

# NSI Research Report

## Survey of practitioners



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## 1 Background

One of the principal objectives of the Natural Stone Institute (NSI) is to provide practitioners and others with information and advice on all aspects of natural stone use in the built environment. The purpose of this survey of practitioners is thus to try to establish the extent to which they are familiar with natural stone and its use in building, and to determine the type and format of their information needs.

The survey is based on a postal questionnaire distributed to a sample of 206 architectural practices, drawn from the [RIAS](#) 2001 Register. This sample provides a proportional representation of practices drawn from all RIAS Chapters in Scotland. It also gives a representation of practice size. The number of distributed questionnaires is 40% of the total RIAS membership.

The breakdown of questionnaire distribution, based on practice size, is as follows:

<b>Large practices</b>	(10 or more professionally qualified employees)	8%
<b>Medium practices</b>	(5 to 9 employees)	7%
<b>Small practices</b>	(under 5 employees)	85%

## 2 Results

### 2.1 Section A

#### Q1 and Q2: Response rate

A total of 43 completed questionnaires was received, a response rate of 21%. A breakdown of respondents by practice size (Q2, number of professionally qualified employees) is:

<b>Large practices</b>	14%
<b>Medium practices</b>	7%
<b>Small practices</b>	79%



Figure 1. Number of professionally qualified employees in respondents' organisations

**Q3. Do members of your practice hold formal qualifications in building or architectural conservation?**

- Yes: 31%
- No: 69%

**Q4. Categories of work undertaken by practices**

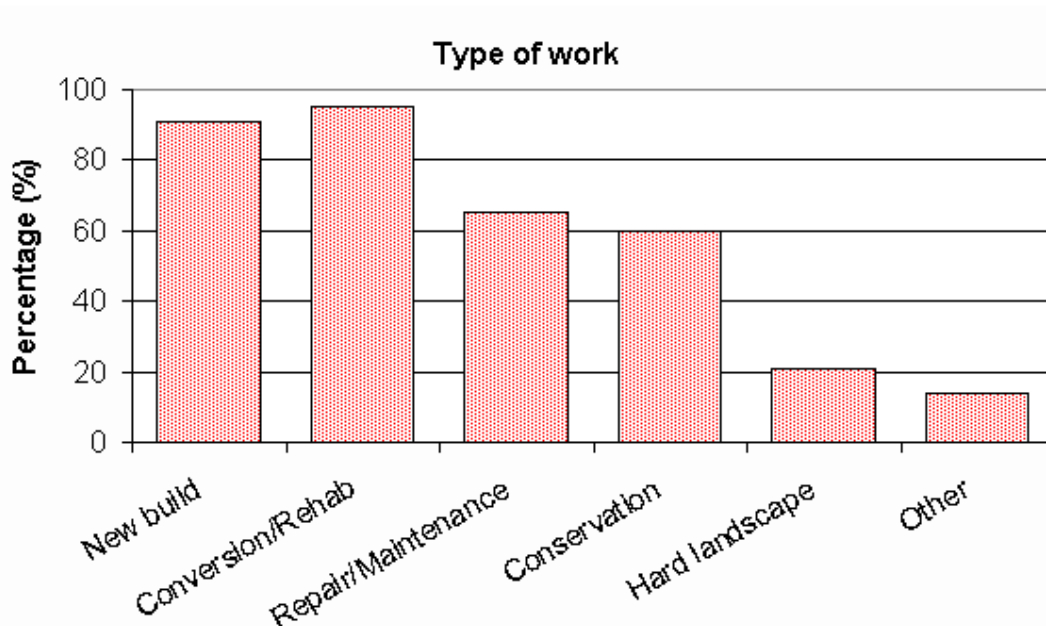


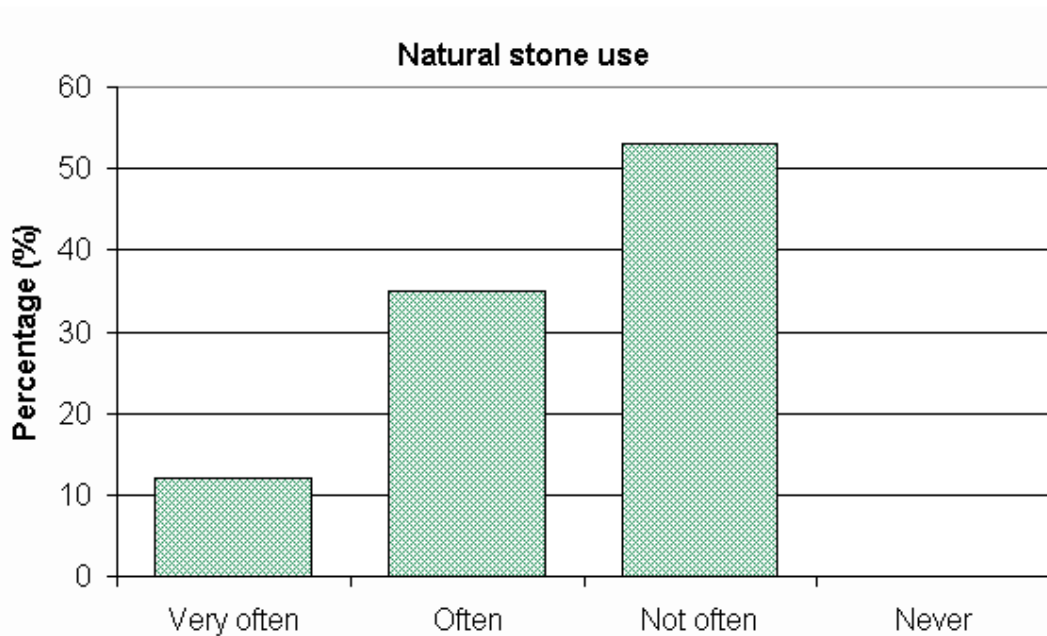
Figure 2. Categories of work undertaken by respondents' organisations

*Table 1. Categories of work undertaken by respondents' organisations*

Type of work	%	Rank
New build	91	2
Conversion/Rehab	95	1
Repair/Maintenance	65	4
Conservation	60	3
Hard landscape	21	5
Other	14	6

**NB.** 'Rank' indicates practitioners' mean ranking of work categories in terms of order of priority

**Q5. How frequently does your practice specify natural stone for use in construction projects?**



*Figure 3. Frequency with which the practice specifies natural stone for use in construction projects*

**Q6. Please identify the factors that prevent or inhibit the use of natural stone**

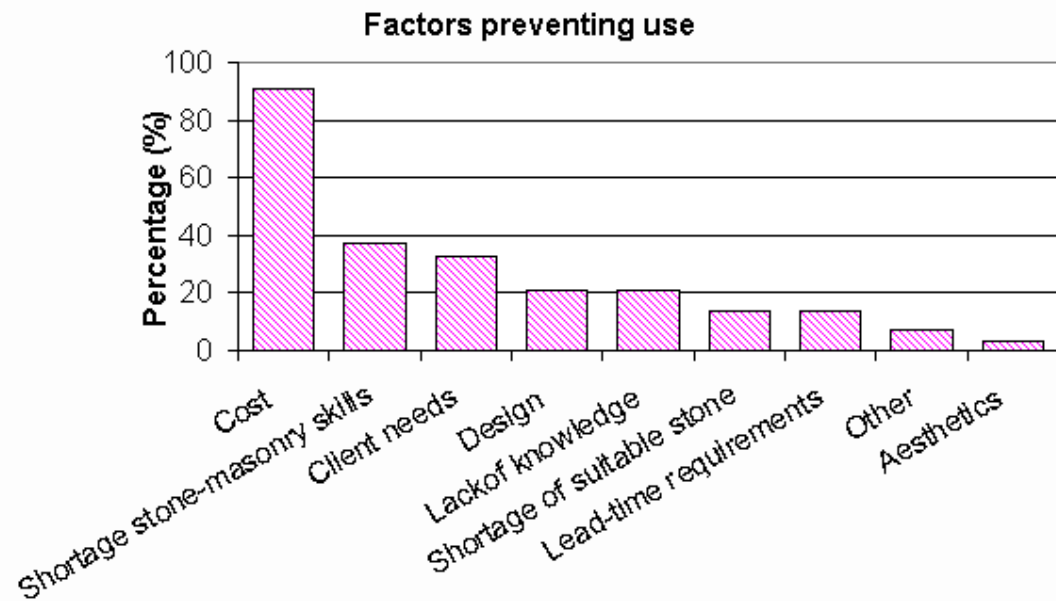


Figure 4. Percentage of respondents citing a factor that prevents or inhibits the use of natural stone

**Q7. When you use natural stone in projects, please identify the factors that influence the decision to use this material**

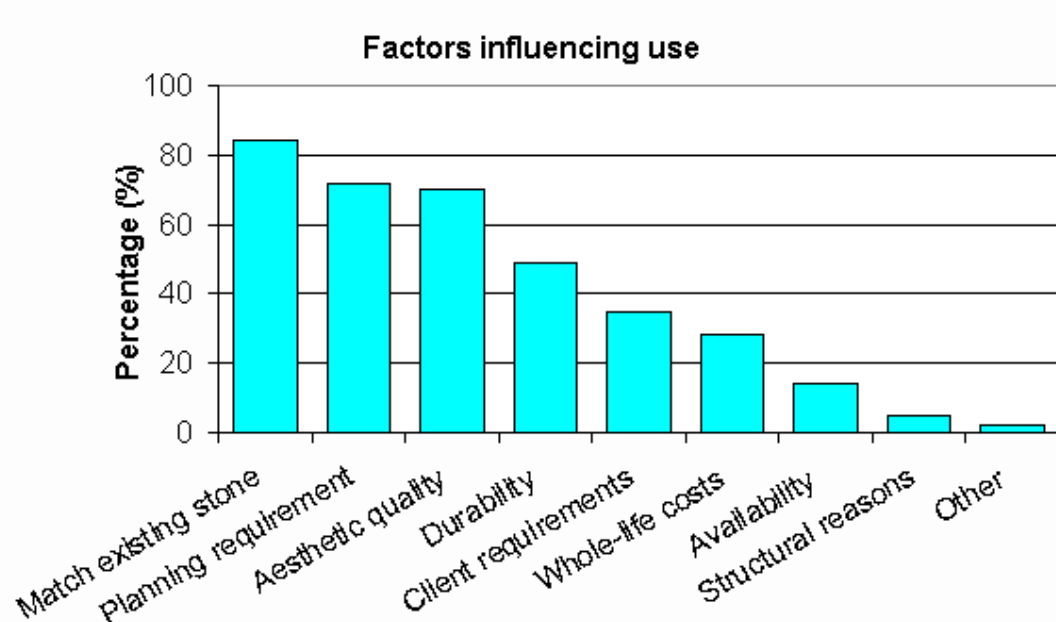


Figure 5. Percentage of respondents citing each factor as an influence in their decision to use natural stone

**Q8. Please assess the knowledge and experience of your practice with respect to design and specification of natural stone**



Figure 6. Respondents' perception of their knowledge and experience with respect to design and specification of natural stone

**Q9. Do you think there is a need to update knowledge and understanding of the use of natural stone in your organisation?**

- Yes: 91%
- No: 9%

**Q10. Identify the types of information that would best meet the needs of your practice (tick all that apply and rank the first three in order of priority)**

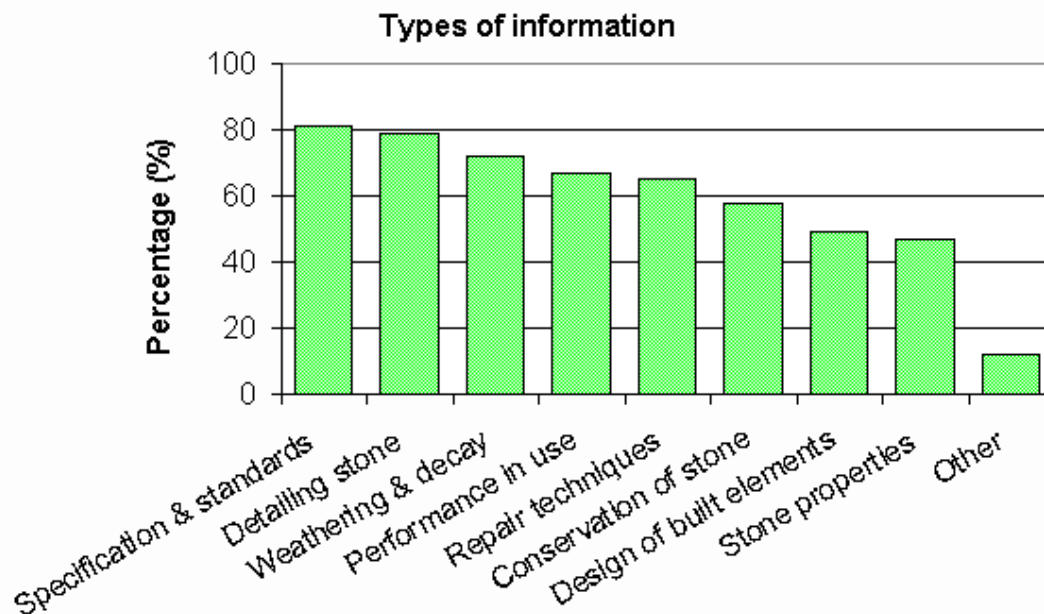


Figure 7. Respondents' opinion with respect to the types of information

*that would best meet the needs of their practice*

The rank order was as follows:

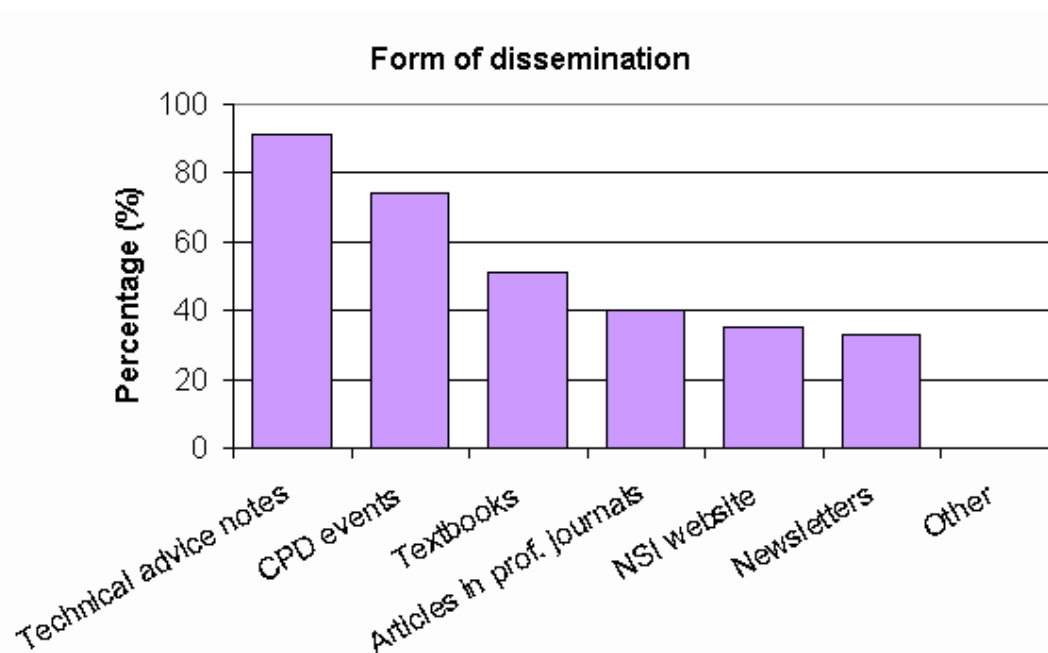
*Table 2. Type of information that would best meet the needs of respondents' practices*

<b>Types of information</b>	<b>%</b>	<b>Rank</b>
Design of built elements	49	8
Detailing stone	79	1
Performance in use	67	4
Weathering & decay	72	3
Specification & standards	81	2
Repair techniques	65	5
Conservation of stone	58	6
Stone properties	47	7
Other	12	9

**NB.** 'Rank' indicates practitioners' mean ranking of information types in terms of order of importance

**Q11. Please identify the most appropriate form/s of information dissemination that will best meet the needs of your practice**

*(tick all that apply and rank the first three in order of priority)*



*Figure 8. Respondents' opinion with respect to the forms of information dissemination that would best meet the needs of their practice*

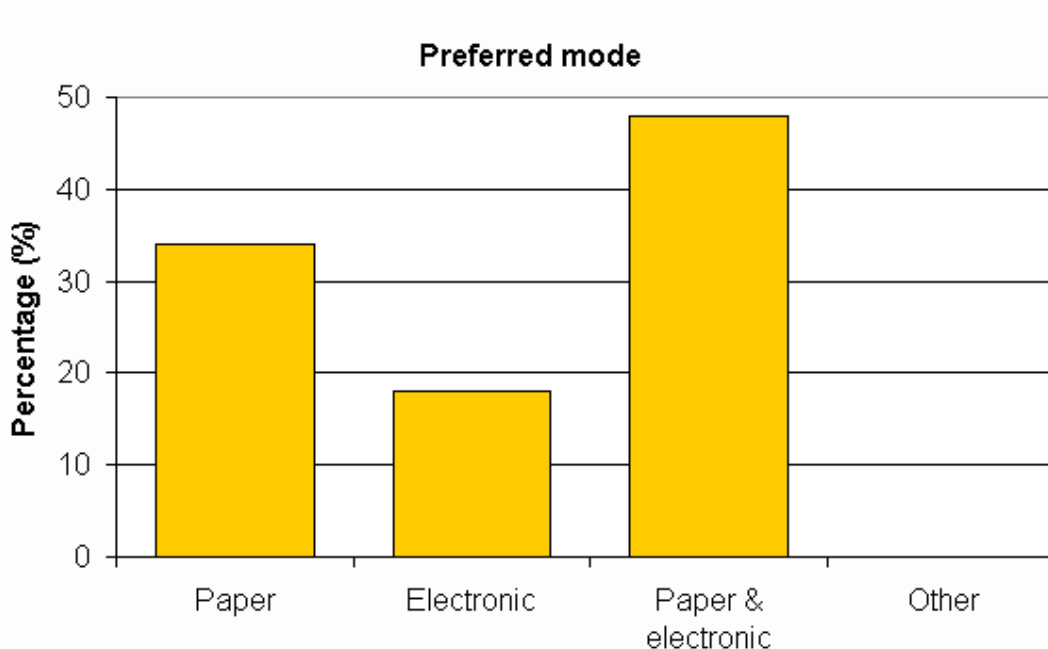
The rank order was as follows:

*Table 3. Forms of information dissemination that would best meet the needs of practices*

Dissemination	%	Rank
Newsletters	33	4
Technical advice notes	91	1
Textbooks	51	3
Articles in prof. journals	40	6
CPD events	74	2
NSI website	35	5
Other	0	7

**NB.** 'Rank' indicates practitioners' mean ranking of forms of dissemination in terms of order of importance

**Q12. Please identify your preferred mode/s for receipt of information on natural stone**



*Figure 9. Respondents' preferred modes for receipt of information on natural stone*

**Q13. This is a series of statements, respondents were invited to tick a box that best reflected their view**

The statements were as follows:

- *There is a need to promote the use of natural stone in construction.*
- *There is already sufficient information available on stone.*
- *Designers and specifiers are familiar with the properties of stone.*
- *There is a need for an organisation like the Natural Stone Institute.*
- *I am familiar with the technical standards relating to natural stone.*
- *In new build, natural stone is only appropriate for expensive, prestigious projects.*
- *There is a shortage of good quality building stone in Scotland.*

- *I am competent to supervise construction work in stone.*
- *Natural stone is cost effective when whole-life costs are considered.*
- *Any architect will be competent to design, detail and specify stonework for new build.*
- *There is not a strong case for using natural stone in the 21st century.*

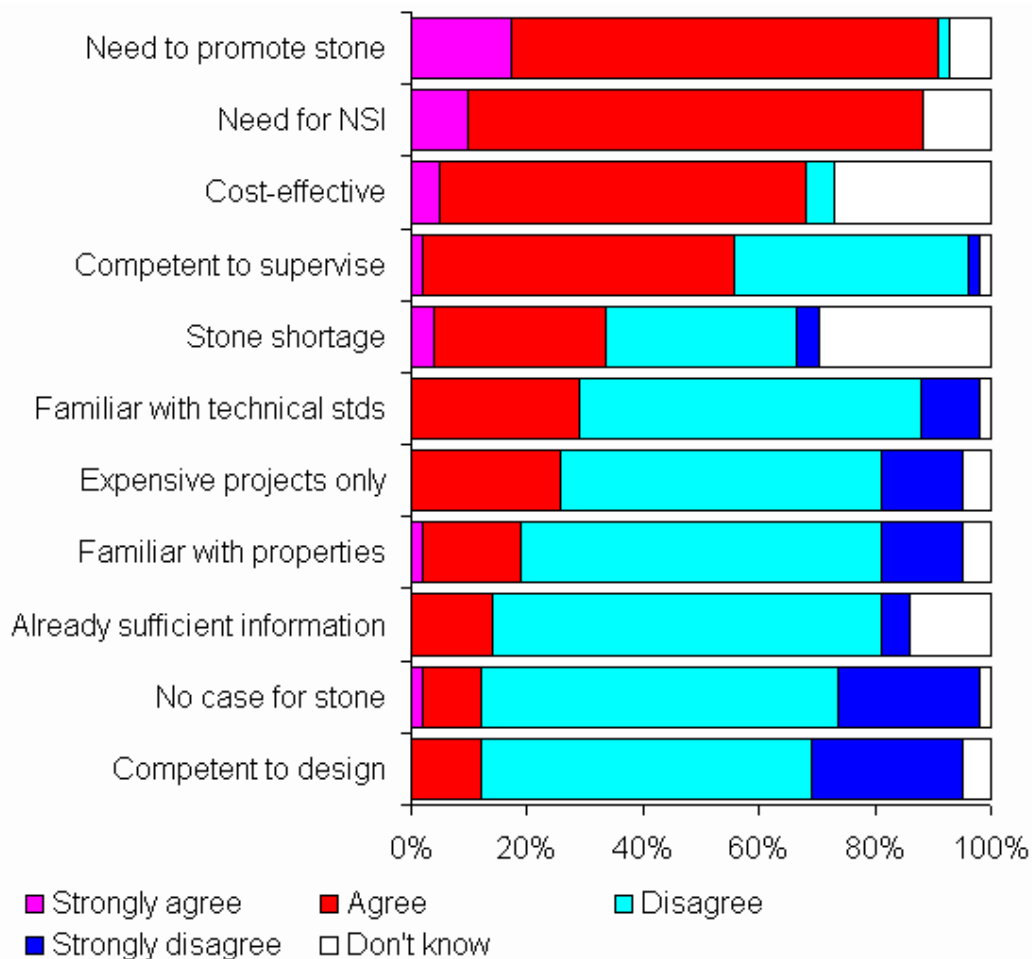


Figure 10. Respondents' views on the statements presented

**Q14. Would your practice be prepared to pay for information on natural stone?**

- **Yes:** 32%
- **No:** 66%
- **Don't know:** 2%

If 'Yes' please identify the type of information:

- *CD ROM technical file*
- *Good book on detailing*
- *Detailed technical information*
- *Books - project specific*
- *Depends on project (2 respondents)*

**Q15. Would you or your organisation be prepared to subscribe to membership of the NSI?**

Table 4. Answers to the questions, "Would you or your organisation be prepared to subscribe to membership of the NSI?"

Membership type	Yes	No	Don't know
Individual	21%	76%	2%
Corporate	21%	74%	5%

**Q16. Would you, or members of your practice, be prepared to attend the formal launch of the NSI to be held in Stirling on 19th September 2001?**

- **Yes:** 40%
- **No:** 56%
- **Don't know:** 5%

## 2.2 Section B. Slates

**Q17. How frequently does your organisation specify natural slate as a roofing material?**

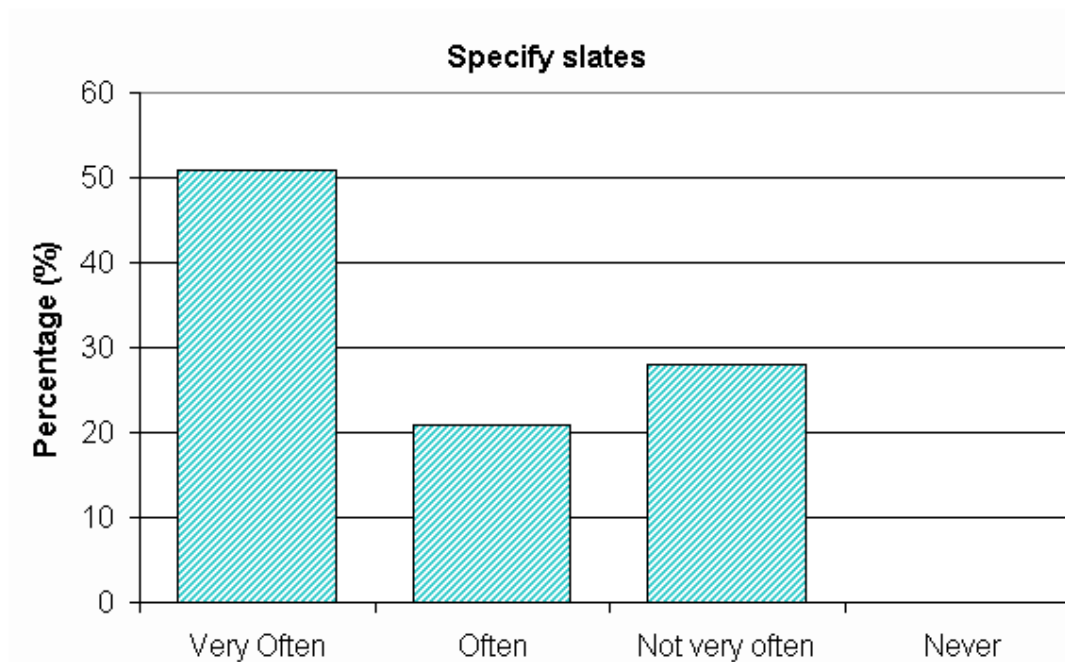


Figure 11. How frequently respondents' organisations specify natural slate as a roofing material

**Q18. Please identify the sources from which slates are obtained**

(Rank order 1,2,3 etc)

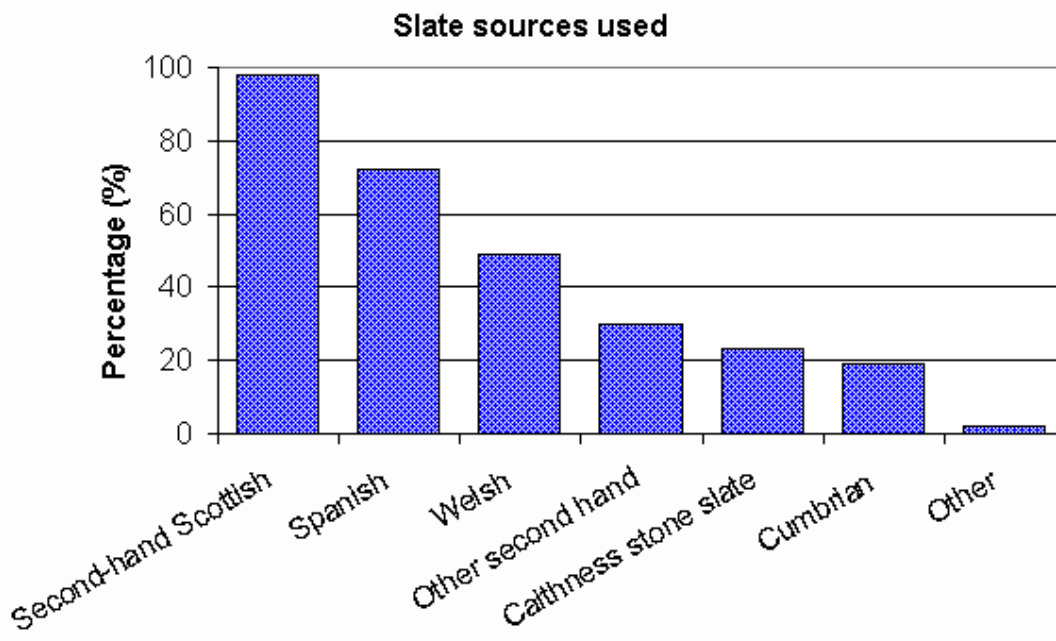


Figure 12. The sources from which respondents report obtaining slate

Table 5. The sources from which respondents report obtaining slate

Slate sources used	Rank
Second-hand Scottish	1
Other second hand	3
Welsh	4
Cumbrian	5
Spanish	2
Caithness stone slate	6
Other	7

**NB.** 'Rank' indicates practitioners' mean ranking of slate sources in terms of order of importance

**Q19. If new Scottish slates were to become available would you consider specifying this material?**

Table 6. Would respondents consider specifying new Scottish slate if it became available?

Usage	Yes	No
New build	100%	0%
Repair/maintenance	98%	2%

**Q20. If you responded 'Yes' to Q19, would you or your clients be prepared to pay a premium price for new Scottish slates?**

- Yes: 63%
- No: 33%

- **Don't know: 5%**

If 'Yes', please indicate the additional percentage cost, over that for new Spanish slates, that you think would be acceptable.

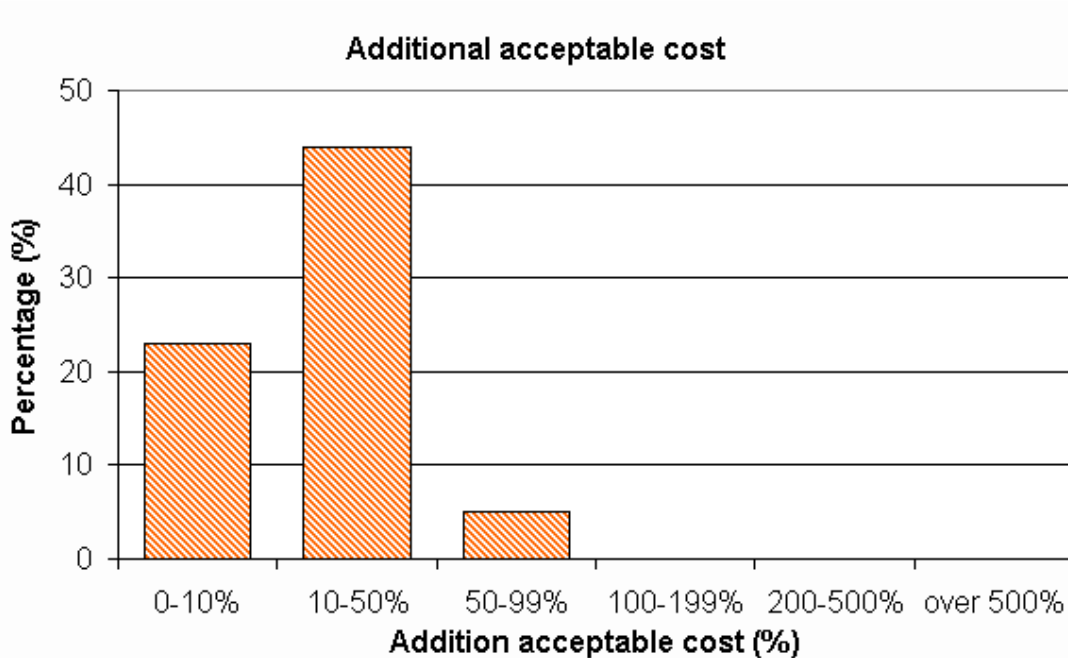


Figure 13. The additional percentage cost, over that for new Spanish slates, that respondents believe would be acceptable for new Scottish slates

## Q21. Please add further comments relating to the use of natural stone and/or slates

- *Ecological impact of quarrying - over quarrying in case of limited supply.*
- *Keen to see Scottish slate re-introduced.*
- *Clients reluctant to pay a premium.*
- *Not able to obtain 2nd hand Scottish slate.*
- *Increased awareness of cost/value arguments raised by NSI would be helpful.*
- *Natural materials have stood the test of time.*
- *Cost is an issue.*
- *Use depends on both client(type) and project.*
- *Absence of Scots slate - resulted in inability to specify or find. This has weakened planning authorities resistance to accepting Welsh/Spanish.*
- *Scotland is stone country - not making indigenous materials available.*
- *Planning processes actively discourage winning of natural stone/slate.*
- *Macro-environmental issues should be given greatest importance.*
- *Demand is growing - availability is not.*
- *List of approved/qualified trades.*

## 3 Discussion of results

In this discussion the most significant issues only will be addressed as some of the results are self-explanatory.

In this survey, all respondents were architects practising in Scotland. The [response rate](#) of 21% is disappointing given that the questionnaire was essentially a 'tick-box' format requiring a few minutes only to complete. This low response rate may indicate that natural stone is not a high priority in the minds of architects in Scotland. Unfortunately, due to an oversight, the RIAS Chapter to which the respondent is a member was not recorded. However, the make-up of the respondents, based on the size of practice, was close to that of distributed questionnaires, although a better response was received from large practices than from small practices.

In the [type of work](#) undertaken, conversion/rehab, closely followed by new build were dominant. This is not surprising given that the vast majority of respondents are in small practices and many are sole practitioners.

A small majority of practices indicated that they did not often [specify natural stone](#) and it may be that this limited use of stone is related to the response in [Q6](#) that shows cost as the most significant factor preventing the use of stone. The ['opinions'](#) question (Q13) also indicated that 27% did not know whether stone was a cost-effective material. This is perhaps further reinforced by the response in [Q7](#) that only 28% of respondents cited whole-life costs as a factor influencing use. Clearly, the cost issue is a major and urgent factor to be addressed by the SSLG/NSI.

It was indicated by 61% of respondents that they thought their [knowledge and experience](#) in the use of stone was either very good or good. However, caution must be exercised when assessing the implications of this quite high percentage as it is unlikely to reflect the knowledge base of architects in Scotland. Indeed, in [Q13](#), 83% either strongly disagreed or disagreed with the statement that any architect would be competent to design, detail and specify stonework for new build. It may be that responding architects have a low opinion of the ability of most of their fellow practitioners in this respect. The fact that 91% indicated that there was a need to update their organisation's [knowledge and understanding](#) is again reinforced by the ['opinions'](#) question that shows only 29% are familiar with technical standards.

The [types of information](#) required by architects (Q10) provides valuable information for the future work of the NSI. While specification and standards received the highest percentage response, detailing of stone elements was ranked the highest in terms of need (by a small margin). Interestingly, although stone properties received the lowest rating, in the ['opinions'](#) question only 19% were familiar with the properties of stone. It would appear that architects do not view this as an important aspect of their knowledge and understanding of stone. However, given the apparent demand for all types of information, there is a case for the SSLG/NSI to promote all the topics listed.

The question on form of [information dissemination](#) clearly places technical advice notes (91%) and CPD events (74%) as the top priorities for the means of information dissemination. It is interesting to note that textbooks, at 51%, received such a high rating, significantly higher than an NSI website, for example. Perhaps this is due to the ease of access to textbooks, which can be simply pulled from a shelf near to the designer. We should recognise that most designers use Apple Mac computers and any electronic information must be compatible with this format. Some respondents made the comment that they would wish to obtain information that was project specific. While there is an overwhelming indication of the need within architectural practices for much more information on natural stone ([see also Q13](#), where only 14% agree that there is already sufficient information), [66%](#) of respondents indicated that they would not be prepared to pay for such information. This high figure rejecting a willingness to pay must, therefore, raise a fundamental question on how the NSI will fund the expensive process of preparation and dissemination of information. Clearly, the market within Scotland will be insufficient to sustain this type of activity and there will have to be a world-wide market established. This will also require consideration to be given to marketing and related costs.

Within the ['opinions'](#) question (Q13), some additional points are worthy of consideration. 30% don't know whether there is a stone shortage in Scotland and 14% don't know whether there is sufficient information available. When this is combined with the 27% who don't know whether stone is cost effective, it is apparent that the 90% of architects who state there is a need to promote stone are articulating a real

deficiency in information availability.

The low positive response (21%) on the question of [willingness to subscribe to the NSI](#) is very disappointing and appears at odds with the [89%](#) of respondents who feel there is a need for such an organisation. This parallels the response to the willingness to [pay for information](#). There is clearly a need, but practitioners are unwilling to pay for it. Why this should be so is a complex question and is, perhaps, an issue that should be addressed by the SSLG as it is fundamental to its future health as a viable organisation.

In [Section B](#), Slates, a number of issues emerge. While second-hand Scottish slate was the [predominant source of slate](#) cited, the [lack of availability](#) of this slate was a concern expressed by a number of respondents, especially for conservation work. All respondents would be prepared to specify [new Scottish slates](#), should a source become available, and [63%](#) thought that their clients would be prepared to pay a premium over Spanish slates. Of those expressing a willingness to pay a premium, [none](#) would be prepared to pay a premium in excess of 100%. For most, the maximum additional premium was within the 10%-50% range. However, recent costings (Urquhart 2001) indicate the possible premium for new Scottish slates may be five times as that for Spanish slates. The cost issue is therefore the most significant factor to be considered when preparing a business plan for possible rejuvenation of the Scottish slate industry.

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