



Never underestimate the power and importance of creativity in your life, or in business for that matter. While sometimes doing what's familiar works best, it's important to remember that thinking outside the box is just as important (if not more important) than simply following established procedure. After all, new problems require new solutions, and in fields like various forms of media and design, creativity is paramount to success. Perhaps you should definitely acknowledge the creativity around you during International Creativity Month.

#ART-EXHIBITION

Understanding Gaze Through Evocative Sculptures

The 5-day solo exhibition of LN Naga's sculptures at Jawahar Kala Kendra, 'Gaze: Every Stare is an Event' explores the nuances of the male gaze and objectification of women. The exhibition is on till 19th of January.



The Ramp



Tusharika Singh
Freelancer
writer and city blogger

If you visited the Sukriti Art Gallery at Jawahar Kala Kendra over the last five days, it would have been impossible to leave without introspecting the reason for the despicable way women are treated in our society. Not only in terms of the atrocious crimes committed against them but also as everyday victims of the atrocious male gaze. The 5-day ongoing exhibition of LN Naga's sculptures, 'Gaze: Every Stare is an Event', poignantly explores this theme through as many as eighteen evocative artworks. "Art does not get created in a vacuum, but society generates art out of an artist. I am a member of this society, and my observa-

Pramod. Explaining why the exhibition has been titled 'Gaze', Aayushi says: "When a woman walks down the road, she is not just passing a road but passing through several gazes. To gaze implies more than to look at - it signifies a psychological relationship of power, in which the gazer is superior to the object of the gaze. It is viewing a relationship characteristic, of a particular set of social circumstances. On the other hand, a supermodel walking down a ramp is a contrary analogy with its many erstwhile kingdoms and chieftoms, hills, forts, towns, villages and small settlements - has seen the construction and conservation of many human-made wells, reservoirs, step-wells, ritual-related water-bodies, agricultural tanks, earthen dams, and irrigation tanks across different periods of history. The range of geographical conditions led to different water-related solutions across Rajasthan. Some examples of this being the various Baori, Kund, Beri, Bera, Johad, Johara, Nadi, Tank, Jhalara etc. Where ever there were habitations of some size - be they forts, small towns or rural settlements, attention was paid to wells that tapped natural aquifers, or to making reservoirs and tanks, as well as underground collection and storage methods. In addition, all parts of Rajasthan tried incorporating natural and artificially-created lakes and reservoirs in cultural landscapes. The influence of the male gaze is not limited, but it also reflects on the female self-perception, self-esteem and confidence. In essence, the male gaze discourages female empowerment and self-advocacy while encouraging self-objectification and deference to men and the patriarchy at large. This despicable disposition of our patriarchal society is the seed for gender inequality and crime against women."

The Flexible Mother

The central personality of the family, a mother, devotes her time, labour and thought to the welfare of all the family members. The Flexible Mother 'rep-



Artist LN Naga

tions propelled me to bring the daily human and social struggles of a woman in my works. Crime against women is the foremost issue for contemporary India and this is what I have tried to showcase through this exhibition", says the artist.

LN Naga works with materials as diverse as metal, stone, and terracotta. However bronze is the artist's preferred medium, as it gives him the advantage of exploring the relationship of heaviness and delicacy which further suggests the paradox of the world: fragile yet everlasting. "The female figure is my primary form as a woman's body is the targeted object by the male mentality and victim of the male gaze. Being a male, I try to find answers from the side of the criminal community. As gender and sexuality are the principal reasons for discrimination, I bring symbolism of leaf and banana fruits for the sexual organs. My female forms are voluptuous as they represent gender objectification and widespread voyeurism," shares Naga.

On being asked if one can really make a difference to these problems in the society with art, Naga points out: "Art can lead to questioning and discussions. It provides me with the most interesting ways of presenting crucial issues to the viewers and I have faith that it will gradually lead to reformations in society. My artwork is not only about highlighting the diversities faced by women, but they are also an ode to their strength and determination."

The exhibition, which will be on till 19th of January, has been curated by Aayushi Soni, with the collective efforts of the team members: Ravi Thakur, Hem Rana, Tara, Alok, Ajay, Meghana, Siddhant, and

#PLACES-N-PALACES



Rima Hojja
An archaeologist,
historian, writer &
a distinguished
academician

The ubiquitous Thar-Parkar Desert, the Aravalli hill range and water are three crucial factors that have shaped the culture, cultural landscapes and the tangible and intangible heritage of Rajasthan. Crafts, industries, agriculture, pastoralism, rituals and most other human activities have always needed water, and thus, the modern-day State of Rajasthan - with its many erstwhile kingdoms and chieftoms, cities, hill forts, towns, villages and small settlements - has seen the construction and conservation of many human-made wells, reservoirs, step-wells, ritual-related water-bodies, agricultural tanks, earthen dams, and irrigation tanks across different periods of history.

The range of geographical conditions led to different water-related solutions across Rajasthan. Some examples of this being the various Baori, Kund, Beri, Bera, Johad, Johara, Nadi, Tank, Jhalara etc. Where ever there were habitations of some size - be they forts, small towns or rural settlements, attention was paid to wells that tapped natural aquifers, or to making reservoirs and tanks, as well as underground collection and storage methods. In addition, all parts of Rajasthan tried incorporating natural and artificially-created lakes and reservoirs in cultural landscapes.

The City of Jaipur & Its Founder

In context of the city of Jaipur and its traditional water systems, much has been written about Maharaja Sawai Jai Singh II (c. 1700-1743) of the kingdom of Dhondhar (with its original capital at Amber) that he founded and gave his name too in 1727. During the first half of the 18th century Sawai Jai Singh II was amongst the most influential figures in India. His views carried weight not just at the Mughal Court, but also with various other Indian chiefs and rulers, including the Peshwa, and his fellow rulers in Rajasthan; who either valued his opinion, or vehemently resented his position and power.

Sawai Jai Singh II was a shrewd statesman and capable commander. He was also an astronomer, mathematician, scientist and planner, and in common with most rulers and chiefs of the era, a patron of art, architecture and literature. According to local tradition Jai Singh implemented an irrigation system to water some of the gardens at Amber when he was about thirteen years old. Much was carried over from the older capital of Amber, in fact. As water-related bathing structures, including hammam baths with inter-connected pipes, water-heating areas, and other drains, channels and water-lifting mecha-



Water Outlets of 18th century Jaipur - Near Barah Mori area inside Walled City.

Jhotwara River was channelised and a number of canals were brought in through 'Brahmapuri' and 'Jai-Niwas' to supply water to the new city. One of the maps has a canal constructed of bricks, shown near the Man-Sagar dam and Jai-Niwas garden, which also supplied water to nearby villages. According to the Ardash record of Shraavan Vadi 13, Vikram Samvat 1783, corresponding to 16th of July 1726, (and now in the Rajasthan Oriental Research Institute, Jodhpur, archives), Anand Ram, who was commissioned to survey the sub-region, reported that a canal from Bandi river, 9 kos from Jai-Niwas, would be more difficult than from Jhotwara river, which was only about 2 kos or four miles north-west of the new city, and where sand dunes were low. Vidhyadhar was awarded a Sirapao honour by Maharaja Sawai Jai Singh II after Anand Ram's report was submitted.

Jaipur's Water Systems Through The Ages...



nisms were inside the fortress-palace of Amber prior to Sawai Jai Singh II's own times, the Maharaja probably took inspiration, both from his ancestral Amber and from the architecture of various parts of the Indian sub-continent that he became familiar with in his long military and administrative career, when he made his new city of Jaipur.

The walled city of Jaipur, also referred to as Jai-Nagar in early documents, remains famous for its original planned lay-out, and is now a UNESCO World Heritage Site. Typical are 3-4 storied haveli courtyard town-houses or mansions, temples, gardens, public wells and civic buildings. Also typical are shopping arcades and bazars, public squares (chowks) and chaupars where itinerant flower-vendors and road-side hawkers traditionally dis-

played mounds of colourful articles of sale, and numerous deliberately planned public areas that have continued to be used as public spaces. Sawai Jai Singh II's vision was not just to create a show-case plan of an antiseptic city of well laid-out buildings, but also the home of its inhabitants, full scope to develop their trades, crafts, creative pursuits, and chosen activities; due attention was paid to the crucial issue of water in the city of Jaipur. The city developed into a vibrant living space, with its share of trade, specialist crafts and local industries, markets and residential areas serviced by basic provisions for food and sanitation.

City's Culture Landscape

The overall water management system of the new city of Jaipur was based on surrounding canals, ponds, reservoirs, dams, tanks, kundis, wells, step-wells, channels, rain-water collection and storage, and even an aqueduct. Needs of cattle and other animals were obviously catered too. An elaborate supply system also brought water into the city from inlet channels, and used water tanks, filtration chambers as distribution net work, and finally outlet channels to release excess water into outlying water-bodies like Raja Mal Ka Talab.

The 'Catalogue of Historical Documents in Kapad-Dwara Jaipur', Vol.II, Maps and Plans,



The issue of sustainable development, climate change, depleting resources, receding ground-water etc. has revived an interest in traditional water-related cultural landscapes. Many step-wells, wells, reservoirs etc. are being cleaned and made operational again through community involvement. But it may be too late for reviving some still relevant parts of the former Water Management system of old Jaipur - Or, then again, maybe not. Are we willing to re-look at the subject with fresh eyes today?

Jaipur, 1990, lists Map or 'Tarah' Nos. 116, 119, 214, 232, 300, 301, indicate that water was a crucial issue for Maharaja Sawai Jai Singh II and his team in planning the city of Jaipur. The maps and plans show the heights of various pillars and depth-distances of water at different soundings.

The extant water management systems at Amber, and the systems put into place at Jaigarh and Nahargarh etc. by Maharaja Sawai Jai Singh II's water-specialists were a background to, and corollary of, Jaipur city's water systems. Amber's large 'Sagar' water-body, with its lifting plantings, water-inlets, and 'Fil-dandi' path for elephants carrying water loads, and the Nahargarh and Jaigarh water related systems including aqueducts and tanks are now well

known. In addition, there were smaller systems using wells, tank reservoirs, and streams across the kingdom of Dhondhar. Some stressed aspects were like the overall ingress of rain-water to collection points, with outflow systems, water harvesting and conservancy systems, step-wells & tanks, lakes and water architectural features.

The Maota water body at the base of Amber, and water-lifting structures associated with the Amber palaces were also features the builders of Jaipur were familiar with. In addition, Maharaja Sawai Jai Singh II built Jal Mahal in the middle of Man Sagar Lake, in the 1730s. The Man Sagar lake had been created by the damming of the river Darbhavati (Dravyavati) between the Khilagarh hills and the hilly areas of Nahargarh in the late 1500s by Raja Man Singh I, the ruler of Amber, to conserve water. Jai Singh II reworked the damming structure of Man Sagar, changing it from a dam of earth and quartzite materials to a stone masonry structure.

For Maharaja Sawai Jai Singh II's planned city of Jaipur, sections of the rivers Jhotwara, Banganga, Banas, and Darbhavati (Dravyavati) were surveyed by his staff before construction began in 1727. Documents re-iterate that the river Jhotwara was to the north-west of the proposed new city, river Banganga was beyond the eastern range of hills, to the south-east of Jaipur, and river Banas was to the south. River Darbhavati is central to several maps and documents related to Jaipur City's foundation. According to the Kapad-Dwara

record of maps dating between 1725 and 1750, water for Jaipur City could be collected from the confluence of the rivers Darbhavati and Bandi.

Jhotwara River was channelised and a number of canals were brought in through 'Brahmapuri' and 'Jai-Niwas' to supply water to the new city. One of the maps has a canal constructed of bricks, shown near the Man-Sagar dam and Jai-Niwas garden, which also supplied water to nearby villages. According to the Ardash record of Shraavan Vadi 13, Vikram Samvat 1783, corresponding to 16th of July 1726, (and now in the Rajasthan Oriental Research Institute, Jodhpur, archives), Anand Ram, who was commissioned to survey the sub-region, reported that a canal from Bandi river, 9 kos from Jai-Niwas, would be more difficult than from Jhotwara river, which was only about 2 kos or four miles north-west of the new city and where sand dunes were low. Vidhyadhar was awarded a Sirapao honour by Maharaja Sawai Jai Singh II after Anand Ram's report was submitted.

The new city of Jaipur was also accompanied by the enlargement of natural and human-made lakes situated near the new city, re-working, enhancing water structures around Jaipur, Amber, Sangamner etc. and the construction of a dry moat or ditch around a part of the city. The early water supply system of Jaipur relied upon groundwater, with drainage and groundwater recharge taken into account. The



Barah Mori - An 18th century water aqueduct in Jaipur.

walled city was originally located on a rocky street to provide an easy drainage system on either side of the city.

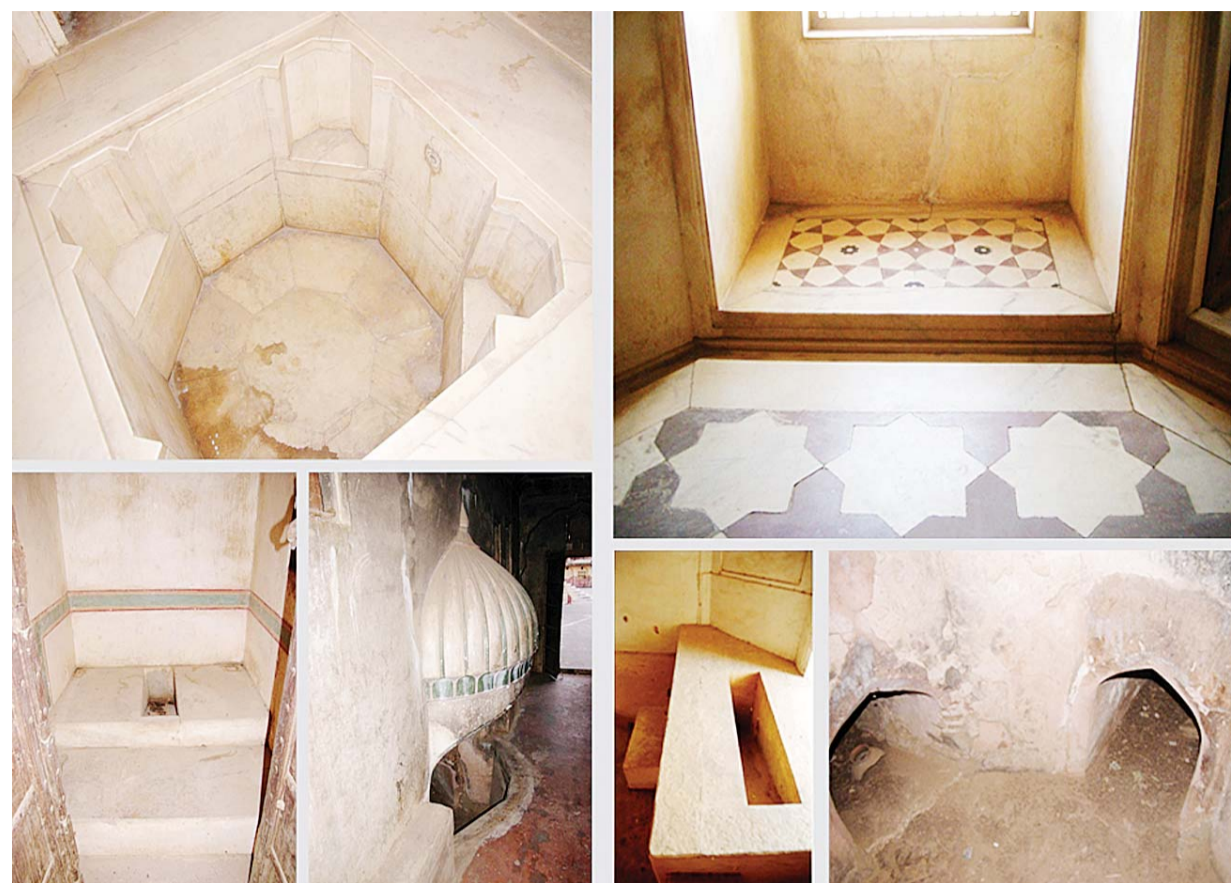
The natural drainage of Jaipur is along the Amanishah-ka-Nala, which originates from the highest point of the Nahargarh hills, and flows in the west from north to the south. The drainage first flows northward in the upper reaches, turns south and southwest in the middle of its course, and then flows towards the east in a broad semi-circle until the drainage meets the Dhund River downstream. The length of Amanishah-ka-Nala is about 48 kilometres. Some of the channels (nala), like Nahri Ka Naka Nala, Ganda Nala, and Jawahar Nala, also merge with the Amanishah-ka-Nala. Small dams were made on the Amanishah Nala - still can be seen at Mazar, Sikar Road, Goolar Dam and Shri

Ramchandrapura Dam. The Dhund River in the east is mainly ephemeral and flows from north to south. The Dhund River and the Amanishah-ka-Nala form a fork-like drainage pattern in the confluence zone, on which the major part of Jaipur is situated.

Westerly flowing streams drain the western part of Jaipur, the Bandi River in the northwest and Sadruya in the west, as well as their lower order streamlets. There were four natural drainage patterns in Jaipur: Two of these flowed to the south-west to meet Man Sagar Lake. Kapad-Dwara map No. 29 and 61 shows a canal joining the river Banganga. The length and height of pillars at certain points, depth of water etc. are also marked. There is a mention of water tank built in front of the river Banganga. The canal of 'Sawai Jai-Sagar' is also shown on the map, which apparently originates from the Banganga.

The length from Ramgarh to Dhund was described as 6800 yards and the height 45 yards, the slope (dhal) was 9 yards. Till the gate and wall (motia-kot), the length was 1400 yards and the slope 4 yards. At the 'Pitambar Bohra-ki-Baoli', the distance from the mud-wall to big gate (bada-darwaza) was 1650 yards in length, and slope 19 yards. From the Big Gate to the opening (mori) for Jai-Sagar, the length is detailed as being 400 yards and the slope 19 yards, culminating in a raised edge (or pali).

City landscape of Jaipur had community wells in public spaces, and there were wells and channels for the city's gardens, memorials, structures with water-bodies. The first public water supply involving transportation of water was built in the mid-1700s for those who could not afford their own wells and consisted of a canal supplied with water from the Amanishah Nala that was built from Surajpole Gate to Chandpole Gate with three reservoirs at Chhoti Chaupar, Bari Chaupar, and Ramganj. A major inlet system brought water from Jhotwara/Darbhavati/Dravyavati. The water came through tunnels into the city centre and connected first with the stepped tanks at Chhoti Chaupar, then Badi Chaupar and Ramganj in sequence, with the



Water-related bathing structures inside the fortress-palace of Amber, with inter-connected pipes, water-heating areas, drains, channels and water-lifting mechanisms.

transportation of water was initiated for the City Palace and involved lifting water by oxen at a well near Balandji's Temple and transporting it to the City Palace through a canal. Maharaja Sawai Jai Singh II had also attempted to bring in water through a 16-mile long canal from River Bandi. Within the palace area of Chandra Mahal and the gardens one can see the use of clay and metal pipes and spouts for the creation of fountains, pools and water-walkway channels. In the context of fountains (or Pustara) the Ardash Inzarati for Vikram Samvat 1793 to 1794 notes the purchase of different stone slabs to construct area to install fountains at Jai Niwas garden.

In 1868, the then ruler of Jaipur, Maharaja Sawai Ram Singh II installed a piped water system in the city, and converted the step-wells at Chhoti Chaupar, Badi Chaupar and Ramganj into built-up public squares. In 1876, marble fountains and balustrades were added. In 1874, piped water supply to Jaipur began through a 12-inch iron pipe connected to branch pipelines in all of the principal streets with stand posts installed at every street corner from one of the reservoirs. The other reservoir supplied water to Hathroi Fort through 6-inch delivery lines.

Meanwhile, in 1844, a dam had been constructed across Amanishah-ka-Nala, which was breached in 1859. At the time of the dam construction, Amanishah-ka-Nala was perennial and provided a surface water source involving the transportation of water through a canal and the collection of this water into kundis, though groundwater supplied the majority of areas. Later, the inflow of water into the Amanishah Nala became less. Heavy silting also contributed to a reduction in the capacity of Amanishah-ka-Nala.

Colonel Swinton Jacob, the Executive Engineer of Jaipur State from 1867, oversaw the completion of the Nayasagar bund (or dam) at Mozamabad in 1872, which was built at the cost of Rs. 20,000 at the time. This was followed by the construction of two service reservoirs in 1874. These utilized steam engines to pump water at the height of 110 feet into these reservoirs, and to supply Jaipur through a pipeline network. Pani-pench soon became the term for this machinery. Both reservoirs were 150 feet by 100 feet, and 15 feet deep. In 1884-85, an 800-foot long and 61-foot high dam was constructed across the Amanishah-ka-Nala, along with a steam engine pumping station. Open wells and tube wells were subsequently sunk into this reservoir, and water was pumped from these wells to maintain water supply. This Amanishah water system did away with the earlier system of water canals and the

collection of water in kundis. In the reign of Maharaja Sawai Madho Singh II, a number of irrigation works were taken up under the supervision of first Sir Swinton Jacob and afterwards CE Stotherd, especially during the severe famine (Chhapantia Akaal) of 1889-1900. In 1903, a large reservoir and dam, named Ramgarh Dam, was constructed 30 kilometers northeast of Jaipur. This depended on the inflow of water from Banganga River. Ramgarh was initially used for irrigation purposes in the surrounding villages. By 1931, Ramgarh Dam supplied water to Jaipur, although household piped water supply was not common and was only available for well-to-do families. Many localities did not have a public distribution system, and thus reliance on wells was still extremely common.

By early 20th century, the Walled City had pumping stations located at Amanishah, Ramniwas Garden and Laxman Dooargi Head works. In 1918, the water system of Jaipur was augmented by 16 large wells on the bed of Amanishah-ka-Nala. Tapped water was available at some locations. By 1952, 7.0 MLD water added to supply from surface source at Ramgarh dam.

Conservation and Continuity

As Jaipur city grew, water remained central to it. The older

reservoirs/lakes of Talkatora, Mansagar, Maota, Raja-Mal-ka-Talab were in use till the mid 20th century (In fact, by 1835, the State of Dhondhar/Jaipur had over 240 irrigation tanks and reservoirs, with the total irrigated area of the State placed at around 50,000 acres according to the Jaipur Album published in 1935. In the later part of the 20th century, traditional sources of water came to be ignored in Jaipur and across Rajasthan. Out of about 518 rivulets originating from the Aravalli Hills (388 1st order streams, 92 2nd order stream, 25 3rd order streams, and 3 4th order streams), many began to be used for dumping garbage. By now, 150 are blocked or have been filled for construction purposes.

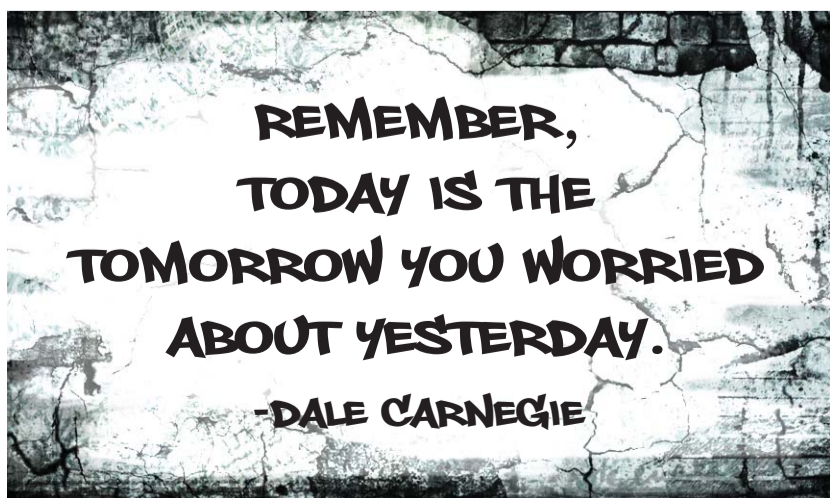
The issue of sustainable development, climate change, depleting resources, receding ground-water etc. has revived an interest in traditional water-related cultural landscapes. Many step-wells, wells, reservoirs etc. are being cleaned and made operational again through community involvement. But it may be too late for reviving some still relevant parts of the former Water Management system of old Jaipur - Or, then again, maybe not. Are we willing to re-look at the subject with fresh eyes today?

writeoair@rashrodoot.com



Dravyavati river

THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman