

Minutes of the William Herschel Society Committee Meeting held at the Herschel Museum of Astronomy on Monday 10<sup>th</sup> September 2018 at 7.30pm

(Note. The next scheduled meeting is on Monday 12<sup>th</sup> November at the Herschel Museum of Astronomy commencing 7.30pm)

Present: C Draper (CDr), Chairman; F Schlesinger (FS); R Holbeche (RH), Treasurer; S Holbeche (SH), Membership and Observing; A Symes (AS), Editor; B Robertson (BR); M Tabb (MT); Dr M Spring (MS); J Middleton (JM), Herschel Museum Administrator and J Foreman (JF), Minutes Secretary and website manager

1. Apologies and Welcome

Prof F Ring (FR); C Dixon (CDi), BPT Deputy Chief Executive and Head of Museums, and Dr Amy Frost, BPT Senior Curator

2. Minutes of the meeting held on Monday 9<sup>th</sup> July 2018

CDr referred to the minutes and asked if there were to be any amendments. There were none. Attention was drawn to the Action Table. Agenda items requiring comments as follows:

Action on MT to investigate cost of producing blanks for 7ft telescope. Reference to JF email to the Committee dated 9 September circulating MT's email of the same date providing an update on speculum metal mirrors. MT commented that he had received a further email from Brad Elder today quoting a cost of 300 dollars for two six inch mirrors which would include polishing them. CD enquired if this would include carriage and MT replied that this would be extra. SH advised that the cost of import duties should be taken in to consideration. RH suggested that a cost up to 500 dollars would be reasonable which was agreed. It was agreed that MT be authorised to go ahead. This Action now considered complete. New Action: To continue contact with Brad Elder to complete production of blanks. **See Action Table**

3. Chairman's Report

CDr reported that he had three items he wished to inform the Committee about.

a. Regarding the Caroline Herschel Lectureship, Bath University has agreed to organise the November event and would pay for Sarah's travel and subsistence. Sadly, Prof Carole Mundell has told CDr that she is unable to chair next year's selection process due to her busy diary. CDr commented that he will go back to her expressing his gratitude for getting the first selection launched with understanding regarding her workload situation. He added that with the first selection process accomplished, the next one should be more straightforward and a replacement for Carole an easier "sell". Finally, the plan would be to get the future Chair to present the prize to this year's winner.

b. Regarding "Starlit Skies" and light pollution, Tom Harper had sent an email to him and SH informing them of Peter Palframan who lived near Bath University who was keen to do something about the problem of light pollution. CDr commented that possibly this was someone we could work with and planned to organise a meeting with him.

c. CDr reported that he had visited the Royal Society along with the RAS Librarian to view their extensive Herschel collection and had found them very welcoming. There were also two academics visiting from Durham University who plan to do a study on John Herschel including other scientists of the 19<sup>th</sup> century and were interested in finding out how to get funding. He added that this meeting may lead to a conference

of some kind with the WHS as potential attendees. CDr commented that he had learnt that the Royal Society had done some organising of material but not in a fully digitised way. He explained that the plan was to identify all Herschel resources and informed JF that we would need in due course to draft a WHS website page called "Herschel Resources". **See Action Table**

#### 4. Finance Report

RH presented the report. See Appendix.

CDr referred to the Donation of £222.51 and asked if it is known from whom they are from and if the donators specified to what use the monies should be put. RH replied that the names were known but there had been no stipulation regarding use.

#### 5. Membership Report

SH presented the report. See Appendix.

#### 6. Journal

AS reported that the latest edition was complete and acknowledged FS help. FS commented that there might be a problem in getting the copies to the Post Office this coming Friday as he would be away but had some friends on standby. He asked if any committee member would be able to help in case of emergency. AS volunteered.

AS questioned the inclusion of the entire AGM papers that had taken up more than half the Journal and had meant dropping an article by a valued contributor. He added that such an inclusion should be under consideration next year. CDr commented that in the past there had been fewer papers. CDr emphasised that an important purpose of the Journal was the sharing of information of which the AGM papers were a good example. But we should discuss this question at the next meeting when all would have had a chance to read the new Journal. **See Action Table**. CDr added that the next edition must include the 2019 AGM agenda.

SH referred to those who asked to receive electronic information only and would receive pdf versions of the Journal (presently 25 members). FS queried if different subscription rates should apply to them. SH replied that this should not be the case. Finally, AS reported that he was presently collecting material for the next edition.

#### 7. Lecture Programme

AS presented the report. See Appendix.

AS referred to the Luke Lucas event of 7<sup>th</sup> September and commented that her hotel and expenses had been paid jointly by BRLSI and BPT. He added that someone needs to thank her to which CDr replied that he had. AS aired his annoyance at those attendees who chose to leave from the front of the audience before the end of the event and considered this very rude. BR remarked that in such cases there may be a legitimate reason. CDr commented that those who needed to leave before the end of a lecture should do so from the back and that this could be announced at the beginning of proceedings.

Regarding the 2019 programme, Prof Brian Warner for March if possible. Others for consideration were Chris North from Cardiff and Dr Jeremy Dunning-Davies who would give talk on the Past and Possible Future of Astrophysics and Cosmology. CDr enquired as to what Chris North would talk about and added that this would need to be ascertained before deciding to use him. Regarding Dr Jeremy Dunning-Davies, the BRLSI Science Group had considered him first as a speaker but had decided that

he was more suitable as a speaker for us. Consequently, this lecture would likely be a joint WHS/Science Group venture.

AS referred to the 4<sup>th</sup> January lecture which had a photography theme and this led to JM commenting that the Museum's theme for next year was photography. One speaker the Museum had in mind was Jerry Stone who would talk on astronomy and the solar system. Another was Bob Fosbury, ex ESA, who was very keen to be of help. CDr suggested that such lectures being considered by the Museum could be done jointly and asked that JM inform AS accordingly. **See Action Table.**

AS referred to the Bath University November Lecture and asked if the University would be preparing the poster. CDr replied that they would and that it only remained for us to do the publicity for our membership.

Finally, CDr referred to his recent email on the matter of the Astrofest Lecture Programme and a possible speaker for next year, Stuart Eves of The British Interplanetary Society, who could talk on William Herschel observing Uranus rings. CD asked AS to let him know when the 2019 programme was sorted out and a possible slot identified. AS replied that May could be a possible. **See Action Table.**

## 8. Museum

JM presented the report and emphasised that August was the best month for visitors and admission sales in the history of the Museum. Additionally, a remote smoke detector at a cost of £300 had been installed and an associated new panel at a cost of £2500. BR referred to a recent publication of the Bath Chronicle, 6<sup>th</sup> September, that included an article in the "Weekend" magazine supplement, "Mapping the Stars", on the original Wonder Woman of Space, Caroline Herschel. JM was congratulated on the Museum's contribution to the article. (Post Meeting Note. Information supplied by CDi: August figures 1551 (7013 YTD) and August admissions income £7,671 (£27,659 YTD)

## 9. Observing Report

SH presented the report. See Appendix.

Additionally, SH reported that there had been 4 observing cancellations since his report. There were 2 school visits planned and the Young Scientists with BRLSI had been increased from quarterly to monthly with the size of the intake tripled. There was also one teacher workshop which was proving useful in spreading information to other teachers about how astronomy could be used for Keystage 1 and Keystage 2.

Regarding the International Astronomical Union grant for Starlit Skies expected in September, nothing had been notified as yet.

CDr commented that SH had been advising the Museum regarding the purchase of equipment.

## 10. Music

MS referred to his "The Herschel Family Music Project (HFMP) Discussion Document. See Appendix. MS gave an introduction to his paper and some explanation to the main headings. CDr commented that one of the main reasons MS was invited on to the Committee was for such input regarding Herschel's music. There followed discussion on costs and suggestions regarding the use of volunteers that would help reduce expense. MS commented that a paid arrangement, for example using a student, would be more likely to get the right result. CDr referred to his initial comments by email that included a suggested breakdown of costs. BR suggested pursuing a research grant to which MS replied that some "seed funding" could lead a way into a research grant. CD

suggested making a start on the first 2 stages i.e. the setup and exploring where things are with the Society providing say up to £1000 as its half share and the volunteer input idea should be explored. This way forward was agreed by the Committee. **See Action Table**. AS commented that BRLSI had a lot of experience in getting volunteers including inputting to archives. MS added that he will approach the University after giving consideration of how best to put forward the case for funding. CDr asked RH for her comments as Treasurer to which she replied to let her know when costs more certain.

On other Herschel music topics, MS stated that the Holburne Museum was hosting a series of Herschel events due to Herschel's association with Thomas Gainsborough.

#### 11. Website Report and communications update

JF referred to the recent Luke Lucas evening and asked if any recording or photographs had been taken as such may be suitable for the WHS website. He added that a member of the WHS Facebook Group who had been unable to attend the event had hoped that a recording might be taken. JM commented that

JF reported that a person had been in touch via the Contacts page of the website asking if WHS members would be interested in a new book about collecting planispheres. He had just published "Card Planispheres, a Collector's Guide", an 84 page book of high definition colour pictures and has example from 1780 to 2000. He had added that a review of the book plus a number of sample images appear on the BBC Sky at Night website and that the book is available from a website for £29.50 including postage. JF asked if this should be followed up and a reply made. SH commented that Bath Astronomers had also received a similar message as would many other astronomy groups. SH added that he considered due to the probable wide circulation of this advert, an individual response was not necessary.

Regarding social media, the Facebook Group now has 50 members (an increase of 6 since the last meeting) and the Twitter blog, 244 members (an increase of 14 since the last meeting).

#### 12. AOB

a. BR reported that he had 4 copies of the speakers and programme complete with application form for the forthcoming Society for the History of Astronomy Autumn Conference to be held in Birmingham on Saturday 27<sup>th</sup> October. He asked if any of the Committee would like a copy.

b. BR referred to the news that WHS Vice-President Dame Jocelyn Bell-Burnell had been awarded the Special Breakthrough Prize in Fundamental Physics for her work on the discovery of Radio Pulsars and her very generous decision to donate the money (£2.3 million) to help under-represented students in physics (the award also recognises her scientific leadership).

c. AS raised the matter of advertising WHS events on websites and inclusion in astronomy magazines. He commented that he used the "Sky at Night" which would also on occasion do a feature on an WHS event. He added that he also used the Federation of Astronomical Societies (FAS) but apparently their role had changed to which CDr commented that FAS was now more involved with helping societies rather than advertising. CDr suggested using the Bath Chronicle but AS replied that BRLSI had tried this avenue but the response had been on the whole unrewarding. JM referred to the BPT volunteer's newsletters and volunteer notice boards at the BPT museums which could possibly promote events to the BPT volunteers.

SH suggested informing the Wiltshire Astronomical Society of events. JF commented that he publicised events through the WHS Twitter blog which was followed by many astronomy societies.

d. SH referred to a copy of the WHS Child Safeguarding Policy that had been circulated to the Committee for information and approval. It was agreed that CDr is the Child Protection Responsible Officer (CPRO). The Policy was agreed by the Committee. (Post Meeting Note. SH has included a copy of the Safeguarding Policy on the WHS website. See “The Society” sub-menus)

e. FS referred to the 167 copies he presently had of the Speculum/Journal (expected to reach 200 by end of week). He suggested taking some copies to the November Bath University Lecture. CD replied that handing out the WHS brochures would be a more useful way of publicity but take some copies if he wished. AS asked for some copies to give to speakers.

f. CDr asked JF to provide proposed dates for the 2019 Committee Meetings. **See Action Table.**

## Future Meeting Dates 2018

12 November

The meeting closed at 9.10pm

Meeting raised	Description of action	Placed on	Status
20.11.17	To investigate cost of producing blanks for 7ft telescope	MT	Complete
9.7.18	To reply to author of article on William Herschel in Germany	AS	Complete
9.7.18	To confirm November Peter Ford lecture	AS	Complete
9.7.18	To discuss with Tom Harper Starlit Skies video for BRLSI Cities theme	CDr	Ongoing
9.7.18	To investigate Prof Warner as potential speaker	AS	Ongoing
9.7.18	To pass info re Herschel scores held by Royal College of Organists to CDr	FR	Ongoing
9.7.18	To pass BAA contact details to RH to arrange cancellation of advert	FS	Ongoing
9.7.18	To notify BAA that RH is new WHS contact	FS	Complete
9.7.18	To notify SHA that SH is new WHS contact	FS	Complete
9.7.18	To circulate details of proposed speaker on Herschel observation of Uranus rings	CDr	Complete
10.9.18	To continue contact with Brad Elder re production of blanks	MT	
10.9.18	To draft a WHS website page “Herschel Resources”	JF	
10.9.18	To consider which AGM papers should be included in the Journal	Committee	
10.9.18	To inform AS of possible joint Museum/WHS lectures	JM	
10.9.18	To let CDr know when 2019 lecture programme complete	AS	
10.9.18	To take forward HFMP	MS	
10.9.18	To provide proposed dates for the 2019 Committee meetings	JF	

**See Appendices below**

## Finance Report to 31<sup>st</sup> Aug 2018

Since last Committee Meeting:

- Income has been greater than Expense (not including CH Prize Money)
- A separate account has been set up for the Caroline Herschel Prize Lectureship Fund

### Main Accounts

Since last Committee Meeting: 09/07/2018 – 31/08/2018

#### INCOME

<b>SUBSCRIPTION</b>	£160.00	Majority through Paypal
<b>DONATION</b>	£222.51	£100 from Shorland P M
<b>OTHER</b>	£38.95	Interest (Savings Account)
<b>TOTAL</b>	£421.46	

#### EXPENSE

<b>LECTURES, PUBLIC JOURNAL</b>	£60.00	Elim Church BPT
<b>ONLINE PAYMENT</b>	-	
<b>OTHER</b>	£5.01	14 Transactions
<b>TOTAL</b>	£65.01	

Reserves stand at: £14,674.01 as of 31/08/2018

### Caroline Herschel Prize Lectureship Funds

A separate savings account has been set up for the Caroline Herschel Lectureship Prize money allowing expenditure and any additional donations for this fund to be monitored more easily.

**Expense:** £500 prize money

**Reserves:** £9505.00

## Membership Report to 27<sup>th</sup> August 2018

14 expired memberships of which 1 deceased, 1 insufficient payment (now deemed donation) and 12 non-renewals (8 this year).

	7 July 2018	27 Aug 2018
Total Membership	253	<b>257</b>

Membership Type

Expiry Year	Individual (UK)	European Individual	Overseas Individual	Honorary	Volunteer HMoA (Hon)	Grand Total
2018	72*	2	4			78
2019	114	6	12			132
2020	5		1			6
2021		1	1			2
2022			1			1
2023		1				1
2026	1					1
Unlimited				22	14	36
Grand Total	192	10	19	22	14	257

\* 1 new member payment is pending but included in count.

Gift Aid returns made to HMRC on 22<sup>nd</sup> and 23<sup>rd</sup> May for donations of £1,011.50 and £106.00 respectively for tax year 2017-2018 were rejected as contact point was still Fred. Contact point changed to Rachel and HMRC claims need to be resubmitted in Rachel's name.

## Lecture Report to end of August 2018

Lectures since last committee meeting on 9<sup>th</sup> July:

13th July Dr Daniel Batcheldor - Paler Blue Dots: Technology Developments on ISS for Finding Earth 2.0

We were lucky to have Dr Daniel Batcheldor for the second time (last in 2014) to talk to us about the incredibly challenging problem of imaging exoplanets. He was brought up locally and attended King Edwards School, but now works at the Florida Institute of Technology.

Attendance 38 (28M, 3S, 7V). Takings £90.

Coming soon:

7<sup>th</sup> September Luke Lucas in conversation with Charles Draper – The Herschel Space Observatory – An Engineer's Story

5<sup>th</sup> October Terry Ransome – Joint WHS & BIS Lecture: To Mars via Kazakhstan Beagle2, lost on Mars but found 11 years later

? November Dr Sarah Rugheimer, Simons Research Fellow at the School of Earth and Environmental Sciences at the University of St Andrews – Caroline Herschel University Lecture: TBD

30<sup>th</sup> November - Peter Ford & Deepali Gaskell - Early Indian Astronomy and the Birth of Zero  
4<sup>th</sup> January 2019 Deborah Ireland - Hasselblad and the Moon Landing

Required for BRLSI Cities Theme (Running until June 2019):

A speaker on the subject of light pollution / dark skies relevant to the cities theme?

#### Museum Update for William Herschel Society

September 2018

Herschel visitor numbers are currently ahead of budget by nearly 1,500 as of end of August, also ahead of admission income target by approx. £2,300 after a very successful Summer.

It has been a struggle to resource the extended opening and Joe has covered much of this, so we will need to consider this carefully for next year.

We are still really struggling with gift aid and encouraging staff and volunteers to use this aspect of the new till. We will be approaching staff and volunteers to see what they might like us to purchase with gift aid funds (from a provided list), to try and improve our gift aid result and bring more income to the museum, that can be used to support the collection and interpretation.

We are working on two more grant applications for the museum, a small grant to produce some new interpretation panels and labels, and a large grant to support research and interpretation posts over the next three years, to feed into the long term vision for the museum in terms of layout, presentation, narratives, loans and acquisitions. To support this, we have managed to retrieve the audio guide content, which will feed into the new material.

The Herschel Advisory Panel meets next month and will be feeding in their thoughts and ideas regarding the longer term vision for the museum. As usual, Charles will attend as the WHS representative, feeding back our progress and enabling you to contribute any thoughts and ideas.

In terms of our programme, the exhibition continues to go well and we have Luke's lecture coming up at BRLSI this month and Carole's talk for young people in October half term, taking place at No. 1. The stargazing events have been a great success and again, thank you to those members who took part and gave our visitors such a great experience. We will be placing the key events into the 2019 programme, which is being confirmed later this month – please pass on any new dates and ideas to Joe.

In terms of facilities issues, we are looking into the leak in the gallery ceiling as a matter of urgency due to its potential impact on exhibition loans for next year – a visit to the Science Museum and Herschel family home are in progress, to support this work for 2019. We are also buying some new items for the office, including the fridge, key safes, desks, chairs and a lockable cabinet for some of the collections. The museums I.T consultants are also looking into wi-fi improvements for the cinema space and exhibition gallery, to help with future events and education workshops.

The museum has recently recruited a social media volunteer who is overseeing all our social media platforms for the short term and has had a very proactive start promoting and engaging with the museum's audience. We have also recently promoted the current exhibition and events on Radio Bristol, 'Whatsurname' history podcast and there will be a feature article in the Bath Chronicle magazine published Thursday 6<sup>th</sup> September about the museum and exhibition.

Thank you for your continued support, Amy and I are sorry not to be there this quarter but hope to attend the next meeting.

Many thanks,

Claire Dixon, Director of Museums

## **The Herschel Family Music Project (HFMP)**

### **Discussion Document**

- 1. Introduction and Context**
- 2. Online Digital Catalogue**
- 3. Further stages in the Project**

#### **1. Introduction and Context**

A new understanding of the economic functioning and social networking of musicians in provincial England in the late eighteenth-century will result from this project. Producing an online catalogue and archive of the music and musical activities of the Herschel family the data will facilitate an understanding of social model of the musical family in late Georgian England. More directly it will make knowledge of William Herschel's music available to performers and musicologists worldwide. William Herschel operated a successful multi-tasking musical family in Bath, one that he transferred from music to science. The project will result in a monograph on the Herschel family in the social context of provincial musicians in Georgian Britain. Further, it will provide a database of the musical activities of the family, and an online catalogue of all the Herschel family's musical works. There is at present no complete catalogue of William Herschel's works. His musical output remains dispersed and some of it is difficult to access. There is also music by Jacob Herschel that survives in some quantity. Music by Alexander is mentioned in family accounts but does not seem to have been identified as yet.

Aims/sub-goals:

1. To make Herschel's music available to the wider public and through an accessible online catalogue.
2. To develop a model for the social context of music making in provincial Britain
3. To understand the role and social positioning of performing families in urban Britain in the Georgian era.

Sub projects/objectives:

1. We will collect, catalogue, date, and digitally archive William Herschel's music to provide an online catalogue of his music.

2. We will create a database of the family's musical activities (concerts, teaching, publishing, etc.) in order to make understanding of Herschel's music available to the wider public.
2. We will analyse the history of the Herschel family's musical activities in Bath to give us a model of the social context of music making in provincial Britain.
3. We will study the economic, social and professional networking and intermarriage of musician families in Bath in the period 1767- to understand the role and social positioning of performing families in urban Britain in the Georgian era.

Project in 2 parts:

1. Online Digital Catalogue to be costed. Applications made for small grants to Bath Spa University (QR funding) and William Herschel Society in the Autumn of 2018
2. Monograph and analysis to be conditional on further grant from the Leverhulme Trust or AHRC.

The proposed first step in the Herschel Family Music Project would be the creation of an online digital catalogue of Herschel's music. The sources would be visited, assessed and copies obtained (6 months); at the same time the online catalogue would be constructed and set up for inputting at Bath Spa. A further 12 months would allow a researcher to input the information with some 400 hours of time at the computer. The obvious user community would be musicians wishing to play Herschel's music. The catalogue would be of value to researchers of eighteenth-century music. It could be in a stand-alone website, or a section of another one, with links to other interested parties. Once created, it could be an enduring asset without the need for much support. It should be maintained under the ownership of Bath Spa University and/or The William Herschel Society.

## 2. Online Digital Catalogue

The heart of the catalogue will be a composition list set out as a digital index to include all works by William Herschel to begin with. It could with little difficulty include other members of the Herschel family at a later stage but would initially start with William Herschel only. It is for this part of the project that funding is initially being sought.

The main fields of the composition list will be searchable online. A starting point for the composition list order is the 'List of Works' included in Frank Brown, *William Herschel, Musician and Composer* (Bath, Ralph Allen Press), pp. 23-5. This lists some 220 works. Twenty-one are noted as lost – though these should still appear in the catalogue based on what is known of them. There are more pieces that are now known – for instance the pieces simply listed by Brown as 'vocal works with orchestra' number at least 10. Thus the number of pieces might be as many as 250. The index list would need to include entries both for complete works and for individual movements. This is likely to augment the number by at least 90. Thus the list is likely to number nearer 400 items. Though this is a rough estimate it is a starting point for the purposes of costing.

The searchable fields to be included are:

1. **Composition number.** Each piece and each movement within a piece to be given a number using the Dewey system as a basis. Thus 1.01.01 would identify the work as a particular genre - larger scale symphony (1); .01 as Symphony no.1 and the last .01 as the first movement. The numbers 1.01 would be assigned to the whole Symphony. The main genre subdivisions would be into: symphonies, concertos, instrumental chamber music (both wind and strings), vocal music with instruments, vocal music

without instruments, organ/keyboard music. Other fields might include music for other solo instruments e.g. English Guittar.

2. **Title.** This would be based on a title given in the original but added in square brackets if there is no title.
3. **Instrumentation/genre** – this would work with the first number but be made explicit – so not all symphonies have wind parts and this information would be here.
4. **Key signature**
5. **Composer** – this would allow for disputed authorship and for the addition of works by other members of the Herschel family.
6. **Musical incipit.** This would allow the identification of the piece through its opening melodic material. No more than the first 5 bars would be included but in full score.
7. **Location of primary source,** with library sigla, catalogue number and page or folio number(s)
8. **Modern Recordings and Editions**

There would need to be a further area that would not need to be searchable:

9. **Notes:** this would allow for further information on the pieces and might consist of information on provenance and past locations of the pieces; information on date and original composition circumstances (where composed). Concordances and notes on the pieces. Listing of modern editions of works where they are available and a list of recordings.

The catalogue should be searchable though any of the fields except the last. Windows other than the index would also give information on the different sources, the composer's life, the project, how to use it, what is not included, contact, and 'what's new'. Models for this catalogue might include the Frescobaldi Thematic Catalogue Online (FTCO) provided by Duke University and Hugh MacDonald's *The Bizet Catalogue* ([digital.wustl.edu/bizet/ref/howtouse.html](http://digital.wustl.edu/bizet/ref/howtouse.html))

The searchable fields index list might look appear as basic table:

<b>Compos- ition number</b>	<b>Title</b>	<b>Instrumen- tation</b>	<b>Key sign- ature</b>	<b>Composer</b>	<b>Musical incipit</b>	<b>Source location</b>	<b>Modern editions and record- ings</b>
1.01	Symph- ony no.1	vln 1, vln 2, viola, cello	D major	William Herschel	First 5 bars in a separate area.	BL Add MS 49626, ff.4r-9v	Details of record- ings and editions

### 3. Further stages in the Project

A second step in the project will be the cataloguing of all mentions of the Herschel family's musical activities both in Bath and elsewhere. This can be an extension of the digital musical archive. By producing a digital archive of the music and musical activities of the Herschel family the data would enable the production of a monograph book for which the working title might be 'William Herschel the composer and the Herschel family of musicians in Bath 1767-1812'. This would be the basis of a Leverhulme Trust or AHRC research grant application.

