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STRATEGIC MILITARY IMPORTANCE AND ARCHITECTURE OF ANCIENT RANI DURGAWATI MONOLITHIC ROCK FORT OF GONDWANA KINGDOM, MADAN MAHAL HILL, JABALPUR, INDIA

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ABSTRACT

The natural surveillance site, the Rani Durgawati Fort, lies in Granitic Madan Mahal Hills, Jabalpur in Central India. The Fort represents an ancient Military Check Post of Gondwana kingdom, built in 11th Century AD. The high stability and strength of Fort rock provide the intact structure for long durability. The Gond Queen Rani Durgawati utilized this fort of Garha Mandala Principality as a Strategic Defence Centre of Military Check post and storage of armour, weapons for Artilleries. The Gond Kings also used it as Treasury, kept their wealth in underground Cellular Chambers in hillock slope natural Cavities. The Openings were concealed with rock boulders. The study reveals that Geomorphologically, the land profile shows Hillocks, Slope, Pediment and buried pediment units. The Hills are abruptly stands and cropped out on western flank whereas in the right side the hill slope face merges in to the ground of pediment and buried pediments. The Low lying plains are occupied by habitat, agriculture and Settlement areas. The Fort – exhibits high altitude, hill top positioned structure. The Horses/Elephants staying at Courtyards were very big and spacious now at ruined conditions. The protection and conservation is necessary to preserve the Fort remnants of residential area and other structures of important architectural and Defence Heritage Site, by State Govt./ NGO'S/Local agencies, continuously.

KEY WORDS: STRATEGIC IMPORTANCE, ROCK FORT, HERITAGE SITE GONDWANA KINGDOM, GRANITE HILLS.

A. **INTRODUCTION** – The Rani Durgawati Fort is a Hill Top Fort, lies in Madan Mahal Hill region in Jabalpur, Central India. The Fort resembles a prestige of ancient Gondwana Rulers of Mandala, Jabalpur and Surrounding Garha Rajgond Prenchipalities since 11th Century AD. During the medieval period of 16th Century (1550AD) Durgawati took the reigns of the Gond Kingdom due to her minor son Vir Narayan. She ruled and administrated the state with the two ministers Diwan Boehar Ram (Kayastha) and Man Thakur. She had many Forts like chauragarh, (Satpura Hills), Singargarh Fort etc. but the Fort at Madan Mahal Hill proved the strategic importance during the battlement and defense against the attackers/invaders (Non-Hindu) of Delhi sultanate/Malwa State etc. The strong and sound defensive location of little Fort was primarily utilized as surveillance and Military check post, also the treasury of Gondwana state wealth. Storage of weapons/Artellaries ordinance depot. The study reveals that the geologically very hard and tough Granitic Hills Provide sound and strong Fortification. The geomorphic unit interpretation of satellite imagery indicates that the ancient Fort was constructed on hill top plain table land at summit of elevated Hill. The ruins and remains of Fort buildings requires preservation & conservation. To protect the structure the mitigative measures and maintenance of buildings/monuments regularly by NGO'S/Local self Govt. agencies/state Govt. Tourist deptt. Is necessary since it is a historical Hinduism Heritage site of Gondwana – Kingdom of Ancient Medieval period.

B. **LOCATION AND ACCESSIBILITY** – The study area includes Rani Durgawati Fort, Madan Mahal Hills and its surroundings. It lies in geographical N latitude 23° And E longitude 80° It is accessible by Railway station Madan Mahal. The monument is situated on the top of Madan Mahal Hills of Granitic Rocks at about 500m AMSL.

C. **METHODOLOGY** – Under methodology, the S.O.I. topo sheets were utilized as a base map. Various literature regarding Medieval states of Central India & Gondwana Kingdom were consulted, and analysed the facts, with historical events. The satellite imagery has been interpreted for Terrain condition in terms of geologic, geomorphic and physiographic aspects. Various physical domains of the terrain have been correlated with the Fort structures and Military Defense factors prevailed during Medieval India of Central region.

D. **CLIMATE, LANDSCAPE, DRAINAGE & TERRAIN CONDITION** – The area is represented by the line of Cancer at 23°/latitude of Global meridian, where subtropical humid climate is dominated. The area receives an rainfall of 1250 mm annually and temperature ranges between 4°C in winter and 45°C in summer months. Regionally the landscape exhibits a varied ground ranging from hills, slopes, plains and valleys developed by geomorphic processes. mainly fluvial erosion. The Master River Narmada and its tributaries forms the stream network & catchment in the region. The terrain condition represents a combination of physical and forested vegetative covers with cultivation and settlement locality of high developing growth.

E. **LITHOLOGY AND STABILITY, STRENGTH OF ROCK** - Regionally, the Jabalpur region lies in the north zone of stable CRTZ belonging to Mahakoshal Rock group formations of various geological ages. But in the vicinity of Fort Hill Madan Mahal area the older rocks of Granitic Archeans ages are exposed. The intrusive igneous rock are characterized by their high stability and high strength which makes it very strong stone for fortification Works. During physical and chemical weathering processes affects in a low extent and produces the spheroidal boulders. These Granitic boulders of various size and orientation scattered over the hillock e.g. Famous Balance stone on right side hillock of Madan Mahal, where huge rock stone boulder has been balanced on a small tip over the underneath rock formation. The Stability of Fort is due to natural rock boulder had been selected and acts as one side wall, another side had been built by masonry – structural Works. It provide a intact structure of Rock Fort. The tectonic feature around Jabalpur shows

NSF and CITZ Zones in Mahakoshal Supra Crustal region of Central India (Fig). The Stability of Fort is due to high strength of Granitic rock and rigid, intact, Sound Geotectonic Condition with little joint, fracture makes the rock strength compact massive blocks increase the soundness. The Madan Mahal Granite is an intrusive igneous body emplaced in form of stocks and Batholith. The granite shows pink, grey and pinkish grey in colour, mostly holocrystalline, hypidiomorphic and coarse to medium grained with porphyritic texture at places. The granite is post orogenic in nature originated in within Plate Tectonic Setting. The Madan Mahal Granites are similar to APT (Archaean – Proterozoic Transition) Granites of India. These granites were formed at a depth of about 30kms. And APT age estimated in the range of 2.60-2.27 by (Gadgil & Khanna, 2004) Hardness and Density – Granites of Madan Mahal Hills are found as massive and hard tough – strong variety. The granites shows av. Density of 2.65 to 2.75 gm Km³ and Compressive. Strength lies above 200 MP. It shows poor primary permeability, the water passage found only through secondary type of fracture, cracks & joints. The Granites have been affected by physical weathering process and chemical weathering also. Climatic conditions influences the weathering rate of granite, due to tropical humid climatic conditions the potassium feldspar form the Kaolinite clay and silts of soil group in the region.

F. SITE SELECTION – The site of Fort was selected by the Gondwana Kingdom rulers during 11th century AD, for defensive point of view as vigilance as well as Army Check Post against enemies/invasers during war. The high altitude rock terrain had been selected where water tank exists naturally and a troop of infantry reside comfortably. The hidden tunnel carvings along rock fractures provide escape route for artillery of Gond army soldiers during battle. The natural Rock boulder of Granite had been utilized as one of the wall of fort. The surveillance and recognition of invaders/attackers was made quickly from the Fort site. The storage of Arsenal/Weapons/were also kept in the some of underground chambers/rooms. The natural rock boulders of Granites on Hill Top were utilized in the fortification as protective wall of Fort. Considering the rock boulder height the side walls and roof had been constructed with a Low lintel level in the second storey The barracks and vault were built in a open rectangular Courtyard with linear arrangement. The fort lies in the isolated hillock at a height of 500m above mean sea level (500m AMSL) on the Madan Mahal Hill. A small water reservoir on the hill top supply the water permanently.

G. LAY OUT DESIGN – ARCHITECTURE – The design and Layout plan for fortification were prepared in a rectangular dimensions. The double storied Fort rooms included the Gates, Doors and Windows. The balcony and parapet walls constructed on roof. Due to Limited areal space generally the Gate size were with low height. The stairs to reach the fortified building area has made on an open area. Mostly the natural rock boulders of Granite were utilized by trimming and smoothen the rock surface, it performed as a wall of Fort rooms. Hence the size and dimension of room depends on the existing insitu Position of natural rock boulders. Other residential buildings were made with stone slabs, cut stone blocks, and trimmed stones. At present masonry construction found mostly in ruined condition.

H. HISTORY OF GARHMANDALA – The Gonds were Hindu Tribes, settled in the Gondwana region of Eastern M.P. around 13th Century and ruled with four kingdoms (Table) After the declining of Kalchuri's the Forest Tribes/Gond states became powerful and hold the small kingdom in central India. Rani Durgawati (5 oct. 1524 – 24 June 1564) was Queen of Gondwana Dynasty and reigned from 1550 to 1564. His father Keerat Rai Was a king of Chandel Kingdom and reside at Kalinjar fort, Banda, U.P. The ancestral tradition of courage and Patronage & good administration power enhanced the glory and prestige of her rulings. In central India Rani Durgawati defended her Kingdom against invader attacks made by Non-Hindu Delhi Sultane army. The horse riding, sword fighting, Archery skilled battlement practices and war strategic plan made her as Worrier Queen of Gond Dynasty. Till the 1564 the Durgawati's kingdom was prosperous state.

Inscriptions found at Ram Nagar Fort describes that during 5th century accession of Yadurai, a gond Adventurer became a King The historian Alexander Cunningham placed about two centuries late and considered the accession as a Gond King in 664 AD.

I. **MILITARY IMPORTANCE OF FORT** – During the medieval period, the south eastern region of M.P. was ruled by Gond Tribe and Kalchuri Rulers of Tripuri and Mahismati. The gond Kingdom of Upper Narmada Valley i.e. Garh Mandala was oldest reign of Gondwana state. The monuments found in the region are of Gond Dynasty. Madan Mahal Hill Fort was built in 11th century by Gond Ruler Madan Shah. who was the 37th ruler in succession of Gond Dynasty. It was built for the purpose of expansion of military power and fortified at Hill top, where Garrison, Surveillance military outpost, watch tower, military Barracks weapon storage racks were constructed. The Madan Mahal Fort (Rani Durgawati Fort) consists the structure of Rooms, Stables, secret Passages, Ancient Script of archaeological importance, corridors etc. Horses were kept in the stables of Big size. The capital Chauragarh was selected by Rani Durgawati Reign instead of Singoragarh Fort since Chauragarh was a fort of strategic importance situated on the Satpura Hill Range. The ancient Fort of Rani durgawati (Madan Mahal) is a unique in itself in central India due to military Ordinance Depot and Gond King Treasury, kept wealth in Underground Chambers and natural rock tunnels concealed with rock boulders.

J. **BATTLE OF NARAI VALLEY** – The first battle was fought by Rani Durgawati against the Non Hindu invader Malwa Sultanate, the attack successfully repulsed although the loss of about one-fourth military power during this battlement. Again with in short duration of time in 1564 June month the Non Hindu Delhi Sultanate representatives under the Non Hindu expansion of imperialism attacked the Garh Mandala. The strategic plan for the fight was the defensive battle and Rani durgawati prefer the Narrai Valley situated between river Gaur/Narmada & Hillocks. The battle was unequal strength since untrained soldiers and old weapons of limited soldiers of Rani Durgawati fought bravely and repulsed the invader/attackers three times. After kill of Arjun Das the Faujdar, Rani Durgawati lead the Army & defense her self. Rani Durgawati rode on her Elephant Sarmon and Fight directly on the battle field. Vir Narayan was also with her in this battle she got injured and wounded On the second day 24th June 1564, Rani Decided to die respectfully and took out her dagger & self immortalized. Her Martyrdom is commenced on 24th June every Year It established Rani Durgawati the Worrier Queen of Gonds.

DISCUSSION AND CONCLUSION –

Rani Durgawati Fort is situated in Madan Mahal Granitic Hill at height of 500m. AMSL. It is a Prestigious Military Monument with compact stable, War Rooms, Garrisons, Treasure and vigilance check post, constructed in 11th Century by Raj Gond Rulers of Garh Mandala. Madan Shah. It was utilized by Rani Durgawati who ruled Mandala Province and fought against Non-Hindu attackers. Her valiant effort to save her kingdom is Folklore. The sound and strong little Fort was utilized as surveillance and military Check post & Treasury of Gondwana state wealth, Ordinance Depot. At present the ruins and remains of ancient Hinduism Heritage site of Gondwana Kingdom needs preservation & conservation schemes It can be made by NGO's/local self Govt. agencies/state Tourism deptt regularly.

Table - I

**MAJOR STRATEGIC STRUCTURAL FEATURES OF MILITARY DEFENCE
(RANI DURGAWATI FORT, MADAN MAHAL HILL)**

S.No.	STRUCTURAL FEATURES	STRATEGIC MILITARY IMPORTANCE
I	Fort Wall Precincts in Intact Rock & Double storied Buildings	Protection and security by boundary walls, at the peripheries of Buildings.
II	Tunnel Underground	Passages for artillery troops and used emergency route during escape
III	Vault Rooms	Inside the Floors of Rooms.
IV	Treasury Chambers	The natural cavities and wide open Fracture zones acts as chambers, covered with boulders at entry point
V	War Room, Artillery Guns/ Armors/ Weapons	The big rooms of double Storied buildings carved out from stones.
VI	Courtyard Elephant & Horses	The large shaded Forested courtyards for elephant, Mahavat & Worriers

Table - II

MAJOR GEOMORPHIC UNITS OF RANI DURGAWATI FORT REGION, CENTRAL INDIA

S.No.	Geomorphic units	Terrain Characteristics
I	HILLS	Granitic Rock Hills, Forested with Trees, At Top table land, Flat of fort Area, Boulders of Granites, Elevated to 500 m AMSL
II	SLOPES	The Eastern flank slope av. 15° - 25° and Rock Cliffs on Western side
III	PEDIMENT	The Rock cut surface at bottom of Hill, intercepts the ground, with thin veneer of soil, (Settlement area)
IV	BURIEDPEDIMENT	The thick soil covered pediments, Cultivation practice & (settlement dense) weathered materials
V	WATER BODIES	Surface water storage Tanks/Ponds Natural spring & three seepages occurs

Table - III**GONDWANA KINGDOM OF INDIA (Medieval Period)**

S.No.	Kingdom	Locality	State	Major Events
I	Upper Narmada Valley GARHMANDALA	Jabalpur Mandala	M.P.	Oldest Established by Yadurai (5 th Century)
II	CHANDARA KINGDOM	Chandrapur	M.H.	Expansion during 14-15 Century
III	DEVGARH KINGDOM	Chhindwara	M.H.	Expansion during 15 th C
IV	KHERLA KINGDOM	Betul	M.P.	Expansion during 16 th C

Table - IV
GONDWANA KINGDOM OF GARHA MANDALA
(UPPER NARMADA VALLEY)

S.No.	Kingship/Ruler	Duration	Historical/Archaeologic/ Evidence/Activities/ Battles
I	FOUNDER-Early King Yaduraya	5 th Century (664 AD)*	Inscription found at Ramnagar Fort *Alexander Cunningham Chronicle Ages
II	Kings of Medieval Period Madan Shah	1160 AD	Built Madan Mahal, fort Palaces.
III	Sangram Shah 48 th Ruler	1480 AD	Expanded the Kingdom Capital Singaurgarh
IV	Dalpat Shah	1542 AD	Fighted Battles against Non Hindu invaders
V	Rani Durgawati	1550 AD	Capital Chauragarh Fighted Battle against Non Hindu invaders / attackers many times Last battle at Narrai Valley of Narmada R. 1564.
VI	Vir Narayan	1564 AD	Fighted against invaders
VII	Chandra	1570 AD	Uncle of Virnarayana

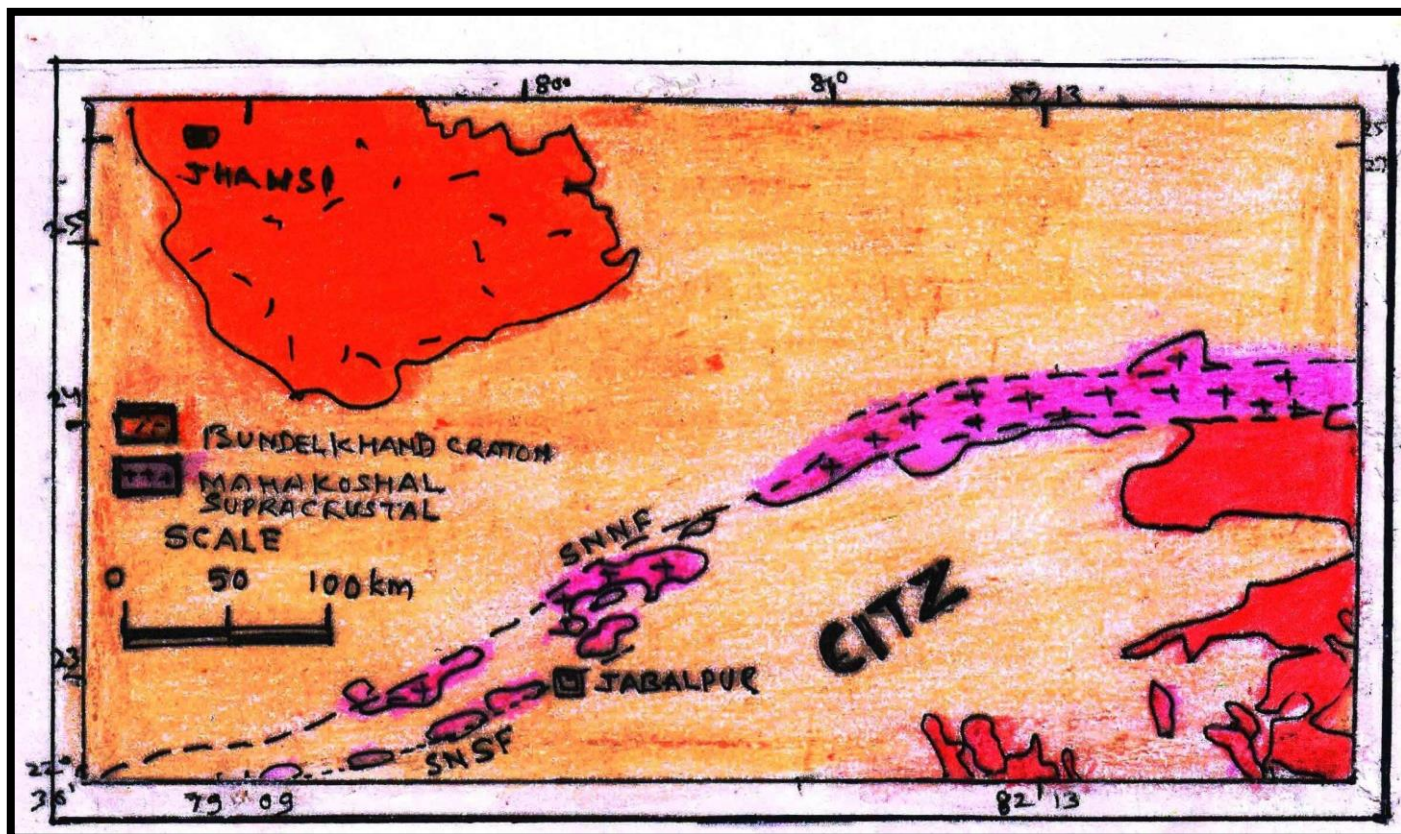


FIG- I TECTONIC FEATURE AROUND JABALPUR

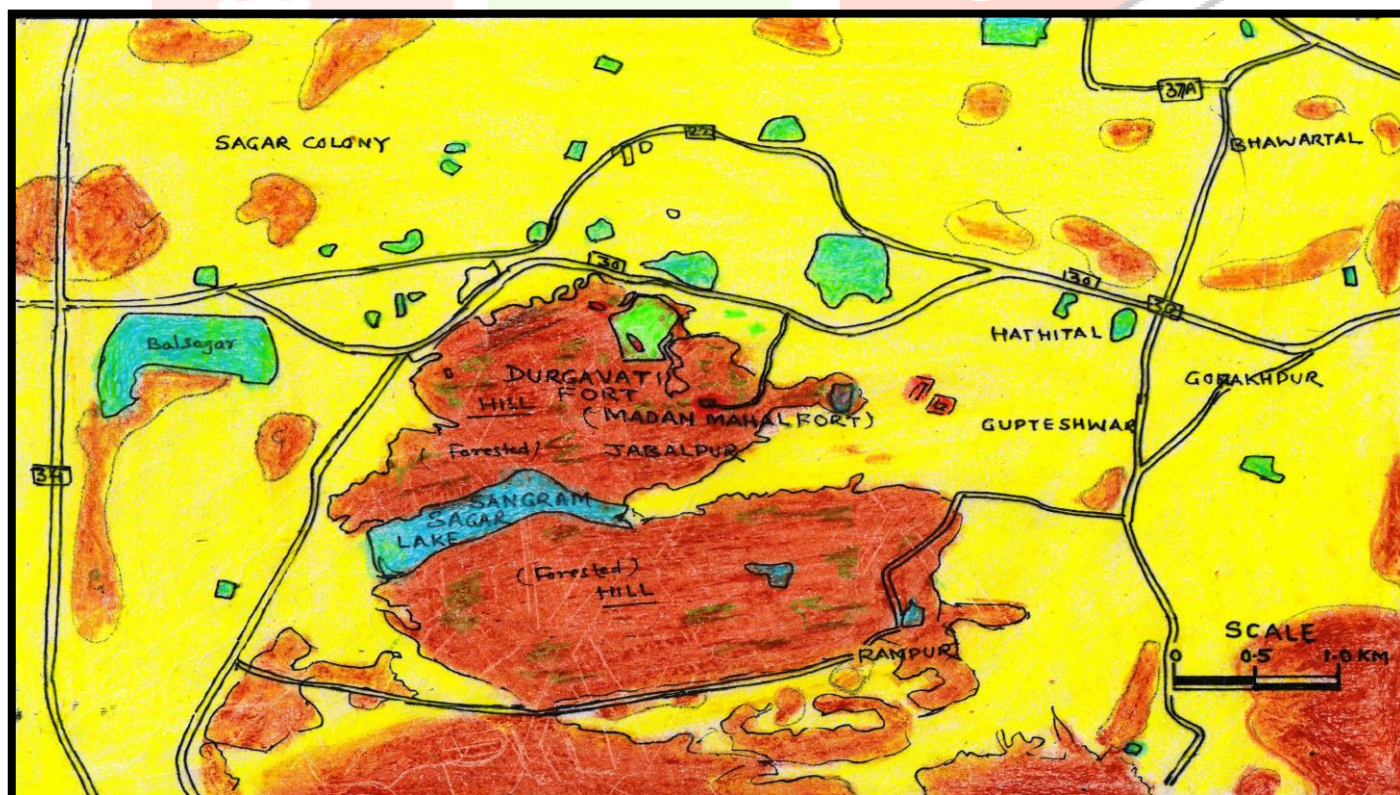
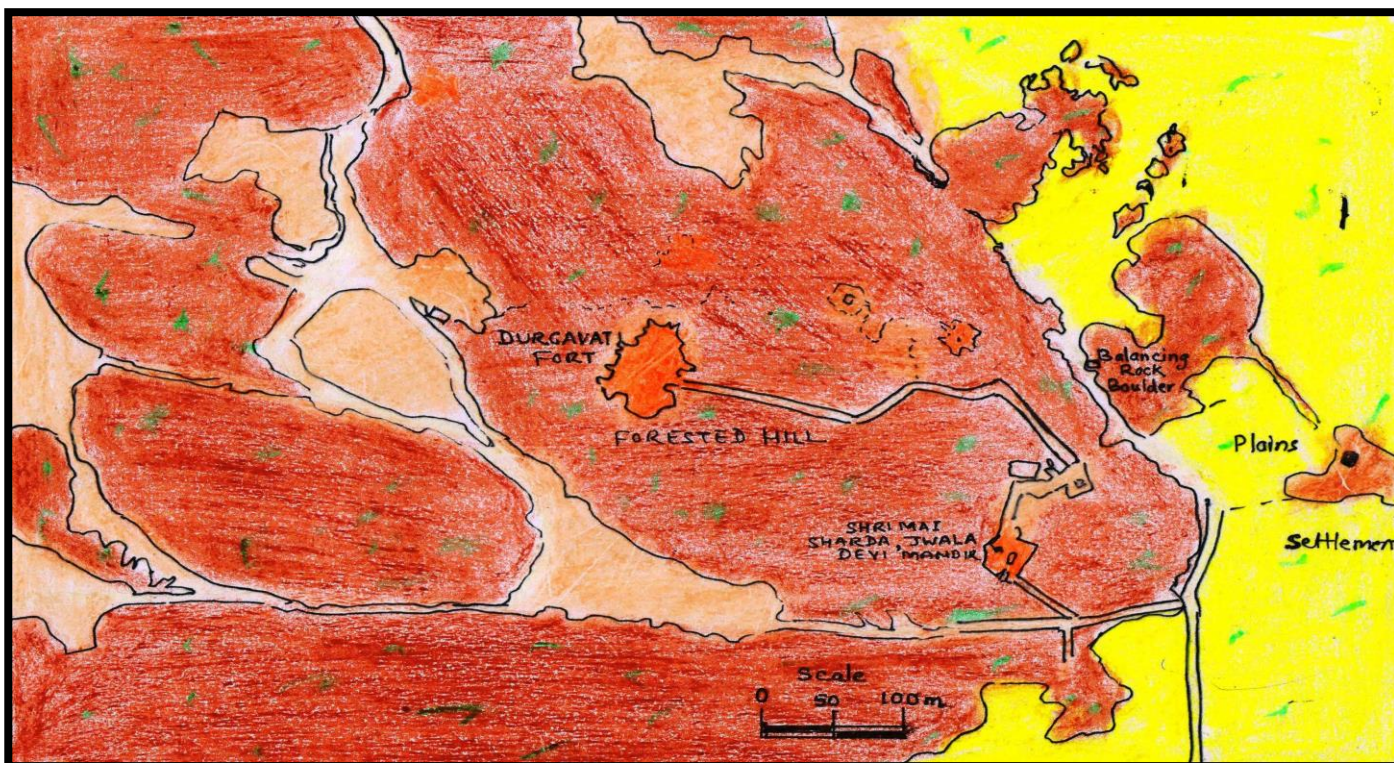


FIG- II RANI DURGAWATI FORT, CENTRAL INDIA (HILL TOP FORT) MADANMAHAL



**FIG- III RANI DURGAWATI FORT / MADAN MAHAL HILL
MONOLITHIC HILL TRACT (GRANITE)**

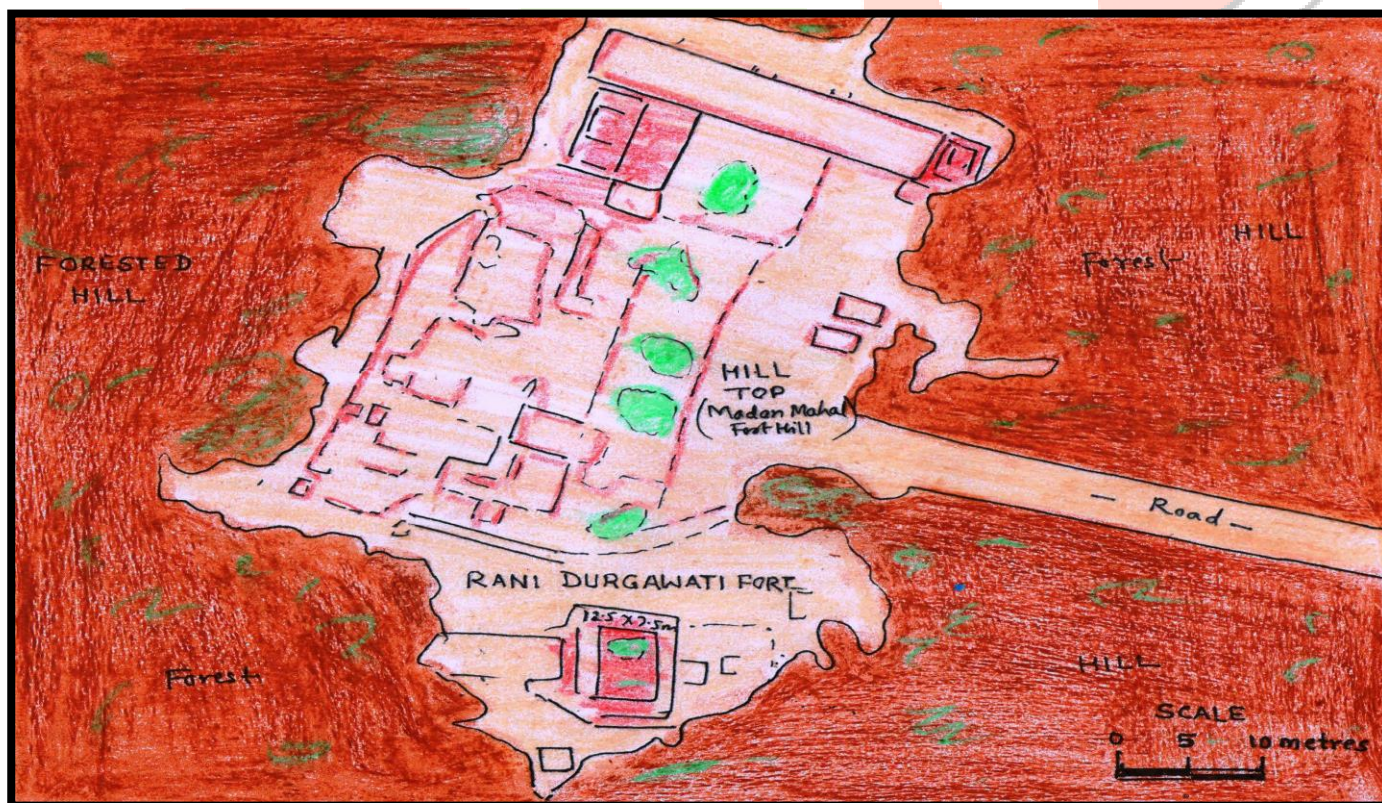


FIG-IV LAYOUT AND CONFIGURATION OF DURGAWATI FORT. SCENE 2020, (BASED ON SATELLITE DATA)

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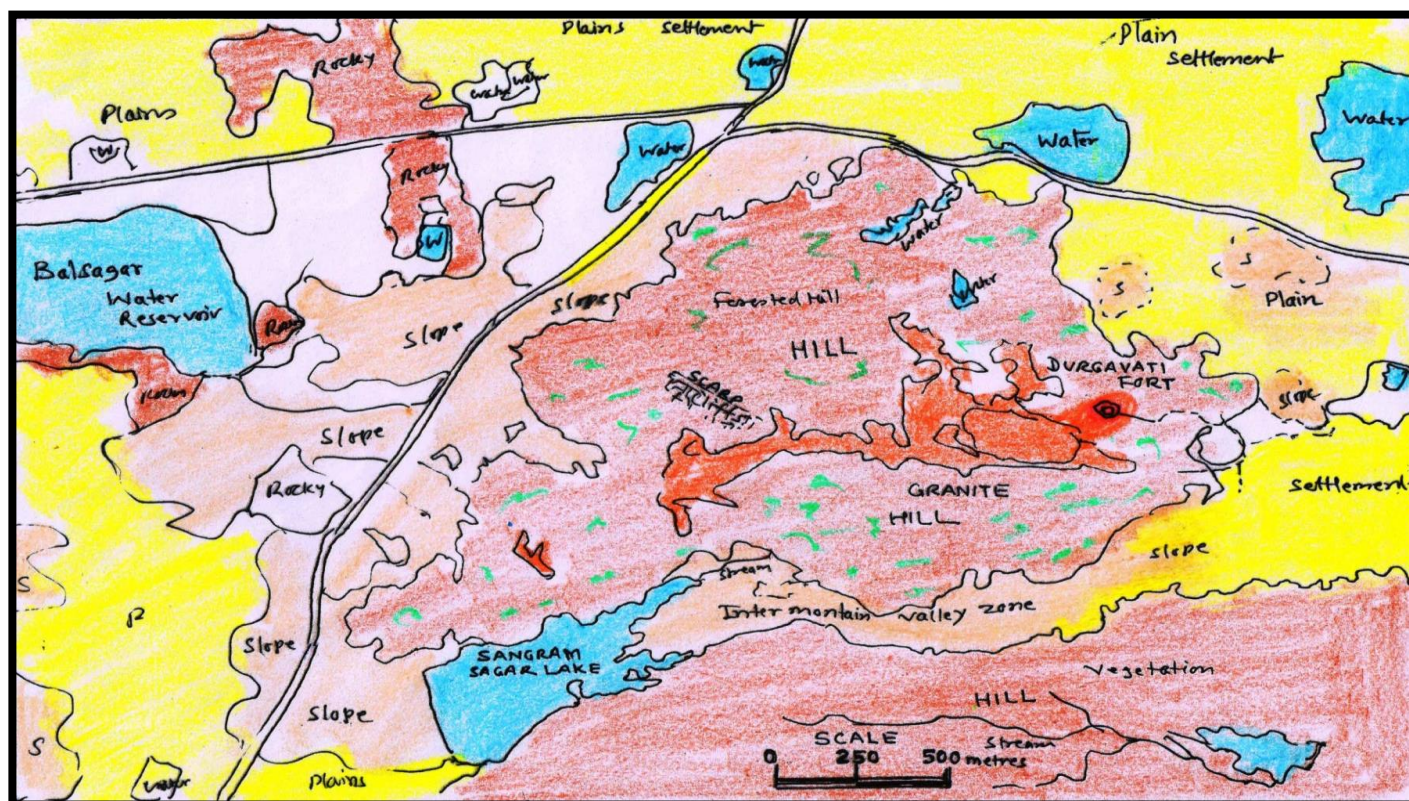


FIG- V GEMORPHIC ZONES IN DURGAWATI FORT REGION
(BASED ON SATELLITE DATA) ©DR. H.D. DIWAN (2020)

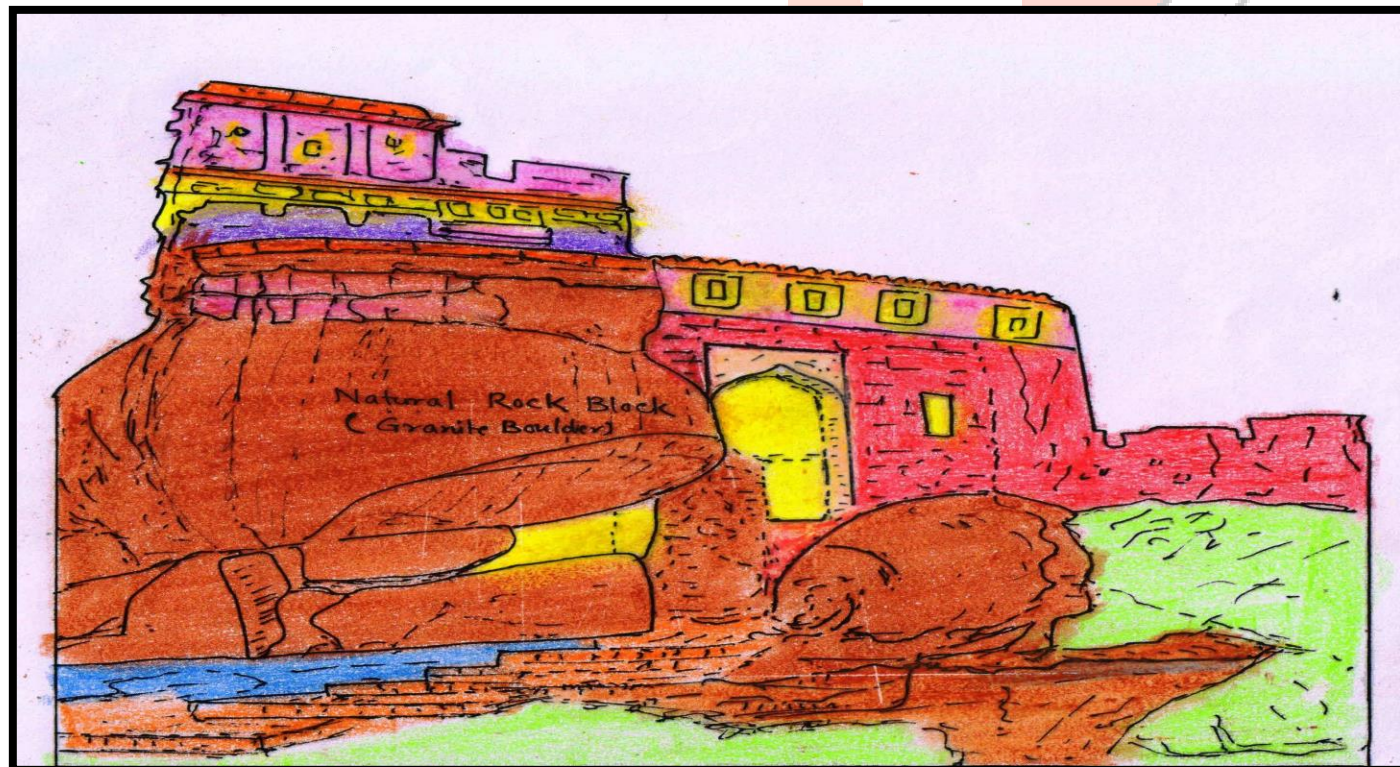


FIG- VI A DESIGN OF MONOLITHIC FORT (RANI DURGAWATI FORT)

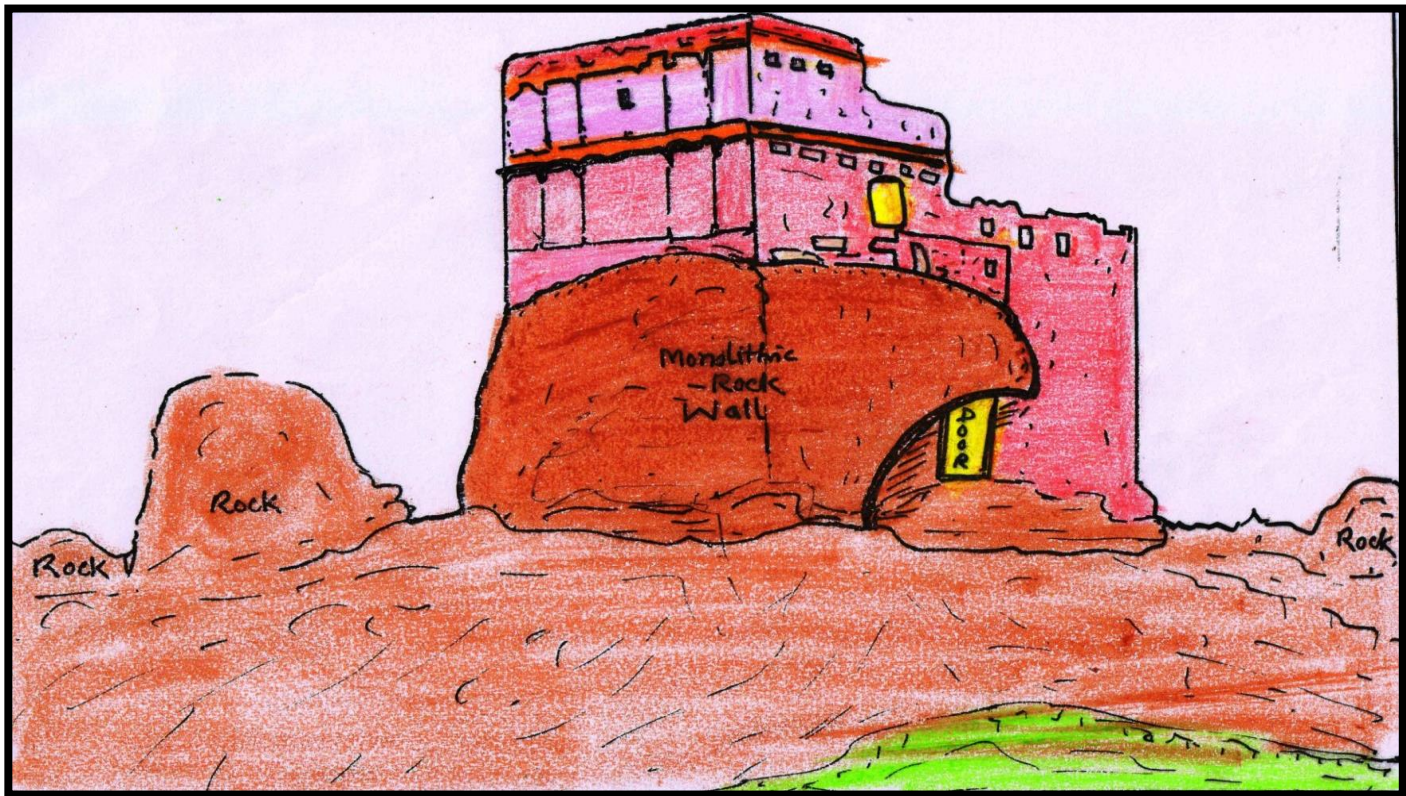


FIG VI B FORTIFICATION SIDE VIEW (LEFT)

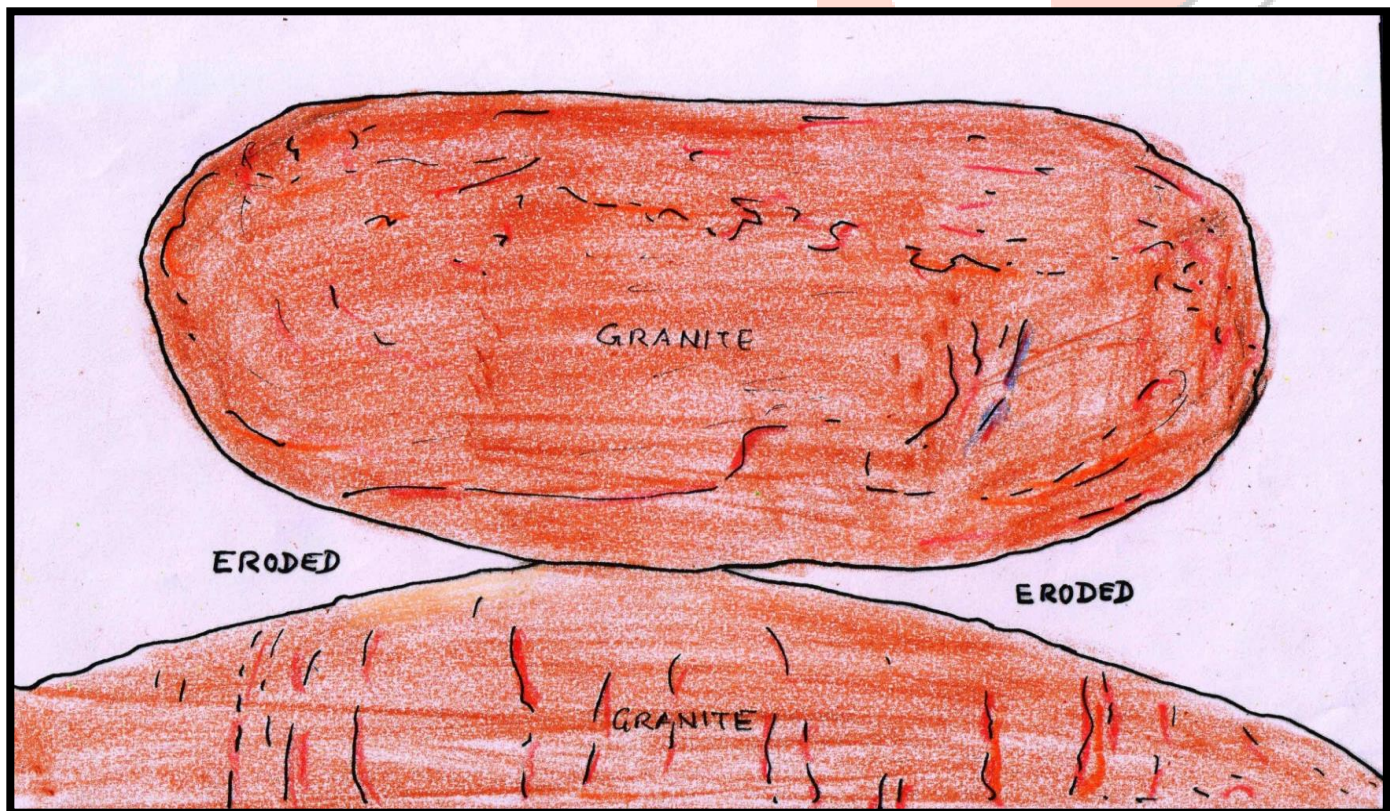
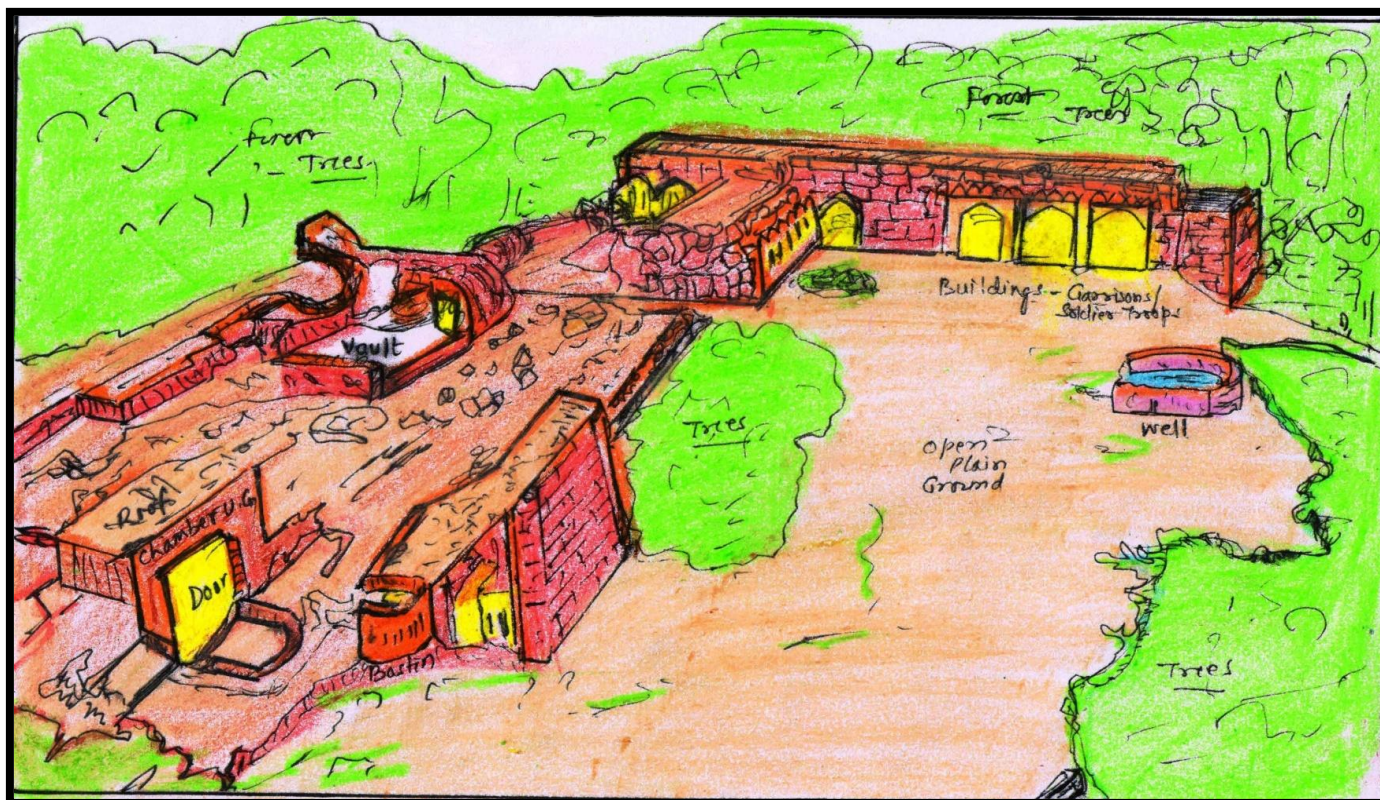


FIG- VII BALANCING STONE (E-OF MADAN MAHAL HILL)



**FIG- VIII A RANI DURGAWATI FORT, RUINED BUILDINGS & WALLS, ROOFS
(DESIGN OF DOOR, BASTIN, WATER WELL)**



FIG VIII B RANI DURGAWATI FORT – SUPER STRUCTURE

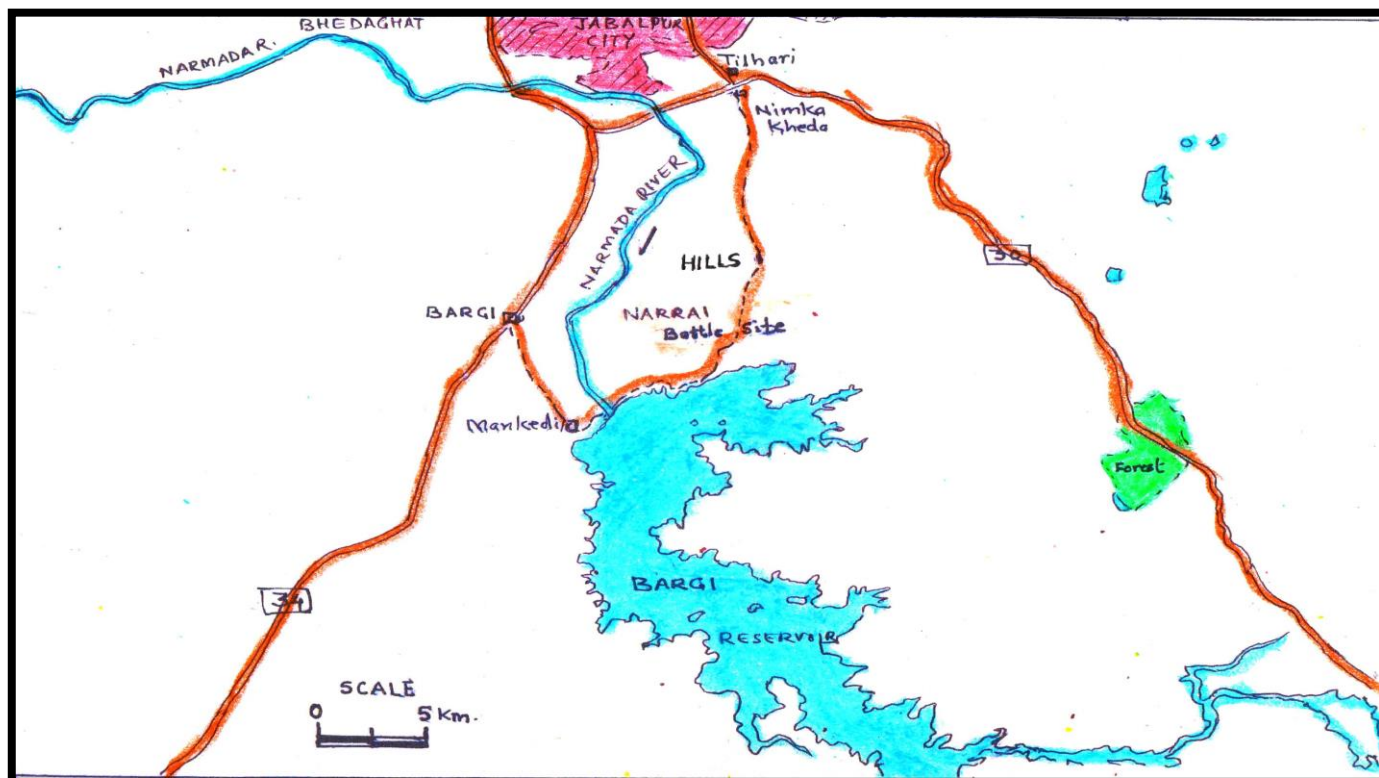


FIG- IX (A) RANI DURGAWATI BATTLE SITE (JUNE 1564 AD)

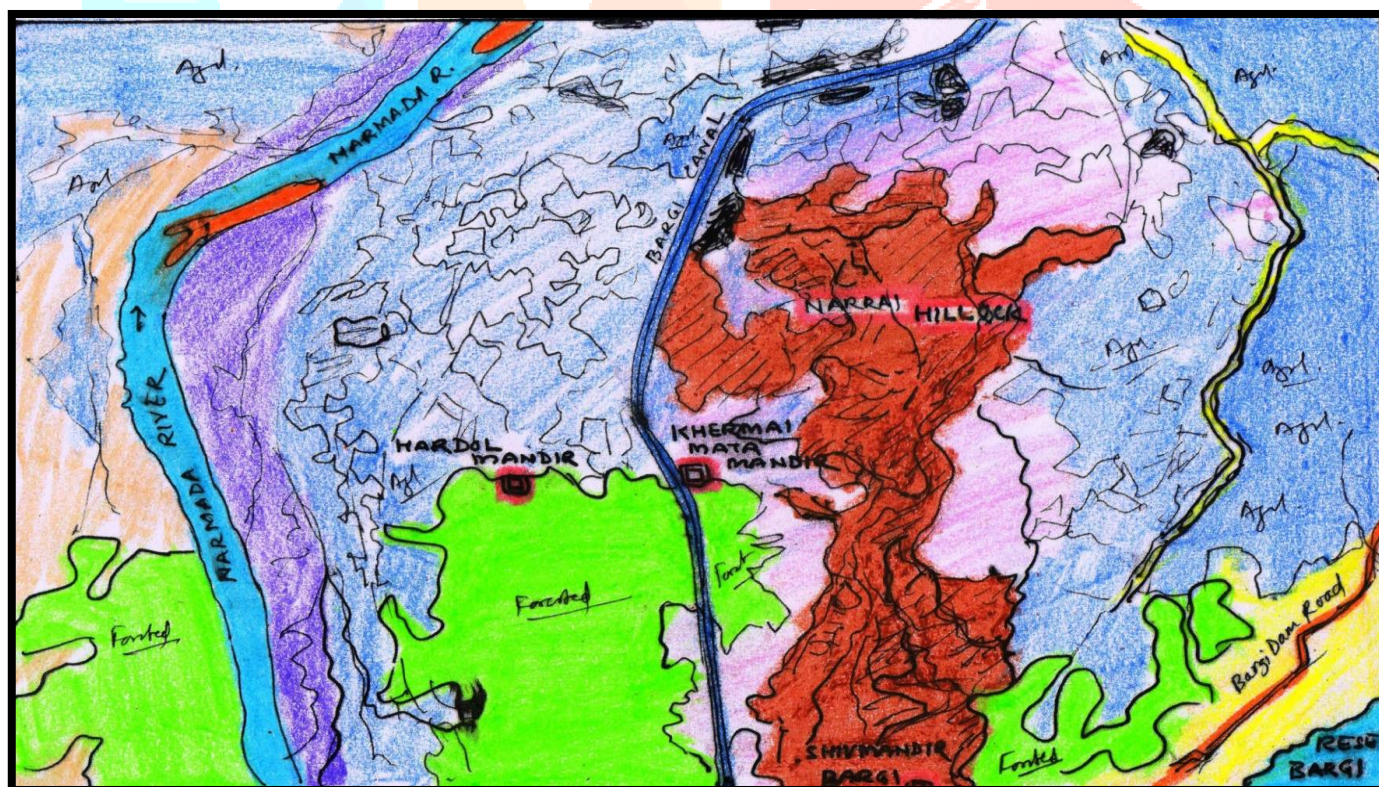


FIG- IX (B) RANI DURGAWATI – BATTLE SITE – NARRAI VALLEY

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