulations as they impact on the historic environment to ensure that the historic environment is taken into account.

**The Convener:** You say that you updated your guidance after the first fire. Clearly, there was a second fire. Is that because the guidance was not followed? What is your view on the evidence that has been taken so far? Were lessons not learned, or should there be changes in regulations?

**Barbara Cummins:** I cannot comment on that until we understand the cause of the fire. There will undoubtedly be lessons to be learned, and we will certainly bring the issue of fire during construction into future guidance around practice.

**Claire Baker:** You said that it is not your role to make requirements on those who are custodians of historic buildings, although you can give advice and so on. As experts in this field, do you have concerns? You mentioned local authorities. Do you have any concerns that local authorities' remit or knowledge is too narrow to deal with a building as unique as the Mackintosh, and similar buildings around Scotland? Who do you think should take a lead in making requirements on organisations to protect buildings of this significance?

**Barbara Cummins:** There is a variety of regimes under which that happens. We are all involved in supporting the Scottish Government in drafting legislation and regulations, and a range of experts will input to that. Although building regulations, which control what is appropriate, are managed by building standards officers in local authorities, experts from all over the country feed into them when they are drafted, and they are subject to full consultation. I do not think that any one individual is responsible for ensuring that building regulations are fit for purpose.

**Claire Baker:** Do you think that the overall system that you have described is robust enough to deal with buildings similar to the Mackintosh? Does the system provide enough protection and make clear the owner's responsibility for protecting the building?

**Barbara Cummins:** I would say so.

**Claire Baker:** We heard evidence from earlier panels that, when it comes to fire, the need to protect life is predominant and the fabric of a building is a secondary concern. We have heard

some discussion about whether that is sufficient in a building of this significance, or whether there need to be changes to that. Mr Mackenzie talked about a partnership approach, in which the importance of the historic fabric of the building is made clearer. Do you have any views on how that operates at the moment?

**Barbara Cummins:** I suppose that the fire safety regulations have come from the need to protect life. Increasingly, there is an understanding with the historic environment, and with collections associated with buildings such as museums, that there is a need to protect those as assets in their own right. I am not sure where the compulsion would exist to change the focus so that it is also about protecting the building. I am speculating here, but I suspect that the fire service's primary concern will always be to protect life. If that means letting an important building go because there is a fire happening in it, possibly so be it, because that decision will be taken on the ground by the fire service at the time.

**Claire Baker:** The art college said that the 2014 fire was started by an individual student who was not following the rules under which they were meant to be operating. Questions have been asked about the type of work that students were undertaking in the building and whether it was appropriate in a building of its nature. Do you have any views on the way in which the art college was operating and whether the type of work that students were doing was appropriate in an historic building?

**Barbara Cummins:** I can speak only for what we do in our estate. We try to control works in historic buildings. For example, we try to limit hot works as much as possible. It would be responsible for owners to ensure that they limited works that had the potential to cause risks.

**Annabelle Ewing:** Good morning to you all and thank you for coming to the committee. You may be aware that some comment has been made about what we could call the duality of purpose vis-à-vis the Mackintosh building in the sense that, while it was a functioning education building, it was also a jewel in the crown, so to speak, of the public estate of Scotland and indeed a cultural asset of the world, given its importance architecturally and otherwise. For the GSA as the organisation that was in charge of both the building and the running of the art school, that might have led to certain issues. Some have suggested that the Mackintosh building of the future be handed over to a trust. Has there been any consideration over the piece of whether higher education institutions have the necessary expertise to manage category A listed buildings of national significance such as the Mackintosh

building? Has Historic Environment Scotland reflected on that, further to your remit?

**Barbara Cummins:** In short, no. As a slighter longer answer, I note that, as I said earlier, there are more than 45,000 listed buildings in Scotland and they are generally the responsibility of their private owners, from individual householders to institutions. The NHS occupies historic buildings as well. It would be a dangerous road to go down to say that an owner cannot look after their building, or cannot access the necessary expertise to do so.

**Annabelle Ewing:** This was not just any old historic building. It was a jewel in the crown. Does Historic Environment Scotland have no role in considering the suitability of owners of category A listed buildings?

**Barbara Cummins:** None at all.

**Annabelle Ewing:** The listing will be made and who the owner is and whether they are suitable will not be considerations for you.

**Barbara Cummins:** When we designate a listed building, we look at the merits of the building and not at the nature of the owner.

**Annabelle Ewing:** There have been two catastrophic fires in the Mackintosh building in a short space of time in the recent past. Does Historic Environment Scotland have a view on whether the GSA should retain control of the Mackintosh building as rebuilt or whether it should be handed over to a trust, as some people have suggested?

**Barbara Cummins:** No.

**Annabelle Ewing:** You have no view. Thank you, convener.

**Tavish Scott:** When you provide grant assistance, you lay conditions. Would any of those conditions cover issues relating to fire suppression, fire avoidance or whatever you want to call it, particularly in a big and important historic building?

**Thomas Knowles (Historic Environment Scotland):** The conditions would mostly be to do with ensuring that there is insurance in place during construction and in the period after that. We monitor those conditions for up to 10 years after the grant has been made.

**Tavish Scott:** You can take the risk of fire into account—or you have done so in the past—but you do it through the insurance policy. Is that right?

**Thomas Knowles:** Yes, we do it through the insurance policies.

**Tavish Scott:** In the case of the building that we are discussing today, when you considered your grant conditions for giving the GSA new public money for the rebuild, was the importance of ensuring that there were fire suppression systems considered?

**Thomas Knowles:** Absolutely, and it was part of the discussion that took place at the time involving Historic Environment Scotland's predecessor, Historic Scotland.

**Tavish Scott:** What did Historic Scotland conclude at the time?

**Thomas Knowles:** We concluded that fire suppression systems were a part of the wider project of which we were funding elements, and therefore the funding was contingent on the GSA being insured in case of any disasters that happened in the meantime.

**Tavish Scott:** Was Historic Scotland involved in the decision to rip out the system that was in place in 2014? We are not yet clear about who took that decision. Were you involved in that?

**Thomas Knowles:** We were not involved on the grants side.

**Tavish Scott:** No, not the grants side, but was the rest of the organisation involved?

**Barbara Cummins:** I am not aware that it was asked.

**Tavish Scott:** Why not?

**Barbara Cummins:** You would have to ask the GSA why it did not ask us that.

**Tavish Scott:** Did you ask? I am sorry—it might not have been you personally. Did Historic Scotland ask those questions at the time? Were you made aware of the situation?

**Barbara Cummins:** No. The specific issue was not raised.

**Tavish Scott:** Historic Scotland did not know that there was a fire suppression system in place in 2014 that was 95 per cent complete.

**Barbara Cummins:** We did know that.

**Tavish Scott:** You did know that.

**Barbara Cummins:** Yes.

**Tavish Scott:** I am sorry; these are probably very unfair questions because it probably was not you personally.

After the 2014 fire, did the organisation not ask what happened to that system and about the lessons learned and all the things that you were saying to my colleague earlier on?

**Barbara Cummins:** We might well have asked about the status of the installation of the system at

that point because, as I understand it, it was largely in place but had not been commissioned, which was obviously an issue. We would not have asked the art school if it was keeping the system. I do not think that it would have occurred to us.

**Tavish Scott:** That seems to be the obvious question for everyone to have asked.

**Barbara Cummins:** It might be, with hindsight, but it was not at the time. It would not have occurred to us that it was an issue at that point, because we would have been focused on what it was going to do to recover from the first fire.

**Tavish Scott:** Was it not intuitive? There was a system in place and it was just about complete. As we understand it, it survived the fire largely intact. It would have been quite good to ask why the school was not keeping it in place as it moved forward with the rebuild.

**Barbara Cummins:** It might well have been. We are here now and we did not ask that question at the time.

**The Convener:** I seek clarity on your role. Various committees and so on were set up to supervise the rebuild after the 2014 fire. I do not have the facts in front of me, but my recollection is that you had some kind of formal involvement in one of those committees.

**Barbara Cummins:** Yes.

**The Convener:** What was it?

**Barbara Cummins:** We have a member of staff who goes along to provide our advice.

**The Convener:** That was when you were part of the project management team. What was your role?

**Barbara Cummins:** No, it was not the project management team. We were in an advisory capacity. We were not involved in making decisions.

**The Convener:** No, but my recollection is that you had some formal role on a committee. What was it?

**Dara Parsons (Historic Environment Scotland):** We had a member of staff who sat on the Mackintosh restoration committee after the 2014 fire.

**The Convener:** That is what it was.

**Dara Parsons:** She advised on the conservation aspects of the restoration.

**Sandra White:** I will continue the theme, to seek clarity. Between 1995 and 2012, Historic Scotland gave the Glasgow School of Art £1,226,844 for repair work. We now understand

that conditions were put on that around insurance and so on.

You said that you had an expert representative and we heard earlier that it would have been advisable to have a special fire officer appointed at that point. It is not in your remit to suggest that. Is that correct?

**Barbara Cummins:** Yes.

**Sandra White:** A member of your staff attended a meeting of the restoration committee to advise on details and to ensure that the substantial public investment was directed appropriately. What advice, within your remit, did you give at the restoration committee on the use of that public money?

10:45

**Barbara Cummins:** Our advice was purely on the conservation interventions—on what the decisions on physical interventions would mean in relation to the special interest of the building, and on restoration approaches to particular parts of the building. I do not know whether Dara Parsons has examples of specific advice that we provided that the committee might find helpful.

**Dara Parsons:** We gave advice on the appropriate materials to be sought and on the accuracy of restoration—what was in keeping with the spirit of the building. Our advice was on conservation in terms of practice and philosophy and on specific decisions about physical interventions—

**Sandra White:** I am sorry to interrupt, but that is similar to the advice that was given by a number of people who worked on the art school voluntarily to help to restore it. I am not getting at you, but I want to know exactly what Historic Environment Scotland's remit was. You could not advise on a special fire officer being at the art school, even though the grants were conditional on the insurance covering fire. You could not advise on a sprinkler system, even though you gave so much money to the art school and other historic buildings.

Earlier, you said to the convener that all that you could advise on was the type of wood that was used. You gave the Glasgow School of Art grants, but you had no remit or locus to protect any of the moneys that were given. At the end of the day, the people at the art school dictated how the money was spent. Is that correct?

**Thomas Knowles:** We dictate the quality of work that takes place on grant-aided interventions. After offering a grant to the Glasgow School of Art, we worked in conjunction with conservation architects—the Glasgow School of Art's professional advisers and our internal advisers—to

define the best and most suitable intervention. That is what we funded.

**Sandra White:** Surely the best and most suitable intervention would have been to ensure that the fire sprinkler system, which you knew had been there but which you did not know had been taken out, was working. Should you not have sought that knowledge to protect the building?

**Thomas Knowles:** That was part of the wider project that—

**Sandra White:** But you did not ask questions about that.

**Thomas Knowles:** I think that we are conflating two fires, because—

**Sandra White:** It does not matter how many fires we are talking about—one fire is bad, but having two fires is criminal.

**Thomas Knowles:** Absolutely, but—

**Sandra White:** We are talking about two fires. I am sorry to be so abrupt on the point.

**Thomas Knowles:** I accept your point. From 2006, which is when the Glasgow School of Art first approached us for the secondary project—

**Sandra White:** I am sorry—I do not want to go back to 2006.

**The Convener:** Ms White, could you let Mr Knowles answer the question?

**Sandra White:** I am sorry.

**Thomas Knowles:** We worked with the Glasgow School of Art on a wide-ranging repair programme, which was funded by multiple funders. The programme was so wide ranging that it could not be funded only by Historic Scotland, as the organisation was called at the time, because we have grant eligibility criteria and we can fund only repair work, not new interventions.

We were satisfied with our oversight of the project because systems were being put in place—including a fire suppression system, which was part of the wider project—and there was insurance. We were unable to fund those elements, because they were new interventions, but other funders were able to do so. When we considered the whole package, we were satisfied that there would be a safe and secure building at the end of the project. Unfortunately, we never got to that point.

**Sandra White:** Can I ask one more question?

**The Convener:** I am sorry, but other members—

**Sandra White:** It is on a really important point. Thomas Knowles said that the funding was conditional on there being insurance and a fire

sprinkler system. Did the fact that the fire sprinkler system was taken out harm the insurance?

**Thomas Knowles:** I did not know—

**Sandra White:** I am sorry to interrupt, but nobody knew.

**Thomas Knowles:** As far as I am aware, my intervention in the case came to an end after the first fire, because at that point it was handed over to the insurance company. In effect, everything that was funded went up in smoke after that fire.

**The Convener:** It has already been made clear in the answers to Tavish Scott's questions that Historic Environment Scotland made no comment on the ripping out of the fire suppression system. Am I correct in saying that you did not comment on it?

**Barbara Cummins:** I was not aware that we were aware of it.

**The Convener:** We will move on.

**Ross Greer:** My question has just been directly answered by Mr Knowles. For the sake of time, I am happy to move on.

**Kenneth Gibson:** Barbara Cummins said that Historic Environment Scotland's job is to look at the merits of a building and not to prevent "disastrous fires". I do not want to go into questions that have already been asked; we are where we are. However, if we look forward, what conditions might be applied to future grants, if the Mackintosh is rebuilt?

**Thomas Knowles:** We have standard conditions for grants that predominantly concern the quality of work and the standards of the professional advisers who are involved in projects. We will absolutely look at the lessons that are to be learned from the committee's findings and at whether we can put in anything else—in excess of what we already do—that looks at the project as a whole; what the end state of the project will look like; the sustainability of the organisations that operate the end product; the insurance during as well as after the construction phase; and the on-going maintenance of the grant-aided building once the project has been completed.

**Kenneth Gibson:** Will you consider fire safety?

**Thomas Knowles:** Yes.

**Kenneth Gibson:** I have one other point. What level of financial support would Historic Environment Scotland consider for a new building? I know that that is the \$64,000 question—although I am sure that the Glasgow School of Art would expect more than \$64,000.

**Thomas Knowles:** That is easy for me to answer. Historic Environment Scotland has no

locus for a new build. Our grants are specifically for the repair and conservation of existing historic fabric.

**Kenneth Gibson:** Indeed. However, although it has not yet been decided, I imagine that the new building will probably be as identical as possible to the old Mackintosh building. Given that the new building is likely to be a replica, would Historic Environment Scotland be willing to consider it in the same way as it would consider an existing old building? Does the fact that it will be a replica mean that you would not be involved at all?

**Thomas Knowles:** We would not be involved in a new build. We have no locus in that.

**Kenneth Gibson:** So the point that you made in your previous answers about Historic Environment Scotland ensuring maximum safety to secure your investment and so on will not apply, because you do not believe that you will be involved in any future development of the building.

**Barbara Cummins:** We are not likely to be involved in a future application for a grant. The grant money is now—as it were—vicariously in the insurer's hands. However, Historic Environment Scotland will be involved in the consenting processes—for planning permission and listed building consent—that will undoubtedly be gone through for whatever physical recovery happens on the site. We will give advice on that and on the appropriate measures. I expect that, as part of that, we will be part of the conversation about fire safety measures.

**Alexander Stewart:** Following both fires, has Historic Environment Scotland identified any gaps in its statutory duties?

**Barbara Cummins:** We have not identified gaps in our statutory duties. However, we always learn lessons from disastrous events. Unfortunately, they happen more frequently than we would like—and not only through fire. As I said, we updated our guidance following the first fire.

We constantly undertake research into the performance of historic buildings and, where necessary, that informs our guidance. We try to pass on that knowledge as much as possible. Undoubtedly, with the latest fire, once we understand precisely its causes and the outcomes of the committee process, we will again review the guidance that we provide and the practice that we undertake on our estate.

**Alexander Stewart:** Will the guidance on practice deal with materials and equipment that are used in refurbishment or replacement, or in buildings that are being managed and are having maintenance done?

**Barbara Cummins:** Do you mean in respect of their combustibility?

**Alexander Stewart:** The question is about any guidance that you think would be appropriate to materials that are used in historic buildings.

**Barbara Cummins:** We provide technical guidance on the appropriate use of materials.

**Alexander Stewart:** In the earlier evidence session, I talked about the tendering process, in which contracts are given out. Do you have any role in that process or once the contract and tender process has been carried out and the contractors are on site?

**Barbara Cummins:** We are not involved in contractual arrangements.

**Alexander Stewart:** So you are not involved in any of that.

**Barbara Cummins:** If our grant money is involved, we ensure that the appropriate expertise is being used.

**Alexander Stewart:** Mr Knowles talked about expertise and some of the qualities that are required. Will you elaborate on that?

**Thomas Knowles:** In a grant-aided case, during the life of the repair project, Historic Environment Scotland representatives—normally architects from our architect team—go on site to make sure of the quality of the work that is taking place. In effect, that protects the public investment and ensures that it goes towards the agreed scheme of repair.

**Alexander Stewart:** How would any flaws or questions about quality be managed?

**Thomas Knowles:** They would come to us, as the grants team, and we would go back to the applicant, which is normally the owner of the building, to say, for example, that we had found substandard repair works, and the applicant would take that forward with the contractor. We do not release funds for anything that my professional advisers have suggested is substandard.

**Jamie Greene:** A lot has been said about grant funding but I have some specific questions on it. This will be quick fire, so feel free to answer succinctly.

Has any of the £1.2 million that you have given to the GSA been for fire suppression, fire safety or securing the building in relation to fire risk?

**Thomas Knowles:** To put it succinctly, no. The money that we gave was specifically for the repair of the existing historic fabric of the building. However, we were part of the wider project in which such work was specified to be done.

**Jamie Greene:** I appreciate that you were part of a much wider funding mechanism with funds

coming from lots of places but there was nothing on fire in the grants that you gave.

**Thomas Knowles:** That is correct.

**Jamie Greene:** Is that because of the criteria for your grant funding? Did the GSA ask you for money for fire suppression, and if so what was your response?

**Thomas Knowles:** It did. It specifically asked whether we could fund a new fire suppression system as part of its discussions about how to raise money. You have heard evidence that the GSA was raising funds for that. We then went back to the legislation, which at the time was the Historic Buildings and Ancient Monuments Act 1953 and which specifically defines that we can give grants only for repair works. Therefore, it was not a grant-eligible intervention. The GSA was made aware of that very early on.

**Jamie Greene:** How much did it ask you for?

**Thomas Knowles:** It did not ask for a specific amount; it asked whether it could count the works as grant-eligible.

**Jamie Greene:** And you said no.

**Thomas Knowles:** We said no.

**Jamie Greene:** Historic Environment Scotland's remit is conservation. In fact, your website says:

"Historic Environment Scotland is the lead public body established to investigate, care for and promote Scotland's historic environment."

Which bit of that means that you can say no to requests for money to protect a historic building?

**Thomas Knowles:** We are governed by legislation that defines what we can and cannot give money for.

**Jamie Greene:** For the record, is it your view that that should change, given your remit? It seems bonkers to me that, if someone says to you, "We need to protect this building; can you help us with money? If we do not have the money, we cannot do it", you have to say, "Sorry—we are not allowed to; the computer says no."

11:00

**Barbara Cummins:** We need to be cautious about unintended consequences. When it comes to the grants, our remit is to conserve the fabric of historic buildings. There are lots of parts to the systems within which we operate. We do not prevent that from happening and we expect it to be a package. We do not give 100 per cent funding to any project. A portion must always come from the owner or other sources of funding. Changing the criteria for our grants will not solve that problem. Funding will still be sought from any owner carrying out a project.

**Jamie Greene:** What I am getting at is that the decisions made using those criteria are based on your interpretation of what you can and cannot give money for. There is a thin line between a repair and a new intervention. It could be argued that all repairs are new interventions, because they replace something that either does not exist or is lost. Who decides whether something is a repair or a new intervention? We could argue that installing a mist suppression system, another type of fire suppression system or compartmentation is a repair of the building after a big fire. Who made the decision?

**Barbara Cummins:** I would not argue that work on a mist suppression system is a repair unless someone is repairing an ancient system that was put in in the 1800s. However, I see your point and understand why you asked the question. That is not part of our current grant programme and there are a lot of calls on our grants, so I would be cautious about saying that we would want to support it.

**Jamie Greene:** Are you confident and comfortable that you have fulfilled your obligations under your remit to preserve such buildings and help the owners to protect them, given that there were two catastrophic fires? Are you comfortable that your agency has entirely met its public obligations to help that building to maintain its status as a valued part of our heritage?

**Barbara Cummins:** I cannot respond about the second fire because there is still a way to go on understanding its causes. In relation to the first fire, I would say that we went over and above in supporting the salvage operation and helping at that time. We might well learn lessons from the second fire that will lead us to believe that we could have done things differently or better. Only time will tell.

**Jamie Greene:** Okay, thank you.

**Tavish Scott:** Earlier, you mentioned the restoration committee. I guess that all the organisations that were grant funding the restoration were part of that. I heard your response to Jamie Greene that you were asked to provide money for a fire suppression system and could not do that. However, did the restoration committee not say that that had to be part of the project and that someone had to find the money? I appreciate that you could not do so, but someone had to find the funding.

**Barbara Cummins:** That discussion with the Glasgow School of Art predates the restoration committee. It happened well before the first fire.

**Tavish Scott:** Yes, but I presume that, at some stage, all the funding organisations, including yours, were in a room saying that you were going to assist in rebuilding that fantastic asset for

Scotland, that you understood that there had been a fire and, by then, you understood what had happened and that it was going to be crucially important that one of you stepped up to the plate with the money to make it happen. Did that happen?

**Thomas Knowles:** At that point, no funders' money was involved. It was all under the insurance because the fire had already happened. The funders had a discussion before the first fire, when they absolutely recognised the need for a fire suppression system. Other funders were funding it; it was a fully funded project when it went on site. After the fire, the funders no longer had a locus because what we had funded had literally gone up in smoke.

**Tavish Scott:** The point is that we now understand that some of it had not gone up in smoke.

**Thomas Knowles:** Some of it had not—

**Tavish Scott:** Well, 97 per cent of it had not and was still there.

**Thomas Knowles:** All of my part did go up in smoke—the library went, which was where the predominant amount of our funds went.

**Tavish Scott:** However, as you went into the funding package for the reconstruction—

**Thomas Knowles:** There was no funding package for the reconstruction from us, or from most of the other funders. I cannot speak on behalf of the other funders, but all the money that we put in was covered by the insurance policy for the rebuild.

**Tavish Scott:** Was there no discussion among you all about how to make sure that such a fire did not happen again?

**Barbara Cummins:** That would have been part of the conversation about the restoration committee work. That was not about the money at that point; it was about what was necessary. Since before the first fire, it has been understood that fire suppression and fire safety measures were absolutely essential in the building. That was not a point of debate.

**Tavish Scott:** Jamie Greene asked you the question. You were asked to provide funding for a fire suppression system for the new build. You said that you could not. My simple question is—and it is obviously too simple—if you were all asked for that, did you not all get together and agree who would do it?

**Thomas Knowles:** We had agreed. It was funded in the first rebuild.

**Tavish Scott:** Was a system funded for the new build after the 2014 fire?

**Thomas Knowles:** That was part of the committee discussion that we would say to the insurers that we would put in a fire suppression system as part of the rebuild, and that we needed money to do that. I was not on that committee. We are slightly conflating the two fires here.

**Tavish Scott:** I am talking about the reconstruction after the 2014 fire that you were asked to grant aid.

**Thomas Knowles:** We were not asked to grant aid the post-2014 reconstruction.

**Tavish Scott:** You are talking about pre-2014.

**Thomas Knowles:** We were not asked to put any money in.

**Tavish Scott:** When Jamie Greene asked you about—

**Thomas Knowles:** That was 2006 onwards. A conversation took place in about 2006.

**The Convener:** Can I clarify that? In response to Jamie Greene's line of questioning, you said that Glasgow School of Art was refused the grant after the 2006 fire. We know from our papers that Historic Scotland sat down and workshopped that issue with Glasgow School of Art, the council and various other people. The point is that it took a long time to install a fire suppression system after that conversation took place in 2006. Surely you should have intervened at that point to ask why it had not been done sooner.

**Thomas Knowles:** Those conversations were initial conversations about Glasgow School of Art coming for funding of that large-scale project, which did not go on site until 2008, I think—I do not want to make up a date off the top of my head, but I do not have my files with me. They went on site much later, at which point there was a fully-funded project, which included—

**The Convener:** Our most precious asset was left unprotected for all that time, when you knew from the Buro Happold report that it was unsafe.

**Thomas Knowles:** Glasgow School of Art was going out and fundraising for its project.

**The Convener:** We have to finish there. Thank you for the written evidence that you have provided. We asked you about the lessons to be learned from the Mackintosh fires and you said that, after the 2014 fire, Historic Environment Scotland issued a new guidance note called "Managing Change in the Historic Environment: Fire Safety Management". Can you give us more details on what that guidance note advises?

**Barbara Cummins:** It goes through what is important to consider as part of fire safety. It recognises that fire safety measures need to be part of any scheme. It is quite high level because

we have detailed technical guidance, as I have already said. It talks about compartmentation, sprinkler systems and other suppression systems, and gives examples of when those things have been used in other historic buildings, which merely indicates that it is always possible to accommodate change and manage fire safety in a building. That is why the guidance note is called "Managing Change". There is no expectation that change cannot be made because a building is a historic building.

**The Convener:** I take it that the guidance builds on the "Fire Prevention on Construction Sites: The Joint Code of Practice". You will be familiar with that.

**Barbara Cummins:** I am not, but those who have input to the guidance will do. Our guidance notes are subject to full public consultation before we issue them, so if we issue or say anything inappropriate, we would rectify it on the advice from the consultation.

**The Convener:** In written evidence from Stewart Kidd, the fire safety expert, who is also one of your advisers, he talks about the joint code, which he helped to draw up, and about your 2010 guide for practitioners, which, he says, draws on the joint code. That joint code goes well above any fire safety plan, and says that fire suppression systems should be put in during construction to preserve precious assets.

I was surprised to hear the response to Tavish Scott's questions that, after the first fire, a fire suppression system was ripped out and there was a gap before a new one was put in. That does not strike me as being in the spirit of the joint code or the advice you gave at the time. You were on the Mackintosh restoration committee, so I am surprised that you were not more proactive about that, given the joint code and your technical documentation that provided advice on it.

**Barbara Cummins:** There is nothing that I can say about that. Our role on the restoration committee was to provide advice on the conservation interventions. We are not fire experts.

**The Convener:** No, you are not, but you have spent quite a lot of time drawing up technical, careful advice about fire risks during construction. You give advice, but, when you were intimately involved in a restoration project—you were on the restoration committee—you did not insist that that advice was followed.

**Barbara Cummins:** That advice is good practice across a range of issues. We are not experts—

**The Convener:** The building was left unprotected and you were a member of the Mackintosh restoration committee.

**Barbara Cummins:** We will discover that once the fire service has made its report.

**The Convener:** You talked about the number of listed buildings in Scotland and how they are the responsibility of the owners. I used to live in a B-listed building, but I would not have expected my building to be treated in the same way as the Mackintosh school of art. I get the impression that you just apply what the regulations say, so it is almost as though there is parity across all those listed buildings. Instead, as the organisation that is tasked with preserving our historic environment and assets, perhaps you should be saying that some buildings are so precious that they require special measures. From your evidence as a whole, I am not getting the sense that you prioritise buildings such as the Mackintosh.

**Barbara Cummins:** To a degree, we prioritise buildings. The categories of buildings reflect that, such as category A listed buildings, which are just 7 per cent of the total.

**The Convener:** We know that, but there are category A listed buildings that are not as important as the Mackintosh. Your answer illustrates the point that I am trying to make. As the organisation that protects our built environment, surely that should be uppermost in your mind.

**Barbara Cummins:** Our involvement with the Mackintosh has been very detailed and close over many years, and we have paid more attention to it than other buildings because of the nature of the activities that have gone on there, particularly after the first fire. It has had special attention. However, that still does not allow us to go beyond our role and remit in what we can require.

**The Convener:** This has been fascinating, but we have to stop there. Thank you for your time today.

11:13

*Meeting suspended.*

11:15

*On resuming—*

## Scottish Government Reports

**The Convener:** The next item on the agenda is consideration of the biannual reports from the Scottish Government on a range of European Union issues. Do members have any views or comments on the reports?

**Kenneth Gibson:** Tumbleweed blows. [*Laughter.*]

**Claire Baker:** There was something—I am just trying to find it.

**The Convener:** We are on the record.

**Claire Baker:** I have a comment about Ivan McKee's letter. At the start of the second page, he writes:

"At the end of 2017, we were notified that the value of the programmes had been reduced by €22 million as a result of expenditure targets for 2017 not being met."

The rest of the paragraph follows the same theme. Do we want to ask for a bit more detail on that?

**The Convener:** Yes, we could ask for more detail on that. I was particularly interested in the reduction in the number of unemployed young people in the south-west of Scotland, which I represent.

**Claire Baker:** Ivan McKee talks about that in the same paragraph. That is one of the programmes on which expenditure has gone down. That is his explanation for it; on other programmes, the expenditure targets have not been met. Could we ask him about the reasons for those targets not being met?

**The Convener:** Okay.

**Kenneth Gibson:** In North Ayrshire, there has been a reduction in youth unemployment from 1,900 to 1,200. I got the specific details from the Scottish Parliament information centre, because, when I asked the question in the chamber, the minister gave me only percentage figures, as opposed to numbers of real people. Can we ask how much of that reduction is due to the impact of European structural funds?

**The Convener:** We can write to the minister to ask that question.

We might also wish to ask for an update on the one-plus-two languages policy, in the light of the interesting trends in the uptake of language courses across a range of qualifications. Given the downward trend on that, it would be useful to ask more questions there.

Finally, in relation to the update on horizon 2020, it would be useful to obtain further information on what scenario planning the Scottish Government has done as regards access to horizon 2020 funds post 2020.

**Kenneth Gibson:** On the matter of languages, it is interesting that there has been a significant increase in take-up between 2017 and 2018 at Scottish credit and qualifications framework level 3—there has been a 23 per cent increase—but, at level 4, there has been a 13.6 per cent decrease. In addition, there have been smaller decreases at levels 5, 6 and 7. The same is true of the number of passes. Could we ask why there has been such a dramatic increase at level 3 and such a decrease at level 4? What has been done to impact on those figures?

**The Convener:** That is a good point.

**Jamie Greene:** There are two major factors that will affect language take-up. The first is the availability of a particular subject choice in the pupil's educational environment. I would be keen to learn from the Government what the trends have been in relation to the number of languages that are available to pupils. The second factor is the availability of language teachers. I do not see any data in the report on trends in the number of teachers for each language that the Government wants to promote. That additional information would enable us to see whether those are additional factors in the take-up of languages. If the Government is keen to meet those commitments, surely that needs to be followed through with the provision of appropriate language choices and adequate teacher numbers.

**The Convener:** We can ask about those specific points in the letter.

**Ross Greer:** Some of the information that Jamie Greene has cited as not being here is information that the Education and Skills Committee has begun to gather for a piece of work that it will do this year on subject choice in school. Languages are one of the core areas where there are issues with subject choice. Just as much of the information that the Education and Skills Committee has begun gathering—in some areas, it might have finished gathering it—would be useful for this committee, some of the data that is included in the Scottish Government's report would be of use to the Education and Skills Committee. Therefore, it would be helpful if we could flag up that section of the report to that committee ahead of the work that it is about to begin.

**The Convener:** I am sure that the clerks can do that.

**Kenneth Gibson:** From a cultural and European perspective—although the issue goes

wider than Europe—there is an issue about which languages are taught. I am talking about the breadth of language provision. In primary schools, L2 is hugely weighted in favour of French, and Spanish is dominant at L3. So many languages that one would expect to be included are not, including languages that are really important for commerce. Obvious examples are Russian and Arabic, and I would even mention Hindi.

We should ask the Scottish Government—without stepping on the toes of the Education and Skills Committee—what steps it is taking to expand the number and choice of languages that are taught. Especially if we are going to be outside the European Union, languages such as Russian, Arabic and Hindi will be particularly important in the years ahead.

**The Convener:** Okay. Thank you for that. Annabelle Ewing is next.

**Annabelle Ewing:** Erasmus plays a role here, and it has a wider role to play. It would be helpful if we sought further clarity on Erasmus vis-à-vis the one-plus-two language policy and how it will play a role in what is anticipated in the wider context of Brexit and whether there is a deal or no deal. Erasmus is a fantastic scheme and everybody is worried about what is going to happen. In our discussions with the United Kingdom permanent representation to the European Union—UKRep—on our visit to Brussels, we heard about certain, perhaps unhelpful suggestions about the way in which the UK Government is going to proceed, given its focus and priorities, which may change. There are a number of issues there that we would want to look at.

**The Convener:** Yes. That is very important. Of course, the committee conducted an extensive inquiry into the future of Erasmus and we forwarded our report to ministers. As has been said, a large amount of language teaching is funded by Erasmus. We also need to find out what will happen to horizon 2020 in the event of there being no deal. I do not imagine that the Scottish Government has the answer to that, but we should raise our concerns about it.

Alexander, do you want to comment?

**Alexander Stewart:** We heard yesterday that contingencies are in place and that the Scottish Government is doing specific things. Two areas—Erasmus and horizon 2020—have been identified that we should focus on to see exactly where we are and what is in place to ensure that we can manage the situation, depending on what happens.

**The Convener:** Thank you. Are members content to write to the minister on all those points?

**Members indicated agreement.**

**The Convener:** We move into private session.

11:22

*Meeting continued in private until 11:33.*



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