



Now to move on to discussing the Arches project. One gap in the heritage field that we have heard about over and over is that heritage agencies worldwide often lack fundamental facts needed to protect their heritage—namely, they are often challenged to maintain up-to-date inventories that identify essential information about their heritage such as a site’s exact location and extent.

We decided in 2011 to join with our partner World Monuments Fund to develop a modern software system to address a basic need.

As you know very well, inventories are an essential tool for providing for heritage protection in day-to-day planning with respect to:

- development
- for resource management like what State Parks does
- For disaster preparedness and response
- and for promoting public awareness and appreciation of cultural resources



Arches is...

a modern open-source software platform
purpose-built for organizations to **manage**
inventories of cultural heritage places

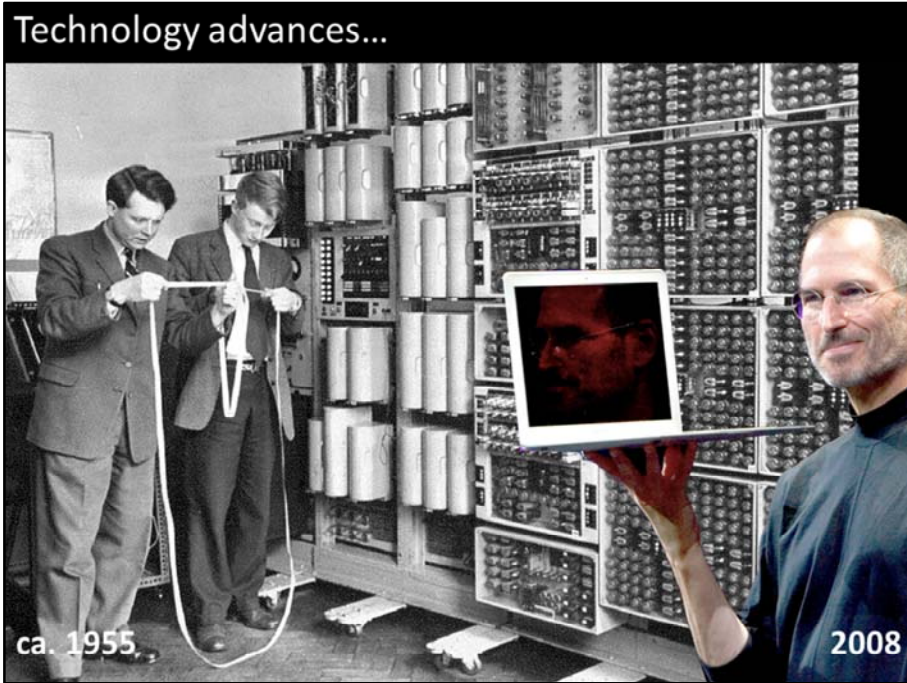
So, what is Arches?

- ▶ **a comprehensive platform purpose-built for organizations to manage inventories of cultural heritage places**





SHARING TO CREATE ONE THING THAT'S BETTER FOR ALL



The **Harwell Dekatron computer**, later known as the **Wolverhampton Instrument for Teaching Computing from Harwell (WITCH)**, and Steve Jobs at launch of MacBook Air.



Here are some of the conservation-related activities I'm talking about... all of these people have clipboards because they're collecting data in the field. And all too often...

Standards to make data compatible, shareable...



ONE DESIGN PRINCIPLE TO EMPHASIZE:

The use of proprietary and nonstandard data formats often leads to the inability to combine or compare datasets or share data with other systems, frequently because of obsolescence. As the railroad industry figured out more than 150 years ago, the key to widespread transmission of goods and passengers is standardization. The same is true today for combining and sharing heritage data.

It's all about managing cultural heritage data...

mock_data.xls - OpenOffice.org Calc

Find

P108 35,44565

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	SiteName	Features.Feature	ID	SiteNo	Feature	Period	Surf	Volume	Area	Height	Period	FieldID	East	North	Lat	Lon	Historic
2	wad (al) 8 - 188 01-8208	87) Saffatic Inscription	37366972	3614004	135	66	66135	0	18 (6)	Unspecified Inscription	87) Saffatic Inscription	364444	1149904	31.92554	37.26902		
3	BADAR	81) Arabic Inscription	726172513	3614004	129	66	66129	0	18 (6)	Unspecified Inscription	81) Arabic Inscription	364444	1149904	31.92554	37.26902		
4	BWEIREH	18) Ruin	772619620	3614004	18	65	6518	0	18 (6)	Unspecified Structure	18) Ruin	364444	1149904	31.92554	37.26902		
5	SA'IDIYIN	76) Flint Knapping Site	167977660	3614004	76	10	1076	4	3 (10)	Pre-pottery Neolithic B	76) Flint Knapping Site	364444	1149904	31.92554	37.26902		
6	FREIWAN	01) Sherd / Flint Scatter	209679362	2103092	01	5	501	1	2 (5)	Eppesolithic	01) Sherd / Flint Scatter	213500	1037400	30.92668	35.66527		c:\UAD\GIS\EP103092.N
7	NWWS 126	01) Sherd / Flint Scatter	907857178	2103092	01	39	3901	1	10 (39)	Nabassan	01) Sherd / Flint Scatter	213500	1037400	30.92668	35.66527		c:\UAD\GIS\NAB2103092.N
8	RUHAB	58) Road	1013602257	2103092	58	65	6558	0	18 (6)	Unspecified Structure	58) Road	213500	1037400	30.92668	35.66527		c:\UAD\GIS\LUN2103092.N
9	NVSGNAS SITE 107	01) Sherd / Flint Scatter	718869532	1963030	01	63	6301	0	18 (6)	Unspecified Flints	01) Sherd / Flint Scatter	194500	1037900	30.93174	35.46549		c:\UAD\GIS\LUPOT1963030.N
10	NWB E.S.P. N 44	21) Camp / Nomadic Camp	784797933	1891013	21	61	6121	1	17 (61)	Modern (1915-1950)	21) Camp / Nomadic Camp	185944	914375	29.81763	35.37511		c:\UAD\GIS\NWB1891013.N
11	NWWS 1004	01) Sherd / Flint Scatter	1014653064	2302112	01	5	501	4	1 (3)	Mode Paleolithic	01) Sherd / Flint Scatter	232200	1028150	30.84242	35.86035		c:\UAD\GIS\LUPOT2302112.N
12	JUDE'ITTA	01) Sherd / Flint Scatter	1376437967	2302112	01	63	6301	0	18 (6)	Unspecified Flints	01) Sherd / Flint Scatter	232200	1028150	30.84242	35.86035		c:\UAD\GIS\LUPOT2302112.N
13	NWWS 1004	76) Flint Knapping Site	1466164435	2302112	76	63	6376	0	18 (6)	Unspecified Flints	76) Flint Knapping Site	232200	1028150	30.84242	35.86035		c:\UAD\GIS\LUPOT2302112.N
14	AKKA	41) Hamlet / Farmstead	729438712	2517103	41	61	6141	1	17 (61)	Modern (1915-1950)	41) Hamlet / Farmstead	254320	1174000	32.1563	36.10396		
15	JUDE'ITTA	62) Animal Pen	818910664	2517103	62	61	6162	1	17 (61)	Modern (1915-1950)	62) Animal Pen	254320	1174000	32.1563	36.10396		
16	NUNJS SITE 311	62) Animal Pen	969644779	2517103	62	65	6562	0	18 (6)	Unspecified Structure	62) Animal Pen	254320	1174000	32.1563	36.10396		
17	NVSITE 2791.001	65) Cam	1156481862	2791001	65	65	6565	0	18 (6)	Unspecified Structure	65) Cam	275400	914700	29.81618	36.30058		c:\UAD\GIS\NUN2791001.N
18	HATTIN	01) Sherd / Flint Scatter	172215157	2422003	01	49	4901	1	14 (49)	Umayyad	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\UMAY2422003.N
19	QURBINA	52) Ostran	729471707	2422003	52	65	6552	0	18 (6)	Unspecified Structure	52) Ostran	240000	1224600	32.61354	35.9559		c:\UAD\GIS\LUN2422003.N
20	GHARANADAL	01) Sherd / Flint Scatter	1128800793	2422003	01	56	5601	4	15 (56)	Mamluk	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\MAM2422003.N
21	MAGHE'YR ESH-SHARQIYEH	01) Sherd / Flint Scatter	1236052735	2422003	01	38	3801	16	9 (38)	Late Hellenistic	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\HEL2422003.N
22	RAKIN	01) Sherd / Flint Scatter	1362319216	2422003	01	44	4401	2	11 (44)	Early Roman	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\EROM2422003.N
23	KIBDEH	01) Sherd / Flint Scatter	1587576987	2422003	01	31	3101	2	8 (31)	Iron I	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\IR12422003.N
24	MAGHE'YR ESH-SHARQIYEH	01) Sherd / Flint Scatter	1613226615	2422003	01	50	5001	4	14 (50)	Abbasid/Fatimid	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\ABF2422003.N
25	ABU HARAB	01) Sherd / Flint Scatter	1756141539	2422003	01	46	4601	1	12 (46)	Byzantine	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\BYZ2422003.N
26	MAGHE'YR ESH-SHARQIYEH	01) Sherd / Flint Scatter	1765774457	2422003	01	51	5101	2	14 (51)	Abbasid	01) Sherd / Flint Scatter	240000	1224600	32.61354	35.9559		c:\UAD\GIS\ABF2422003.N
27	MSHAYTA	01) Sherd / Flint Scatter	1330216414	1992002	01	15	1501	8	4 (15)	Chalcolithic	01) Sherd / Flint Scatter	198300	809600	29.95482	35.47223		c:\UAD\GIS\CHAL1992002.N
28	NVSITE 4318.008	67) Stone Fences / Enclosures	1681614033	4318008	67	65	6567	0	18 (6)	Unspecified Structure	67) Stone Fences / Enclosures	432000	1188800	32.26234	37.99027		c:\UAD\GIS\LUN4318008.N





**Purpose-built to manage
heritage inventory data over the
long term**

Four QUALITIES.... ONE SENTENCE ABOUT EACH...

Let me briefly to into each of these 4 important features....



- ▶ software available at **no cost** using **open-source** license **with** improvements to be **shared** by all
- ▶ robust **geospatial** mapping and processing
- ▶ highly customizable **options for opening and limiting access** to the inventory
- ▶ **standards- and semantic-based** to promote data exchange and to ensure data longevity
- ▶ module to **manage vocabularies**



UPDATES: [ARCHES v4: a data-collection app & much, much more >](#) [Arches presentation at CAA Oslo in April 2016 >](#)

What is Arches?



Innovative

Arches uses semantic technologies — data structured to support relationships and a module to manage terminologies.



Purpose built

Arches was built specifically for the cultural heritage field and designed by heritage professionals.



Open source

The code is open source and can be freely downloaded, customized and extended to meet individual needs.

The screenshot shows a Google Groups page for the 'Arches Project' group. The page header includes the Google logo, a search bar, and navigation options like 'Groups', 'Mark all as read', 'Actions', and 'Filter'. The group name 'Arches Project' is prominently displayed, along with the text '32 of 389 topics (99+ unread)'. Below this, there is a welcome message and a list of discussion topics. Each topic entry includes a checkbox, a title, the author's name, the number of posts, the number of views, and the date.

Topic Title	Author	Posts	Views	Date
Signing in (8)	By Edmund Lee	123 posts	1090 views	Feb 20
IMPLEMENTATION CONSIDERATIONS—A LIST (9)	By Alison Dalry	10 posts	110 views	Feb 15
Arches v4: A data collection app and much, much more... (4)	By Alison Dalry	4 posts	12 views	Mar 1
Installing Dependencies and Arches 3.0 for novices and very non technical types (3)	By Nicole Bauer	3 posts	15 views	Feb 27
Guidance needed... (1)	By Abdul Mathur	1 post	8 views	Feb 25
Debugging load_resources (4)	By Darcy Christ	4 posts	8 views	Feb 24
Cannot use newly entered concept on RDM whenever uploading a .arches file (4)	By Joel Alder	4 posts	7 views	Feb 22
Routing arches hip under subdirectory (2)	By Darcy Christ	2 posts	10 views	Feb 22
cannot identify image file «MemoryUploadedFile (2)	By Darcy Christ	2 posts	10 views	Feb 19
Export/import data at resource graphs upgrades (2)	By Bojan Kastelic	2 posts	14 views	Feb 18
RE: [Arches] Re: Creating a new resource - Intangible heritage (1)	By Carlisle, Philip	1 post	10 views	Feb 18
Storing related project / contract information (6)	By AA	6 posts	23 views	Feb 17
Creating .Arches files (10)				

Add numbers...

New development Arches Version 4

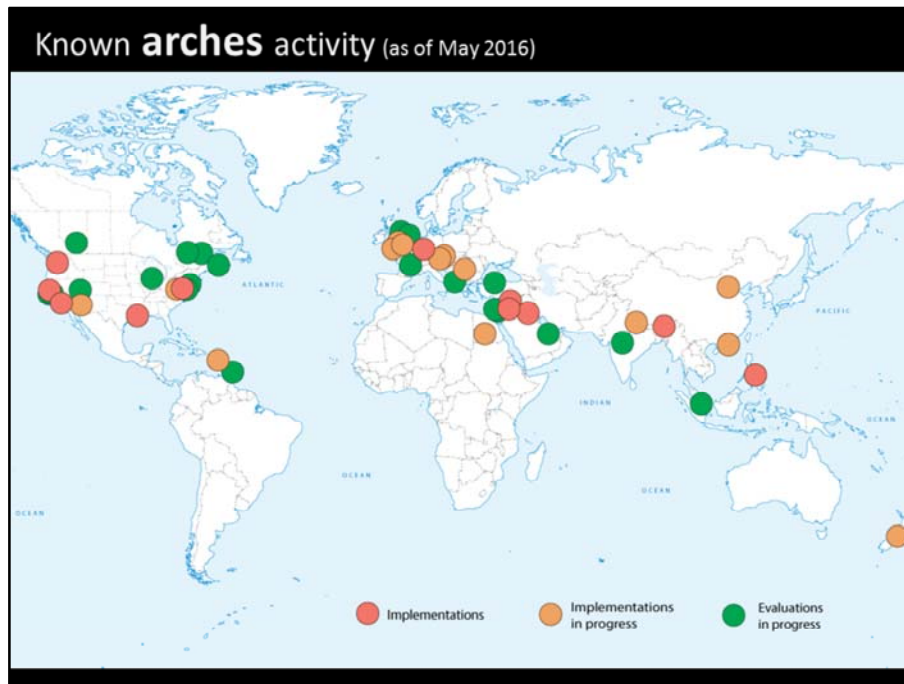
- ▶ **Data-collection app**
- ▶ **Data-collection project manager**
- ▶ **User profile manager**
- ▶ **Graph manager**
- ▶ **Configuration/customization tools**
- ▶ **Map/Imagery Tile Server**

Goals and aspirations:

- ▶ To end unnecessary spending for similar systems
- ▶ Pool resources in heritage field to share benefits
- ▶ Preserve heritage and the information describing it



Aspirations...



So now here's an update on Arches: as of January 2016, Arches has had about 9 organization launch their own implementations and many more are in progress. We say "known" because we've released the Arches software under an open source license and made it free to download, so others can use it, really for any purpose, without our knowledge. Our only stipulation is that any improvements to the software code be shared with the Arches open source community.



Live Demo

To access Arches demo site, visit
<http://demo.archesproject.org>