

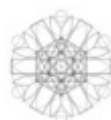
# Safina Projects CIC

THE  
**ARK**  
RE-IMAGINED  
© 2015

**Exploring the Ancient Craft Traditions of  
Mesopotamia through Art and Design**



**Project Overview 2015 – 2019  
Towards the Venice Architecture Biennale 2021**



## DEDICATION

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



*Thor Heyerdahl's 'Tigris' reed boat, on her maiden voyage down the Shatt el Arab. Her Berdi reeds were harvested in August, dry and ready by September, bundled and gathered to create her body in October, and launched on her voyage of six months beginning in November 1977.*

Inspired by, and in Honour of  
**The Marsh Arabs** of Southern Iraq, and **Thor Heyerdahl**  
without whom this project would not even be a dream  
&  
Dedicated  
to  
**All our Children**  
whose intangible heritage this project hopes to help resurrect





# ARK RE-IMAGINED



Thanks and homage to all in Iraq who have survived the unimaginable, and who help us to re-imagine the possible.





## Acknowledgments

I wish to acknowledge here everyone whose work and support has contributed directly towards the development of the artworks and concepts presented here, as well as the many friends whose encouragement and support has been priceless since the earliest stages of the Ark Re-imagined project.

With deep appreciation, THANK YOU all, and I look forward to realising the vision together in Venice.



Abu Amer and Abu Teeba with model Guffa  
[www.safinaprojects.org](http://www.safinaprojects.org)



[www.ruyafoundation.org/en/2016/09/3805/](http://www.ruyafoundation.org/en/2016/09/3805/)



[www.culturunners.com/](http://www.culturunners.com/)



[www.trinitybuoywharf.com/whats-on/event/seven-seas](http://www.trinitybuoywharf.com/whats-on/event/seven-seas)

### Ark Mind artist's residency team (autumn 2019):

Riyam Salim, Charlotte Evans, George Stuart, Kai McLaughlin, Sarah Saraj, Laura Burman, Nural Moser, Alia, Maliha Anas, Leenah Bassouni, Lynda Boudjeltia, Andi Cristea, Shaheen Nanako Kumatsu.

I would like to express my gratitude with respect to all the individuals who stand behind me: in particular my deep friends **Sumaya & Ed Miner** and **Ali & Nisreen al Husry**, Tigris crew mate **Asbjorn Damhus** and his wife **Janet**, **David & Gill Graham**, and those who have resourced the Ark Re-imagined project from its earliest stages of development, including **Louay Yousif Atrakchi**, **Faisel al Qaraghuli**, **Lena Lazaar**, and **Teresa Wilding**.

The contributions of architects **Khalid N. Ramzi** and **Rand Al-Shakarchi** in visualising the Ark deserve special mention.

So too, the seminal support of **Stephen Stapleton** and his fabulous team at Edge of Arabia, **Valeria Mariani**, **Imogen Ware**, **Aga Antosz** and **Kuba Rudzinski**, whose **Culturunners** project *"invests in the potential of travelling artists to open the public imagination and inspire greater empathy across physical and psychological borders around the world."*

**Dr. Tamara Chalabi** and the **Ruya Foundation** were instrumental in facilitating my work with craftspeople in Iraq, as were local guides and hosts, **Mousa A Mousa**, **Abbas al Jibouri (Abu Teeba)**, **Abu Amer**, **Abu Sajjad**, **Raafat Aliraqi**, **Ali Karkhi of Humat Dijlah (Tigris Protectors Association)** and many more.

Last but not least, to all who helped launch the Ark Re-imagined as a concept in 2015...

**Lilac Taie**, **Jan Rymer**, **Diana Elena**, **Lasla Esquivel**, **Borba Anderson**, **Julia Guest**, **Jassim al Assadi** and the crew of Nature Iraq's **Tigris Flotilla**, Artist **Abu al Hassan al Musafiri**, Artist **Furat Jamil**, **Dr. Abdul Amir Alhamdani**, **Dr. Zainab Mehdi**, **Dr. Caecilia Pieri**, **Dr. Venetia Porter**, **Dr. Ban Habubi**, **Dr. Reyam Naji**, **Zein al Abideen Timimi**, Artist **Mohammed Fakhir**, **Dr. John**

**Cooper**, **Dr. Linda Hurcombe**, **Dr. Dionysius Agius**, **Zainab al Rais & Hajir al Omari**, **Hind Saeed**, **Karen Dubrovski**, **Dr. Ali Mehdi**, **Dr. Ali Douabul**, Artist **Hamid Saeed**, **Meqdam Jameel Hasson**, my family and friends, and all in mind not here mentioned...

Thank You

**Rashad Salim**

Lead Artist – Ark Re-imagined

Co-Founder – Safina Projects CIC





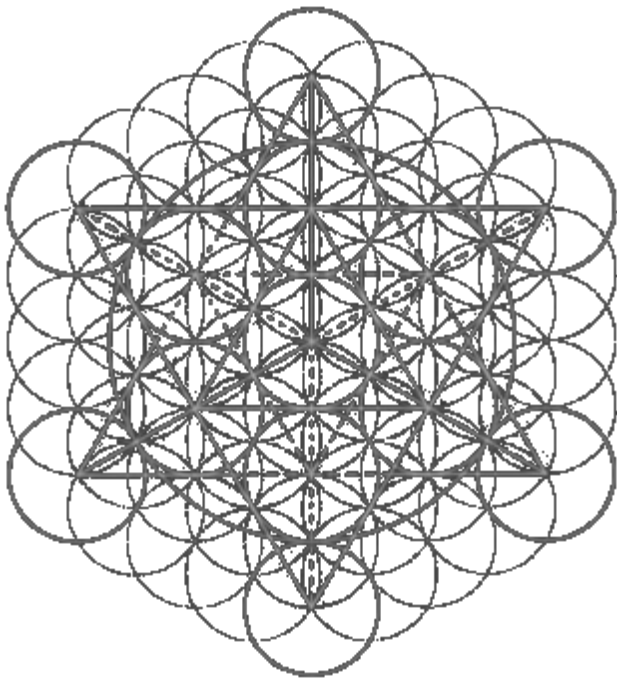
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## Gathering Around the Hearth



The Flower of Life - emblem of gathering (based on six around one)



Gathering of crew members on board the Kontiki balsa lumber raft: 1,2,3,4, 5 & 6<sup>th</sup> the photographer, with 7<sup>th</sup> the 'primus' stove.

Just like the Ark Re-imagined itself, our project is not a monolithic structure but a gathering of knowledge and crafts, with a growing number of engaged individuals, organisations and institutions who bring to bear a wide range of skills and perspectives.

We look forward to continuing partnership in the next stages.





## Introduction

The Ark Re-imagined project has been developed by the artist Rashad Salim, following on from the Tigris Flotilla expedition in 2013 (a journey from Turkey to the Iraqi marshes in traditional boats, a concept proposed by Rashad and implemented by Nature Iraq with his advice and participation). Encountering today's rural Iraq on this journey, and seeing the responses of local people to the traditional watercraft now rarely seen on the rivers, inspired him to seek creative means of engagement to help repair the damage to Iraq's cultural heritage brought by decades of war and destruction.

Through a residency at Edge of Arabia (Culturunners) in 2015, the Ark Re-imagined concept began to take shape. The project asks what the Ark would look like if it was based on the craft traditions of Mesopotamia, built using materials and techniques that were available at the time of the ancient Flood in the region. In 2016 Rashad returned to Iraq to begin fieldwork on the project. He travelled around the country to explore the making of ancient boats and traditional crafts that use locally harvested materials: traditions which have connected Iraq's culture with its natural environment for millennia.

We're deeply proud of the project's first major achievement: reviving production of Guffa coracles in Babylon. The last surviving Guffa maker there, an elderly woman, stopped making them after the 2003 invasion. With Rashad's commission to produce Guffa for models and prototypes of the Ark Re-imagined, a new generation of trainees began learning the traditional skills in 2016 and brought back this ancient watercraft from the brink of extinction, building 10 fisherman's Guffa and 21 model Guffa to date.

During fieldwork Rashad also established contact with craftspeople across central and southern Iraq representing a range of organic crafts of ancient origin, including basketry, rope-making, palm furniture, vernacular architecture, weaving and hook embroidery. In addition he has built a broad network of stakeholders including Iraqi government ministries, academic institutions, NGOs (including craft cooperatives and the Iraqi Artists' Society), businesses and local communities.

The Ark Re-imagined project aims to generate and use every opportunity to bring the craft and beauty of Iraq and the Gulf region's riverine and maritime folk heritage into the global conversation, giving voice to itself and the environment that shaped and sustained it. The concepts and artefacts that the project finds and creates will form a body of art and documentary works in a multiplicity of media and disciplines. Ark Re-Imagined advocates experiential engagement, in practice and through art, for a continuity of the Mesopotamian cultural legacy; locally in Iraq, with the Iraqi Diaspora and the global community.

Safina Projects have been commissioned by the Iraqi Ministry of Culture to produce the Ark Re-Imagined as Iraq's first ever National Pavilion at the 2021 Venice Architecture Biennale. The Ark Re-imagined unpicks and re-weaves the mythology of the Ark of the Flood, taking a rational approach. As an expeditionary artist, Rashad Salim explores Iraq's ecology, material resources and cultural heritage, envisioning an Ark that is the logical product of that environment.

Rashad Salim and Hannah Lewis  
Co-founders, Safina Projects



## About Safina Projects CIC

Safina Projects has been established to provide an organisational structure to develop and deliver successive stages of the Ark Re-imagined and related projects. The creative approach of the Ark Re-imagined project, initially driven by art, has opened up conversations and potentials across a range of connected disciplines and sectors. Safina Projects reflects this broadening of scope and offers an appropriate vehicle to co-ordinate aspects of the Ark Re-imagined vision that are beyond the capacity of an artist working alone to deliver.

Safina Projects is registered in the UK as a Community Interest Company (CIC), with the following activities and aims:

### **Artistic creation**

- Creating public art projects and contemporary visual and participatory artworks (in Iraq and internationally) that engage with and celebrate the heritage of Iraq, particularly the folk heritage of crafts and organic technologies that connect the country's culture to its natural environment.
- Propagating knowledge and appreciation of Iraq's folk cultural heritage within the Iraqi community (inside Iraq and internationally) by presenting aspects of this heritage in creative and engaging forms. The company's work will have an emphasis on public and participatory artworks that are presented in locations accessible to all. Art for private sale will be in a range of formats at different prices, making it affordable to a wide audience.
- Instigating collaborative partnerships and interdisciplinary engagement with other artists and creative networks sharing fields of interest.

### **Field research**

- Researching in the field, independently and with academic partners, to understand and document Iraq's craft techniques - a heritage traced back to prehistory - particularly those under threat of extinction due to conflicts and economic pressures. This process of research, and the networks created, will advance engagement with traditional Iraqi crafts through understanding the relationship between people and environment that lies at the root of Mesopotamian civilization and identity. Our aim is to preserve Iraq's threatened heritage and material culture, revive artisanal traditions, and build capacity in academia and the heritage sector.

### **Capacity building in the crafts sector**

- Identifying local talent and enterprises engaged with crafts in Iraq; capacity building, e.g. through mentoring, apprenticeships, product development, quality control, and networking to develop access to new markets.
- Creating work, training and business opportunities for craftspeople, artists and designers in Iraq, and facilitating access to their products for new audiences and customers within Iraq and in the Iraqi diaspora.

### **Cultural education**

- Organising exhibitions and events such as lectures, conferences and festivals, and creating or contributing to publications and media, aiming to maximise our art projects' impact and legacy both inside Iraq and internationally. Increasing access to our art projects, alongside related artefacts representative of Iraq's crafts and cultural heritage, by presenting and publicising them in multiple locations and through different media accessible to various audiences.
- Creating a tangible bridge between Iraq and its diaspora communities, and between the Iraqi present and Mesopotamian past based on the country's intangible heritage; and ensuring the continuity of this legacy for future generations.

### **Consultancy and network-building**

- Consultancy, representation, advocacy and liaison services for development, business, academic and media interests, connecting foreign or Iraqi diaspora ventures and programmes with local organisations and craft makers in Iraq.
- Bringing expertise from Iraqi diaspora and foreign ventures and institutions to Iraq, and creating relationships that build capacity within Iraq, for example by strengthening the arts and crafts sector of the economy, and by creating opportunities for training and mentoring in Iraqi academic institutions, in disciplines such as art, anthropology and archaeology.





## Founding Members (Safina Projects CIC)



**Rashad Salim – Project Director**

Rashad is an artist whose 40-year career spans diverse forms of creative practice, including printmaking, sculpture, painting, illustration, curation, cultural research, grassroots development and project animation. His fascination with the history of culture and technology has driven decades of study and experiential research in the field, including participation in the “Tigris” reed boat expedition led by Thor Heyerdahl in 1977-78 as a member of the construction team and crew, following ancient Sumerian trade routes from the marshes of Iraq through the Arabian Gulf and across the Indian Ocean; and more recently the Tigris Flotilla expedition, travelling in traditional watercraft down the Tigris river from Turkey to southern Iraq in 2013. These experiences, together with wide-ranging reading, encounters with remarkable individuals, and first-hand immersion in many aspects of intangible heritage, inspired Rashad’s desire to weave his knowledge of ancient cultures into the practice of contemporary art and design: an ambition he is now working to realise through Safina Projects.



**Hannah Lewis – Programme Manager**

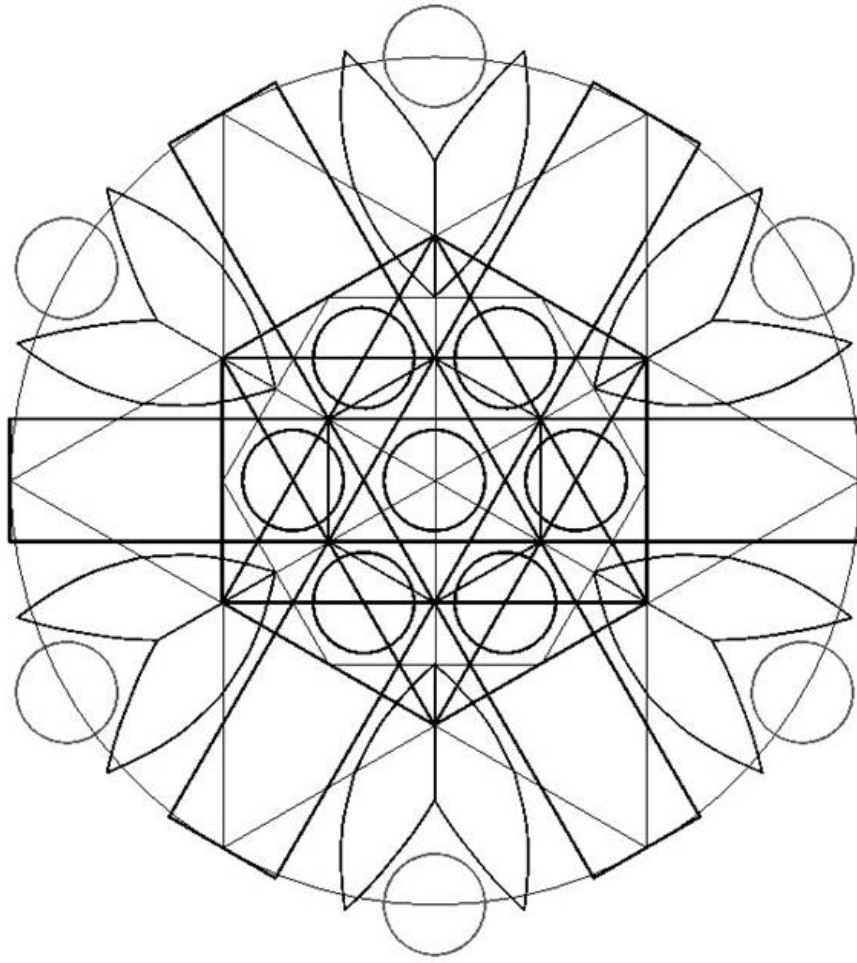
Hannah is a social entrepreneur with experience in design, event production, higher education and community activism, informing a systemic and co-operative approach to managing projects, with an ability to bring structure and flexible planning to complex processes. Her work is informed by studies in design methods and ecology (BA Eco Design, 2004), and narrative practice (MA Narrative Environments, 2007), together with practical experience implementing pioneering projects – from curating a British Council exhibition on design and climate change seen by 250,000 people across China, to developing the UK’s first urban local currency the Brixton Pound, and founding the Remakery, an experimental workshop for reuse and upcycling, turning the waste that abounds in urban environments into raw materials for creative enterprise. Her belief in the importance of making by hand as a mode of learning and expression, together with her curiosity about how human culture has evolved in relation to its environment, motivate her work as co-founder of Safina Projects.

### Join us on our journey

Whether as a crew member, adviser, collaborator, or supporter, we invite you to be part of this journey. We are keen to hear from you if you’re interested in this work and the issues it raises. In particular we are looking to connect with:

- Anthropologists with relevant expertise in documenting traditional technologies and their contexts of use;
- Architects to collaborate on digital visualisations of the Ark Re-imagined and related technologies, and the creation of a virtual museum of ancient crafts, as well as modelling and prototyping the Ark Re-imagined and designing the full-scale version as a “floating museum” to be based in Basra;
- Designers who are interested in working with craftspeople in Iraq, developing new products and helping bring these crafts to new markets;
- Development initiatives associated with cultural heritage and rural development; also those concerned with gender issues (as craftspeople we are working with include marginalised women);
- Film-makers and photographers interested in documenting craft traditions;
- Members of Iraqi diaspora communities who are keen to help Iraqis globally reconnect with their cultural heritage.





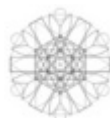
# Part 1:

# Ark Re-imagined

**An Ark of its Environment and Culture**

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Here we introduce the Ark Re-imagined project concept and its geographical and historical context, before summarising the progress made to date in modelling and constructing the proposed alternative Ark with craftspeople in Iraq.

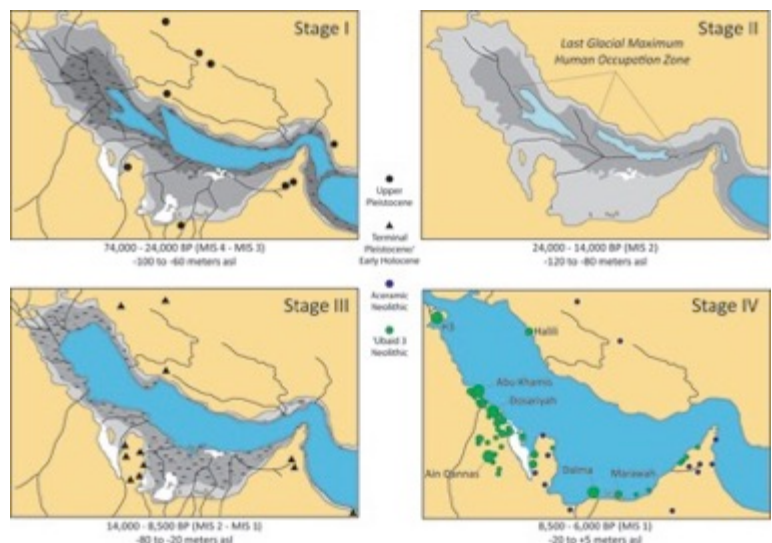
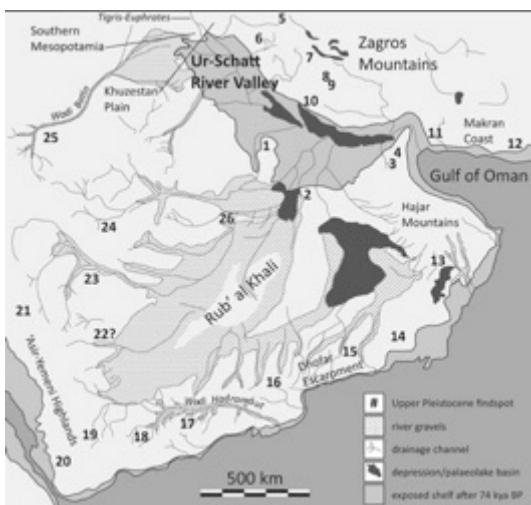
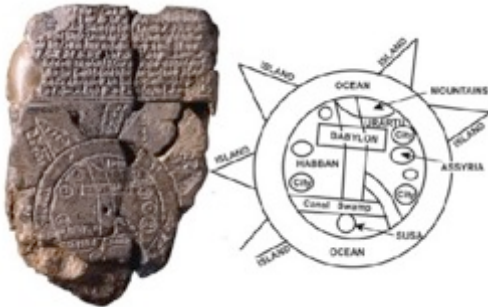




## An Ark Geography: Where and When?

A Great Flood, with humanity saved by a boat, is a shared memory with about 300 narratives in oral and written traditions spanning the globe. These narratives all place the event at a time long before the 5000 years separating us from when the story was first written down in Mesopotamia.

Recent Geological research indicates major rises in sea levels did occur in the transition from the **Pleistocene** (last little Ice Age) to the present **Holocene** epoch, between 8,000-14,000 years ago. This period also bears witness to the beginnings of the agricultural revolution and the Great cultural transition from the Neolithic (New Stone Age) culture to Agricultural & Urban Civilization that preceded the ages of metal which in turn has led to our age, the **Anthropocene** (Geological Age of our Making) .



Jeffrey I. Rose, 2014 by permission

As the maps above reveal, during this transitional period the Gulf was smaller and surrounded by lowland / wetland areas which were later submerged in its waters. Any search, then, for the material culture, crafts and techniques which may have constructed a Mesopotamian Ark includes then the **Gulf region to Oman** (as part of an interconnected cultural geography extending through Arabia to Africa and bridged to the Indus), as well as present day **Iraq** and its **Southern wetlands**. These wetlands most closely share the environment and therefore material culture of the inundated Gulf valley where a hypothetical Ark could have been constructed. The original site may be lost under water but the culture that would have built the Ark can, this project proposes, be deduced from human prehistoric culture and the evidence in the regions archaeology, vernacular architecture and cultural heritage.

Note: The project subject resonates with contemporary predictions of **Climate Change** and opens a window for engagement with this issue, offering opportunity for vernacular and contemporary creative action, design solutions and awareness.



## In Search of the Ark



'Wall, wall! Reed wall, reed wall! Atram-Hasis, pay heed to my advice that you may live forever! Destroy your house, build a boat; despise possessions and save life! Draw out the boat that you will build with a circular design; let its length and breadth be the same.'

*The Ark Tablet, 1700 BC (trans: Irving Finkel, British Museum)*

Despite the multitude of Ark narratives known around the globe, it is only within European culture (both religious and scientific / academic) that attempts have been made to reconstruct the Ark. Three distinct approaches can be identified:

In 2014, for the documentary "The Real Noah's Ark", the UK's Channel 4 recreated a circular ark (shown left) based on the description from The Ark Tablet above. The ark's large circular form resembled a huge Guffa (Iraqi coracle) but was built in Kerala, India, using techniques that are foreign to Mesopotamia, and to its time. The fallibility of such a single circular Ark was demonstrated when it was established that the craft could not stay afloat without airbags.



A second approach to recreating the Ark takes the Biblical description literally. Many such reproductions exist in the United States and Europe, especially Holland. Again, these boats do not use any material, technology or form that originates in Mesopotamia – and none has been successfully made to float.

A third approach doesn't attempt to recreate the Ark, but rather to experientially explore the kinds of boats that evidence indicates would have existed around and before the beginning of recorded history. The most successful of all these recreations of lost boats were those of Thor Heyerdahl, now widely accepted as representative of the earliest large boats capable of seafaring. However, these recreations use a limited proportion of the range of techniques we know were available at the time; and the techniques used would, on their own, be unsuitable for constructing a boat large enough to serve as an Ark.

We offer a fourth approach, envisioning the Ark as a gathering of many watercraft. While we are not the first to propose this, others have done so without consideration for the lessons of the three previous approaches. Our proposal additionally brings in the intangible heritage still present in Iraq, omitted from all the preceding attempts.





## Concept and Rationale for an Alternative Ark

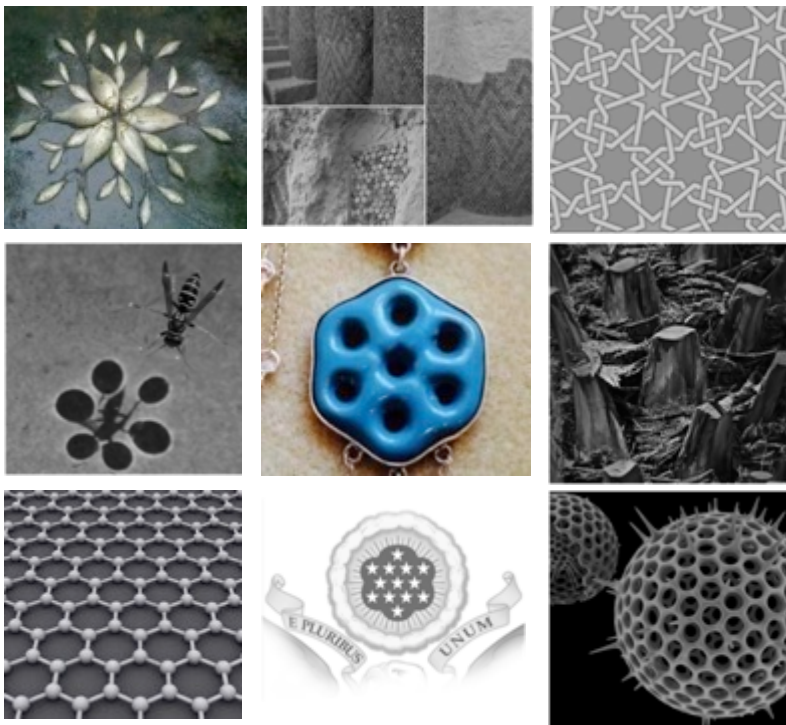


In contrast to the preceding examples, the Ark Re-Imagined proposes that a prehistoric Mesopotamian Ark could have been a gathering of available watercraft held together as one and assembled with the knowledge and skills available using local material, craft and techniques.

The circular shaped Guffa (coracle), when gathered, manifests a key geometric principle found in nature that provides us with a conceptual approach to the possible design and order of a gathered Ark. We can see this pattern embedded into the remains of the earliest known temple walls in Uruk's Mosaic Courtyard. The pattern is ubiquitous in science and engineering as it is in nature, and would have been known from earliest times as inherent when gathering reed, cane and palm stalks used in the bundle technique that is prevalent in the vernacular architecture of Iraq (e.g. the reed long house or Mudheef) and that of the Gulf region (Arish) and indeed is universally present in vernacular architecture of all cultures.



*Above: Rashad explores in his art the principle of six around one. Paper boats made from pages of an Atlas gather easily into hexagonal patterns and 360 boats create an Atlas paper boat Globe - see Part 3: Art from the Ark*



This hexagonal pattern of six circles around one also has deep symbolic and geometric significance. A core component of the ancient Babylonian sexagesimal system of mathematics, a fundamental pattern in Islamic art; it is referred to as the flower of life in Sacred Geometry. To this day, an amulet based on this pattern called the seba'ayoun is popularly given throughout Iraq to new born children as a blessing and for protection. Once painted on guffa, it is now found depicted on trucks that have taken over the haulage of cargo.



# ARK RE-IMAGINED

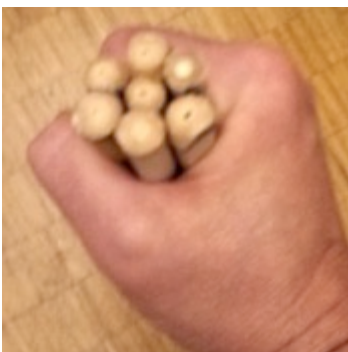
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Faced with signs of an approaching cataclysmic deluge and flood it is improbable that any people would construct an unknown, unproven vessel for sanctuary. Given the dimensions, weight and material of a single large vessel, it would be in danger of being unwieldy, structurally unsound, difficult to waterproof, logistically manage or compartmentalize, and take far too long to build.



With sincere respect for the accounts in holy books of the Semitic monotheistic religions, we suggest that even if supernatural intervention were a factor, a prehistoric Mesopotamian community would more likely have assembled a vessel with the knowledge and the skills of all community members using locally sourced material and construction methods. Rather than one single vessel, the Ark could then be a gathering of water craft held in an order of strength and unity. The circular shaped Mesopotamian Guffa coracle is recognised as one of the most ancient types of boats and provides the key to the possible order of a composite Ark, gathered in the hexagonal pattern of six around one.

The Guffa, a coil basket is itself a gathering of straw in a bundle held by palm frond leaves: thus it shares with the reed boat and superstructure of Mudheef and Arish this same technique which is repeated throughout the Ark Re-imagined as a fractal pattern.



This manner of bringing together and constructing the Ark takes into account the lack of timber in the Marshlands of Southern Iraq and what would have been the wetlands of the present Gulf and has practical and logistical benefits. The full use of all familiar material and techniques, with an Ark plan based on the known and easily communicated principle of 6 around 1 (a pattern known as the seba'ayoun or seven eyes), would allow all members of the community to participate in the gathering and construction process. In the main the Ark would be a structure gathered from existing boats, dwellings and material at hand, repurposed and joined together. Use of Guffas as the Ark hub also permits work to be carried out on the water, saving time and the uncertainty of a construction rig for a single huge vessel and the dangers of the launch. It also permits under-carriage access that only a complex scaffolding rig could provide on land.

The use of diverse working water craft already purpose designed helps resolve the problem of compartments, storage and the specific needs of various domestic animals. The 'gathered Ark' concept also provides a solution to the issue of wild animals escaping the flood as the circular design permits a gradient from domesticated animals at Ark centre to wild creatures riding natural rafts and flood flotsam at the periphery, stewarded by those who know the wild such as hunters.



## Towards a Visualisation of the Ark Re-imagined

The complexity of the alternative Ark design we propose – a composite gathering of ancient boats, with connections and superstructure also made using local organic technologies – makes visualisation using computer graphics an essential part of the project. Visualisation enables us to experiment with a variety of different configurations of boats and to think through how they would work as a complete Ark, before actually beginning to build. We also anticipate a process of feedback and iteration, whereby each version of the Ark (or part of it) that is built will also lead to changes and adjustments to the visualised design.

Prior to the construction of the full scale Ark, we plan to model its parts and structure at various scales (this modelling work is already underway, see pages 19-22) and consider that the process of miniaturisation is not only a step towards the full sized Ark, but is of value in itself, given that the challenge of miniaturising the boats and structures necessarily requires a refinement of the traditional craft techniques employed, and in some cases calls for innovative ways of using these crafts. Miniaturisation can also lead to the development of new types of products for market.

We would like to thank the architects Khalid N. Ramzi and Rand Al-Shakarchi for their detailed and imaginative work, carried out in early 2016, to visualise the Ark as presented on the following pages. The contribution of architectural skills is a vital part of the process of realising this project; during the next stages we are looking to work with an architectural practice / team, and possibly to collaborate with an academic department of Architecture (as well as with other academic disciplines relevant to the project such as Anthropology and museum curation). We envisage using computer graphics to create a “Virtual Museum of Intangible Culture”, through which students, Iraqi diaspora communities, and the general public around the world can discover these ancient crafts online.

The Ark Mind artist’s residency at Ridley Road Social Club (autumn 2019) has re-engaged with the architectural design of the Ark Re-imagined, with the assistance of a skilled team of graduate architects from UCL’s Bartlett School of Architecture (Charlotte Evans, George Stuart, Kai McLaughlin), informed by the knowledge and experience of local materials and construction techniques Rashad has gained in the field during the last four years.

The application of computer graphics and 3D modelling skills will continue to shape the project’s development, while our modelling and construction work in Iraq to date has already led to some developments of the design that take it beyond what is shown in these pages. Work in the field has led us to propose replacing the simple reed bundle boats shown here with displacement boats of a more complex structure incorporating an internal armature. The radial axes of the Ark are shown here as a structural element made of unknown materials; in the field we have experimented with a variety of materials to make these and have drawn some conclusions about their suitability.

A significant feature of the Ark Re-imagined as visualised here is its superstructure. We imagine that, having gathered all the available boats into a large composite raft, on which they would need to survive for a significant length of time during the Flood, the original Ark’s builders would have used techniques familiar to them (including some of the same techniques used to make each boat type) to create a structure with several functions: securely holding the boats together, providing shelter from the weather and creating different types of internal spaces with various uses.

At the core of the Ark Re-imagined is the kitchen and hearth, which we visualise as a clay oven like a traditional *firin*, located at the heart of the gathered Ark, within the central Guffa, with an arched structure overhead incorporating the chimney. Within the Ark Re-imagined (real artwork and virtual museum), this kitchen space would function as a museum of traditional culinary culture, showcasing the uses of locally produced foods and herbs.





## Elements of the Ark

The main elements fall under six categories as follows:

### 1 - BUNDLE

- / **Columns** - reed bundles that rise from stanchions in-between the Guffas creating the Mudtheef like superstructure
- / **Floating bundle** - bundles around the Guffa to form a structural frame to secure the Guffa and main component of the reed bundle boat
- / **Lesser bundle** - used crossways between columns to support mats
- / **Coil bundle** - Guffa is made from a spiral coiled bundle of straw
- / **Ring Post** - a structural element made by curving a segment of the bundle onto and connected to itself
- / **Stanchion/sockets** - interwoven configuration of bundles that support upright structural reed bundle columns.

### 2 – CORDAGE

- Ropes** of different thicknesses and material (plant and animal) is the primary means of construction, holding the Ark together.
- / Ropes which hold the bundles together
  - / Lashing for the Kelek
  - / Tension ropes used in the construction and final structure
  - / Long ropes that hold bundles of bundles together

### 3 – BASKETRY- cane, reed, rush and palm leaf

- / **Walls** – basket weave as used for Mudheef walls
- / **Decking** - platform between the Guffas
- / **Mats**
- / **Mats covering bundles** - mats encase bundles to create a smooth appearance and protect against friction.

### 4 – SKINS whole skin of animals such as sheep/goat and calf, openings tied to create a watertight sack as well as larger skins/leather.

- / **Floats** – air filled
- / Storage
- / Decking floats?
- / Protective cover, anti chafing/friction
- / Sockets?

### 5 - WOOD to provide structural, decking and tension elements.

- / Palm frond stem and trunk
- / Poles (Merdi)
- / Supple fruit Pomegranate, Mulberry, Pear, Apple tree and willow wands

### 6 - WATERPROOFING

- / Pitch – Tar – Bitumen
- / Wax – Oil – Fat
- / Slaked Lime



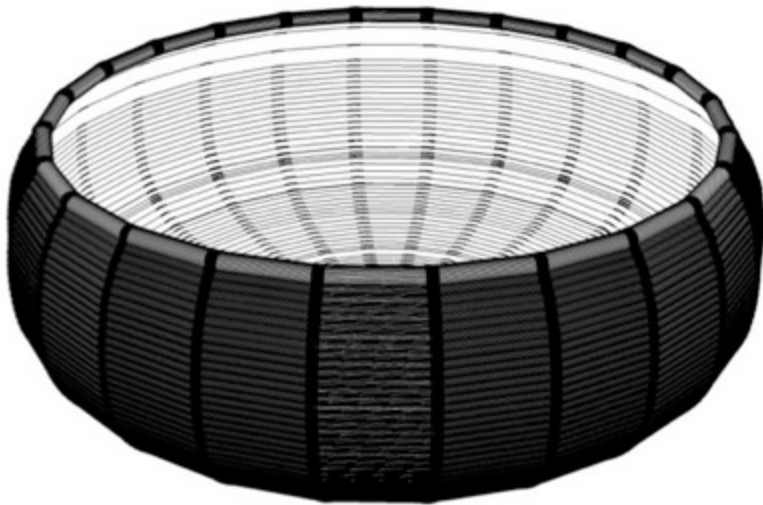
## Elements of the Ark - continued

	GUFFA	REED BOAT	KELEK	MUDHEEF	SUPERSTRUCTURE	DECKING
<b>REED BUNDLE</b>						
Columns				○	○	
Floating bundle	○	○				
Lesser Bundle					○	
Coil Bundle	○					
Ring Post				○	○	
Stanchions / Sockets				○	○	
<b>CORDAGE</b>						
Ropes		○		○	○	
Lashing Ropes						
Tension Ropes				○	○	
Long Ropes						
<b>BASKET</b>						
Walls				○	○	
Decking			○		○	○
Mats			○	○	○	
Mats Covering Bundles		○		○	○	
<b>SKINS</b>						
Storage						
Buoyancy			○			
Decking						○
Protective Cover						
Sockets						
<b>WOOD</b>						
Palm Fronds			○		○	○
Merdi poles		○			○	
Pomegranate Wands	○					
<b>WATERPROOFING</b>						
Pitch (tar)	○	○	○	○	○	
Slacked Lime	○				○	



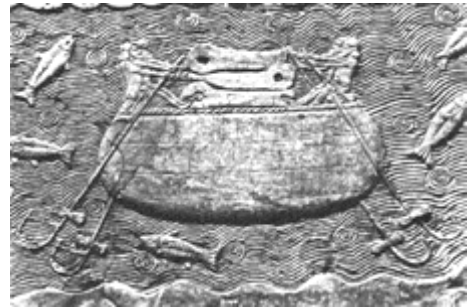
## Boats of the Ark: Guffa

The Guffa, an icon of Iraqi heritage, has been documented in Mesopotamian culture throughout history, while coracles (round boats) as a generic worldwide boat type are shown to date to prehistory. Guffas constitute the core (central hub) of our proposed design for the Ark Re-imagined, so the modelling and scaled construction of Guffas was chosen as the first phase of the Ark project, beginning in 2016: the work in progress is summarised on the next page.



*Above: first architectural CG model of Guffa. Through further CG modelling we aim to develop a detailed record of the construction of different sizes and types of Guffas, with local terminology and material details and techniques, as well as modelling the construction of the Ark Re-imagined.*

*Right: Guffas on the Tigris, 20<sup>th</sup> century.*



*Above: Guffa in use as Assyrian military transport*



Rashad's experience with the Tigris Flotilla in 2013, piloting a Guffa down the Tigris river from south-eastern Turkey to southern Iraq, and the subsequent production of Guffas as part of the Ark Re-Imagined, has allowed him to gain a detailed knowledge of the construction of Guffas of various sizes, and experience of piloting them in a variety of conditions, including open water, white water, and marsh, and with different techniques of propulsion, including paddle, double paddle, and pole.





## Guffas: work in progress – Summer 2016

The first major achievement of the Ark Re-imagined project has been to find and connect with some of the last remaining Guffa makers, in Hilla, Babylon, where the production of Guffas ceased with the 2003 invasion but the knowledge and memory of their making, as well as very few surviving examples, still remained. With commissions to produce miniaturised Guffas for a model of the Ark Re-imagined, and a 1:2 scale model of the Ark core, the skill of Guffa making was brought back from the brink of extinction in 2016. For the story behind this work see *Guffa Production*, page 37.

Following on from the production of 17 model Guffas, and 10 fishermen's Guffas (1.5m diameter) which form a half-sized prototype of the Ark's core and auxiliary vessels, our next step is to construct a full scale cargo Guffa (3m diameter) for the first time since the mid 20<sup>th</sup> century. The design for the full scale Ark Re-imagined features 7 such cargo Guffas at its core.



Above: a fisherman's Guffa under construction as part of the half-sized hub of the Ark Re-imagined, together with one of the miniaturised Guffas used to model the Ark.

Left: newly trained Guffa maker Um Mohammed (see page 37) weaving the coil basket for a miniature Guffa.

Below: a Guffa in transit from Hilla to Baghdad. During transportation the Guffas attracted attention and enthusiasm from hundreds of passers by and elicited their memories of cultural heritage.

Right: The first Guffa produced in Hilla for the Ark project on show at Awj Baghdad Cultural Centre.





## Guffa making continues – 2018-19

In 2018 we pursued the challenge of building a Cargo Guffa, traditionally 3-6m in diameter. The Guffa-makers of Hilla could only build boats up to a maximum of 2m in diameter (measured at the base), a limitation resulting from the use of locally grown pomegranate wands (which only grow up to 2m in length) as the internal bracing. This suggests that larger Guffas may have used a different material for this tensile structure which holds the outer shell taut. Descriptions in literature mention willow and palm being used as bracing; other fruit trees such as pear are also candidates. In future fieldwork we aim to investigate Guffa-making in the area north of Baghdad, in towns such as Tikrit and Samarra, which were known for the production of large cargo Guffas.



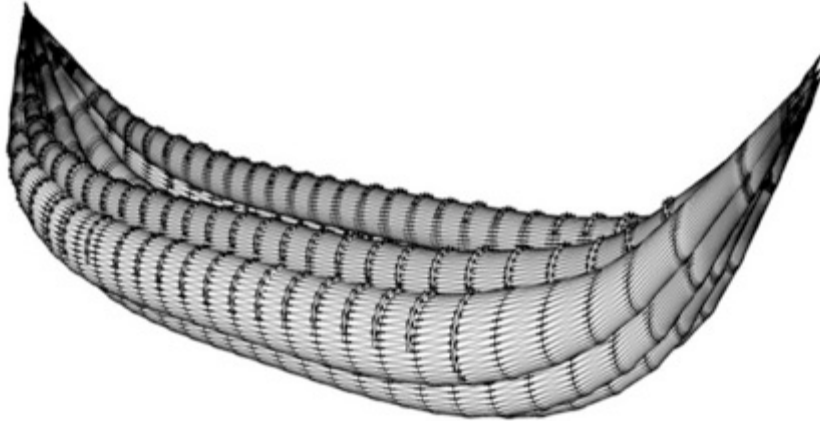
## Guffas on the water – spring 2019

Together with other boats built as part of the project – Meshoufs (page 36) and the Isbiya / Delil (page 23) – our Guffas took to the water in spring 2019, as part of boat training events on the River Euphrates in Hit (Anbar) and Hilla (Babylon). Organised in partnership with youth-led environmental activist group Humat Dijlah and Humat Furat (Tigris Protectors and Euphrates Protectors), these events brought together boat makers from different regions, and young people from all over Iraq to practise using traditional boats in preparation for our planned river expeditions. This was a very special experience, showing how the art and beauty of boats, in direct contact with the river and wetland environment, still have the power to bring people together and generate pride in post-conflict Iraq.



## Boats of the Ark: Reed Bundle Boat

Palm stem bundle boats can be found throughout the Gulf from Kuwait to Oman, and reed bundle boats (known as Shasha in Iraq) are found globally wherever there are wetlands. Images of their distinctive shape and pattern appear in the earliest iconography globally.



*Assyrian Mesopotamian*



*Bahrain Museum*



*Early Harappan, Indus R.*



*Pre Dynastic Egyptian*

## Reed bundle boats: work in progress – summer 2016

Working with a group of relocated Marsh Arabs on the Hindiya branch of the Euphrates river in Babylon, Rashad experimented with the design and construction of reed boats, modelling those that could form part of the Ark Re-imagined. Starting from the basic Shasha reed boat which is still known, versions were developed using different types of natural fibres (*chawlan* grass to form the body of each bundle, *berdi* reeds as a slip cover, *jerid* palm fronds and *athek* date stalks to create an armature, allowing for a larger structure and to maintain curvature). The use of armature led to the development of the superstructure technique (p.22) and offered clues to means of joining the gathered boats.





## Boats of the Ark: Zaima

The Zaima is a reed canoe from the Marshlands of southern Iraq, made of small reed bundles with an internal framework of bracing (made from flexible stems such as cane, palm frond, date bunch stalk, or small branches of local trees such as willow, acacia or gherib), and an outer coating of bitumen. Evidence of these boats' existence in recent decades is sparse, but reports from earlier centuries suggest they were once much more common. Travellers to Mesopotamia in the 18th and 19th centuries reported that the Marshes were full of canoes made from tarred reeds and cane.

These boats and their construction techniques, which use no metal or wood, may have played a significant role in pre-Bronze age civilisations such as that of the Sumerians. Investigations into sites associated with ancient maritime activity in the Gulf have revealed the only material remains associated with seagoing boats dating from Sumerian times. These consist of clots of bitumen imprinted on one side with the pattern of woven reed mats, and on the other side coated with barnacles and other marine molluscs. This evidence suggests that Sumerian trading ships may have built using reeds, on a much larger scale than the Zaimas of recent centuries.



## Experimental reconstructions – winter 2018-19

The boatbuilding community of Huwair, where our Meshouf-building workshops were held, had no direct experience of constructing Zaimas, but some locals remembered them being built and used as recently as the 1990s. They agreed to attempt to reconstruct reed and cane canoes, drawing on their familiarity with these widely available local materials (also used in vernacular architecture). They also applied knowledge we'd collected in the form of oral history interviews – recorded in both Huwair and Amara – and the photographs and writings of Wilfred Thesiger, to reconstruct a series of 3 experimental Zaimas.



## Boats of the Ark: Isbiya

The Isbiya (also known locally as the Kaiya) is a cargo barge traditionally built only in the town of Hit on the Western bank of the River Euphrates in Anbar province. It is documented in a small number of archival photographs and written descriptions from the 19th and 20th centuries, and is believed to have existed in a similar form for several millennia.

The Isbiya is made using a wattle and tar daub technique, with no use of metal or planked wood, a method of construction consistent with the technologies of the Stone Age. This means it could have been built in a similar way for over 5,000 years - perhaps much longer, although its organic construction has left no known physical remains.

Clay models of flat bottomed boats with vertical sides found at Ur (dated to 2500 BC) bear a resemblance to the Isbiya, particularly in the lip (Leffa) protruding from the bottom edge of the boat which is unique to the Isbiya and represented in some of the Ur models. Archaeological evidence suggests that cargoes of stone, lime and bitumen used to build Ur (3800 - 500 BC) and other ancient cities in southern Iraq were transported using Isbias or similar boats. This trade continued into the 20th century, with each Isbiya making a one-way journey, propelled by the flow of the river. The boat was then broken up at its destination, with the materials being sold mainly for use as fuel.



## Experimental reconstructions – spring-summer 2019

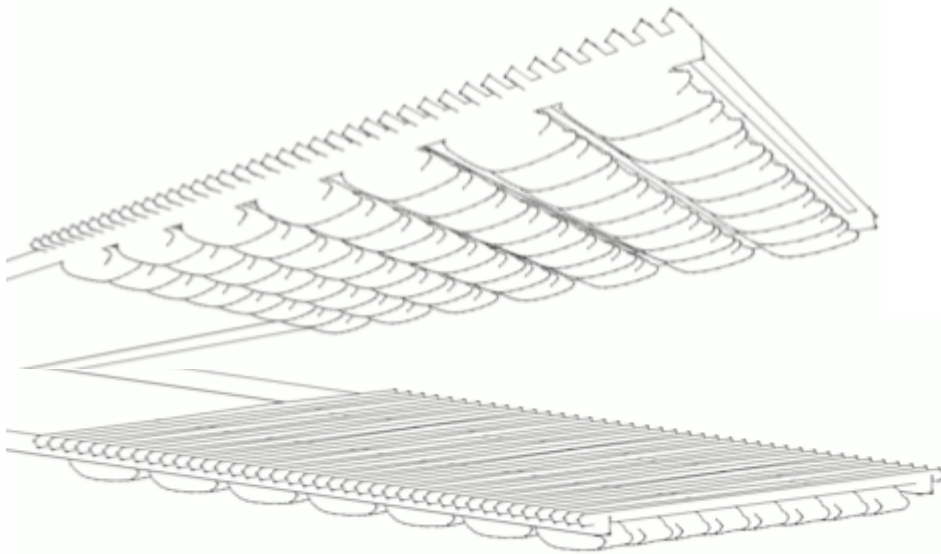
Our reconstructions of the Isbiya, and its smaller guide boat the Delil, in spring-summer 2019 were based on oral history interviews with a small number of men in their 80s and 90s who worked with or closely experienced the Isbiya in the mid-20th century and so carry the last living memory of its traditional construction method. One of these interviewees, Haji Hamdi Nuaman – who had actually built some of the last known Isbias with his father – accompanied us throughout the reconstruction workshop, providing detailed instruction on every stage of the build.





## Boats of the Ark: Kelek

A log raft traditionally used for cargo transportation downriver, constructed on a floating base of inflated goat-skins (a modern variant uses rubber tyre inner-tubes, as on the Tigris Flotilla expedition, below), Keleks were typically built in northern Iraq or southern Turkey and could extend to very large sizes (below right) and carry immense loads, such as a cargo of millstones.



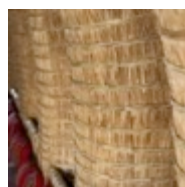
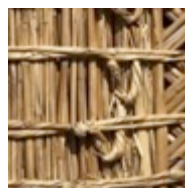
Although construction of Keleks for the Ark Re-imagined has not yet begun, in 2016 a connection was made with businessman Zayn el Abideen, a prominent exporter of leather based in Hamza el Gharb, who has kindly offered to support the Ark Re-imagined project in kind by providing all the skins required to produce Keleks for the Ark.

*Below: Kelek built by Rashad Salim and navigated down the Tigris with Nature Iraq's Tigris Flotilla, September-October 2013*

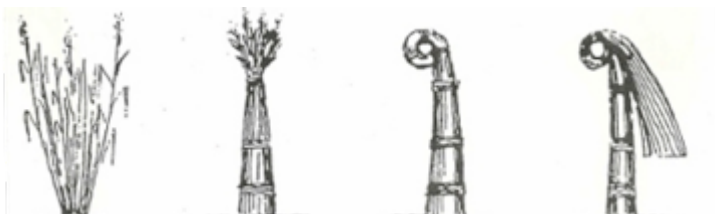
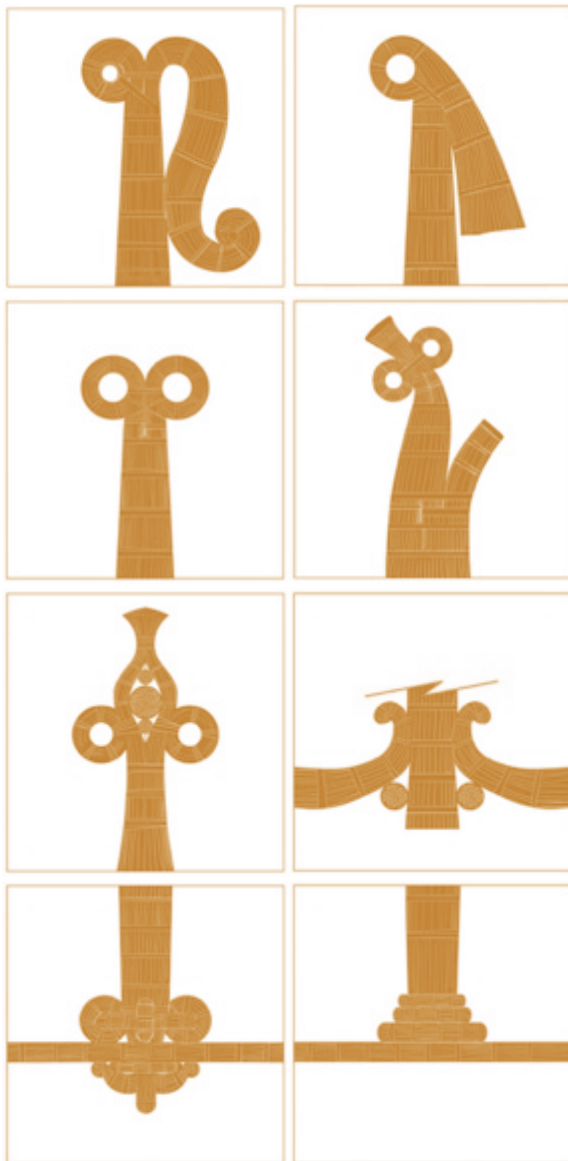




## THE ARK ELEMENTS / **BUNDLE CONSTRUCTION** Reed - Palm & Cordage to bind

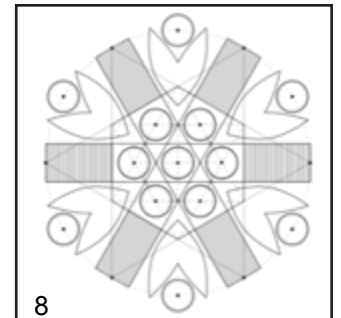
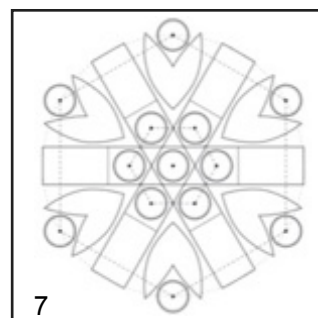
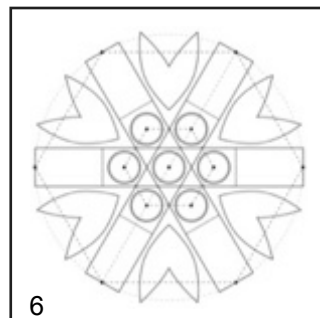
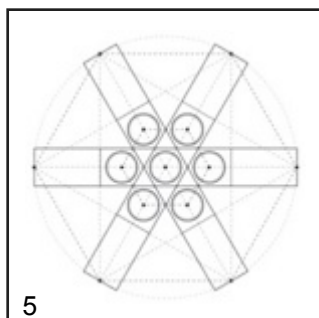
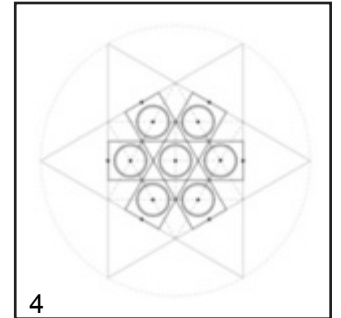
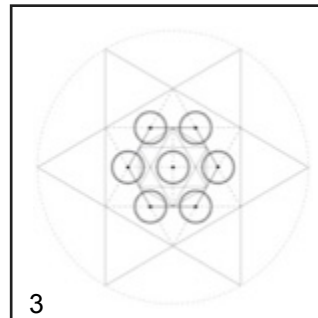
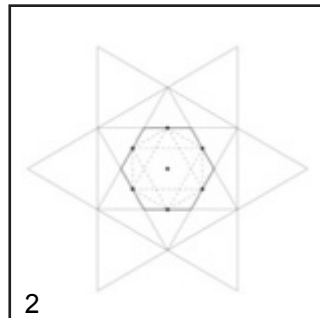
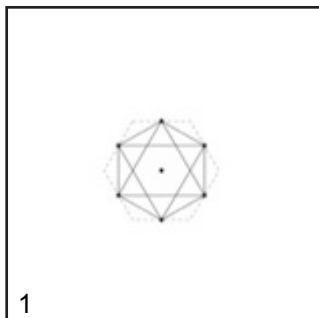


## THE ARK ELEMENTS / RING POST





## GATHERING THE ELEMENTS

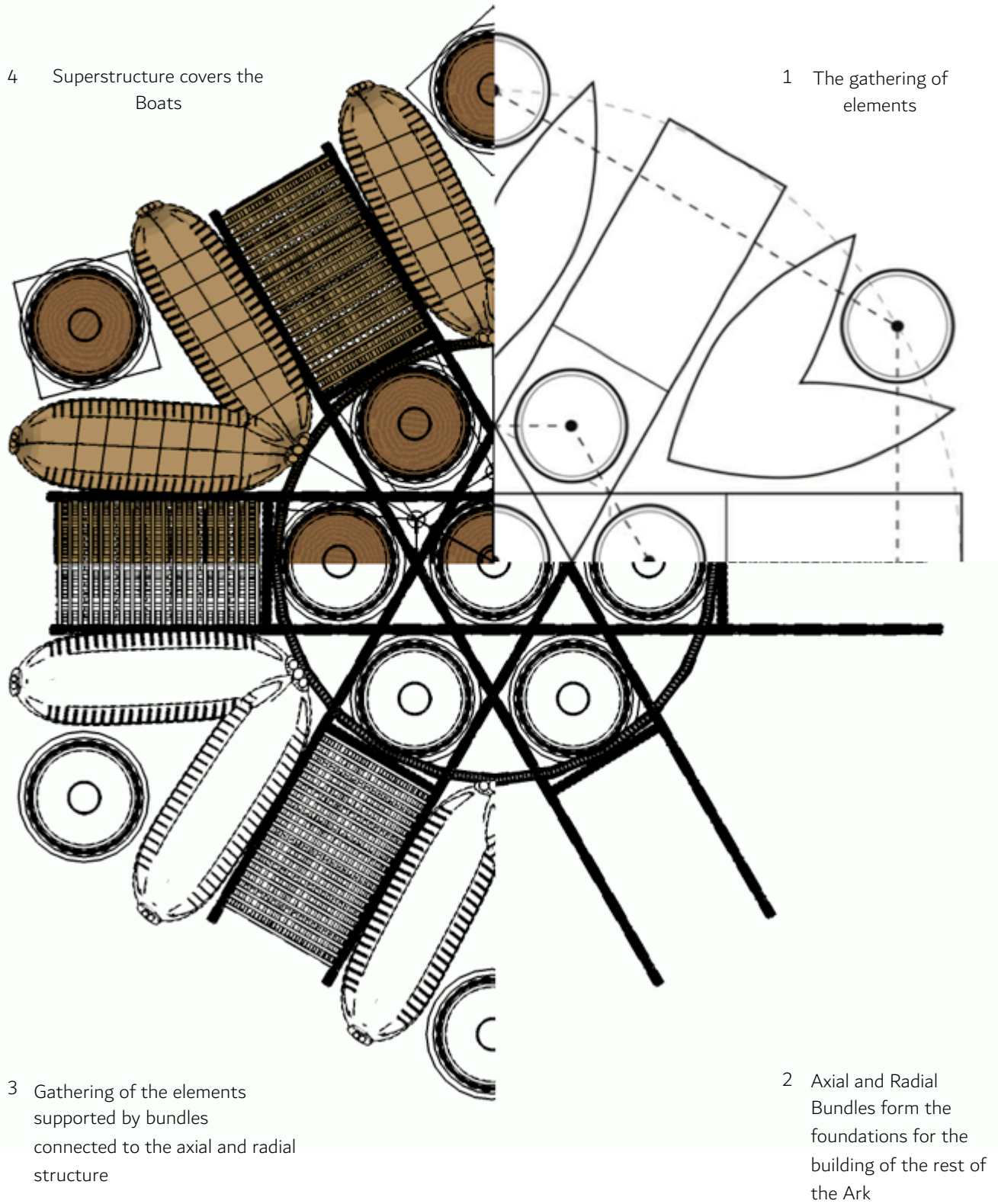


Placement Study of Gathered Elements





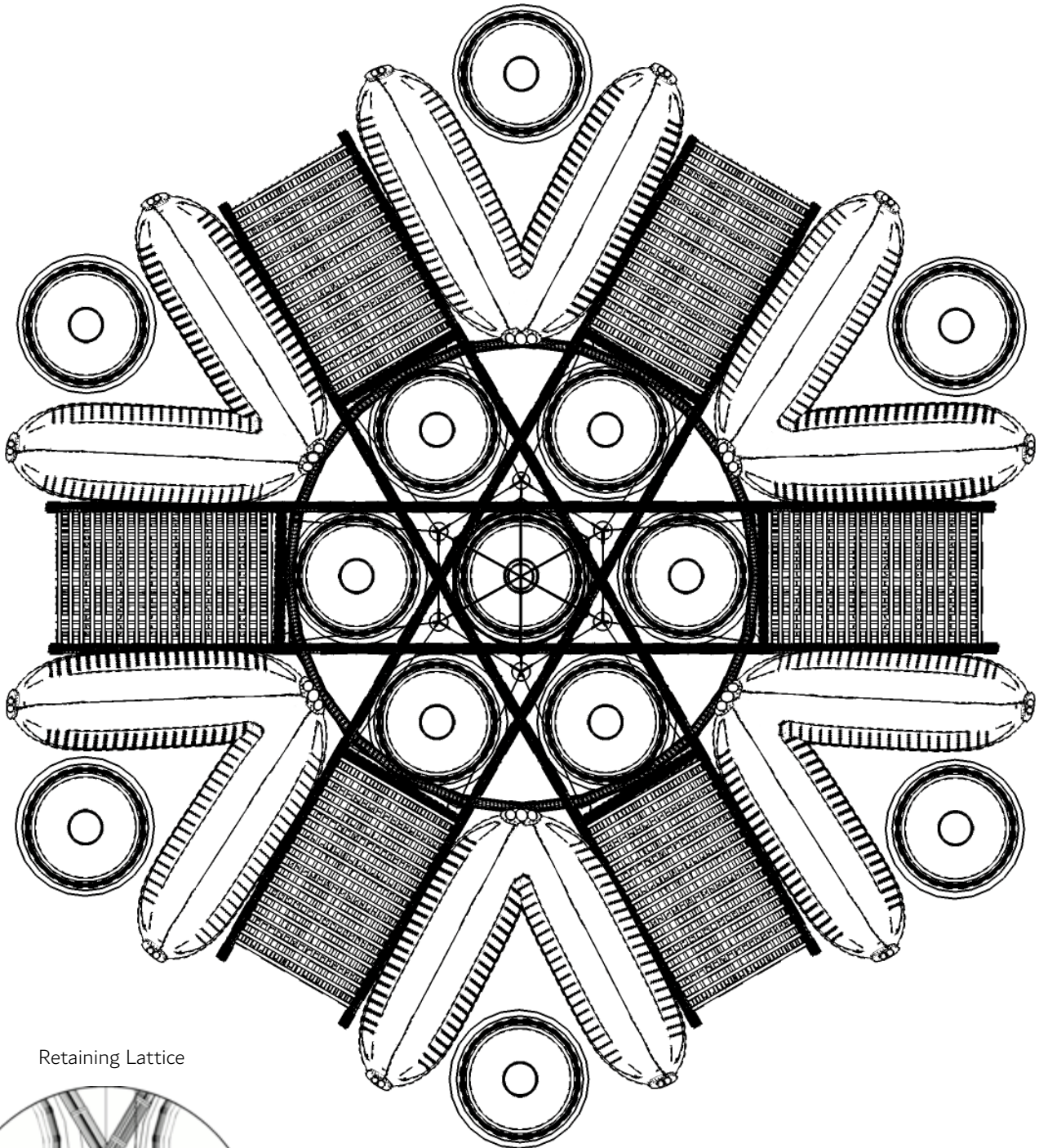
## Visualisation: Construction



Ground Plan View



## Visualisation: Plan View



Retaining Lattice

Ground Plan View

Composite parallelogram and triangulated bundles of reed, cane, palm and sapling logs retaining the tensile quality of reed bundles in a lattice retaining structure as is with the Kelek.



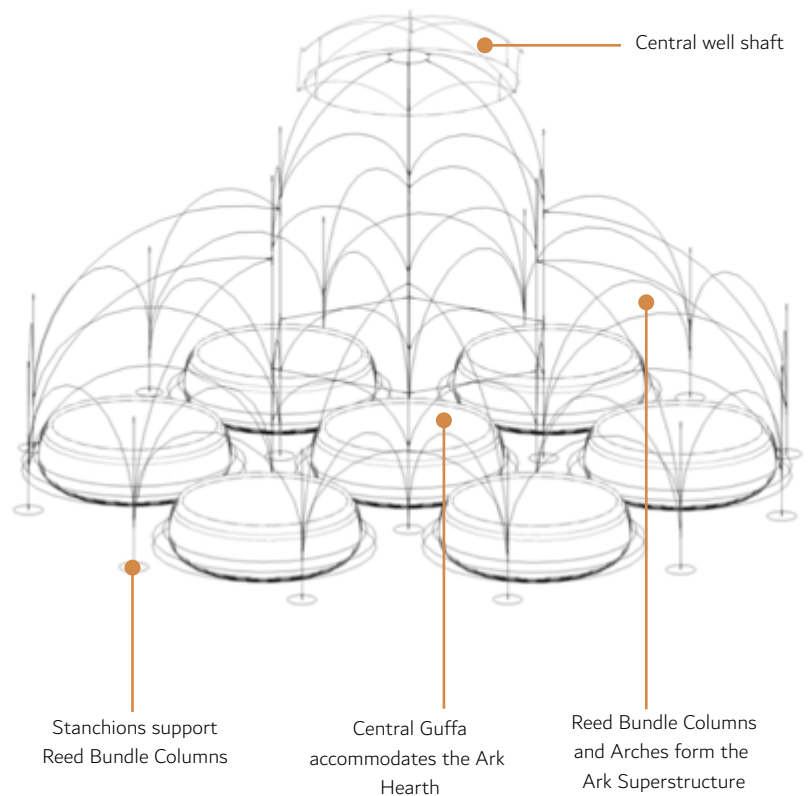


## Components of the Ark: Core with Superstructure

We envisage the gathered boats of the Ark Re-imagined joined by a bundle lattice – informed by construction techniques seen in the Shasha (reed boat), Diboun (floating island) and Chibasha (marsh mound) – and covered with an arched superstructure constructed using a variety of organic techniques, including some similar to those of Marsh Arab Mudheefs (reed buildings) as depicted in early Sumerian cylinder seals, combined with other techniques from vernacular architecture, such as Arish (Gulf palm frond architecture), Cherdagh (Iraqi technique for temporary construction from palm fronds), and Adobe (earthen architecture), as well as some of the techniques used to build each boat type.

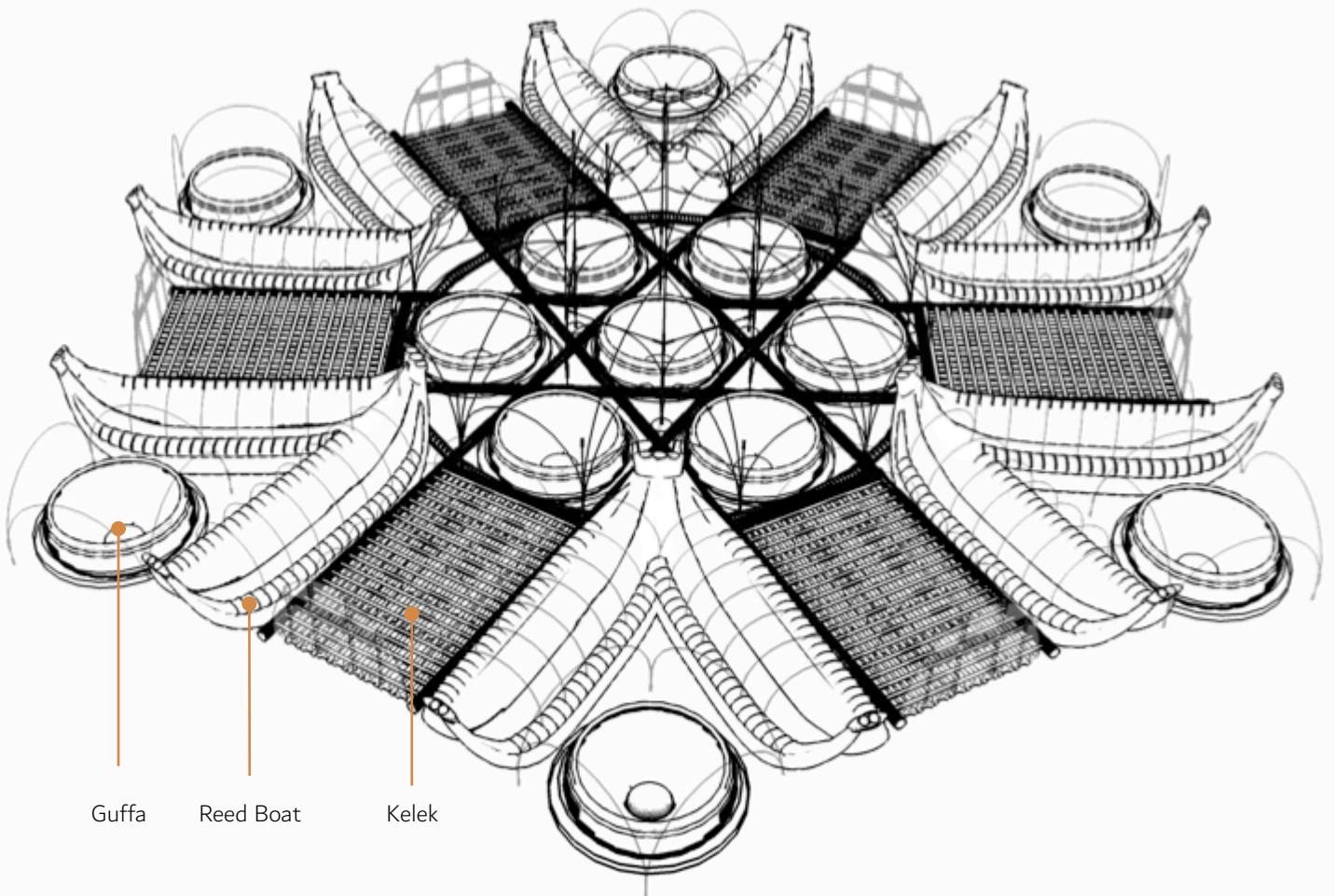
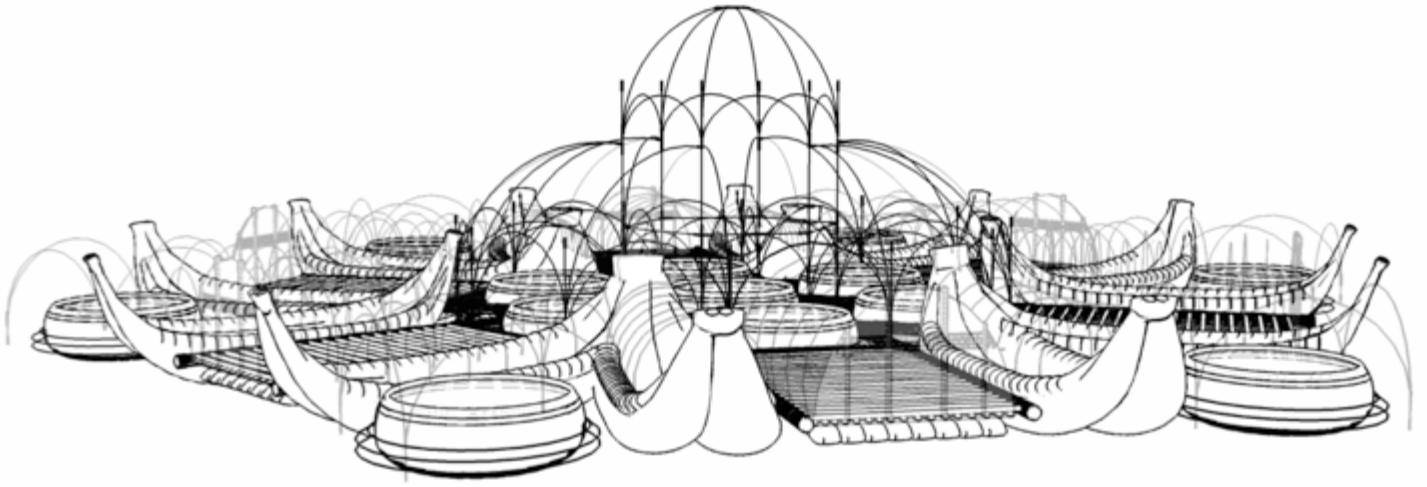
In 2016 we began modelling the armature of this superstructure using green palm fronds joined with handmade rope and anchored with coil-basket sockets. The model still stands one year on, and despite shrinkage from drying, the joints remain firm and the complete structure robust. This modelling has revealed the potential to produce the armature as several flat-packed segments, a practical solution to the transportation of the Ark Re-imagined for events in different locations, as well as demonstrating the possible application of this construction technique to produce temporary structures such as emergency shelters. Another possible side project is the design of schoolhouse extensions using this technique.

*Right and below: Modelling the superstructure of the Ark Re-imagined, with Marsh Arab craftspeople in Hilla, summer 2016*





## Visualisation: Perspective and Aerial View

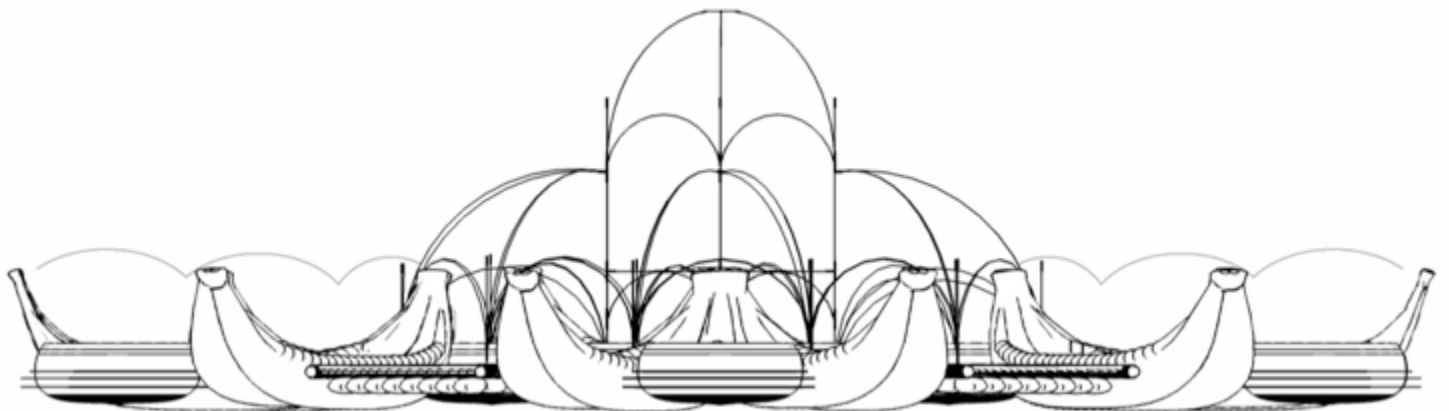
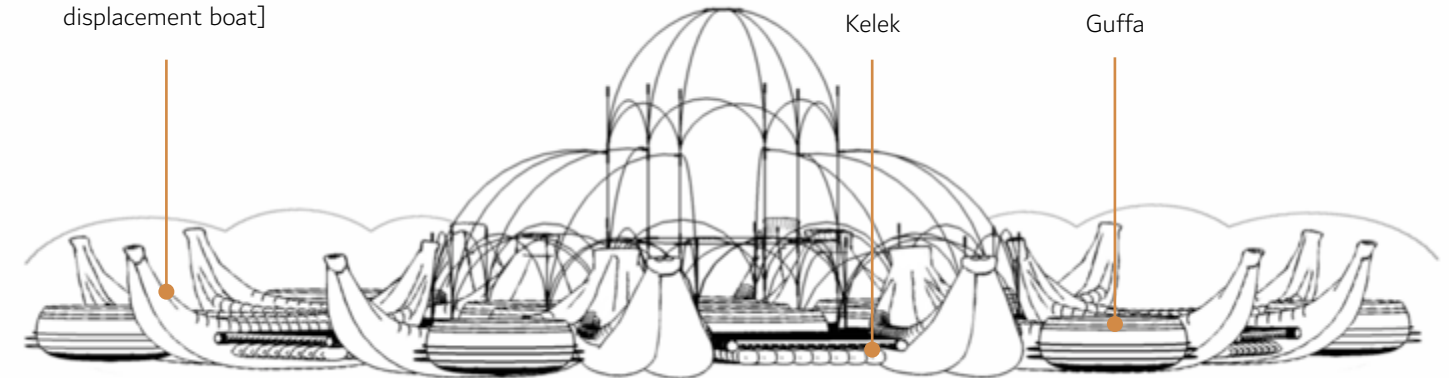


## Visualisation: Profile Views (Rotational)

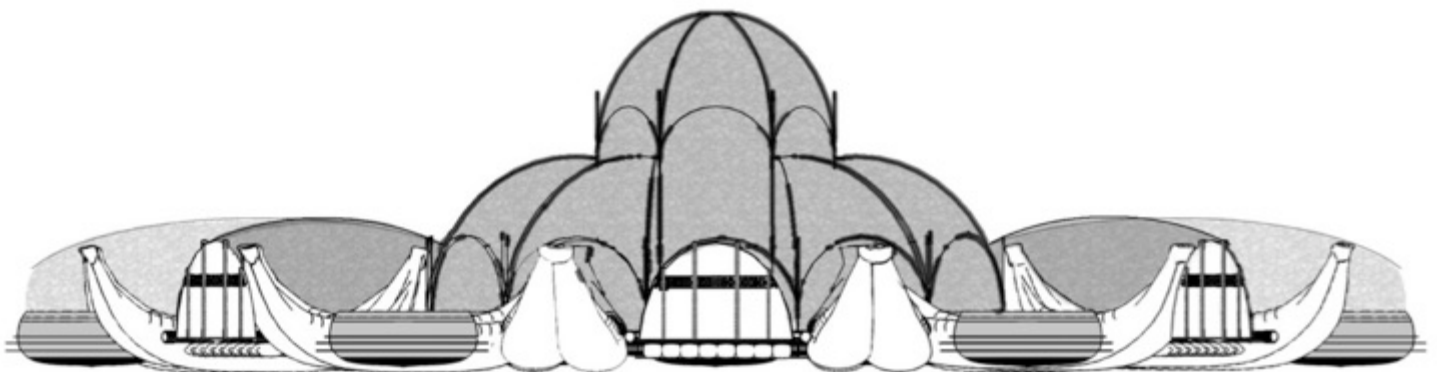
“Safina”  
[experimental  
displacement boat]

Kelek

Guffa



Superstructure  
covered in Pitch



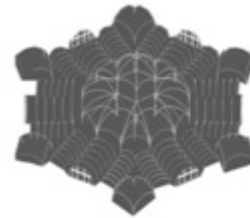
## Stages to Build an Ark

[Please read from the bottom of the page upwards to completion]

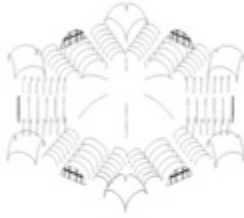
7



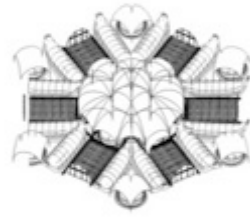
The Ark is covered in  
Water proofing material;  
Pitch, Bitumen, Oil and Wax



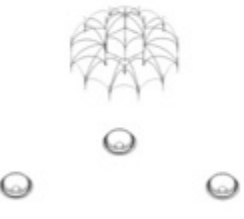
6



Superstructure Core, Chimney,  
Kelek, Mudheefs  
envelope the Boats



5



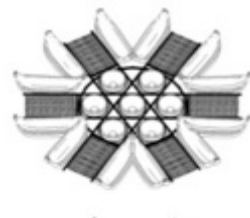
Perimeter Guffas  
connected with bundles



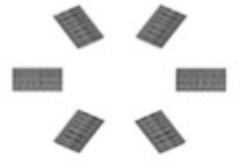
4



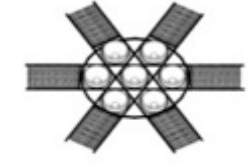
Two Reed Boats are joined  
to form one Bundle Boat



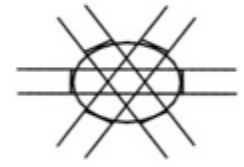
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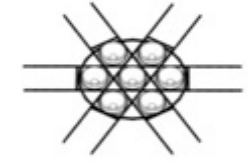
Keleks on skins  
are held by radial bundles



2



Axial and radial bundles  
Hold & support structure



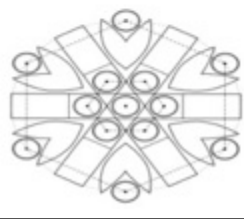
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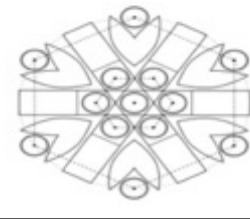
Guffas gathered



0

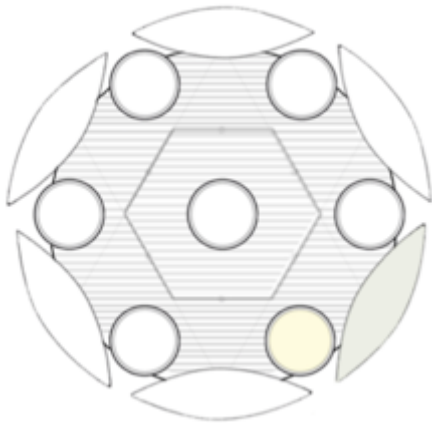


Possible gathering  
schema



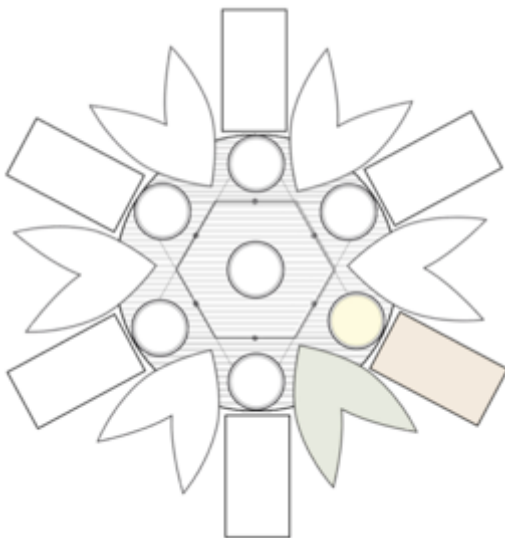


## Envisioning the Gathered Ark: Alternative Structures and Insights



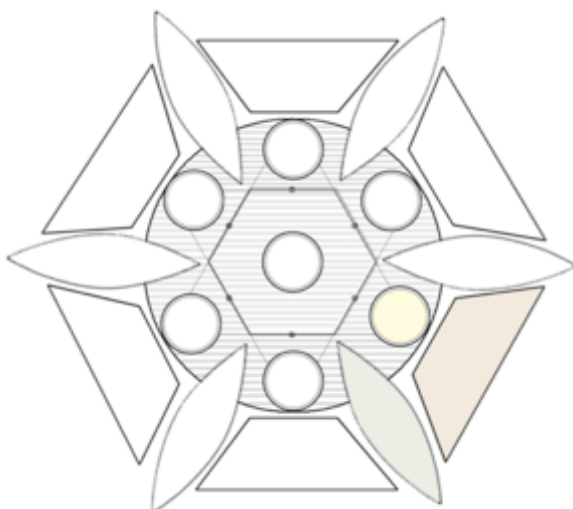
Ark Re-imagined lays no claim to knowing the actual Ark's form, had there been one, nor its definitive configuration were it a gathering.

The defining difference between an Ark and any other form of boat is that an Ark need only secure content, float, and survive the deluge: directional travel is not a necessity.



Like a snow flake gathered according to its molecular structure, one that the Re- imagined Ark shares, the configuration of component elements are endless.

Once the flood and attendant storm abates an Ark gathered can be reconfigured into another pattern that can provide directionality and independent scouting parties.



Given a post deluge and flood traumatized landscape, to have the complete components of the village and its working vessels intact at the start of resettlement is clearly a survival bonus.

### Key



Guffa



Reed Boat

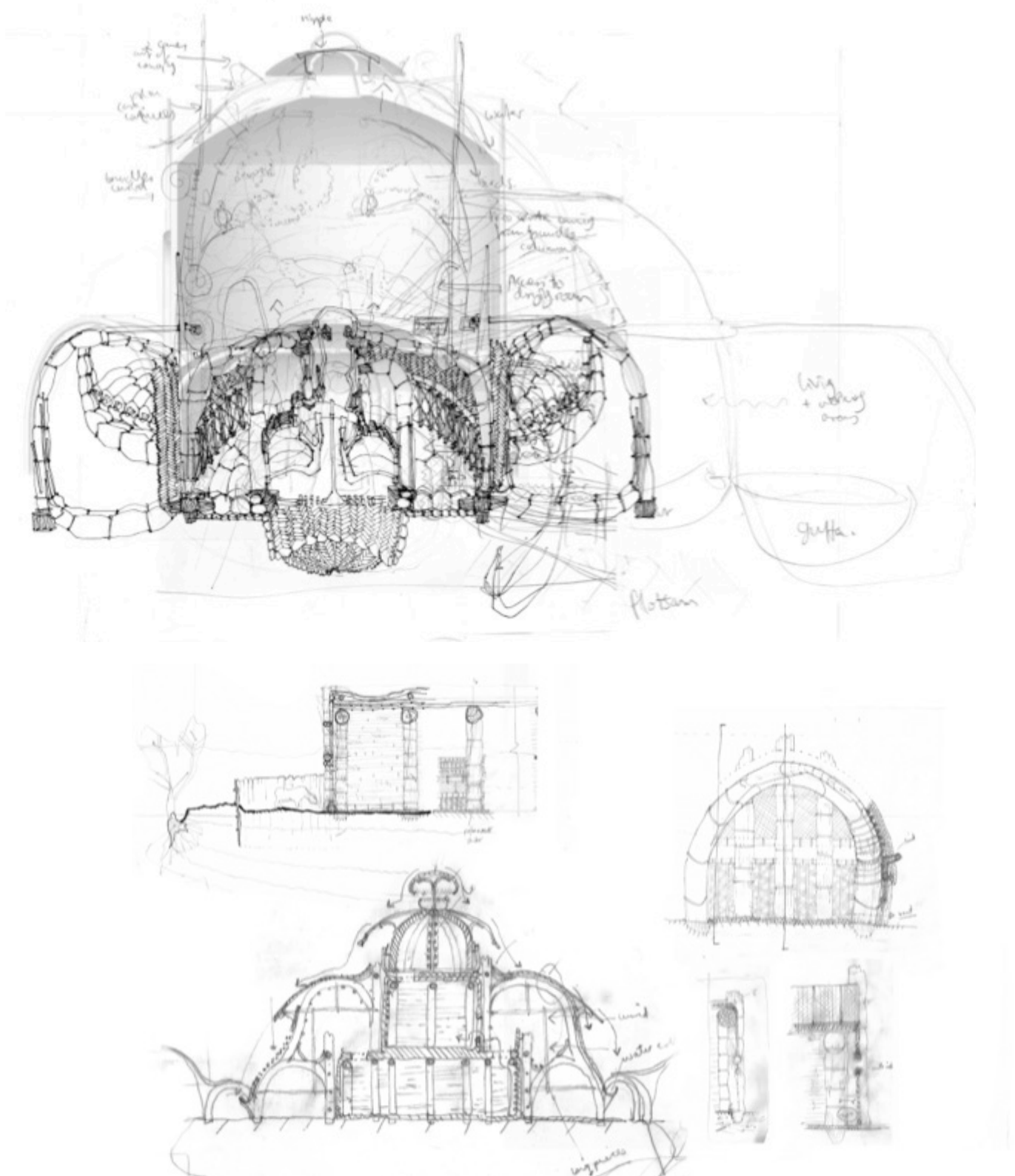


Kelek

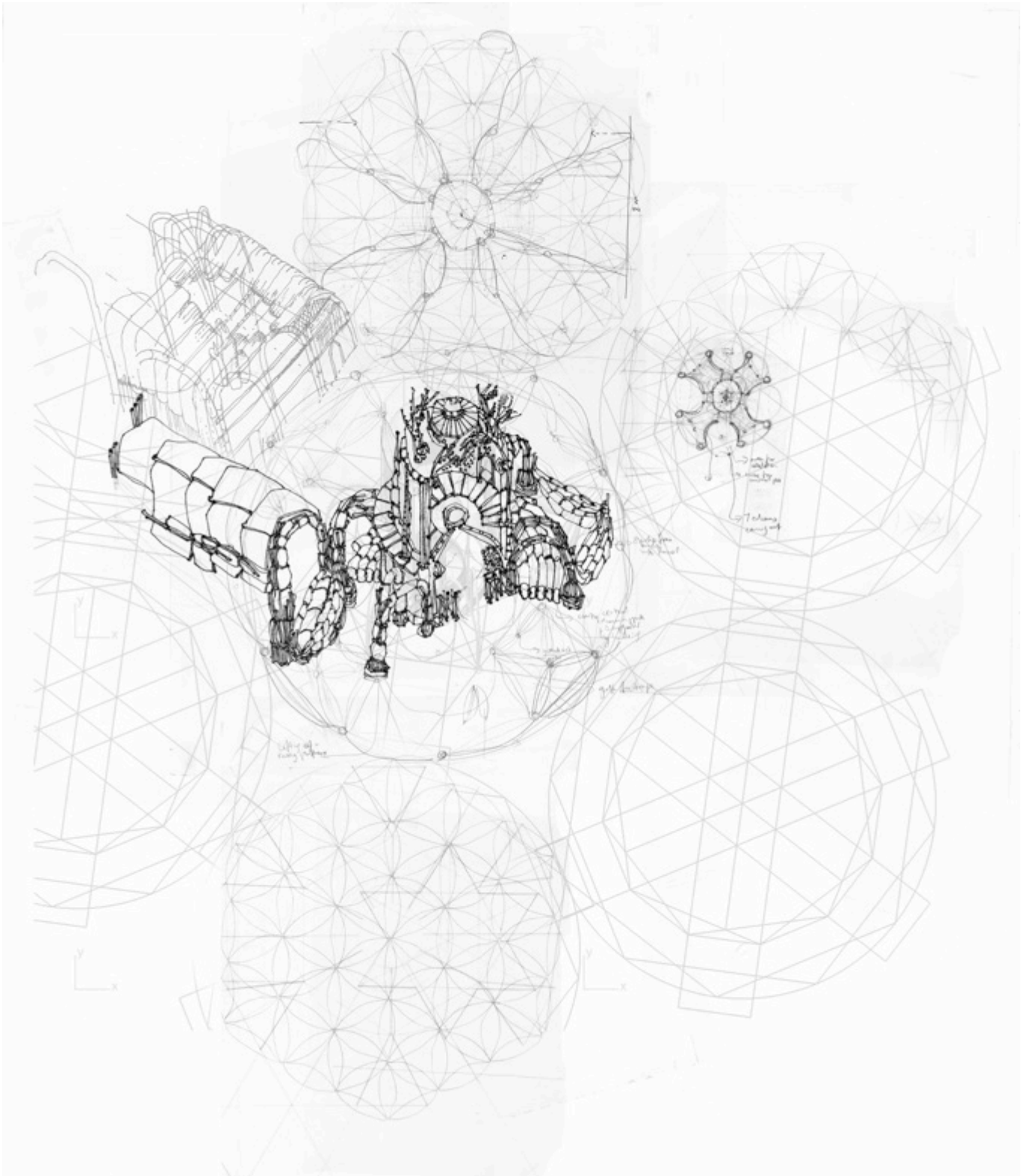


## Ark Mind: design development

Shown on this page and the following pages are visuals created during the Ark Mind artist's residency (autumn 2019; see page 40) by our skilled team of graduate architects from UCL's Bartlett School of Architecture (Charlotte Evans, George Stuart, Kai McLaughlin), informed by the knowledge and experience of local materials and construction techniques Rashad has gained in the field during the last four years. These drawings show development towards the Ark design that will be presented at the Venice Architecture Biennale 2021.

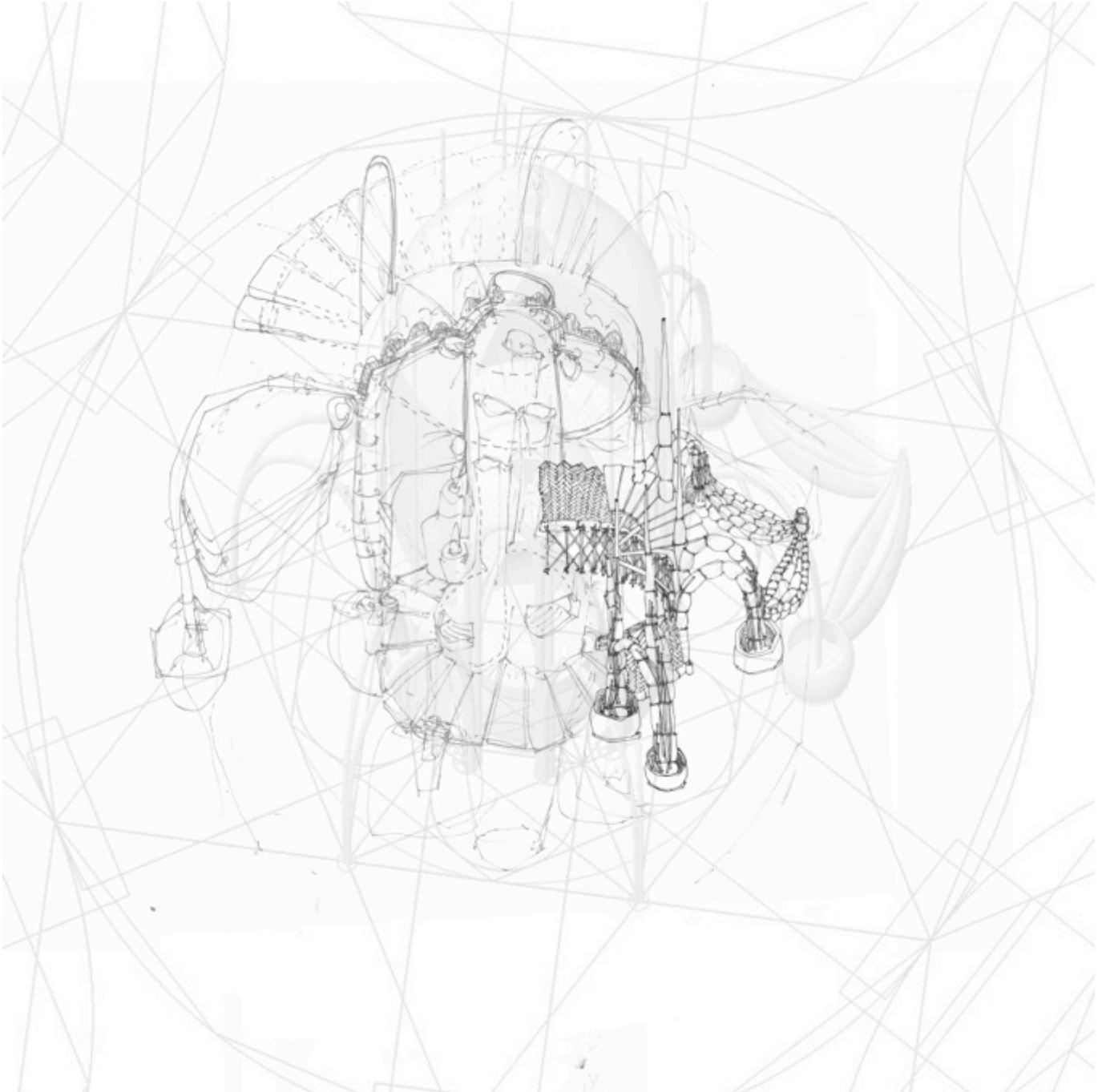


## Ark Mind: design development – continued

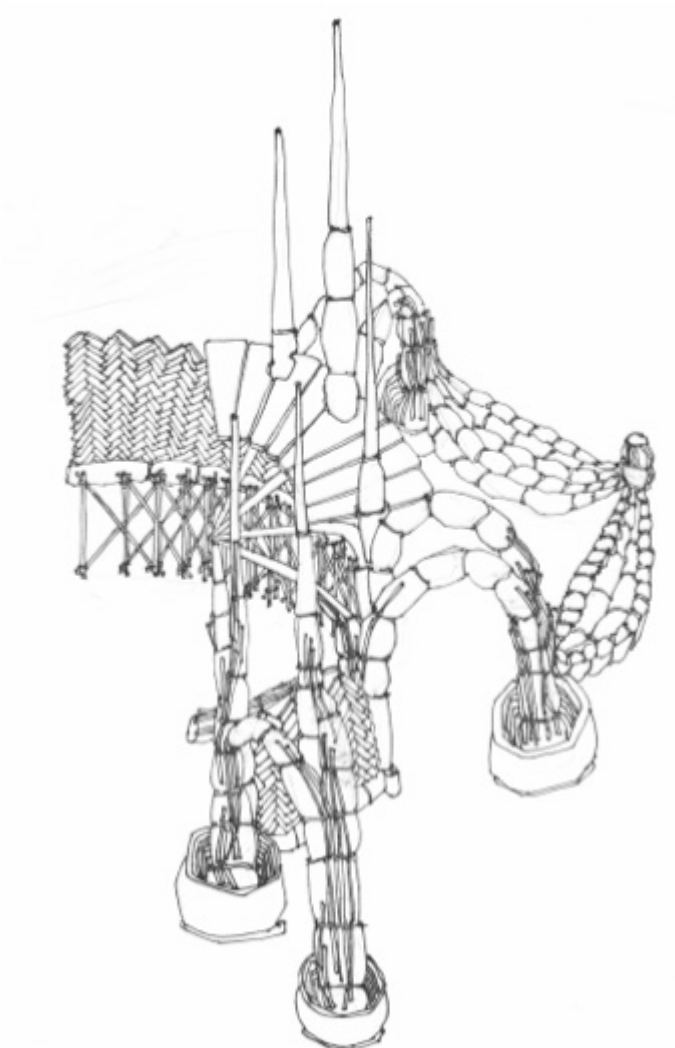
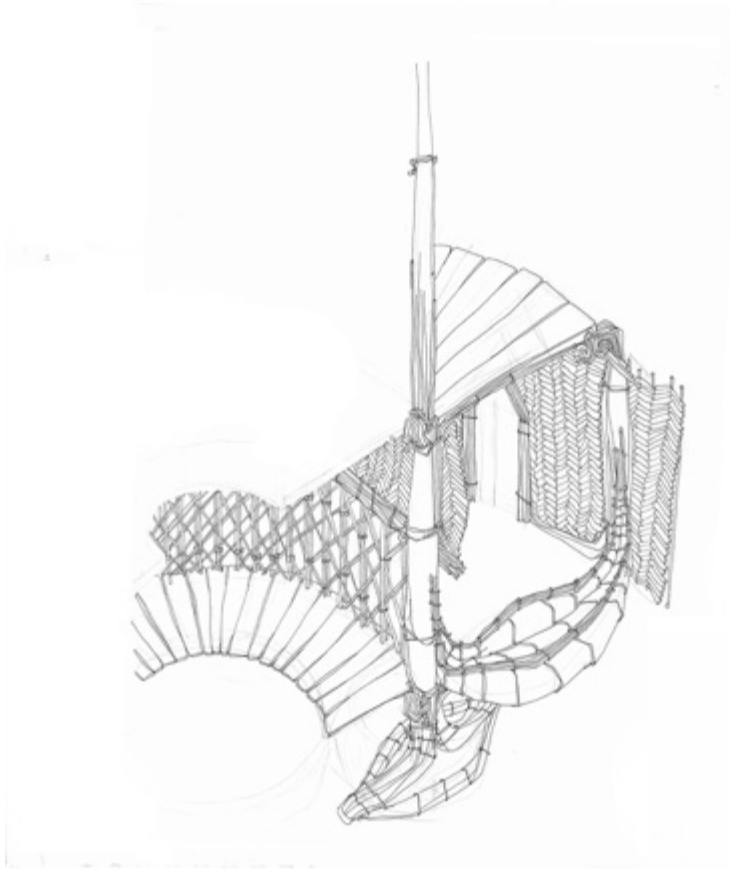


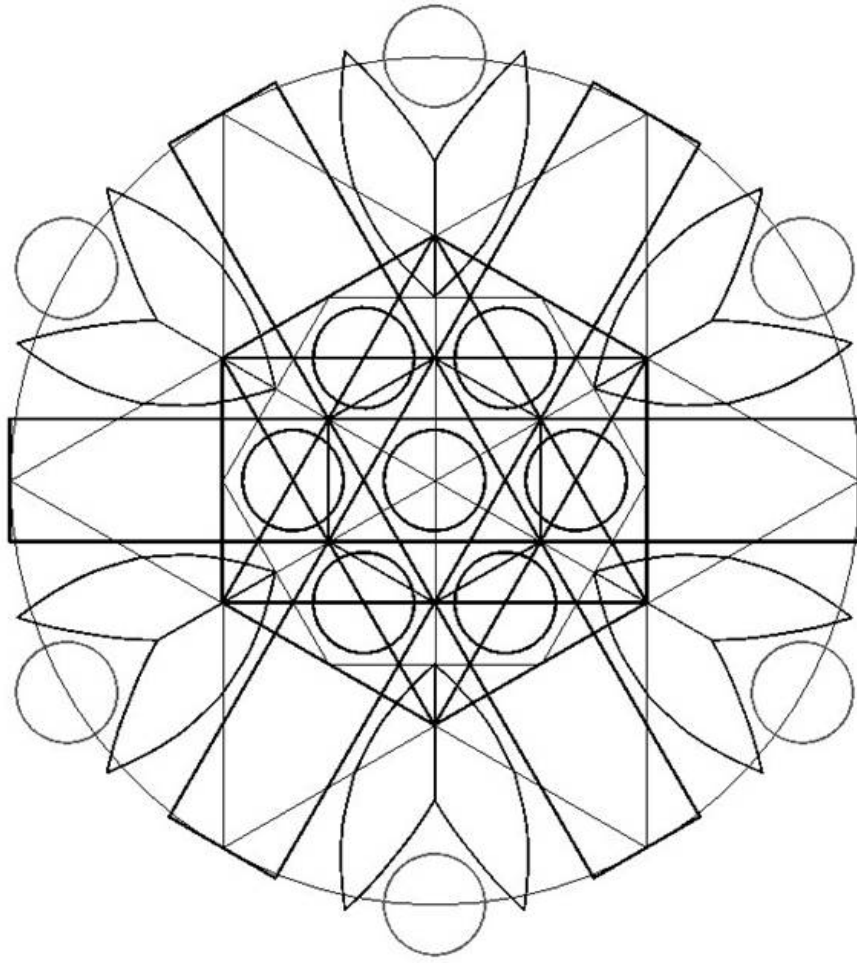


## **Ark Mind: design development – continued**



## Ark Mind: design development – continued





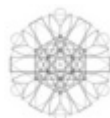
# **Part 2:**

# **Boats Beyond the Ark**

**Broadening the Scope of our Research  
into Mesopotamian Maritime Heritage**

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Opportunities for Intercultural Dialogue through the Venice Biennale  
and other International Events





## Boats Beyond the Ark: Meshouf

Meshouf is a generic term for flat-bottomed canoes made in the region of Iraq's southern Marshlands. Traditional techniques of constructing these boats are now close to extinction as craft practices. Our workshops in 2018 reconstructed a range of Meshouf types, from small flat-prowed canoes like the Matour (a one-man canoe traditionally used for hunting water fowl), to larger types with a prominent curved prow such as the Chilaika and the prestigious Tarada, hunting and war canoe of the Marsh Sheikhs.

The distinctive form of these boats can be traced back to Sumerian iconography, with models clearly representing Meshoufs found at Ur, dating from around 2500 BC. The techniques used to build them in ancient times are unclear. In our ongoing research we are investigating how construction methods may have changed through the ages.

From the mid-20th century, Meshoufs of all types used construction methods that were clearly different from those of earlier centuries, as the availability of industrially-produced nails and timber, and the introduction of the bandsaw made the production of wooden canoes cheaper. Nevertheless, Meshoufs of recent decades retained their traditional shape. The Taradas and other Meshoufs reconstructed in our workshops were built using late 20th-century techniques, as those of earlier generations are already fading from living memory. In this sense, today's Meshoufs are clearly not "boats of the Ark" but a more recent variant.

The high curved prow of Meshoufs like the Tarada and Chilaika is a visual icon, seen in Iraqi art from ancient to modern times. It seems to combine practical functions (an aerodynamic form aids speed; it also enables a paddler to gain leverage from a higher position) with aesthetic value. Prominent prows were a status symbol, and particular prow forms were associated with specific tribes or makers: for example the Nawfiliya (which has a more upright prow) is named after the tribe who preferred that form, while the Farsiya (with a narrower and more extended prow) was created by a well-known boatbuilder called Faris.

We look forward to bringing the iconic Meshouf to the waterways of Venice, alongside the presentation of the Ark Re-imagined.



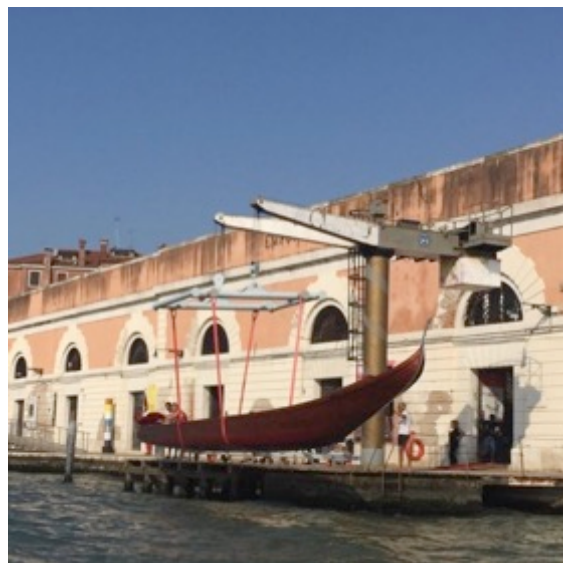
*Left column, from top: Meshouf under construction at Huwair boatyard; Meshouf prow being tarred. Right column, from top: Sumerian model Meshouf; our replica of Wilfred Thesiger's Tarada.*



## Boats Beyond the Ark: Jendoul and Ashari Bellem

Alongside the presentation of the Ark Re-imagined at the Venice Architecture Biennale 2021, we aim to collaborate with our hosts, the RSC Bucintoro – Venice's oldest and most renowned rowing club, who own our proposed exhibition venue, the Magazzini Del Sale – to create a boatbuilding workshop reconstructing historical Mesopotamian boats in the strikingly apt setting of Venice.

This project connects two of human civilizations' greatest waterways in an attempt to bring an ancient story to modern Audiences. Basra is known as the 'Venice of the East', but there are indications that Venice may once have been the 'Basra of the West': Gondolas bear a striking resemblance to the Abbasid Jendoul of 11th century Mesopotamia (bottom left) and to the Ashari Bellem more recently used in Basra (below right).

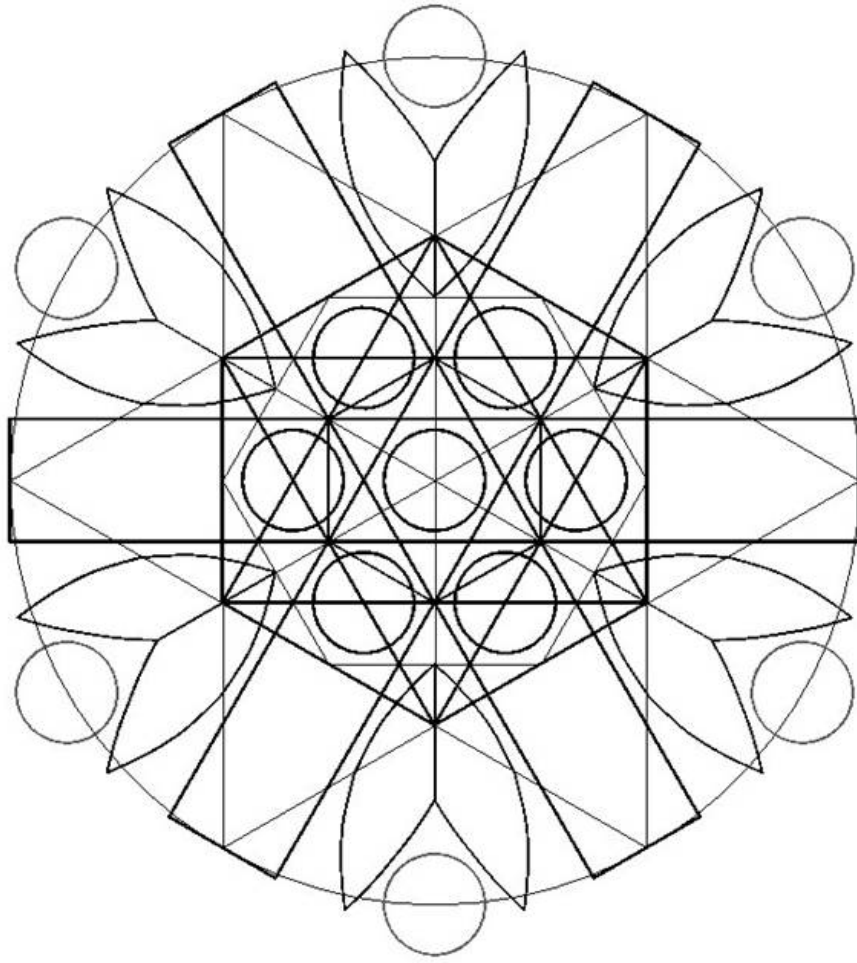


*Top: Abbasid Jendoul; above: Ashari Bellem in Basra.*

*Right: historic rowing boats of Venice, photographs from the RSC Bucintoro's Historical Regatta 2019.*







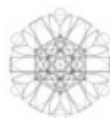
# Part 3:

# Art of the Ark

**Art Projects and Opportunities Emerging  
from the Ark Re-imagined**

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A selection of art projects developed in London and Iraq  
by Rashad Salim (some in partnership with other artists) in connection  
with the Ark Re-imagined concept from 2013 to the present.





## Ark Mind art lab

The Ark Mind is a studio for the development of the Ark Re-imagined art project, specifically in preparation for the Venice Architecture Biennale 2021.

Initially established as an artist's residency at Ridley Road Social Club, a shared creative workspace in Dalston, London, throughout September and October 2019, the Ark Mind is designed as a nomadic structure that unfolds into a series of workstations focusing on different art forms and aspects of the project. We are now seeking a new home for the Ark Mind in the months leading up to the Biennale. A potential venue has been identified at Karge Kultur, an emerging "culture factory" in a former cigarette factory in Sulaymaniyah, Iraqi Kurdistan; locations in Jordan are also under consideration.

By establishing the Ark Mind in spaces with high concentrations of creative and skilled practitioners from across disciplines, we welcome new crew members to engage and contribute to the Ark Mind and get its synaptic connections firing. We also invite small group bookings for exhibition tours, artist talks, and workshops, with opportunities for visitors to view and acquire artworks created as part of the Ark Mind, including prints and sculptures made live during the open studio.

The Ark Mind is a memory palace and creative laboratory that explores the deep history of the Mesopotamian mind, grounded in the interdependent relations between culture and nature. The residency weaves together Rashad's conceptual, sculptural and printmaking art practice, and the Ark design work of our team of graduates from the Bartlett School of Architecture, with the fruits of expeditionary fieldwork that has engaged makers and documented traditional boatbuilding practices across central, southern and western Iraq between 2013-2019.

Through the Ark Mind, Rashad Salim has reconnected with the project's artistic origins, in ongoing series of works including:

- Yemen Gourds (1996-present) - sculptural and graphic variations on the calabash, one of the earliest vessels used by humans and a possible inspiration for the form of the Guffa coracle;
- Liberated Grid sculptures and prints (1996-present), experimenting with the transformation of grid structures into organic forms;
- A major installation, *Souvenir from the Ministry of Culture* (2019), a successor to 2007's *Souvenir from the Ministry of Justice*, juxtaposing the deep history of the Mesopotamian mind with the bombed-out interiors of recent history;
- Atlas Ark series (2015-present), engaging with the geometry and symbolism of paper boats.
- Sanid series, sculptural works based on Sumerian figures used in the foundation of buildings, with component parts based on organic forms that appear to be impossibly balancing on one another, referencing the concept (central to the Ark Re-imagined) of a gathering of many parts into a unified whole.

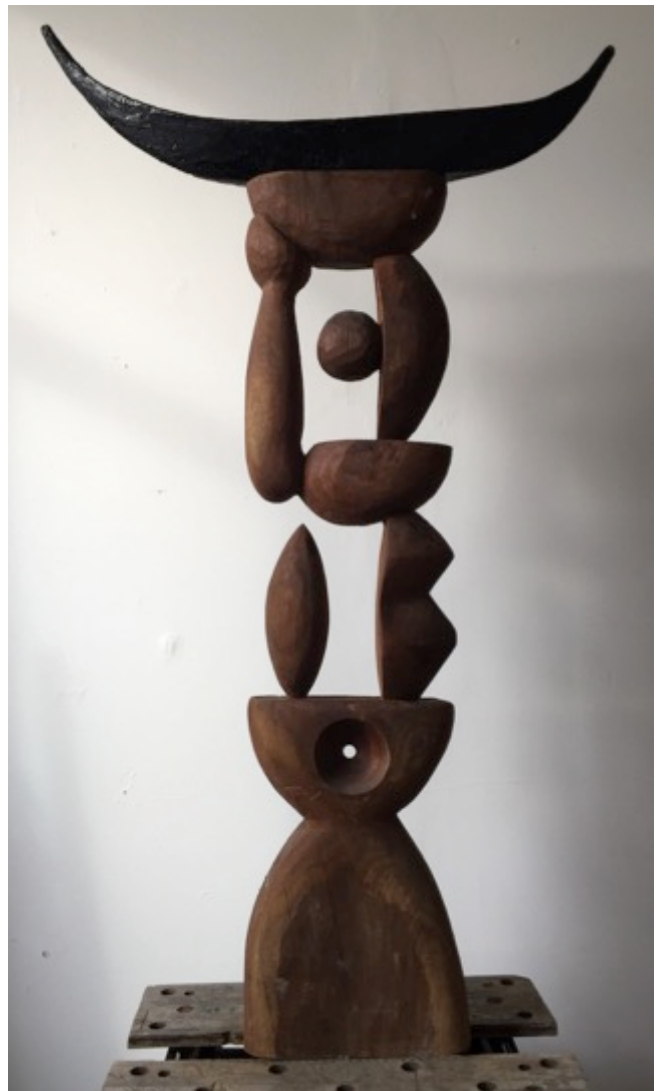


*From the Ark Mind studio at Ridley Road Social Club, autumn 2019. Left: architectural model of the Ark Re-imagined under construction. Right: "Souvenir from the Ministry of Culture" installation, featuring traditional boats in construction and use against a background of debris evoking the wreckage of a bombed-out landscape.*



## Ark Mind art lab - continued

Component project areas and workstations of the Ark Mind studio. Clockwise from top left: Yemen Gourds sculptural works; printmaking workstation; Sanid with Meshouf; Atlas Ark Paper Boats and Liberated Grid works in progress; video and photographic projections.





## Mesopotamia upon Thames

'Mesopotamia upon Thames' is the UK component of a project proposing to bring traditional Iraqi boats to rivers of the world: the Thames, Potomac, Seine, Rhine, and so on. These watercraft – Guffa coracle, Tarada canoe, reed bundle craft and Kelek raft – reach back into antiquity with the same optimum design. They have survived through the changes of history until now threatened with disappearance. These boats are components of the Ark Re-imagined, but under the banner of "Mesopotamia upon..." we propose that selected boats tour the world as a small flotilla participating in local festivals (in London's case, the Totally Thames festival which takes place each year in September) independently of the Ark itself.



*Photomontage visualisations of traditional Iraqi watercraft at famous locations along the Thames in London. Available as prints and postcards.*





## Mesopotamia upon Thames - continued

Below: *The London Guffa*, made from waste plastic bags. Coil basketry work in progress at Trinity Buoy Wharf (2013) and Edge of Arabia (2015).



Below: from the *Mesopotamia on Thames* photomontage series (created during Edge of Arabia residency, summer 2015). Early 20<sup>th</sup> century scenes of Guffas on the Tigris are transposed to today's London.



## Atlas Paper Boat Ark

*Atlas Paper Boat Ark 1 and 2, under construction and during exhibition at Edge of Arabia, summer 2015.*





## Izar Samawa – hook embroidery of southern Iraq

**Artworks in collaboration with Jamiyaat Khawla Bint al Azwar al Nissawiya –  
Feminist Association of Khawla Bint el Azwar**

During his first project scoping visit to Iraq in February 2016, Rashad met Um Mohammed, founder of the Feminist Association in the town of El Khithr ("the Tomb of the Green Man"), a satellite town of the city of Samawa on the banks of the Euphrates in southern Iraq. The Association was set up to advocate for, and improve the situation of widows, divorcees and other marginalised and victimised women, of whom there are very many, as a result of the recent war and ongoing violence. These women come not only from the town but also from the surrounding farming areas.

Samawa and the southern regions of Iraq are famed for embroidered marriage rugs and blankets (izar Samawa). The iconography and patterns of these embroidered woollen rugs date back to ancient Mesopotamia. During the sanction period, these rugs (izar) were one of the very few exports from Iraq, smuggled out and sold cheaply in neighbouring countries. Due to the wars and conflicts of the past 40 years, and the circumstances of exploitation in which izar were produced during this time, the rugs lost quality and attention to detail.

Um Mohammed is reviving this traditional embroidery as a way to develop work opportunities for the women of her community. Older women who really know the technique and are famed for it, and other women with newer creative approaches to the technique, are sharing the skills with a new generation of makers. The crafts involved include spinning, dyeing and weaving as well as embroidery. The women dream of having a sanctuary and workshops devoted to their endeavour, and Um Mohammed has a plot of land she has donated for the realisation of this aim.

Rashad Salim wishes to support and work with the Association's aims, as he has a longstanding interest in the design of Samawa rugs. His teacher, the artist Shahr Hasan al Said, and uncle Jewad Salim, as well as other seminal Iraqi artists were clearly influenced by this craft or art, and its iconography which can be traced to ancient cylinder seals. Visiting Iraq during 2016 as part of the Ark Re-Imagined project, he set out to explore the current state of this craft, and was introduced to the Association and Um Mohammed by Jassim al Asadi of Nature Iraq.

Rashad and the Ark Re-Imagined project invite interested parties to support these courageous and talented women and the art forms and handicrafts that have helped them survive, which also lie at the roots of our civilisation. Enquiries and commissions are welcomed. All proceeds from sales will contribute towards realising the Association's dream of the creation of an independent, self-sustained sanctuary and workshop: a place where the women can, as they have said, "be themselves". To gather, support, have fun, laughter, friendship, and learn.



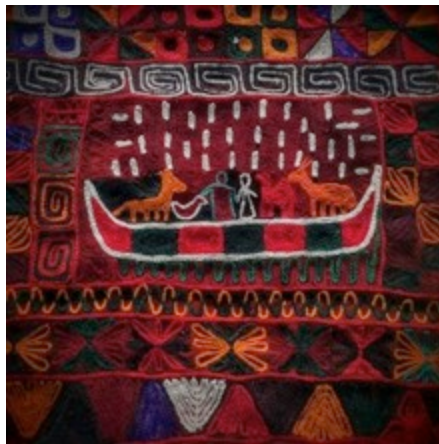
*Registration certificate of the Feminist Association of Khawla Bint el Azwar (above)*





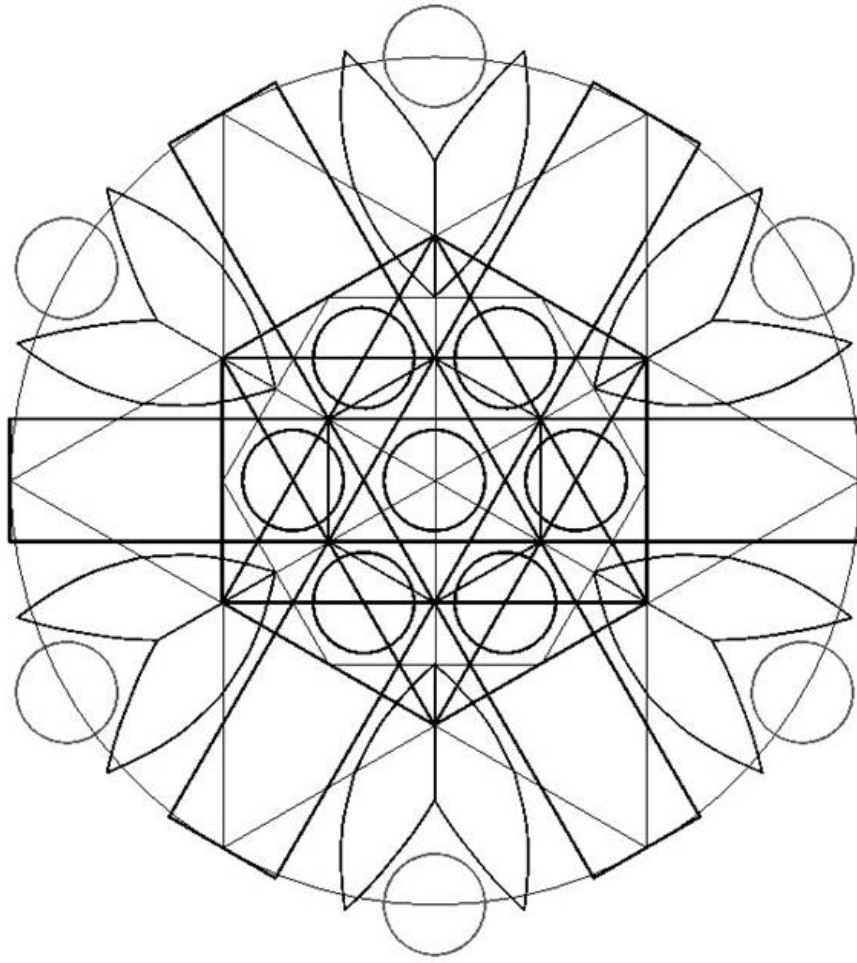


Workshop with the Feminist Association to design rugs associated with the Ark project, March 2016



Experimenting with rug designs that incorporate iconography and narratives of the Ark Re-imagined, spring-summer 2016





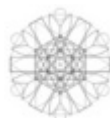
# Part 4:

# An Ark for Iraq

**Preserving Endangered Craft Heritage  
and Capacity-Building in the Crafts Sector**

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The Ark as a Catalyst for Anthropological Research  
and Economic Development: a Programme Design





## Introduction

**The Ark Re-imagined** is conceived of **not as an end but a means**: in a tangible sense, the boats of the Ark and its associated flotilla are intended to be used in river expeditions for the purposes of research, education and cultural connection; in a wider sense, the Ark Re-imagined is an instrument for rigorous engagement with a broad range of interconnected subjects and issues, as outlined in the following pages.

**The Ark is a universal cultural icon** of prehistoric provenance, situated within the emerging field of **Intangible Cultural Heritage**, and the experimental borders between **Art and Anthropology**. With this icon as its conceptual hub, the Ark Re-imagined project offers an approach for field research, ethnoarchaeological experiential investigation and academic study, with complementary objectives of practical socio-economic and cultural development in present day Iraq. Our **proposed programme of research combined with development** goes under the working title **An Ark for Iraq** – indicating its intention, like that of the ancient Ark, to preserve the essentials of the life of its culture, and carry forward the seeds of continuation of that culture through unstable times and into the future.

During seven field trips to date (The Tigris Flotilla, 2013, and six working visits to Iraq throughout 2016) considerable information has already been gathered and documented, as indicated in this section, laying the groundwork for our current planning and fundraising stage. Project activities have attained some public appeal and the beginnings of a media profile, as well as positive social impact benefitting those so far involved. The project has very broad scope for further development, led by **art as a catalyst for capacity building, public engagement, anthropological and other academic research and applied learning, cultural heritage dialogue and intercultural conversation** – all critically needed at this historical and geological juncture in time (with regard to Iraq's post-conflict reconstruction, and more broadly with reference to climate change and the advent of the Anthropocene). These activities bring immense opportunity for economic and cultural outcomes at local, regional and international level.

In sum, the Ark Reimagined facilitates public engagement with a range of interconnected issues in the field of cultural heritage, offering a **narrative structure** and a **vehicle for advocacy and education**, with its media and art world profile working to empower more **analytical and academic** methods of engagement.





### Engaging with Academia and the Heritage Sector

As a collaborative project working in the intersection of **art and design, anthropology, and the environment**, the project seeks to involve relevant international academic institutions, as well as partners in Iraq's academic, public, and private sectors. Our aims include preserving Iraq's threatened watercraft heritage and material culture, reviving artisanal traditions, and building heritage capacity—targeting UNESCO sustainability goals 15 (use of ecosystems) and 16 (effective institutions).

The traditional folk heritage of Iraq that will be documented in this project is now critically endangered. Unlike the destruction and loss of archaeological heritage witnessed during the current period, the threat to craft traditions as part of our **“intangible heritage”** has received little or no media attention. This heritage survived for thousands of years through the rise and fall of states and empires, and now, exceptionally, in our time, is facing potential extinction. At the same time, the capacity of Iraqi academia has been diminished through war, political and economic pressures; the preservation and study of our intangible heritage requires a reinvigoration of the disciplines of **Anthropology and Ethnography** in Iraq, and of their **interdisciplinary and international connections**. Through the Ark for Iraq we aim to provide one catalyst for this reinvigoration and connectivity, enabling not only the preservation and documentation of cultural heritage, but also its reintroduction and continuation as living culture.

Many techniques and products, such as types of boats, have already disappeared over time, without remains or Iraqi institutional engagement. So as well as documenting and preserving existing material heritage, a further objective of the project is to **reconstruct**, through archaeological evidence as well as experiential field work and creative experimentation, some of those lost techniques, watercraft and associated artefacts; and to re-establish continuity in their production by developing new applications and markets for craft techniques and products.

In addition to academic partners, we are looking to collaborate with the wider heritage sector, including both public and third sector organisations that preserve and promote cultural heritage and indeed exploit it through tourism, as well as craft businesses; and to provide opportunities for the general public to engage with cultural heritage through social events such as exhibitions and festivals. Iraqi contemporary art and its supporting infrastructure and institutions developed significantly during the 20th and 21st centuries, but to date there has been little or no evidence of a contemporary craft movement developing in parallel. The Ark for Iraq project aims to help nurture such a movement through a program of field practice, outreach events and exhibitions exploring and expressing the connections between art, design, craft, archaeology and the environment. One proposed vehicle for this movement is the establishment of an **Iraqi Crafts Society**, to be developed under the umbrella of the existing (well established and respected) **Iraqi Artists' Society**, which has branches in many major towns of Iraq as well as in diaspora countries.

The Ark for Iraq project provides opportunities to develop capacity and open bridging conversations, addressing major issues and potential future conflicts (e.g. regarding climate change) not only within Iraq, but also with the wider world through academic and heritage communities of interest.



## Connections with Gender

A particular area of interest is to facilitate academic engagement with issues of gender, which is of relevance to the project in several ways:

- With regard to historical context, the design of ancient boats and vernacular architecture was notably influenced by the transition to a patriarchal society;
- In the present day production of crafts, men and women often have distinct roles, and the acceptance of some (mainly textile) crafts as the economic domain of women means that engagement via these crafts is one of the few “ways in” for outsiders to connect with local women;
- The nascent heritage and tourism sector raises emergent gender issues: for example Western women visiting the Marshes as journalists or tourists exhibit a degree of freedom which serves to underline the social restrictions and economic exploitation to which local women are typically subject. This calls for examination in order to develop models of engagement that serve local people and their cultural heritage more effectively than conventional tourism and industrial exploitation.



## Connections with Archaeology

We seek engagement with archaeological specialists in order to identify textual references to ancient organic boats (including those of the Ark Re-imagined) and also to relevant aspects of material culture, crafts, rituals, and the environment.

As archaeological excavations take a growing interest in the popular culture of the times they investigate (not just temples and palaces, but how daily life was lived), we suggest that knowledge sharing between this empirical discipline and our own art-led approach (combining tangible experience, creativity and logic) would be of mutual benefit.



## Training and capacity building

An important aim of **partnerships with academic institutions**, both in Iraq and internationally, is to identify, scope and design relevant training courses in various specialist subjects and skills, and to facilitate their provision (by academic institutions based either within Iraq or outside, where the relevant expertise is not available internally) in order to develop the capacity of Iraq's academic institutions and heritage sector to engage with the country's intangible cultural heritage, particularly its folk crafts, and central to these, the watercraft at the heart of this riverine and riparian culture. Relevant types of training include the following:

### Professional training in maritime archaeology and heritage

- Short courses aimed at introducing Iraqi heritage professionals and students to the objectives, theory and methods of maritime archaeology, ethnography, museums and heritage from an academic and professional perspective.
- Specialist course in orthographic drawing and illustration skills required for this field, for academic artists via the Iraqi Artists' Society.
- Educational and research expeditions in Iraq and on waterways of the world, with opportunities for cultural exchange, dialogue, study and training [see overleaf: River journeys as a key programme element].

### Practical training in boatbuilding crafts and other skills

- Training delivered by skilled Iraqi craftspeople with the aim of increasing the skilled workforce involved in reconstructions of watercraft and other relevant artefacts for exhibition and study, as well as in the manufacture of new products for commercial sale.
- Increasing the diversity of cultural heritage workforce (with regard to gender) by training women, particularly with the aim of creating economic opportunities for socially marginalised women such as widows and divorcees.

### Further training for the heritage industry

- Training in business skills e.g. to improve the marketing and distribution of craft products.
- Tourism and hospitality training towards the development of heritage destinations and activities, enriching the genuine heritage experience.
- Application of craft skills and knowledge of cultural heritage in educational contexts, e.g. identifying ways these may be integrated into school curricula, and/or into events at museums and cultural centres.

## Academic outputs and other publications

As well as achieving practical development objectives on the ground as outlined above, the project also offers many opportunities for academic institutions to extend their investigations into specialist areas of Iraq's intangible cultural heritage. Some possible outputs include:

### Journal articles in English and Arabic academic publications

- One with a focus on boatbuilding practices that follows the construction of the various types encountered, and their social contexts.
- One with a focus on heritage production and communication in the Iraqi context, using traditional watercraft as its focus.

### A monograph or academic book

- Conceptual focus of monograph to be developed, perhaps extending the investigations of the journal articles.
- A collection of essays from different contributors is an additional option.

### Cartographic publications

- Through our river journeys and field trips we aim to facilitate the mapping of intangible cultural heritage sites (e.g. sources of materials, places of making and trade in crafts, present or in living memory); and through sourcing archival information, to correlate historical maps with contemporary ones.

### Online dissemination

- A blog-type feed (and/or Facebook page) highlighting news, resources and activities for the widest possible audience.
- A project website as an online resource for learning and training.
- An open-access digital archive of all the materials gathered, perhaps hosted by an academic institution or partnership of institutions.





## Other publications interpreting aspects of the Ark Reimagined

- Book(s) for a general (non-academic) Iraqi audience;
- Book(s) for children;
- Magazine / newspaper articles;
- A printed newsletter aimed at rural craftspeople – to be published by the Iraqi Crafts Society once established;
- Presentations / promotional literature advocating the addition of Mesopotamian maritime and craft heritage artefacts to museum collections worldwide (thus providing further work for craftspeople trained through the project).

## Re-publication of archival material, papers and journals

- Rediscovering the content of Iraqi anthropological and ethnographic publications from past decades, and making this valuable material accessible to students and the general public, as online content and/or in print. Reconnecting with surviving academics involved in this past work, and linking with the present day community of independent / amateur researchers
- Arabic translations of selected documents / key chapters from internationally sourced publications on relevant subjects (e.g. ancient boats, Mesopotamian flora, anthropological methodology) to make information available to Iraqi academics, students and other interested parties such as amateur researchers.

## River expeditions as a key programme element

Our aims include not only the reconstruction of boats as artefacts of cultural heritage (see page 31) but just as importantly, the use of those boats in river expeditions with groups of participants including researchers, students, craftspeople, reporters and (perhaps in a future phase) tourists.

We propose that river journeys through areas recently affected by conflict can be designed to serve several significant functions, including:

- Assessing the damage to cultural heritage (in this primarily river-based culture) that has resulted from war and disruption, finding what remains of the living culture and scoping the work needed to preserve and reinvigorate it;
- Forming part of a process of reconciliation between different cultural groups and the reconstruction of civil society generally, for example by creating opportunities for groups from different areas to travel and meet each other, for urban students to meet rural people, and so on;
- Providing opportunities for academic and heritage specialists from other countries to visit these areas, perhaps as part of their own studies and/or to engage and build capacity within local academic institutions;
- Laying the groundwork for tourism development, by providing a means to design and develop tourism programmes that can engage with and support the preservation of genuine local cultural heritage rather than damaging it; there is also potential for specialist tourism e.g. for ornithologists.

Safina Projects seeks partnerships with relevant organisations (e.g. universities for educational and research trips, and travel agencies for tourism development) to co-design these journeys with us and to manage their delivery. We aim to build capacity so that such journeys can take place without our direct management. In order to facilitate their delivery, we are seeking to develop (with partners in Basra) a boatyard equipped with a flotilla of traditional boats designed for group expeditions. The production of boats for this purpose – in increasing numbers, we hope, as the geographical scope expands and more organisations take part – will provide a new market for craftspeople making traditional boats.

In the immediate term our primary focus would be the journeys from Baghdad to Basra (on the Tigris) and Babylon to Basra (on the Euphrates), but we aim to widen the scope to include not only the whole of Iraq but the greater Tigris and Euphrates watershed, including Syria, when the security situation allows.

In addition, we aim to bring groups from Iraq (particularly cultural groups that are still custodians of river culture, such as the Marsh Arabs) on river-based expeditions abroad, for example in the UK and Europe, challenging the norm that these groups are “explored” rather than being explorers themselves. We consider that there are aspects of cultural life in the UK and Europe which could help inform an approach to the preservation of crafts and material cultural heritage in Iraq; since the industrial revolution, despite the diminution of crafts as part of everyday life, western cultures have typically developed a “crafts movement” that actively preserves, showcases and values traditional making skills and creates opportunities for the public to engage with them. By visiting cultural heritage-based venues and projects in the West, particularly those that engage with rivers, wetlands, boats, basketry, and other relevant issues, we hope Iraqi groups would be inspired to imagine new ways of preserving and propagating their own crafts and cultural heritage practices.



## Research and Documentation

Essential to the academic and heritage objectives outlined in the previous chapter is an ongoing process of research in the field, both independently and with academic partners, to understand and document Iraq's craft techniques - a heritage traced back to prehistory - particularly those under threat of extinction due to conflicts and economic pressures. This process of research and network-building aims to advance engagement with traditional Iraqi crafts through understanding the relationship between people and environment that has shaped **Mesopotamian cultural and aesthetic sensibility**.

The project aims to document threatened watercraft and craft techniques through survey, drawing and photography, and to record and preserve through ethnographic and artistic encounter the knowledge of a disappearing generation of makers. The Ark Re-imagined will draw upon local expertise and materials to build authentic reconstructions of lost and endangered vessel types known from ancient iconography and/or the recent oral, textual and photographic record. Rashad Salim's pilot work in engaging craftspeople has demonstrated the potential to train a new generation, through **intergenerational learning**, in boat and raft-building and generic making techniques such as basketry, cordage, weaving and embroidery, and to develop broader commercial, artistic and heritage sector applications of these techniques.

Outputs of this research will form a collection of artefacts and information that will ideally be housed in a permanent gallery or museum wing; we are in discussion with partners in Basra about possible locations for this collection. The constructed Ark Re-imagined will also function as a **floating museum**; while its computer-generated model will be a virtual museum of intangible cultural heritage and the typology of making. The project will disseminate its cultural production through a bilingual website, river events including festivals, social media, conferences (Iraq and UK) as well as academic and popular publications pairing scholars with Iraqi craftspeople.

The Ark Re-imagined project offers an **experiential** means to engage with cultural heritage, and traditional crafts within the present environment of Iraq with an **expeditionary** approach. In the process of investigation, modelling and construction of the Ark, the project is documenting traditional crafts currently in existence, and beginning to fill the known gaps created in war and conflict, informed by past anthropological research, historical and archaeological archives and material objects. The ultimately speculative nature of the form of the Ark will thus be as far as possible grounded in, and in service to, the empirical rational.



Outlined below are specific topics we propose to investigate through experiential research and documentation in the field:

## **Modelling the Ark Re-imagined**

In the first phase of the project's Iraq field work (2016) we have begun modelling the Ark Re-imagined at miniature (1:10) scale and at 1:2 scale, starting with its core (the gathering of Guffas) and working outwards to other boats and upwards to the mudheef-like superstructure. At the same time we are developing an understanding of the techniques and materials for a full-scale Ark (60 meter diameter).

By miniaturising the proposed design of the Re-imagined Ark using original material and techniques in the model making, we can:

- Document existing techniques, gather these in one place and construct for study and presentation;
- Explore and test the overall design of the Ark Re-imagined, such as the behaviour of an articulated gathering of joined boat types in different conditions including storm;
- Refine techniques and quality with the crafts and material engaged in, from which examples further product design and development can be explored, leading towards new practical and commercial applications;
- Promote the discipline of model making in design work and creating product prototypes generally, as a skill for makers to develop new products for market.

## **Watercraft of the Ark Re-imagined**

We are rigorously researching those types of watercraft that constitute parts of, or exemplify techniques for, the Ark Reimagined. Since most of these are now rarely made (or in the case of the Zaima, have been lost since the mid 20<sup>th</sup> century), the primary research technique is reconstruction, informed by oral, textual and photographic sources. We are also seeking to collect and study examples of existing boats where these remain available.

- Guffa – coracle
- Kelek – raft
- Shasha – reed bundle boat
- Zaima – reed bundle displacement boat with internal armature
- Diboun / Chibasha - floating and grounded manmade islands.

## **Other Known Watercraft**

While the Ark forms the conceptual hub of the project, during field research we find that local contacts share information about all varieties of watercraft, and the project serves a wider function in preserving a whole body of cultural knowledge – not only that associated with the Ark itself. The project aims to gather and deploy a maritime heritage flotilla, with emphasis first on prehistoric boat types; however, our engagement in the field brings many opportunities to locate further information on more recent boat types as well, and we seek to establish mechanisms to share this information with academic partners of relevant specialisms.

Known watercraft that are not part of the design of the Ark Reimagined, but which we still seek to study (through research, collection, and where appropriate reconstruction) include:

- Marsh Arab canoes (Meshouf, Tarada)
- Iraqi small boats (Bellem)
- Barges (Awama, Ke'id)
- Other lesser known and studied boat types.

## **Unknown Watercraft and Vernacular Architectural Structures of the Ark Reimagined**

In addition to the known types of watercraft listed above, the Ark Re-imagined also comprises unknown watercraft and structures which we propose could have formed part of an ancient Ark. Despite a lack of empirical evidence for their existence, these proposals are based on known local techniques and materials that would have existed in the region at the time of the Ark (such as the vernacular architecture techniques of Cherdagh and Arish), which through rational and creative experiential research we are extending into additional applications. These unknown elements of the Ark Reimagined include:

- Safina – large displacement boat (12m length), with mixed technique basketry hull composed of layers of different organic materials, including palm, grass and reed, as appears to be the case with the Zaima (page 35);
- Connecting structure, superstructure and infrastructure – based on the technology of Marsh Arab Mudheef buildings, extending these techniques to a form “in the round”.





In addition to the reconstruction of boats and other Ark elements, we are also seeking to work with academic partner institutions (both Iraqi and international) to rigorously record and document material cultural artefacts and practices. During 2016 a significant amount of initial photographic, observational and note-based recording has been carried out by Rashad Salim in the field. The information gathered requires collation and assessment, to be followed with new recording activities (ideally with the participation and/or advice of academic specialists) to ensure that 'full coverage' has been achieved, and all the necessary angles covered. Our aims in this regard include:

## **Recording endangered material culture**

This involves the detailed recording of examples of boat types, artefacts, tools, raw materials, and the environments in which crafts are produced (such as workshops and boatyards). Its objective is to make a lasting, published record of the craft and tools encountered (or reconstructed during the project) in sufficient detail to allow them to be reconstructed in the future. Methods of recording will include:

- Detailed survey, resulting in orthographic boat drawings of the types encountered;
- Detailed photography;
- Sampling of materials (e.g. wood) for species identification, if necessary. We aim to partner with botanical experts (including contacts at the Ministry of Culture and Mustansiriyah University; we also aim to connect with UK institutions) to improve understanding of the material qualities that made ancient technologies work, and to support the development of new products.

## **Recording endangered craft practices**

This involves the detailed recording of the craft processes involved in the production of each of the watercraft types and related artefacts that we encounter and/or reconstruct. Its objective is to make a lasting, published record of the craft practices, allowing for them to be followed as an 'instruction manual' (alongside the drawings) in any future reconstructions. The principle methods of recording will be:

- Interview and participant-observation of the craftspeople involved in the production of each of the crafts identified. Documentation methods would include video and/or audio recording, photography, and fieldnotes.
- Recording, principally through video and photography, but also through note taking, of each stage of the production process – from cultivation and harvesting of raw materials to vessel manufacture.
- Documentation and creation of samples (including miniaturisations) for the project and generically for designers and artists to engage with, aiming to inspire and generate new product designs.

## **Exploring social contexts**

This involves the production of a collaborative ethnographic account of the social contexts of the individuals and communities involved in building and use of the boats identified. The objective is to situate the material culture within its community context, taking into account such dimensions as gender, family, community, class, and faith in order to understand the socio-economic foundations of watercraft production, and the relationships and knowledge transmission pathways that enable(d) them to be reproduced. This will include exploring, and where relevant engaging with, traditional and historical rituals such as pilgrimage, and communal activities such as the tarring of boats. We also aim to better understand the continuity of traditions and how they change over time.

The principle approach, where production of a boat type or related craft remains current, will be interview and participant-observation of the craftspeople involved, with documentation methods including video and/or audio recording, photography, and fieldnotes. Where a craft product or practice has been lost, we will seek to recreate the situation of production and commission the making of pieces, based on a combination of locals' accounts from memory (where applicable), documentary evidence where available, and rational argument (e.g. from comparable examples, or clues found in the language).

## **Recording endangered language**

This involves the recording of indigenous linguistic terminology related to watercraft, their construction and use; as well as to crafts and vernacular technologies in general, and relevant flora and botanical terminology. It would largely be done by extraction of terminology gathered during the activities described above.



## Archival research

As well as primary research in the field, we also advocate and aim to encourage and organize secondary research in libraries and archives (including photo archives) for materials related to Iraqi rivercraft and handicrafts. Important points to note here include:

- Pre-invasion Iraq had a good state sponsored Anthropological and 'Folk Tradition' Cultural Heritage (تراث شعبي) academic and private initiative movement. Many if not most collections, libraries and recorded (oral history) archives have however been destroyed; some are scattered and could be traced, a few may be intact. There is rich scope for engaging with this informed official and private documentation and capacity building in this field is a key objective of the project.
- We advocate, and seek partners to develop, an analogue and digital Cultural Heritage library in general and Maritime Heritage library in particular, with the translation and illustration of key international works, the edited reprint or digital of best Iraqi pre-invasion works and those from the Gulf states.
- Rashad Salim has collected the complete edition of the Iraqi Anthropological Society Journal 'Al Turath Al Shabi' (التراث الشعبي). A facsimile digitization is a desirable aim if not already done (possibly by the U. Chicago Library, tbc); also its study in general, including tracing authors of note and translation where relevant to the project.
- Britain has a vast and comprehensive archive in all media relating to the period of transition from traditional riverine culture to the industrial era (combustion engine powered). The Imperial War Museum and Oxford archives (Naval Intelligence Handbook, Iraq and the Persian Gulf 1944, Oxford) and the Pitt Rivers Museum can fill gaps and open routes of investigation, including geographical and ecological changes between then and now as well as rivercraft and material culture.
- In addition to archives specialised in Iraqi cultural heritage, we also aim to gather an archive of solutions to current practical problems in Iraq, based not only on local tradition but on the best traditional and contemporary practice worldwide. As our field trips uncover problems that local people face, we will explore whether lost local cultural heritage holds a solution; if not, we will seek solutions in worldwide cultural heritage, and where applicable, in more recent inventions and innovations. We will also explore effective ways to make this information accessible on the ground, whether online, in print (possibly as a newsletter) and/or through events and activities.

*The entrance to Baghdad's Al Mutanabbi Street, the "street of the booksellers" (above); sourcing editions of "Al Turath Al Shabi" (right and above right)*



## Towards a Typology of Making

While the Ark Re-imagined project is inseparable from the specific ecology and culture of Mesopotamia, at the core of its approach is a perspective on crafts that can be applied to any culture and location: that is, the proposition that handicrafts based on **organic materials** form the primary link between a natural environment and the people who inhabit it. The making techniques identified within this project can be understood as local examples of a universal typology of making, manifest wherever human culture exists, exemplifying the interface between human consciousness and physiognomy, and our material surroundings.

We are looking for a typology of making – grounded in empirical evidence, augmented with logic – that can be regarded as having existed from early prehistory. Within the scope of this project, the “catchment area” for this typology is the whole of Iraq and the wider Gulf area, but our analysis is also informed by a global culture sharing the same typology that can be traced to prehistory, partly through empirical evidence but also through a rational assessment of the resources and capabilities available to ancient cultures.

Many of the boat types represented (the coracle, canoe, raft) are found around the world, as are the skills & crafts that constitute them such as cordage, bundle construction, and basketry. We propose that such techniques can be termed **“inherent technologies”** in the sense that they are recognised by humans as self-evident potentials in our natural environment, rather than being invented. The Ark Re-imagined, informed by the globally recognised Ark narrative, offers a vehicle to engage internationally in the **Material Cultural Heritage (MCH)** and **Intangible Cultural Heritage (ICH)** conversations and to help raise the profile of these issues in popular consciousness and build capacity to preserve this vital heritage, seminal to human culture.

The application of a rational (logic-based) approach to a typology of making includes the principles of **biomorphism** or **biomimicry** (the copying of forms from nature into design) and of **skeuomorphism**: the copying of shapes and designs from one material to another. A prominent example of the latter within the watercraft of Iraq is the curved prow of the Marsh Arab canoe (most pronounced in the Tarada): our observations suggest that this form may have been inspired by the curvature of the palm frond, a possible material for the armature of reed bundle boats, as explored at the suggestion of two unconnected local makers during our workshops in early 2016 (in Chibayish) and summer 2016 (in Hilla).

At a more general level, we argue that the aesthetics of design are inherent to the plants and climate in which the design originates. This principle forms the basis for many insights into how objects take shape – from the movement of a palm tree in wind inspiring the aerodynamics of a sail, to the function of a wind instrument being inherent in the wind blowing through reeds. Iraq’s two main native plant types are palm trees and reeds; it is therefore logical that in considering the design of an Ark of the region, the material properties and aesthetic qualities of these plants are key factors. Academia’s search for ancient boats, including the Ark, has been skewed by the subjectivity of those searching, often bringing assumptions based on European materials and technologies rather than those of the Ark’s presumed place of origin.





## Product Design and Development of Craft Enterprises

In addition to the design and production of the Ark Re-imagined artwork itself, the field research and networking that has taken place throughout the project and will continue in the coming years also brings many opportunities to identify local talent and enterprises engaged with crafts in Iraq. Such enterprises would in many cases benefit from capacity building and business development support, for example through **mentoring, apprenticeships, product development, quality control, and networking** to facilitate designer-producer partnerships and to develop access to new markets. We envision that such forms of support could effectively be provided through the development of an **Iraqi Crafts Society**, initially under the mentorship of the well-established **Iraqi Artists' Society**.

The provision of such support has the potential to bring many benefits economically and culturally: **creating work, training and business opportunities for craftspeople, artists and designers** in Iraq, and facilitating access to their products for new audiences and customers within Iraq and in the diaspora. To be effective this requires continuity on the ground – not a brief step out of the office, studio or institution, but deep involvement acting as a catalyst for long-term cooperative development.

We suggest that this work requires the creation of a specific post – requiring funding distinct from that of the Ark Re-imagined project – for a Product Developer who would work closely with craftspeople, and build bridges with designers (both in Iraq and internationally) and with retailers or other routes to market. In addition to facilitating the design of new products, a number of practical issues need addressing, including training and quality control, how to pay the makers, how to export and transport the products, and advocating the creation opportunities for products to be showcased in key locations within Iraq (e.g. airports: in most countries the duty free area includes a section for traditional local crafts; at Basra airport there are now some examples of this, but Baghdad airport exclusively stocks international consumer goods)

To date Rashad has engaged with a number of makers during visits to Iraq in 2016, both commissioning pieces as part of the Ark Re-imagined project, and identifying further opportunities to develop and market their work. Examples include:

### Rugs and embroidery

After an introductory workshop with Um Mohammed and the women of Jamiyaat Khawla Bint al Azwar al Nissawiya (see p. 20-21), Rashad engaged the Association in a programme to help develop their production and marketing, introducing them to Awj Baghdad Cultural Centre, where their recent exhibition immediately sold out. Rashad also held a drawing workshop, engaging the women in the creation of Samawa rugs as artworks, with the story of the Ark and the flood represented in visual narrative. Makers who show promise as artists are supported to develop their designs as artworks that develop and extend the traditional iconography of the rugs.

In working with the Association, Rashad has identified four types of products they can create:

1. The established style of embroidery they already produce and sell, which uses a quicker, looser version of the traditional Izar technique.
2. Izar that aim to achieve the quality and embroidery techniques embodied in the best of the Samawa tradition, documenting this tradition at the same time as reviving it.
3. Izar created as artworks by the women and in collaboration with other artists, and as narratives of the Ark Re-Imagined.
4. Design and marketing of other products such as bags, belts, decorative panels, and bespoke interior design, and the capacity to fulfil the requirements of commissions.

### Basketry

The craft of basketry (in many forms) is central to the Ark Re-imagined project, being the main technique for producing structures from organic materials prior to the development of metal tools. In recent times in Iraq, like all crafts it has degraded in quality, and some skills have fallen out of use and been lost. Various techniques persist in use and memory, as Rashad found during his first scoping visit to Iraq in early 2016. However, in today's Iraq, basketry is more marginalised than textile crafts, and lacks the organisational structures (such as small businesses and co-operatives, typically providing work for women) that are found in the textiles sector, like the Feminist Association mentioned above. The basket-makers Rashad met were all individuals or households, with no attempt at organising on a larger scale. In order to reinvigorate the craft of basketry, forms of collective support and co-ordination are needed; we propose that such support can be offered through the development of an Iraqi Crafts Society (see above).



## Guffa production

After the Tigris Flotilla expedition in 2013, Rashad journeyed to Babylon in search of genuine traditionally made Guffas, and found the last one still in existence locally, made before the 2003 invasion by a now elderly woman, Um Hyder. On his return to the area in 2016, he tracked her down, aiming to commission Guffas for the Ark Re-imagined project – only to find that sadly she had suffered a stroke, and was no longer capable of working. Instead her nephew, Abu Hyder, a master builder who was previously her assistant in Guffa making, offered to take on the commission under her instruction, together with Abu Amer who had once been her foreman and supplier of materials for the Guffas. Abu Amer's young daughter has since begun learning the skills of the trade and is a keen apprentice. Together they have now produced 10 fisherman's Guffas for the Ark Re-imagined project.

Meanwhile in Hamza el Gharb, Rashad met Um Mohammed (not to be confused with the Izar maker, above) and her two sisters, all widows, who produce coil baskets for home use which they sell in a local market. They were interested in developing new applications for their skills and agreed to take on a commission to produce miniaturised model Guffas for the first scale model of the Ark. A visit from Abu Amer helped them to achieve the correct form for the Guffas, which they returned to Abu Hyder for bracing with pomegranate wands. The planned next step is for the sisters to begin producing the basketry layer of large cargo Guffas for the full scale Ark, with the bracing to be added by the team in Babylon.

Guffa production has a potential market in the museums and heritage sector worldwide (every major anthropological museum should have one – pivotal as they are in the development of both watercraft and basketry) and we aim to build partnerships in this regard. The techniques used in Guffa production also have wider applications in the design and development of other products.

## Keleks and leather products

A connection has been made with businessman Zayn el Abideen, a prominent exporter of leather based in Hamza el Gharb, who has kindly offered to support the Ark Re-imagined project in kind by providing all the skins required to produce Keleks for the Ark. He has also provided introductions to local tanners, including some who work with traditional techniques that could form a basis for the development of new products.

## Cordage and rope-making

For the coherency of the Ark Re-imagined project, we seek to produce all component parts locally from local materials, including the rope used for coil basketry, which is now typically imported. Rope for the Ark project has been commissioned from a maker in Ain Tamur whose existing trade is in producing rope seats to climb palm trees. The craft of rope-making in Iraq generally has been decimated over the long term, as local products began to be replaced with imports as far back as the 18<sup>th</sup> century when European colonial powers began to control the Indian ocean. Rope now made locally from organic materials in Iraq tends to be informally produced, cheap and quick with a short life; yet the environment is rich in organic fibres and there is much potential to rediscover and revive high quality hand-made cordage that once thrived with a wide variety of applications.

## Taymima (triangular amulets)

These traditional amulets are still widely made and given to new-born babies as a token of blessing and protection. Their geometry relates to that of the seba'ayoun (central to the design of the Ark) and originates as a symbol of fertility. We see these small parcels as symbolically the opposite of a bullet: their intent is protective, but they have nothing to do with aggression. We consider that the development of Taymima as a product in themselves (e.g. as a souvenir) and as a basis for other product designs (e.g. as a motif on fashion or home accessories) is a stand-alone project, though it stands in conceptual relation to the Ark Re-imagined through its geometry and through its deep roots in Iraqi culture. Taymima, like other textile products, offers economic opportunities for women who in the conservative society of Iraq today are otherwise excluded from much of economic life. The medium of textile crafts is also a socially acceptable way for outsiders to engage with women, whose knowledge and memory of traditional skills and cultural heritage is much needed as part of the project.



## **Palm tree products**

Products from palm trees are far too numerous and varied to list here – from culinary uses to kite-making, fencing, and vernacular architecture – but some of the lines of investigation we are exploring within the Ark project and as opportunities for craft enterprises include:

**Products from Karab (palm frond stub):** This material is currently used extensively as fuel, and thanks to its capacity to float, is also used to make swimming aids. Further potential applications we identify include other types of floats, such as floating candles during the ritual of Zakariya (currently performed using styrofoam floats that pollute the river they are intended to honour); the production of lightweight shoe soles (a locally made alternative to plastic soles, which are also a ubiquitous source of pollution); and use in water filtration.

**Needles, hooks and pegs:** The Guffas produced thus far for the Ark project have been made using metal sewing needles, but we are looking to explore the use of the palm tree's strong spines (just above the Karab) to make sewing needles and other similar products such as fish hooks. These spines have already been used as pegs during the prototyping of the Ark's superstructure.

**Palm furniture:** This craft is evidenced from the earliest Sumerian iconography. Today, while antique palm furniture is still sought after and admired for its quality, contemporary production and trade in palm furniture is threatened by a decline in quality brought about by competition from foreign imports and cheaper production methods including plastic substitutes, as well as palm furniture that is constructed cheaply using nails rather than traditional jointing methods. There is a potential market both within Iraq and in the diaspora for high quality furniture made using the traditional techniques and perhaps adapting them into more contemporary products and styles.

**Palm fronds as a construction element:** Typically only the poorest of the poor now use palm fronds in construction (except as a fencing material); but they are among the essential elements in the construction of the Ark Re-imagined, with their distinctive curvature lending its graceful form to both the reed bundle canoes that form part of the Ark's outer circle, and to the arches of the superstructure that unites the gathered boats of the Ark.

## **Summary and conclusion**

By choosing the Ark as the core of our project, we set out a systemic challenge to the systemic pattern by which colonial powers have imposed their own products and narratives onto colonised peoples. Western narratives of the Ark conjure images of a European-style wooden galleon of a type that could never have existed at the time and place of the Flood. Countless other products imported into Iraq since 2003 (as well as during previous eras) have displaced our intangible cultural heritage and its products and technologies which for millennia held people and ecology in a resilient web of interdependence. The Ark, as a vessel designed to contain and preserve all the key elements of a culture, is an appropriate hub for the systemic challenge to resuscitate what remains of this culture, to re-know our materials, techniques and the environment that gave birth to them, not only as users but as experientially and aesthetically engaged participants.

The role of art and design, both as a means of engagement and in the form of tangible outputs, is a key aspect of the project's vision and approach. Unlike a purely academic project, we set out to make artworks and products with the ancient techniques we are exploring, not only to document the ways they are and have been used but to use them in new ways.





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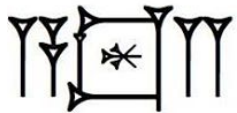
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