



MAFIA ISLAND - TANZANIA

Magemani Resort Proposal

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Mafia Island is a natural paradise part of the Mafia Archipelago, which is scattered over the Indian Ocean 21 km off the Rufiji River Delta in central Tanzania.



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The island offer a huge variety of breathtaking landscapes, white sand beaches with crystal clear water, extraordinary vegetation and it is sourrounded by a magnificent coral reef.



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The population of the archipelago is approximately 40,000 living in 24 villages scattered throughout the main island, Jibondo, Juani and Chole islands. The people live in rustic fishing communities and farming villages. The majority are Muslim but there are many Christians. Traditional religion also manifests itself in ritual dances linked to the lunar cycle.

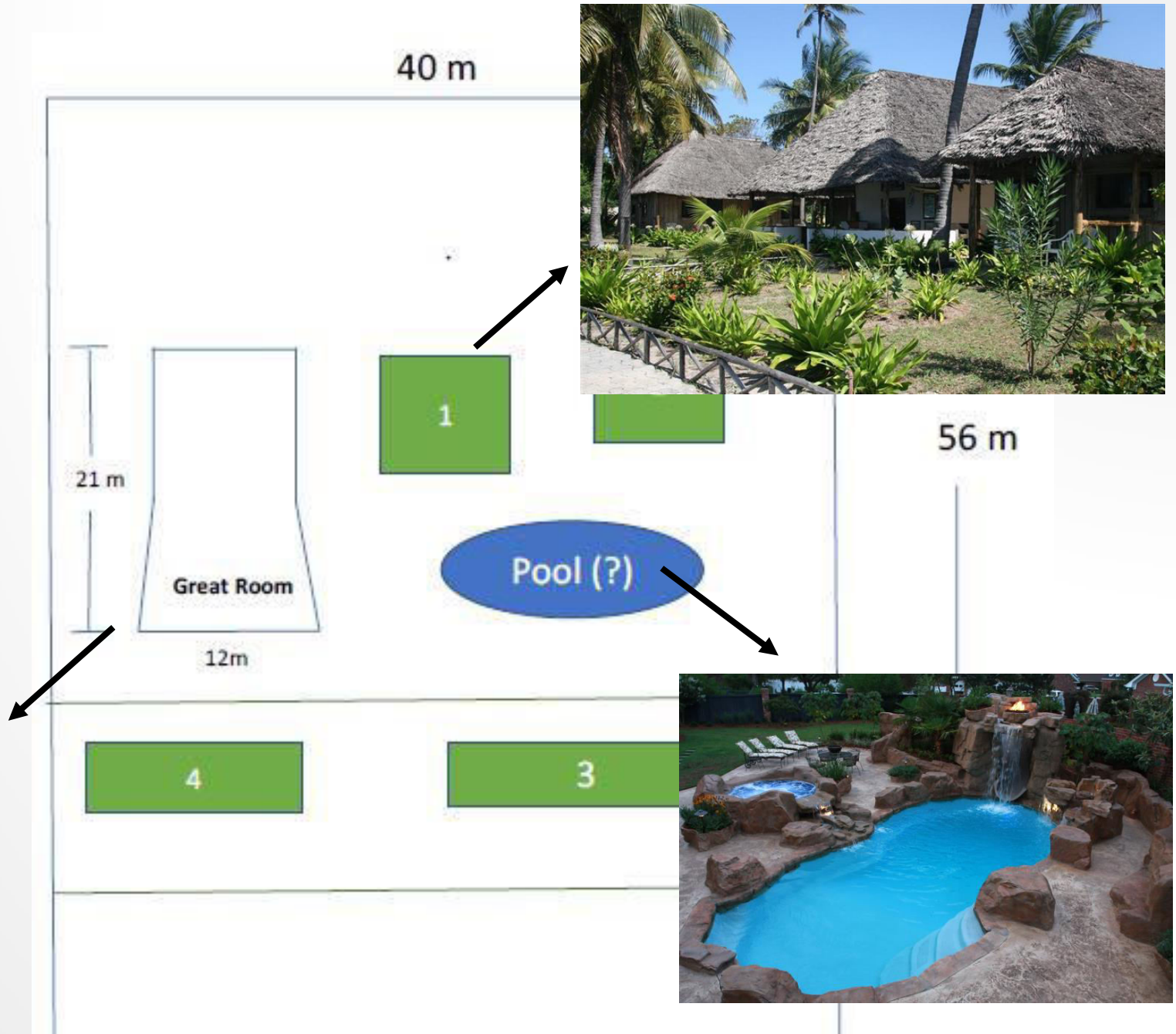


MAGEMANI RESORT – FOR A SUSTAINABLE DEVELOPMENT OF *MAFIA* ISLAND

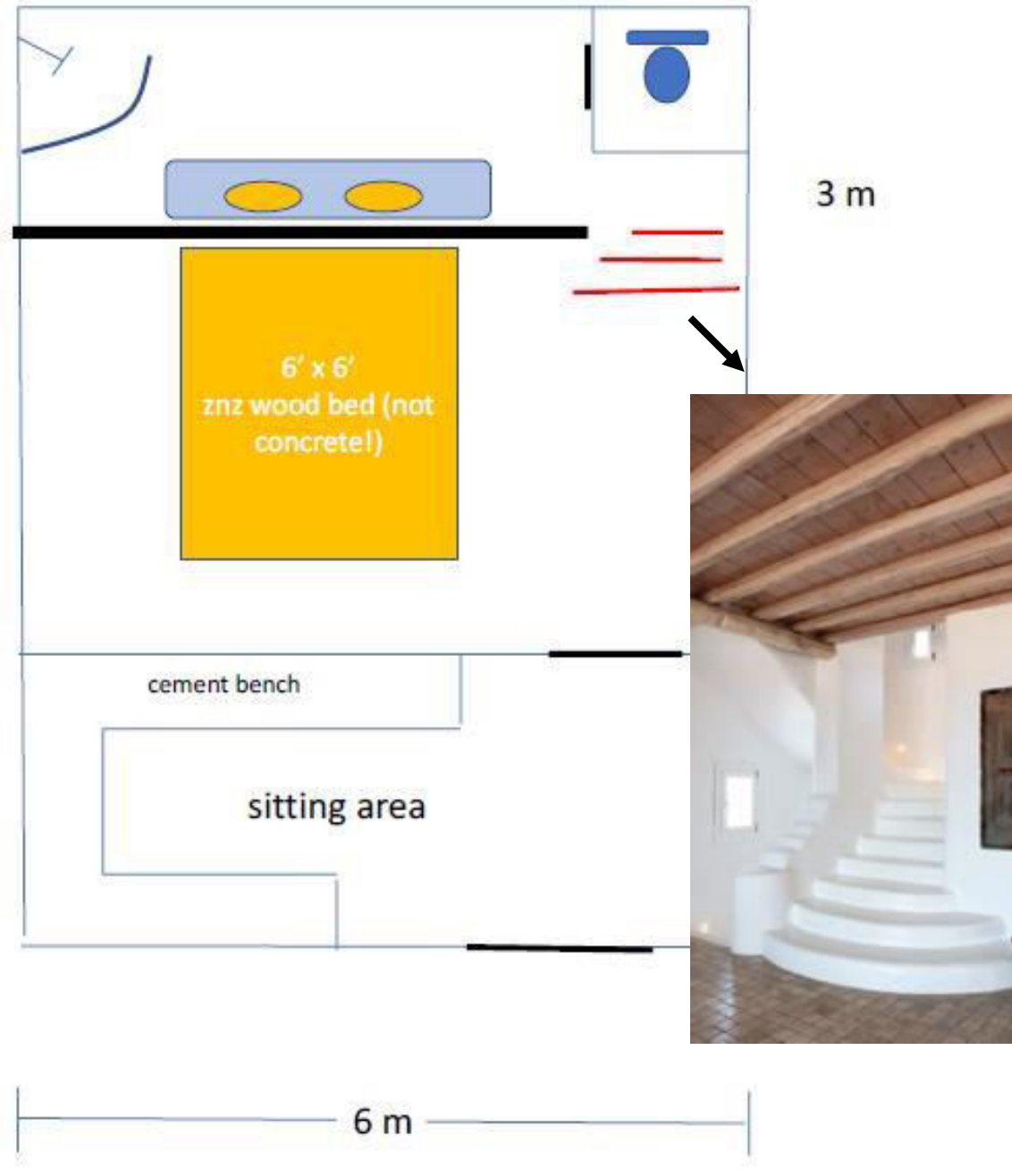
The main idea behind the construction of a small resort in the tanzanian island of *Mafia*, comes from the need of supporting a new model of tourism and also to let people aware of the impressive nature and the multifaced culture that this Island can offer.

The four room resort should be located near Kilindoni, the main city, that counts circa 11.000 inhabitants and it is provided by a little airport.

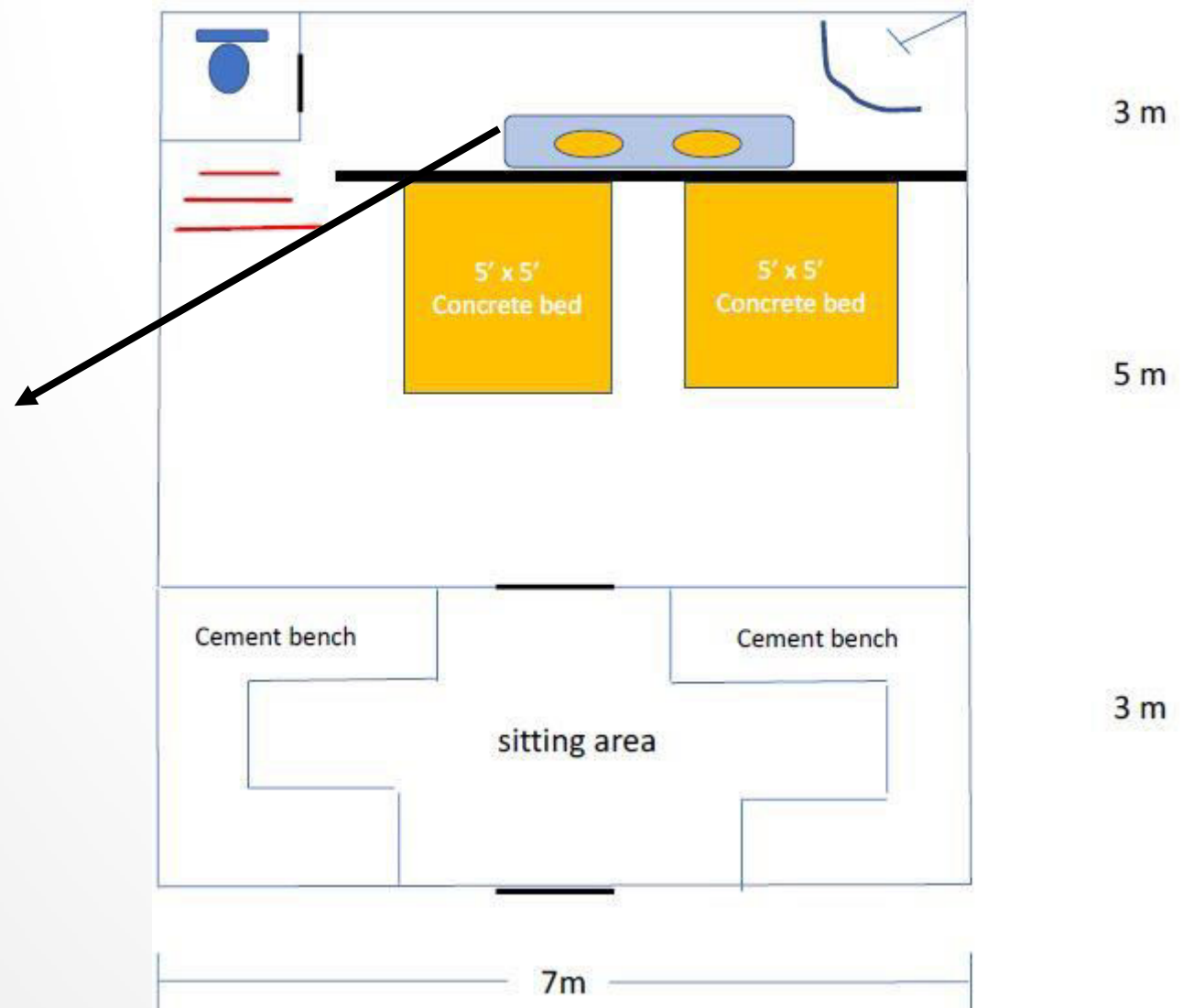
THE MAGEMANI RESORT



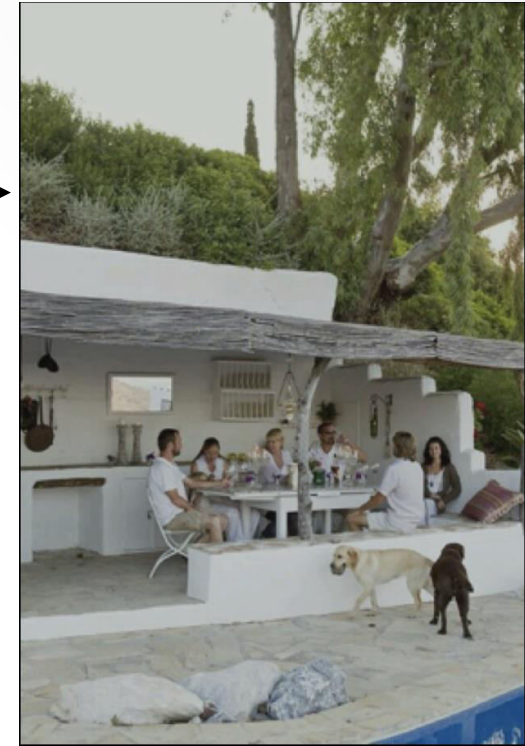
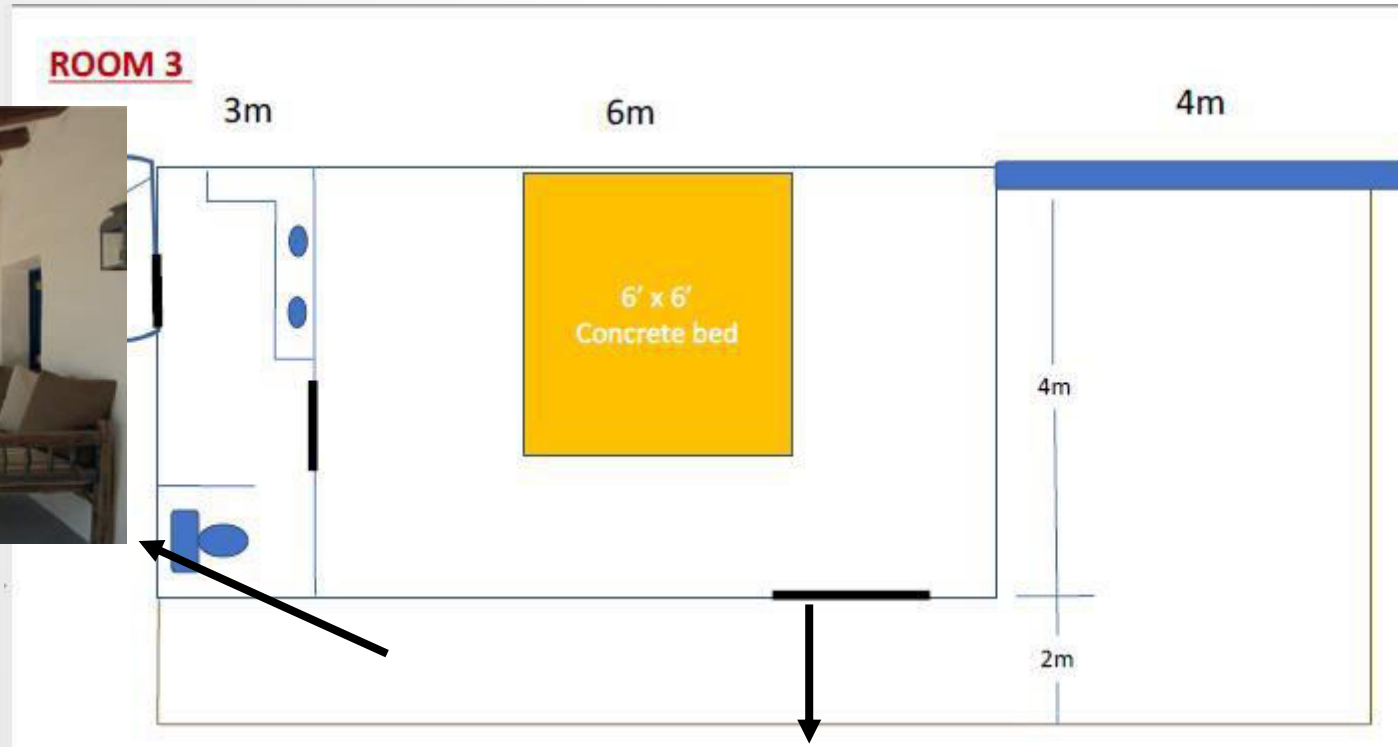
ROOM N.1- DESIGN



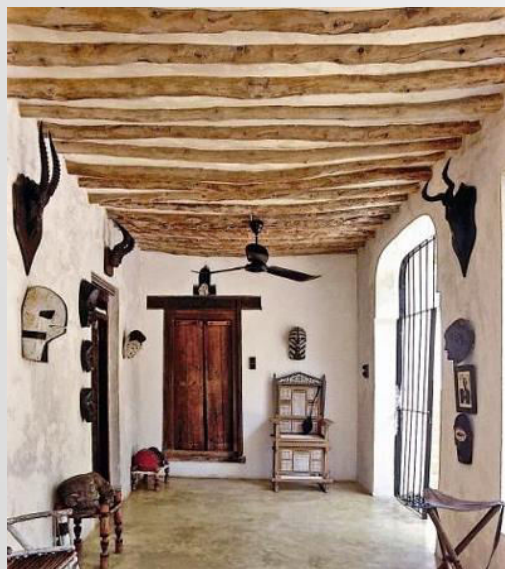
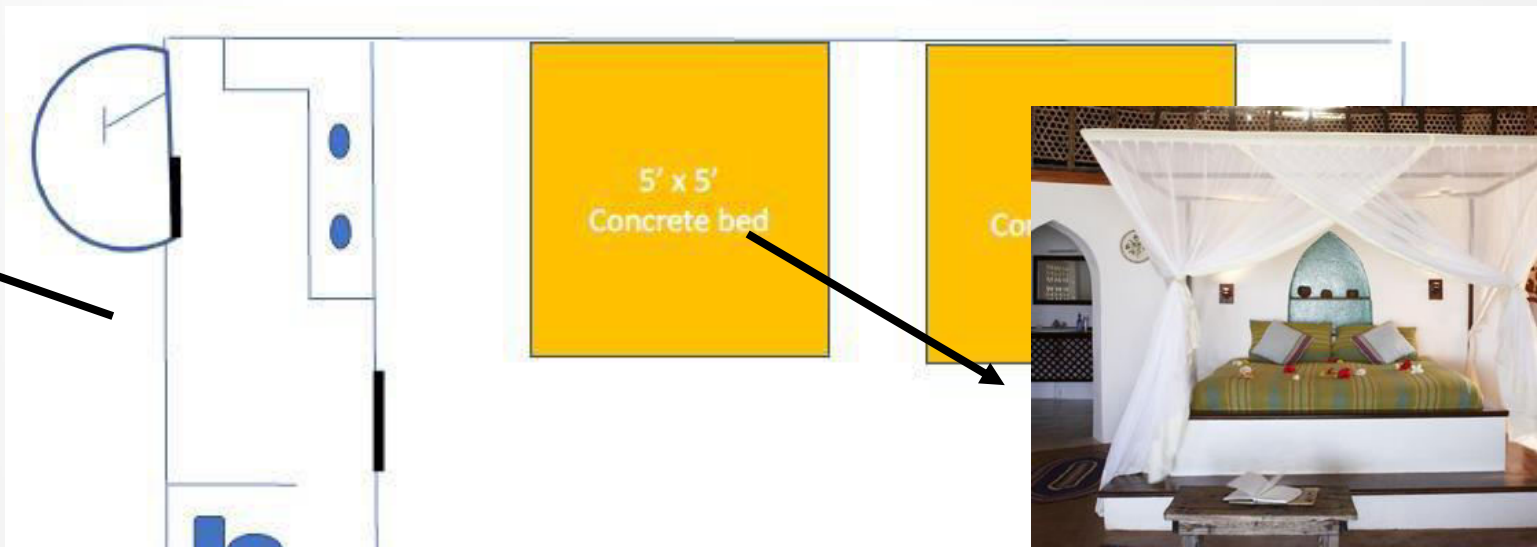
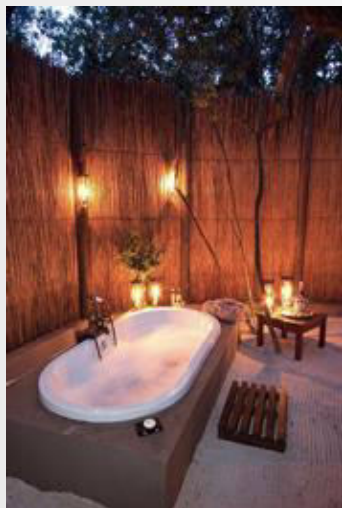
ROOM N. 2 - DESIGN



ROOM N. 3 - DESIGN



ROOM N.4 - DESIGN



LEISURE ACTIVITIES AT MAGEMANI RESORT

MOUNTAIN BIKE RENTAL AND TOURS THROUGH THE ISLAND

The Magemani Resort will offer to its guests the possibility to rent a bike in order to allow them discovering all the beautiful landscapes that the island offers. Guided bike tours will also be provided.



SCUBA DIVING AND SNORKELING IN THE BREATHTAKING CORAL REEF

Mafia Island and its reefs are renowned as an excellent, world-class diving destination. The Magemani Resort will propose a wide range of fabulous dive sites of immense beauty and richness, bommies, channels, walls and caverns, drift and night dives.



GET IN TOUCH WITH THE TANZANIAN CULTURE...

The Mafia Island Dance and Music Festival takes place every August in Kilimani: a 15-Day multi-cultural music and arts festival offering a step into paradise, featuring 150 Top International and African Artists on 4 stages. This festival will give to the guests of the Magemani Resort the possibility to get in touch with the amazing tanzanian culture.



MAGEMANI RESORT POWER REQUIREMENTS

- Main power requirements are from space cooling (especially rooms), refrigeration, heating water, laundry services, cooking and lighting
- Approximately water usage of luxury/resort per guest night room in a day – 300-500 liters (tropical resorts)
- In full occupancy of resort: 4000 – 6000 liters/day
- LED bulbs requirements are calculated by lumens needed to lighten particular size of room or area
- As island is located in tropical climate condition, temperature fluctuation is between 35 C (maximum) to 20 C (minimum), no space heating is required

Utility description with peak load demand

	Lighting	Air-conditioning unit – ventilation system	Others	Refrigeration unit	Washing machines	Pumps
Room 1	12W * 7 LEDs, 5W * 4 LEDs, 2W * 1 LEDs	1 kW	0.4-0.6 kW (hair blow dryer, TV, charger,etc.)			
Room 2	12W * 9 LEDs, 5W * 4 LEDs, 2W * 2 LEDs	1 kW	0.4-0.6 kW (same as above)			
Room 3	12W * 8 LEDs, 5W * 4 LEDs, 2W * 1 LEDs	1 kW	0.4 – 0.6 kW			
Room 4	12W * 7 LEDs, 5W * 4 LEDs, 2W * 2	1 kW	0.4 – 0.6 kW			
Great room	12W * 12 LEDs, 5W * 4 LEDs		1.5 - 2 kW (more appliances compare to other rooms)			
Common	12W * 8 LEDs		3 – 4 kW			1-1.5 kW*2 (assumption w.r.t. distances, vertical heads ,etc.)
Kitchen, Bar	12W * 4 LEDs, 5W * 3 LEDs	0.5 kW-0.7 kW (ventilation system)	3 - 4 kW (kitchen equipment/appliances such as toaster, oven, etc.)	0.5-0.7 kW (walk-in fridge), 0.1 kW(bottle fridge), 0.15 kW(ice maker)		
Laundry service	12W * 1 LED				2 * 1.1 kW	
Pool						0.3-0.5 kW
Total	0.722 kW	4.5 – 4.7 kW	10 – 12 kW	1 – 1.2 kW	2.2 kW	3.5 – 4.5 kW

Electric power demand (approx.)

Utility description	Running time hr	Peak load kW	Energy kWh/d
Lighting	6	0.8 – 1.2	4.8 – 7.2
Air-conditioning + Ventilation	2-3	4 – 5.5	12 – 18
Refrigeration	16	1.2 – 1.4	15 – 18
Washing machines	2-3	2.2 – 3.5	6.6 – 10.5
Pumps	8 – 10	3.5 – 4.5	24 – 40
Others	1 - 2	10 - 12	10 – 24

Maximum electric power demand: $21.7 - 28 \text{ kW}_{\text{el}}$

Thermal power demand (approx.)

DHW	30-40 $\text{kW}_{\text{thermal}}$
Swimming pool heating	35-25 $\text{kW}_{\text{thermal}}$
Laundry	5-10 $\text{kW}_{\text{thermal}}$

Total thermal power demand: $70 - 75 \text{ kW}_{\text{thermal}}$

VIELEN DANK FÜR EURE AUFMERSAMKEIT