
MAG MAG Issue 3 December 2013



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Editorial

Hello everybody and welcome to the third issue of MAG MAG, the newsletter of the Institute of Acoustics Musical Acoustics Group. My name is Owen Woods and I am the editor of this publication.

The most exciting news in this edition is the announcement of five MAG events taking place in 2014-15. These range from evening branch meetings to full blown conferences and include work on Soundscapes, Recorded Music and Musical Instruments. I hope to see many people there supporting the work that we are doing to get this group as dynamic and stimulating as it should be.

This issue's Featured Article on page 15 is by Bernard Richardson of Cardiff University and is the fascinating story of his group's research into stringed musical instrument acoustics. I find it fascinating anyway, although I might be considered to be biased on this one.

We also have the results of the MAG Questionnaire on the next page this month. I am sure that this is news of great joy to everybody, so please do take a peek and see what you the group have told us to do. If you disagree, why not tell us about it on our LinkedIn group or by email?

Mike Wright, our Chair, is still seeking information on the history of the MAG. Anecdotes, clippings, publications, photographs, all are welcome. Please see his letter to the group on page 20.

I note from the previous publication that I described this as "The Christmas Issue". To that end:

I wish all MAG Members a very Merry Christmas (or non-Christian equivalent) and a Happy New Year (wherever your New Year happens to fall)!

If you have anything which you think would be of interest to your fellow members then please email me on ukebert@googlemail.com. I would welcome any contribution, however small. This newsletter will only be as good as its content and that will be decided by you, the readers.

This newsletter will be published quarterly, in March, June, September and December. The deadline for submissions for the March 2014 Issue will be the **9th March 2014**.

Views expressed in MAG MAG are not necessarily the official view of the Institute of Acoustics or of the Musical Acoustics Group, nor do individual contributions reflect the opinions of the Editor. Whilst every care has been taken in the preparation of the newsletter, the publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them. The Institute of Acoustics, MAG and Editor do not necessarily endorse the products or claims made by any contributor to this newsletter.

MAG News

This section is devoted to what we in the group are up to. If you have any MAG related news that you would like to share with us then please contact the editor.

2013 Membership Survey: The Preliminary Results

Introduction

It is now more than 21 years since members of the Musical Acoustics Group were asked to give their views to enable its future development. Back in the days before John Major lost the General Election, Peter Dobbins sent out a questionnaire to all MAG members using the long tried and tested method of paper forms and hoping for a response. The group membership was 116 in 1991 and about 20% responded. Nevertheless, as reported in 'Notes', April 1992 (the MAG newsletter of the time) the survey still provided some key points which helped the group to steer a path for the future. In the following years, membership slowly increased to 138 in 1993 but slowly declined to 79 by 2002. However, there were signs of a revival following the efforts of Peter Dobbins and Murray Campbell in 2003 with some activities taking place, in particular one on the 'New Violin Octet' which was well reported and IOA Spring conferences at Southampton in 2006 and Reading in 2008. There were also efforts to collaborate with the UK Musical Acoustics Network. Indeed, there was a revival in membership numbers reaching 286 in 2011, dropping slightly to 280 in 2012.

Revival

After a successful (free weekend) branch meeting which I chaired featuring an organ builder demonstrating his techniques on two organs in Truro, I was motivated to press on and revitalise the group. However, an attempt to hold a full one-day meeting at Cardiff in 2012 failed due to the lack of support. Whilst there was a good programme of presentations, holding the meeting would have meant costs far outstripping the revenue from attendance fees. The feedback I

picked up clearly showed that costs to attend were a major factor along with the timing of the meeting. This event would have been rather close to Acoustics 2012 at Nantes which also had a good programme of interest to MAG members. However, things for 2013 have improved with a full session of musical acoustics papers at the Spring Conference and the first full one-day meeting of the Group this millennium with more 'on the cards'. We now have a fully operational MAG management committee. However, in

the process, it has become abundantly clear that we need to know what members want. This is needed for the MAG to survive and develop so that it is much more than just an 'interest group'. Whilst 'interest groups' might be seen as 'desirable' by some, the harsh reality is that getting

support from members of the IOA (both within and outside the MAG) and the music industry generally, as well as instrument makers and academia, would be unlikely unless changes were made quickly. This survey was essential.

This Survey

The 2013 survey was very much based upon the questions in the 1992 survey but using 21st century methods. This was done using 'Survey Monkey', the method used in the IOA Members Survey last year. There were 71 responses representing around 25% of the total of invitations that went out. It is my view that the number of responses was a bit disappointing, considering the small amount of time and effort members needed to take part. There are a few IOA members who have elected not to receive circular e-mails with just a handful in the MAG. I also found out later that a few of the members who received the invitation to this survey were not presently members of the MAG. This may be due to members not updating their details with the Institute. It may

also account for some non-responses to old e-mail addresses. However, please accept my apologies if you are a member of the MAG and have not been invited to take part in this survey. The above has led to some slight discrepancies in some numbers shown below. In this report, I am concentrating on hard fact rather than detailed interpretation as I reiterate Peter Dobbins words in the 1992 survey: "*This is not a random survey – it is limited to those with sufficient motivation to reply*". However, the 2013 survey has shown that 71 keen members were motivated to respond and this has provided some very helpful information. We must therefore be in with a good chance of having a strong group on that basis alone!

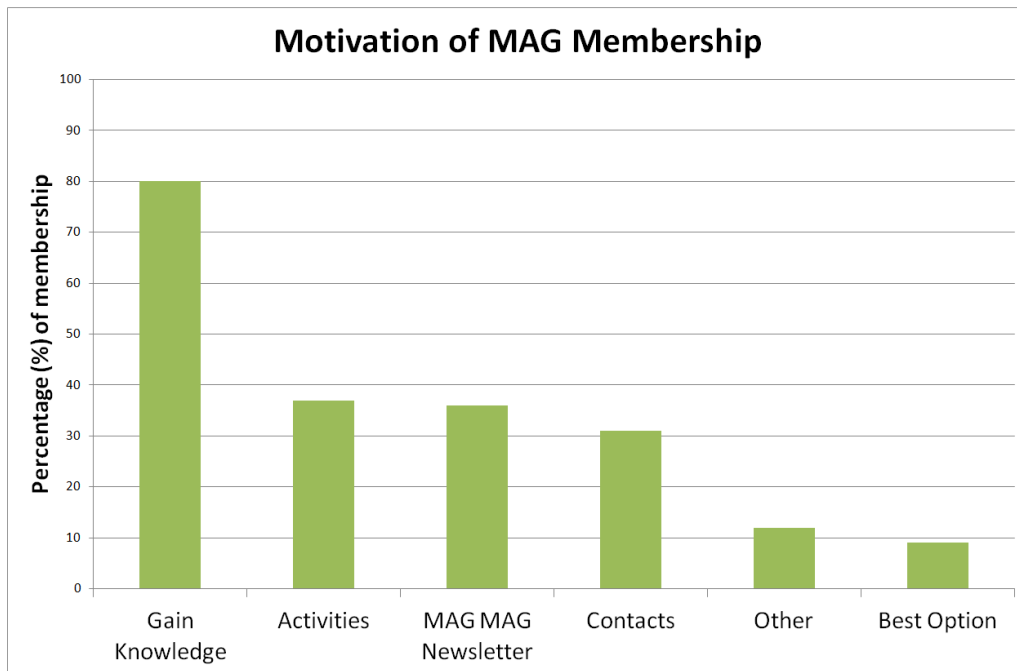
What other specialist groups do members of the MAG belong to?

Many MAG members belong to other groups and almost 6% of the total membership of the Speech and Hearing Group and over 5% of the Electroacoustics Group responded to this survey. This is not surprising as there is considerable synergy between their activities and those of the MAG and efforts are well underway to encourage joint activities. Encouragingly, around 3% of the total

memberships of the Building and Physical Acoustics Groups responded, giving more scope for collaborations between groups. Hopefully too, there is a future ahead for the MAG with over 10% of the total number of the Young Members Group responding. However disappointingly, only I and one other person in the Senior Members Group responded, representing less than 3% of its current membership!

Why do IOA members belong to the MAG?

It was encouraging to know that there was an overwhelming majority (almost 80%) who simply wanted to 'Gain Knowledge' and an encouraging interest in MAG MAG which of course helps in that direction!



Where are the members of the MAG?

The geography of the Members locations were considered to be important. The 1992 survey showed 'a loose concentration in the south-east' a tighter cluster around Bristol and the remainder spread over the rest of England with a few in Wales and Scotland. I have not yet analysed the 2013 geographic locations in detail but have instead looked at member's branches. This is very important for considering the general target audience. Unsurprisingly, the distribution of the responding

members showed the largest contingent was from the London Branch with 25 responding, just over 3% of its total membership. However, in terms of the overall branch membership, both the Eastern (over 5%) and Central Branches (just under 4%) had a greater proportion with an almost 3% response from the Welsh and North-West branches. The lack of response from the Irish and overseas branches and comments from certain members reflected their concerns that the MAG does not reach beyond

England, Scotland and Wales. Steps have already been taken with more to follow to heighten awareness of the IOA MAG to our overseas members

and some other acoustical organisations abroad.

What are the interests of MAG members?

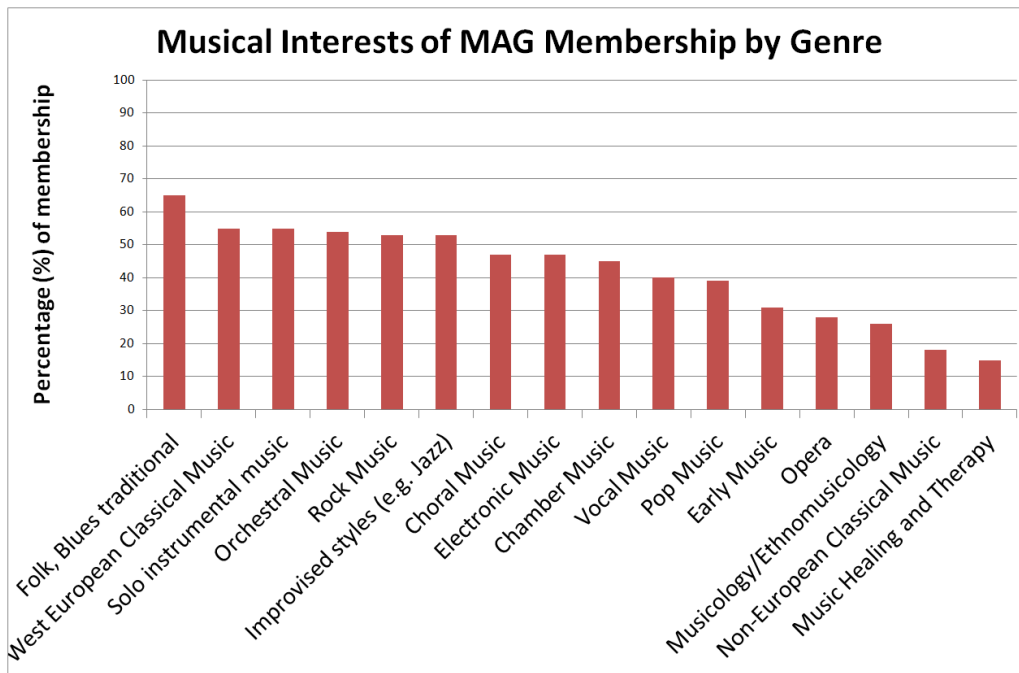
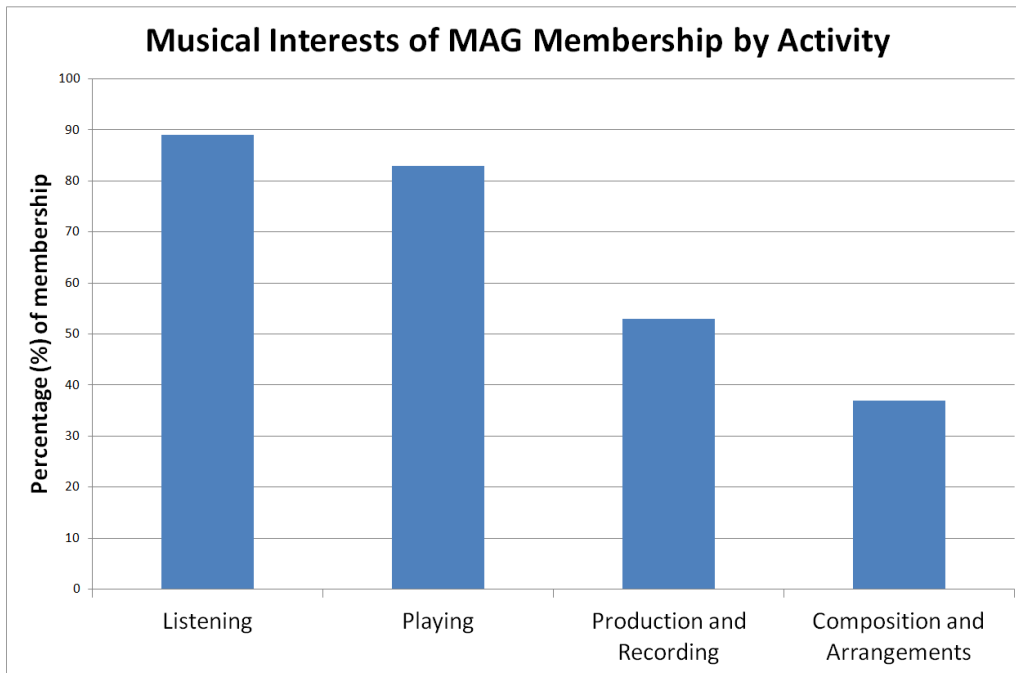
The survey asked members to rank their interests in order of preference. Rather than taking an 'average rating' I have taken the responses and allocating 10 points to the first choice, 9 points to the second choice and so on. This considers all interests in descending order and we find the following overall ranking by those who responded:

1. Architectural acoustics: performance venues, practice rooms and studio design.
2. Physics of acoustic musical instruments.
3. Sound reproduction, broadcasting and recording.
4. Perception and psycho-acoustics.
5. Electronic instruments and synthesisers.
6. Simulation and auralisation.
- =7. Computer applications in composition, arrangements and improvisation.
- =7. Music theory
9. Music therapy
10. Other

In the 1992 survey, physics of musical instruments was a clear lead, with computer applications, architectural acoustics, sound reproduction down the list and music theory and psychoacoustics lumped together at the bottom. I shall be 'drilling' further into the responses including 'other' in due course.

What are the musical interests of MAG members?

As with the 1992 survey, we asked what member's musical interests were. The two graphs below show the responses sorted by Activity and by Genre.



What should the MAG be doing?

This is the 'nitty gritty' question that needed answers to focus the planning of future events. The results were clear with 73% of those who responded being interested in 'Visiting concert / recital buildings', 65% 'Visiting instrument makers' and 53% 'Visiting musical equipment manufacturers'. The subtle difference was meant to separate the big producers from the individual makers. The good news is that the MAG is working on these ideas right now! 'Visiting TV, radio and recording

studios' was indicated by around 58% of respondents and inquiries are being made on possible visits. With regards to meetings, IOA one day / half day meetings were favoured by 55%, Evening regional branch meetings by 54%, Joint meetings with other organisations by 49% and International collaboration with other acoustic institutions by almost 45%. However, the points from the next question are also important in the decision making process of the MAG.

Views on costs, travelling distances and the timing of MAG events

The matter of distance and costs were expressed by a number of members prior to the survey and the Institute were keen to get more detail on this with a view to planning future events especially in the light of past dormancy and abandoned meetings. These are the categorised responses but there are further comments that still need to be looked at in detail. Looking at distance:

- Prepared to travel up to 100 miles - 10%
- Prepared to travel up to 50 miles - 30%
- Prepared to travel up to 30 miles - 27%
- Only attend local meetings within 10 miles - 9%
- Prepared to travel anywhere in UK - 24%
- Prepared to travel outside UK - 8%

Looking at the type of meeting and associated costs:

- Attend meetings that are free of charge - e.g. evening branch - 51%
- Attend meetings at low cost and without lunch, beverages and formal hand outs etc - 61%
- Attend meetings of moderate cost to include basic hand outs and access to food and beverages - 59%
- Attend meetings at normal members fees that include lunch, beverages and hand outs - 25%

Taking the timing of the meetings:

- ↳ Attend meetings on weekdays - 63%
- ↳ Attend meetings on Saturday - 35%
- ↳ Attend meetings on Sunday - 23%
- ↳ Other (please specify) - 20%

MAG members involvement in other Institutions and Societies

One of the most surprising facts was that relatively few members seem to belong to other musical groups and organisations. The question 'What other musical groups or organisations do you belong to?' only listed a number of the possible organisations that I had thought to be most likely. This was only responded to by 5 members. These were members of the Galpin Society (2 members), English Folk Song and Dance Society (2) and Sound and Music (1). However, a lesson was learned here as other interesting groups were stated - the Audio Engineering Society (6), British Horn Society (1), Institute of Sound & Communications Engineers

(1), The Royal School of Church Music (1), British Institute of Organ Studies (1), Musical Acoustics group of the ASA (1) and The Elgar Society (1). I have noted but not included performing groups and local societies in this list.

The responses were helpful as they gave indications of possible 'overlap areas' which may suggest possible future collaborative events between the IOA MAG and other organisations. Indeed, possibilities are already being worked on. Collaborative events bring the possibility of greater attendances, a wider audience and a chance for acousticians to raise awareness of the profession to those in related fields.

Conclusions

Whilst the 2013 survey has not had quite as many responses as I had hoped for, it has nevertheless, given some clear indications of what members who are most interested in the future of the MAG actually want. Firstly, there are a significant number of members who also belong to the Speech and Hearing Group, the Electroacoustics Group and the Building Acoustics Group. These are the Groups that could be considered to have the most overlap in the interests of the MAG and there is good scope for collaborations in future meetings.

There are an encouraging number of MAG members in the Young Members Group. This shows that the MAG should have a future and hopefully, more will take interest if they are more involved. However, the limited response by the Senior Members Group is perhaps, a little surprising.

Regionally, there are members from England, Scotland and Wales who responded. The greatest proportion who responded are in the London, Eastern, Central, Welsh and North-West branches. However, beyond these shores, the limited responses reflected the fact that members consider themselves to be too remote to be involved. This indicates that the MAG is viewed as rather insular, which needs to be addressed.

Efforts are in hand to sow the seeds to encourage collaboration with other acoustical institutions abroad.

There is a strong representation of members who play music and even more who listened to it. The type of music the majority of members indicated was Folk, blues and other traditional music and 'West European ('classical' style) music. Those who responded made it very clear that they wanted to be in MAG to 'Gain Knowledge'. Clearly, the MAG needs to be much more than simply an interest group.

Members would like to visit concert / recital buildings, instrument makers, musical equipment manufacturers and TV, radio and recording studios. This appeared to be the most popular with members and work is in progress to arrange visits. With regards to meetings, it came as no surprise to many that the high costs of one day meetings was not popular with MAG members. This and associated travel costs have in the past put off many MAG members from attending such meetings. There appears to be little doubt from the responses that lower cost options could prove much more attractive to members. The cost issue has actually been considered carefully by the IOA in recent and proposed future meetings. The related issue of travel to meetings also showed that many members do not have the time or resources to always travel long distances. However, there was still a significant number who would be prepared to travel anywhere in the UK.

I would always consider comments and suggestions from all MAG members in my quest to make the group more than simply an 'interest group'. We have a lot of work ahead but it is my hope that the MAG will become a group that will attract a much wider audience in future.

Mike Wright, Chair, Institute of Acoustics Musical Acoustics Group

Industry News

If you or your company has a recent achievement related to Musical Acoustics, please get in touch and we would be pleased to share it with everyone.

Black Cat Music

The installation of a large 6m x 4.8m Music Practice Room at Trent College dramatically transformed the facilities available to the school's music department. The new structure provided a dedicated percussion room located in the existing music school which allowed the percussion teacher to hold lessons without disturbing other music classes taking place in the rest of the facility.

Director of Music, Steven Henderson, explained: "As soon as it was installed, the percussion department could see that it was going to make an immediate difference. The percussion teacher, who spends four days of the week inside the practice room teaching, just loved it straight away." Steven continued: "Now we can have string quartet rehearsals in one room and percussion going on in another room, and various other things happening at the same time as each other, and that's really made a difference for us. It was installed in a few days and we were able to get in and start using it straight away."

Overall, Steven was delighted with the immediate difference the new Music Practice Room made to his Music Department: "It provided a space which worked really well, it answered the question really quickly, and it offers me flexibility for the future, and those are the three key criteria that I needed it to meet." Black Cat Music's sound-isolating music practice rooms offer a solution that controls noise at source, providing an ideal rehearsal space for musicians and singers. The modular design allows for a wide range of sizes to accommodate musicians from a solo singer to a choir or a band. The rooms can be relocated, if and when major changes in use and allocation of space are planned. For comfort and to create a pleasant environment, the rooms are supplied fitted with integral lighting and fan-assisted ventilation. Thanks to balanced internal acoustics they also make excellent recording studios with high sound quality.



Events

This section is for relevant events to group members, either devoted to Musical Acoustics or containing a significant Musical Acoustics component. If you would like to see your event listed here then please get in touch with the editor.

MAG Events

I am pleased to announce several exciting events coming up in the MAG Calendar!

Friday 28th February 2014, 14:00 - 18:00: Creative Soundscapes 2014
Southern Branch in collaboration with the Musical Acoustics Group and the Brighton Science Festival

This is an exciting meeting that is particularly relevant to current concerns. I hope that many people will be interested. Places are limited, so please register now!

Peter Rogers: The role of soundscapes within sustainable acoustic design
Jian Kang: Design of urban elements to improve soundscapes - water as an example
Trevor Cox: Sonic Wonderland: A Scientific Odyssey of Sound
Michael Lowe: A demonstration of Aeolian Harps

For more information, please click here:

<http://www.ioa.org.uk/uploads/event-documents/Creative%20Soundscapes%202014.pdf>

This meeting will be held at:
**Friend's Meeting House,
Ship Street,
Brighton,
BN1 1AF**

Wednesday 26th March 2014, 09:30 - 17:00: Sound Recording Techniques and their Influences on Musical Composition, Interpretation, Performance and Appreciation
Musical Acoustics Group in collaboration with the Electroacoustics Group

Our first one-day conference of the year! This is looking to be a fantastic event and has taken a lot of planning to get going. We are hugely indebted to Trevor Cox, who

has taken responsibility for much of the organisation. Topics range from synthesis to ambisonics and from studio design to psychoacoustics. Certainly something for everyone then, so get booking now before we sell out!

For more information including a full programme, please click here:

<http://www.ioa.org.uk/uploads/event-documents/Sound%20Recording.pdf>

To book, please fill out this form and return to the IoA:

<http://www.ioa.org.uk/uploads/event-documents/Sound%20Recording%20Registration.pdf>

This event will be held at:

**Digital Performance Lab,
University of Salford
MediaCityUK,
Salford Quays,
M50 2HE**

Wednesday 16 April 2014 at 18:00: Video Games and the Right Temperament

London Branch in collaboration with the Musical Acoustics Group

This is a repeat of the highly successful Southern Branch event held in October 2013.

Dan Pope: Calling Cthulhu: A study of the sound design process for the video game Call of Cthulhu: The Wasted Land

Mike Wright: What is the Right Temperament in Music?

This event will be held at:

**WSP,
WSP House
70 Chancery Lane
London
WC2A 1AF**

Friday 4 July 2014, 10:00 - 16:00: The Dukes Hall Organ

London Branch in collaboration with the Musical Acoustics Group

We have a unique opportunity for MAG members to inspect the new organ installed in Duke's Hall of the Royal Academy of Music. I hope that you will join us for this

amazing event - please click on the link below for a sneak preview of the treats that are in store! More information to follow.

<https://www.pinterest.com/royalacadmusic/the-sir-elton-john-ray-cooper-organ/>

This event will be held at:

**Duke's Hall
Royal Academy of Music
Marylebone Road
London
NW1 5HT**

Sunday 20 September 2015 - Wednesday 23 September 2015

The Galpin Society in collaboration with the Musical Acoustics Group

Put these dates in your diaries now! The Galpin Society is hoping to run a four day conference in Cambridge in 2015 on Musical Instruments. If the event goes ahead, one day of those four will be devoted to Musical Instrument Acoustics and will be held in collaboration with the MAG. Further information to follow in later editions...

Other Events and Calls for Papers

In this section will appear details of events of interest to MAG members and Calls for Papers. If you know of any relevant events which do not appear in this section then please get in touch.

Second International Bagpipe Conference - 8th March 2014, Senate House, London

Perhaps one which will only be of interest to those (like myself) who have a fascination with organology, musical technique and ethnomusicology alongside acoustics. You can book tickets to the conference here:

http://store.london.ac.uk/browse/extra_info.asp?compid=1&modid=5&catid=34&prodid=565

International Symposium on Musical Acoustics (ISMA) - 7th-12th July 2014, Le Mans, France

Call for papers closes on the 3rd February 2014. This is an exciting conference and it should be of interest to everyone reading this! For more information please see the general letter advertising the conference on page 18 or see their website here:

<http://isma.univ-lemans.fr/en/index.html>

Featured Article

If you would like to write an article for the next issue, please email the editor.

Musical Acoustics at Cardiff

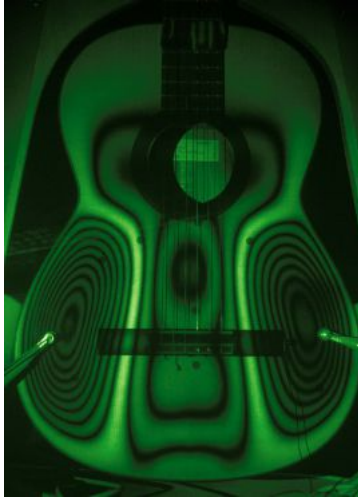


Figure 1: *Mode of a guitar visualised with holographic interferometry. The "contour lines" show the displacement amplitude of the guitar plate.*

The musical acoustics group at Cardiff was set up in the 1960s under the leadership of Professor Charles Taylor, whose public lectures on these subjects, especially his two sets of televised Royal Institution Christmas lectures, must have inspired a generation of musical acousticians. Research areas investigated by the group have covered various musical instruments (guitars, violins, new violin family and harpsichords), psychoacoustics (especially pitch perception and binaural localisation) and early forays into electroacoustic systems and music. These research activities have also helped support one



Figure 2: *The anechoic chamber at Cardiff in use for the measurement of sound fields and radiation efficiency.*

of the longest-standing Physics and Music undergraduate degree programmes available in the UK.

The group's activities centre now on the acoustics and psychoacoustics of the classical guitar with staff member Bernard Richardson and two PhD students, Ian Perry and Wil Roberts. Our main focus is the mechanics and acoustics of the instrument with an emphasis on trying to determine objective relationships between the construction of instruments and their playing and tonal qualities. We want to help guitar makers make informed decisions during the construction of an instrument. Previous studies have included the use of holographic interferometry (Figure 1) to visualise the modal properties of instruments (some in various stages of

construction), measurements of sound fields and computational work involving finite element modelling of the structural vibrations of the guitar body and boundary element methods for investigating radiated sound fields. The data collected has been used in the generation of simple models of the instrument for use in psychoacoustical investigations. Recently a 3-D scanning laser vibrometer has been purchased in Cardiff, which will open up possibilities of studying both of out-of-plane and in-plane vibrations of the complete instrument.

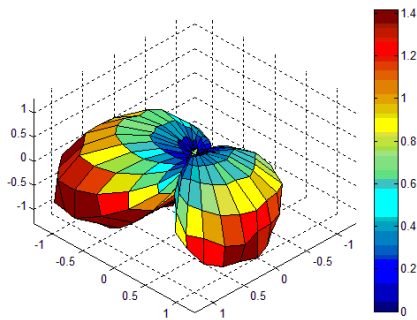


Figure 3: A dipole sound field measured from a guitar (210 Hz).

Our sound-field work has recently been extended to measure the radiation efficiency of plucked stringed instruments. The measurements are made in an anechoic chamber with

an impact hammer used to drive the guitar and a pair of roaming microphones to collect data on the sound fields (Figure 2). Data is subjected to a spherical-harmonic decomposition so that as well as determining the shape of the frequency-dependent sound fields (e.g. Figure 3) we can also determine the efficiency of the system in terms of monopole, dipole and higher-order sources. These investigations are yielding some intriguing results.

Although the mechanical and acoustical action of the guitar is now well understood, it is the various subtleties of this behaviour which ultimately distinguish one instrument from another. A critical aspect is the coupling between the strings and the body. If this coupling is too strong radiated partials can die too quickly, and if too weak the instrument becomes unresponsive (Figure 4). Psychoacoustical work is currently being done within the group to determine the just-noticeable differences in the time-varying spectra of plucked notes (frequencies and decay rates) and relate these to constructional features of the instrument. Our ultimate aim is to give greater guidance to guitar makers on material selection and the “fine tuning” of the construction of an instrument to help achieve consistency in production or the development of new sounds.

Bernard Richardson, Cardiff University

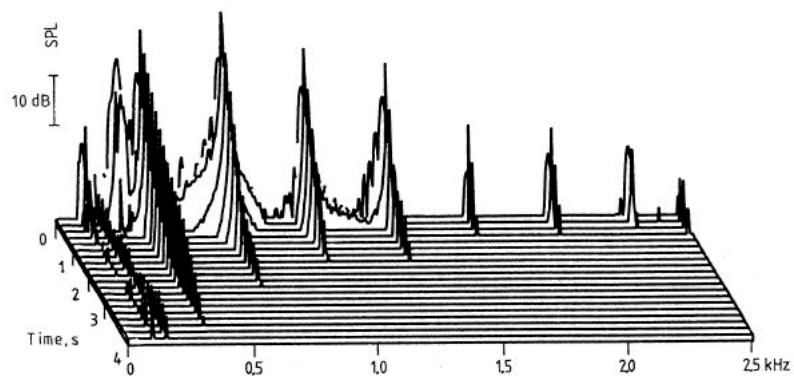


Figure 4: Short-term FFT (a "waterfall plot") of a guitar note showing the time-dependent spectrum.

Letters

This section is for open letters to the group, on any subject which you think merits discussion. If you wish to write to the group for the next issue, please contact the editor.

Dear MAG,

The International Symposium on Musical Acoustics (ISMA) edition 2014 will be held in Le Mans, France, 7-12 July 2014.

The conference will provide a good opportunity to present the latest research on the physics of musical instruments and voice, sound synthesis and analysis, perception of musical sounds, and the links between acoustics and instruments making. ISMA 2014 welcomes contributions in musical acoustics and closely related fields.

The congress is organised by the French Acoustical Society (SFA) and

will be hosted by Université du Maine (Le Mans, France) at ENSIM (Ecole Nationale Supérieure d'Ingénieurs du Mans). Two workshops will be organised during the congress at ITEM (Institut Technologique Européen des Métiers de la Musique, Le Mans) and at Cité de Musique (Paris) on the relationships between acoustics and instrument making.

Please visit the conference website : <http://isma.univ-lemans.fr/> for additional information and for submitting an abstract before the 3rd of February 2014.

Important dates :

- November 26, 2013 - Call for papers
- February 3, 2014 - Deadline for abstract submission
- February 21, 2014 - Abstract acceptance notification
- April 15, 2014 - Full paper submission deadline
- May 1, 2014 - Programme availability
- July 7-12, 2014 - ISMA 2014, Le Mans

We look forward to meeting you in Le Mans.

Francois Gautier and Joel Gilbert, Congress Chairmen On behalf of the ISMA 2014 Organising Committee

Dear MAG,

Acta Acustica united with Acustica

As members of the Institute of Acoustics we receive regular copies of the Institute's excellent house journal, *Acoustics Bulletin*. Not all IOA members are perhaps aware that, through the Institute's membership of the European Acoustics Association, we are also entitled to free online access to the journal *Acta Acustica united with Acustica*.

Acta Acustica united with Acustica is an international, peer-reviewed journal on acoustics. It publishes original articles on all subjects in the field of acoustics, including:

General linear acoustics, Nonlinear acoustics, Macrosonics, Aeroacoustics, Atmospheric sound, Underwater sound, Ultrasonics, Physical acoustics, Structural acoustics, Noise control, Active control, Environmental noise, Building acoustics, Room acoustics, Acoustic materials, Electroacoustics and Signal processing, Computational and Numerical acoustics, Hearing, Audiology and Psychoacoustics, Speech, Musical acoustics, Virtual acoustics, Auditory quality of systems, History of acoustics.

The journal, which is published six times per year, reports on original scientific research in acoustics and on engineering applications. It includes sci-

entific papers, technical and applied papers, book reviews, short communications, doctoral thesis abstracts, etc. From time to time special issues and review articles are also published.

MAG readers will notice that the subject list above includes Musical Acoustics, as well as Room Acoustics and several other topics of interest to our Group members. *Acta Acustica united with Acustica* is one of the major international journals in which IOA members publish academic papers. The current issue (November/December 2013) includes articles on acoustic models of horns, external tonehole interactions in woodwinds, and gestural strategies in harp performance.

To get access to the journal online, you will need an EAA Members' Activation Code, which can be obtained by emailing ioa@ioa.org. This can be used to register on the website <http://www.acta-acustica-united-with-acustica.com> (using the EAA MEMBER LOGIN tab). I am sure that MAG members will find much of interest in browsing past issues. Please also consider submitting articles to this journal, which IOA supports through its membership of the European Acoustics Association.

Murray Campbell MIOA

Dear MAG,

Pitch drift in a cappella choral singing – a PhD research project at the Open University – needs your help!

No doubt you have experienced times when your choir struggles to maintain the pitch when singing unaccompanied. In many circumstances the change passes unnoticed by the audience, if not by you, but the fact that it happens is always of concern. This research project focuses on possible causes of pitch drift other than those due to the music itself. This aspect was presented at the IOA Musical Acoustics Group July Meeting by Prof David Howard, from the University of York, with whom we are collaborating.

In order to establish some of the most likely reasons why pitch drift occurs the project needs to survey your opinions. To do this could you please complete a short questionnaire? The outcomes

of the survey, which will be completely anonymous, will inform a set of experiments. These will be undertaken with selected choirs over an extended period in their usual rehearsal venues.

Please go to <http://acoustics.open.ac.uk/pitchdrift> to access the survey. It will only take a few minutes and may be completed anonymously if you wish. However, if you want to be kept informed about the project and its progress you are very welcome to register your interest. If you would like further information about the project please email the research team at pitch-drift@open.ac.uk.

The researchers will take the opportunity to feed back their findings at appropriate points in the progress of the project.

Richard Seaton, PhD student at The Open University
Dr. Dennis Pim, lead supervisor at The Open University
Dr. David Sharp, supervisor at The Open University

Dear MAG,

You will all probably be aware from my introduction in MAG MAG issue 1 that the Musical Acoustics Group were in fact the first specialist group within the IOA. On formation of the Institute in 1974, musically inclined members of the Acoustics Group of the Institute of Physics and the British Acoustical Society had already formed what later became known as the MAG. I am pleased to note that we still have some mem-

bers of our Group who were around when the Institute came into existence. However, memories can fade with time, and from experience, these 'senior moments' crop up from time to time! The fact that IOA is approaching its 40th year has inspired some of our long-standing members, including Ralph Weston and Geoff Kerry to compile a history of the Institute for publication as part of the anniversary celebrations

next year. I was asked some time ago to find volunteers to send information so that it would be possible to write something on the history section covering the Musical Acoustics Group. The efforts of revitalising the Group have meant that efforts on searching out history took second priority. I am aware that historical stuff from Council minutes, Annual reports and Bulletins are presently being converted to electronic format. Whilst the output from these after sifting through may help form a brief overview, memories of relevant events etc may be better highlighted as separate anecdotes. These could include photos etc which will help enormously. I understand that the plan by Geoff is to produce an A4 size booklet with two columns per page. Photographs and charts may be included and "text boxes" may be used for de-

tail, anecdotes or ancillary information. The style will, in general be similar to the Bulletin.

Being a recent incumbent to the MAG, I am urgently looking for past 'memories' to include in our section on the history of the IOA. It would also seem that the archives also have some 'senior moments'. Old notes and records are not always readily to hand and what I have so far is limited. I only have the first five editions of 'Notes', Peter Dobbin's original newsletter from the early 90's. Copies of later editions would be most welcome as they do not exist in electronic form. I am also particularly looking for pre 1992 stuff which will almost certainly be in hard copy only. All contributions including 'anecdotal evidence' would be most welcome and I will look at all.

Mike Wright, MIOA

LinkedIn Roundup

The IoA MAG has a LinkedIn group where our members can discuss aspects of Musical Acoustics without waiting for the next publication of MAG MAG. You can join it here:

<http://www.linkedin.com/groups/Institute-Acoustics-Musical-Acoustics-Group-5114932>

The group has been quiet recently. Only one discussion to report; a rather involved debate on temperaments, started by **Mike Wright** and contributed to by **Didier Grassin** and **Owen Woods**. Something of interest to those microtonal piano enthusiasts out there!

Resources

There are various online resources on Musical Acoustics of which members may not be aware. If you find a useful website then please do email the editor and it will appear in the next edition.

Catgut Acoustical Society Journal - This journal, sadly now no longer being issued, has a wealth of information on mostly stringed instrument acoustics. The Catgut Acoustical Society (<http://catgutacoustical.org/>) in collaboration with Stanford University has now put all of the published journals and newsletters online for free. To access them go here:

<http://www.oac.cdlib.org/findaid/ark:/13030/c8gt5p1r/dsc/#ref1>

Acoustics in Practice - A new European Acoustics journal has been launched, which welcomes papers on Musical Acoustics. For more details see here:

<https://www.euracoustics.org/activities/acoustics-in-practice>

NEMO Online - For those (like me) interested in the unending problem of temperaments in music, this is an excellent resource. Those interested in this may also be interested in the SW Branch meeting where the group chair will be presenting on just such a topic (see page 12). NEMO Online's temperaments pages can be found here:

<http://nemo-online.org/bibliography/musical-scales-acoustics-temperament-and-tuning>

University of New South Wales - The UNSW website has some interesting resources on musical acoustics. Neville Fletcher (co-author of "The Physics of Musical Instruments") is an emeritus professor and their acoustics lab has done some very interesting work. Read about it here:

<http://www.phys.unsw.edu.au/music/>

Ears - Of especial interest to those involved with the Electroacoustics Group, this website also has some interesting resources on musical acoustics. See it here:

<http://www.ears.dmu.ac.uk/spip.php>

Picture on the Cover



This unusual looking instrument is a Saxonette. It may look like an Alto Clarinet, but it is actually a Soprano (note that there is no mouthpiece in this picture!). This one is in C. The curved metal barrel is intended to give a more comfortable playing position, whereas the curved metal bell is supposed to improve projection.

The Saxonette was a product of the spate of instrument development before the Great Depression, along with other "oddballs", such as the Conn-o-sax and the Octavin. This example was produced by the Buescher Company of Elkhart, Indiana, which was at the time one of the largest brass and woodwind manufacturers in the world (alongside names like Conn, Martin and King). Any clarinet nerds out there will note the seventh ring, making it an Extended Boehm System. No low Eb, but there is probably an Ab/Eb key on the left hand cluster. Sadly this is a very rare beast; all other Saxonettes that I have seen have been Albert System, which is a simpler system not found on modern orchestral clarinets. Various stencils (licensed copies, using old tooling) of Albert System Buescher instruments were made by other companies (notably Gretsch), but I haven't found another quite as lovely as this one.



Sadly, the Saxonette never caught on and few remember them. There are none on display in Musical Instrument Museums that I know of and nobody performs on them. This can only be a shame, because I think that this instrument is simply the prettiest clarinet ever made. I covet it and I wish that I'd had the funds to buy it (it went for £650), when it came up on eBay around eight years ago.