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# Measuring the Miraculous

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## Context

This project was conceived of by Drs. Charles West and Julia Hillner in order to gain both further information about what constituted a medieval miracle and also to establish the possibility of studying history through databases in this way. The project, which involved creating a database of medieval miracles, working in collaboration with a fellow student (funded separately by another body) Hannah Probert, will be accessible through the new Sheffield Medieval Portal and will also be connected to Undergraduate modules in medieval history.<sup>1</sup>

The question of what, precisely, constitutes a miracle has been a topic of some concern to historians but there is not yet an accepted definitive definition. It can certainly be argued that such a definition does not exist. By adding to the existing historiography the database demonstrates the range of events that the medieval population could define as 'miraculous' and shows change both dependent on locality and time.

Although the first stage of this project, in designing and building the database has been completed, along with the associated elements to aid in mapping and graphical representation of the data, Drs. West and Hillner hope to continue to develop and disseminate the information contained within it. This may take the form of future projects to add texts and authors to the database, the inclusion of the database within the teaching criteria for undergraduate modules, the accessibility of the database to researchers outside the University of Sheffield, and the presentation of reports and articles based on the database to conferences and journals.

## Research Questions and Methodology

One of the central questions which this project set out to answer was the degree to which such an endeavour is possible. The practice of turning qualitative data such as miracle stories into quantitative data the likes of which can be accessed and manipulated through databases is of increasing interest to historians. The work which has been done on this database demonstrates that although data analysis of this nature can be done, it is important to understand its limits. An awareness of the texts beyond viewing them as simple repositories of key pieces of information is central to both the creation and use of such databases.

The creation of the database began with a thorough analysis of the six source texts which provided us with a sense of the elements of the miracle stories. As such a project had not been attempted prior to this, we had to break the books down to a very basic level. One of the most important tasks, for example was establishing the different miracle categories. These categories would eventually become a significant element of the database and would form their own table within it:

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<sup>1</sup> [Medieval portal](#)

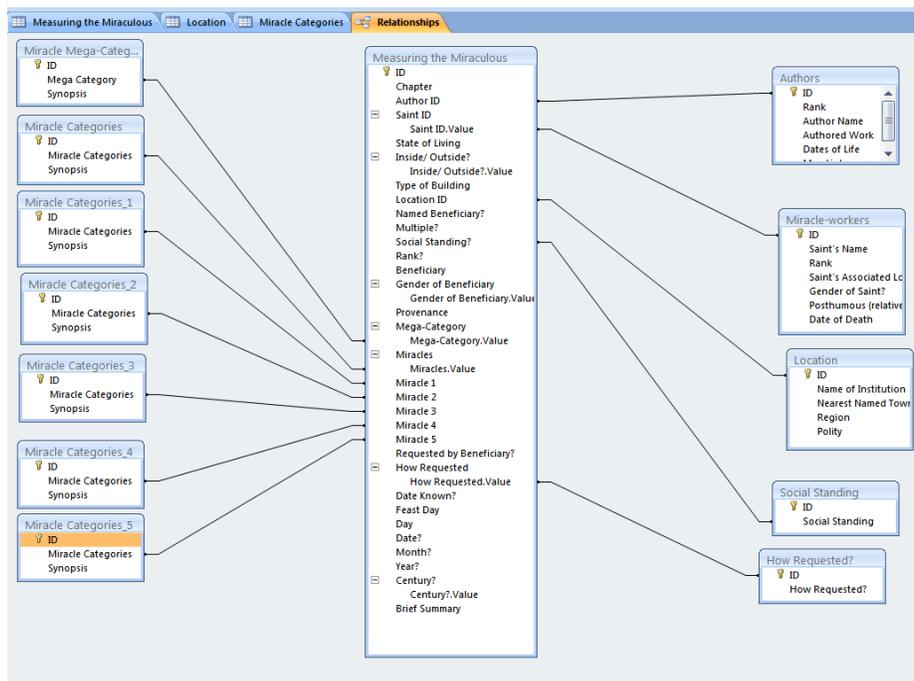
ID	Miracle Categories	Synopsis
1	Blind Healing	The healing of blindness.
2	Deaf Healing	The healing of deafness.
3	Mute Healing	Recovery of the ability to talk.
4	Paralysis Healing	The healing of paralysis.
5	Deformity Healing	The healing of the deformed (n.b. Includes all deformities, regardless of body position e.g. hunchbacks and clawed hand)
6	Lame Healing	The healing of those who are lame (find walking difficult). N.b. Often the deformed are lame because of their deformity
7	Fever Healing	The healing of fevers, often malarial (tertian or quartain).
8	Spasm Healing	The healing of what the 'Greeks call "spasms"' (Einhard IV.10): shaking diseases such as Parkinson's.
9	Animal Healing	The healing of animals.
10	Pregnancy Healing	The healing of pregnancy related illnesses, or aid with the business of conception.
11	Skin Disease Healing	The healing of leprosy and skin disease.
12	Animal Resurrection	The resurrection of dead animals.
13	Resurrection	The resurrection of dead humans.
14	Other Healing	Healings which do not fit in the above 13 categories.
15	Dream Vision	Visions that are indicated to have happened whilst the beneficiary was asleep.
16	Waking Vision	Visions that are indicated to have happened whilst the beneficiary was awake.
17	Other Vision	Visions where it is not clear whether the beneficiary was asleep or awake.
18	Prophecy	The prediction of future events.
19	Clairvoyance	The knowledge of things that could not be known by natural means.
20	Exorcism	The expulsion of demons from the possessed: often related to mental illness.
21	Possession	The possession of humans by demons.
22	Rescue of Prisoners	The supernatural freeing of prisoners.
23	Protection	Supernatural protection afforded to beneficiaries.
24	Smiting	Overwhelming punishment by supernatural power: the 'beneficiary' dies or his descendants are punished to the nth gen
25	Minor Smiting	Attenuated punishment by supernatural power.
26	Transfiguration	The ability of demons and saints to become other beings: animals, humans. Also the changing of items into other items (
27	Object Creation	The creation of objects.
28	Recovery of Lost Objects	The recovery of objects previously lost, unfindable or unreachable.
29	Spontaneous Combustion	The creation of fire without obvious natural cause.
30	Weather	The altering of the weather faster than natural laws permit.
31	Animation of Inanimate Objects	Objects acting as if they had some motive force.
32	Olfactory Event	Strange smells.
33	Other	Unassignable miracles.
*	(New)	

Following our analysis of the texts we decided that each individual miracle consisted of around forty separate elements which formed groups:

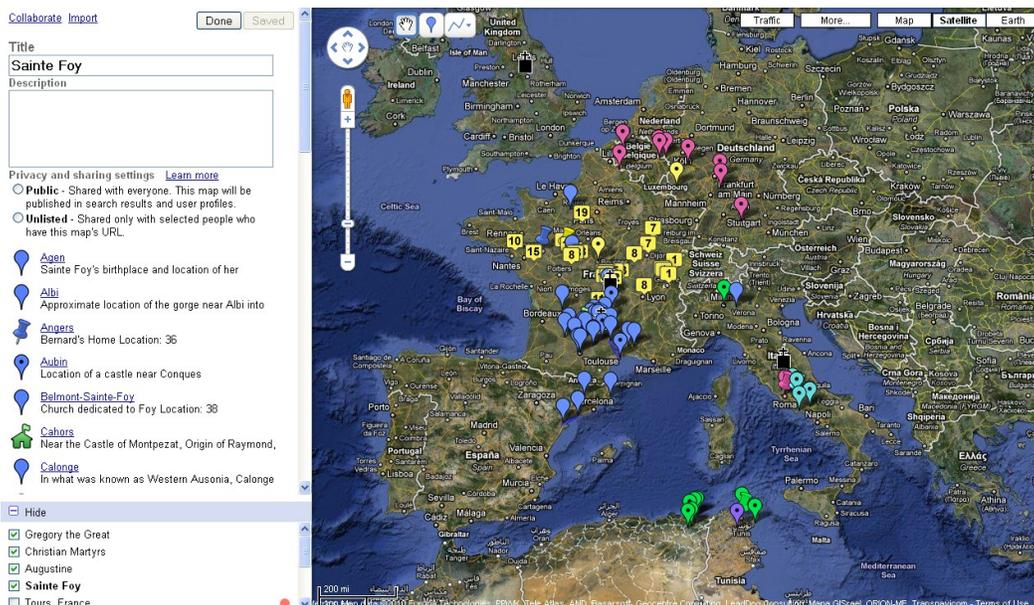
- Information relating to the text itself, such as the chapter and author
- Information relating to the miracle worker
- Information relating to the beneficiary of the miracle
- Information relating to the location of the miracle
- Information relating to the type of miracle itself, including how it was requested
- Information relating to the date of the miracle

Each record also then contained a summary of the miracle story, which included all data which we judged unable to be broken down in a quantitative manner, for example a miracle which involves rescue by pirates is included within the 'Rescue of Prisoners' category, but the mention of pirates is included in the summary.

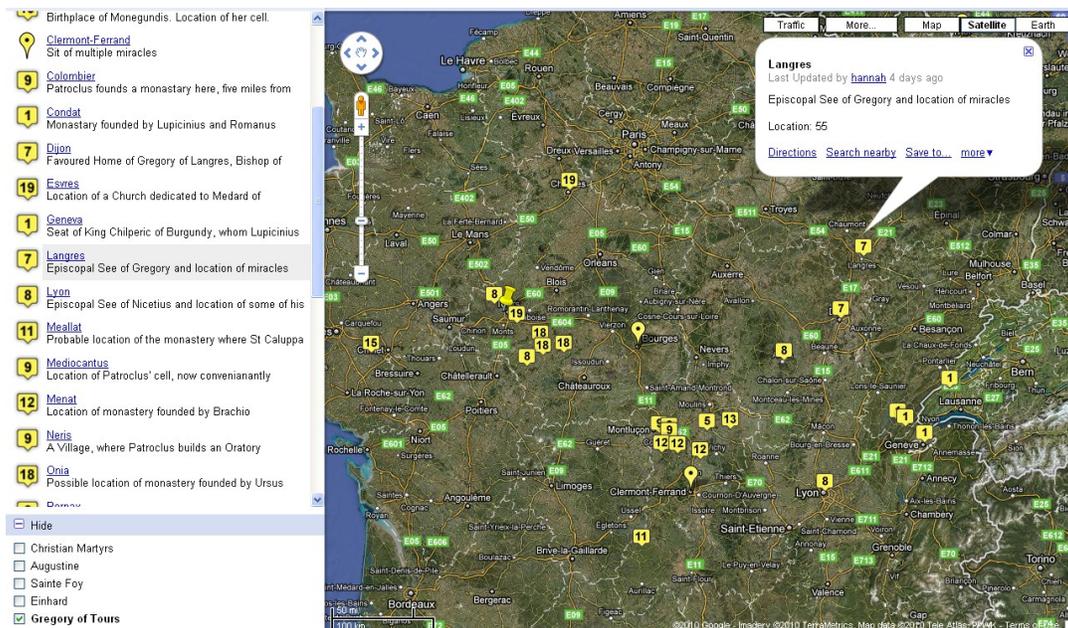
Some of the data was replicated across multiple categories, for example the author, miracle worker and location can all apply to multiple miracles. These elements were then placed in separate tables, which link to the main database – as shown in this Relationships diagram:



Having created the database, which can be used to search for information and to create charts, we discovered that the chart building facility in Microsoft Access was unsuitable to the task, and so I built a graph creator in Microsoft Excel, which is designed specifically for this project. At the same time Hannah used Google Maps to plot the locations, in which miracles occurred, by author, and the provenance of the beneficiary. In some cases locations had to be approximated, based on the information within the texts and from records discovered online.



This is a map containing the miracles performed by all the Saints with colours relating to authors.<sup>2</sup> Each point on the map contains information about the miracles which occurred there, as can be seen below. The maps can also be viewed all together or by selection of author. The next map shows a section of the Gregory of Tours map, in which the points are further clarified by the inclusion of numbers, relating to the different Saints within this text.



These maps can then be used for a variety of purposes, they will act as a teaching tool, allowing students who may be unfamiliar with geographical locations to understand the context of these miracles and then use the maps to perform tasks such as measuring distance between locations. These maps can also act as genuine research tools, for example a preliminary analysis of the maps relating to Einhard suggests that those seeking miracles primarily travelled by river when they lived outside the locality. This would also explain the gap in the overall Miracle Map which appears to relate to the path of the River Seine (maybe relating to the cults of St. Denis and St. Remi), thus indicating not only the provincialism of such Saints but also providing more information about how information and ideas travelled during the Medieval period.

<sup>2</sup> [Miracle Maps](#)

## Findings

There have, beyond what has already been included, been several initial findings from this project, as well as encouraging prospects for the further development of this project as an important tool in Undergraduate learning and outside research. The initial finding is the possibility of combining History with databases to enable this kind of project. Although we have discovered obvious limitations to this approach to history, we have also established the great rewards which can come from it.

A database of this kind can be used to answer research questions by allowing quick access to quantitative questions, for example how many miracles which are classed as 'Healing' occur relative to the other categories, both by author and overall (see graph below). It does not replace the need for knowledge of the texts, to understand tone and context, but it can act as a weapon in the researcher's arsenal in breaking down these texts for information and presenting findings.

Secondly we have further established information regarding the locality of Miracle workers but also, importantly the differing behaviour and personalities of such saints, in a way which stands to challenge the work of authors such as Walter Goffart. As an attempt to study miracles in this way has never been attempted over such a broad basis very fundamental ideas, such as the chronological shifts in the very meaning of what a miracle is, which the database demonstrates can offer significant benefits to the historiography of this period and topic.

This database will hopefully become a long running project contributing to the Undergraduate understanding of history and being a tool of great use to further research both within and without the University

This is one section of the database.

ID	Chapter	Author ID	Saint ID	State of Living	Inside/ Outside	Type of Location	Location	Name	Multi?	Social St.	Rank?	Beneficiary	Gender
1	XXII.8	2	10, 11	Posthumous	Inside	Shrine	5	No	No	Unclear			Male
2	XXII.8	2	10, 11	Posthumous	Unclear	Shrine	5	Yes	No	Clerical	Bishop	Ambrose	Male
3	XXII.8	2	53	Neither	Inside	Lodgings	1	Yes	No	Lay	Advocate	Innocentius	Male
4	XXII.8	2	53	Neither	Inside	Baptistry	1	Yes	No	Lay	Noble	Innocentia	Female
5	XXII.8	2	12	Neither	Unclear		1	No	No	Unclear			Male
6	XXII.8	2	53	Neither	Unclear		9	No	No	Unclear			Male
7	XXII.8	2	53	Posthumous	Unclear		23	Yes	No	Lay	Captain	Hesperius	Male
8	XXII.8	2	53	Neither	Unclear		11	No	No	Unclear			Male
9	XXII.8	2	10, 11	Posthumous	Unclear	Shrine	14	No	No	Unclear			Male
10	XXII.8	2	19	Living	Unclear		13	No	No	Unclear	Virgin		Female
11	XXII.8	2	20	Living	Unclear		11	No	No	Unclear			Unclear
12	XXII.8	2	15	Posthumous	Outside	Shrine	13	Yes	No	Lay	Cobbler	Florentius	Male
13	XXII.8	2	16, 21	Living	Outside		10	No	No	Unclear			Female
14	XXII.8	2	16	Posthumous	Inside	Shrine	33	Yes	No	Clerical	Bishop	Lucillus	Male
15	XXII.8	2	16, 22	Living	Inside	Shrine	11	Yes	No	Clerical	Priest	Eucharis	Male
16	XXII.8	2	16	Posthumous	Unclear	Shrine	12	No	No	Unclear			Male
17	XXII.8	2	16	Posthumous	Unclear	Shrine	12	No	No	Lay	Citizen		Male
18	XXII.8	2	16	Posthumous	Unclear	Shrine	3	No	No	Lay			Male
19	XXII.8	2	16	Posthumous	Unclear	Shrine	3	Yes	No	Clerical	Votress		Female
20	XXII.8	2	16	Posthumous	Inside	Shrine	31	No	No	Lay			Female
21	XXII.8	2	16	Posthumous	Inside	Shrine	31	No	No	Lay			Male
22	XXII.8	2	16	Posthumous	Inside	Shrine	22	No	No	Lay			Male
23	XXII.8	2	16	Posthumous	Inside	House	28	Yes	No	Lay	Noble	Petronia	Female
24	XXII.8	2	16	Posthumous	Inside	Shrine	31	Yes	No	Lay	Noble	Paul	Male
25	XXII.8	2	16	Posthumous	Inside	Shrine	31	No	No	Lay	Noble		Female
26	XXII.8	2	16	Posthumous	Inside	Shrine	12	No	No	Lay			Male
27	IV.1	1	1	Posthumous	Inside	Chapel	21	Yes	No	Lay	Chamberlain	Drogo	Male
28	IV.2	1	1	Posthumous	Inside	Chapel	21	Yes	No, Yes	Lay	Builder	Gerlach	Male
29	IV.3	1	1	Posthumous	Outside	Chapel	21	No	No	Lay			Female
30	IV.4	1	1	Posthumous	Inside	Chapel	21	No	No	Lay	Beggar		Male
31	IV.5	1	1	Posthumous	Outside	Cemetery	21	No	No	Lay			Female
32	IV.6	1	1	Posthumous	Inside	Chapel	21	No	No	Lay			Male
33	IV.7	1	1	Posthumous	Inside	Chapel	21	No	No	Lay			Female
34	IV.8-10	1	1, 2	Posthumous	Outside	Meadow	15	No	No	Unclear			Male
35	IV.10	1	1, 2	Posthumous	Inside	Church	19	Yes	No	Unclear		Dominic	Male
36	IV.10	1	1, 2	Posthumous	Inside	Church	19	Yes	No	Unclear		Gerrada	Female

The Medieval Portal showing the link to the Miracles database

The University Of Sheffield.

Research Community MARS Learning

The Miracles Database

The Miraculous Medieval North

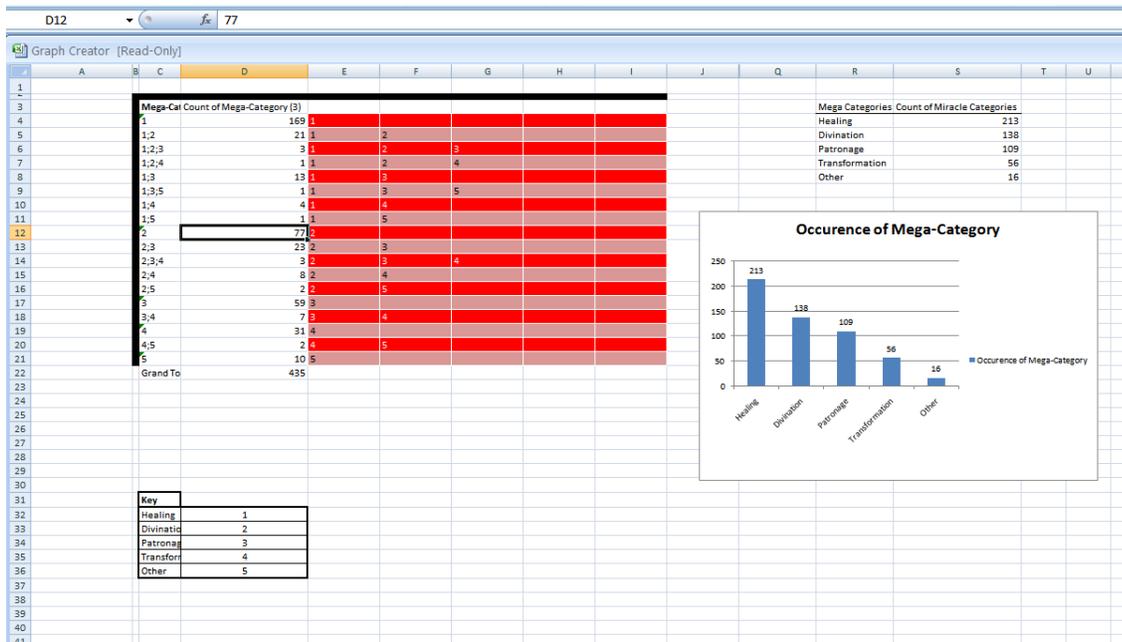
The Manor Lodge Project

Welcome to the University of Sheffield Medieval Portal...

...bringing together the departments of History, English and Archaeology in the study of the Medieval era

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The Graph Creator, showing the ratios of 'Mega-Categories'. The Graph Creator allows for a variety of information to be extracted from the table to create different graphs.



The Authors table, a separate element within the database, showing the texts involved, and also including links to the maps relating to each author.

The screenshot shows the Microsoft Access interface for the 'Miracles : Database (Access 2007)'. The 'Authors' table is displayed, showing columns for ID, Rank, Author Name, Authored Work, Dates of Life, and a link to a map. The table contains 11 records, including authors like Abbot Einhard, Bishop Augustine, and Pope Gregory the Great.

ID	Rank	Author Name	Authored Work	Dates of Life	Map Link
1	Abbot	Einhard	The Translation and Miracles of the Blessed Martyrs, Marcellinus and Peter	775-840	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
2	Bishop	Augustine	The City of God	354-430	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
3	Pope	Gregory the Great	Life and Miracles of St. Benedict	540-604	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
4	Unknown	Bernard of Angers	Liber Miraculorum de Sainte Foy	11th Century	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
5	Monk?	Unknown	Liber Miraculorum de Sainte Foy	11th Century	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
6	Unknown	Unknown	Passio of Sainte Foy	5th Century ?	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
7	Monk	Unknown	Translatio de Sainte Foy	11th Century	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
8	Bishop	Gregory of Tours	Life of the Fathers	c. 538-594	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
9	Saint	Perpetua	Acts of the Christian Martyrs	?- c.203	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
10	Saint	Saturus	Acts of the Christian Martyrs	?- c.203	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
11	Unknown	Unknown	Acts of the Christian Martyrs	3rd Century?	<a href="http://maps.google.co.uk">http://maps.google.co.uk</a>
*	(New)				